The influence on child language of the role of the child, and his conversational partners, was studied at the University of Washington Developmental Psychology Laboratory Preschool. Seven lessons were recorded, three child-led sessions and four adult-led sessions. The group composition varied daily but six children to be studied were included in almost every group. Language samples of three types were obtained: child in group led by adult; child in group led by child; and child as teacher. For three children, samples of all three types were obtained; for three additional children, samples of the first two types were obtained. Several measures were computed for all language samples, including rate and mean length of utterance. Utterances were also classified according to sentence type: declarative, interrogative, imperative, etc. The pattern of results is consistent: children produce more utterances, longer sentences, and ask proportionately more questions when they are teachers than when they are members of a group being taught by an adult. There is some tendency for the same changes to occur when a child is in a group taught by a child as opposed to being taught by an adult, but the magnitude of the shift is smaller. It is concluded that the results suggest that the "teaching experience" is a valuable one for preschool children. Three figures illustrate utterances per minute, mean length of utterance, and percent of questions of the six children. A bibliography is provided. (Author/DB)
Language Use and Social Setting: A Suggestion for Early Education

Philip S. Dale and Douglas Kelly
University of Washington
June, 1972

The language of children, like that of adults, varies with the immediate situation of the speaker. However, although the variation in adult speech has been studied to some extent, and is the subject of the field of sociolinguistics (Labov, 1970), the variation in speech of children remains virtually unexplored.

Situational differences are important for assessment, for theories of development, and for educational programs (Dale, 1972). They are important for assessment, because we are interested in the best the child can do, as well as in how he performs in specific settings. They are important for theories because knowledge of where is the child using his most advanced language is a clue to where language is being acquired. And finally, situational effects are important for the design of educational programs, because they suggest how we might facilitate the child's talking, and talking in the most advanced language.

Cazden (1970) has argued forcefully for the importance of the situation in understanding language development, and has surveyed the small amount of evidence available. There is clear evidence for the influence of the topic and the task on children's language.
Another variable of particular interest is the listener. Smith (1935) found that preschool age children produced longer sentences at home than when playing with other children. However, since many other differences held between the two situations, the significance of these findings is not clear. There is little modern research on this question. Cazden (unpublished results, cited in Cazden, 1970) reports a three year old who spoke her longest sentences to her mother, her shortest sentences to her younger sister, and intermediate sentences to herself. On the other hand, Frederick (1971) observed a two-and-a-half year old who spoke more to his mother at home but us longer and more advanced sentences at a preschool facility. This child had a relatively overprotective mother who administered to his needs almost before they were expressed. The disparity between these two observations illustrates the importance of the nature of the relationship between the speaker and the listener, a relationship which is only partially specified by the relative ages. In all three of these studies, the many variables make it difficult to assign a particular role to the effect of the listener. What is needed is either a relatively constant situation, except for the listener, or at least a specified situation.

A persistent question in the study of child language is the relative importance of parents and peers for language development. Linguists, in general, have argued that children speak more like their peers than their parents. Children of immigrants, raised in a home
where one language is spoken, but who play and go to school with children speaking another language, speak the latter. Psychologists, on the other hand, have offered evidence that the speech of first children is generally superior to that of later children, and they have argued that this is due to their greater opportunity for conversation with parents.

In neither case, however, is the evidence convincing. The first kind of evidence results from a failure to distinguish between competence and performance. Immigrant children have no difficulty in understanding their parents; in other words, they have linguistic competence in both languages. The fact that they speak only one of them is a social fact, not a psycholinguistic one. The second kind of evidence is weakened by the fact that there are many differences in the early experience of first-born children. In an observational study of mothers of two-week-old infants, Kilbride, Johnson, and Streissguth (unpublished, cited in Streissguth & Bee, 1972), found significant differences in maternal behavior associated with sex of child and social class, but these differences were dwarfed by birth-order effects. Mothers of first-borns interacted 60 percent more with their infants than did mothers of later-borns, and this difference obtained for all behavior categories, both sexes, and all social class groups. Since the behavior categories included many nonverbal behaviors, e.g., touching and lulling, any resulting differences between first-born and later-born children cannot be ascribed to purely
verbal interaction with parents. In summary, the question of the relative importance of peers and parents (or teachers) remains open.

