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The University of Oklahoma, Ph.D., 1972
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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

THE MEXICAN AMERICAN SUBCULTURE: A STUDY IN TEACHING CONTRASTIVE SOUNDS IN ENGLISH AND SPANISH

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

BY

OPAL THUROW WHITE

Norman, Oklahoma

1972

THE MEXICAN AMERICAN SUBCULTURE: A STUDY IN TEACHING CONTRASTIVE SOUNDS IN ENGLISH AND SPANISH

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ACKNOWLEDGEMENTS

The author wishes to express appreciation to the members of her committee, Dr. William Carmack, Dr. H. Wayland Cummings, and Dr. Carl B. Cass, for their assistance, encouragement and constructive criticism. To Dr. L. Brooks Hill, Chairman of the Committee, the writer is deeply indebted for technical assistance and scholarly insights.

A special acknowledgement is made to the sons of the writer, Robert White, William White, and Timothy White, for their faith in her.

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THE MEXICAN AMERICAN SUBCULTURE: A STUDY IN TEACHING CONTRASTIVE SOUNDS IN ENGLISH AND SPANISH

CHAPTER I

INTRODUCTION

The Mexican American subculture in the Southwest presents an enigma to laymen as well as to many social scientists. American society has ingested many diverse foreign people, assimilating and acculturating them, but those of Mexican descent appear to be a baffling exception. Many Mexican Americans retain substantial elements of the Mexican culture and as a group continue to occupy low social and economic status. This situation persists in spite of the fact that a few Mexican Americans can trace their origins in the Southwest to the sixteenth or seventeenth century; others, the majority, are descendants of Mexicans who arrived early in this century.

Social scientists concerned with formal educational institutions pose a related question: Why has the school failed to offer Mexican Americans substantial aid toward climbing the social and economic ladder and losing their

"foreignness"? Educators pose another related question: Why the persistence of Spanish?[1] Although Joshua Fishman and John Hoffman, in Language Loyalty in the United States, cite the public schools as a major factor in the process of acculturation of the foreign born; they also show conclusively that "Spanish is the most persistent of all foreign languages, and the one with the greatest prospects of survival."[2]

Texas has over 550,000 Spanish surname pupils in the public elementary and secondary schools, two-thirds of which are enrolled in twenty-seven counties along the Mexican border or a short distance from it.[3] This presence of large concentrations of Spanish-speaking children in South Texas has brought about acute educational problems, such as enrollment and retardation, de facto segregation, drop outs, overageness and retardation, and linguistic handicaps. All the state and national statistics place the Mexican American at or near the bottom of the academic scale.[4]

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[1]Thomas P. Carter, Mexican Americans in School: A History of Educational Neglect (New York: College Entrance Examination Board, 1970), p. ix.

[2]Joshua A. Fishman and John E. Hoffman, "Mother Tongue and Nativity in the American Population," Language Loyalty in the United States, ed. by Joshua A. Fishman (The Hague; Mouton & Co., 1966), p. 37.

[3]Leo Grebler, Joan W. Moore, and Ralph C. Guzman, The Mexican-American People (New York: The Free Press, 1970), p. 105.

[4]Ibid.

The United States Commission on Civil Rights Report found that in school districts in Texas that were ten per cent or more Mexican American over fifty per cent of the pupils did not have sufficient English to enter the first grade.[5] The enormity of the problem that confronts educators in South Texas becomes understandable when it is known that in the twenty-seven counties bordering Mexico the majority of schools have from fifty to one hundred per cent Mexican American enrollment.[6]

The general focus of this study is on problems related to the "persistence" of Spanish, particularly in South Texas. The specific purposes are to analyze the problem and formalize a program for the teaching of the contrastive sound systems of English and Spanish which can be used in the classroom to improve the speaking of English by Spanish-speaking students.

Method and Organization

This study is divided into four parts. The first is included in Chapter II and is designated as "Retention of Spanish in the Southwest." In it is an overview of the history of the subculture of the Mexican American in Texas. It focuses on the influences that have produced the unique

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[5]United States Commission on Civil Rights, Mexican American Education Study (Washington, D.C.: United States Government Printing Office, April, 1971), p. 17.

[6]Ibid., p. 22.

position of the Mexican American in the history of the acculturation of the foreign born. It then analyzes the effects that retention of Spanish has had on the Mexican American socially, economically, and educationally.

This part of the study is especially important because among the large minority racial groups in the United States, unquestionably the least has been written about the Mexican American. Articles, scholarly studies, and essays, not only are few but often are in obscure sources. Until the decade of the 1960's it was difficult to secure information on this important ethnic group. For most Americans the Mexican American is a relatively little known group; it is no coincidence that Samora's book bears the title La Raza: Forgotten Americans; Heller's study, Mexican American Youth: Forgotten at the Crossroads; Sanchez's major work is titled Forgotten People; and the N.E.A.'s Tuscon study "The Invisible Minority."

Furthermore, the problems presented in this part of the study will not disappear with time. Leaders in the Southwest now recognize that maintaining a rapidly increasing Mexican American population with low status as a group and poor education represents a serious threat to societal stability. While such a population may have served the old rural Southwest well, presenting no threat to the social equilibrium, its persistence at present contributes to many undesirable and unsettling conditions.

For a long time to come there will be two distinct linguistic and cultural groups in South Texas. Assuring this is the gross difference in standards of living as between the United States and Mexico, with the lowest socio-economic groups in South Texas earning many times more than what they would earn in Mexico. Mexicans will find some way to get across the border, and some way to work, legally or illegally, for wages low enough to compete with domestic labor. They will live in areas and in dwellings in which Anglos refuse to live, and will create large populations in these areas by following the dictates of their culture and their religion. They will necessarily communicate among themselves in Spanish, and radio broadcasters will tell them in Spanish where to buy their food and clothing. Many will migrate too often for their children to get full benefit of the schooling offered them. And when they finally step outside this process and into something like middle-class life, there will be other Mexicans waiting to take their places.[7]

The second division of this study, Chapter III, examines the school programs in South Texas and evaluates them in terms of teaching the Spanish-speaking child to speak English. Until very recently no special attention was given to the Spanish-speaking child. He was presented the same

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[7]Jane MacNab Christian and Chester C. Christian, Jr., "Spanish Language and Culture in the Southwest," Language Loyalty in the United States, ed. by Joshua A. Fishman (The Hague: Mouton & Co., 1966), pp. 313-314.

program that the English-speaking child received. In recent years enormous political pressure has been placed on the educators in Texas to better assimilate the Mexican American. The federal government has recently made available financial assistance to develop special school programs for the Mexican American. In the late 1950's a number of Texas districts began experimenting with preschool ESL (English-as-a-Second-Language) programs. Most Texas schools now provide some form of remedial program to improve the ability of the Mexican American in the language arts. However, the overwhelming majority of reading or language-arts remedial programs are not substantially different from those for "slow" learners of the general population.[8] Since 1964 a few pilot programs have introduced bilingual teaching into the schools of South Texas. These and other special programs are examined and evaluated as to their pertinence in teaching the Mexican American child to speak English well.

The third division of this study is devoted to the psychological concepts involved in the teaching of English as a second language. Many psychological theories are used to explain the process of learning a first or second language, but two principal methods of teaching language have been prevalent in modern educational literature; the direct method and the structural method. This study reviews the methods of teaching a second language and from them and from the

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[8]Carter, p. 156.

psychology of language acquisition projects theoretical implications for teaching pronunciation of English to the Spanish-speaking child.

The fourth division of this study, in Chapter V, provides for the "average" teacher an instructional program of contrastive English-Spanish phonology, morphology, and intonation pattern. The purpose is to help equip the classroom teacher to meet the problem of the Spanish "accent." If the problem is to be met "it must be done by the classroom teacher."[9] This training combines what is generally thought of as speech-correction techniques for developing new skills in the manipulation of the vocal mechanism--with a knowledge of the structural characteristics of English and Spanish sound systems.

Second language learning requires a change in pattern of intonation, stress, rhythm, in addition to changes in the distinctive sound units called phonemes. Thus, the child with a so-called foreign accent can be said to possess "deviations in articulation, voice, and symbolization."[10] These language patterns are habituated reactions which have been acquired in an intimate cultural setting. The explanation for a foreign dialect is to be found in the differences in the sound systems of the two languages. The teacher of

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[9]Carlos Calderón, "Put Accents on Speech Error," The Texas Outlook (February, 1959), p. 26.

[10]Fred M. Chreist, Foreign Accent (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. xv.

Spanish-speaking children should be competent to compare the sounds of the two languages for similarities and for differences.[11] Sound discriminations "should be started as soon as the Spanish-speaking child enters school."[12]

In spite of the arbitrariness of speech sounds and word combinations, the fact that language has system makes work with foreign accent possible. Though the Spanish-speaking child may seem to interject his language system randomly into English, it is possible to study his production and to show that his mistakes are not random at all. The systematic comparison of his language and English will make it possible to understand his substitutions, distortions, omissions, and additions of sounds. To evaluate the foreign language problem, the teacher should have at hand a comparison of the "segmental" phonemes of the two languages, a list of the variations or individual features of the two languages, a chart of the arrangements or distributions of these phonemes in each language, and a knowledge of the intonation, rhythm, and stress patterns of each language.

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[11]Jesse J. Villarreal, "Foreign Dialect," Bulletin of the National Association of Elementary School Principals, XXIV (November, 1950), 68.

[12]Charles C. Fries, Teaching and Learning English as a Foreign Language (Ann Arbor, Michigan: The University of Michigan Press, 1945), p. 3.

Rationale for Study

Granted the significance for educating the Mexican American, the primary rationale for this particular study is that this subject area of concern is the most neglected in the school systems of South Texas. Dr. Villarreal, Chairman of the Speech and Hearing Department of the University of Texas, demanded as early as 1950 that the classroom teacher must be trained in bi-lingual phonetics. He stated that there were generally two classes of elementary teachers in the schools of Texas: those of Mexican American descent who were products of the schools of Texas and still had Spanish accents and those of Anglo descent "who usually speak adequate English but have no knowledge of the Spanish language. Neither is competent to teach speech to the child who has Spanish for his first language."[13] Since the problem of Spanish dialect is so vast in these areas, speech therapists, where the schools have them, will not even try to touch it. Furthermore, few therapists are trained to handle Spanish-English language problems. Dr. Villarreal summed up the problem when he stated that "Spanish foreign dialect is the rule rather than the exception."[14]

Carter in his comprehensive survey of the educational system of Texas found that the correction of Mexican American accents represents an "area of remediation being attempted on

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[13]Villarreal, "Foreign Accent," p. 68.

[14]*Ibid*.

a very limited scale."[15] Only a few educators consider this much of a problem. Carter says that "few seem to recognize that accented speech can be a severe stigma operating to the social and economic detriment of Mexican Americans."[16] Likewise, Dr. Calderón has long stressed that standard English is essential and possible for Spanish speakers provided that "teachers recognize the problem and use correct instructional procedures."[17]

Limitations of Study

This study is basically limited to the systematic analysis of the contrasts between the sound systems of English and Spanish. There is no specific intent to consider the grammatical structures of English and Spanish. They are only considered inferentially in the stress, rhythm, and intonation patterns. There is also no specific intent for the study of teaching semantics.

The system of phonetic transcription in this study is limited to the International Phonetic Alphabet. Kenyon and Knott's A Pronouncing Dictionary of American English is used as a reference for Standard American English.

Sources of Material

The sources of the material in this study are of necessity varied and interdisciplinary. Especially helpful in

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[15]Carter, p. 161. [16]Ibid.

[17]Calderón, "Put Accents in Speech Errors," p. 26.

the background area were Fishman's Language Loyalty in the United States and his Bilingualism in the Barrio. Other insightful works in this area are those by Dr. George I. Sanchez, Professor of Latin American Education, and Dr. Hershel T. Manuel, Professor of Mexican and Latin American History, both of the University of Texas. Under a research grant from the Hogg Foundation, Professor Manuel has worked since 1958 researching the Spanish-speaking children of Texas. Of particular interest to him is the problem of the persistence of Spanish and the Spanish accents which he feels greatly handicap Spanish-speaking children. Two history professors from the University of Texas at El Paso have contributed important works to the Southwest Studies series: Los Chicanos: An Awakening People by John Haddox, and Mexican-Americans: A Handbook for Educators by Jack D. Forbes. Other useful works are Carey McWilliams' The Mexicans in America: A Student's Guide to Localized History; Julian Nava's Mexican Americans: A Brief Look at Their History; and William Madsen's Mexican Americans of South Texas.

For influences on the persistence of Spanish in the Mexican American subculture, research projects are primarily used. Two reports from the Texas Education Agency, two reports from the survey made by the United States Commission on Civil Rights, the Coleman Report, and the HEW Title VI Report provide an excellent cross section of statistical material. Two recent books are very valuable: Thomas Carter's

Mexican Americans in School: A History of Educational Neglect was written after a two year research of Texas education; Grebler, Moore, and Guzman's The Mexican American People is the culmination of four years of careful research of the Mexican American people in the Southwest.

In the area of the special programs for teaching the Mexican American child Carter's book provides a good summary. The two reviews by Professor Theodore Anderson of the Foreign Language Education Center of the University of Texas is a reliable in-depth source of information. Dr. Anne Stemmler's report on the experimental approach to the teaching of English to Spanish speaking students in the San Antonio schools provides a valuable source of information, particularly for the experimental work done in teaching sounds. Numerous reports and evaluations of the Head Start Program furnish insights into the teaching of English to pre-school children. Finally, the survey by Grebler, Moore, and Guzman is an excellent source of statistical reports.

In the area of psychological theory the Monograph Series on Language and Linguistics is especially helpful. Some of the theorists consulted for this area include Ling, Bruner, Piaget, Carroll, Jakobovits, Chomsky, Gaardner, Lambert and his associates at McGill University, Lado, Lenneberg, Haugen, Weinreich, McNeill, Jenkins, Macnamara, Brown, Hayes, Bellugi, Miller, Skinner, Mowrer, Osgood, and Gardner.

The principle source for the contrastive analysis of the sound systems is the Center for Applied Linguistics. Works used to authenticate material used in English-Spanish phonology included the following authors: Bowen and Stockwell, Bronstein, Pike, Trager and Smith, Lado, Fries, Van Scoy and Davis, and Wise.

CHAPTER II

RETENTION OF SPANISH IN THE SOUTHWEST

The study of language maintenance and language shift is concerned with the relationship between change or stability in habitual use, on the one hand, and ongoing psychological, social or cultural processes, on the other hand, when populations differing in language are in contact with each other.[1] These relationships have antecedent and concurrent influences that help define the demonstrable consequences of this contact with respect to habitual language use. It is with these antecedent and concurrent influences of the retention of Spanish in the Southwest and the resulting consequences that this chapter is concerned. The chapter has two principle divisions: First, the socio-historical overview explains the "uniqueness" of the Spanish-speaking subculture in the Southwest. Further, this section analyzes the Mexican American subculture in terms of Fishman's acculturation process in order to explain the present retention of

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[1]Joshua A. Fishman, Language Loyalty in the United States (The Hague: Mouton & Co., 1966), p. 424.

Spanish. Also included is a brief examination of the correlation between poverty in the Mexican American subculture and the lack of English speaking skills.

The second division of this chapter, failure in schools, seeks to examine the degree to which schools in Texas succeed in educating the Mexican American student. The first focus is on four measures of school-controlled educational outcomes: school holding power, reading skills, grade repetition, and overageness. The second focus is on the possible psychological effects of an English-oriented school on the Spanish-speaking child and the psychological disorientation of Mexican American youth as expressed in gang language.

Socio-Historical Overview

Spanish, like all languages, simultaneously preserves and is carried by a distinctive culture. It serves to set apart the societal group which adheres to it. For nearly four centuries the Spanish-speaking group in the United States has maintained much of its original character, but it has suffered many hazards of fortune during its residence in the Southwest. The status and nature of its language reflect these circumstances.[2]

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[2]Jane MacNab Christian and Chester C. Christian, Jr., "Spanish Language and Culture in the Southwest," Language Loyalty in the United States, p. 280.

Spanish-speaking people have been in the Southwest for over 365 years. The villages north of Santa Fe, New Mexico, founded in 1598, are among the oldest settlements of Europeans on the mainland of what is now the United States. The New Mexico settlement, followed more than a century later by those in Texas (San Antonio in 1718) and almost two centuries later by those in California (San Francisco in 1776), represent a colonial effort by Spain which left an indelible imprint upon the history and culture of the Southwest.[3] Still more important, that colonial thrust left people there, from California to Texas, whose descendants constitute a part of the group that are now referred to, very loosely, as Spanish-speaking.

The colonial hispanos were not culturally homogeneous. The nuevo mexicanos, having arrived in the region as early as 1598, were different from the californios and the texanos who arrived much later. The date of migration and settlement, geographic isolation, natural resources, the number and kind of Indians among whom they settled and mixed, resulted in not one Spanish-speaking people but several, each with distinctive cultural personalities.

Until about the middle of the nineteenth century, the californios, the nuevo mexicanos, and the texanos went

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[3]George I. Sanchez, "Spanish in the Southwest," Educating the Mexican American, ed. by Henry Johnson and William J. Hernandez (Valley Forge, Pa.: Judson Press, 1970), p. 29.

their separate cultural ways, held together only lightly, first by the tenuous link with Spain, and later for a brief time by the uncertain rule of independent Mexico. The annexation of Texas and the occupation of the rest of the Southwest by the United States changed the course of human affairs in this region. But the change was a slow one, unplanned and haphazard. The United States did not have the social institutions, the cultural knowledge, or the time to carry out an effective program of acculturation among her new citizens. With the United States preoccupied with the Civil War and Reconstruction, the new states and territories were left to shift for themselves and the Spanish-speaking people of the Southwest remained Spanish-speaking and culturally isolated.[4]

However, other things being equal, time alone might have had sufficient influence. In due course, the hispanos could have become full-fledged Americans. However, not only were the social institutions inadequate for the task, but it soon developed that changing conditions made it impossible for time alone to bring about the assimilation of these colonial people. After 1870 the southwestern scene changed rapidly. The coming of the railroad opened up new economic fields. The region ceased to be the "Wild West"; it became instead a land of opportunity.

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[4]Sanchez, "Spanish in the Southwest," p. 48.

These developments, in themselves, did not hinder the process of acculturation. On the contrary, they should have gone far toward aiding it, just as analogous developments farther east quickly made Americans of the heterogenous masses that thronged to America from Europe during the late nineteenth century.[5] However, in addition to the fact that southwestern developments were based largely on rural-life activities and on the production of raw materials in contrast to the urban industrial in the East, this area was sparsely populated and, insofar as the "American Way" was concerned, culturally immature and insecure. Worse still, the Southwest had to turn to Mexico principally for its labor supply. As a consequence, the region, already suffering from cultural polarity, added to its problems by importing thousands of Mexican families and again postponed the time for acculturation of its Spanish-speaking population.[6]

Even thus enlarged by immigration from Mexico, the Indo-Hispanic group probably could have been assimilated had the Southwest taken time to think out its cultural issues and to attack its increasingly complex socio-economic problems, particularly those of this ethnic minority. Virtually no thought was given to the educational, health, economic, or political rehabilitation of these Spanish-speaking people. After 1910 the opportunity had passed. Until then the issues

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[5]Fishman, p. 434.

[6]Sanchez, "Spanish in the Southwest," p. 49.

and problems were probably still of manageable proportions; they were now to grow beyond all hope of quick solution.[7]

The Mexican Revolution of 1910-1920 and World War I combined to bring many more thousands of Mexicans to the Southwest. Large numbers came as displaced persons, driven across the border by the Mexican Civil War. Even more people came as contract laborers, recruited by the trainload to work in the beet fields of Colorado, the gardens and groves of California, the cotton fields of Texas, the copper mines of Arizona, and even the iron works of Chicago, and the coal mines of West Virginia.[8]

After World War I the tide of immigration continued through the prosperous 1920's; it was stopped and reversed during the depression. When the extreme need for manpower arose during World War II, literally hundreds of thousands of contract workers were brought from Mexico. The mutual agreement between the governments of Mexico and the United States whereby these large numbers of workers, later called braceros, were recruited in Mexico and brought under contract to the United States, was so successful from the standpoint of the employers that braceros continued to be imported until 1964. This practice caused considerable unrest among the native Mexican Americans and other migratory laborers who felt strongly that "foreigners" were taking jobs which

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[7]Ibid., p. 51. [8]Ibid., p. 52.

should have been theirs.[9]

All during the 1940's, 1950's and 1960's the stream of Mexican immigrations continued. The first restriction came in the immigration quota legislation which went into effect in 1968. However, this quota law does not markedly affect the numbers of Mexicans coming to this country, for up to 120,000 a year, plus wives and children of citizens, may still enter. In addition, illegal entry continues and constitutes a major problem for the immigration department and the border patrol.[10]

In summary, the above overview outlines the general reasons for the "uniqueness" of the Mexican American in the acculturation pattern of this country. Two points are evident. The Southwest, more by omission than commission, has failed to assimilate its Spanish-speaking citizens into the "American Way" of life. It is also apparent that the continued influx of Mexicans into the Southwest keeps the problem of acculturation constantly in the foreground. Professor Manuel sums up the situation as follows:

> The year-by-year addition of an immigrant population to the resident Spanish-speaking population, together with the geographical continuity of the Southwest and Mexico, is a condition of significance to education and the public welfare. For an indefinite

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[9]John H. Burma, (ed.), Mexican-Americans in the United States (Cambridge, Massachusetts: Schenkman Publishing Co., 1970), p. xv.

[10]William Madsen, Mexican-Americans of South Texas (New York: Holt, Rinehart and Winston, 1964), p. 28.

> future this area will have a large first generation and second generation of Spanish-speaking immigrants.[11]

There are, however, more specific reasons for the unusual persistence of Spanish in the Mexican American subculture, particularly in South Texas, which has the most staggering problems in the Southwest.[12]

Texas was never so isolated from foreign influence as New Mexico or even California. Like California, it was settled too late in the Spanish period of rule to develop a characteristic subculture as happened in New Mexico, and so, too late to prevent the submergence of the Spanish culture and language under American influences. The numbers of Americans who flooded into east and central Texas overwhelmed the earlier Spanish population and forced it into a subordinate role. This was less true of South Texas or in the El Paso region, though Anglo-American political supremacy ultimately flowed into these areas too and destroyed many Spanish patterns. It remained for the twentieth-century migration from Mexico to repopulate Texas with a large proportion of Spanish-speaking people.[13] Specific cultural facts keep the

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[11]Hershel T. Manuel, Spanish-Speaking Children in the Southwest (Austin, Texas: University of Texas Press, 1965), p. 19.

[12]Texas Education Agency, Report on the Educational Needs of Migrant Children (Austin, Texas: Texas Education Agency, 1962), p. 2.

[13]Christian and Christian, "Spanish Language and Culture in the Southwest," p. 285.

Mexican American in South Texas culturally Mexican and linguistically Spanish.

Fishman's studies in language loyalty in the United States show that language assimilation is usually accomplished by the second generation; definitely by the third. Fishman states that the typical immigrant to this country shifts in language use as he gradually penetrates into increasing numbers of spheres (or domains) when the new language is desirable or necessary. In the first stage of acculturation in the United States, English is used in a few spheres, such as work and official situations where the mother tongue cannot be used; in the second stage, immigrants not only use English in an increasing number of spheres, such as neighborhood stores, social contacts, and other community spheres, it begins to creep into casual conversation; in the third stages there is a maximum overlap between language and spheres of life. The children become acculturated in school, have friends outside their language unit, and bring English into the home, which usually requires that the parents ultimately use English in the home. In the final stage, English has almost entirely displaced the mother tongue.[14]

Mexican Americans depart from the typical immigrant pattern of succession through these stages in one or two

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[14]Joshua A. Fishman and John E. Hofman, "Mother Tongue and Nativity in the American Population," Language Loyalty in the United States, ed. Joshua A. Fishman (The Hague: Mouton & Co., 1966), p. 37.

generations for a variety of reasons, and these reasons are rooted in their qualities as a minority in our society. Most immigrants from Mexico are well down on the economic scale when they come to this country. They are, in the main, unskilled or semi-skilled laborers, dissatisfied with conditions in Mexico, hoping that in the North they can improve their lot, and many times planning to some day return to Mexico.[15]

In South Texas, these immigrants, speaking no English, move into barrios, colonias, vecinos, "language islands" where they will hear only Spanish. Here they find little compulsion to learn English. The first stages of Fishman's language assimilation process do not touch them. The labor agent who finds work for them will be more or less bilingual; the foreman or the work crew leader will be bilingual; the patron or politico who arranges any needed government business will be bilingual. If they go to work on a ranchito, the foreman and in most cases the owner are both bilingual. Most Anglo owners of ranches or grove developments are bilingual. Many of the ranchers close to the border are Mexican American. The new immigrants will buy their groceries from a little store in the barrio where only Spanish is spoken and where they can run credit from one payday to another. If they go to church they will hear Spanish spoken, that is, if they go

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[15]Leo Grebler, Joan W. Moore, and Ralph C. Guzman, The Mexican-American People (New York: The Free Press, 1970), p. 428.

to church in their barrio area, whether Catholic or Protestant.[16]

Fishman's stress on the "socializing" aspects of the acculturation process again does not fit the Mexican American in South Texas. Most of his "social" contacts will include the extended "family" or friends in the barrio. If he wants to see a movie, there are several available in Spanish, usually made in Mexico, in every "Mexiquita" section in every town, big or small in South Texas. If he is literate there are Spanish newspapers for him to read.[17]

Probably the most influential medium is the radio. Spanish broadcasting accounts for 66 per cent of the total foreign language broadcasting in the United States and 86 per cent in the Southwest.[18] Many radio stations on the Texas side of the border broadcast all their programs in Spanish. Most stations in South Texas broadcast some of their programs in Spanish. American companies pour substantial advertising money into the powerful stations on the Mexican side of the border. Mexican specialties put out by major American companies (like Masa Harina, distributed by Quaker Oats), and producers of standard products like Pepsi-Cola make a special effort to capture the large Mexican American market.

