

A Study of the Syntactic Complexity of Standard  
English and Black English Speaking Kindergarten  
Age Children

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In the past two decades, research relating to nonstandard dialects, specifically Black English, has increased significantly. Originally, Black English speakers were considered verbally destitute and their language system thought to be inferior to standard English. As more information was gained through new linguistic methods, the attitude that Black English speakers were deficient in language abilities changed to the theory that Black English is "just as syntactically complex, well-developed and as logical as standard English. On this basis, the language system of blacks is said to be 'different' not 'deficient'" (Manarino, 1977, p. 5).

This "language different" position has led to many questions about possible dialect interference in the areas of reading readiness, intelligence and other types of testing, reading achievement and verbal ability. Research relating to these topics has not produced consistent results.

Generally, it is assumed that all blacks speak Black English or that Black English and low socioeconomic status have a one-to-one

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The author wishes to express appreciation to Dr. Herb Karl, University of South Florida, for his guidance and assistance in preparing this paper.

relationship (Pope, 1971; Quisenberry, 1974). Yet to date, no standardized measure has been developed to determine Black English speakers.

### Problem

While researchers of the verbal ability of blacks use both written and oral speech samples in the upper elementary grades, the children in the lower grades and in preschool must be tested by means of oral samples. Because Black English sounds different than standard English, it is often thought to be less accurate. Many studies have indicated that the basic linguistic structures are acquired by the age of five, but they continue to develop and expand until age ten or later (Quisenberry, 1974). Because children do not normally enter public school before the age of five, one must assume that the language structures they do acquire come from their families, peers and communities and that they have had no formal language instruction as typically received in public schools. This study will investigate the syntactic complexity of Black English and standard English speaking kindergarten children. Two linguistic features were selected as determiners of syntactic maturity: 1) length of T-units and 2) number of T-units produced in one hundred words of spontaneous speech. Hunt (1964) defines the T-unit as a minimal terminal unit consisting of one main clause plus any subordinate clauses which are attached to it.

Specifically, the null hypothesis will be tested by comparing the means of the Black and standard English speaking students' number of T-units per 100 words and the means of the two groups' T-unit length. Differences will be considered significant at the 5% level of confidence or better.

### Review of Literature

Black English has been defined and described both through informal papers and through highly technical studies (Labov & Cohen, 1967; Labov, 1972; Dillard, 1972; Andrews & Owens, 1973). Rules of the dialect have been defined and differences from standard English have been listed, but as mentioned earlier, no standardized means of determining Black English speakers has been developed. One informal measure has been created, though, using Fisher's (1972) Linguistic Structures Repetition Task (LSRT). Manarino (1977) collected data concerning language changes which might occur in Black English repetitions and compiled a list of thirty possible dialect variations which would possibly occur on the LSRT.

A summary of studies dealing with the syntactic maturity of young children shows almost as many different results as there are studies. Several investigators chose methods other than Hunt's T-unit formula being used in this study to determine language maturity. Shepherd (1974) studied the oral language of black and white inner-city kindergarten children, using the Metropolitan Reading Test. He found no significant difference in sentence length. Anastasiow and Hanes (1974) also found no significant difference in language performance when they compared the language of inner-city black children, white rural children and white middle-class children. In contrast, Osser (1966), using the concept of functional equivalence which equated statements having different words but the same meaning, tested the syntactic structures of five-year-old culturally deprived black children, and compared the results with a group of white, middle-class nursery school

children. He found a substantial difference in the total number of sentences produced, in the total number of different syntactic structures used and in average sentence complexity.

Results have been less varied in studies using the T-unit as a basis for determining syntactic maturity. Most studies reviewed (Pope, 1971; Golub, 1975; Ciani, 1976) report essentially the same results as found by Levy (1973) and Gray (1976). Levy compared the maturity of first grade inner-city black children's speech (as defined by T-unit length) to white middle-class children's speech. She found comparable linguistic maturity for the two populations. Gray examined the syntax of three- to five-year-old lower-class black children (enrolled in Head Start in Harlem), using T-units, and found their syntactic maturity was comparable to that of their white, middle-class counterparts.

A different result was found by Quisenberry (1974). She worked with disadvantaged (Head Start) and advantaged (nursery school) four-year-olds and found a significant difference in both number of T-units produced and the length of the T-units.