Drawing on some ideas of Piaget, an argument can be made for the importance of speech with peers for language development. In a fascinating chapter added to the third edition of The Language and Thought of the Child, Piaget (1959) discusses various influences on the degree of egocentricity of children's speech. Egocentric speech is that speech which, whether uttered in solitude or in the presence of others, can be judged to lack a primary communicative intent. There is no real attempt to take the role of the listener (hence the term "egocentric") or adapt the message to his informational needs. Among the variables affecting the amount of egocentric speech are the nature of the child's activity, the structure of the school program, the way in which parents or teachers interact with the child, and the addressee. In particular, children are more egocentric verbally in conversation with adults than with children. Piaget's explanation for this difference emphasizes a difference in attitude toward adults and children:

The adult is at one and the same time far superior to the child and very near to him. He dominates everything, but at the same time penetrates into the intimacy of every wish and every thought... All that the child does he shares with his mother and, from his point of view, there is no frontier
separating his ego from her superior ego. In such a case the child's egocentric speech is greater with the adult than with other children... The playfellow, on the other hand, both resembles and is very different from the child's ego. He is like him because he is his equal in what he can do and in what he knows. But he is very different just because, being on the same level with him, he cannot enter his most intimate desires or personal point of view as a friendly adult would. The child thus becomes socialized with his contemporaries in quite another way than as with the adult... Where the superiority of the adult prevents discussion and co-operation, the playfellow provides the opportunity for such social conduct as will determine the true socialization of the intelligence. (Piaget, 1959. Pp. 257-8)

Furthermore, the more advanced intellectual functioning of the adult, in particular, its freedom from egocentricity, means that the adult will be able in general to understand the child's speech. In other words, not only can the adult take the role of the listener in order to communicate, he can "correct" for the child's egocentricity by taking the role of the speaker (the child) when listening. The child's peers cannot do this; hence the need for intellectual development in order for the child to make himself understood. This second factor, though never explicitly stated by Piaget, is entirely
consistent with his theorizing.

In another context Piaget has emphasized the importance of role-taking for intellectual development. The early stages of moral development, also reflect the egocentrism of early childhood. Piaget used the term "moral realism" to describe children's judgments of guilt which are based not on subjective grounds, i.e., the intention, but objective grounds, i.e., "real" factors such as the amount of damage. Moral realism reflects an inability to take the psychological perspective of another, to take into account another's intentions. Piaget (1932) suggests that one important process of development is the experience of taking alternating and reciprocal roles. Over a period of time the child is likely to take several roles in familiar games, such as marbles and ball games, and this experience will lead him to the realization that this is more than one role at a time. Such role-taking experience, then, leads to declining egocentrism. Events seem different when viewed from different points of view.

We suggest that these arguments may apply to language development generally, not just to the decline of egocentrism. Parents and teachers are highly understanding; the need for a more effective communication system will be greatest in conversation with other children. Communication may be improved in a variety of ways: advancing linguistic competence, which makes new tools available for the precise expression of messages; quantitative advances in
linguistic performance, the construction of longer and more complex sentences using aspects of language already in the child's competence; a higher rate of message-sending; declining egocentrism, so that the speaker can take into account the perspective of the listener; and others. With respect to the first of these, advancing linguistic competence, it is clear that the initial step must be an encounter with more advanced structures, as produced by adults or older children. However, this is not sufficient for the child to acquire productive mastery of the form; the active experience of using the form is necessary. Furthermore, alternating role-taking may be useful in fostering an appreciation of the cognitive demands of communication.

To investigate these issues, we have undertaken an investigation of the influence on child language of the role of the child, and his conversational partners.

METHOD

At the University of Washington Developmental Psychology Laboratory Preschool, the daily routine includes a "group time," during which a teacher and five to nine children gather on a rug. When the children are ready for group time, they select a book from a nearby shelf and sit on the rug looking at the book, individually or sometimes together. During this time a teacher joins them and usually reads one of the stories. After the story, the children choose and sing several songs. The teacher then presents a more structured learning experience. The aim is to be flexible, so the teacher may
or may not follow the original plan entirely, relying on cues from the children. The lesson usually comprises ten or fifteen minutes, but this may vary. Nature concepts, science experiments, concept development, and pre-academic skills are among the subjects. A snack follows this teacher directed activity. The group time usually ends with a period of music and "dancing." The entire group time comprises thirty minutes to an hour, depending on the age and mood of the group. The period is gradually lengthened over the course of the year.

The children in one such group, toward the end of the school year, suggested that occasionally a child serve as teacher. The teachers agreed, and on several days selected a child to serve as "teacher."\(^2\) The adult teacher retired to another room during these sessions. All the usual materials were available to the children, but no specific suggestions were made.

Several lessons were recorded, using concealed microphones.\(^3\) The (adult) teacher was instructed to turn on the recorder before the children entered the room. The lesson portion of each group time was transcribed for analysis.

