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ABSTRACT

This study attempted to assess the linguistic competence of black lower-class speakers within each of two language systems: standard English and Black English. The subjects were 72 black kindergarten, third-, and sixth-graders in a predominantly black community in Toledo, Ohio. All children attending the school were considered lower-class, since 90 percent of the children's families were on ADC and 100 per cent of the children were eligible for the federal school lunch program. A variation of the Fraser, Bellugi, and Brown test of imitation, production, and comprehension of grammatical contrasts was used. The following categories were used to generate four practice items: affirmative/negative, change in noun, and prepositions. Eight categories were used to generate 24 sentence pairs for the test itself. Sentence pairs were in both Black and standard English. A speech production task was also used. The results showed that production of Black English decreased significantly with age. This finding suggests that, at least in a school setting, older black children have the ability to respond orally to a language task in standard English if they perceive the situation to be one in which they should do so. (TS)

# Development of Linguistic Comprehension and Production in Lower-Class Black Children

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A number of studies have reported that lower-class Black children do more poorly on language related tasks than do middle-class children (Bereiter & Engelmann, 1966; Blank & Solomon, 1969; Doyle, 1972; Osser, Wang, & Zaid, 1969; Southern & Plant, 1971; Stern & Gupta, 1970). One explanation of the finding, the "difference hypothesis," proposes that the speech behavior of lower-class Black children is a functional medium of communication that differs grammatically from standard English. Descriptive studies (Bailey, 1965; Houston, 1969; Labov, Cohen, Robins, & Lewis, 1968; Wolfram, 1969) confirm that there are predictable grammatical and phonological regularities in Black English. Nevertheless, no evidence for the functional significance of the difference exists. The few experimental studies that have been done seem to indicate that two different dialects exist (Baratz, 1969a; Hall & Freedle, 1973; Marwit, Marwit, & Boswell, 1972; Nurss & Day, 1971; Seitz, 1975; etc.)

In particular, Nurss and Day (1971) tested Black lower-class and White upper- and lower-class children using the Fraser, Bellugi, and Brown (1963) test of imitation, production, and comprehension of grammatical contrasts. Nurss and Day found significantly lower imitation, production, and comprehension of standard

English in lower-class children of both races. When the imitation and production tasks were rescored by scoring Black English features as correct, as well as standard English grammatical features, however, the scores of the Black children increased significantly on the imitation and production tasks and the scores of the lower-class White children increased significantly on the production task. Even with rescoring, however, there remained significant differences in performance between upper- and lower-class subjects. The authors concluded that both a difference in dialects and a developmental lag were responsible.

However, the tasks were administered in a non-dominant linguistic system and rescored in a dominant system. The lower-class children were not scored, then, on understanding of contrasts within their principal linguistic system, but on understanding of contrasts in an alternate system. Further, the Nurss and Day study is subject to a criticism Fernald (1972) has made of all studies using the Fraser et al. task. Since two picture choices are generally given in the comprehension task, the child has a 50% chance of being correct by guessing. Since no comparable proportion exists for the imitation and production tasks, Fernald contended that it is inappropriate to compare comprehension, production, and imitation scores.

The present study attempted to assess the linguistic competence of Black lower-class speakers within each of the two language

systems. Baratz (1969a) concluded that most Black children are not bi-dialectal since her findings indicated interference between language systems. It is likely, however, that while the dominant Black English system may interfere with the ability of Black speakers to produce standard English forms, the standard form must be comprehended in order to be recoded into the dominant system. Consequently, Black speakers may be bi-dialectal in comprehension of English though not in ability to produce both dialects.

A variation of the Fraser et al. (1963) test of grammatical contrasts was used to measure comprehension and production of Black and standard English. It was expected that comprehension of Black English would not change appreciably from kindergarten to sixth-grade, while comprehension of basic contrasts in standard English would increase with age. And it was expected that production of Black English would not change with age. This hypothesis is consistent with Labov's (1970) finding that pre-puberty speakers have the most consistent language system.

