Cycles of Conquest
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The uneven political integration of Indians into the three nations which successively expanded into the Southwest was matched by an equally uneven adoption of the official languages of those states. Up to 1960 the process which was set in motion by the impact of the cultures could not be characterized as one of progressive disappearance of the Indian languages.

What had happened could be summed up in the following figures: (1) in 1950 in the states of Chihuahua, Sonora, Arizona, and New Mexico twenty-eight Indian languages were spoken; (2) the total number of Indian speakers was somewhere in the neighborhood of two hundred thousand, or about the same number as may be assumed were living in the region at the time of European discovery; and (3) after a long decline the number of speakers of Indian languages had been slowly but steadily increasing during the preceding half century. These figures in themselves give no clear answer to the question as to what had been the general trend of linguistic change over the previous four hundred years.

Superficially they seem to suggest the conclusion that, since there were as many speakers of Indian languages in 1950 as there had been in 1540, the use of Indian languages was little affected by the conquests. It would appear from these figures that Indian languages about held their own in the face of the introduction of Spanish and English. Thus it might be concluded that the dominant process was that of the persistence of the Indian languages and even that language was considerably more resistant to change than political organization.

Such conclusions are entirely unjustified, because the figures present only a single aspect of a complex cultural situation. They do testify to the persistence of the majority of the Indian languages throughout the four hundred years, but they do not indicate the altered role of the Indian languages in the lives of their speakers, nor do they indicate anything concerning the important changes which took place in those languages during the period. These aspects of the situation must be taken into account for a full understanding of how culture contact affected the linguistic behavior of the people involved. We may point out here that by 1950 the Indian languages for most Indians were only alternative means of communication; most such speakers were bilingual, using Spanish or English in addition to their native
tongue. They used an Indian language, but only in some of their relationships with others. The Indian languages, in other words, although retaining in large degree their form, had been reduced to narrower functions in the lives of their speakers. They served for their speakers only a portion of their communication needs, in contrast with the totality which they had served before the coming of white men. An understanding of this shift in function gives the best clue to an answer to the question of whether the trend was consistently toward extinction of Indian languages.

But even when put in this way, the real situation is somewhat distorted. For what could be identified in 1950 as the Yaqui or the Navajo language was not precisely what it had been one hundred or four hundred years before. All languages change constantly. Some Indian languages were much influenced by the first impact with speakers of Spanish and continued to change throughout the following centuries. Others were little affected by Spanish, but experienced greater or less change after the entry of the Anglo-Americans into the region. Indian languages influenced one another under the new conditions and they were not without influence on the languages of the conquerors. Although some twenty-eight languages were identifiable in 1950 as non-European and as distinct from one another, these languages all reflected in greater or less degree the history of cultural change in the Southwest. They had all changed in response to a variety of influences, from the borrowing of words to programs for writing the Indian languages instituted by both the Mexican and the United States governments from the 1930's on. In the light of knowledge of these changes it becomes clear that language was no more static an aspect of culture than any other.

The story of the mutual influences of the Indian and the European languages on one another gives many insights into the changing relations of conquerors and conquered. Although this story has been insufficiently studied as yet, its outlines can be sketched. While up to 1900 the long-term trend had seemed to be toward the complete replacement of the Indian languages, one could not be sure of this in 1950. Toward the end of the nineteenth century certain counter-trends began to appear, and no student had adequately assessed these. On the other hand, one trend was clear — the steady growth of a kind of linguistic unity over the whole region. This consisted of the dominance of the two Indo-European languages — Spanish and English.

