DOCUMENT RESUME

ED 078 374 CS 000 591

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TITLE Dialect in Relation to Reading Achievement: Recording, Encoding, or Merely a Code?
PUB DATE 73
NOTE 32p.; Paper presented at the Annual Meeting of the American Educational Research Assn. (New Orleans, Louisiana, February 25-March 1, 1973)

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS *Bilingualism; Dialects; *Elementary Grades; Grade 1; Grade 2; Grade 3; *Mexican Americans; Oral Reading; Reading; Reading Ability; *Reading Achievement; *Reading Research; Reading Skills

ABSTRACT

Dialect has been a prominent suspect in recent years as a causal factor in the disparity between achievement of the majority group and of certain minority groups, including Mexican-Americans. The purpose of this study was to discover whether there is a significant relationship between dialect and oral reading achievement in grades 1-3 for Mexican-American children and, if so, to specify the nature of the relationship. Sixty children from grades 1-3 with Spanish surnames were given the Gates-McKillop Reading Diagnostic Test to determine their oral reading performance. A bilingual speaker interviewed parents and scored A Language Background Scale. Spontaneous language responses were assessed by using the Children's Apperception Test. Seven selected subtests from the Illinois Test of Psycholinguistic Abilities (ITPA), Revised Edition, were used to measure the subjects' language processing abilities in English. Some of the results indicated: (1) the sample was approximately at the normative mean in grade one and half a year below the mean in grade two in one school and in grade three in both schools; (2) different abilities become significant at different stages of the child's reading progress; and (3) children who experience more Spanish in the home tend to be lower in syntactic ability. (WR)

Dialect in Relation to Reading Achievement: Recoding, Encoding, or Merely a Code?

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Dialect has been a prominent suspect for the past ten years as a causal factor in the disparity between achievement of the majority group (Anglo) and certain minority groups such as blacks and Mexican-Americans (Goodman, 1965; Baratz and Shuy, 1969; Brown, 1970; Wolfram, 1970; Baratz, 1971). These minority groups on the average achieve at a lower level than their Anglo peers, and the gap tends to increase with continued school experience (Tireman, 1948; Coleman, 1966; Singer, 1970; Carter, 1970). Theorists and researchers, however, are not in agreement that dialect per se is a causal factor for this disparity.

Controversy on Dialect Interference in Reading

The views of theorists and researchers on the issue of dialect interference with reading achievement can be organized into three categories: (1) the pro position: those who believe that dialect per se interferes with reading achievement; (2) the qualified pro postion: those who believe that only some aspects of dialect interfere with reading achievement; and (3) the con position: those who believe that dialect per se does not interfere with reading achievement.

The Pro Position: A general hypothesis that dialect interferes with learning to read has been stated by Goodman (1968, p. 853): "The more divergence there is between the dialect of the learner and the dialect

of learning, the more difficult will be the task of learning to read." Bailey (1966) and Labov (1969) agree with this hypothesis.

Also believing that dialect interferes with reading, some researchers have recommended various educational strategies for eliminating or reducing such interference. Baratz and Shuy (1969) have advocated teaching the black child to read in his own dialect. Stating pros and cons of various remedies, Wolfram (1970) recommended that materials and techniques selected to minimize discrepancies, such as accepting the child's recoding of standard English materials in his own dialect, would be the wisest strategy, and called for further experimentation on effects of (a) developing "neutral" materials which avoided grammatical differences and (b) constructing basal readers in the child's dialect. Another approach is to adopt a language experience method of teaching reading which utilizes the child's own dialect for initial reading instruction (Cramer, 1971). While various remedies have been proposed, Baratz (1971, p. 11) complained that "there are still no real tests of the alternatives...the extant data are ambiguous at best and do not deal with using dialect as a process in reading instruction."

In the Southwest, where the language of Mexican-American (Chicano) children diverges from the "standard" English, strategies have been devised and programs developed which range from teaching both Anglos and Chicanos to be bilingual, to teaching Chicanos standard dialect as a means of improving their reading performance (Yoes, 1967; Rosen and Ortego, 1969; Feeley, 1970; Ramirez, 1970).