#### Subjects

Since the available research literature shows no conclusive, consistently obtained results in studies using either preschool or elementary age children, the investigator chose to focus on one age - kindergarten age children who have not been involved in formal schooling in language. This seems to be the age at which research shows the most inconsistencies.

The sample for this study (N=53) consisted of children from the morning and afternoon sessions of a kindergarten in a lower to lower

middle-class socioeconomic area. Four students were eliminated from the study because severe speech problems prevented the researcher from obtaining accurately quantifiable speech samples. Another child was eliminated from the study because excessive absences precluded testing. The mean age of the remaining forty-eight students was 5.4 years.

To identify a group of Black English speaking students, Manarino's (1977) list of dialect deviations on Fisher's (1972) LSRT was used. The children's teacher administered the LSRT to the thirty-four white students and fourteen black students, manually recording the responses. The responses were scored using Manarino's dialect variation list. The total number of Black English responses possible was thirty. The white students' scores ranged from zero to nine total deviations with a mean of 4.53. The black students' scores ranged from nine to nineteen deviations with a mean of 13.21. In order to get a clear-cut selection of Black English and standard English speaking students, all students (N=5) scoring nine variations were omitted, so that N=11 for the black students (5 males, 6 females). Eleven standard English speaking students were then randomly selected to represent the standard English speaking population (6 males, 5 females).

#### Gathering of Language Samples

Several means of collecting spontaneous speech samples were considered (Pope, 1971; Quisenberry, 1974), but Levy's (1973) method of using picture books as a stimulus was chosen. This technique was selected because the teacher would be collecting the speech samples on a tape recorder. The utilization of picture books as the "verbal generator" was judged to be the process that would require the least

amount of time. Each child selected one book from a set of five picture books with no written text and told the teacher a story suggested by the pictures. The teacher's role was to be responsive enough to encourage the spontaneous speech, to answer direct questions, and to ask neutral or non-leading questions such as "What is happening here?" if the child seemed to be having difficulty. No time limit was set.

Each story was then transcribed by the teacher and garbles and repeats were deleted. Either the first 100 words or the end of the T-unit nearest to 100 words was used as the speech sample. The average speech sample to the nearest T-unit consisted of 99.5 words.

### Results

The transcribed samples were divided into T-units and the number of T-units and length of T-units were determined. The mean number of T-units of the standard English speaking students was 14.36, with a range from 10 to 19. The mean T-unit length was 7.23, with scores ranging from 5.21 to 10.6. The mean number of T-units for the Black English speaking students was 15.09 with a range from 12 to 23. The mean T-unit length was 6.78 with a range from 4.43 to 8.25. The results of  $t$  tests showed no significant difference in either number of T-units or length of T-units between the black and the white samples ( $t_{(20)}=.74$  for length of T-units and  $t_{(20)}=.06$  for number of T-units).

In order to determine if there were any sex differences,  $t$  values were calculated between white females and males and between black females and males. No significant sex differences were found for black students nor for white students. (See Table 1 for raw data.)

Table 1  
Raw Data

Number of T-units		Length of T-units	
Black	Standard	Black	Standard
*14/99(words)	*18/98(words)	*7.07	*5.44
14/99	14/100	7.07	7.14
*23/102	13/99	*4.43	7.62
12/99	17/101	8.25	5.94
14/100	*15/99	7.14	*6.60
14/103	10/106	7.36	10.60
*17/99	*13/100	*5.82	*7.69
14/99	*10/97	7.07	*9.70
*14/98	19/99	*7.00	5.21
*17/95	16/100	*5.59	6.25
*13/101	*13/96	*7.77	*7.38

\*female subjects

### Discussion

Although no significant differences were found in T-unit length or number of T-units produced by Black English and standard English speaking students, it was interesting to note the similarities of the mean T-unit length and range of the scores in this study to those of two other studies. Levy (1973) found a mean of 7.03 words per T-unit in first grade inner-city black children with a range from 5.9 to 9.5. O'Donnell, Griffin and Norris (1967) produced similar findings in white middle-class kindergarten and first grade students. The kindergarten children's mean T-unit length was 7.07 with a range from 4.0 to 9.5. The first graders' mean was 7.97, the range was 5.2 to 10.1.