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[16]Grebler, Moore, and Guzman, p. 488.

[17]Ibid., p. 432.

[18]Mary Ellen Warshauer, "Foreign Language Broadcasting," in Language Loyalty in the United States, p. 80.

Spanish-language television is also growing in South Texas, with a network hooked in with a Mexican network and running two American stations (Los Angeles and San Antonio) and five border stations.[19]

In summary, the Mexican American immigrant in South Texas does not as a rule fit into the normal pattern of acculturation. He tends to live and function on this side of the border in a miniature Mexico. Certainly his assimilation is slowed by the subculture in which he lives. All of which adds to the persistence of the use of Spanish.

The last point to be considered in this section is the correlation between poverty and the language barrier. Throughout the long history of Mexican Americans, poverty has been their crucial problem. Mostly functionally illiterate (in English at least), they are often untrained in a skill saleable in the United States for more than a minimum wage. Because of their language handicap they are unable to function to full capacity in an alien culture. Because of these conditions they are forced into the poorest jobs, and the Mexican male in only a small proportion of cases is able to care for his usually large family above the poverty level.[20] Grebler and his associates found a direct relationship between income and the proficiency in English of the Mexican American. In

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[19]Grebler, Moore, and Guzman, pp. 431-432.

[20]John H. Burma, p. xv.

their survey of the Mexican American in Texas in 1968 they found that "linguistic competence--especially in English--varies by income within neighborhoods of similar ethnic composition. Even in the predominantly Mexican-American areas, upper-income people have far less trouble with English than lower-income respondents."[21]

The Mexican American registers a far greater percentage of the poor than of the total population. Over half of the Spanish surname people in Texas (1960 census) had incomes less than $3,000.[22] In South Texas (1968) the median income for Spanish surname families was $2,200 a year. Starr County on the border had a per capita income (for all the population) of $534 and Laredo, another border county, had $937. Galarza and his associates in their survey of South Texas found that "the inability to speak adequate English relegates the Mexican American to the poverty class."[23]

In summary, the learning of a second language and the use of that language, while still imperfectly learned, as a tool for other learning place a heavy handicap on many Spanish-speaking children. Often added to this burden is the handicap of poverty. As pointed out, the average economic level of the Spanish-speaking people of South Texas is much

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[21]Grebler, Moore, and Guzman, p. 424.

[22]Manuel, p. 46.

[23]Ernesto Galarza, Herman Gallegos, and Julian Samora, Mexican-Americans in the Southwest (Santa Barbara, California: McNally & Loftun, Publishers, 1969), p. 31.

lower than that of the population as a whole. Children in this large poverty group have special educational needs because of the deficiencies of their homes.

Failure of the Schools

A variety of factors influence a child's development and determine whether he will become a productive member of society and realize the full potential of his abilities. Of these, the experience a child has in school is among the most important. For Mexican American children, the experience afforded them by the schools is of critical importance in shaping the future course of their lives. For these children, the schools represent the opportunity to intervene in the cycle of failure and rejection which is so often their fate.[24] In order to fulfill such a function the schools must first enable the Mexican American children to succeed in their school environment. In South Texas, all second generation Chicanos speak some English, and some fourth generation Chicanos cannot converse in Spanish, but in general the Texas educational system functions far from perfectly for this ethnic group. The vast majority of Mexican American children who are subjected to the same program of education as

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[24]For a discussion of the greater importance of school factors to the achievement of minority children than to white Anglo children, see James S. Coleman, et al., Equality of Educational Opportunity, U.S. Department of Health, Education, and Welfare, 1966, p. 22.

English-speaking children have been considerably less than successful.[25]

The United States Commission on Civil Rights made a comprehensive assessment of the nature and extent of the educational opportunities available to Mexican Americans in the public schools of five southwestern states. This report concentrated on the performance of schools as reflected in the achievement of their pupils. The principal sources of the material in this report are the Spring 1969 Commission Survey of Mexican American Education and the Commission's tabulation of the Department of Health, Education, and Welfare's Fall 1968 racial and ethnic education survey.[26]

The Texas survey area demonstrates the poorest record of any of the southwestern states in its ability to hold minority students in school. The state's performance in keeping Mexican Americans in school is especially poor. The average number of years of school completed for Anglos is (1968 survey) 10.8; for non-whites (mostly Negro), it is 8.1; but only 4.7 years for persons of Spanish surname from Spanish-speaking homes in South Texas. The Commission estimated that in 1968 there were about 200,000 Mexican Americans in grades one through six in the public schools of Texas.

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[25]Burma, pp. xvi-xvii.

[26]The Unfinished Education: A Report of the United States Commission on Civil Rights (Washington, D.C.: United States Government Printing Office, October, 1971), Report No. 2.

According to the Commission, if the present rate of attrition continues "over 140,000 of these Texas youngsters will never receive a high school diploma."[27]

School holding power represents only a quantitative measure of a school's effectiveness. It does not measure the quality of education the child receives nor does it indicate the quality of individual achievement. Reading achievement levels have traditionally been recognized as a means of determining school achievement because ability to read is usually necessary to succeed and progress in other academic subjects. Moreover, a number of studies have shown that poor reading achievement and dropouts go hand in hand.[28]

The Commission found that 51 per cent of Mexican American children in the fourth grade are reading below grade level; by the eighth grade 64 per cent read below grade level; and by the 12th grade, despite the fact that many of the poorest achievers have left school, 63 per cent of the Mexican American students are still performing below grade level in reading. The problem of severe (two or more years below grade level) reading shows 17 per cent of Mexican Americans in the fourth grade, and by the 12th grade 40 per cent of these

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[27]Report of the U.S. Commission on Civil Rights, No. 2, p. 17.

[28]See "American Education," HEW/OE, Washington, D.C.: January-February, 1970, p. 4. and "School Dropouts: Research Summary," National Education Association, Washington, D.C.: 1967, p. 15.

students have severe reading retardation.[29]

Grade repetition and its correlate, overageness for grade assignments, are two other ways in which school achievement can be measured. The Commission found that at all grade levels in Texas a large proportion of Chicano children "are two or more years overage for their grade level."[30] The Commission also found a strong relationship between grade repetition and low student achievement. The report explains that the State of Texas "which has the highest proportion of grade repetition for Mexican Americans in the first and fourth grades, also has 74 per cent, the highest proportion, of Mexican American eighth graders reading below grade level."[31]

Of special significance to this study, the Commission found high correlation between overageness, repetition of grades, and ability to read, to the language problem. The Commission's 1969 survey found that in districts that were 10 per cent or more Mexican American over 50 per cent did not have sufficient English to enter the first grade. In Texas, grade repetition has become institutionalized. School districts in Texas administer the Inter-American Test of Oral English to all entering first graders in order to determine their language readiness for the grade.[32] If the student

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[29]Report of the U.S. Commission on Civil Rights, No. 2, p. 24.

[30]Report of the U.S. Commission on Civil Rights, No. 2, p. 36.

[31]Ibid.

[32]Ibid., p. 38.

scores low on this test, he is placed in a pre-first grade class, and is thereby required to repeat the grade.

The supporting notion for the pre-first grade is that the Chicano child will learn sufficient English so that the next year he can compete with other children in an English-oriented first grade. Carter found in his South Texas survey that no special teacher training is required for these pre-first grade teachers. In most cases the training represents only a repetition of the first grade.[33] Furthermore, separating the Spanish-speaking children from the English-speaking children, according to linguistic studies, contributes to the retention of the mother tongue; linguists have found that children are more influenced by their "peers" than by any other group.[34] Compounding this effect, these children will probably have little contact with Anglo children until they reach high school.[35] The HEW Title I survey of Texas schools in 1968 revealed that 57.7 per cent of Mexican American students were in districts 50-100 per cent Mexican American enrollment. At the elementary level in South Texas, 70 per cent

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[33]Thomas P. Carter, Mexican Americans in School: A History of Educational Neglect (New York: College Entrance Examination Board, 1970), p. 126.

[34]Walt Wolfram, "Linguistic Assimilation in the Children of Immigrants," The Linguistic Reporter, XIV (February, 1972), 1.

[35]Carter, p. 28.

of all Mexican American pupils are in predominantly Mexican American schools.[36]

In summary, in south Texas Spanish speakers suffer from their location at the bottom of the socio-economic scale; education is considered to be the solution to the problem of the Spanish-speaking people. The educational system in the past has not met the needs of these Spanish-speaking people, and they return to the bottom of the socio-economic scale with little English and not much Spanish. An educational attainment of eight years or less is automatically bracketed with the occupational capability and income level of a manual laborer.[37]

That the present system of education in south Texas has forced the Spanish-speaking child into English oriented schools with serious psychological effects is a second major concern of this section. No real experimental work has been done on this subject, but several investigators have done survey work within the Mexican American school populations. Further, numerous conferences on the education of the Mexican American child have centered on this point.

The average Mexican American child comes to school speaking Spanish. However, Professor Manuel says that "most

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[36]Ethnic Isolation of Mexican Americans in the Public Schools in the Southwest: Mexican Education Study (United States Commission on Civil Rights, Washington, D.C.: Government Printing Office, April, 1971), Report I. p. 22.

[37]Burma, p. 39.

Spanish-speaking children of the Southwest know neither English nor Spanish well. Generally speaking, their home language is a poor grade of Spanish."[38] The average child may know some English but has used it infrequently. The language of his childhood, his first years, is Spanish. His environment, his experience, and his very personality have been shaped by it. To understand how totally Spanish-oriented the background of the Mexican American child can be, consider the results of a study made by Burma in San Antonio in 1965. Six hundred Mexican American adults ranging from low to high economic status were interviewed, and it was found that 71 per cent of husbands and wives spoke only Spanish to each other. Among the grandparents, 94 per cent spoke only Spanish to their children, and 89 per cent spoke only Spanish to their grandchildren.[39]

Understandably, the child from this Spanish saturated environment, once embarked on his school career, finds himself in a strange and even threatening situation. The language of instruction is English. Yet English, as Professor John Sharp expressed at the El Paso Conference on Education of Mexican Americans, may be "no less a foreign language to him than it would be to a child from Columbia or Argentina." According to Sharp, the child "suddenly finds himself not

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[38]Manuel, p. 117.

[39]Burma, p. 108.

only with the pressing need to master an (to him) alien tongue, but, also at the same time, to make immediate use of it in order to function as a pupil. His parents, to whom he has always looked for protection can be of no help at all to him in his perplexity." Moreover, as a result of cultural and economic differences between English-speaking and Spanish-speaking segments of his community, many of the objects, social relationships, and cultural attitudes presented to him in his lessons, though perfectly familiar to an Anglo youngster, lie beyond the Mexican American's home experience. Dr. Sharp concludes that "accordingly, the problem of learning English is, for him, enormously increased by his unfamiliarity with what objects and situations the no less unfamiliar words and phrases stand for."[40]

Even in school with an almost total Spanish American enrollment--schools, which for all practical purposes, are de facto segregated--textbooks and curricula used are usually the same as in schools with a large Anglo American majority. The subject material is taught in English from the first grade on up, and no classes specifically with English as a foreign language are offered. Operating under such unrealistic conditions, conscientious teachers and administrators have done the

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[40]John Sharp, Speech delivered before the Conference on Education of Mexican Americans, quoted in "The Invisible Minority," Report of the NEA-Tucson Survey: Department of Rural Education (National Education Association, Washington, D.C., 1966), pp. 6-7.

best they could for the students. Subject matter is watered down and used as a means to teach English.[41] During the two or three years of primary school while the pupil is acquiring a minimal knowledge of English, he falls seriously behind his English-speaking contemporaries in other phases of the curriculum. This loss in subject-knowledge is seldom made up by the time he enters high school, where he finds himself unable to compete scholastically with his Anglo American schoolmates.[42]

Psychologists at the present time are probing the role of language in the intellectual development of children. There is a shift away from a preoccupation with the accumulation of information as a focus of learning to an emphasis upon basic processes.[43] Cognitive theorists such as Piaget and Bruner[44] have been particularly influential in this trend. Instruction in the native language assumes a particularly important role in the context of this newly formulated stress upon learning to learn as the major task of education for young children.

According to a cognitive view of early development,

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[41]Carter, Mexican Americans in School, p. 106.

[42]Ibid., p. 108.

[43]Vera P. John and Vivian M. Horner, "Bilingualism and the Spanish Speaking Child," in Language and Poverty, ed. by Frederick Williams (Chicago: Random House, 1967), p. 148.

[44]See Jean Piaget, Six Psychological Studies (New York: Random House, 1967) and J. S. Bruner, Studies in Cognitive Growth (New York: Wiley, 1966).

much early learning consists of the reduction of ambiguity, the ordering of the "buzzing of confusion" that surrounds the child. The child imitates and discovers ordering devices; he groups events and people into classes; he learns to recognize regularities in time, sequence, and routines. Language plays a critical role in this process of creating subjective order in the life of the young child. Children, during the pre-school days, develop a variety of ways to conceptualize the world around them. But between the ages of five and seven, children's use of the language accelerates; words become a medium of learning and problem solving. It is at this very age that the non-English speaking child is ordinarily confronted with the demand to learn in English, and indirectly, to think in English.[45]

Present educational practice does not meet the needs of poor children generally; but it is especially inadequate for the non-English-speaking child. The individual with foreign-language skills at school entry all too often leaves as an individual with poorer prospects than most, his native language destroyed or carefully closeted, and his second language not well-enough developed to offer him even the narrow range of options open to the poorly educated monolingual.[46]

This disorientation of the non-English-speaking child leads to a third major point of this section. From the

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[45]Vera John and Vivian Horner, "Bilingualism and the Spanish Speaking Child," p. 148.

[46]<u>Ibid</u>., p. 150.

Mexican-American subculture a youth subculture has arisen. Life in the Spanish-speaking family and neighborhood is so complete in itself that the child usually makes little contact with Anglo society until he enters elementary school. His emotional satisfactions so far have come from playing with children, not with toys. The disposition to value human relationships over material welfare is ingrained early. That, as a school child, he does not readily reject his old values and embrace Anglification is a source of never-ending amazement to school officials.[47] Few educators realize that the Spanish-speaking child has never accepted the transcendent value of material goods and socio-economic success, and furthermore, that he has received most of his personal gratification from a world in which these are virtually unknown.

The elementary school child does not, of course, realize that he is rebelling against Anglo culture as a member of the Hispanic culture. However, his identification is with the people who satisfy his needs.[48] Burma states that many younger Mexican Americans, educated in Anglo-oriented schools, have not been able to relate in a positive manner toward either the north Mexican or Mexican-Anglo mixed cultures, primarily because their parents have been unable to transmit effectively the Spanish language and Mexican heritage

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[47]Christian and Christian, "Spanish Language and Culture in the Southwest," p. 311.

[48]*Ibid*.

to them. At the same time the public schools have either attacked or completely ignored that heritage and have attempted to substitute an often watered-down Anglo heritage. Burma says that "the youth subjected to this pressure have not ordinarily become Anglos, though, because of a feeling of being rejected by the dominant society (because of frequently experienced prejudice and discrimination) and by the schools (because the curriculum is so totally negative as regards their own personal and cultural background)."[49]

Many such children reject both cultures. They often belong to clubs or gangs which use a language, an argot, which is understood neither by Anglos nor by their parents. Burma states that "these young people have frequently developed a mixed Anglo Mexican subculture of their own, based upon a dialect of Spanish heavily modified by an ingenious incorporation of English words and new expressions and upon 'gang' style of social organization."[50]

Barker found it to be characteristic of Mexican American youths to organize into such groups, or to adopt the pachuco vocabulary and attitudes individually. Those who did not were considered not to "belong." He found one characteristic of their attitude to be disdain of advancing on the socio-economic scale, planning for the future, or obeying the laws either of the land or of their parents. Their greatest value was placed on "present experience--the excitement of

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[49]Burma, p. 15. [50]Ibid.

sex, drugs (there are at least 18 pachuco words for marijuana), and defiance of authority."[51]

Even more pronounced disorientation of the Mexican American youth is found in the language of the Mexican American ghetto, Calo. This subculture language is best known, especially to social scientists, as the language of the Mexican American narcotics addict and prison inmate, but Alvarez says that its use is not indigenous to addiction and prison. The addict and inmate learned Calo as adolescents, and the old "secret" language of the gang became the language of the adult anti-social activity.[52]

Calo is the "other" Spanish, the Spanish that is not taught in school but that is learned in the many neighborhoods throughout the American Southwest. It was invented by the Mexican American youth subculture. Although some of the words are Spanish corruptions and some are Hispanicized English, the majority of terms are original in that, although a Spanish pronunciation is used, they exhibit no relationship to Spanish terms used for the same referents. For example, calco which means shoe in Calo is zapato in Spanish; vaisa which means hand in Calo is mano in Spanish. Somehow, certain combinations of vowels and consonants "sprang up" in the

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[51]G. C. Barker, An American Spanish Argot and Its Social Functions in Tucson, Arizona (Tucson: University of Arizona Press, 1958). (Mimeographed)

[52]George R. Alvarez, "A Paper Prepared for the International Conference on General Semantics," Los Altos, California, n.d. (Mimeographed)

ghetto and were assigned, by consensus, to denote certain objects or events.

Calo consists mainly of substantives, verbs and expletives, and is used within a Spanish grammatical and linguistic structure; yet, without a prior knowledge of the meaning of its terms, it is incomprehensible to a person speaking and understanding only vernacular or academic Spanish. Alvarez says that a typical conversation in Calo usually consists of about 20-80, the ratio of Calo terms to Spanish, and sometimes as high as 40-60.[53]

Some of the terms are logical. For example, vato loco, literally "crazy guy" denotes the Mexican American who steals, "shoots dope," and spends some time in prison. The label implies a permanency of behavior and a prediction: once a Mexican American becomes a vato loco, he will continue to engage in those activities which fit the label. On the other hand, escuadre in Calo denotes a "square" or "law-abiding" person, and there is no grey area between the escuadre and a vato loco. You are one or the other, you can't be both. Furthermore, if a vato loco ever cooperates in any way with the duly constituted authorities, then he becomes a relaje (informer); and not only can he never again become a vato loco, but he cannot even revert to being an escuadre.

This secret language of Mexican American youth is also a rapidly changing jargon. As its terms are learned by

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[53]Alvarez, p. 3.

the out-group, the Mexican American in-group devises new terms which rapidly enter into common usage. Alvarez states that another way to insure secretiveness is by the use of high order abstractions to denote referents for which low order Calo terms would also suffice, depending on who is listening; heroin can be referred to as carga (heroin), la chiva (the thing), or la madre (the mother).[54]

The most distinguished characteristic of Calo is its connotative content or nature. The combination of phonemes and morphemes that comprise its principal terms are such that its utterance necessitates a low, harsh, and sometimes shrill delivery. It is predominantly a "snarl" language; it implies, on the part of its users, an uncompromising attitude of anger, sarcasm, cynicism, and undifferentiated rebellion. The expletives chinga and pinchi, which are analogous to the English word "damn," are included, in their various forms, in almost every Calo utterance.[55]

According to Alvarez Calo lacks abstractive differentiation. The language lacks the capacity for enabling its users to make distinctions in the evaluation process. Many levels of abstraction are not differentiated; for example, a todo madre, literally "to all mother" can mean good, right, beautiful, and so on; vale madre, literally "it is worth mother," can mean bad, wrong, ugly, and so forth. It is interesting to note that the use of madre, the Spanish word for

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[54]Alvarez, p. 4. [55]Ibid.

mother, in the Calo terminology is perhaps indicative of the Mexican American's childhood. Being raised in a family culture where the mother is held to be sacrosanct is perhaps the cause of the use of the term madre in Calo as a designatory term for value judgments. Almost all value judgments in Calo are expressed in terms of the Spanish word madre.

In the Mexican culture one of the prevalent abstract sentiments is that of machismo. The term does not translate well. Burma says "it connotes virility, pride, and a self-concept of personal worth in one's own eyes as well as those of his peers."[56] This attitude has influenced Calo in many ways. The phrases vato de huevos (brave man) and vato firme (stoic or steadfast person) are the most complimentary terms in the Calo vocabulary; while the most derogatory are puto (homosexual), culero (coward), and relaje (informer).[57]

The conditions and attitudes of the Mexican American neighborhood are exemplified in Calo. There are many references for which no Calo terms exist: for example, education, religion, economics; such omissions indicate the relative importance of these social institutions in the ghetto. Calo has terms for activities, such as eating (refinar), drinking (bistiar), fighting (chingazos) and dancing (borlotear), but few terms that denote the experiences beyond the confines of the neighborhood. All types of work are denoted by the Calo terms cameo (from the Spanish word for camel) and jale (from

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[56]Burma, p. 23. [57]Alvarez, p. 9.

the Spanish word to pull). If a man works as a laborer in a construction gang or as a chemist in a research institute, within the Calo linguistic framework, he is still jalando (pulling) or cameiando (cameling). Another Calo word for work is la chinga (the damned activity).

Alvarez says that these influences on Calo are perhaps indicative of the socio-economic stratification of the Mexican American community, but "if we likewise focus our attention on the high incidence of delinquency and addiction in the Mexican American community, we can perhaps deduce a reciprocal influence; the effect which Calo has on its user."[58]

Sapir, Whorf, and Korzybski have contended that many cultural differences can be explained by noting the differences in the respective linguistic structures. In the case of the Mexican American youth subculture, it is not a difference in linguistic structure that is important, for Calo is used within the Spanish or Indo-European structure, but a difference in the nature or connotative content of the language that is significant.

Calo is a "snarl" language, and perhaps, since it becomes internalized during the formative and early adult years, may influence the cognitive processes of its users in future years. Certainly prolonged use of Calo could markedly distort the worldview of the user. The aggression, rebellion, and

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[58]Alvarez, p. 9.

authority-defiance exemplified by many first generation Mexican Americans can, perhaps, be traced to the use of Calo, whose nature and connotations reinforce this behavior and attitude. Definitely there is a high correlation between extensive use of Calo and overt anti-social behavior.[59]

Conclusion

This chapter was concerned with the antecedent and concurrent influences of the retention of Spanish in the Southwest and its resulting consequences. To accomplish this the chapter first gave a socio-historical overview of the Spanish-speaking subculture of the Southwest. Analysis of the Mexican American subculture in terms of Fishman's acculturation process was used to explain the retention of Spanish in the subculture. Also included was a brief examination of the correlation between poverty in the Mexican American subculture and the lack of English speaking skills. This chapter secondly focused on four measures of school-controlled educational outcomes to determine the adequacy of Texas schools for the Mexican American subculture: school holding power, reading skills, grade repetition, and overageness. Finally, this chapter examined the possible psychological effects of an English-oriented school on the Spanish-speaking child and the psychological disorientation of Mexican American youth as expressed in gang language.

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[59]Alvarez, p. 11.

CHAPTER III

SPECIAL SCHOOL PROGRAMS FOR MEXICAN AMERICAN CHILDREN

The recent availability of federal financial assistance has spurred Southwestern educators to develop special school programs geared to aid Mexican American children. The focus of this chapter is on those special school programs as they have developed in Texas. The chapter will divide them into two kinds, according to their focus on the child. The first, called compensatory education, is the remediation, reorientation, and remodeling of the children in order to make up (compensate) for their inadequacies when compared with other children in school. In other words, the rationale for the compensatory measures is to adjust the child to the school. The second division includes the new Bilingual School approach which in essence changes the school to fit the children. In some schools, of course, these categories overlap, but generally the programs can be categorized according to whether they are intended to "adjust the child" or "adjust the school." Evaluation data on these programs are difficult to assess because of the absence in many cases of clearly specified

objectives and the lack of adequate instruments to measure achievement in such young children. Most assessments have been made on a yearly basis; few well-controlled longitudinal studies have been made. However, what evaluations have been made will be given here.

Compensatory Programs

The implicit purpose of compensatory programs is to bring "disadvantaged" children up to a level where they can be reached by existing educational practices. Gordon and Wilkerson state that "it is not inappropriate that the programs of special education for the disadvantaged have been described as compensatory. They are attempts to compensate for and to overcome the effects of hostile, different, or indifferent backgrounds."[1] The unexpressed purpose of most compensatory programs is to make the disadvantaged children as much as possible like the kinds of children with whom the school has been successful, and the standard of educational success is "how well they approximate middle-class children in school performance."[2]

Compensatory programs have been initiated in the form of preschools in many Texas schools that have large concentrations of Mexican American Children. In Texas only a

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[1]Edmund W. Gordon and Dozey A. Wilkerson, Compensatory Education for Disadvantaged Programs and Practices: Preschool through College (New York: College Examination Board, 1966), p. 159.

[2]Ibid.

very small percentage of districts provide free kindergartens; therefore, these preschool programs usually replace kindergarten and become the child's first school experience.

These preschool programs vary greatly. For the most part they are designed to improve the children's reading readiness, and to increase their verbal ability in general; some aim mainly to familiarize them with school materials or classroom procedures (how to listen to stories, march, and so forth). Many of the programs are geared to teach English as a second language. In the vast majority of these preschool programs the curriculum is drawn from the dominant culture, with perhaps just enough of what is assumed to be Mexican American culture, to encourage the child to feel comfortable.[3] A few pre-first-grade classes are reported to tend toward a bicultural program but still emphasize the need to "prepare the child for school"; they draw curriculum from both cultures.[4]

The necessity of teaching English to monolingual Spanish speakers has long been recognized as a prime objective. Many educators continually emphasize this as the single best way to improve Mexican Americans' achievement in school. Preschool programs for Mexican Americans stress language learning, sometimes as a stated objective and sometimes not.

