Discourse Production and Comprehension

Volume I in the series

DISCOURSE PROCESSES: ADVANCES IN RESEARCH AND THEORY

ROY O. FREEDLE, *Editor*
Educational Testing Service

ABLEX PUBLISHING CORPORATION
Norwood, New Jersey
1977

7

Variations in Young Children's Use of Language: Some Effects of Setting and Dialect

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INTRODUCTION

Considerable research has focused on ethnic group and social class differences in language structure and language use. Of special concern has been the implications of such differences for the educational performance of school children. Our own research in this area has been guided by two questions:

1. Are there identifiable cognitive effects of differences between Black English and Standard English that have educational implications?
2. How does the language used in the preschool classroom differ from that used in nonformal settings?

It is fairly well recognized in the scholarly community that Black English Vernacular (BEV) is a separate system, historically connected to Standard English, but possessing distinct phonological and grammatical forms (cf. Baratz, 1969; Hall & Freedle, 1973; Labov, 1970; Simons, 1973). While both comprehension and production differences have been reported for some populations

and some tasks (e.g. Baratz, 1969; Labov, 1972; Osser, Wang, & Zaid, 1969), there has been very little direct evidence to support Baratz's contention that standard test performance of Black English Vernacular speakers is systematically depressed by the administration of standardized intelligence tests in Standard English.

A series of studies conducted by Quay (1971, 1972, 1974) provides negative evidence with respect to the influence of dialect on test performance. Working with lower and lower-middle-class Black children in Philadelphia, Quay administered the Stanford–Binet test in its standard form or in a Black English Vernacular form.

In none of her studies did Quay find that standardized test instructions depress the performance of her Black subjects, although a rather extensive range of ages (4–12 years) and subject backgrounds were explored. Item analyses were also carried out to see if the more language-dependent items would show a greater dialect effect, but no consistent effects were discernable.

Williams and Rivers (1972) reached exactly the opposite conclusion from a study of dialect variations in the administration of the Boehm Test of Basic Concepts; nonstandard versions of the test produced higher scores than the standard version, enough better so that when presented the test in a nonstandard form (that included vocabulary as well as phonological variations). Williams and Rivers' children scored at levels appropriate to the published norms for children of comparable age and higher socioeconomic levels. Since the Stanford–Binet and Boehm tests are presumably tapping the same cognitive abilities, the results of the Williams and Rivers study was clearly at odds with those produced by Quay, but the source of the discrepancy is not obvious.

In none of this work has there been an attempt to evaluate the influence of dialect usage for larger units of material of the kind that young children often encounter either in school or in various nonschool settings.

In this chapter we will discuss two research studies. The first was an experiment designed to test the hypothesis that dialect differences are likely to be influential when the child must retain and then reproduce a substantial body of material that is both meaningful and interesting to him. For this purpose we used a set of four stories accompanied by illustrative materials. The second study represents our first attempt to extend the seminal observations of William Labov on situational variability in children's language usage.

Labov (1972), pp. 241–254) reports vast changes occurring in a black child's linguistic output when he is moved from a school interview to his living room, the topic is changed, and a friend is present (to name a few of the variables involved). We hoped to be able to produce some of the same changes under somehwat more controlled circumstances as an initial step in developing a theory of the variables controlling children's language usage in the classroom.

STUDY I: STORY RECALL AND DIALECT

The children who participated in Study 1 were selected from two distinct geographical locations within New York City. All children were approximately 4½-years-old; boys and girls were equally represented.

One group of children, all of whom were Black, were residents of a large urban renewal complex in Central Harlem attending a federally sponsored Head Start Program for 2½ hr per day. Admission to the program required that the children's parents have incomes of $4,000 of less per year for a family of four. Approximately 60% of the children were members of families receiving welfare payments.