THE DIFFUSION OF SPANISH

In contrast with the aim of making all Indians citizens, it cannot be said that Spain had the clear objective of making all Indians speakers of Castilian — the standard language of Spain. On the contrary, the mastery of Castilian by all the Indians of New Spain was no more regarded as a prerequisite to citizenship than it was for citizenship in Spain itself. There the existence of many distinct languages, such as Catalan and Basque, was not seen as an obstacle to Spanish national strength, so long as there was in every province a ruling class who used the official language. In New Spain, emphasis on the importance of a common language
did not become very strong until some 150 years after the conquest of Mexico. In fact the earliest approach to the Indians seemed definitely to be based on the assumption that most of them would never learn Spanish. The first missionaries—notably the Franciscans—frequently set out to learn the Indian languages of the region around Mexico City. They wrote grammars and dictionaries, translated Indian chronicles into Spanish, translated Catholic prayers into Nahuatl and other Indian languages, and generally seemed to assume that the important thing for the purposes of conversion was that the missionaries get immediately into touch with the Indians through their own language. There were no official laws requiring Indians to learn Castilian and of course, nothing like public schools of a later period where Castilian was the official language. Instead, the concept was that "sons of chiefs" should be taken for special instruction into schools away from their homes where in the course of receiving instruction in the subjects of the day they would learn Spanish. This policy definitely did not look toward the learning of Spanish by the general Indian population. It was apparent that the use of interpreters in dealing with the Indians of the repartimientos was accepted as a permanent arrangement.

This general policy, based on the social structure of Spain and on the ethnic and linguistic diversity of that country, prevailed at the time colonization and conversion of the Northwest began. The Jesuits who pushed into Chihuahua and Sonora from the 1590's on worked in ways that were much in accord with the early work of the Franciscans and others in central Mexico immediately after the conquest of the Aztecs. They took as the foundation of their approach to the Indians real linguistic understanding. The learning of the Indian language was prerequisite to responsibility for a mission in Sonora. Thus there was a major emphasis in the Jesuit missions on the missionary's conversion of his teachings into the native language rather than on the Indians' learning of Spanish. The teaching of Spanish took the form of the Indians memorizing the catechism in that language, of the recitation of five or six Spanish prayers daily by all the children and adults who could be assembled, and of listening to the sermons which the missionary preached at least weekly. These were not formal classes in the Spanish language, but rather highly specialized instruction in the acquisition of specific formulas in a strange tongue. It is doubtful that any but the small corps of special assistants and choir boys to the missionary learned to use Spanish as a spoken language in the Jesuit missions, except where those missions were in close proximity to a Spanish settler population. While such nuclei of Spanish speakers in most of the missions became important groups for the dissemination of Spanish ideas, they remained specialists language-wise, somewhat apart from the general life of the community.

Slowly, however, this group was added to as a result of the schools which the Jesuits established. In these a selection of students was made, partly along the lines laid down in central Mexico. They were selected, we are told, from among the families of the "chiefs" but also according to demonstrated ability to learn. Some were sent from each "pueblo" to schools such as the one at Matape where they received more intensive instruction and, it may be presumed, gained a fair command of both spoken and written Spanish as they completed elementary
school. The proportion of Indians educated to this degree among any of the tribes by the time of the expulsion of the Jesuits remains unknown. But such men existed and were scattered widely through the communities. As early as 1678 the Visitor Zapata reported that at Ures, a community of Pimas and Opatas in central Sonora, a majority could understand Spanish and "many" could speak it. The whole choir was literate in Spanish. This was not unrepresentative of the Sonora mission communities by 1700.

In New Mexico and where the Franciscans worked in Chihuahua there was at first an approach basically like that of Jesuits in Sonora and New Biscay. That is, the Franciscan missionaries did not set out to teach the Spanish language to the whole Indian population, but they did aim at teaching Spanish to some in all the mission communities. By the 1620's, during the period of first zealous activity, there were reputed to be twenty-five missions established in New Mexico. Also there was the objective, if not the realization, of a school at each mission. In these schools, taught by the resident missionaries, there was instruction in reading and writing Spanish, in music, trades, and of course Christian doctrine. It is not clear whether such schools existed in all twenty-five missions, but it is likely that the date of about 1630 marked the fullest development of a school program. After that time for the next 250 years there was a steady decline in mission activities. The ideal of a school in every mission in which reading and writing was taught to all who would come suggests a more extensive program of teaching Spanish than characterized the program of the Jesuits. But it is also unlikely that this aim was actually realized.

The Franciscan missionaries working among the Eastern Pueblos must have been less well prepared than the Jesuits of Sonora for any linguistic work. There is no indication that any but one or two missionaries successfully learned the Indian languages. In the period before the Revolt of 1680, not a single grammar or dictionary of a New Mexican language was prepared and there is record of only a single catechism (in Jemez). This was in great contrast with the Sonoran Jesuits and consistent with what we know of the Franciscan schooling for missionary work and their attitudes toward it in this period. The emphasis on reading and writing in the mission schools also suggests the trend in Franciscan opinion favoring the replacement of native languages with Spanish.

