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A Comparison of the Oral Language Patterns of Three Low Socioeconomic Groups of Pupils Entering First Grade.

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The language patterns of low socioeconomic Negro, Spanish-surname, and Anglo children are sufficiently different from the middle class language patterns used in schools to put these children at a distinct educational disadvantage. By comparing the speech patterns of these children, this study sought to determine whether their language development is limited by their economic status or by their ethnic group status. Twenty randomly selected beginning first graders from each of the three ethnic groups were interviewed and recorded at length as they told stories about pictures they were shown. The recordings were analyzed for both patterns and mazes (hesitations, false starts, etc.) on the basis of a simplified form of the Indiana Conference Scheme of Analysis on the First Level. The three groups responded approximately the same on total sentence patterns and all specific sentence patterns except one. They also responded approximately the same for total mazes (tangles of language not effective for communication) and all specific mazes. These results imply that low socioeconomic Negro, Spanish-surname, and Anglo children beginning first grade are aware of and use basic English syntax patterns in approximately the same manner. Differentiated materials are not needed in class as much as exposure to total language developing experiences. (MH)

TITLE: A COMPARISON OF THE ORAL LANGUAGE PATTERNS OF THREE LOW SOCIO-ECONOMIC GROUPS OF PUPILS ENTERING FIRST GRADE

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Introduction

Oral language patterns of the low socioeconomic Negro, Spanish-surname, and Anglo children are thought to be sufficiently different from the middle class American children to cause difficulty in the learning process. There is evidence that children of these low socioeconomic sub-culture groups are at a distinct disadvantage in schools where the linguistic skill of the middle-class English-speaking American prevails (Dailey, 1965).

The academic and reading failure of children of low socio-economic groups is a major educational problem.

Certain levels of skill in listening and talking are necessary to success in beginning reading (Strickland, 1962). The academic and reading failure of children from low socioeconomic sub-culture groups is a major educational problem. In southwestern states the failure of Spanish surname children is a great concern (Stemmler, 1966).

The present study proposed to determine whether they are any significant differences in the speech patterns, as measured by the Indiana Conference Scheme (sponsored by U.S.O.E.--H.E.W., 1959) between low socioeconomic Negro, Spanish surname and Anglo groups of children entering first grade. If an analysis of the oral language patterns of these children proves similar, it might indicate that economic status rather than ethnic group status limits their language development.

Procedure

A random sample of twenty beginning first grade pupils who qualified as low on Warner's Index of Status Characteristics or for aid under Public Law 89-10 was chosen for each of the sub-groups in this study.

The Negro sample was drawn from Sheraton Park school in the Roosevelt School District of Phoenix, Arizona, where approximately 74 per cent of the school falls in the low socioeconomic category.

The Spanish surname sample was drawn from Kyrene School, Kyrene, Arizona, where approximately 82 per cent of the school population fall in the low socioeconomic category.

The Anglo sample was drawn from the Flora Thew School in Tempe, Arizona, where approximately 85 per cent of the school is in the low socioeconomic category.

Method

Language samples were recorded on magnetic tape in the following manner.

Each child was brought singly into a room that was a familiar part of his school environment and was seated at a low table with the investigator. The interview which followed a standard procedure began with talk about pictures and stories. The subject was then shown a set of five large (17" x 12") pictures. He was asked to tell a story about each.

The tape recorder was partially concealed so that the mechanical operation would not be distracting; although the child knew his voice was being recorded, he seemed to pay not attention to the machine after he began looking at the pictures and talking.

The recorded language samples were then transcribed to type-written form. Each transcript was analyzed first, for the kinds and numbers of basic sentence patterns in each subject's speech and second, for the kinds and frequency of mazes. Mazes were sounds not pertinent to structure; they consisted of hesitations, false starts, and meaningless repetitions.

The Indiana Conference Scheme of Analysis on the First Level was adapted for this study in a simplified form.

Instrument: Indiana Conference Scheme of Analysis

The Indiana Conference Scheme of Analysis on the First Level similar to Loban's and Strickland's was adapted for this study in a simplified form. These symbols were used in analyzing the speech patterns:

1	(2)	3	4	5	6	≠	U	T	?	[1]	[2]	[3]	[4]

Key to the Symbols

1 The subject (the subject slot) of the sentence which may be a word, a phrase, a clause, or a combination of phrases and clauses:

1
A girl has a skate.

2 The verb slot of the sentence which may be a verb or a compound predicate. This includes the main verb plus auxiliary verbs and modifiers:

2
That one is playing with the toys.

(2) A verb slob which denotes verbs of the to be class or copulative verbs:

(2)
They are at school.

3 The inner complement (indirect object) of a sentence:

3
They give him the tomatoes.

4 The direct object of a transitive verb:

4
They give him tomatoes.

5 The predicate nominative of the class of the verb to be:

5
She is unhappy about it.

6 The outer (objective) complement:

6
He makes the pumpkin pretty.

≠ A connector such as until, because, if, etc., which joins a causative subordination to the rest of the sentence.