The Qualified Pro Position: More specifically, Stewart (1969) and Baratz (1971) have suggested that syntactical difference is the major

problem in reading achievement for black children. Chomsky (1970, p. 14), arguing on theoretical grounds that dialect differences in syntax and lexical items, but not in phonology, are likely to interfere in reading comprehension, stated that "dialect variation is of importance to the study of reading and the teaching of reading to the extent that dialects differ on the syntactic and lexical levels. Differences in phonological rules are irrelevant..."

The Con Position: Some researchers and educators believe that dialect per se is not a major cause of reading problems for children speaking non-standard dialects. For example, Venezky (1970) concluded that "dialect differences per se are not major barriers for learning to read." In agreement, Gumperz (1970, p. 141) has stated that "there is little, if any, experimental evidence that the pronunciation of urban black English actually interferes with the reading process."

Review of Research

Empirical evidence for resolving the controversy is scanty. On the positive side of the relationship between black English and reading, Goodman (1968, p. 43) found little syntactical interference when black children read standard English texts except when the reader was engrossed in the material. Yet he still believed syntax interfered when he suggested that "with added comfort and less emphasis on the individual symbols involved, an actual translation process will begin to emerge in which the dialect of the material is translated into the dialect of the reader." Baratz (1970) found for her sample of black first and second graders in Washington, D. C., a significant correlation between their facility with standard English, assessed by ability to repeat sentences spoken in either black or standard English, and reading achievement.

On the negative side, some evidence does exist that the phonological aspects of dialect do not necessarily interfere in reading achievement. Venezky (1970, p. 17), reviewing the research of Peisach (1965), Weener (1969), and Eisenberg (1968) on comprehension of children with deviant dialects, stated that "lower SES Negro children do not find educated white speech any less intelligible than Negro speech (educated or uneducated)" and "most of the evidence indicates that dialect differences per se are not major barriers for learning to read." Melmed (1971, p. 57) demonstrated that his black sample, living in Pittsburg, California, performed lower on auditory discrimination of words which included homonyms in black phonology (e.g. six, sick) when presented in isolation, but did not differ significantly from whites and others (primarily Mexican-American) on oral and silent reading comprehension when these same homonyms were presented in context. He concluded that reading comprehension does not seem to be impeded by deviations from standard English phonology. Baratz (1971) criticized Melmed's study on the ground that his sample was atypical because all the children had received special training and were reading at or above grade level. This criticism, however, is not persuasive because it merely implies that dialectical interferences are susceptible to educational modification. In agreement with Melmed, she points out that his study dealt only with phonology, but syntactical aspects of dialect should also be investigated. She believes that the major source of dialectical interference in reading may be with difficulties in syntax.

On the question of syntactical interference, Mitchell-Kernan (1969) concluded from her empirical investigation that syntactic variations in the speech of black English were not related to difficulties in comprehending

standard English. Baratz (1971) was critical of this study; essentially she rejected Mitchell-Kernan's criterion of comprehension (sentence repetition) as an adequate measure, but did not recommend any criterion or measure of comprehension that would be acceptable.

Empirical studies of the relationship between dialect and reading achievement are scanty for black children and even scantier for Mexican-American children. Indeed, in their comprehensive review of language and reading instruction of Spanish-speaking children, Rosen and Ortego (1969) did not report any studies on the relationship between dialect and reading.

However, in 1948, Tireman found that Mexican-American children in an experimental pre-first grade program tested slightly above the Gates and Stanford Achievement Tests' norms in grades 1 and 2, but began to diverge downward in grade 3, and concluded that "errors in oral reading made by Spanish-speaking subjects in elementary grades can be attributed to pronunciation difficulties."

The relationship between English language proficiency and reading for dialectically different groups is unclear. In general, children labeled "disadvantaged" or "linguistically different" tend to have lower scores on the Illinois Test of Psycholinguistic Abilities (ITPA) than do normal comparison groups, usually in the auditory area and especially in the syntactical aspects of language (Weaver and Weaver, 1967; Gerber and Hertel, 1969; Saudergras, Madsen and Thompson, 1971; Killian, 1971; Jorstad, 1971; Kirk, 1971). Also, children with reading problems tend to have below average scores on the "automatic" aspects of language processing, such as rote memory for sequences and sound blending. (Kass, 1966; Macione, 1969).