## Method

### Subjects

Subjects were 72 Black kindergarten, third-, and sixth-graders in a predominantly Black community in Toledo, Ohio. Over 90% of the children who attend the school are Black. All children attending the school were considered lower-class since 90% of the children's families were on ADC and 100% of the children

attending the school were eligible for the Federal school lunch program. Twenty-four children from each grade level served as subjects.

Stimulus Materials

A variation of the Fraser et al. (1963) test of grammatical contrasts was used. Three categories were used to generate four practice items: affirmative/negative, change in noun, and prepositions. Eight categories were used to generate 24 sentence pairs for the test itself (see Table 1). Sentence pairs were in both Black and standard English.

Categories 1 through 4 ("easy constructions") were chosen because they exemplify major differences between standard and Black English. Categories 5 through 8 were "hard constructions."

Tapes of the comprehension stimuli were made by a white female speaker using standard English pronunciation. On the first tape, three of the six sentence pairs from each category were standard English constructions and the other three sentence pairs were Black English constructions. On the second tape, the dialects were reversed such that standard English sentences on Tape 1 were in Black English on Tape 2 and vice versa. In effect then, there were semantic differences between the tapes. Tape, order of sentence presentation, and order of task presentation (i.e., whether the comprehension task preceded or followed the production task) were counterbalanced.

## Procedure

A pilot study using Black Head Start children revealed that spontaneous production could be induced by asking the child whether two pictures were the "same" or "different." If the child replied that they were different, he or she was asked to explain why. This procedure was used for the kindergarten children in the present study. Older children were merely shown the pictures and asked to "make-up" a sentence to describe each picture. In all but one case, the child's utterances provided scoreable data for the production task. The percentage of sentences with at least one Black English form was used as the score. Black grammatical forms were scored using classification categories derived from Baratz (1969b, 1970) and Dillard (1972).

For the comprehension task, subjects were shown a set of four pictures randomly arranged in a square array for each contrast. Since Fernald (1972) showed that using only two pictures leads to a 50% chance of a subject guessing correctly, the present task, which provides four pictures, should be more sensitive. Each child heard a taped sentence (the first of a contrasting pair) and was required to point to the picture that looked most like the sentence. The second sentence of the pair was then played and the child was required to do the same thing.

## Results

The results of the production task, contrary to our expectations,

showed that production of Black English decreased significantly with age. The percentage of sentences containing at least one Black English form was 64.2 for kindergarteners, 37.1 for third-graders, and 26.2 for sixth-graders.

Means for all subjects on the comprehension task are given in Table 2. There were significant differences for Age, Dialect, Contrasts, and Difficulty (defined by easy vs. hard contrasts). Overall, performance was better on Black English than standard, and better on easy contrasts than hard contrasts. Older children did better than younger children.

There were significant two-way interactions for Age x Tapes, Dialect x Tapes, and Contrasts x Age. Essentially, the interactions with the tapes seemed to have resulted from semantic differences between the tapes, particularly for the kindergarten children. The Age x Tapes interaction occurred because kindergarteners did better on Tape 1 while both third- and sixth-graders did better on Tape 2. The Dialect x Tapes interaction resulted because performance was better in standard English on Tape 1 but better in Black English on Tape 2. The Age x Contrast interaction can be seen in Table 2.

Spearman rank order correlations were used to compare order of difficulty of contrasts between Dialects across Age. For kindergarteners, the correlation was .83 ($p < .01$), for third-graders .86 ($p < .01$), and for sixth-graders .90 ($p < .01$). The

correlation between standard and Black English for all ages combined was .85. Thus, it seems that the order of difficulty of both language systems is essentially the same within and across ages.

There were significant three-way interactions for Dialect x Difficulty x Tapes and Dialect x Contrasts x Tapes; and there was a significant four-way interaction, Contrasts x Dialect x Age x Tape. It seems that tape differences can largely be accounted for by the differences of contrast 6 (objects) in both dialects and the differences of contrast 3 (is-are) in standard English.