The 16 remaining children, all of whom were White, lived in downtown Manhattan and were attending a fee-paying, nonprofit coop nursery housed in the Educational Alliance. Admission to the nursery required that parents of these children worked at a variety of professional and semiprofessional jobs (artists, school teachers, civil servants, etc.). The income of these parents was estimated to be $7,000 per year or above by the program administrator.

Each child was presented four stories for recall during the course of the experiment. Each story contained six picture sequences with an accompanying segment of description and dialogue. The main objective of the experiment was to determine if the language dialect in which the story was told would influence the children's recall of the stories. With this purpose in mind, the accompanying text for each story was written either in Standard English or in Black English Vernacular following the principles described in a number of sources on Black English (Baratz, 1969; Hall & Freedle, 1973). As an illustration of Standard English–Black English contrast, we have reproduced the verbatim protocol for one of the subjects as Table 1.

We were also interested in determining if the race of the experimenter influenced the impact of language dialect. For example, it could well be that black children would perform better to stories told in Black English Vernacular only if the speaker was someone they expected to speak in this dialect.

To test this possibility each child heard and recalled four stories: one in Black English read by a black experimenter, one in Black English read by a white experimenter, one in Standard English read by a black experimenter and one in Standard English read by a White experimenter. The order in which the combinations of dialect-experimenter conditions were experienced was carefully balanced within each of the two basic population groups.

Each child participated in two separate sessions, one with a black and one with a white experimenter. At each session he was told two of the four stories, one in each of the two dialects. The experimenter escorted the child to a table in an area set off from the classroom, with the explanation that they were going to play some story-telling games. The subject was shown the picture books and told

TABLE 1

The Flower Pot Story: Standard English Version

This is Michele. She is watering the flowers. Crash! Now Michele thinks that Mother will be mad. She wants to run away. "I'm not mad," says Mother. "I know you didn't mean to do it. Let's clean up the mess." Michele picks up the flowers. She gives them to Mother. "Don't worry," says Mother, "we'll put them in a nice pot." Now the flowers are okay and the mess is all cleaned up. "Come on," says Mother. "Let's go and make some cookies."

Subject's recall of the story:

Michelle ah waterin' the flower. Michelle broke ah the flowers. Her mother gonna git mad. The mother said, "She isn't mad." The mother said she'll didn't mean it. Michelle ah gived her mother a brand new pot. Her mother say come on like her mother say the flower, the flower is clean up. The End.

Subject's responses to questions about the story:

Experimenter: John, what is the girl's name in the story?
John: Michelle.
Experimenter: Good. Now, John what happened to the flower pot?
John: It fell. It broke down.
Experimenter: Who knocked it down?
John: Michelle.
Experimenter: Who picked the flowers up from the floor?
John: Um, the liddle girl gave it to her muddah.
Experimenter: In the story, tell me, what was Michelle afraid of?
John: Michelle said her mother'll git mad.
Experimenter: How did she feel at the end of the story?
John: Um, she she she she fell uh better.
Experimenter: Okay, why did she feel better?
John: Because, uh, uh, because
Experimenter: What is that?
John: A rocking chair. So you rock.
Experimenter: Why does Michelle feel better?
John: Because Michelle because ah the flowers.
Experimenter: What is Michelle going to do at the end of the story?
John:
Experimenter: Is there anything you can remember?
John: Macause the girl break the flowers down and she runnin' away. But the Lady of the rockin' chair rock and rock and rock. And she, her muddah get mad. Like her mudder say she didn't mean it. She pick little pieces. Her muddah say come on come on like her muddah say and the end.

The Bicycle Story: Black English Vernacular Version

Here come Peter. He got a new bike. Peter, he don' know how to ride de bike. Dem othah boy – de be laughin at him. Look at Peter. What a jerk! He ain't gon neber learn ta ride no bike. I show ya – Peter say nex time I ain't go fall

(continued)

TABLE 1 *(Continued)*

off. I'ma go ride my new bike all the way up de street. An' dat what he do! He be ridin' – an ridin' – til he git to da park – an he don' fall off eben once.