Some ITPA studies have been conducted on Mexican-American children. Kirk (1971, pp. 35-38) noted that Mexican-American children's ITPA scores, taken from Head Start evaluation data (1969), were above average in Visual Sequential Memory but were approximately one year below average on all the other subtests. Jorstad's (1971) group of 20 Mexican-American disabled readers were below the mean on all subtests of the ITPA and more than one standard deviation below the mean on all auditory tests, including a test of syntactical ability. When Killian (1971) matched first graders and kindergarteners for reading achievment and then separated them into subgroups according to bilingual ability and ethnicity (Spanish-American biiingual, Spanish-American monolingual in English and Anglo monolingual in English), the Anglo group was still superior to both Spanish-American groups on ITPA Auditory-Vocal Sequencing (memory for a series of digits), Auditory Decoding (listening vocabulary) and Auditory-Vocal Automatic (syntactic ability) tests.

Despite the paucity of evidence, there is nevertheless a climate of opinion that Mexican-American dialect does interfere with reading achievement. For example, Carter (1970) believes that dialect differences are at least indirectly causative of the lower school achievement of Mexican-Americans compared to their Anglo peers for two reasons: (a) dialect tends to indicate degree of acculturation, and lack of acculturation is a causative factor in downward divergence in performance; and (b) teachers who equate language differences with language deficiency tend to stigmatize Mexican-American children and develop a negative self-concept in them, and these affective components concomitantly and accumulatively interfere with their school performance.

To improve the performance of Mexican-American children, reading readiness programs were initiated as early as 1946 (Herr, 1946). Head Start (1969) and other special programs (Yoes, 1967; Ramirez, 1970; Silva, 1970) have also aimed to improve the academic performance of bilingual Mexican-American children. After reviewing reading programs for Mexican-Americans, Rosen (1970, pp. 17-18) concludes: "the facility with which these children learn to process messages from print in English is subject to interference on the basis of differences in concept labeling, grapho-phonemic associations, semantics, morphological and syntactical structure between Spanish and English."

A critical shortcoming of most of these reports on studies of and programs for Mexican-American children is their tendency to equate the concepts of bilingualism and dialect. Differentiating these concepts should clarify interpretation of results. Also, more evidence, based upon more carefully defined samples, may help resolve the controversy on the influence of dialect in reading achievement.

Relationship between Mexican-American Dialect and Reading Achievement

The purpose of this study was to determine the relationship between dialect and reading achievement. More specifically, the purpose was to discover whether there is a significant correlation between dialect and oral reading achievement in grades 1 to 3 for Mexican-American children, and if so, to specify the nature of the relationship.

Sample Selection

Definition of Dialect: The terms bilingual and dialect are frequently equated. For example, in her review of sociolinguistics and

reading achievement, Entwisle (1971) uses them interchangeably. This practice can lead to misinterpretation of research results because the two terms are not necessarily synonymous. In essence, dialect refers to variations of speech in a given language community, while a bilingual is a person who speaks two languages. Hence, two monoglots could speak different dialects of American English, for example, New England vs. Southern speech, while a bilingual may not only communicate in both languages but may be so proficient that his dialect in each language is consistent with the dialect that is characteristic of each of his two speech communities; that is, he speaks both "standard" dialects. In these examples, the concepts pertaining to a bilingual individual and to a person with a dialect do not overlap at all. But there are examples where they do. Some bilinguals may be recognized by their speech communities as having a dilect in either or both languages. Furthermore, a fourth category consists of individuals who start as monoglots but subsequently become bilinguals. However, differences among the categories can be resolved by conceptualizing a developmental continuum.

The extremes of this "monoglot-bilingual-equilingual" continuum are defined by those speakers who are monoglot in a minority language, such as Spanish, and those who have attained the "standard" dialect in the majority or minority language, such as English or Spanish. Some children may start out as monoglots in the minority language, but tend to progress along the continuum as they participate and communicate in both cultures. Gradually, they change from monoglots to bilinguals. When they first become bilinguals, they are also at a point in the continuum where they are "deficient" in both languages, i.e. during the acquisition stage, both languages tend to suffer from mutual interference (Singer, 1956).