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[3]Thomas P. Carter, Mexican Americans in School: A History of Educational Neglect (New York: College Entrance Examination Board, 1970), p. 153.

[4]Ibid.

They approach this goal "in diverse ways with widely differing degrees of competence."[5]

Preschool English-as-a-Second-Language (ESL) programs have long been advocated, and there have been sporadic attempts to implement them. In the late 1940's, Tireman, after finding Mexican American children in New Mexico to have vocabulary ranges in Spanish equal to English-speaking children's ranges in their native tongue, developed a minimum English vocabulary list and used it in the pre-first-grade section of his experimental schools.[6] Ulibarri reported excellent results. First and second grade children with a year of preschool language instruction achieved much better than the control group that had no such experience. Average IQ scores for the experimental group were raised almost thirty points in one year (from 66.01 to 95.92), while the control group gained only ten points.[7]

In the late 1950's a number of Texas districts began experimenting with preschool ESL programs. The LULAC (League of United Latin American Citizens) organization gave significant impetus to such programs, establishing the "Little

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[5]Ibid.

[6]L. S. Tireman, "Bilingual Children," Review of Educational Research, II (June, 1941), 350-353. See also Tireman, Teaching Spanish Speaking Children (Albuquerque, New Mexico: University of New Mexico Press, 1954).

[7]Horacio Ulibarri, "The Effect of Cultural Difference in the Education of Spanish-Americans" University of New Mexico Research Study, 1958. (Mimeographed)

Schools of 400" (named for the 400-word basic vocabulary taught).[8] In 1960, the state supported additional programs with an allocation of $480,000. By 1963 the state was able to report that of the 16,532 children participating in the ESL pre-first-grade program in 1961 and 1962, 3,168 or about 19 per cent were retained in the first grade for two years. The remaining children were promoted at the end of the first grade. Of a control group of 10,817 first grade pupils who did not have the program, 8,870 repeated the first grade.[9] Reports relative to the influence of preschool ESL programs on the classwork of Mexican American children and their promotion from first to second grade were almost universally positive. However, since no follow-up studies seem to have been made, it is difficult to determine the ultimate worth of these programs.

The ESL program represents a departure from regular school efforts. It usually provides more intensive and structured exposure and employs techniques associated with audio-lingual approaches. However, the content changes little regarding United States culture; the objective continues to be bringing the child into American culture.[10]

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[8]Hershel T. Manuel, Spanish-Speaking Children in the Southwest (Austin, Texas: University of Texas Press, 1965), p. 122.

[9]B. J. Kennedy, "Paper presented at Mexican-American Seminar," Texas Education Agency, 1963. (Mimeographed)

[10]Carter, p. 163.

With the passage of the Economic Opportunity Act in 1964, Project Head Start programs sprang up in South Texas. These programs were summer school programs intended to prepare disadvantaged children for entry into the first grade. Pierce-Jones et al. concluded, after a most comprehensive evaluation of preschool projects in Texas that children with Head Start experience scored significantly above their first grade peers who had no preschool. Although these non-Head Start children were older than the Head Start children when tested, they had had about the same amount of formal schooling, yet the Head Start children consistently excelled them in intellectual performance. Teachers were asked to nominate any of the children in their first grade classes for "learning proficiency," "intellectual curiosity," and "potential educational failure." These teachers named children later identified as Head Start children for the first two attributes and significantly less often as "potential educational failures."[11] However, the persistence of the changes apparently wrought in the disadvantaged population of children is at issue, because of lack of follow-up programs.

Carter in his survey of Mexican Americans in schools in South Texas found that most of these schools had some form of remedial program to improve the ability of these children

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[11]John Pierce-Jones et al., Outcomes of Individual and Programmatic Variations among Project Head Start Centers, Final Report Submitted to the Office of Economic Opportunity, Project Head Start (September, 1966), pp. 173-174. (Mimeographed)

in language arts. He states that "the overwhelming majority of reading or language arts remedial programs for Mexican American children are not substantially different from those for 'slow' learners of the general population."[12] He concluded that most remedial programs make little attempt to diagnose the individual's reading problems; few teachers have the skills necessary, and most materials are inadequate. Most teachers of special reading classes use substantially the same teaching techniques and materials for Mexican American children as they use for Anglo children. He states that "although Mexican American children can usually learn to verbalize graphic symbols, they do not comprehend their meaning."[13]

Carter found that a major problem reported at all levels of schooling is the inappropriateness of text or other reading materials. The vast majority of schools at both elementary and secondary levels use traditionally acceptable standard materials. A few elementary schools are experimenting with the Miami Linguistic readers, often referred to as the "Dade County Materials." These materials were originally designed for Spanish-speaking Cuban refugee children. One feature of the series is its cultural neutrality, which is accomplished by the use of cartoon figures of animals acting out more or less universal themes. Carter found these "culturally fair" materials to stimulate the Mexican American

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[12]Carter, p. 156.

[13]*Ibid*.

child to "create" especially "in the children's role-playing activities."[14]

The "bridge" programs for teaching Spanish to Spanish speakers emphasize Spanish as a linguistic bridge to English. A research program with this linguistic bridge as its basis was inaugurated in the San Antonio Independent School District in 1964 under the direction of Thomas D. Horn of the Education Department of the University of Texas. This study was the first organized research on language development and reading wholly concerned with the educationally disadvantaged Spanish-speaking child in Texas. The primary purpose was to teach oral language using an intensive audio-lingual technique as the means of developing oral fluency in language as preparation for reading. The technique was to present orally, and at normal conversational tempo, question-answer dialogues incorporating the patterns to be learned. Generally, the dialogues to be devised were to move from simple to more complex language patterns building logically one upon the other.[15]

The content initially selected for developing fluent oral language was science-based material chosen because it was considered to be as "culture-fair" as was possible. The content did not reflect the value system of any particular social or ethnic group; the content was as difficult for

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[14] Ibid., p. 157.

[15] Anne O. Stemmler, "An Experimental Approach to the Teaching of Oral Language and Reading," Harvard Education Review, XXXVI (Winter, 1966), 43.

children from one social class or ethnic group as for children from any other class or group.

The research sample consisted of 735 children from twenty-eight first grade sections in nine elementary schools of the San Antonio Independent School District. One requirement was that at least ninety per cent of the students in each section be native speakers of Spanish. (In fact, it was later determined that only one child in the entire sample was a native speaker of English.) Eighteen of these sections were to use the experimental lesson plans and teaching techniques. Half of these eighteen sections would receive intensive language instruction in Spanish, while the other nine sections would receive intensive language instruction in English. The remaining ten sections which were to be the control group were to be taught the science program without using the experimental lessons or the audio-lingual technique. All groups were to receive basic English instruction.[16]

Even prior to the experimental instruction, basic inadequacies of the Spanish-speaking children quite apart from the ubiquitous language problem were found through the pretesting program. Among the more striking were: (1) lack of experiential background for the type of tasks appearing in the tests; (2) minimal attention span; (3) general unfamiliarity with fine motor activities (using a pencil, scissors,

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[16]Stemmler, "An Experimental Approach to the Teaching of Oral Language and Reading," 44.

crayons); (4) minimal auditory and visual discrimination; (5) apparent lack of information (even using their native language) on topics which were presumably familiar to them (giving their own names, stating the composition of their families); (6) fear of, or apathy toward, the school environment; (7) general apathy toward the world around them; and (8) inadequacy in such cognitive tasks as classifying objects and following a sequence of test questions, even when administered in Spanish. Clearly, a tremendous gap existed between the abilities of the children and the abilities required for beginning reading.[17]

The program was reorganized to emphasize the development of self-concept and experiential cognitive concepts. Pryor who evaluated the program in 1967 found that in one of the schools the children who were instructed in Spanish were clearly superior at the end of the year. In two other schools the children who were taught in Spanish were slightly better, and in the fourth school, there was no evidence to favor Spanish instruction. Pryor cautions that a "multitude of variables are present that may bias the findings; enough success was demonstrated to warrant further experimentation."[18] Anderson (1971) says that the "outcome fell short of the

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[17]Stemmler, Ibid., p. 46.

[18]Guy C. Pryor, "Evaluation of the Bilingual Project of Harlandale Independent School District," San Antonio (June, 1967). (Mimeographed.)

ideal for it was difficult to find teachers who were both convinced of the value of Spanish as a medium of instruction and able to teach this varied subject matter in Spanish."[19] Anderson concludes that "great efforts have gone into evaluating the experiment, but results have not been gratifying."[20]

In summary, it is apparent that most schools in Texas where there is a concentrated Spanish-speaking school population are at least aware that a problem exists. Programs to "compensate" the Mexican American child are varied and difficult to evaluate. The testing of the "slum area" children in the San Antonio Project brings out statistically, for the first time in Texas, that educating the Mexican American child is not only a language problem. More serious research is needed in order to plan elementary programs for these children.

Bilingual School Approach

There is widespread confusion about the objectives, techniques, content, and organization of school programs involving foreign languages. The basic distinction between foreign or second-language teaching and bilingual school programs is rarely understood by school practitioners.[21] A

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[19]Theodore Anderson, "Bilingual Education: The American Experience," Modern Language Journal, LV (November, 1971), 429.

[20]Ibid.

[21]Carter, p. 162.

foreign or second-language program involves the introduction of a language new to students into a classroom where it is to be learned essentially for its own sake. In a bilingual program, two languages are used as media of instruction (carriers of curricular content). English as a Second Language (ESL), Foreign Languages in the Elementary Schools (FLES), or any other program to teach a new language to whatever group of children at any level, are second or foreign-language instruction programs.

The shift from the traditional school organization, based on a standard curriculum taught in English, to bilingual organization represents an extreme modification of the institution. Gaarder suggests there are two distinct types of bilingual programs and two sets of reasons for implementing them. The reasons for adding the mother tongue as a teaching medium (for example, Spanish for Spanish speakers) are: (a) to avoid or lessen scholastic retardation in children whose mother tongue is not the principal school language; (b) to strengthen the bonds between home and school; (c) to avoid the alienation from family and linguistic community that is commonly the price of rejection of one's mother tongue and of complete assimilation into the dominant linguistic group; and (d) to develop strong literacy in the mother tongue in order to make it a strong asset in the adult's life. The reasons for adding a second tongue as a teaching medium (for example, Spanish for English speakers) are: (a) to engage the child's

capacity for natural, unconscious language learning; (b) to avoid the problems of method, aptitude, and so on, which beset the usual teaching of second languages; (c) to make the second language a means to an end rather than an end in itself; and (d) to increase second language experience without crowding the curriculum.

Gaarder differentiates between "one-way" and "two-way" bilingual schools. The San Antonio experimental project already discussed would be an example of Gaarder's one-way bilingual school. This study did not consider the San Antonio project a "real" bilingual experiment. The one-way are schools in which one group of children (for example, Spanish speakers) learn in two languages, either the national language or the mother tongue. A two-way school instructs children from two linguistic communities (for example, Spanish speakers and English speakers) in both languages, so that children from each community learn both their own and the other group's language.[22]

The contemporary period of bilingual schooling was inaugurated in the Coral Way Elementary School, Dade County, Miami, Florida. Here in 1963, was initiated in the first three grades a real bilingual program, supported by a grant from the Ford Foundation. The school population was about equally divided between English speakers and Spanish-speaking

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[22]Bruce A. Gaarder, "Organization of the Bilingual School," Journal of Social Issues, XXIII (April, 1967), 110.

Cuban children. Parents were offered a choice between the traditional all-English program and bilingual program in which about half of the teaching would be done in Spanish by experienced Cuban teachers. All the English-speaking parents and all but a few of the Cuban parents opted for the bilingual program, and by the end of the first year the preference for the bilingual program was so nearly unanimous that it was not necessary to continue the all-English curriculum.[23]

During half of the school day subjects are taught in the pupils' native language--in Spanish to Spanish-speaking children by Cuban teachers and in English to English-speaking children by native American teachers. During the other half of the school day, the concepts which have been introduced in the native language are reinforced in the pupils' second language. Once the children have acquired adequate control of the second language, concepts are introduced in the native language of the teacher regardless of the native language of the student. From the beginning the children are mixed on the playground at lunch, in music and art, and are free to speak either language.[24] In 1968 Mabel Wilson Richardson [reported that] "the bilingual program was relatively as effective for both English- and Spanish-speaking subjects as

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[23]Anderson, "Bilingual Education: The American Experience," 428.

[24]*Ibid.*, pp. 428-429.

the regular curriculum in achieving progress in the language arts and in arithmetic."[25]

The first school in Texas to initiate a completely bilingual program with the most radical modification of its school in the Southwest is that of Laredo, Texas. The United Consolidated Independent School district of Laredo in 1964 initiated a locally supported bilingual program in all the first-grade classes of the Nye Elementary School, and in 1966 extended the program to the other two schools of the district. Later, the program was extended through the first six grades.

United Consolidated has advanced on a number of fronts to reverse the high attrition rate among its Mexican American students. Some of these advances were formally planned activities, such as bilingual instruction, and others were informal outgrowths of planned activities. A two-phase program was established to solve the problem of the high Mexican American mental and physical withdrawal rate. Phase I is a series of attempts to salvage the overage and low-achieving Mexican Americans already in the upper elementary and secondary grades. Phase II is the bilingual program experiment to promote normal achievement and eliminate the problems that necessitate Phase I. In other words, much of Phase I is remedial, meant to overcome the problems traditional schooling

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[25]Mabel Wilson Richardson, "An Evaluation of Certain Aspects of the Academic Achievement of Elementary Pupils in a Bilingual Program" (Coral Gables, Florida: University of Miami, January, 1968). (Mimeographed.)

has created, and Phase II is intended to accomplish radical adjustment of the curriculum and organization of the school. Activities toward these two objectives have been in operation since 1964.

Phase I, the "compensatory" program of the older students, includes instruction geared to keep the child in school while remedying his academic deficiencies, training him for a useful and satisfying occupation or role in life, and maintaining or raising his self-respect. In order to facilitate student achievement, a number of strong programs have been developed. Activities in the field of art and music are reported to give students a sense of personal achievement and to make school rewarding. Achievement is thus encouraged and apparently realized in the areas that are not dependent on English language ability. In addition to such programs aimed to keep students in school, United provides about three periods a day in a language laboratory with a completely bilingual teacher who is able to reinforce the student's ability to operate in the English language.[26] United's philosophy appears to be that such programs are not going to get these children into college but will substantially aid them to live and function in American society. To function adequately they must be prepared to earn a living. The high school provides what appears to be an excellent building-trades vocational program; it is not a prevocational

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[26]Carter, p. 194.

activity but is aimed to prepare students to enter certain crafts at least at the apprentice level.[27] Girls are given homemaking and business training.

None of the Phase I programs in themselves are exceptional, but Carter reports that "some unknown combination of factors appears to produce excellent results. The combined efforts and enthusiasm of the school board, administration, and staff apparently encourage the kind of school social climate essential for the success of lower-class children."[28]

The Phase II bilingual program in the first through sixth grade is based on the idea that all children should be able to operate comfortably in two cultures. Stated purposes include: (1) to provide all pupils with a better understanding of the nature of language; (2) to cultivate in each pupil a pride in his mother tongue and the culture it represents . . . as well as a respect for the language and culture; and (3) to achieve a more complete liberal education.[29]

In order to accomplish these objectives, bilingual instruction is organized through the first six grades with the intent to extend it through all the grades. English and Spanish are used equally and receive approximately equal

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[27]Carter, p. 195. [28]Ibid.

[29]National Education Association, Department of Rural Education, "The Invisible Minority," Report of the NEA-Tuscon Survey on the Teaching of Spanish to the Spanish-Speaking (Washington, D.C., 1966), p. 16.

treatment in the first grade. All teachers of the first grade are bilingual; in the other grades English monolinguals teach in English and bilinguals teach in Spanish and English. All subjects are taught in both languages at the first grade. Spanish and English are used interchangeably but never mixed. No predetermined content is taught in one language; the teacher uses both for all kinds of content and in all manner of classroom situations. Most of the commercially prepared materials in Spanish are from Mexico.

The program at United has not been formally evaluated. However, the staff is convinced that it is superior to older and more traditional approaches.[30] Cruz-Aedo, the District's Director of Elementary Education, and Carter collected achievement and IQ data on each child who began the program in 1964 and was still enrolled in 1967. Only forty-one such children were found, which attests to the high mobility rate of some of the population. The children were divided into three groups according to their language ability when they entered the first grade: Spanish monolinguals, English monolinguals, and bilinguals. The Spanish monolinguals were almost exclusively from lower socioeconomic backgrounds (children of agricultural workers); the bilinguals were generally from middle-class homes, all were of Mexican descent; the English monolinguals were almost all of middle-class backgrounds. After analysis of the children's achievement and IQ

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[30]Carter, p. 196.

scores, and observation in class, the following tentative conclusions were reached: (1) Only children who were bilinguals at school entrance retained any noticeable accent in English. The two other groups speak unaccented standard English and Spanish. (2) Total reading achievement (mean and median taken from the California Achievement test) for the Spanish monolinguals was slightly above normal at the first grade and slightly below grade-level norm at the second grade. Both English monolinguals and bilinguals were substantially above grade-level norms for both years. English monolinguals achieved better than bilinguals. (3) Median "total IQ" (from the California Test of Mental Maturity) rose from the second grade to the third for all groups. Percentage increase was not great for any group. Bilinguals showed the largest percentage increase.[31] The sample described above, of course, was entirely too small to make any firm conclusions possible. However, the high morale of the United schools is an important fact.

Other schools in South Texas have instituted partial bilingual programs. Such schools as Del Rio, Del Valle, Edinburg, La Joya, McAllen, Mission, the Edgewood and Harlandale Districts of San Antonio, and Zapata have at least bilingual instruction in the first grades. With the passage of the federal Bilingual Education Act of 1968 many of these programs are at least partially federally funded. Thirty-two

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[31]Carter, p. 197.

schools in Texas were granted federal funds for bilingual schools in 1971.[32]

Anderson states that the obstacles to success of bilingual programs are formidable. Perhaps the greatest of these is the doubt in many communities that the maintenance of non-English language programs is desirable. It has "not yet been demonstrated, however plausible it seems, that a Mexican American child can become literate in English best by first becoming literate in Spanish."[33] The proper meshing of instructional materials has proved an almost insurmountable task. Probably the greatest obstacle is the lack of adequately qualified teachers. Anderson says that the achievement of "quality" bilingual education programs "are handicapped by the lack of adequately qualified teachers and other personnel, by the shortage of adequate materials, by inadequate evaluation methods and instruments, and by the lack of conviction by many educators and communities of the desirability of linguistic and cultural pluralism."[34]

Conclusion

This chapter focused on the special school programs for Mexican American children as they have developed in Texas. The chapter divided these programs into two kinds, according to their focus on the child. The first section reviewed the

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[32]Anderson, "Bilingual Education: The American Experience," 435.

[33]*Ibid.*, 436. [34]*Ibid.*

programs that were mainly compensatory in nature; that is, programs generally remedial in character geared to reorient the Mexican American child to better compete in English-oriented schools. The second section surveyed the new bilingual approach which, if it is truly bilingual, changes the school to fit the child.

Evaluation of any of these programs is difficult due to lack of long range studies. However, the fact that the problems in the schools have drawn attention and that educators and legislators are giving attention to them should encourage experimental studies that may provide answers in the future.

CHAPTER IV

SECOND LANGUAGE LEARNING: THEORETICAL PERSPECTIVES

Presumably, many of the problems of teaching the Spanish-speaking child should be susceptible to interpretation relative to contemporary research and theory in the area of language acquisition. On the contrary, what this appeal to research and theory reveals is that the contemporary picture appears conflicting and confusing.[1] However, if teaching procedures are to benefit from consulting theories and research, it is important to have some knowledge of the various positions which they incorporate. Therefore, this chapter focuses on the current theories of language acquisition and their use in teaching a second language. The first section of this chapter reviews briefly the principal language acquisition theories advanced today. The second section reviews the various methods of teaching a second language: the traditional method, the structural

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[1]Harry Osser, "Biological and Social Factors in Language Development," Language and Poverty, ed. by Frederick Williams (Chicago: Markham Publishing Company), p. 248.

linguistics method, the audio-lingual habit method, the cognitive-code approach, and the most recently proposed "cognitive pruning" approach. The final section attempts to draw some theoretical implications for teaching the pronunciation of English to the Spanish-speaking child.

Language Acquisition

In contemporary psycholinguistics one point of view states that the child is "prewired" for language behavior, so that his linguistic abilities depend largely on the unraveling of maturational processes. This biolinguistic view is supported by a number of linguists and psycholinguists, including, for example, Chomsky, Lenneberg, and McNeill.[2] The theoretical counterpart of their views appears in the work of Skinner and Mowrer[3] who, in stressing the role of environmental, or social, factors argue that the child acquires language by being reinforced for imitating the speech patterns around him. A somewhat different environmentalist position, which is neutral with respect to the controversy between the biolinguistic and empiricist positions over the origin of language behavior, is derived from the research and

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[2]Noam Chomsky, Aspects of the Theory of Syntax (Cambridge, Mass.: M.I.T. Press, 1965). Eric Lenneberg, Biological Foundations of Language (New York: John Wiley & Sons, 1967). David McNeill, "Developmental Psycholinguistics," The Genesis of Language, ed. by Frank Smith and G. A. Miller (Cambridge, Mass.: M.I.T. Press, 1966).

[3]B. F. Skinner, Verbal Behavior (New York: Appleton-Century-Crofts, 1957). O. H. Mowrer, Learning Theory and the Symbolic Processes (New York: John Wiley & Sons, 1960).

theorizing of the sociolinguists[4] who are primarily interested in the role of social structural factors, such as social-class membership, type of family structure, and role relations between speaker and listener, on the use of language in particular situations.

Environmentalist position

The traditional psychological approach to the language acquisition process is to view it within the framework of learning theory. The acquisition of phonology is viewed as a process of shaping the elementary sounds produced by the infant through reinforcement of successive approximation to the adult pattern. Imitation of adult patterns is thought to be a source of reward to the babbling infant and repeated practice on these novel motor habits is thought to serve the function of stamping in and automatizing them. The result of this selective attention or reward by the parents is that those sounds which approximate the native language and are rewarded tend to increase in frequency while those which do not approximate the native language and are not rewarded occur less frequently, eventually disappearing.

From these elementary phonological habits the words of the language are thought to emerge through parental reinforcements. Accordingly the child can better control his

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[4]Dell Hymes, "Models of the Interaction of Languages and Social Setting," Journal of Social Issues, XXIII (December, 1967), 10.

environment by uttering words to which the parents respond by giving the child what he wants. The child learns the meaning of words through a conditioning process whereby the referents which the word signalled appeared in contiguity with the symbol thus establishing an association. The acquisition of grammar is conceptualized as learning the proper order of words in sentences. Generalization carries a heavy theoretical burden in attempts to explain novel uses of words and novel arrangements of sentences. Perceptual similarity of physical objects and relations, and functional equivalence of responses are thought to serve as the basis of generalizing the meaning of previously learned words. Similarly, generalization of the grammatical function of words is thought to account for the understanding and production of novel sentences.[5]

Two aspects of this approach are important. First, the burden of language acquisition is placed on the environment; the parents are the source of input, and reinforcement is the necessary condition for establishing the habits. The child, considered passive according to some proponents, and active by others but primarily is a passive organism responsive to the reinforcement conditions arranged by agencies in the environment. The second aspect is that sentences are conceived as orderings of words, arranged in sequential

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[5]Leon A. Jakobovits, Foreign Language Learning (Rowley, Mass.: Newbury House Publishers, 1970), pp. 1-2.

probabilities that can be learned, then generalized to new combinations. A general characterization of this overall approach is that the process of acquisition is from surface to base; (excluding Skinner) that is, the knowledge represented by language learning at all levels--phonological, semantic, syntactic--is based on the relations contained in the overt speech of the environment.

Biolinguistic approach

The biolinguistic approach is detailed by Lenneberg. He proposes that language development is a function of maturational factors, and that human language is a species-specific phenomenon.[6] In support of this argument, Lenneberg refers to the parallels between language and motor development in children from twelve weeks to four years. His interpretation of this information is that there is a synchrony between the attainment of each language milestone and the development of particular motor skills. He states that there is no evidence that the onset of speech is correlated with the initiation of any special language training by the mother.

Lenneberg acknowledges the existence of individual differences in language ability, and he suggests that they relate to complex interactions between biological and social factors. He offers two interpretations of the frequent experimental findings that disadvantaged children exhibit

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[6]Lenneberg, pp. 128-130.

poorer language performances than middle-class children, speculating that such observed differences may be a function of nutritional factors, or due to the experimenter's inadequate sampling techniques.[7]

The linguist Chomsky maintains that the child's ability to produce and understand novel sentences can only be understood by assuming that he has an innate language capacity. In particular, Chomsky posits the existence of a language acquisition device or hypothetical set of innate mechanisms that permit the child to analyze incoming linguistic data and to produce messages. He further asserts that linguistic principles are not learned at all, but are simply part of the innate conceptual capacities brought to the language-learning situation by the child.[8]

Chomsky believes the child acquires language by discovering its underlying system of grammatical rules. The processes characterized by the language acquisition device incorporates a built-in set of specifications for correct grammars, plus a testing capacity which permits the child to discover which particular grammar, from out of a small set of correct grammars, is appropriate for the language he is exposed to. The device receives a sample of the possible

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[7] Ibid., p. 136.