Subject's recall of the story:

Peter got a new bike. He's lafin at him. Look at Peter. Peter fell off the bike. He don't know how to ride. They was lafin at him cause Peter wuz, wuz a got a new bike wuz he don't know how to ride. Look at that Peter! Peter say he gon fell off. Peter was ridin' ridin' an ridin' just like he's gon' do.

Subject's responses to questions about the story:

Experimenter: What be de boy name?
John: Peter.
Experimenter: That's right. What do Peter have?
John: A new bike.
Experimenter: Um hum. What happened to Peter?
John: Peter is gon' fall off.
Experimenter: What do de oder boy do?
John: They wuz lafin at him.
Experimenter: Then what do Peter do?
John: Peter is fell down to de street. Peter is fell down to de bike. They wuz lafin.
Experimenter: Where do Peter go at de end?
John: The end of de bike.
Experimenter: Where do Peter go at the end?
John: That new bike with tires on.
Experimenter: There be anythin' else you cin remember?
John: Um huh! Peter was ridin on that bike. He's too big to ride that bike. He was lafin at him. Look at Peter! He rode by. Peter is ridin' *all* the way up to the street. That's just what you gonna do.
Experimenter: Okay.
John: An that's the name of that bike.
Experimenter: Very good, John.
John: Thank you!

that he was supposed to listen carefully while the story was being told and then would have to tell the story back. The instructions were given in the dialect appropriate to the particular experimental condition.

After the child had completed retelling the story, several questions designed to probe recall were presented in the appropriate dialect, regardless of whether or not the information demanded by the question was present in the child's spontaneous recall of the story. All sessions were tape-recorded and transcribed.

Data Analysis

The data from this experiment were subjected to an analysis of variance employing the following three independent variables: (1) raical group membership (Black versus White); (2) experimenter (Black versus White); and (3) dialect

of stimulus material (Standard English versus Black English Vernacular). Performance was not analyzed as a function of stories because the design deliberately confounded story with the three variables of primary interest. Three aspects of the group's performance were examined: (1) spontaneity of the child's recall; (2) recall accuracy; and (3) dialect of output.

Findings

Race of experimenter did not significantly affect any of the three performance measures to be discussed below.

Spontaneity of recall. Some of the children were quite hesitant in responding to the experimenter's request for recall. To determine if this hesitancy was related to any of the variables under study, each child's responses to the request for retelling the story were analyzed. A "yes" was assigned to the response if the child had to be prompted, a "no" if the child spontaneously began to retell the story.

On the average, 52% of the stories were retold spontaneously, with no reliable variations in spontaneity as a function of any of the independent variables.

Recall accuracy. The spontaneous recall of each of the stories was scored for recall accuracy. Each of the phrases used in telling a story was considered an item for recall. Hall scored each of the 64 response protocols, item by item, to determine a "percent spontaneous recall" score for each subject on each story. An item was scored correct if the information contained in the item was also contained in the subject's recall, even if the recall was not verbatim. This scoring scheme was then applied independently by two research assistants who did not know the nature of the study or the hypotheses under consideration. There was 94% overlap between the scores assigned; Hall's scores (following an arcsin transformation) were then used as the basic data. The major result was exactly what we would expect if dialect influenced spontaneous recall but ethnic/socioeconomic group did not: the black and white groups performed equally well when tested in their *own* dialects, but the black children did better than the white children in BEV, while the white children did better in Standard English. The disruptive effect of BEV on the white children was particularly pronounced. (Any result reported as significant yielded an F ratio with a probability of less than .05.)

When probed with questions contained in Table 1, there was an overall increase from 25 to 63% in the proportion of correct information for both racial groups.

Dialect of output. Each child's language at the time of unstructured recall was classified in one of four categories: Standard English, Black English Vernacular, Mixed Dialect, and Unclassifiable. Only 2 of the white children used any Black English Vernacular forms whereas all of the Black children did so. Pure use of Black English Vernacular was also rare in this sample; all but 6 of the Black children mixed Black English Vernacular and standard forms in the spontaneous recall; these 6 used BEV exclusively.