U A short utterance which holds meaning and usually is accompanied by falling, fading intonation:

U
Do you have puzzles in your room? Yes.

T The topic followed by the subject:

T
That girl over there, she is riding a bike.

? An unanalyzable construction. This is different than a maze; it is a construction that, after repeated efforts, the transcriber of the magnetic tapes could not analyze.

[ ] Nonstructural elements which denote a maze. These are divided into four classifications:

[1] Noises, unintelligible sounds such as "uhm," "uh," etc.

[2] Holders, words such as "well," "see," etc.

[3] Repeats, repetitions of words such as "they, they" or "here is, here is."

[4] Edits, words used by the speaker which indicate a correction or change in what he is saying.

Patterns of Communication Units

After the above symbols were applied by the judges to the communication units and the mazes were eliminated, the communication units were classified under one of the following patterns:

Pattern	Symbols	Examples
A	1 2 or 1 (2)	The little boy sings. (or) She is in school.
B	1 2 4	The boy has a truck
C	1 (2) 5	Puzzles are fun.
D	1 2 3 4	He gives the man the tomatoes.
E	1 2 4 6	He made the pumpkin pretty.
F	(2) 1	Here is South Mountain There are two girls.
G	Questions	What is that? Is this a ball?
H	Passive forms	The tomatoes were picked by the men.
I	Requests, commands	Let me see it.
T	Topic followed by subject	That girl she is riding the bike.
J	Partials	This is not a pattern; it is any incomplete unit.
	Mazes	Nonstructural elements such as:
K	Noises	"uhm," "uh."
L	Holders	"well," "see."
M	Repeats	"here is, here is"
N	Edits	Words indicating a change or correction.

Three judges then listened to the tapes while checking the graded typescripts.

Analysis of the Data

In analyzing the data it was decided to employ the statistical technique of analysis of variance. The 0.05 level of confidence was selected prior to the application of the statistic.

Differences and similarities in the sentence patterns and mazes of Negro, Spanish-surname, and Anglo low socioeconomic, first grade children were ascertained from the test of the null hypotheses:

> Null Hypothesis Number One: There is no significant difference in the syntactical oral language patterns of first grade children in three low socioeconomic groups: Negro, Spanish-surname, and Anglo.
>
> Null Hypothesis Number Two: There is no significant difference in the mazes exhibited by first grade children in the three low socioeconomic groups: Negro, Spanish-surname, and Anglo.

Null Hypothesis Number One was tested using total and specific sentence patterns as the criterion measures, and Null Hypothesis Number Two was tested using total and specific mazes as the criterion measures.

Sentence Patterns

The analysis of variance for total sentence patterns, summarized in Table I, revealed that mean scores for the three ethnic groups were not significantly different at the 0.05 level. Similarly, the analyses of variance for specific sentence patterns, summarized in Table II, revealed that mean scores for the three ethnic groups were not significantly different at the 0.05 level for sentence patterns A, B, C, D, E, F, G, H, and T. The mean scores for the sentence pattern I, however, were significantly different at the 0.05 level. Further analysis by

TABLE I

ANALYSIS OF VARIANCE OF SCORES ON TOTAL SENTENCE PATTERNS FOR LOW SOCIOECONOMIC GROUPS OF NEGRO, SPANISN SURNAME, AND ANGLO FIRST GRADE CHILDREN

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Groups	2	354.23	177.12	0.98
Within	58	10,429.95	179.83	
Total	59	16,590.85		

TABLE II

ANALYSIS OF VARIANCE OF SPECIFIC SENTENCE PATTERNS

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
A				
Groups	2	70.53	35.27	1.42
Within	57	1,418.40	24.88	
B				
Groups	2	145.30	72.65	1.99
Within	57	2,083.95	36.56	
C				
Groups	2	3.63	1.82	0.39
Within	57	262.70	4.61	
D				
Groups	2	0.43	0.22	1.44
Within	57	8.50	0.15	
F				
Groups	2	135.13	67.57	1.75
Within	57	2,196.30	38.53	
G				
Groups	2	1.63	0.82	1.70
Within	57	27.36	0.48	
H				
Groups	2	0.10	0.05	1.00
Within	57	2.75	0.05	
I				
Groups	2	1.23	0.62	3.91*
Within	57	8.97	0.16	

*$p < 0.05$.