[8] Noam Chomsky, "The Formal Nature of Language," Biological Foundations of Language, ed. by Eric Lenneberg (New York: John Wiley & Sons, Inc., 1967), Appendix A, pp. 437-439.

sentences in the language, and the child abstracts the rules of the language. Once the child has done this, he can now go far beyond the particular sample of sentences he has heard, so that he can produce and understand novel sentences.

Though Chomsky asserts that the child inevitably acquires the language of his culture, the role of experience in Chomsky's model of language acquisition is quite limited. The child uses language input solely to eliminate his false hypotheses about the rules of a language. This position assumes that the child's only requirement for developing language is exposure to a small amount of the language he is to learn. That which is defined as the language acquisition device provides him with a preknowledge of language universals, i.e., the rules and constituents which underlie all languages. The child's remaining task is to learn the unique rules of his own language. This is the reverse of the behaviorist model. Chomsky's model of language acquisition provides only a passive role for environmental or social factors whereas the child is assigned a very active role in his own language development.[9]

An extension of Chomsky's model in current acquisitional theory suggests that language is rule governed and somehow the child acquires and manipulates rules rather than specific sentences. The rule concept attempts to explain the creativity of the child--his ability to produce and

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[9]*Ibid*.

understand unique utterances. For example, Brown and Bellugi note that the generative powers of such rule induction in children make it possible for them to understand and construct sentences that they have never heard but which are nevertheless well formed, i.e., well formed in terms of general rules that are implicit in the sentences the child has heard. Somehow every child processes the speech to which he is exposed so as to induce from it a latent structure. This latent rule structure is so general that a child can spin out its implications all during his life.[10]

George Miller has also emphasized that such induced linguistic rules are known and followed implicitly even if the child is unable to verbalize the rule, which is usually the case.[11] However, with their rule governing theory, Brown and Bellugi postulate a three-step process in language acquisition: the child imitates and reduces adult speech, the adult expands and corrects the child's speech, and the child induces latent rules which can be extended to new situations. These steps interact to enable the formulation of rule structures for the creation of new utterances.[12] David McNeill reasons that such child rule structures are not merely an

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[10]Roger Brown and Ursulla Bellugi, "Three Processes in the Child's Acquisition of Syntax," Harvard Educational Review, XXXIV (Winter, 1964), 133-151.

[11]George A. Miller, "Some Preliminaries to Psycholinguistics," American Psychologist, XX (1965), 17.

[12]Brown and Bellugi, "Three Processes in the Child's Acquisition of Syntax," 140.

abbreviated or distorted adult language but a unique first grammar, fundamental to a complete adult grammar.[13]

In summary, though this is only a brief overview of language acquisition theory, it does point to the two positions. Environmentalists focus on the role of forces acting upon the child, i.e., external agents; whereas the "nativists" stress internal mechanisms. These two viewpoints are in conflict but not necessarily irreconcilable. It is clearly possible to integrate these two models so that the coexistence of both social factors and biological factors in determining linguistic acquisition would be admitted. Accordingly, Vera John conjectures that the best of both theoretical positions are needed in teaching a second language. She proposes that young children's acquisition of phonology and vocabulary profit from "learning theory" methods of imitation, association, and direct teaching, while syntactical growth probably will respond best by the child's exposure to well-formed sentences and then give the child room to create his own.[14]

Sociolinguistic position

Although the sociolinguists are not part of the

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[13]David McNeill, "Developmental Psycholinguistics," The Genesis of Language, ed. by F. Smith and G. Miller (Cambridge, Mass.: M.I.T. Press, 1966), pp. 1-84.

[14]Vera John, "Cognitive Development in the Bilingual Child," Monograph Series on Languages and Linguistics, No. 23 (Washington, D.C.: Georgetown University Press, 1970), p. 62.

language acquisition "discussion," their concern with how the child learns the social uses of language is of concern to those who would seek an approach to a theory of educating the bilingual child. The sociolinguist finds that a considerable diversity exists in the way in which language can be used to meet needs demanded by individual social structures. Many of the central problems in developmental sociolinguistics are summarized in one statement: in addition to the child's acquisition of the structural rules of his language, he must also learn another set of rules which refer to when he should speak and remain silent, and which linguistic code he should use and to whom.[15]

The major theoretical work in developmental sociolinguistics is by Bernstein. He contends that linguistic output, or certain kinds of output, are not as highly valued in some subcultures and in some family structural types as others. Bernstein describes two general kinds of linguistic codes, the restricted and the elaborated that are correlated positively to social subgroups. The habitual restricted-code user usually comes from a lower social class, and by contrast to the predominantly elaborated-code user is quite limited in the range of his possible selections from the total population of lexical and structural options.[16]

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[15]Dell Hymes, "Models of the Interactions and Social Setting," 10.

[16]Basil Bernstein, "A Sociolinguistic Approach to

Hess and Shipman tested and supported Bernstein's theorizing: They analyzed the content of mothers' communication to their children, where the mothers came from different social-class backgrounds. Findings indicated that whereas the middle-class mothers tended to give their children informationally adequate messages with occasional supportive statements, the lower-class mothers, by contrast tended not to be explicit and conveyed very little information in their messages.[17]

In summary, then, the environmentalist position is sharply differentiated from the nativist with regard to remediation of the language problems of the disadvantaged or the bilingual. To begin with, the environmentalist position usually assumes that such problems actually exist, and that observed social-class differences are not totally explainable by Lenneberg's nutritional deficiency or to faulty sampling techniques. The environmentalist position, in addition, implies that language behavior can be changed by developing appropriate training procedures. It is the case, however, that so far most research has been concerned with diagnosis of problems rather than with their remediation.[18]

Socialization," Language and Poverty, ed. by Frederick Williams (Chicago: Markham Publishing Company, 1970), p. 26.

[17]R. D. Hess and Virginia C. Shipman, "Early Experience and the Socialization of Cognitive Modes in Children," Child Development, XXXVI (Spring, 1965), 869-886.

[18]Harry Osser, "Biological and Social Factors in Language Development," p. 260.

Methods of Second Language Teaching

Kelly has noted that the field of second language teaching has had some ideas recur in cycles over and over again down through history.[19] In the last hundred years or so the reintroduction of old ideas and the appearance of new ones have taken place at a rapid rate, with frequent, concomitant, and occasionally confusing changes in second language teaching.[20] Furthermore, at the present time there is again a great influx of ideas that may lead to widespread changes in the future.

For many years second languages were mostly taught by a method based on the assumptions that (1) language is primarily and basically graphic--which resulted from centuries of classical language studies; that (2) the main purpose of second language study is either the acquisition of a tool for literary research or the development of the learner's logical powers; and that (3) the process of second language learning is deductive. These are the general assumptions from which the traditional ("grammar- translation") method was derived. The teaching procedures for the traditional method are generally as follows: (1) The language skills given importance are writing, with listening and speaking

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[19]Louis G. Kelly, 25 Centuries of Language Teaching (Rowley, Mass.: Newbury House Publishers, 1969), pp. ix-x.

[20]Hector Hammerly, "Recent Methods and Trends in Second Language Teaching," Modern Language Journal, LV (December, 1971), 499.

introduced at an advanced stage. (2) Pronunciation is referred to on the basis of spelling and native language sounds. Advanced pronunciation is usually offered in an advanced course after the language has supposedly been mastered. (3) Grammar is taught through the memorization of rules, which are then applied deductively and practiced in translation exercises. (4) Vocabulary is emphasized from the beginning and is taught by means of bilingual word lists. The native language of the learner is used almost exclusively as the door to the second language; emphasis is given to the similarities of the two languages.[21]

In the late 1800's and early 1900's reaction began in Europe against the traditional method. This reaction was based on the assumptions that (1) language is both oral and graphic; (2) the main purpose of language learning is communication, and (3) the process of second language acquisition must be inductive.[22] These are the assumptions that underlie the development of the "direct method" which in general reversed the procedures of the traditional method.

Many versions of the direct method have been and are still being used, but in general the procedures include the following: Listening and speaking are the language skills stressed, but reading and writing are usually presented with

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[21] Ibid., pp. 499-500.

[22] See "Backgrounds of Modern Language Teaching: Sweet, Jesperson, and Palmer," by Steven Darian, Modern Language Journal, LIII (December, 1969), 545-550.

them. Pronunciation is taught by imitation only without rules, explanations or drills and usually without the aid of transcription. Grammar is taught by imitation only, without rules, explanations or drills, and without definite order of presentation. Vocabulary is emphasized from the beginning and an attempt is made to convey the meaning of words without reference to the native language, that is through the use of objects, pictures, and actions. The use of the native language of the learner is usually discouraged and in some cases forbidden in the classroom.[23]

In its extreme form the direct method constitutes an attempt to imitate the process whereby a child learns his native language; however, Lenneberg[24] and others state that the child's optimum language learning period is from twenty-one to thirty-six months and that the child is in fairly good control of his language when he enters school. Therefore, there is no way of repeating the first "imprinting" period. Carroll says that the direct method is indirect in the sense that it does not take advantage of a number of time-saving shortcuts available in the second language learning process, such as, for example, the ability of the older learner to understand and verbalize in the native language second

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[23]Hammerly, "Recent Methods and Trends in Second Language Teaching," 500.

[24]Lenneberg, p. 138.

language grammatical patterns and semantic relationships.[25]

Long exposure to the direct method can result in habit formation and in the ability to converse (or read) fluently; however, due to the lack of overt structural or semantic understanding and of semantic drill work, language skills tend to be developed very slowly. In their extreme or pure forms the traditional and the direct method represent, in terms of second language process, the two ends of the spectrum--total reliance on deduction vs. total reliance on induction. It would seem, though, that neither extreme is justified, since neither deduction nor induction has been demonstrated to be inherently superior in second language learning.

During World War II an urgent need to impart second language communication skills to a large number of government personnel emerged. The traditional method seldom resulted in fluency, and the direct method could result in communication skills, but much too slowly. The task of developing a new approach was given to a group of structural linguists working under the aegis of the American Council of Learned Societies. These scientific linguists followed the assumptions that (1) language is primarily and basically oral, (2) the main purpose of second language learning is communication, and (3) the second language learning process is more efficient if the

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[25]John B. Carroll, The Study of Language (Cambridge, Mass.: Harvard University Press, 1953), p. 169.

student can rely on both induction and an overt understanding of language patterns and meanings and if the teaching materials are based on careful analysis of the contrasts between the language to be taught and the language of the learner.

Although these structural linguists have been reluctant to say that they developed a "method" and refer, at most, to a "linguistic approach," it seems obvious that when similar materials are produced and similar teaching procedures are used for dozens of languages a method has been developed. For lack of a better term, this method may be called the "structural linguists' method." Its procedures, which have evolved considerably, are as follows: The oral language skills are stressed throughout, with the development of the graphic skills being delayed until an oral foundation has been established. Pronunciation is taught by means of mimicry (and since the mid-fifties orally-based pronunciation drills), with explanations, the corrections of errors, and a transcription aid. This method relies on team teaching. One member of the team is a "native informant," an educated native speaker of the language who serves as linguistic model, pattern drill master, and conversation leader for a small group of students. The other member of the team is an academically-trained linguist who follows the progress of several groups of students and visits their classes in order to give explanations and answer questions.

Grammar is taught by a combination of induction and deduction, that is, by means of oral grammatical pattern drills and explanations as needed. In printed form, the grammatical explanations were placed as "summaries of behavior" at the end of pattern drill sections; this practice, however, seems to have been due less to the belief in induction than to the need of discouraging grammatical discussions between students and linguistically-untrained native informants.[26]

Vocabulary is not emphasized early in the program and is taught in linguistic context--that is, within sentences within dialogues--with native language sentence equivalences. The native language is used as little as possible but as much as necessary. The native language is not, however, the door to the second language. Emphasis is given to differences rather than similarities between the two languages.

The term "mim-mem" has been used, mostly in a derogatory manner, to refer to the early form of the structural linguists' method; but "this term seems unfair, since mimicry and memorization were only some of the activities performed under the direction of one of the members of the teaching teams."[27] In a number of ways, however, this method

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[26]Hammerly, "Recent Methods and Trends in Second Language Teaching," p. 501.

[27]*Ibid*.

is balanced; it is, for example, more or less in the center of the deduction-induction spectrum and far from the extremes on the question of the use of the native language. This method also appears to be scientific to a certain extent, since the science of linguistics is called upon in the preparation and presentation of teaching materials based on a contrastive analysis of the two languages involved and on drill work on the points of interference.

Habit formation with overt structural understanding of grammar depends on how well the instructor builds the bridge between mechanical language work, such as the memorizing of dialogues and the performance of pattern drills, and the free use of the language. Unfortunately, very few teaching materials provide this essential bridge-building practice; most leave it up to the imagination of the teacher who may or may not be adequate to the task.

During the late 1950's a group of language teachers, most of them direct methodologists, adopted in varying degrees some of the procedures used by the structural linguists, and these various combinations of direct and linguistic methodology came to be known as a new method. Its three main assumptions are that (1) some of the proponents considered language primarily and basically oral, while others thought of it as both and about equally oral and graphic; (2) the main purpose of language learning is assumed to be communication; and (3) most proponents of this method

seem to have considered that second language learning is primarily inductive. This is the combination of basic assumptions found in the early "audiolingual method."

In its procedure the early audiolingual method shows, as in its assumptions, that it has been influenced more strongly by direct methodology than by linguistics. Most proponents of this method think that the development of oral skills should precede that of graphic skills. Pronunciation is taught primarily and exclusively by imitation, an obvious direct method practice. Proof of this is the lack of pronunciation drills and transcriptions in the early audiolingual textbooks for secondary schools. Grammar is taught primarily by oral pattern drills and induction. The individual teacher could change the order of or discourage the giving of grammatical explanations by not offering them or by restricting them to brief discussion at the end of each drill section or even at the end of a whole unit.

Vocabulary in the audiolingual method is not emphasized early and is taught in linguistic context with native language sentence equivalents appearing somewhere in the materials but usually avoided in class by directly-oriented teachers. The native language is scarcely used (by some teachers not at all). The procedural unity of this method did not last, however, so that soon it was possible to speak of several "schools" of audiolinguists and by the mid-sixties just about anything was being done under the banner

of audio-lingualism." For example, some very traditional textbooks became "audiolingual" almost overnight by the simple device of adding a "few dialogues and making a few poor tape recordings available."[28]

However, the "audio-lingual habit theory," which is more or less "official" today has the following principal ideas: (1) that since speech is primary and writing is secondary, the habits to be learned must be first of all discrimination responses and speech responses; (2) that habits must be automatized as much as possible so that they can be called forth without conscious attention; (3) that the automatization of habits occurs chiefly by practice, that is, by repetition. The audio-lingual habit theory has given rise to a great many practices in language teaching, such as the language laboratory, the structural drill, and the mimicry-memorization technique.

Another major theory of second language teaching in use today is the "cognitive-code" theory. According to this theory, learning a language is a process of acquiring conscious control of the phonological, grammatical, and lexical patterns of a second language, largely through study and analysis of these patterns as a body of knowledge. Carroll calls it a "modified, up-to-date grammar-translation theory."[29] The theory attaches more importance to the

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[28]*Ibid.*, p. 502.

[29]John B. Carroll, "The Contributions of Psychological

learner's understanding of the structure of the foreign language than to his facility in using that structure. It is believed that if the student has a proper degree of cognitive control over the structures of the language, facility will develop automatically with use of the language in meaningful situations.

The opposition between these theories can be illustrated by the way they would deal with the findings of contrastive linguistics. According to audio-lingual habit theory, information about the differences between the learner's native language and the target language is of use to the teacher in planning drills and exercises, because it would pinpoint the difficulties of the student. However, it would confuse the student who needs only to imitate the foreign language sounds and patterns until by practice he masters them. According to cognitive code-learning theory, on the other hand, the differences between the native language and the target language should be carefully explained to the student, so that he may acquire conscious control of the target language patterns.

Two research projects have attempted to determine which method of teaching a second language produced superior results. The Pennsylvania Project had as its major focus the in-field comparisons of three different foreign language

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Theory and Educational Research to the Teaching of Foreign Languages," Modern Language Journal, XLIX (May, 1965), 278.

teaching methods for beginning and intermediate French and German classes at the high-school level: (1) "traditional"; (2) "functional skills" (essentially, the "audio-lingual approach as broadly defined within the profession); and (3) "functional skills plus grammar" (similar to the "functional skills" approach but specifying the use of grammatical explanations by the teacher as a supplement to the regular audio-lingual procedures). Since controversy has long been waged between the proponents of traditional and audiolingual techniques on the relative merits of these approaches, results of this large-scale study were eagerly awaited by the profession. The major conclusion reported was that after two years of "traditional," "functional skills," and "functional skills plus grammar" instruction there emerged no significant differences in student achievement in listening comprehension, speaking, and writing--and slight superiority of the "traditional" group in reading.[30]

The other experiment was conducted at the University of Colorado by a research team consisting of George Scherer, a foreign language professor, and Michael Westheimer, a psychologist.[31] The experiment contrasted an audio-lingual habit method, largely based on the audio-lingual habit

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[30]John L. D. Clark, "The Pennsylvania Project and the 'Audio-lingual vs. Traditional' Question," Modern Language Journal, LIII (May, 1969), 388.

[31]George A. C. Scherer and Michael Wertheimer, A Psycho-Linguistic Experiment in Foreign-Language Teaching (New York: McGraw-Hill, Inc., 1964).

theory, with a bilingual, grammar-translation method of the traditional sort, based on some variety of the cognitive code-learning theory. After two years, the audio-lingual group was slightly ahead in speaking ability, and the traditional group was slightly better in writing ability, but the two groups did not differ at all in listening and reading. On the whole, the average differences between the groups were small; small enough, at any rate, to suggest that it "does not make any difference whether one uses the audio-lingual method as opposed to the traditional grammar-translation method."[32]

In the newest projected model, Brown outlines "a cognitive model of learning to which proposals could be made for second-language teaching methodology and eventually a substantial theory of second-language learning."[33] This cognitive model is based on David Ausubel's theory of "subsumption" in human learning. An overview of Brown's argument can be given in six steps: (1) rote learning is a mechanistic process peculiar to only a small fraction of human learning; (2) meaningful learning, an efficient conceptualizing process of organization, is characteristic of most human learning; (3) retention, or long term memory, is the crucial

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[32]Carroll, "The Contributions of Psychological Theory and Educational Research to the Teaching of Foreign Languages," 279.

[33]H. Douglas Brown, "Cognitive Pruning and Second Language Acquisition," Modern Language Journal, LVI (April, 1972), 218.

determiner of whether or not something has indeed been learned; (4) retention of material rotely learned is extremely inefficient since forgetting involves a selective "cognitive pruning" procedure arising out of a need for cognitive economy, a procedure which actually enhances retention; (5) in an activity such as second-language learning, which is conducive to meaningful learning processes, maximal retention could be achieved by means of efficient subsumption and pruning procedures.

Brown explains that "meaningful learning may be described as a process of relating and anchoring new material to relevant established entities in cognitive structure."[34] He conceives of cognitive structure as a system of building blocks; meaningful learning units become "blocks in the already established categories or systematic clusters of blocks. This conception is not unlike the process of nucleation in physics, used by Pike in an analogy to language learning.[35] Pruning, in Brown's theory, is the elimination of unnecessary clutter and a clearing of the way for more material to enter the cognitive field. Using the building-block analogy, a structure made of blocks is seen as a few individual blocks, but as "nucleation" begins to give structure a perceived shape, some of the single blocks achieve

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[34] Ibid., 219.

[35] Kenneth L. Pike, "Nucleation," Modern Language Journal, XXXXIV (May, 1960), 291-295.

less and less identity in their own right, and become subsumed into the larger structure. Finally, the single blocks are lost to perception, or "pruned" out, and the total structure is perceived as a single whole without clearly defined parts. An important aspect of the pruning stage of learning is that subsumptive forgetting, or pruning, is not haphazard or chance--it is systematic.

The existence of a hierarchy in cognitive organization implies the possibility of organizing language curricula according to such a hierarchy. However, several problems still remain! First, psychologists do not know, especially at early "nucleation" stages, exactly how subsumption occurs in human learning in general, much less in second language acquisition in particular. While meaningful learning of all kinds is certainly facilitated linguistically, it is not clear whether language acquisition should be explained in terms of the acquisition of added subsumers, the reshaping of existing subsumers, or perhaps some other cognitive change. Also, the "meaningfulness" of hypothetical grammatical rules is yet to be determined; it can only be assumed that semantic processes out of which grammatical rules may emerge are of prime importance in that they clearly relate to cognitive functioning.[36] Cognitive "hierarchy" teaching has exciting possibilities for second language teaching, but until it is

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[36]Brown, "Cognitive Pruning and Second Language Acquisition," 221.

better researched and understood, it is only a "possibility" in the future.

In summary, from the two major research projects in second language learning, it would seem that no one method has been proven superior to another. Carroll points out that neither the audio-lingual habit method nor the cognitive-code method "is closely linked to any contemporary psychological theory of learning." He states that the audio-lingual theory "has a vague resemblance to an early version of a Thorndikean association theory, while the cognitive code-learning theory is reminiscent of certain contemporary Gestaltist movements in psychology which emphasize the importance of perceiving the 'structure' of what is to be learned, without really relying on such movements."[37] However, there are implications in learning theory and in the teaching methods reviewed here that have implications for teaching English pronunciation to Spanish-speaking students.

Theoretical Implications

One of the major principles of learning theory is that children acquire their language from those around them. This is major in the environmental theory and implicit in the nativist theory. This has implications for the Spanish-

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[37]Carroll, "The Contributions of Psychological Theory and Educational Research to the Teaching of Foreign Languages," 280.

speaking child. For him to acquire English he should be with those who speak English. To speak English well, he should have good models. Of particular importance, the teachers of the Spanish-speaking child should speak clearly, and without confusing dialect variations.

From the body of knowledge that has accumulated in the study of verbal learning, several points are of importance to second language teaching. (1) The frequency with which an item is practiced per se is not as crucial as the frequency with which it is contrasted with other items with which it is confused. Thus, the learning of sounds in "pattern practice" drills, though valuable in training tongue positions, would be improved if instead of simple repetition there is a constant alternation among varied patterns.

(2) The more meaningful the material to be learned, the greater is the facility in learning and retention. This is one of the areas where the audio-lingual habit theory has received criticism. The users of the method tend to play down meaningfulness in favor of automaticity. In the case of Spanish-speaking children, the more the material for practice can be adapted to their cultural understanding, the more likely it is to be accepted and retained.

(3) Other things being equal, materials presented with visual accompaniments are more easily learned than comparable materials just presented aurally. Even though the objective of teaching may be the attainment of mastery over

the auditory and spoken components of language behavior, an adequate theory of language learning should take account of how the students handles visual counterparts of the auditory elements he is learning, and help to prescribe the optimal utilization of these counterparts. Use of mirrors for the child to see what he is doing, printing the words using games to project the ideas of the sounds, for older students the use of phonetic transcriptions, and other visual symbol systems can immeasurably improve sound acquisition.

(4) Allied to the last point, but important for itself, is the idea that in learning a skill, conscious attention to the critical features of the skill and understanding of them will facilitate learning. This principle is largely ignored by the audio-lingual habit theory. This practice implies that in teaching pronunciation, explanation of necessary articulatory movements are helpful, and in some cases of student inability to make a sound with which he is not familiar from his own language is the only way. Of particular importance, a principle from verbal learning theory should be remembered; when the child purposefully or accidentally hits upon the correct sound, reward should be heaped upon him. As when the mother conditions the sounds of the small child, the teacher should condition correct pronunciation with pleasurable signs of recognition. Errors should be pointed out but not belabored. Correctness should be made rewarding.

(5) The more kinds of association that are made to

the item being taught, the better is learning and retention. The audio-lingual method of teaching in most cases is very weak in this accepted verbal learning theory principal. All senses may be used to fortify the teaching of a sound, not just the auditory sense. An experiment carried out at the Army Language School in Monterey, California[38] demonstrates the dramatic elements that can be used in language teaching. They use actual motor performances involving the item to be learned. For example, the student learns the meaning of the foreign word for jump by actually jumping. Language teaching becomes a sort of physical exercise both for the students and for the instructor whose actions they imitate.

A similar experiment was conducted at San Jose State College in which all instruction in German was carried out by physical interpretation by the students. The experimental group at the end of the eight-week instruction period were vastly superior to the control group who had been taught by conventional methods.

Asher presents three critical elements in the way children learn their first language that give clues to "creating a powerful strategy to learn a new language." The first element is that listening is far in advance of speaking. For instance, Asher cites the example of a child who cannot produce more than one-word utterances, yet he

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[38]James J. Asher, "Toward a Neo-Field Theory of Behavior," Journal of Humanistic Psychology, IV (Fall, 1964), 85-94.

demonstrates perfect understanding when an adult says, "Pick up your truck and bring it to me!"

Not only is listening critical, according to Asher, but children acquire listening skill primarily through an intimate relationship between language and the child's body. Utterances, usually commands from adults, are used to manipulate the orientation, location, and locomotion of the child's entire body. Finally, Asher contends that listening skill may produce a "readiness" for the child to speak. He states that "a reasonable hypothesis is that the brain and nervous system are biologically programmed to acquire language, either the first or the second, in a particular sequence and in a particular mode. The sequence is listening before speaking and the mode is to synchronize language with the individual's body."[39]

Conclusion

In summary, these are a few examples of theory-derived principles that may be of help in planning programs for the teaching of the pronunciation of English to the Spanish-speaking child. It is obvious from the conflicts within acquisition theories and the conflicts between teaching methods that there is no one answer to the problem. However, if teachers are well trained in the target language and

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[39]James J. Asher, "Children's First Language as a Model for Second Language Learning," Modern Language Journal, LVI (March, 1972), 133-136.

have a functional knowledge of the native language of the child, they can find principles of learning theory to guide them. If one does not work, since children vary greatly in innate abilities in language acquisition, the teacher can always try another. The important thing is to be knowledgeable and flexible.