Discussion of Study 1

It seems reasonable to say that we have shown in this experiment that one's "parent" dialect is the overriding factor in language performance in our story-recall task. Children produce utterances primarily in their "parent" dialect.[1]

The research also demonstrates that when the dialect in which the to-be-remembered story is read does not match the dialect which the child uses to retell the story, mnemonic interference is produced. The pattern of this interference clearly supports the idea that the black children suffer no generalized language deficit. Rather, differences in language codes are critical when evaluating the children's performance. It can also be noted that the code-related mnemonic interference for recall is not a completely general feature of these children's recall. The probed recall data show clearly that some information which has been stored is not produced at the time of the initial, spontaneous recall. When considered together, the pattern of results in the spontaneous and probed recall provides some information as to how the dialect of presentation influences task performance.[2]

The fact that Blacks recall more information when the task format used is BEV and that whites recall more information when the task format used is Standard English suggests clear dialect effects. Differences between the dialect of presentation and children's native dialect produce a mnemonic "production

[1] A caution must be inserted here concerning black children. These children are bidialectical – their production is a mixture of Black English Vernacular and Standard English dialects. We do not know the extent to which the same may be said of their parents, but it is certainly true of their community where Black English Vernacular is not standardized. Consequently, we cannot specify the mix of dialects used by the parents of the black children studied here. This raises the possibility that our "Black Dialect" stories do not represent as close a match to the black lower-class children's parents' dialect as is the case for the white middle-class children, putting them at a relative disadvantage in the story recall situation.

[2] Our findings, particularly those concerning the bidialecticalism of black children, are similar to those recently reported by Ciborowski and Choy (1974) for Hawaiian children. In their research, two groups of school children were presented stories which contained embedded items that were later tested for recall. One group of children was judged to possess competent verbal skills in Standard English and extremely marginal (if any) verbal skills in Hawaiian Islands dialect. A second group of children was judged to possess competent verbal skills in Hawaiian Islands dialect but with only marginal verbal skills in Standard English. An unusual feature of the study was that the dialect speakers were not economically disadvantaged. The pattern of performance showed that the dialect speakers, despite schoolroom ratings, were in fact bidialectical, demonstrating verbal skills both in Standard English and in Hawaiian Islands dialect.

deficiency," analogous to the production deficiency for unrelated materials described in the work of Flavell (1970) and Scribner and Cole (1972).

If this argument is correct, it suggests an explanation of the differences between our results and those of Quay (1971, 1972, 1974). IQ tests may be a poor arena in which to assess the cognitive consequences of dialect usage because of the nature of the task required by them, which is generally much closer to our probe questions than the spontaneous recall.

Other differences between Quay (1971, 1972, 1974) and the present work may also be important. One limitation of the IQ test as an experimental tool is that control over the dialect in which the material is encoded can be manipulated only via the instructions and labeling of the individual items: How the child encodes and mentally manipulates these materials is open neither to control nor observation.

STUDY 2: LANGUAGE USE IN FORMAL AND INFORMAL SETTINGS

In a very influential paper, William Labov (1970) vividly demonstrates the vast differences in the linguistic resources that black inner-city youngsters bring to a formal testing situation and an engaging conversation with the same adult when a friend is present.

Unhappily, Labov's demonstration has not been systematically followed up by research on the kind of sociolinguistic and situational variables that control young black children's use of their linguistic resources. As a start in this direction, we conducted a study contrasting black preschoolers' language use in a specific "quiz-like" classroom setting with language used by the same children on a trip to their local supermarket.

The children who participated in Study 2 were residents of the same large urban renewal complex in Central Harlem used in Study 1. Altogether, 24 children were included, 12 three-year-olds, and 12 four-year-olds.