However, those who develop further in both languages overcome most of their deficiencies in both languages but have not yet attained the "standard" dialect; with further experience, some may reach that point on the continuum where they have attained the "standard" dialect in both languages and may even approach the status of equilinguals where they are equal in all expressive and receptive aspects of the two languages (Singer, 1956). Hence it is necessary to define where a sample lies on this continuum.

The Mexican-American child may be located at any point along the continuum. At one extreme is the child who initially speaks no English, but is monolingual in Spanish. Toward the midpoint is the child who is bilingual in both Spanish and English, but tends to be deficient in both languages. For example, his vocabulary in both languages may be complementary: words known in Spanish may not be part of his English lexicon, and vice versa (Smith, 1949). However, through further development, he might overcome his deficiencies and become more or less equilingual. Eventually, he might even acquire the dialect of "standard" English. Of course, some children can start their language development from a point on the continuum where they exhibit a predominance of English in their speech behavior because their home language consisted of this mixture. Indeed, there are as many combinations of starting positions as there are points on the monoglot-equilingual continuum.

To select a sample toward one end of the continuum, the segment that lies between bilingual and the dialect of "standard" English, we used the following criteria: children born in the United States who speak predominantly English, and whose speech varies from the larger community but results in no communication interferences for the average English-speaking listener as assessed by a linguist. Consequently, the selected

sample would fit this definition of dialect: "variations in speech of subgroups within the larger community of speakers, which variations are not so considerable as to impair understanding, but which include special speech involving sounds, meaning, vocabulary, and sometimes grammatical structure" (Gaeng, 1971, p. 167).

This definition also fits U. S. regional dialects, which differ in intonation, pronunciation, grammar, syntax, and vocabulary. "Standard" speech, however, is difficult to define. As McDavid (1968, p. 608) points out, "One may utter the same message in a number of different ways and still speak the standard language." Nevertheless, Fries (1968, p. 561) defined "standard" as "the variety of language used by those who hold positions of trust and respect and conduct the important affairs of the community."

Sample Characteristics: The sample was randomly chosen from children of Spanish surname in attendance at two public schools in Riverside, California. The children were residents of the community in which these schools are located. One of the communities consists of Mexican-American families who had moved out of the barrio, which is located in another part of Riverside. The other community consists of acculturated Mexican-Americans who had lived in the community for two or three generations or longer. All but three of the children in the sample were born in the Riverside area; the remaining three were born in the Southwestern United States.

Ten children from grades 1-3, selected from each school, made up a total sample of 60 children. Only 13 percent of the original group of parents refused to allow their children to participate in the study.

However, whatever sampling bias resulted from the necessity of securing parental consent was distributed across the three grades and the two schools.

The two schools were chosen because of the relatively high concentration of Mexican-American children in their attendance area. Although Riverside has approximately 12 per cent Mexican-Americans, these schools, designated in this study as A and B, enrolled from 20 to 33 per cent Mexican-Americans in grades 1 to 3.

The language background of the children was assessed by a scale constructed for this study and administered orally in the home by a bilingual speaker. The scale data indicated that the sample, primarily of second and third generation Mexican-Americans, came from homes in which English is the predominant language.

Design and Procedures

A correlation design was used to test the null hypothesis that in our sample of Mexican-American children (1) dialect is not significantly related to oral reading ability or language processing ability in English, and (2) that reading ability is not significantly related to language processing ability in English. Data were collected by the following instruments:

(1) Oral reading performance was assessed by the Gates-McKillop Reading Diagnostic Test (Gates and McKillop, 1962). Tapes were made of oral reading of paragraphs on this test.

(2) Language background: a bilingual speaker interviewed parents and scored a Language Background Scale devised for this study.

The interviewer rated each parent, the child, and any other adults with whom the parents or children frequently interacted (i.e. grandparents or other relatives living in the home) according to the language most often used: Spanish only, English only, [illegible] nation of the two. From these data, a scale was constructed with an arbitrary weight assigned to each language combination in the scale (Spanish only = 4, Spanish with some English = 3, English with some Spanish = 2, English only = 1). Weighted scores were then separated according to the child's listening environment (speech of parents to each other, to the child, and to significant others) and speaking environment (speech of the child to parents, other children, and significant others in the home).