CHAPTER V

ENGLISH-SPANISH PHONOLOGY

Each language has a set of selected sounds, patterns, and arrangements developed in the course of its historic development. The native speaker of a language acquires his language naturally and internalizes it without consciously knowing how he does it. However, when this individual acquires a second language, because of the arbitrariness of sound selection, he may have difficulty in producing and using some of the sounds in the new language. The terms "linguistic noise" and "interference" are used to indicate a reduction in efficiency of the communication process caused by language competition or overlap. However, because language has system it is possible to understand the patterns of that system and to study those parts of the pattern carried over into the second language. That is the concern of this chapter.

This chapter focuses on the sound systems of English and Spanish. It is intended to produce a simplified and abbreviated version of English phonetics and contrastive points in Spanish phonetics that can be used in a course of Speech

for the Classroom Teacher for prospective teachers who have no Spanish language background and a limited knowledge of the sounds in the English language. The chapter is divided into three sections. The first part includes a brief discussion of the structure of sound systems to show that the sounds that an individual chooses when he speaks are in general prescribed by the rules of the language he speaks. The second part includes a description of the sounds of English, consonants, vowels, and diphthongs, and shows in each instance of the sound the Spanish contrast. The third section briefly discusses the intonation patterns of the two languages. References used to verify the material used in this chapter include Bronstein, Wise, Pike, Trager and Smith, Stockwell and Bowen, Lado and Fries, Van Scoy and Davis, and Kenyon and Knott.[1]

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[1]Arthur J. Bronstein, The Pronunciation of American English (New York: Appleton-Century-Crofts, Inc., 1960). Kenneth L. Pike, The Intonation of American English (Ann Arbor: University of Michigan Press, 1945). Claude Merton Wise, Applied Phonetics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957). George L. Trager and Henry Lee Smith, Jr., An Outline of English Structure Studies in Linguistics: Occasional Papers, No. 3 (Norman, Oklahoma: Battenberg Press, 1951). Robert P. Stockwell and J. Donald Bowen, The Sounds of English and Spanish, The Grammatical Structures of English and Spanish and Patterns of Spanish Pronunciation (Chicago: University of Chicago Press, 1970). Charles C. Fries, An Intensive Course in English for Latin-American Students (Ann Arbor: University of Michigan Press, 1953). Robert Lado and Charles C. Fries, English Pronunciation (Ann Arbor: University of Michigan Press, 1954). Herbert Van Scoy and Margaret M. Davis, Essentials of Spanish (New York: Charles Scribner's Sons, 1970). John Samuel Kenyon and Thomas Albert Knott, A Pronouncing Dictionary of American English (Springfield, Mass.: G & C Merriam Company, 1951).

Structures of Sound Systems

All languages have structure, certain rules that guide the user of a language toward speech competence. The user of a language has a variety of choices which he can exercise, but once he has made a choice certain consequences usually will follow. For example, an English user may choose to use a first-person singular subject or not. However, if he has made the choice of a singular subject then if he follows the rules of English grammar he will choose a singular form for the verb that accompanies it, if the verb has different forms for singular and plural. Further, English places almost no restrictions on the modifying elements that are associated with a noun. Thus, an English speaker can talk about the big house or the big houses, and the and big remain the same in either instance. Spanish, in contrast to English, does place restrictions on modifying elements associated with nouns: la casa grande, las casas grandes. In other words, the particular obligatory consequences of a given choice differ from language to language.

The distinction between choices that can be made freely, called optional choices, and the inevitable consequences of these, called obligatory choices, is a fundamental distinction which must be made in some form in order to understand the basic structure of language. A grammar of a language really consists of describing two things: the optional choices that are available to the speaker of the

language, and the obligatory consequences of each optional choice. This difference between optional choices and obligatory ones extends throughout the structure of a language. The sound system of a language, its phonology, may be regarded as a set of rules which specify its pronunciation. Perhaps the most interesting fact about the pronunciation of language in general is that there are wide possibilities in the number and variety of sounds that the human vocal apparatus can produce, and yet only a small fraction of this potential variety is actually put to use in any given language, and these choices have developed rules to determine when and where they are used.

To illustrate, when an English speaker says a word like pat, there is a puff of air between the p and the a. When a Spanish speaker says a similar word such as piso, there is no puff of air between the p and the i. Probably neither speaker knows why he has or has not produced the puff of air. However, in neither case is the production arbitrary on the part of the speaker. In English, initial p in a word always has an explosive puff of air. It is part of the built in rules of English pronunciation. Further, if an English speaker puts an s before his word and it becomes spat, there is no puff of air. In other words, English rules would say that the /p/ sound is unaspirated following an s in a word and aspirated when initial in a word. Linguists might say that the use of the puff of air depends on the "environment" in which the sound is used.

Linguists have devised various ways of summarizing the facts of the phonology of a language. One way is to write formulas that state the allophones which particular phonemes have in certain environments. For example, the statement "The phoneme /p/ appears with aspiration in the environment of a following stressed vowel" may be written as follows:

$$/p/ \rightarrow [p^h] \text{ in env. } -\acute{V}$$

The phoneme being described is given at the left of the arrow, and the allophone and the relevant environment are at the right. In formulas of this kind, a dash is used to show the position of the phoneme relative to the environment; symbols like C for consonant, V for vowel, and the acute accent mark for stress are also employed.

This formula, then, describes a "rule" in the structure of English concerning an allophone of the phoneme /p/. In addition, there are rules concerning the distribution of phonemes. For example, a phoneme /s/ exists in both English and Spanish. In English there are no restrictions on the distribution of the /s/ phoneme. It can be initial in a word, medial, or final. However, in Spanish, /s/ can never occur before another consonant in the same syllable. This is not a mere curious detail about the language; it is a psychological fact of great importance to the Spanish speaker of English. He cannot easily say an English word like <u>school</u> or <u>speak</u> without putting a vowel in front of the <u>s</u>: <u>eschool</u>,

espeak. He has a phoneme /s/, just as the English speaker does, but its distribution is different. Because of this difference, /s/ is not an optional choice for the speaker of Spanish in all the same positions where it is an optional choice for the English speaker; at any point where the possibilities of choice differ, a conflict occurs which has consequences for the learning of the two systems.

A substantial body of these choices and restrictions is mastered by a child at an early age. Although he will continue to add to his language during the rest of his life, the child by the age of six is in rather firm control of the principal choices and restrictions of his language.

The problem of teachers of a second language is to build into the nervous system of each learner a new set of choices and restrictions. According to the balance and dissonance theories it is the nature of the nervous system that it tends to reject conflict, that it seeks unification, orderliness, coherence, and simplicity.[2] In introducing a distinct and separate linguistic organization into a nervous system where one such organization is already comfortably established, the second language must necessarily encounter stubborn resistance and energetic efforts to mix the new with the old. Certainly students do not consciously resist this duality of languages; in fact, they cannot help themselves.

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[2]See balance theories by Heider, Osgood, or Abelson and Rosenberg; see also Festinger's theory of cognitive dissonance.

As speakers of Spanish they have found that the Spanish language has worked very well for them and may not feel any great pressure to speak as the English speakers do. Or with the best intention in the world they may plan to use the English vowel in miss and have it come out mees. The habitual channels of Spanish choices and restrictions have become internalized and the only way to give the Spanish speaker a better English pronunciation is to give him the choices and restrictions of the English language.

To accomplish this task it is necessary to break the structures of the sound systems of the two languages into their units of sound and see where they fit together and where they contrast. In developing a satisfactory pronunciation of English, the Spanish-speaking student must learn (1) to hear and imitate several sounds that are new to him, (2) to ignore the differences between several sounds that are completely familiar to him, and (3) to modify his manner of making most of the other sounds that are familiar to him. The smallest significant unit in either language is the phoneme.

A phoneme is a sound family or group of variables which are near enough alike to be recognized for practical purposes as the same sound, or which have reasonably identical significance in determining the form and meaning of words.

Consider, for example, the sound of the letter t in such words as top, pot, and button. In all of them the tongue tip is placed against the gums just back of the upper teeth, and breath pressure is built up behind the obstruction; if the sound were spoken in isolation an abrupt release or plosion would follow. Phonetic context, however, changes the action in each word. In top the /t/ is released into the following vowel. In pot the /t/ is primarily an obstructing movement which terminates the vowel; usually no releasing movement is heard. The third word, button, involves an obstructing movement of the tongue upward from the position of the vowel represented by the letter u, to its contact with the upper gums. The tongue then retains this position while the soft palate breaks its contact with the back of the wall of the throat so that the /t/ is released abruptly through the nose. The articulatory action passes directly from /t/ into /n/.

In these three words, top, pot, and button, therefore, there are three variations of the sound /t/ which are near enough alike to be recognized as members of the same sound family, distinctly different from the members of the other phenomes. These variations together with all others which can be recognized audibly, constitute the phoneme /t/. The variables are called allophones of /t/. An

allophone is any distinctive variable within a sound family or phoneme.

A basic test of any phoneme is the common distinctiveness of its member allophones in forming words. All the variants of /t/, for example, have the same value in word patterns. No matter how variable the pronunciation of different speakers may be, the meaning remains unchanged so long as the sounds can be recognized as falling within their respective phonemes; but if other phonemes are substituted such as /k/, /m/, or /s/, for the /t/, then they are entirely different words. The change of phoneme changes word and meaning, whereas variation within any given phoneme makes no basic difference in meaning.

These phonemes will vary as to classification or their place and manner of articulation, and the presence or absence of voice. The terms used to analyze any particular phoneme in any language will be descriptive of the position of the articulators, of the presence of voice, and of acoustic value. The phonemes in both Spanish and English are divided into vowels, consonants, and diphthongs. These are called the segmental phonemes of a language.

However, sounds, even distinctive phonemes do not make a language. When speech is analyzed as if it were a certain kind of sound, and without reference to meaning, it is found to consist of a series of pulses of sound energy,

which are called syllables. The syllable is considered the basic physiologic and acoustic unit of speech, in contrast to the individual sounds, which are the basic units of language.

English defines its syllables as having a vowel or diphthong as its nucleus. In some instances a consonant may become vowel-like and become a syllable. In Spanish, the language has open and closed syllables. An open syllable is a syllable ending in a vowel or diphthong. A closed syllable is one ending in a consonant. But the clarity of these two statements is vastly clouded by the complex rules of Spanish syllabification, which often makes any decision as to whether a syllable ends in a vowel or consonant a difficult one. For example, in Spanish, a consonant at the end of a word followed by another word beginning with a vowel in a breath-group is regarded as intervocalic, and is considered phonetically as beginning the first syllable of the succeeding word. Thus, <u>los hermanos</u> would be pronounced /lo-ser-'ma-nos/; <u>con otros amigos</u> would be pronounced /ko-'no-tro-sa-'mi-gos/. This is called syllable liaison or linking. The rules for syllabification in either language form the basis for the intonation pattern of the language.

As consonants, vowels, and complex nuclei are combined into words, phrases and sentences, certain other sound-features are added to make them more noticeable and meaningful. Three conventional sound features available in

both languages for that purpose are emphasis or force of utterance, pitch or melodic variations, and pause or the lack of it. These "additives" are known as the supra-segmental phonemes of stress, pitch, and juncture. Neither language is spoken without them. It is not possible to study the phonemes of a language without considering them.

Further, when one approaches the study of languages in contact, the first thing he notices and probably the last thing he masters is the inflection of the voice; the complex rise and fall, the rhythm, the lilt, the various kinds of signals that mark what is emphasized, what parts are joined together, what parts are explicitly disjoined. This is the rhythm of a language; though not as well understood as the phonemic structures of a language, it is very important in the study of a language.

In summary, languages have rules that a normal child internalizes without conscious effort as he learns his first language. When a second language is imposed upon this natural structure, there may be interference because the choices and restrictions of the two languages will differ at many points. To understand these differences, it is necessary to become familiar with the structures of both languages: the phonemes, syllabic structure, and the intonation patterns.

Consonants

All consonants in English are characterized by a complete or partial closure of the channel through which the breath stream flows, from the larynx, or voice box, through the mouth or nose. The articulators (tongue, teeth, lips, palate) act either to form a complete stoppage of the breath stream in order to produce sounds known as stops or plosives, or to form a partial closure of the breath stream to produce sounds known as continuant sounds. There are six stops in the English language represented by the symbols /p, b, t, d, k, g/.

A continuant is a speech sound that may be voluntarily continued as long as the breath stream lasts or it is blended into the following sound. All open or continuant sounds are either fricative or frictionless. For fricative sounds, also known as spirants, the breath stream is hindered by the articulators to the extent that a noticeable friction-like quality is present. There are ten fricative sounds in English: /θ /, /ð/, /f/, /v/, /s/, /z/, /ʒ /, /ʃ /, /h/, /hw/. The frictionless consonants, also known as semivowels because of their vowel-like quality, are either glide, nasal, or lateral sounds. For glides, the breath stream is altered during the formation of the sounds by the motion of the articulators from one position to another. The second position of the glide is the position of the following sound. There are three such glides in English: /w/, /r/, and /j/. For nasal

sounds, the breath stream is forced through the passageway behind /w/, /r/, and /j/. For nasal sounds, the breath stream is forced through the passageway behind the mouth cavity and out through the nose. The soft palate, acting as a valve, is forward and lowered, so that the sound may be nasally emitted. The /l/ is the only sound in English made with the breath stream forced over the sides of the tongue. It is classified separately as a lateral sound.

The Voiceless Stops /p/, /t/, /k/

In English, the voiceless stop series of consonants are made in the following manner; air in the lungs is put under pressure by the muscles of the stomach and diaphragm; the air column is closed (or stopped) by the lips (for /p/), by the tongue against the alveolar or gum ridge above the teeth (for /t/), or by the back of the tongue against the soft palate (for /k/). When the closure is released, the air bursts through the mouth with an abrupt puff of air following the /p/, /t/, or /k/.

The articulation of the Spanish series of voiceless stops differs from the English in that this puff of air is not produced; the closure is released <u>before</u> the air pressure in the lungs is built up. As a result the English-speaker who is listening for this puff of air (or aspiration) to help him distinguish the sounds /p, t, k/, may mishear them as /b, d, g/, similar English sounds which are not aspirated.

Thus, to produce the aspirated /p, t, k/, a Spanish speaker needs to modify his pronunciation habits to produce the puff of air when these three sounds are used initially in a word or before a stressed vowel.

English /p/ vs. Spanish /p/

When the consonant /p/ is at the beginning of a word or at the beginning of a stressed syllable as in such words as pie, people, appear, expose, and depot, it is aspirated. The Spanish /p/ is also used syllable-initial, but it is unaspirated and much less strong (lenis) than the English /p/. Spanish-speaking students can sometimes be made aware of the difference between the aspiration on the English initial /p/ by pronouncing pipa in Spanish and pipe in English with a small piece of paper or a lighted match a few inches in front of the lips. The English /p/ will register a much greater effect on the paper or the lighted match.

The English /p/ is strongest when it is in the initial position of a word or accented syllable; next strongest when it is final (it may be released or unreleased); and weakest when it follows the /s/ sound. Spanish /p/ is usually syllable-initial, but it may appear at the end of a syllable if the next one begins with a voiceless dental stop: /séptimo/, /septiembre/; but it rarely appears in final position. There is one environment shared by /p/ in both languages where for all practical purposes the /p/'s are identical: between vowels after a stressed syllable:

popper	/pápa/	papa
copper	/kapa/	capa
opera	/ápoda/	apoda

In English such words as happen, the /p/ is not released as an aspirant but is released with the /n/ sound. This is called syllabification and is shown in phonetics with /'/ underneath the consonant /n/ [hæpn̩]. Spanish-speaking students tend to divide the word into two syllables, hap-pen. They will need to be trained to hold the /p/ sound with lips closed and let the /n/ filter out.

English /t/ vs. Spanish /t/

The English /t/ is aspirated when it is in initial position in a word or when it is before a stressed vowel. The exact position of the sound /t/ in English is not very stable in the mouth. /t/ can be interdental as in eighth; alveolar as in team; without explosion as the final sound in fat when the tongue is not removed immediately from occlusion with the palate; with a bilateral plosion when followed by a syllabic /n/ as in button.

The phonetic differences between English and Spanish /t/ in any position is considerable. Spanish /t/ is dental in articulation, the tongue stops the air column at the back side of the upper teeth rather than at the alveolar ridge, as in English. It never has a puff of air on release (aspiration) which English has whenever it is initial in a syllable that is under one of the higher levels of stress. It is

never flapped as the English /t/ is between vowel nuclei before a weak-stressed syllable. The Spanish /t/ is a phoneme with little variation in phonetic shape. Spanish speakers have great difficulty adjusting to the alveolar /t/ and even greater difficulty adjusting to its many allophones due to the English distribution of the /t/. The usual substitutions for the English /t/ is the /d/ sound, and sometimes the interdental /th/.

English /k/ vs. Spanish /k/

In English /k/ is a voiceless, aspirated, linguavelar stop-plosive. Like the other stops already discussed, the /k/ differs in the quality of the aspirate release, possessing different acoustic values. These differences result from the presence or absence of aspiration. A fully aspirated sound is made when the voiceless stop precedes a stressed vowel as in king; it is less aspirated when it precedes a lesser stressed vowel as in taken, or when final as in make. /k/ is heard as released or unreleased when it is final in a phrase. When preceded by /s/, as in sky and skate, the /k/ is weakly aspirated or unaspirated. No aspiration is heard when the voiceless plosive precedes another consonant as in take more and pick two. The /k/ is an excrescent velar plosive (in some American dialects) in such words as length and strength. In such words as question the plosive partly assumes the lip position of the following glide /kw/. The glides are partially devoiced in this process.

Spanish /k/ like Spanish /p/ and Spanish /t/ is unaspirated and usually syllable-initial. There are, however, some dialects in Spanish which aspirate /k/. Unlike /t/, but like /p/, the /k/ in Spanish may appear at the end of a syllable if the next one begins with a voiceless dental consonant, but it rarely appears in final position. The distribution of the Spanish /k/, thus, is much more limited than in English. This sound does not produce the problems for the Spanish-speaking student as the other two plosives, but many times it is voiced to the /g/ sound due to the lack of aspiration of the Spanish /k/.

The Voiced Stops
/b/, /d/, /g/

In English the /b/ sound is a voiced, bilabial, unaspirated stop-plosive; it is the analogue of /p/. It differs from the /p/ sound as follows: the vocal bands are in vibration to form the voiced consonant; the sound /b/ glides into the following sound without the puff of air noted in the production of the /p/ sound. The explosion of /b/ may be delayed to produce a long /b/ in compound words or in adjacent syllables as in <u>grab bag</u> /grab: ag/.

<u>English /b/ vs. Spanish /b/</u>

In Spanish /b/ and /v/ are one phoneme. At the beginning of words or following /m/ or /n/ the sound is like that of English /b/ but always pronounced with less force than in English: <u>bueno</u>, <u>vino</u>, <u>ambos</u>, <u>vamos</u>. Everywhere else

in Spanish, /b/ is the fricative /β/. Spanish-speaking students will accordingly incline, especially when first learning English, to use this bilabial fricative in such words as sober [soβər]. It needs to be repeated that /v/ in Spanish is not a separate phoneme; it is part of the /b/ phoneme. It is treated exactly like /b/; initially in a word or after a pause, or preceded by a nasal. It confuses Spanish-speaking students especially in such words as very [bɛrI] and valley [balI]. In English /v/ must be taught as a separate phoneme; the voiced analogue of /f/.

English /d/ vs. Spanish /d/

The sound /d/ in English is produced practically like /t/ with the following exceptions: the airstream is voiced; there is no aspiration. Like /t/, /d/ varies according to its distribution in English. The /d/ used initially in a word or preceding a stressed vowel has a slightly stronger release than a /d/ at the end of a word (Ned, den). /d/ like /t/ becomes dental preceding /th/ sounds as in breadth and width.

/d/ has two sounds in Spanish. At the beginning of a word or after l or n it has a hard pronunciation but less forceful than the English /d/: donde, doble, falda, conde. In other cases d is pronounced as the voiced th in this: cada, usted, madre, verdad. However, /d/ as the voiced sound in English has a very important difference. /d/ like the Spanish /t/ is made dentally. In other words the tongue tip

is placed on the inside of the upper teeth instead of the alveolar ridge.

One of the major problems connected with the /t/ and /d/ sound for the Spanish-speaking child is in forming the past tenses of words which end in ed. The following rules usually help:

(1) If the last sound in the word is voiceless, the suffix ed becomes /t/ as in asked [æskt].

(2) If the last sound is voiced, the suffix ed becomes /d/ as in received [rIsivd].

(3) If the last sound is a /t/ or /d/, the suffix ed is pronounced as a new syllable /I d/ or /ə d/ as in painted [pent Id] or [pent əd]; rounded [r aʊnd Id] or [r aʊnd əd]. There are no exceptions to these three rules, but there are exceptions to rule 4.

(4) When an adjective is spelled exactly like the past tense of the verb, the ed in the adjective spelling is usually pronounced as /I d/ or / əd/ as in

	verb	adjective
blessed	[blɛst]	[blɛsId] [blɛsəd]
aged	[edʒd]	[edʒ Id] [edʒ əd]
crooked	[krʊkt]	[krʊkId] [krʊkəd]

Exceptions to the rule are found in such words as [wIŋd] in Winged Victory and [hɔrnd] as in horned toad.

English /g/ vs. Spanish /g/

In English the sound /g/ is a voiced, lingua-velar, unaspirated stop-plosive. It is the voiced analogue of /k/. Like the other voiced stops, /g/ is normally made with a stronger release when it precedes a stressed vowel, with a weaker release when it precedes a less stressed vowel and when final. When the /g/ is immediately followed by a fricative sound, the ploded quality is absorbed by the noise of the fricative sound as in dogs and big vine.

In Spanish /g/ has two sounds. Before a consonant or before a, o, and u, it is pronounced as the /g/ in English except that it is not as strong (lenis). The letter g before e or i has the sound of a harsh or aspirated /h/. Spanish speakers tend to aspirate /g/ where it is not initial or preceded by a nasal sound, such as dragging [drɛ˞ɪŋ]. Probably the most severe problem is the unvoicing of the /g/, as well as /b/ or /d/ when they appear at the end of words: beg becomes bek, tub becomes tup, red becomes ret. Caution must usually be necessary in insisting on the voicing of these consonants because Spanish-speaking students tend to add the schwa sound on to words: beg becomes [bɛgə], dog becomes [dɔgə], and so on.

Fricatives

English /f/ and /v/ vs.
Spanish /f/ and /v/

The fricative sounds /f/ and /v/ are made with the

lower lip in contact (inside) with the upper teeth. /f/ is the voiceless cognate of /v/. Both sounds in English are found in the initial, medial, and final positions of words. /v/ tends to be made with less constriction than the /f/.

The Spanish voiceless spirant /f/ is sufficiently similar to the English /f/ to cause almost no difficulty to the Spanish-speaking student. The only difference is that the Spanish /f/ is not as strong as the English /f/. However, since the orthographic v in Spanish is part of the /b/ phoneme, it does cause considerable difficulty. As stated before, the /v/ may be pronounced as a /b/ in certain environments in Spanish and may result in substitutions in English. More prevalent among Spanish-speaking students is to unvoice the /v/ to an /f/ in such words as have making it haf, having becomes hafing, divide becomes difide. Intense practice with minimal pairs can usually minimize this problem.

fine-vine	life-live
vat-vat	half-have
fast-vast	fault-vault
leaf-leave	fail-vale

English /s/ and /z/ vs.
Spanish /s/ and /z/

The hissing or sibilant-fricative sounds /s/ and /z/ are found in all positions in English. They are normally made with the apex of the tongue held near or just in front of the alveolar ridge of the hard palate. The breath stream

is forced through a narrow groove of the tongue against the hard palate. It is then deflected over the upper edges of the lower incisor teeth. The lips are normally in a spread position. The /s/ is unvoiced and the /z/ is voiced.

In Spanish /s/ and /z/ are one phoneme. In other words, /z/ is part of the /s/ phoneme. It acquires its partial voicing by assimilation from the voiced consonant which follows it. Thus desde is pronounced dezde (Mexican Spanish). The Spanish-speaking student has not much trouble making the English /z/ sound, but has great difficulty knowing when to use it. Many English words are spelled with an /s/ but pronounced with a /z/ as in rose, /roz/, or his is /hiz iz/.

There are rules for forming plurals which can be of help to the Spanish-speaking student that are almost invariably reliable:

(1) If the last sound in the word is voiceless, the s is pronounced as /s/: cats, ducks, tops, roofs.

(2) If the last sound in the word is voiced, the /s/ is pronounced as a /z/: dogs, tubs, saws, hoes.

(3) If the last sound is an /s/ or /z/ or one of the allied sounds /ʃ /, /ʒ /, /tʃ /, /dʒ /, the plural is pronounced as a new syllable /Iz/ or /ə z/. The spelling of these plurals will be es. The e may be on the spelling of the singular of the word as in garage. In this case only the s needs to be added to the plural spelling.