The research in which these children participated consisted of two phases. During the first phase, children were taken to the supermarket two at a time for 1 hr. The trip began with the children and a tape recorder being placed in a shopping cart. While riding through the supermarket in the shopping cart, the children were engaged in conversation with special care taken to include discussion of five areas of foodstuff: fresh fruits and vegetables, cereals, meats, dairy products, and canned goods. The children were allowed to handle all the goods. Upon their return to the classroom, the children were asked to tell their teachers about the trip. Recordings of the 24 children obtained in the supermarket and the classroom while the child told the teacher about the supermarket were transcribed and analyzed to answer the following questions:

1. What general differences can be observed between speech in the classroom and in the supermarket?

2. Are developmental differences in the speech used by children the same in the two settings?
3. What are the best predictors of recall and language use in the two settings?
4. Can we obtain some hints about the critical factors at work in what we consider to be examples of formal (classroom) and informal (supermarket) conversation?

Findings

Children differed in the speech produced in the supermarket and classroom situations as can be clearly seen from Table 2. In the informal, supermarket setting the average number of words was greater, the percentage of questions attended to was greater, and the average number of words in response to a question was higher. Despite quantitative differences, language used in the two situations was qualitatively similar in several respects: neither the form of utterances (questions, commands, statement/assertions) nor the content they expressed (want/need, family-related, love-like) differed drastically across the two situations.

The second question of concern in this study was whether our measures of linguistic behavior (MLU – mean length of utterance, etc.) would be similarly related to age in the two settings. In order to answer this question we calculated the correlation between age and each of the dependent variables separately for each setting. The results are briefly summarized in Table 3.

With the possible exception of the number of words in responses to a question, it appears that correlations between age and measures of linguistic development are substantial only in the classroom setting. This finding suggests a clear limitation on conclusions we can reach from the vast literature on language acquisition. Considering that the range of ages sampled (3–4 years) was rather restricted, and that data in the classroom setting are consistent with previous

TABLE 2
Summary Data Showing Differences between Speech in the Classroom and the Supermarket

	Classroom	Supermarket	*t* ratio for difference
Average number of spontaneous utterances per minute	2.4	5.8	3.69[a]
Average length of an utterance	2.9	3.4	2.05[b]
Average percentage of teacher's questions attended to	65.7	92.2	4.67[a]
Average number of words in response to a teacher's question	2.6	3.3	3.03[a]
Number of different grammatical structures produced	3.8	6.9	3.87[a]

[a] $p < .01$.
[b] $.05 < p < .10$.

TABLE 3
Correlations of Age and Speech in Two Settings

	Spontaneous utterances per minute	MLU	Questions attended to (%)	Number of words in response to a question
Classroom	.41[a]	.25	.33	.31
Supermarket	.03	.04	.05	.22

[a] $p < .05$.

results, these findings support Labov's (1972) speculations that our assessments of linguistic development are closely tied to particular interactional settings.

But we would like to be able to do more than speculate about the role of interactional setting. Are the differences in behavior observed in the supermarket and classroom a function of interrogatory style, or some other aspect of the interaction which is controlling the children's speech?

Our first step in disentangling the many factors that might operate to constrain children's verbal behavior in classrooms was to construct a "classroom supermarket." Located within the school, this play shopping environment, when properly used, permitted us to observe the children as they engaged in both formal and informal interchanges with adults.

The "informal" segment of the classroom supermarket began as the child left the home classroom. The experimenter, playing the role of assistant storekeeper, entered the classroom to seek a volunteer to "go to the market." As a rule the main difficulty at this point was to ward off a host of would-be storekeepers. The child who was chosen then got a ride in the marketbasket along with a dozen, common grocery items, and a tape recorder that was left on during the entire sequence.

Once they arrived at the "market," the adult said something along the following lines:

> Wow, look at all the things we have for our store. Let's take 'em out and put them on the shelves, OK? Go ahead, you can take them out and put them any place you want. OK. What's that you're taking out now . . .

These instructions were continued as the child stood up in the cart and placed items on the shelves. Each object was named both to insure the child's attention and to discover what the child labeled each item, since the names often differed from common Standard English usage.