Scheffe's test (Ostle, 1963, p. 310) for multiple comparisons, shown in Table III, revealed that the mean score for Spanish-surname subjects (0.40) was significantly greater than the mean score for Negro subjects (0.05); the mean score for Spanish-surname and Anglo subjects combined (0.40 and 0.20) was significantly greater than the mean score for Negro subjects (0.05); and the mean score for Spanish-surname subjects was greater than the mean score for Negro and Anglo subjects combined. The implication of these findings is that the low socioeconomic subjects in the three ethnic groups responded approximately the same on total sentence patterns and specific sentence patterns with the exception of I, where the Spanish-surname subjects' frequency was greater than that of Negro subjects and greater than Negro and Anglo subjects combined, and the Negro subjects' frequency was less than that of the Spanish-surname and Anglo subjects combined. Equivalently, Null Hypothesis Number One could not be rejected for the specific sentence patterns A, B, C, D, E, F, G, H, and T; but the same null hypothesis was rejected for the specific sentence pattern I.

Mazes

The analysis of variance for total mazes, summarized in Table IV, demonstrated that the mean scores for the three ethnic groups were not significantly different at the 0.05 level. Similarly, the analyses of variance for the specific mazes, K, L, M, and N, shown in Table V, revealed that the mean scores for the three ethnic groups were also not significantly different at the 0.05 level. Therefore, Null Hypothesis

TABLE III

SCHEFFE'S TEST FOR MULTIPLE COMPARISONS BETWEEN NEGRO (N), SPANISH-SURNAME (S), AND ANGLO (A) GROUPS OF FIRST GRADE CHILDREN'S SCORES ON THE I SENTENCE PATTERN

Comparison	$\frac{\sum X(N)}{1}$	$\frac{\sum X(S)}{8}$	$\frac{\sum X(A)}{4}$	$\sum a_i^2$	D	D^2	A	F
N vs S	1	-1	0	2	- 7	49	1.23	15.31**
N vs A	1	0	-1	2	- 3	9	0.23	2.81
S vs A	0	1	-1	2	4	16	0.40	5.00
N vs S+A	2	-1	-1	6	-10	100	0.83	10.42**
S vs N+A	-1	2	-1	6	11	121	1.01	12.60**
A vs N+S	-1	-1	2	6	- 1	1	0.01	0.10

**$p < 0.01$.

TABLE IV

ANALYSIS OF VARIANCE OF SCORES ON TOTAL MAZES FOR LOW SOCIOECONOMIC GROUPS OF NEGRO, SPANISH-SURNAME, AND ANGLO FIRST GRADE CHILDREN

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
Groups	2	84.70	42.35	1.00
Within	58	2,445.30	42.16	
Total	59	2,530.00		

TABLE V

ANALYSIS OF VARIANCE OF SPECIFIC MAZES

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F
K				
Groups	2	36.43	18.22	2.37
Within	57	437.30	7.67	
L				
Groups	2	0.43	0.22	0.44
Within	57	27.76	0.49	
M				
Groups	2	48.10	24.05	2.15
Within	57	637.55	11.19	
N				
Groups	2	3.10	1.55	0.37
Within	57	237.75	4.17	

Number Two could not be rejected for total mazes or specific mazes.

Summary

Tests of the two null hypotheses revealed no significant differences between the three first grade low socioeconomic ethnic groups with regard to total sentence patterns and with regard to specific sentence patterns. The exception noted in the type I sentence is interesting. This pattern (requests, or commands) which appeared more frequently in the Spanish-surname children's speech, may have been elicited in a structured interview with children who know English as a second language. A review of the typescript shows such sentences as "Look at the stars!" in response to the question, "What do you think he is saying to his sister?" whereas subjects in the other ethnic groups seemed to respond more frequently to such a question with, "He is telling her to look at the stars." While it is interesting to note this performance, it does not change the significance of the overall similarity of language patterns.

There were no statistically significant differences between the same groups with regard to total mazes. These mazes--tangles of language not effective for communication--appeared in each child's speech. Mazes then are present in the language of children in a situation such as an interview where response to a picture stimulus is spontaneous.

Further, there were no significant differences between the same groups with regard to specific mazes. Noises such as "uhm," "uh"; holders such as "well," "see"; repeats such as "here is, here is, here

is a boy"; and edits such as "the boys was, no the boys were playing" appeared to some extent in each subject's speech.

From the above findings and the analysis of the data, it was possible to draw certain conclusions.

The results of this study imply that the low socioeconomic Negro, Spanish-surname, and Anglo children beginning first grade are aware of and use the basic English syntax patterns in approximately the same manner. Therefore, it appears reasonable to assume that teaching could be concerned with giving such children not different materials but total experience in language development.

Implications for further research in children's oral language include a need to analyze low socioeconomic children's language samples for use of pitch, stress, and juncture. The transcription of the language samples in this study from tape to typescript was difficult. The adult listeners' comprehension appeared to be hampered more by unusual pitch, stress, and juncture than by vocabulary or word order. It is possible that children may need more help than they are receiving in the use of pitch, stress, and juncture.

It is hoped that this study might serve as an heuristic one, suggesting further research into low socioeconomic children's oral language patterns in the areas of (1) the secondary level of language, i.e., the level at which subordination and movables occur and (2) intonation patterns of speech, i.e., pitch, stress, and juncture.