Examples of this rule are as follows:

bus	busses	[bʌsIz]	[bʌsəz]
buzz	buzzes	[bʌzIz]	[bʌzəz]
rush	rushes	[rʌʃ Iz]	[rʌʃəz]
church	churches	[tʃ ɝ tʃ Iz]	[tʃ ɝ tʃ əz]
judge	judges	[dʒ ʌd Iz]	[dʒ ʌdʒ əz]

A rule that is not always invariable can be given the student concerning nouns and verbs. When nouns and verbs are spelled alike, a voiceless sound is used for the noun and a voiced for the verb:

noun		verb	
use	[jus]	use	[juz]
house	[haus]	house	[hauz]

Exceptions do occur in regional dialects in this country; for example, <u>grease</u> is pronounced with the /s/ for both noun and verb in many areas.

<u>English /ʃ/ and /tʃ/ vs.</u>
<u>Spanish /ʃ/ and /tʃ/</u>

/ʃ/ is a sibilant-fricative sound (sh) made in the alveo-palatal area of the mouth. A slightly broader surface of the blade of the tongue is used in making this sound than is used for the /s/ sound. The whole tongue is farther back in the mouth and the groove of the tongue is wider, directing a wider stream of air forward to the teeth than when forming the /s/ sound. The tip of the tongue is again high in the mouth.

The affricate /tʃ / is a combination of a stop and a fricative. An affricate results from the slow and non-impulsive release of a stop sound into a fricative sound made in the same area of the mouth. The affricate is treated as a separate entity in English, a phoneme in its own right. Despite the transcription of an affricate with two phonetic symbols, it is recognizable as a single phoneme. The sound starts with the tongue in the position for a /t/ with the tongue tip on the alveolar ridge and is then released as the /ʃ/ sound.

Normally the /ʃ/ and the /ʒ/ sounds are taught together. However, here the /ʃ/ and the /tʃ / are kept together because in Spanish there is no separate phoneme of /ʃ/ and this presents one of the major substitutions for the Spanish-speaking student. The /tʃ / is used in Spanish in such words as <u>chico</u>, <u>muchacho</u>, and <u>coche</u>. The sound is almost equal to the /tʃ / in English. The only difference is that the /ʃ / part of the phoneme in the Spanish affricate is briefer than in English. It gives it a "clipped" off sound. It is possible to teach the /ʃ/ sound to the Spanish-speaking student by isolating it from the /t/ in the affricate. However, the indiscriminate intermingling of the /ʃ/ and /tʃ / sounds in English words is a major problem in communication for the Spanish-speaking child. In English such words as <u>sure</u> and <u>sugar</u> are very often pronounced by the Spanish-speaking student with the initial /tʃ / sound. Major

problems exist with such minimal pairs as shoes and choose, shop and chop, sheep and cheap, ship and chip, and cash and catch. Intensive practice with minimal pairs usually will help some. (Many times the /ʃ/ sound is replaced by the /s/ sound in such words as mission and tension.) Words that are spelled with the ch sound almost invariably cause trouble. The /tʃ/ sound is used by the Spanish-speaker in such words as machine, Chicago, and Michigan.

English /ʒ/ and /dʒ/ vs.
Spanish /?/ and /dʒ/

/ʒ/ and /dʒ/ are the voiced cognates of the /ʃ/ and /tʃ/ sounds in English. The /ʒ/ sound does not carry a heavy functional load in English being found in such words as measure, treasure, pleasure, rouge, and azure. The affricate /dʒ/ is made with the tongue in the position for a /d/ and then released slowly as the /ʒ/. It is used in many English words that are spelled with the j letter: John, just, junction; and medially as dg in such words as edge, Madge, and ridge. This sound is also found initially in words spelled with the g as in gin, gem, general.

Since the /ʒ/ sound is not phonemic in Spanish it is difficult for the Spanish speaking child to make and even more difficult to know where to use it. In words such as pleasure and treasure, he will substitute the /ʃ/ or the /tʃ/. In words with the voiced /dʒ/ he will usually substitute the voiceless /tʃ/. Minimal pairs and triads can

be used for practice such as the following:

shoes [ʃ uz]	choose [tʃ uz]	Jews [dʒ uz]
shin [ʃ In]	chin [tʃ In]	gin [dʒ In]
sheep [ʃ ip]	cheap [tʃ ip]	jeep [dʒ ip]

Words such as church and judge are particularly difficult for Spanish-speaking students.

English /θ / and /ð/ vs.
Spanish /?/ and /ð/

These fricative continuant (th) sounds are tip of the tongue-teeth sounds. They are made with the tongue-tip in contact with the upper and lower incisors. /θ / is the voiceless cognate of /ð/. Like other voiced fricative sounds, the /ð/ is partially devoiced when it is medial or final in a phrase, or when it immediately precedes a voiceless consonant.

The /θ / is rarely used in South American Spanish though it is used in Castilian Spanish. Such words as cinco would be pronounced in Castilian as [θiŋko], but in Mexican or South American Spanish it would be pronounced [siŋko]. This carries over into English when /θ / comes initially in a word such as think [sIŋk]. Other substitutions for this sound is the /t/ in such words as thousand [tausənd].

The /ð/ sound in Spanish is part of the /d/ phoneme and is never used initially in a word, the /d/ is. Therefore in English words such as this and that, the Spanish

speaking students will often substitute the Spanish /d/. He also has great difficulty understanding the changes from the /θ / to /ð/ in such noun-verb combinations as teeth-teethe, breath-breathe, and cloth-clothe. The usual error is to unvoice both of them or to substitute the /t/ or /d/ for the final sound.

English /h/ and /hw/ vs. /h/ and /?/

The fricative /h/ occurs as the breath stream passes through the glottis. The vocal bands obstruct the stream sufficiently to produce a slight degree of friction. This whispered sound is usually called a glottal fricative. When pronouncing the /h/ sound the articulators are in the position of the following sound (he, hat, who). When the /h/ sound is intervocalic it tends to be voiced as in perhaps. In some English words the /h/ sound has been gradually lost as in honest and honor. The word humble is in the process now of losing the /h/. The sound is also commonly deleted in such words as prohibition, vehicle, and vehement. The Spanish-speaking student tends to put the harsh, glottalized /h/ sound in words such as these giving them a "foreign" sound.

The /hw/ sound is represented by the wh in spelling in English words. This sound is not stable in American English. The substitution of the partially devoiced /w/ is common throughout the country, but particularly in the

Mid-West and the North West. When used in English it is voiceless and used in such words as what, when, where, and white. The sound starts with the mouth in the position for the /h/ and ends as the voiceless /w/.

The orthographic h is silent in Spanish. Such words as hora are pronounced [ora]. This transfers into English sometimes in such words as hear, heard, hate, and hospital. A form of the /h/ sound is used in Spanish when the orthographic g is before the e or i; also the orthographic j. However, this is a much harsher glottal sound than the English /h/.

There is no /hw/ sound in Spanish. But, since the Spanish-speaking students tend to unvoice the /w/, the initial sound in the wh words sounds similar to the /hw/ English phoneme.

The Frictionless Consonants

All continuant sounds in English are either fricative or frictionless sounds. Those emitted with relative freedom from constriction of the breath stream are the frictionless consonants. There are seven such continuant sounds in the English language. Three of them are nasal sounds--the /m/, /n/, and /ŋ/ as in me, no, and sing; there are three glides--/w/, /r/, and /j/ as in we, red, and you; one of them is separately classified as the lateral sound--the /l/ as in live.

Nasal Sounds

The three nasal sounds are articulated like stops, but during the formation and emission of all nasals the velum or soft palate is forward. This opening of the velar valve permits the emission of sound through the nasopharynx and the nasal cavity. When producing the nasal sounds the oral cavity is closed at the point of articulation. The three points of articulation are the same as those for the three pairs of stops: /m/ is nasally emitted while the lips are closed for the /b-p/ position; /n/ is nasally emitted with the tongue at the alveolar ridge for the /d-t/ position; /ŋ / with the dorsum of the tongue against the velum as for the /k-g/ position. Nasals are normally voiced sounds, but when immediately following a voiceless consonant in the same syllable, they tend to be devoiced.

The nasals can assume a particular function of vowels, that is, they can act as unstressed syllabic sounds. In such words as <u>bitten</u>, <u>hidden</u>, <u>bottom</u>, the articulators are already in position for the /n/ or /m/ while the /t-d/ sounds are being made. No vowel intervenes between the /t-d/ and the /n/ or /m/. A syllabic /ŋ / is not common in cultivated American speech.

<u>English /m/, /n/ and /ŋ / vs.</u>
<u>Spanish /m/, /n/ and / ñ /</u>

The /m/ sound is phonemic in Spanish and causes no difficulty in English. However, the /n/, though phonemic,

before b, v, or p is pronounced approximately as an /m/: un vaso [um baso], en pie [em pie], un buen día [um buen día]. This sometimes carries over into English. Words ending in /m/ in English will many times sound like /n/ when spoken by Spanish-speaking students because they do this in many words ending in /m/ in Spanish.

The /ŋ / sound is not phonemic in Spanish; it is part of the /n/ phoneme. It is found in such words as tengo [tɛŋgo], cinco [sIŋko], when /n/ is followed by /k/ or /g/. The Spanish speaker tends to pronounce /g/ or less frequently /k/ after /ŋ / as in sing [**siŋg**], or singing [**siŋgIŋ**]; less frequently something [**samsIŋk**].

Spanish has another /n/ which is the letter ñ of the Spanish alphabet. It is pronounced like the ny in canyon. Since this pronunciation is only given in Spanish when there is a tilda over the /ñ/ in written Spanish, there is little carry over into English. Moreover, it is helpful in teaching such words as onion and union in English.

The Glides

Three frictionless, voiced American English sounds are formed as the articulators involved move from one position to another. Each of these glide sounds, /w/, /r/, and /j/, is closely associated with a specific vowel, the initial area of its formation. /w/ begins at or near the /U-u/ position, /r/ at or near the /ɝ-ɚ/ position, and /j/ at or near the /I-i/ position.

English /w/ vs. Spanish /w/

The bilabial /w/ exists before vowels in such words as we and away. The glide has both a lip and a tongue position. The lips are rounded and protruded, while the dorsum of the tongue is raised toward the velum of the mouth, as for the /U-u/ vowel positions. A devoiced form of this glide may occur when it follows a voiceless consonant. In the words sweet, quick, and twenty the glide form /w/ loses much of its voicing.

The letter w occurs only in foreign or borrowed words in Spanish. However, the sound is found in spelled u (or hu). h is silent in Spanish as in huevo and the word starts with the /w/ sound [**weba**]. In words like bueno, the u is pronounced as the /w/ [**bweno**]. Students need to be warned sometimes to unround the lips rapidly after pronouncing /w/ and before pronouncing the vowel which follows, especially back vowels.

English /r/ vs. the Spanish /r̄ / and /rr/

The /r/ is probably the most variable of all English consonants. The history of its development accounts for the many variations found. Earlier /r/ was a trilled sound, then a fricative sound, both clearly consonantal in acoustic value. During the seventeenth century, the consonantal aspects of the sound seem to have weakened in British English and the sound became more and more vocalic until today it

closely approximates a vowel. In certain parts of the English speaking world the trilled /r̃ / is still common form as in Scotland and Ireland. It is also still prominent in Spanish.

This glide is variously formed in American English, possessing slightly different tongue positions, differing in various parts of the country. In the common position for /r/, before stressed vowels, as in refer and rheumatic, the tip and blade of the tongue are turned upward toward the hard palate, the tip pointing to (but not touching) the area immediately behind the alveolar ridge. In all formations of /r/, the sides of the tongue are in contact with the bicuspid and molar teeth, as for /n/ or /d/. The frictionless /r/ is the common form heard in American and Canadian English. It remains partially fricative when immediately following /t/ or /d/ as in train and dream.

In Spanish, the pronunciation of /r/ that appears in most dialects is the alveolar flap, produced by a rapid motion of the tongue tip upward from behind the lower teeth across the alveolar ridge with no stop-phase between, merely touching against the alveolar area in passing on to the next sound. Between vowels, Spanish /r/, unlike most other consonants of the language, may occur either single or double. The single /r̃/ is the alveolar flap just described; the double /rr/ is a tongue-tip trill--examples /karo/ caro, /karro/ carro. For Spanish-speaking students who use the flap /r̃/ in

speaking English the following exercise is helpful: Pronounce the Spanish flap /r̃/. Turn the tongue back until it can no longer touch the roof of the mouth; round lips and continue to pronounce /r/. This will approximate the English /r/.

English /j/ vs. Spanish /j/

The voiced palatal glide is made with the front of the tongue raised toward the hard palate. The sides of the tongue are in contact with the bicuspid and the molar teeth. The initial position of this sound is similar to that of a very high and tense /i/ sound. Its acoustic value becomes clear as the articulators move, very rapidly, to the position of the following vowel. This frictionless glide exists only before vowels, in the onglide position. It is not found before consonants nor finally. The lips assume the position of the following vowel: spread before front vowels yes [jɛs]; relaxed and open before mid-vowels yearn [jɝn]; rounded before the back vowels yawn [jon].

Like the other glides, /j/ is somewhat devoiced when it follows the voiceless plosives /p/, /t/, and /k/ in a stressed syllable: pure [pj̥ur], cute [kj̥ut], and tune [tj̥un]. However, when an s precedes these plosive stops, the /j/ retains its voicing: spume [spjum], stew [stju], and skewer [skjuə]. After other voiceless consonants, a devoiced /j/ is also present: suit [sj̥ut], enthuse [ɛnθj̥uz], and few [fj̥u].

The letter j in Spanish is pronounced as the strongly aspirated /h/ in such words as hijo and joven. The y letter initial in a syllable followed by a vowel in Spanish uses the /j/ sound as in yo. Students have little or no difficulty making this sound. They do have trouble knowing when to use it; for example, such words as union [junjən] and onion [ʌnjən] where there is no indication in the spelling that the /j/ sound is there. English spelling also gives the Spanish-speaking student trouble between the /j/ and /d/ sounds. Jello and yellow are many times pronounced alike. Just is pronounced as [jʌst] or [just]. In such words as huge and humor the Spanish child often drops the /h/ as [judʒ] and [jumər].

English /l/ vs. Spanish /l/

The /l/ in English is a voiced, alveolar, vowel-like sound, made with the sides of the tongue free from contact with the teeth or gums. This laterally emitted sound is found initially, medially, and finally. Like the other glides the /l/ is partially devoiced when it follows the voiceless plosives in a stressed syllable as in play and clean. It is also partially devoiced when following other voiceless sounds, as in flew and sly.

The /l/ in English possesses two clearly distinguishable allophones, commonly referred to as light and dark /l/. The light /l/ is the sound made when /l/ precedes a front vowel, or when it is followed by /j/, as in leave, lit, land,

and value. When the /l/ is in the medial position before an unstressed vowel (as in telephone), in final position (as in fill), when it precedes a back vowel (as in lose), or when it is syllabic (as in beetle), the sound is made with the back of the tongue higher in the mouth. Many people who live in the "r-regions" of this country use the darker variety of /l/ in all positions of words.

The Spanish /l/ is made with the tongue high and front in the mouth, tense, with the tip and front in contact with the alveolar ridge as though for the production of the English /d/, and the back of the tongue is held as though for the vowel /i/. There is so little room left at the sides for the air to pass that friction noise may often be heard. The /l/ is in effect almost a laterally released /d/. However, the sound is close enough to the English syllable-initial /l/, especially before high front vowels such as /I/ and /ɛ /, that it does not cause great interference. Spanish has a /ll/ sound that is pronounced in Mexican Spanish as the /j/ sound. This does not cause a problem, but the spelling of words with two /l/ sounds (double l) causes the Spanish speakers to separate the /l/ sounds, one attached to each of two syllables as in mellow mel-low. This separation occurs with other double consonants that exist in English.

Vowels

Vowels have specific functions in a language. They are the syllable carriers of speech. Each syllable in a word

or phrase contains either a vowel, a diphthong, or a vowel-like consonant, which acts as the nucleus of the syllable. The vowels are the carriers of the voices one hears as people speak. Vocal resonance, quality, intensity, and pitch are all heard through the vowels of the language. The rate of speech can be speeded or retarded by shortening or lengthening the vowels. Speech sounds are clipped, drawled, staccato, or jerky depending on the way the vowels are said. The vowels carry the major load of inflection or pitch variation. Through them, one can signify doubts, questions, complete or incomplete thoughts, or the melodic patterns of a language. As such, they are the primary keys to the dialectal differences in a language.[3]

Except in whispered speech, vowels are voiced sounds. The breath stream passes through the larynx, activating the vocal folds. The soft palate moves back and the pharyngeal wall draws forward closing off the nasopharynx, so that all the vowels in English are emitted through the mouth. The pharyngeal cavity may be changed by the position of the larynx, by the epiglottis, and by the velum. Comparatively free from obstruction as it is emitted from the pharynx, each vowel is modified in the oral cavity by the position and shape of the lips, the tongue, and the aperture of the mouth. The mouth opens or closes, the lips move into a spread,

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[3]Arthur J. Bronstein, The Pronunciation of American English (New York: Appleton-Century-Crofts, Inc., 1960), pp. 132-133.

neutral, or rounded position, and the tongue is elevated toward the front, central, or back part of the palate to produce all the sounds of American English.

In setting up the vowel phonemes of a language, it is useful to consider the positions--or environments--in which contrasts occur. Actually, English has at least three vowel systems in different environments within words, whereas Spanish has only one system that does not vary significantly from one position in a word to another. Furthermore, the English vowel system is considerably more elaborate than that of Spanish in terms of the number of syllabic nuclei (a vowel is the nucleus of the syllable), both simple and complex. In order to examine these vowel systems, below is a chart showing a comparison of the relative positions of English and Spanish vowels. Spanish vowels are represented by the large black letters.

	Front	Central	Back
High	[i] [I] i		u [u] [ʊ]
Mid	[e] [ɛ] e	ɜ ə ɚ ʌ	o [o]
Low	[æ] [a] a	a [a]	[ɔ] [ɔ]

The Front Vowels

The vowels in this series are called front vowels because their usual pronunciation--and the differentiation of one from another--depends in large part upon the way in which the tongue is adjusted in the front part of the mouth. The tongue is tense for some of the vowels and lax for others. The lips are spread and almost closed for the high-front vowels to open for the low front vowels.

English /i/ and /I/ vs. Spanish /i/

The two highest front vowels in English are /i/ as in beet and /I/ as in bit. /i/ is a tense vowel made with the lips spread and the mouth almost closed. /I/ is made with the tongue slightly lower in the mouth and it is lax and a much shorter vowel. The /i/ sound in Spanish is about half way between these two vowels. In fact, Spanish has four variations of the /i/ sound, none of which are the /I/ sound as used in English. The /I/ sound is difficult for many Spanish-speaking students to learn to make. It helps sometimes to have them start with the /i/ sound which they can make and let the tongue relax. An exercise in which they whisper the front vowels from the highest down to the lowest will help them to feel the tongue positions. The use of minimal pairs such as the following is essential practice:

it-eat fit-feet pit-Pete sheep-ship slip-sleep

Also the use of the words in context is useful:

1. The man beat the dog.
2. The dog bit the man.
1. This is a sheep.
2. This is a ship.

English /e/ and /ɛ / vs.
Spanish /e/

The tense mid-front English vowel /e/ as in gate and the lax mid-front vowel /ɛ / as in get are made with the tongue blade slightly lower and retracted in the mouth than the two high front vowels. The lips are opened a bit more and in a less spread position than for the /i/ and /I/. The sound resulting from the tendency to diphthongize /e/ does not vary phonetically with the monothong /e/, and the sound may be transcribed either way. /ɛ / is more relaxed and a little lower in the mouth than the /e/. Spanish has the /e/ sound but it is pure, not diphthongized and a shorter sound. When it is at the end of a syllable as in mesa it is much like the English /e/. When it is checked by a consonant it is similar to the /ɛ / in English. Spanish only has the one phoneme /e/. For them /ɛ / is not a separate sound. Spanish-speaking students can make both sounds but they tend to use them in the wrong places. They particularly substitute the /ɛ / sound for the lower /æ / sound as in hat [hɛt]. Again minimal pair practice helps differentiate between the two sounds: mate-met, late-let, bait-bet, pain-pen.

English /æ / and /a/ vs.
Spanish /?/

The vowel /æ / is a low, front vowel. For most Americans who do not use the /a/ sound, it is the lowest front vowel of American English. The tongue blade is slightly lower in the mouth and somewhat retracted from the position of the /ɛ /. It is commonly a lax vowel; however, a clearly tense (and slightly higher) variety exists in all parts of the country. /æ / may be a tenser vowel in all positions where a lengthened vowel can occur. The lips and mouth are more open than for any other front vowel. /a/ is a variant of /æ / found principally in Eastern New England. The dorsum of the tongue is almost, if not quite flat. The lips are open with very slight spreading present, and the sound is generally long. It is approximately half way between /æ / and /ɑ / and is normally found as the first element of the diphthongs /aI/ and /aU/ as in high and how.

The /æ / sound is not used in Spanish. The usual substitutions are the /ɛ / or the /ɑ/ sounds. Practice shows results with the same word used just changing the vowel: seat, sit, sate, set, sat.

The Back Vowels

The term back is applied to this series of vowels because the distinctive feature is the arching or adjustment of the tongue in the back part of the mouth. As in the case of the front vowels, these back vowels can be arranged in a

series ranging from high to low postures of the tongue. Lip rounding plays an important part in producing the back vowels, which is not true of the English front and central vowels. The degree of rounding increases as the vowels go from lowest to highest. There are both tense and lax back vowels.

English /ɑ/ and /ɔ/ vs.
Spanish /ɑ/

The English /ɑ/ is the lowest of the back vowels. The mouth is open wider for this vowel than for any other. The lips are neutral, neither spread nor rounded, and the entire tongue is low and lax. The tongue is drawn down and back. The sound is short in such words as box, lock, and stop, and long in such words as yard, farm, and father. /ɔ/ is substituted in American English for /ɑ/ in much of the Midwestern and Western speech in such words as water and watch. It is a little farther back in the mouth and the lips just begin to round.

The Spanish /ɑ/ is close to the English /a/ in some words such as carta. In other environments it is close to the English /ɑ/. Little difficulty ensues in the making of this sound by the Spanish-speaking student, partly because the English vowels in this area are also quite variant in regional dialects in this country. The major problem for the Spanish-speaking student is the substitution of the /ɑ/ sound for the English middle vowel /ʌ/ in such words as come up.

English /ɔ/ vs. Spanish /?/

In English the /ɔ/ sound is used in such words as all and saw. This slightly tense vowel is made with the back of the tongue higher than the /ɑ/ sound with the lips slightly rounded and protruded. /ɔ/ occurs initially, medially, and finally in English words.

Spanish /ɔ/ is not phonemic but is a part of the /o/ phoneme. It is higher than the English sound, and therefore nearer the /o/ sound. This sound normally gives little trouble to the Spanish-speaking child, except in such words as horse and hoarse. To try to get the /o/ sound prompted by the spelling, the Spanish speaker tends to break the word into two parts: ho-res.

English /o/ vs. Spanish /o/

The English /o/ is a tense mid-back vowel, made with the tongue retracted at its base and somewhat raised toward the velum. The blade of the tongue is flat and somewhat retracted, while the lips are rounded and often protruded. As /o/ is stressed and lengthened, it normally assumes diphthongal form, acting in the same fashion as the /e/. Thus in an unstressed syllable, as in obey, the /o/ normally remains monothongal. When stressed before a voiceless consonant as in coat, the slight off-glide normally appears. The off-glide becomes still more noticeable when the stressed /o/ is final or before a voiced consonant as in go, sown. However /o/ and /OU/ are not phonemically distinctive from each other

and in broad transcription the sound may be represented with either form.

Spanish /o/ is pure, not diphthongal like the English /o/. It is a little lower than English /o/. The only problem that the Spanish speaker finds in the English /o/ is the tendency to "clip" it off instead of holding on to it as is usually done in English. Many times practicing the /o/ as a diphthong will impress on the Spanish-speaking student that the English vowel is held longer than the Spanish.

English /u/ and /U/ vs.
Spanish /u/

In English the high-back /U/ and /u/ vowels, as in book and boot respectively, are the highest back vowels. /U/ is a lax vowel and /u/ is a tense vowel; both made with the tongue drawn up and back toward the velum of the mouth. The lips are rounded for both vowels and may be slightly protruded. Lip rounding is more noticeable and tense with the /u/ than it is with the /U/; /U/ is a slightly lower and more fronted sound when compared with the /u/. The latter sound is actually diphthongal in character, especially when stressed and lengthened. Both sounds are variants of each other in a group of oo words, and do appear so for many words in the same regions: roof, room, soot. Before final /r/ in the same syllable, the former /u/ is lowered to /U/ as in poor, sure, and touring.

Spanish has the phoneme /u/ but it is a little lower

than the English /u/. /U/ is a non-distinctive allophone of /u/ in Spanish. It is a little higher than English /U/ with the result that Spanish /u/ and /U/ are very close together. Spanish students do not have much difficulty making either the /u/ or the /U/ sounds, but have great difficulty knowing when to use them. The unusual English spelling of words confuses the Spanish-speaking student, particularly with the oo words: book, took, moon, soon.

The Central Vowels

The central vowels in English present a more complex problem for analysis than do either the front- or back-vowel series. In the first place, the central vowels have even less fixed and well-defined positions with which they can be identified. For this reason placing their positions on a vowel diagram is quite arbitrary. Stress plays a very important role in English middle or central vowels.