## Discussion

The hypothesis that production of Black English would not change significantly with age was contradicted by the data. Production of Black English forms decreased significantly from kindergarten to sixth-grade. The finding suggests that, at least in a school setting, older Black children have the ability to respond orally to a language task in standard English if they perceive the situation to be one in which they should do so. This finding supports the concept of code-sliding suggested by Skupas & Tweney (1975).

There were a number of complex interactions involved in the present study; but in general it seemed that, although children at each age level knew easy Black English contrasts better than standard English contrasts, the acquisition curves of easy contrasts

in Black English and standard English were essentially the same. Thus, it appears as though lower-class Black children start school with a knowledge of basic contrasts in both Black and standard English. Over the next six grades, school exposure leads to more concrete understanding of the structures in both Black and standard English.

Baratz's contention that there is interference between language systems is not ruled out by the present findings. It may be that preschool exposure to both language systems prevents lower-class children from having as concrete an understanding of either system as might be possible if just one system were involved. The present study was not designed to test such a possibility. It does not seem to be the case, however, that the well-documented problems encountered by lower-class Black children on language related tasks stem from the fact that both systems are not understood. Such problems are more likely to result from the fact that both systems are not used.

The data indicated that some contrasts were understood better in Black English than in standard English. Children did better in Black English on three out of the four easy contrasts -- singular/plural, is/are, and future tense. Children tended to do better in standard English, however, on the present/past category. Although the interaction was not significant in this study, the trend parallels that found by Marwit, Marwit, and Boswell (1972).

They reported that lower-class Black subjects did not supply Black English forms in the present tense category on a Berko-type task. The consistency of this finding may indicate that, at least within the geographical regions studied, Black English may be a dynamic language system which is incorporating more standard English forms. If so, the geographical homogeneity of Black English may not be as great as suggested by Dillard (1972) for example.

One interesting problem stems from the many interactions that occurred between Tapes and other factors. In particular, the interaction between Dialect and Tapes indicated that even though the differences between contrasts were significant, some of the sentences were easier than others regardless of whether they were presented in standard or Black English. The problem seems to have resulted from semantic differences between Tape 1 and Tape 2, which in turn produced the observed higher order interactions. For example, subjects did better on Tape 2 on the Black English contrast, "The fishes is swimming in the cold water"/"The fish is swimming in the cold water" than on the corresponding standard English contract on Tape 1. However, subjects did better on Tape 1 on the standard English contrast, "The sheep are jumping over a high fence"/"The sheep is jumping over a high fence" than on the corresponding Black English contrast on Tape 2. The contrasts are both from the same category, yet differences in comprehension occurred. Though the syntax of the sentences in the present study

was controlled, the semantic content was not controlled (nor has it been controlled in other studies of Black English). The semantic differences between stimuli seem to be especially critical for younger children. In the present study, the difference in scores between tapes was 9.5 for kindergarteners, while for third-graders the difference was 4.2 and for sixth-graders the difference was only 1.0. This difference was the largest in the study and suggests the possibility that semantic factors may be extremely powerful determinants of the language behavior of young Black children. The idea is consistent with current research in the development of language (Brown, 1973), which suggests that semantic factors play a large role early in the language acquisition process.

The tape interactions suggest that any conclusions drawn from the study must be qualified. It does seem that the present results are applicable for older children. The older the child, the less likely that he or she will be affected by specific semantic factors. Consequently, in the present study, results for the older children were relatively unaffected by the tape interactions. The results for the young children, however, are even more important. They point to the relevance of semantic factors in the speech behavior of young Black children and indicate that this should be an essential and fruitful topic for future research in Black English.

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Table 1.