(3) Spontaneous language responses of the child were assessed by taping the subject's responses to selected pictures from the Children's Apperception Test (Bellak and Bellak, 1949).

(4) Language processing abilities in English were measured by seven selected subtests of the Illinois Test of Psycholinguistic Abilities (ITPA), Revised Edition: (1) Visual Reception requires selection of one of four pictures conceptually similar to a stimulus picture; (2) Auditory Reception is essentially a vocabulary test in which the child responds "yes" or "no" to a series of direct questions such as "Do birds fly? Do accurate compasses magnify?"; (3) Visual Association requires the child to identify pictured relationships through picture

analogies; (4) Auditory Association is a verbal analogies test utilizing a sentence completion technique such as "coffee is bitter; sugar is _____": (5) Auditory Sequential Memory tests memory for a series of digits; (6) Visual Closure requires perception of hidden partial figures within a time limit; and (7) Grammatic Closure consists of completion of oral sentences illustrated with pictures intended to reduce vocabulary difficulties and emphasize syntactical ability, for example, "Here is a cat. Here are two_____."

Children were tested in the spring of 1970 in their local schools by graduate students trained in administration of the instruments by the investigators. The graduate students had previous experience working with children in the teacher education program at the University of California, Riverside. The parent interviews were conducted by a graduate student in anthropology who had a variety of experiences with different ethnic groups and who spoke Spanish.[2]

Analysis of Results

Mean scores and standard deviations in oral reading, presented in Table 1, indicate that our sample was approximately at the normative mean in grade one, and half a year below the mean in grade two in one school and in grade three in both schools. These results are consistent with previously reported trends in reading achievement for Mexican-Americans (Tireman, 1948; Singer, 1970). The oral reading performance of the children in grade two in School B was atypically high and deviated significantly from the mean trends in both schools (four of these second

graders read at or above grade equivalent 4.0 on our test). Also, dropping this grade would work against our theoretical bias. Hence, as a conservative procedure, grade two was dropped from further analysis.[3]

Insert Table 1 about here

To differentiate dialect "errors" from reading errors, we compared a linguist's and teachers' scoring of our sample's oral reading performance. When using the Gates-McKillop scoring criteria, they agreed almost perfectly (r=.98), but when the linguist separated out those "errors" that were dialectically correct responses to the graphic stimuli, he scored significantly fewer errors, mostly in pronunciation of the middle parts of words and in words omitted. Also, dialect differences found in analyzing both oral reading and informal speaking (CAT responses) were primarily in the phonological domain. However, some syntactical dialect-based reading errors were also recorded. Thus, the sample did exhibit dialect differences in speech which can be mistakenly scored as "errors" in oral reading.[4]

Table 2 presents the mean scores and standard deviations for grades one and three on the Language Background Scale and ITPA subtests. Since analysis of the data indicated no consistent statistically significant differences between schools, the samples from the two schools were combined. Data on the language scale, based on reports of our information in the home, indicated that our sample had satisfied the selection criterion: as a group, our subjects tended to fall toward the English end of the dialect continuum.

The mean ITPA scores are consistent with expectations based upon previous studies of Mexican-American children (Jorstad, 1971; Kirk, 1971; Killian, 1971). Grades one and three scored below the norm group mean on all subtests except Visual Association and Auditory Sequential Memory: our first graders scored above the mean on Visual Association, and both the first and third graders scored above the mean on Auditory Sequential Memory. The total group is therefore more proficient in immediate memory for a series of digits (Auditory Sequential Memory) than has been reported in previous studies.

Insert Table 2 about here

The correlations presented in Table 3 indicate that different abilities become significant at different stages of the child's reading progress. Ability to see pictured relationships and understand spoken English vocabulary are more highly related to oral reading in grade 1, while ability to process English syntactical structures and memory for auditory sequences are more important for oral reading at grade 3. Also, degree of dialect in the home, as measured by our language background scale, is not related either to oral reading performance or to performance on a test of ability to process the English language in the first grade. However, in third grade, there is a significant negative relationship between the amount of Spanish heard in the home and syntactic ability, and a positive relationship between syntactic ability and oral reading ability. In order words, as the meaning demands of reading become more complex and as the syntactical load of the reading paragraphs increases, language background becomes more relevant to oral reading ability.