English /ʌ/ vs. Spanish /?/

The English /ʌ/ is a central low unrounded vowel, made with the middle of the tongue slightly raised. The tongue position is very close to /ɒ/ and /ɔ/. The essential difference in acoustic value results from the more advanced or central position of the tongue, and the unrounding of the lips. This vowel usually has a reasonable degree of unrounding of the lips. This vowel usually has a reasonable degree of stress, and is usually of short duration. Spanish

does not have this sound. In fact, it is an uncommon sound in most other languages, and is easily distinguishable from adjacent phonemes. However, since the sound does not occur in Spanish, it produces one of the most common errors in the English pronunciation of Spanish-speaking students. Common substitutions are found in such words as cut, much, touch, come, and up, where the Spanish speaker substitutes his /ɑ/ sound.

English /ɝ/ and /ɚ/ vs.
Spanish /?r/ and /?rr/

/ɝ/ is the stressed syllabic /r/ in English. It is made with the tongue moderately retracted and a slight retroflexion of the tongue-tip toward the hard palate. This is the "r-colored" vowel in third, earth, heard, and mirth.

/ɚ/ is the unstressed "r-colored" vowel in English heard only in unstressed syllables. It is found as the last syllable in such words as father, mother, and together.

Since Spanish has no central vowels, of course, these two "r-colored" vowels do not exist in Spanish. Since the English spellings of these sounds are of such wide variety (burn, her, world, fur, fir, thorough) Spanish speakers tend to substitute according to the orthography of the words. For example, Spanish students substitute the vowel suggested followed by the trilled /r/ as in summer: sum-meř. They tend to give a secondary accent to the "r-colored" syllable.

English /ə/ vs. Spanish /?/

/ə/ in English is the lax, central vowel that can occur in any position in a word. It has no such definite position of the articulators as can be noted for any other sound. It is probably best described as a sound with the articulators in a neutral position, with neither spread nor rounded lips, and with the tongue neither forward nor back. Other than for this description of this sound, the position of the vowel is indefinite. It is variously called the schwa sound, the indeterminate, weak, obscure, or unstressed vowel.

Present unstressed vowels were somewhat more distinctly pronounced in former times. Although the spelled form of the word remained the same, unstressed vowels gradually became more weak and indefinite, so that they tended to level into, or toward, the schwa sound. Thus, this sound may be spelled with any vowel, and its formation may approach the position of any other vowel from the central position of the mouth, with the articulators, more or less, in neutral position. The variations of the sound are dependent on the phonetic surroundings of the vowel. It is not an unstressed variety of other vowels, for any stressed vowel may also have an unstressed form; not necessarily is each unstressed vowel a schwa. /ə/ is an entity by itself in the English language, and as such, it is treated here as a separate phoneme.

Because of the extensive unstressing of syllables in

English, the schwa is the most commonly used vowel in the English language. It is commonly found in the monosyllabic definite and indefinite articles, preposition, conjunctions, pronouns, and helping verbs, as well as many other words not easily classified: a, an, the, but, or, for, from, of, her, them, shall, was, as, can are normally spoken with the schwa unless stressed. Many other words possess this indeterminate vowel, that cannot be assigned to any other phonemic entity. The underlined vowel in each of the following words is an example of the schwa form as recorded in Kenyon and Knott's A Pronouncing Dictionary: appetite, cholera, accost, about, telephone, panacea, pacific, capability. In unstressed medial and final syllables both the / ə / and /I/ are common forms, horrible [hɔrəbɫ] or [hɔrIbɫ]. These forms vary freely in the normal use of American English.

The schwa or the principle of unstressing vowels is difficult for the Spanish speaker to understand. Even though Spanish does have "weak and strong" stress it is neither as weak or as strong as in English. There is some unstressing of vowels in unaccented syllables in Spanish, but even so, each vowel retains its identity. Every syllable is carefully spoken, with an individual attention which, if the consonants were not so languid in Spanish, would produce almost a staccato effect. This quality of careful attention to each vowel in Spanish carries over into the English of the Spanish speaker and this quality must be observed by those who would

be proficient in reducing Spanish dialect.

Diphthongs

A diphthong in English is made by the close juxtaposition of the two vowel sounds to form what is functionally a single sound, the gliding sounds between the beginning and the end being disregarded. Two characters (phonetic symbols) are used to represent such a sound. The pronunciation of a diphthong begins with the sound indicated by the first symbol and ends with the sound indicated by the second. In English the commonly used diphthongs have the voice stress on the first elements.

English /ɔI / vs. Spanish /ɔI/

In the diphthong /ɔI / the vowels /ɔ / and /I/ are juxtaposed to form the sound. This diphthong is found in English in such words as boil, boy, rejoice, toy, and voice. Spanish has a similar diphthong as in soy and hoy. However, in Spanish a diphthong is any combination of a strong vowel (a, e, o) and a weak vowel (i, (y), u) or of two weak vowels. The vowels of a diphthong are pronounced as if each stood alone, but they are run together by rapid pronunciation. The strong vowel receives the stress in a combination of strong and weak vowels. In a combination of the two weak vowels, the second of the weak vowels is stressed. Two strong vowels in Spanish do not form a diphthong. Consequently, the Spanish speaker of the /ɔI /

diphthong in English tends to separate the individual vowels more than the English speaker.

English /aU/ vs. the Spanish /aU/

This diphthong in English is a combination of the /a/ and the /U/ sounds. Variations found in many parts of this country use the / æ / or the /ɑ/ as initial elements. This diphthong is found in English in such words as cow, how, house, town, doubt, owl, and scout.

Spanish has a similar diphthong in such words as causa, gaucho, and aula. Again, the Spanish speaker tends to give more individual attention to the separate vowels, but in general these diphthongs do not cause much communication trouble in the Spanish speaker's English. However, they do cause considerable problems in intonation of English.

English /aI/ vs. Spanish /aI/

This diphthong in English is usually made with the /a/ and the /I/ sounds. (In some sections of this country the /ɑ/ sound is used in the initial element.) The sound /a/ lies between /æ / and /ɑ/. It is the low-front, lax, unrounded vowel. That is, the tongue is very low in the mouth, with its arch near the front. The /aI/ diphthong is used in such words as aisle, buy, cry, height, light, and rye.

Spanish has a similar diphthong in such words as aire, hay, and baile. However, when transferred to English

the Spanish student, as in the other diphthongs, tends to separate the two vowels more than the English. It is also true that in the vowels in all the diphthongs the Spanish speaker tends to shorten them considerably.

Stress, Rhythm, and Intonation Patterns

No utterance can be made in either Spanish or English without its carrying an intonation pattern, the components of which are stress (relative prominence of syllables), pitch (highness or lowness of tone), and terminal junctures (certain features which signal the phrasing in speech).

The flow of speech in any language is broken by pauses--short or long periods of silence--which usually come at the ends of whole utterances or at the end of large parts of the utterances such as "sentences," "clauses," and the like. Immediately before such pauses there are often special features of pronunciation, such as a slight drawling of a vowel or a certain kind of change in pitch, which themselves signal the presence of the boundary just as much as the pause does.

These features, wherever they occur are the terminal junctures, and the stretch of speech between the beginning of the utterance and the first terminal juncture or between two terminal junctures is called a phrase. The concept of phrase in Spanish and English pronunciation is of considerable importance because most of the overriding phenomena of stress, pitch, and rhythm in these languages operate in terms

of phrases and are best described relative to the phrase.

Stress

Stress is what makes the difference between ésta and está in Spanish or between cónduct and condúct in English. In the first of each of these pairs, the first syllable is more prominent or "accented"; in the second, the last syllable. Often when syllabic stress occurs, it results from or is accompanied by an increase of loudness, duration, and/or a rising pitch of the voice. Differences of stress are, of course, relative, yet distinctive enough to be noticed by any native speaker of English. Using the symbols /´, ` , ˇ/ to represent primary (or strong), secondary (or medium), and weak, respectively, the following words may be marked with clearly contrastive stresses: <u>wíndy</u>, <u>gárage</u>, <u>súffícient</u>, <u>pérmit</u> (n.), <u>permít</u> (v.) to show strong and weak stresses; <u>díctionary</u>, <u>cóncentrate</u>, <u>ánarctic</u>, and <u>mánicure</u> to show all three levels of stress. (Some students of American English believe that there are four distinctive stress levels.)[4]

Spanish has only two degrees of stress, strong and weak. This is especially noticeable in words similar to English words. Spanish regularly has long sequences of weak-stressed syllables uninterrupted by strong stress. In English, there is a fairly regular alternation between syllables

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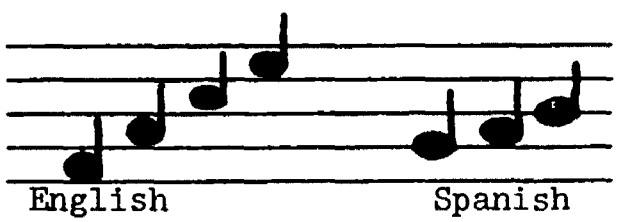
[4]See, for example, George L. Trager and Henry Lee Smith, Jr., <u>An Outline of English Structure</u>, <u>Studies in Linguistics</u> (Norman, Oklahoma: Battenberg Press, 1951), pp. 35-39.

under weak stress and syllables under one of the stronger stresses. For example, English presentation, Spanish presentación; English communicate, Spanish comunicar.

Spanish pronunciations are governed by rules that are invariable for stressing: Spanish words are usually stressed on the last or next to the last syllable. Words which end in a consonant, except n or s, are accented on the last syllable. Words which end in a vowel, or n or s, are accented on the next to the last syllable. Exceptions to these two rules are indicated by a written accent mark on the syllable. Spanish students tend to transfer these Spanish rules to their pronunciation of English. Add to this the English tendency to accent the first syllable in words, the problem becomes even more serious.

Pitch Contours[5]

Spanish has three levels of pitch and English has four levels of pitch. Further, the Spanish levels are closer together. This can be shown in the following musical notation:



[5]Modeled from Patterns of Spanish Pronunciation by J. Donald Bowen and Robert P. Stockwell (Chicago: University of Chicago Press, 1969).

In English there are three terminal junctures: (1) Terminal falling, symbolized by an arrow pointing downward /↓/. Its presence results in the maximum degree of slowing down in phrasing. The preceding syllable diminishes rapidly in intensity, with a drop in pitch. (2) Terminal rising, symbolized /↑/. Its presence results in an intermediate degree of slowing down. The preceding syllable rises noticeably in pitch, with a slight increase in intensity before its final cessation. (3) Terminal level, symbolized /|/. Its presence results in less slowing down than for the other two terminal junctures. The occurences of /|/ produce the effect of internal breaks or pauses within an utterance.[6] The following example may show how the meaning of English sentences can be changed by the use of the numbers of pitch levels and junctures: Suppose someone says a short English sentence like "He went home." If this is said in answer to a question like "Where's John?" it will be represented with a pitch pattern which can be represented like this:

He went home.

There will be three levels of pitch involved which could be indicated on a musical staff this way:

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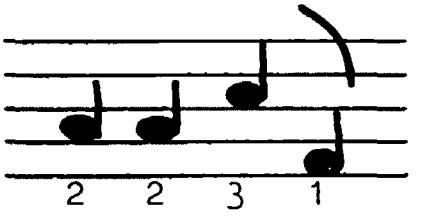
[6]See Trager and Smith, pp. 44-49, where the symbols /#/, /‖/, and /|/ are used for terminal falling, rising, and level, respectively.



He went home.

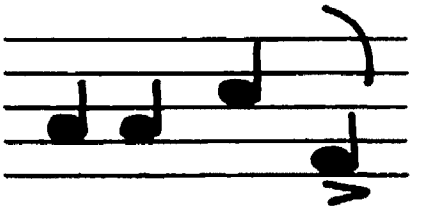
If the lowest of these pitch levels is designated as <u>level /1/</u>, the middle one can be <u>level /2/</u>, and the highest one <u>level /3/</u>. The pitch pattern of the sentence can then be rewritten as

/ 2 2 3 - 1/ He went home.

At the end of this sentence there is a kind of squeezing off of the stream of speech. It can be represented with an arrow pointing downward:

/ 2 2 3 1 ↓ / He went home.

This same squeezing off can be represented on a musical staff:



He went home.

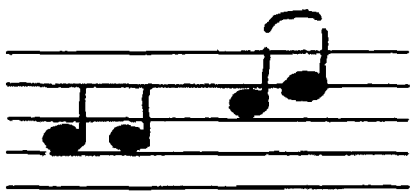
This notation / 2 2 3 1 ↓ / represents the most common intonational pattern used in simple declarative sentences in English. However, if instead of the question "Where's John?" the question was something like "Did you say John went to the movies?" then the answer might be, "No, he went home." Here the pitch level on "home" is no longer <u>level /3/</u>; it is a step higher and it is called <u>level /4/</u>. This gives a second basic pitch pattern of English:

/ 2 2 4 1 ↓ / He went home.

Finally, if when the information that John went home is given, someone is surprised by this piece of information and indicates his surprise by the sentence: "He went home?" A third pitch pattern now appears which can be marked like this

He went home?

On a musical staff it might look like this:



He went home?

It appears that the syllable "home," which starts out on <u>level /3/</u>, does not rise all the way to the next pitch level, so that to mark it is to use the arrow pointing upward, which indicates a rise pitch after the last pitch level. It can be written this way:

/ 2 2 3 3 ↑ / He went home?

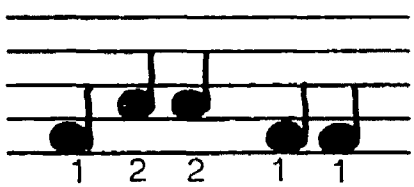
Here the same sentence has been spoken with three different pitch patterns resulting in three different meanings:

2 2 31 ↓ He went home.	(Simple statement)
2 2 41 ↓ He went home.	(Emphatic statement)
2 2 33 ↑ He went home?	(Echo question)

This by no means exhausts the possible intonation patterns from this simple declarative sentence. The emphasis could

be put on "he" throwing doubt on the idea that it was "he" who went. Emphasis could be put on "went" so that doubt was thrown on whether he really did go home or not. However, the above are common intonation patterns in English and will serve the purpose to compare a simple Spanish declarative sentence.

In Spanish the pitch pattern which corresponds in frequency and meaning to the English pattern / 2 2 3 1 ↓ / is a pattern which can be written / 1 2 1 1 ↓ /. The sentence is "Comemos mucho." (We eat much.) On a musical scale it would look like this:



As a sentence it would be marked:

1 2 2 1 1 ↓
komemozmucho

The differences in the basic intonation patterns between English and Spanish are obvious from these illustrations. English has a much wider and higher pitch pattern than Spanish and a wider spacing between syllable placings. When the Spanish pattern is imposed on to an English sentence it not only gives it an extreme "foreign" sound, but, since so much of the meaning of English utterances depend upon the inflection pattern, it interferes with the communicative ability of the Spanish-speaking child.

Many students, when they see a question mark at the end of a sentence, they think it must mean that the pitch of the voice is supposed to rise. This is a strange misapprehension, and it is found both among English speakers and among Spanish speakers. When a question begins with a question word--who, what, which, why,--in either language, the intonation pattern that occurs is identical with the normal uncolored statement pattern unless there is special emphasis present. Thus "When did he go?" has the same intonation as "I went yesterday." The question marks used in traditional orthography do not indicate anything about the intonation in such questions and are potentially misleading, especially to the Spanish speaking student who really never gets the falling inflection down low enough even on simple statements.

Rhythm

Rhythm is not usually considered an element of intonation, but it does have important and noticeable consequences on the speech pattern of the Spanish-speaking student when he speaks in English. Rhythm is created in language by two elements: (1) length of syllables; (2) number of syllables per unit of time, i.e., rate. In Spanish, the length of syllables is relatively constant. The following names will serve to illustrate the difference, with syllable length shown underneath by dots, each representing a minimum unit of length (thus . . is twice as long as .):

English Pronunciation	Spanish Pronunciation
P e r u´	P e r u´
S a n t i a g o	S a n t i a g o

Since the length of syllables is relatively constant in Spanish--all syllables are either one unit or two units long, depending in general on whether the syllable has weak or strong stress--the number of syllables per unit of time is almost constant. The acoustic effect of this constancy in rate on the English ear is an effect of machine-gun-like rapidity and regularity. The English rhythm pattern is just the opposite; it is extremely irregular, with a very weak stress followed by a strong stress held much longer than a Spanish syllable. This difference has been characterized as the difference between a <u>stress-timed</u> language (English tends to require a certain regularity in the rate of recurrence of strong stresses) and a <u>syllable-timed</u> language (Spanish tends to require a certain regularity in the rate of recurrence of syllables, regardless of length). The basic difference is that Spanish syllable structure admits of relatively slight variation in length and rate, while English syllable structure demands very substantial variation on both counts.

Conclusion

The purpose of this chapter has been to produce a simplified and abbreviated version of the English and Spanish sound systems that can be used in a course of Speech for the

Classroom Teacher for prospective teachers who have no Spanish language background and a limited knowledge of English phonetics. To accomplish this purpose the chapter was divided into three major sections. The first part focused on the structures of sound systems to show that each language has built-in rules that are internalized early in life by the native speaker. In the acquisition of the second language, "linguistic noise" or "interference" may arise as the two languages come in contact.

The second section focused on the segmental phonemes of English and the contrastive sound in each case in Spanish. The consonants, vowels, and diphthongs were briefly explained for both English and Spanish and points of interference were indicated.

The third section focused on the stress, rhythm, and intonation patterns of the two languages. The differences between English and Spanish were shown to point up the areas where remedial work would be necessary to improve the intonation patterns of the Spanish-speaking student.

CHAPTER VI

CONCLUSION

The Mexican American subculture in the Southwest departs from the typical assimilation and acculturation patterns that have for many years been the "Melting Pot" formula for ingesting the foreign born into American society. In large part, this baffling lack of acculturation of the Mexican American has been due to his loyalty to his mother tongue, making Spanish the most persistent language among all the non-English languages represented in the United States. Its persistence among the Mexican Americans reflects the unusual and long lasting isolation of large segments of the group from interaction with the larger English-speaking society, as well as the relative recency of mass immigrations and the continuous arrival of immigrant Mexicans.

The persistence of Spanish in this, the second largest minority in the United States, has contributed to the many social, economic, and educational problems in the Southwest. Today, in South Texas, the poor record of the Mexican Americans in school, their low academic achievement, retardation, overageness, and drop out rate, is looked upon as

a social and educational problem in great need of solution.

This study has sought to analyze the "persistence" of Spanish and its ensuing problems and to formulate a program to assist the classroom teacher in South Texas to better cope with the problem of the interference of the Spanish language into the English of the Spanish-speaking student. The purpose of this concluding chapter is (1) to briefly summarize the content of this study and (2) to suggest areas for further study.

Summary

This study has been divided into four parts. The first part, represented by Chapter II, endeavored to present the reasons for the "uniqueness" of the Mexican American subculture in the Southwest. In the socio-economic overview, it was pointed out that the failure of the larger English-speaking society to acculturate its conquered Spanish-speaking minority came more from omission than commission. The preoccupation of the larger society with its own pioneer growth, compounded by the immense problems generated by the Civil War and the Reconstruction era, left the two cultural communities in Texas more or less isolated from each other. In this century the pressures of the Mexican Civil War and the need of the United States for cheap labor in World War I and World War II brought mass immigration from Mexico to add to the unassimilated pockets of Mexican Americans.

Further, it was pointed out that, in these "pockets"

of Mexican Americans the retention of Spanish is encouraged by the cultural realities of the Mexican American population. The new immigrants move into the barrios where the necessity for learning English does not follow the usual pattern of the assimilation of the foreign born. The Mexican American immigrant in South Texas tends to live and function on this side of the border in a miniature Mexico, which adds to his persistence in the use of the Spanish language, and in general destines him to remain in the lower socio-economic strata.

The second division of Chapter II reviewed the failure of the schools in Texas to provide the stepping stones to the Mexican American child into the "main stream" of middle class economic competition. Statistical detail was given to show the low academic achievement of the average Mexican American child in school and the almost inevitable drop out rate that follows. Historically, South Texas took cognizance of the Mexican American child very belatedly. Considerable time elapsed before it was recognized that people of Mexican descent were here to stay instead of coming and going across the border as immigrants. When the school did begin to concern itself with the children of this minority group, it proceeded to fit them into a rigidly conceived system, instead of attempting to adjust the system to the needs of the group. In this approach the educational system helped to perpetuate the low socio-economic standing of Mexican

Americans. This section also pointed out the rise of "another" language among the "unacculturated" Mexican American youth that may be "stamping in" anti-social behavior which culminates in serious social problems.

Chapter III reviewed the somewhat belated attempts by Texas to cope with the problem of educating the Mexican American child. In the 1950's and 1960's the emphasis on socio-economic problems of minority groups and the civil rights movement contributed to a growing concern for the Mexican American and to the tendency to recognize his problems as characteristic of low socio-economic status. There is now increasing recognition of the necessity for special attention to the teaching of English to the Spanish-speaking child. There is also a growing understanding of the necessity for specialized teacher training for teachers of Mexican American children, and a small but significant number of educators are aware that the school and its curriculum may be inadequate.

In the last twenty years Texas has developed many special programs in an effort to better educate the Mexican American child. This chapter discussed these programs under two classifications: the compensatory programs that are geared to the remediation, and remoulding of the children in order to compensate for their inadequacies when compared with other children in school; and the new bilingual approach which supposedly adjusts the school so that it can better

educate the Mexican American child. Lack of definitive research and experimentation still leaves the question unanswered how best to "acculturate" the Mexican American child through the public schools of Texas.

Chapter IV was concerned with the contemporary theory and research in acquisition of language as it might be applied to second language learning and the current methods used in teaching a second language. Two general theories of language acquisition--the environmental and nativist approaches--were briefly reviewed, and very briefly the sociolinguistic approach was introduced. The methods that have been and are being used to teach a second language were reviewed, and from them and the theory and research in language acquisition advanced today, certain theoretical implications were drawn for the teaching of pronunciation of English to the Spanish-speaking child. It was also noted in this chapter that no one theory of language acquisition and teaching has been proven to be the more effective in teaching the Spanish-speaking child. It was recommended that the teacher be knowledgeable with the sound systems of both languages and be flexible enough to try another method if one fails.

Chapter V focused on the sound systems of English and Spanish. It attempted to produce a simplified and abbreviated version of English phonetics and contrastive points in Spanish phonetics that could be used in a course of Speech for the Classroom Teacher for prospective teachers who have

no Spanish language background and a limited knowledge of English phonetics. The chapter was divided into three parts. The first part discussed the structure of sound systems, emphasizing that languages are rule governed, and that each child brings to a second language a first language with already internalized rules. With the two languages in contact, "linguistic noise" or "interference" is possible. To reduce this "linguistic noise" that often interferes with the communicating ability of the Spanish-speaking child, the next two parts presented contrastive studies of the phonemes of both Spanish and English and the intonation patterns of the two languages as related to stress, pitch, and juncture. Briefly, the rhythm patterns of the two languages were compared from the standpoint of the length of syllables and the number of syllables per unit of time. The differences were shown between a stress-timed language such as English and a syllable-timed language such as Spanish.

Areas for Future Study

In spite of the clamor for equality of educational opportunity and more efficient schools and programs for minority-group children, there is little evidence that compensatory or remedial programs are producing the long-term results desired. While limited evidence suggests that some Mexican American children are reaching short-term goals in reading readiness, English language ability, and so forth, no proof is available to demonstrate that such readiness and

ability result in sustained higher achievement, fewer school dropouts, or exit from school into higher-status positions than those held by their parents. Consequently, several areas are recommended here for future study.

Certain recommendations can be made about the collection of evidence bearing on this problem. It is essential to know exactly what kinds of programs reach both their short- and long-term objectives. Detailed studies must be made to determine a program's effectiveness. Guidelines for such programs must be reset to insure adequate objective data collection and analysis. In order to overcome the widely divergent methods of evaluation now used, studies should develop standardized master proposal forms and data collection and evaluation procedures. The standardization of forms and procedures should present little difficulty, since most compensatory and remedial programs for the teaching of disadvantaged children are quite similar throughout the nation. These standard forms would give the schools the means by which they could describe clearly the short-term and long-term objectives of the program proposed, the methods (techniques) assumed to reach them, staff characteristics, the number and kinds of students involved, and the outcomes.

Every program has both short- and long-term objectives. For example, English-as-a-Second Language programs have as their principle short-term objective competence in English, and their long-term or major goal is success in

school. Both objectives are measurable, the short-term more easily than the long. To measure the short-term goal, a standard form could measure the children's competency in English both before and after they have gone through the program. Whether the students reach or do not reach the long-term objective of success in school is much more difficult to measure, but it is nonetheless the crucial consideration. With the data assembled and reduced for computer processing educators involved can make an analysis of program effectiveness. Without these or similar studies there will doubtless be a continuation of inadequate evaluation and inadequate decisions based solely on subjective rather than objective analysis. Evidence must be generated to show what works, when it works, with whom it works, and ultimately how it works.

The second area recommended for future research is in the field of teacher education. Research should be conducted to determine what special training teachers of the Mexican American child need. This information should then be made a part of inservice training programs for teachers now employed in these areas and also incorporated into the programs of colleges and universities who prepare teachers for positions in the Southwest.

The third area for needed research is in the field of second language teaching. There is an urgent need for definitive experimental research in second language teaching

on which an acceptable theory can be built. The conflicting approaches at present leave the teacher with mainly his own resources to determine how best to proceed. This area is of necessity interdisciplinary. It is hoped that the disciplines of linguistics, psycholinguistics, anthropology, speech, sociology, and education will group their forces to produce a viable theory that is simple enough and practical enough for the classroom teacher to use.

Finally, the area of remedial work on the Spanish accent has barely been considered in the teaching programs of Texas. Studies should be made to determine the social, personal, and economic effects of foreign accents on the Spanish-speaking student. Further, other studies need to be made in this area to give the classroom teacher better tools with which to help the student speak better English.