The seven lessons recorded included three child-led sessions, and four adult-led sessions. The composition of the group varied from day to day, but the six children to be studied were included in nearly every group. In one instance, a child appointed teacher was dominated by another child who appointed herself teacher; this self-appointed teacher was considered the teacher. Thus, language samples of three types were obtained.
a] Child in group led by adult
b] Child in group led by child
c] Child as teacher

For three children (to be called Ann, 4;11; Barbara, 4;6; and Catherine, 5;3) samples of all three types were obtained. For three additional children (to be called David, 4;11; Elise, 4;4; and Fran, 3;11) samples of types a] and b] were obtained. Although it is the comparison of speech of types a] and c] which is of greatest interest, the speech obtained under condition b] is also of interest, as it reflects an intermediate condition between a] and c].

RESULTS AND DISCUSSION

Several measures were computed for all language samples, including rate and mean length of utterance (MLU in morphemes). Utterances were also classified according to sentence type: declarative, interrogative, imperative, etc. The results of these analyses are displayed in Figures 1 through 3.

Figures 1, 2, and 3 about here.

The pattern of results is consistent: children produce more utterances, longer sentences, and proportionately more questions when they are teachers than when they are members of a group being taught by an adult. There is some tendency for the same changes to occur when a child is in a group taught by a child as opposed to being taught by an adult, but the magnitude of the shift is smaller.
The changes in rate of speaking may be somewhat inflated by the fact that the child-led groups were slightly smaller than those led by adults (5 and 6 vs. 7 and 8). However, as the time was not entirely filled with speaking, time available for speaking was probably not a limiting factor. The differences between rate of speaking by child taught by a child and the rate when a child was teacher cannot be explained in this way.

Changes in MLU cannot be unambiguously interpreted. In general, MLU is the best single indicator of grammatical development (Dale, 1972); however, in the present study there may be no differences in the constructions used by the child in the various settings; the change in MLU may represent more complex assemblies of the forms in the child's competence.

The increased proportion of questions is of interest for two reasons. First, it reflects an increased variety of sentence types on the part of the child. The proportion of sentence types other than declarative increased when the child was teacher, but types other than declarative and interrogative were rather infrequent. Second, it reflects a lowered level of egocentrism. Piaget considers questions to be a type of socialized, that is non-egocentric, speech, because they represent an awareness that another person is in possession of information which the questioner does not possess.

If the assumption that the production of more speech, and more advanced speech, is facilitative of language development (and it must be admitted that this is an untested assumption), these results
suggest that the "teaching experience" is a valuable one for preschool children. We suggest that it may be a useful activity for early education programs.

There are, to be sure, some practical difficulties. In one case, a child refused to be teacher; in another, a child staged a "coup d'etat," taking over from another child as teacher. More experience with this format on the part of the children might have eliminated these difficulties.

Replication of these small-scale results is essential. In addition, two other lines of research are necessary. First is an exploration of the effect of various group activities on the language used by the child. Are some activities, e.g., teacher-led discussion, question-and-answer sessions, group activities such as science experiments, more powerful facilitators of language? How does the activity interact with the use of a child as teacher? Second, what are the long-term effects of experience as teacher? Will their language in this and other settings be affected by this kind of experience on a regular basis? Language here must be construed broadly, to include measures of linguistic competence (new linguistic forms), linguistic performance (complexity of sentences), egocentrism, and others.

Much current research on language training in early childhood education (Lavatelli, 1971) focusses on what the adult teacher can and should do. We suggest that there is much children can do for themselves.
References


FOOTNOTES

*Developmental Psychology Laboratory, University of Washington.

Seattle, Washington 98195

1 Such experience is not the only factor leading to moral development.

Piaget also has several interesting suggestions concerning the role of parental behavior in fostering moral development (see Hoffman, 1971, for a review).

2 We are grateful to Wendy Shelton for calling this situation to our attention; to the teachers of the Developmental Psychology Laboratory Preschool for their cooperation in arranging the sessions; and to the children for their enthusiasm.

3 The end of the school year prevented us from obtaining more data than is discussed below.
FIGURE CAPTIONS

Figure 1. Rate of speaking for each child under various conditions.

Figure 2. Mean length of utterance for each child under various conditions.

Figure 3. Proportion of questions in the speech of each child under various conditions.
The graph shows the number of utterances per minute for different conditions. The x-axis represents the conditions: Child taught by adult, Child taught by child, Child as teacher. The y-axis represents the number of utterances per minute, ranging from 0 to 8.

- **David**
- **Elise**
- **Fran**
- **Catherine**
- **Barbara**
- **Ann**

Each participant's data is plotted on the graph, with arrows indicating the trend across conditions.
Value for first condition omitted due to small sample of utterances