Sample Stimulus Items Used in Comprehension Task

| Type of Contrast | Example in Black English | Example in Standard English |
|---|---|---|
| | **Practice Items** | |
| Affirmative/Negative | The boy eat/ The boy don't eat | The boy is eating/ The boy is not eating |
| Change in noun | The girl have a dog/ The girl have a cat | The girl has a dog/ The girl has a cat |
| Prepositions | The cat in the wagon/ The cat outside the wagon | The cat is in the wagon/ The cat is outside of the wagon |
| | **Test Items** | |
| 1. Present/Past | The big ball be rolling down the hill/ The big ball done roll down the hill | The big ball is rolling down the hill/ The big ball rolled down the hill |
| 2. Singular/Plural (Marked by inflections) | The girl, she close the door with a push/ The girls, they closes the door with a push | The girl closes the door with a push/ The girls close the door with a push |
| 3. Singular/Plural (Marked by <u>is</u> and <u>are</u>) | The sheep is jumping over a high fence/ The sheeps is jumping over a high fence | The sheep is jumping over a high fence/ The sheep are jumping over a high fence |
| 4. Future/Present | He gonna be picking up a pop bottle/ He picking up a pop bottle | He will be picking up a pop bottle/ He is picking up a pop bottle |
| 5. Subject/Object (Passive voice) | The dog get chase by the cat/ The cat get chase by the dog | The dog is chased by the cat/ The cat is chased by the dog |

| | | | |
|---|---|---|---|
| 6. | Indirect object/ Direct object | The girl do pull the wagon to the boat/ The girl do pull the boat to the wagon | The girl does pull the wagon to the boat/ The girl does pull the boat to the wagon |
| 7. | Complex sentences | The boy that got boxes falling/ The boy that don't got no boxes falling | The boy who has boxes is falling/ The boy who doesn't have boxes is falling |
| 8. | Ask/Tell | The man ask the boy what to wear/ The man tell the boy what to wear | The man asks the boy what to wear/ The man tells the boy what to wear |

Table 2.

Mean Number of Correct Response on

The Comprehension Task (Maximum = 6)

Black English

| Contrasts | Age | | | |
|---|---|---|---|---|
| | Kindergarten | Third | Sixth | Mean |
| 1. Singular/Plural (Inflections) | 3.88[a] | 5.33 | 5.79 | 5.00 |
| 2. Singular/Plural (Is/Are) | 3.62 | 5.62 | 5.54 | 4.93 |
| 3. Present/Past | 3.46 | 4.38 | 5.33 | 4.39 |
| 4. Future/Present | 4.58 | 5.29[a] | 5.62 | 5.16 |
| 5. Subject/Object (Passive) | 3.33 | 4.71 | 5.46 | 4.50 |
| 6. Indirect object/ Direct object | 3.54[a] | 4.42[a] | 4.88[a] | 4.28 |
| 7. Complex sentences | 4.12[a] | 5.67 | 5.92 | 5.24 |
| 8. Ask/Tell | 2.43[a] | 3.38 | 4.88 | 3.43 |
| Mean | 3.62 | 4.85 | 5.43 | 4.62 |

Standard English

| | | | | |
|---|---|---|---|---|
| 1. Singular/Plural (Inflections) | 3.25 | 4.83[a] | 5.79 | 4.62 |
| 2. Singular/Plural (Is/Are) | 3.25 | 5.00 | 5.17 | 4.47 |
| 3. Present/Past | 4.00[a] | 4.58[a] | 5.29[a] | 4.62 |

| | | | | |
|---|---|---|---|---|
| 4. Future/Present | 4.04 | 5.25 | 5.38 | 4.89 |
| 5. Subject/Object (Passive) | 3.17 | 4.17 | 5.38 | 4.24 |
| 6. Indirect object/ Direct object | 3.21 | 4.62[a] | 4.92[a] | 4.25 |
| 7. Complex sentences | 4.50 | 5.71 | 5.83 | 5.35 |
| 8. Ask/Tell | 2.21 | 3.75 | 4.83 | 3.60 |
| Mean | 3.45 | 4.74 | 5.32 | 4.50 |

[a]The component means for Tape 1 and Tape 2 differed significantly from each other.