BIBLIOGRAPHY

Reports and Mimeographed Material

Alvarez, George. "A Paper Prepared for the International Conference on General Semantics." Los Altos, California, 1968. (Mimeographed.)

Coleman, James S. "Equality of Educational Opportunity." Report of U.S. Department of Health, Education, and Welfare. Washington, D.C.: Government Printing Office, 1966.

Kennedy, B. J. "Paper Presented at Mexican American Seminar." Texas Education Agency, Austin, Texas, 1963. (Mimeographed.)

Report of U.S. Commission on Civil Rights. "Ethnic Isolation in the Southwest: Mexican American Education Study." Washington, D.C.: Government Printing Office, 1971.

Report of U.S. Commission on Civil Rights. Mexican American Education Study. Washington, D.C.: Government Printing Office, 1971.

Pierce-Jones, John. "Outcomes of Individual and Programmatic Variations Among Project Head Start Centers." Report to the Office of Economic Opportunity, 1966. (Mimeographed.)

Pryor, Guy C. "Evaluation of the Bilingual Project of Harlandale Independent School District," San Antonio, Texas, 1968. (Mimeographed.)

Report of National Education Association. "School Dropouts." Washington, D.C.: Government Printing Office, 1967.

Report of N.E.A./Tucson Survey. "The Invisible Minority." Washington, D.C.: Government Printing Office, 1966. (Mimeographed.)

Report of Texas Education Agency. "Educational Needs of Migrant Children." Austin, Texas: Texas Education Agency, 1962.

Report of Texas Education Agency. "Resource Manual for Implementing Bilingual Education Programs." Austin, Texas: Texas Education Agency, n.d.

Richardson, Mabel Wilson. "An Evaluation of Certain Aspects of the Academic Achievement of Elementary Pupils in A Bilingual Program." Coral Gables, Florida: University of Miami, 1968. (Mimeographed.)

Ulibarri, Horacio. "The Effect of Cultural Differences in the Education of Spanish-Americans." Albuquerque, New Mexico: University of New Mexico Research Study, 1958. (Mimeographed.)

Articles

Anderson, Theodore. "Bilingual Education: The American Experience," Modern Language Journal, LV (November, 1971), 427-440.

_____. "Bilingual Schooling: Oasis or Mirage," Hispania, LII (March, 1969), 69-74.

_____. "A New Focus on the Bilingual Child," Modern Language Journal, XLIX (March, 1965), 156-160.

Asher, James J. "Children's First Language as a Model for Second Language Learning," Modern Language Journal, LVI (March, 1972), 133-136.

_____. "The Optimal Age to Learn a Foreign Language," Modern Language Journal, LIII (May, 1969), 334-341.

_____. "Toward a Neo-Field Theory of Behavior," Journal of Humanistic Psychology, IV (Fall, 1964), 85-94.

Beaujour, Michel. "Teaching Culture in the Foreign Environment--Goals and Non-Goals," Modern Language Journal, LIII (May, 1969), 317-321.

Berney, Tomi D. and Cooper, Robert L. "Semantic Independence and Degree of Bilingualism in Two Communities," Modern Language Journal, LIII (March, 1969), 182-185.

Bowen, J. Donald. "A Comparison of the Intonation Patterns of English and Spanish," Hispania, XXXIX, No. 1 (March, 1956), 30-35.

Brown, H. Douglas. "Cognitive Pruning and Second Language Acquisition," Modern Language Journal, LVI (April, 1972), 219-222.

Brown, Roger, and Ursulla Bellugi. "Three Processes in the Child's Acquisition of Syntax," Harvard Educational Review, XXXIV (Winter, 1964), 133-151.

Brown, T. Grant. "Cognitive Pruning in Foreign Language Teaching," Modern Language Journal, LVI (April, 1972), 222-227.

Caffee, Nathaniel M. "The Phonemic Structure of Unstressed Vowels in English," American Speech, XXVI (February, 1951), 103-109.

Calderón, Carlos. "Put Accents on Speech Error," The Texas Outlook (February, 1959), 25-27.

Carroll, John B. "The Contributions of Psychological Theory and Educational Research to the Teaching of Foreign Languages," Modern Language Journal, XLIX (May, 1965), 273-281.

Carrow, Elizabeth. "Comprehension of English and Spanish by Pre-School Mexican American Children," Modern Language Journal, LV (April, 1971), 301-307.

Carrow, Sister Mary. "Linguistic Functioning of Bilingual and Monolingual Children," Journal of Speech and Hearing Disorders, XXII (1957), 371-379.

Catford, J. C. "Learning a Language in the Field: Problems of Linguistic Relativity," Modern Language Journal, LIII (May, 1969), 310-316.

Ching, Doris C. "Methods for the Bilingual Child," Elementary English, XXXXII (January, 1965), 22-27.

Christian, Chester C., Jr. "The Acculturation of the Bilingual Child," Modern Language Journal, XLIX (March, 1965), 160-165.

Clark, John L. D. "The Pennsylvania Project and the 'Audio-lingual vs. Traditional' Question," Modern Language Journal, LIII (May, 1969), 388-404.

Cooper, Robert L. "Two Contextualized Measures of Degree of Bilingualism," Modern Language Journal, LIII (March, 1969), 172-182.

Cooper, Robert L. "Word Frequency Estimation as a Measure of Degree of Bilingualism," Modern Language Journal, LIII (March, 1969), 163-166.

_____; Fowles, Barbara R.; and Givner, Abraham. "Listening Comprehension in a Bilingual Community," Modern Language Journal, LIII (April, 1969), 235-241.

_____, and Greenfield, Lawrence. "Language Use in a Bilingual Community," Modern Language Journal, LIII (March, 1969), 166-171.

Darian, Steven. "Backgrounds of Modern Language Teaching: Sweet, Jesperson, and Palmer," Modern Language Journal, LIII (December, 1969), 545-550.

Dreher, Barbara, and Larkins, James. "Non-Semantic Auditory Discrimination: Foundation for Second Language Learning," Modern Language Journal, LVI (April, 1972), 227-230.

Ervin, Susan, and Asgood, C. E. "Second Language Learning and Bilingualism," C. E. Osgood and F. Sebeok eds. Journal of Abnormal and Social Psychology, Supplement (1954), 139-146.

Fishman, Joshua A. "Bilingualism, Intelligence, and Language Learning," Modern Language Journal, XLIX (April, 1965), 227-237.

_____. "Bilingualism in the Barri," Modern Language Journal, LIII (March, 1969), 151-155.

_____. "The Measurement and Description of Widespread and Relatively Stable Bilingualism," Modern Language Journal, LIII (March, 1969), 152-156.

_____. "The Status and Prospects of Bilingualism in the U.S.," Modern Language Journal, XLIX (March, 1965), 143-155.

Fogelquist, Donald F. "Bilingualism of Paraguay," Hispania, XXXIII (February, 1950), 22-29.

Frazier, Alexander. "Helping Poorly Languaged Children," Elementary English, XXXXI (February, 1964), 149-1[illegible]3.

Gaarder, Bruce A. "Organization of the Bilingual S[illegible]ol," Journal of Social Issues, XXIII (April, 1[illegible] [illegible]08-121.

Gaarder, Bruce A. "Teaching the Bilingual Child: Research, Development, and Policy," Modern Language Journal, XLIX (March, 1965), 165-175.

Hakes, David T. "Psychological Aspects of Bilingualism," Modern Language Journal, XLIX (April, 1965), 220-227.

Halley, Freda M., and King, Janet K. "Imitation and Correction in Foreign Language Learning, Modern Language Journal, LV (December, 1971), 494-498.

Hammerly, Hector. "Recent Methods and Trends in Second Language Teaching," Modern Language Journal, LV (December, 1971), 499-505.

Hayes, Alfred S. "New Directions in Foreign Language Teaching," Modern Language Journal, XLIX (May, 1965), 281-293.

Hess, R. D., and Shipman, Virginia C. "Early Experience and the Socialization of Cognitive Modes in Children," Child Development, XXXVI (Spring, 1965), 869-886.

Hymes, Dell. "Models of the Interaction of Languages and Social Setting," Journal of Social Issues, XXIII (December, 1967), 1-20.

Jakobovits, L., and Lambert, W. E. "Semantic Satiation Among Biiinguals," Journal of Experimental Psychology, LXII (1961), 576-582.

Lambert, W. E. "Developmental Aspects of Second-Language Acquisition," Journal of Social Psychology, XLIII (1956), 83-104.

_____. "Measurement of the Linguistic Dominance of Bilinguals," Journal of Abnormal and Social Psychology, L (1955), 197-200.

_____; Gardner, R. C.; Barik, H. C.; Tunstall, K. "Attitudinal and Cognitive Aspects of Intensive Study of a Second Language," Journal of Abnormal and Social Psychology, LXVI, No. 4 (1963), 358-368.

_____; Habelka, J.; and Crosby, Cynthia. "The Influence of Language Acquisition Contents on Bilingualism," Journal of Abnormal and Social Psychology, LVI (1958), 239-244.

_____; Hobelka, J.; and Gardner, R. E. "Linguistic Manifestations of Bilingualism," American Journal of Psychology, LXXII (1959), 77-82.

Malkoc, Anna M., and Roberts, A. Hood. "Bilingual Education: A Special Report," Elementary English (May, 1970), 712-718.

McNamara, John. "Problems of Bilingualism," Journal of Social Issues (April, 1967), 98-104.

Miller, George A. "Some Preliminaries to Psycholinguistics," American Psychologist, XX (1965), 1-20.

Miron, Murray S. "A Cross-Linguistic Investigation of Phonetic Symbolism." Journal of Abnormal and Social Psychology, LXII (1961), 623-630.

Mowrer, O. Hobart. "Hearing and Speaking: An Analysis of Language Learning," Journal of Speech and Hearing Disorders, XXIII (May, 1958), 143-152.

Myerson, Marion D. "The Bilingual Child," Childhood Education (May, 1969), 522-526.

Osborn, Suzanne Smith. "Concepts of Speech Development," Journal of Speech and Hearing Disorders, XXVI (November, 1961), 390-392.

Peal, Elizabeth, and Lambert, Wallace E. "The Relation of Bilingualism to Intelligence," Psychological Monographs, LXXVI (1962), 3-21.

Pike, Kenneth L. "Nucleation," Modern Language Journal, XXXXIV (May, 1960), 291-295.

Rojas, Pauline M. "Instructional Materials and Aids to Facilitate Teaching the Bilingual Child," Modern Language Journal, XLIX (April, 1965), 237-239.

Stemmler, Anne O. "An Experimental Approach to the Teaching of Oral Language and Reading," Harvard Education Review, XXXVI (Winter, 1966), 42-59.

Stevens, Cy; Bronstein, Arthur J.; and Wong, Helen H. "English as a Second Language--Practices of Speech Departments," Quarterly Journal of Speech, XLVIII (October, 1962), 285-296.

Tireman, L. S. "Bilingual Children," Review of Educational Research, II (June, 1941), 350-353.

Titone, Renzo. "Guidelines for Teaching a Second Language in its own Environment, Modern Language Journal, LIII (May, 1969), 306-309.

Trevino, Bertha G. "Bilingual Instruction in the Primary Grades," Modern Language Journal, LIV (April, 1970), 255-257.

Tucker, G. R., and D'Anglijan. "Some Thoughts Concerning Bilingual Education Programs," Modern Language Journal, LV (Dececember, 1971), 491-493.

Valdman, Albert. "Toward a Better Implementation of the Audio-Lingual Approach," Modern Language Journal, LIV (May, 1970), 309-319.

Villarreal, Jesse J. "Foreign Dialect," Bulletin of the National Association of Elementary School Principals, XXXIV (November, 1950), 65-69.

Wolfram, Walt. "Linguistic Assimilation in the Children of Immigrants," The Linguistic Reporter, XIV (February, 1972).

Books

Alatis, James E. Bilingualism and Language Contact: Anthropological, Linguistic, Psychological, and Sociological Aspects. Washington, D.C.: Georgetown University Press, 1970.

Allen, Harold Byron. Teaching English as a Second Language. New York: McGraw-Hill, 1965.

Anderson, Theodore. Foreign Languages in the Elementary School. Austin, Texas: University of Texas Press, 1969.

_____. The Teaching of Foreign Language in Elementary School. Boston: D. C. Heath Company, 1953.

Barker, G. C. An American Spanish Argot and Its Social Functions in Tuscon, Arizona. Tuscon, Arizona: University of Arizona Press, 1958.

Bernard, Jacqueline. Mexican Americans. Englewood Cliffs, New Jersey: Scholastic Books Services, 1971.

Bernstein, Basil. "A Sociolinguistic Approach to Socialization," Language and Poverty. Edited by Frederick Williams. Chicago: Markham Publishing Company, 1970.

Black, John W. American Speech for Foreign Students. Springfield, Illinois: Charles C. Thomas Publishers, 1963.

Bogardus, Emory S. The Mexican in the U.S. New York: Arno Press, 1970.

Bowen, J. Donald, and Stockwell, Robert P. Patterns of Spanish Pronunciation: A Drillbook. Chicago: University of Chicago Press, 1960.

Bronstein, Arthur J. The Pronunciation of American English. New York: Appleton-Century-Crofts, Inc., 1960.

Bruner, J. S. Studies in Cognitive Growth. New York: Wiley & Sons, 1966.

Burma, John H., ed. Mexican-Americans in the United States. Cambridge, Massachusetts: Schenkman Publishing Co., 1970.

_____. Spanish-Speaking Groups in the United States. Durham, North Carolina: Duke University Press, 1954.

Carrell, James, and Tiffany, William. Phonetics: Theory and Application to Speech Improvement. New York: McGraw-Hill Book Company, 1960.

Carroll, John B. The Study of Language. Cambridge, Mass.: Harvard University Press, 1953.

Carter, Thomas P. Mexican Americans in School: A History of Educational Neglect. New York: College Entrance Examination Board, 1970.

Chomsky, Noam. Aspects of the Theory of Syntax. Cambridge, Mass.: M.I.T. Press, 1965.

_____. "The Formal Nature of Language." Biological Foundations of Language. Edited by Eric Lenneberg. New York: John Wiley and Sons, Inc., 1967.

Chreist, Fred M. Foreign Accent. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964.

Christian, Jane McNab, and Christian, Chester C. "Spanish Language and Culture in the Southwest." Language Loyalty in the United States. Edited by Joshua A. Fishman. The Hague: Mouton & Co., 1966.

Coale, Willis Branson, and Smith, Madorah E. Successful Practices in the Teaching of English to Bilingual Children in Hawaii. Washington, D.C.: U.S. Government Printing, 1938.

Crow, John. Mexico Today. New York: Harper and Row, 1957.

Crow, Lester Donald; Murray, Walter I.; and Bloom, Irving. Teaching Language Arts in the Elementary School. Dubuque, Iowa: W. C. Brown Book Co., 1968.

Dacanay, F. R. Techniques and Procedures in Second Language Teaching. Dobbs Ferry, New York: Oceana Publications, 1967.

DeVito, Joseph. The Psychology of Speech and Language. New York: Random House, 1970.

Doty, Gladys G., and Ross, Janet. American English for Foreign Students. New York: Harper and Row, 1960.

Dunne, John Gregory. Delano: The Story of the California Grape Strike. New York: Farrar, Straus, and Giroux, 1967.

Eckersley, Charles F. Essential English for Spanish Students. London: Longmans, Green and Co., 1948.

Fairbanks, Grant. Voice and Articulation Drill Book. New York: Harper and Row, Publishers, Inc., 1960.

Finocchairo, Mary. Teaching English as a Second Language: In Elementary and Secondary Schools. New York: Harper and Row, Publishers, Inc., 1958.

Fishman, Joshua A. Language Loyalty in the United States. The Hague: Mouton & Co., 1966.

_____; Cooper, Robert L.; and Ma, Roxana. Bilingualism in the Barrio. Bloomington, Indiana: Indiana University Press, 1971.

_____, and Hofman, John E. "Mother Tongue and Nativity in the American Population." Language Loyalty in the United States. Edited by Joshua A. Fishman. The Hague: Mouton & Co., 1966.

Forbes, Jack D. Mexican Americans: A Handbook for Educators. Washington, D.C.: U.S. Government Printing Office, 1970.

Fries, Charles. An Intensive Course in English for Latin-American Students. Ann Arbor, Michigan: University of Michigan Press, 1947.

_____. Teaching and Learning English as a Foreign Language. Ann Arbor, Michigan: University of Michigan Press, 1945.

Galarza, Ernesto. Merchants of Labor, the Mexican Bracero Story. Santa Barbara, California: McNally and Loftin, Publishers, 1964.

_____. Spiders in the House and Workers in the Field. Notre Dame, Indiana: University of Notre Dame Press, 1970.

_____; Gallegos, Herman; and Samora, Julian. Mexican-Americans in the Southwest. Santa Barbara, California: McNally & Loftin, Publishers, 1969.

Gatenby, E. V. English as a Foreign Language. London: Longmans, Green and Co., 1945.

Gauntlett, John Owen. Teaching English as a Foreign Language. New York: St. Martins Press, 1957.

Gleason, H. A. An Introduction to Descriptive Linguistics. New York: Holt, Rinehart and Winston, 1961.

Gordon, Edmund W., and Wilkerson, Dozey A. Compensatory Education for Disadvantaged Programs and Practices: Preschool Through College. New York: College Entrance Examination Board, 1966.

Grebler, Leo; Moore, Joan W.; and Guzman, Ralph C. The Mexican-American People. New York: The Free Press, 1970.

Haddox, John H. Los Chicanos: An Awakening People. El Paso, Texas: Texas Western Press, 1970.

Hall, Robert Anderson. New Ways to Learn a Foreign Language. New York: Bantam Books, 1966.

Haugen Einar Ingvald. Bilingualism in the Americas. University, Alabama: University of Alabama Press, 1956.

_____. The Norweigian Language in America: A Study of Bilingual Behavior. Bloomington, Indiana: University of Indiana Press, 1969.

Hayes, John R. Cognition and the Development of Language. New York: John Wiley & Sons, Inc., 1970.

Heller, Celia S. The Mexican American Youth: Forgotten Youth. New York: Random House, 1966.

Hernandez, Luis F. A Forgotten American: A Resource Unit for Teachers on the Mexican American. New York: Anti-Defamation League, 1969.

Huebener, Theodore, and Finocchairo, Mary. English for Spanish-Americans. New York: Henry Holt & Co., Inc., 1950.

Jakbovits, Leon A. Foreign Language Training: A Psycholinguistics Analysis of the Issues. Rowley, Mass.: Newbury House, 1970.

Jewett, Arno; Mersand, Joseph; and Gunderson, Don. Improving English Skills of Culturally Different Youth in Large Cities. Washington, D.C.: HEW, Office of Education, 1964.

John, Vera. "Cognitive Development in the Bilingual Child." Monograph Series on Languages and Linguistics. Edited by James E. Alatis. Washington, D.C.: Georgetown University Press, 1970.

_____, and Horner, Vivian M. "Bilingualism and the Spanish Speaking Child." Language and Poverty. Edited by Frederick Williams. Chicago: Random House, 1970.

Johnson, Henry Sioux, and Hernandez, William J. Educating the Mexican American. Valley Forge, Pa.: Judson Press, 1970.

Kadler, Eric H. Linguistics and Teaching Foreign Languages. New York: Van Nostrand Reinhold Company, 1970.

Kelly, Louis G. Twenty-five Centuries of Language Teaching. Rowley, Mass.: Newbury House Publishers, 1969.

Kenyon, John Samuel, and Knott, Thomas Albert. A Pronouncing Dictionary of American English. Springfield, Mass.: G. & C. Merriam Company, Publishers, 1951.

Lado, Robert. Language Teaching: Scientific Approach. New York: McGraw-Hill, 1964.

Lado, Robert. Language Testing, the Construction and Use of Language Tests. London: Longmans, Green and Co., 1961.

_____. Linguistics Across Cultures: Applied Linguistics for Language Teachers. Ann Arbor, Michigan: University of Michigan Press, 1957.

_____, and Fries, Charles C. English Pronunciation. Ann Arbor, Michigan: The University of Michigan Press, 1958.

Lamb, Ruth S. Mexican Americans: Sons of the Southwest. Claremount, California: Latin American Books, 1970.

Landes, Ruth. Latin-Americans of the Southwest. New York: McGraw-Hill, 1965.

Lehiste, Ilse. Suprasegmentals. Cambridge, Mass.: M.I.T. Press, 1970.

Lenneberg, Eric. Biological Foundations of Language. New York: John Wiley & Sons, 1967.

Litsinger, Dolores. Teaching the Mexican American. New York: American Book Company, 1971.

Little, Wilson. Spanish-Speaking Children in Texas. Austin, Texas: The University of Texas Press, 1944.

Mackey, William Francis. Language Teaching Analysis. Bloomington, Indiana: Indiana University, 1967.

McNeill, David. "Developmental Psycholinguistics." The Genesis of Language. Edited by Frank Smith and George Miller. Cambridge, Mass.: M.I.T. Press, 1966.

MacRae, Marget W. Teaching Spanish in the Grades. Boston: Houghton Mifflin, 1957.

McWilliams, Carey. The Mexicans in America: A Student's Guide to Localized History. New York: Teachers College Press, Columbia University, 1969.

Madsen, William. Mexican-Americans of South Texas. New York: Holt, Rinehart and Winston, 1964.

Manuel, Hershel T. Spanish-Speaking Children in the Southwest. Austin, Texas: University of Texas Press, 1965.

May, Frank B. Teaching Language as Communication to Children. Columbus, Ohio: C. E. Merrill Books, 1967.

Meyer, George A. Speaking Fluent American English. Palo Alto, California: The National Press, 1965.

Moquin, Wayne. A Documentary History of the Mexican Americans. New York: Praeger Publishers, 1970.

Morris, John W. The Southwestern United States. New York: Van Nostrand Reinhold Company, 1970.

Mowrer, O. H. Learning Theory and the Symbolic Processes. John Wiley and Sons, 1960.

Nava, Julian. Mexican Americans: A Brief Look at their History. New York: Anti-Defamation League, 1970.

Oliva, Peter F. The Teaching of Foreign Languages. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.

Osgood, Charles E. Method and Theory in Experimental Psychology. New York: Oxford University Press, 1953.

Pei, Mario. How to Learn Languages and What to Learn. New York: Harper and Row, Publishers, 1966.

Perren, G. E. Teachers of English as a Second Language. London: Cambridge University Press, 1968.

Phillips, Nina. Conversational English for the Non-English Speaking Child. New York: Teachers College Press, Columbia University, 1967.

Piaget, Jean. Six Psychological Studies. New York: Random House, 1967.

Pike, Kenneth L. The Intonation of American English. Ann Arbor, Michigan: University of Michigan Press, 1945.

Reindorp, R. C.; Boswell, B.; and Sanchez, George. References for Teachers of English as a Foreign Language. Austin, Texas: University of Texas Press, 1949.

Rivers, Wilga M. The Psychologist and the Foreign Language Teacher. Chicago: University of Chicago Press, 1964.

Rubel, Arthur J. Across the Tracks: Mexican Americans in a Texas City. Austin, Texas: University of Texas Press, 1966.

Sanchez, George I. "Spanish in the Southwest." Educating the Mexican American. Edited by Henry Johnson and William Hernandez. Valley Forge, Pa.: Judson Press, 1970.

Samora, Julian. La Raza, Forgotten Americans. Notre Dame, Indiana: University of Notre Dame Press, 1966.

Saporta, Sol, and Contreras, Heles. A Phonological Grammar of Spanish. Seattle, Washington: University of Washington Press, 1962.

Scherer, George A., and Wertheimer, Michael. A Psycho-Linguistic Experiment in Foreign-Language Teaching. New York: McGraw-Hill, Inc., 1964.

Servin, Manuel P. The Mexican-Americans, An Awakening Minority. Beverly Hills, California: Glencoe Press, 1970.

Skinner, B. F. Verbal Behavior. New York: Appleton-Century-Crofts, 1957.

Spindler, George. Education and Culture. New York: Holt, Rinehart and Winston, 1963.

Staats, Arthur W. Learning, Language, and Cognition. New York: Holt, Rinehart and Winston, 1968.

Steiner, Stan. La Raza: The Mexican Americans. New York: Harper & Row, Publishers, 1970.

Stockwell, Robert P., and Bowen, J. Donald. The Grammatical Structures of English and Spanish. Chicago: The University of Chicago Press, 1970.

_____, and Bowen, J. Donald. The Sounds of English and Spanish. Chicago: University of Chicago Press, 1970.

Tebbel, John, and Ruiz, Ramon E. South by Southwest: The Mexican American and His Heritage. Garden City, New York: Doubleday & Co., 1969.

Tireman, L. S. Teaching Spanish Speaking Children. Albuquerque, New Mexico: University of New Mexico Press, 1951.

Trager, George L. Language and Languages. San Francisco, California: Chandler Publishing Company, 1972.

_____, and Smith, Henry Lee, Jr. An Outline of English Structure. Norman, Oklahoma: Battenberg Press, 1951.

Van Scoy, Herbert A., and Davis, Margaret M. Essentials of Spanish. New York: Charles Scribner's Sons, 1970.

Vetter, Harold J. Language Behavior and Communication. Itasca, Illinois: F. E. Peacock Publishers, Inc., 1969.

Warshauer, Mary Ellen. "Foreign Language Broadcasting." Language Loyalty in the United States. Edited by Joshua A. Fishman. The Hague: Mouton & Co., 1966.

Weinrich, Uriel. Languages in Contact. New York: Linguistic Circle of New York, 1953.

Wise, Claude Merton. Applied Phonetics. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957.