The "formal" segment of the supermarket situation was, in effect, a disguised recall task. A second experimenter, "the lady shopper," entered the store looking for food for a party. She asked the child, who was now out of view of the goods in the store, what she could purchase there. We believed that this segment of the school supermarket scene would provide an analog to the situation the children found themselves in when they returned from the real

supermarket and were confronted by the teacher's enquiries as to what they had seen there.

The data for the eight children who participated in all parts of the study (real supermarket, classroom, class supermarket) are presented in Table 4. For purposes of comparison, these eight children's data from the real classroom and supermarket settings are included in the table.

While the number of children is too small to make statistical analysis worthwhile, the pattern of results is certainly striking. When the children are in a setting like they had experienced in the regular supermarket (e.g., exposure time), the two measures that reflect spontaneity and attentiveness (1 and 3) look very much like their supermarket behavior, while the *length* of utterance measures (2 and 4) are as low as they exhibited in the regular classroom. However, when they are asked to recall items from their play supermarket, all measures of performance look like out previous "classroom" linguistic behavior.

These data take us slightly beyond our initial observations. They suggest that not all aspects of a child's speech production are equally controlled by either the environmental–institutional setting or the two interactional "sequence types" that we have tried to sample. But it should be clear that only a few of the possible interactions that can occur in the two settings we sampled have been studied. In all the cases examined, the children are talking with adults, usually in a conversation that is constrained by the fact that the adult is doing a lot of question asking.

When one looks at a randomly chosen few minutes of children's speech in the classroom and the supermarket (thus allowing for segments in which children are talking to each other), one finds that measures of speech production increase in both settings, relative to the structured segments selected for analysis heretofore. Thus, the issue is not just "classroom versus supermarket" but rather the nature of the verbal exchanges that take place in those settings. Both the supermarket

TABLE 4
Language Output for Eight Children

	Classroom (formal)	Recall (formal, school supermarket)	Exposure (informal, school supermarket)	Actual supermarket (informal)
1. Average number of spontaneous utterances per minute	1.6	1.4	4.5	6.04
2. Average mean length of an utterance	2.8	1.4	1.8	3.31
3. Average % of adult's questions attended to	68%	77%	92%	92%
4. Average number of words in response to adult's question	2.3	1.3	1.5	3.01

and the classroom allow for the kinds of exchanges that we have glossed as "formal and informal." However, it appears to us that the classroom is more likely to produce the former and the supermarket the latter.

CONCLUSION

The two lines of research summarized in this chapter have produced results which are in no way contradictory to the results of previous research in this area. Yet the conclusions to which we are led are quite different than those that one is likely to encounter in the literature.

The reason for this apparent contradiction is to be found in a difference in initial assumptions about the conditions necessary for understanding children's linguistic abilities. With a few exceptions, such as Labov's pioneering research (see also Shatz & Gelman, 1973), investigators of children's language have restricted themselves to a narrow range of interactional settings, usually located in a classroom and usually involving exchanges between adults and children with the adult playing the role of interrogator. Under these conditions, young, Black children do, indeed, use a rather limited array of their total linguistic resources.

The task of our current research is to follow the logic of these results and to design more comprehensive and rigorous means for sampling language behavior across a wide spectrum of commonly encountered interactional situations and subject populations. This seems to us the most promising path to reaching beyond vague assertions about situational variability and the increasingly sterile debate about language differences and language deficits.

ACKNOWLEDGMENTS

A more detailed version of Study 1 appeared under the title: "Story Recall in Young Black and White Children: Effects of Racial Group Membership, Race of Experimenter, and Dialect." *Developmental Psychology,* 1975.

The research reported in this chapter was supported by grants from the Carnegie Corporation of New York to The Rockefeller University for Michael Cole and William S. Hall and PHS GM 21796 to the laboratories of Professors George A. Miller and Michael Cole at The Rockefeller University.

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