The data from the present study showed Black English students having a mean T-unit length of 6.78 with a range from 4.4 to 8.3 and standard English students a mean T-unit length of 7.23 with a range from 5.2 to 10.6. From comparing results of the present study to those of Levy and O'Donnell, et al., one might conclude that with increasing age, children tend to produce increasingly larger numbers of words per T-unit (within same age range). The resulting norms might give educators another means of assessing language development.

The results also seem to indicate that speaking Black English does not interfere with syntactic maturity. In Manarino's (1977) doctoral dissertation, she reported that the mean dialect variations for the black students was 4.78. Manarino suggested that the low frequency of dialect responses "may indicate that by the time the child reaches the age of seven, or has formal school experiences, he does not evidence the characteristics of Black Dialect" (p. 90).



Manarino's conjecture appears to be given some support by the results of this present study, in that the preschool children in this study showed a much greater dialect variation score than did those in Manarino's study with formal school experiences. However, it is obvious that a need exists for a standardized measure for determining Black English. No definitive conclusions can be drawn through comparisons of Black and standard English without such an instrument.

An unexpected finding of this study was the high number of dialect variations in the white sample. The white sample in this study scored .25 points lower than the black sample in Manarino's study. Also, it is questionable whether a truly representative speech sample could be taken by a teacher or by an independent researcher. Lichtman and Rogers (1979) found that the most mature speech children produced was that produced with peers. More research is needed in these areas before conclusions can be drawn. A need for further empirical investigation is strongly indicated.

## References

- Anastasiow, N. J., & Hanes, M. L. Cognitive development and the acquisition of language in three subcultural groups. Developmental Psychology, 1974, 10, 703-709.
- Andrews, M., & Owens, P. T. Black Language. Los Angeles, Calif.: Seymour Smith, 1973.
- Ciani, A. J. Syntactic maturity and vocabulary diversity in the oral language of first, second and third grade students. Research in the Teaching of English, 1976, 10, 150-156.
- Dillard, J. L. Black English. New York: Random House, 1972.
- Fisher, C. Linguistic structures repetition task, 1972. (ERIC Document Reproduction Service No. ED 091 746)
- Golub, L. S. English syntax of black, white, Indian and Spanish-American children. Elementary School Journal, 1975, 75, 323-334.
- Gray, B. Auxiliary structure and syntactic maturity in the naturalistic speech of lower-class urban black pre-school children, 1976. (ERIC Document Reproduction Service No. ED 139 041)
- Hunt, K. W. Grammatical structures written at three grade levels. Champaign, Ill.: National Council of Teachers of English, 1965.
- Labov, W. The language of the inner city. Philadelphia, Penn.: University of Pennsylvania Press, 1972.
- Labov, W., & Cohen, P. Systematic relations of standard and non-standard rules in the grammar of Negro speakers (Project Literacy Reports, No. 8). Ithaca, N.Y.: Cornell University, 1967.

- Levy, B. Is the oral language of inner-city children adequate for beginning reading instruction? Research in the Teaching of English, 1973, 7, 51-60.
- Lichtman, M., & Rogers, S. Situational variables affecting language usage of low income black preschool children. Research in the Teaching of English, 1979, 15, 265-273.
- Manarino, P. An investigation into the interrelationships among linguistic variables and the ability to recover deep structure among second grade black students (Doctoral dissertation, University of South Florida, 1977).
- O'Donnell, R., Griffin, W., & Norris, R. Syntax of kindergarten and elementary school children: A transformational analysis. Champaign, Ill.: National Council of Teachers of English, 1967.
- Osser, H. The syntactic structures of five-year-old culturally deprived children, 1966. (ERIC Document Reproduction Service No. ED 020 788)
- Pope, M. Syntactic maturity of black and white fourth graders' speech. Research in the Teaching of English, 1971, 5, 202-207.
- Quisenberry, N. A comparison of vocabulary diversity and syntactic structures in four-year-old children at two socio-economic levels. Research in the Teaching of English, 1974, 8, 259-374.
- Shepherd, R. C. Oral language performance and reading instruction. Elementary English, 1974, 51, 544-546, & 560.