Insert Table 3 about here

We have listed in Table 4 only those correlations in Table 3 which are germane to the relationship between dialect and reading. This table indicates that none of the correlations are significant at the first grade level. However, at the third grade level, language background is negatively related to snytax, and syntax, in turn, is positively related to oral reading. In other words, those children who experienced more Spanish in the home tended to be lower in syntactic ability. We therefore infer that language background working through syntax affects reading performance. More specifically, we hypothesize that the intermixture of Spanish and English syntax heard in the home tends to reduce the Mexican-American child's ability to perform in English syntax, and thus his relative inability interferes with the processing of language that is involved in oral reading.

Insert Table 4 about here

Discussion

Alternate explanations for our results may be postulated. The relationship between perception of hidden figures (Visual Closure) and speaking predominantly English, and between syntactic ability (Grammatic Closure) and hearing predominantly English may reflect general intelligence and may be highly related to general linguistic ability (Smith and Marx, 1971). The downward divergence of our first and third graders on syntax (Grammatic Closure) represents a slower rate of development in this aspect of language which may be a function of differences in

general intellectual ability between our samples and the normative group. Slobin (1966) has also theorized that language is a function of a more basic cognitive capability. Thus, it would seem that general intelligence alone might account for our results.

However, while general intelligence may be related both to performance on some ITPA subtests and to oral reading skill, in our study, language background is also implicated as a causal factor because poorer performance in syntactic ability was associated with a higher degree of Spanish heard in the home. This finding can be attributed to intragroup variations in intelligence or to bilingual interference, or to some interaction of these determinants.

Changes in correlations between grades are also not directly attributable in our study to dialectical differences in phonology. If phonological differences in dialect were significant in oral reading achievement, we would expect them to be of greater import in lower than in higher grades because of the greater emphasis on sound-symbol correspondence in the lower grades. However, our data indicate no significant relationship between degree of bilingual background and oral reading achievement for the first graders.

The only significant relationships between bilingual background and oral reading were found at grade three: syntactic ability was negatively related to bilingual experience and positively related to oral reading achievement. This finding and other changes in correlations between grades one to three in our study are consistent with systematic changes at successive elementary grade levels that have been found elsewhere to occur in abilities predictive of reading achievement in

normative groups (Singer, 1965). Consequently, we can conclude that in grades 1-3 the changes in the relationship between language processing ability and reading are a function not of phonological, but of syntactical abilities, which become significantly related to oral reading achievement as the child progresses in school and encounters linguistically more complex reading tasks. Moreover, syntactic ability was negatively related to degree of Spanish heard in the home and to oral reading; consequently, if any aspect of dialect interferes with reading progress it is more likely to be syntactical than phonological.

Summary and Implications

Our results tend to partially support the position defined by Chomsky's, Baratz', and Stewart's views that dialect differences in syntax and lexical items, but not in phonology, are likely to interfere with reading achievement. If dialect differences in phonology interfere with reading achievement, and such phonological differences are the major linguistic differences between the local Mexican-American English and colloquial English, a significant correlation should be found between such aspects of Mexican-American dialect and reading achievement. Our evidence does not support this view. What we did find was that the correlation between syntax and oral reading in grade 3 was significant. This finding supports the hypothesis that syntax but not phonology is related to achievement in reading.

Melmed's (1971) results on phonology in black dialect also appear consistent with our findings. Melmed reported that blacks performed more poorly than a control group of Anglos on comprehension of words

phonologically confusable in black dialect when presented in isolation, but not when presented in context. In our study, the oral reading test also presented words in context and consequently provided less of a dialect problem than if we had presented words in isolation to our subjects. However, as the context becomes linguistically more complex, differences in syntactic ability were related to the reading performance of our subjects.

Differences between Mexican-Americans and Anglos in syntactical ability may be overcome by adulthood. This hypothesis would account for Metcalf's (1972) findings that phonological, but not syntactical, differences were found in Mexican-Americans interviewed in his study conducted in Riverside, California. This developmental interpretation is also supported by Holland's (1960) study. He reported that Mexican-American children were further below the average achievement of their Anglo peers on the English version of the verbal part of the Wechsler Intelligence Scale for Children in the early grades than in the Spanish version, but improve to nearly equal proficiency on both versions of the intelligence test by sixth grade and approximate the Anglo average score. Thus, bilingual or dialectical interferences that were operative in elementary grades are less likely to be operative in subsequent years.

Other factors, such as environmental and emotional problems connected with belonging to a nondominant cultural group, may also interfere with reading performance of Mexican-American children. For example, investigators have cited the basic conflict of loyalties between the English-speaking culture of the school and the Spanish-speaking heritage of the home as interfering in academic achievement (Guerra, 1965; Ramirez, 1969, 1970;

Schwartz, 1969; Henderson and Merritt, 1969). Furthermore, oral reading responses of dialectically different children are likely to be misinterpreted by teachers (Hughes, 1967; Labov, 1969; Shuy, 1969; Stewart, 1969). For some teachers, dialect differences may have been overemphasized as a causal factor for "inadequate responses" (Crowl and MacGinitie, 1970) or "bothersome" language behavior (Hughes, 1967); Goodman (1970) has suggested that teachers may misjudge the linguistic proficiency of speakers of "low-status" dialects because of their expectation models. For these teachers, dialect may have simply become a code word that implied low achievement. Instructional decisions may have resulted, then, in such reactions as downward adaptation of the curriculum or in attempts to modify a child's pronunciation which may have exacerbated rather than ameliorated his reading difficulties or his dialect.

Thus, in the population from which our sample was drawn, the Mexican-American child may experience some syntactical, but little or no phonological interference in reading during the primary grades if printed words are presented in context. Phonological ambiguities tend to be reduced or eliminated and communication between teacher and child improved if words are presented in context. Furthermore, if comprehension of reading material for the child and evaluation of his performance by the teacher is not based on reading words in isolation but is assessed on reading paragraphs, then dialectically determined phonological ambiguities at the word level, such as homophones (seek-sick), are not likely to interfere because they tend to be resolvable at the sentence and certainly at the paragraph level. Likewise, determination of whether the child is making a "real" or a dialect reading error should depend on the child's comprehension: if he recodes in dialect as he reads, but can restate what he reads in his own words, then dialect cannot

be said to interfere with understanding. If the word is out of context and recoded in dialect, the teacher should test for comprehension by putting the word into context to determine whether the child can then attain meaning. Teachers would thus be able to differentiate recoding or encoding from decoding errors.

Conclusion

Throughout the past decade, dialect has been emphasized as a causal factor of reading deficiencies in such minority groups as blacks and Mexican-Americans. But a search of the literature has not revealed any hard evidence to support this contention. On the contrary, some evidence has been adduced that dialect differences in their phonological aspect are not significantly related to reading achievement. However, our results indicate that syntactic ability is inversely related to reading achievement, but not across all grade levels. Furthermore, in our sample of Mexican-American children, degree of listening to Spanish was negatively related to development of syntactical ability, which in turn was negatively related to oral reading achievement. Consequently, dialect is at least indirectly associated with, if not a causal factor in, interference with oral reading performance. Therefore, a differentiated concept of the relationship between dialect, language development, and achievement is necessary. In general, we would agree with the hypothesis that dialect variation is of importance to reading to the extent that dialects differ on the syntactic level, and that dialectical differences in phonological rules are irrelevant (Chomsky, 1970; Stewart, 1969). However, this hypothesis has to be qualified further: whether syntactical or lexical differences in dialect affect reading performance is also a function

of the child's linguistic development and the nature of the reading task. As the dialectically different child progresses on the linguistic continuum in his second language, he will, of course, tend to have less difficulty performing in that language. Furthermore, the less the reading task involves words in isolation, lexical unfamiliarity, or syntactical complexity, the less will be the impact of dialect on reading achievement. This differentiation should help resolve the controversy on the relationship of dialect to reading achievement.

Table 1

Oral Reading Scores by Grade and School

	School A			School B			Schools A & B		
Grade	1	2	3	1	2	3	1	2	3
Mean	1.77	2.59	3.41	1.98	3.63	3.49	1.88	3.11	3.45
SD	.22	.74	.80	.95	.88	1.08	.68	.96	.93

Table 2

Language Background and ITPA Scores
by Grade and School (Grades 1 and 3)

	School A		School B		Schools A & B	
Grade	1	3	1	3	1	3
Language Scale:						
Listening						
Mean	2.14	2.20	2.69	2.56	2.43	2.40
SD	.87	.92	.54	.48	.75	.44
Speaking						
Mean	1.33	1.32	1.67	1.26	1.51	1.29
SD	.77	.28	.72	.39	.74	.34
ITPA Subtests:						
Visual Reception						
Mean	33.0	32.4	33.2	36.0	33.1	34.2
SD	8.79	8.83	5.22	2.54	7.04	6.59
Auditory Reception						
Mean	30.6	32.6	33.3	31.6	31.95	32.1
SD	5.62	6.31	7.09	8.28	6.38	7.18
Visual Association						
Mean	37.8	31.3	38.8	33.4	38.3	32.4
SD	3.97	6.62	6.01	6.22	4.99	6.34
Auditory Association						
Mean	31.0	36.4	29.3	39.8	30.2	33.1
SD	4.5	5.32	8.68	11.93	6.78	9.61
Auditory Sequential Memory						
Mean	35.6	37.9	36.8	38.2	36.2	38.1
SD	4.9	4.79	6.97	5.92	5.90	5.25
Visual Closure						
Mean	30.9	31.3	32.7	37.8	31.8	34.55
SD	5.51	6.43	6.18	6.63	5.78	7.18
Grammatic Closure						
Mean	31.5	29.4	30.2	24.8	30.9	27.1
SD	6.00	7.90	7.57	9.14	6.68	8.64

Table 3

Correlations of Reading, Language Background and ITPA Subtests (Combined Schools)

	Grade 1			Grade 3		
	Oral Reading (N = 20)	Language Background Listening (N = 17)	Speaking	Oral Reading (N = 20)	Language Background Listening (N = 18)	Speaking
ITPA Subtests						
Visual Reception (essential visual relationships)	-.320	.069	.062	-.191	-.075	-.144
Auditory Reception (vocabulary)	.497*	-.375	.032	.334	-.206	-.07[illegible]
Visual Association (picture relationships)	.446*	-.177	.063	.243	.042	.048
Auditory Association (verbal analogies)	.428	-.227	-.226	.257	-.631**	-.217
Auditory Sequential Memory (memory for digits)	.124	-.250	-.137	.481*	-.002	-.154
Visual Closure (hidden partial figures)	.079	-.069	-.267	.182	-.047	-.495*
Grammatic Closure (completion of oral sentences)	.412	-.023	.198	.539*	-.526*	-.143
Oral Reading	----	-.157	-.096	----	-.165	-.151

*correlations significant at the .05 level
**correlations significant at the .01 level

Table 4

Correlations of Language Background, Syntax and Reading

	Grade 1	Grade 3
Language Background (Listening) x ITPA Grammatic Closure (Syntax)	-.023	-.526*
ITPA Grammatic Closure (Syntax) x Oral Reading	.412	.539*
Language Background (Listening) x Oral Reading	-.157	-.165

*correlations significant at the .05 level

Footnotes

[1]This study was supported by University of California Intramural Research Grant No. 1018.

[2]Appreciation is expressed to Sandra Prasad, Grace Ritchie, Bette Flushman, Donna Shannon, and Sharon King for their assistance in conducting the parent interviews and testing the children, and to Kathy Williams for her assistance in data analysis. Thanks is also expressed to Tom Armbruster, graduate student in Education and Linguistics, for his linguistic analysis of the taped oral reading and spontaneous speech of the children. The cooperation of Dr. Allan Metcalf, Chairman of the Linguistics Committee, University of California, Riverside, of Dr. Mabel Purl, Director of Research, Riverside Unified School District, and of the children, parents, and staffs of the schools involved, is gratefully acknowledged.

[3]Data for our second grade sample will be furnished on request by the authors.

[4]For a comprehensive listing of Spanish-English errors, see Lado (1964) and Stockwell, et al. (1965).

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