The results in terms of language learning of the Franciscan efforts to establish schools for the Indians are unknown. If they were effective in teaching a large number of Indians to speak and to read and write Spanish, the new knowledge was not permanent. The Pueblo Revolt of 1680 and the subsequent great decline in missionary activities must have resulted in considerable loss of knowledge of Spanish by the Indians, for in the late 1700's reports of observers generally agreed that few Pueblos spoke Spanish effectively. It seems more likely that the aim of a school for literacy in each mission was not realized even in the relatively flourishing periods of the 1620's and 1630's. Nevertheless it does appear from Benavides and later accounts at least that there were many Indians in every village who had the kind of knowledge of Spanish which characterized the Indians of Sonora generally, namely, ability to recite the standard prayers and the catechism.
Thus, by the beginning of the 1700's wherever missions were established, there was a knowledge of a specialized vocabulary — that pertaining to Christian doctrine — among a majority of the Indians. For such persons Spanish was a somewhat esoteric language associated with ritual. In the Jesuit missions it is clear also that there was an additional small percentage of the population of the mission communities who spoke and read Spanish, not only as an esoteric language but as a general means of communication. These were the core of temastianes, the choirs in Opata country, and special assistants to the missionaries as well as a few who had been selected for systematic study in the schools of the head missions of the districts. It is not at all clear, on the other hand, that the Franciscans in New Mexico were successful in building up permanent groups of mission assistants or that they had developed elementary schooling to the extent that the Jesuits had.

However, the missionaries did not constitute the only medium through which a knowledge of Spanish diffused. In Chihuahua the ranches and haciendas which grew up in the country east of the Sierra Madres to serve the mining communities such as Parral hired Tarahumaras, Conchos, and other Indians to work seasonally or sometimes through the year. To a lesser extent they forced Indians to work on the repartimiento system. Under these conditions a minority of Tarahumaras and most Conchos learned a practical spoken Spanish of limited vocabulary pertaining to work activities. It was also true that Indians from Sonora, probably chiefly Opatas prior to the 1730's and Mayos later, worked in the Parral and other mines and again, in association with Spanish foremen and town dwellers picked up knowledge of Spanish. Since they were segregated in their own quarters of the mining town, as at Parral, it is probable that their knowledge of Spanish remained limited and adapted only to particular activities.

In Sonora there were similar developments as mines were discovered after the middle 1600's along the western margins of the Sierra Madres as far north as Janos. The Opatas and Eudeves especially were affected by this growth of mining and cattle ranching. These Indians, as the missionaries were frequently at great pains to point out, often maintained closer contacts with the Spanish settlers than with the mission staff, and this sort of contact intensified on through the 1700's. The result was a steady growth in knowledge of Spanish as a spoken language in everyday affairs.

The situation in New Mexico with reference to secular Spanish was somewhat different, resulting in probably a less intimate contact for the Indians throughout the colonial period. The informality of the mining towns with their miscellaneous population which did not always draw sharp lines against association with Indians was absent. The Indian settlements were more tightly knit communities than were those of the Opatas and Eudeves, and there was somewhat less association with the Spaniards in the villas. Indians did work on haciendas, as in the Nambé-Pojoaque area, and some were forced or hired into gangs for various projects of New Mexican governors. Such work gangs were most characteristic of the Piro and Tompiro peoples, far less so of the northern Pueblos. But trade, forced labor as servants, and curiosity brought Indians to the towns where contact with Spanish speakers took place. From the early 1600's on there were many
opportunities of this sort for hearing and learning a little Spanish in the settle-
ments near the pueblos, and these increased through the 1700's as smaller Spanish
villages grew up along the Rio Grande and unofficial and friendly relations devel-
oped between Indians and Spaniards.

It should be said, then, that there were two channels of diffusion for Spanish:
on the one hand, through the specialized activities of the missionaries in connec-
tion with Christian doctrine; and on the other, through secular activities in asso-
ciation with the Spanish settlers. The first resulted in special vocabularies memo-
ized by rote and employed within the Indian settlements as part of what became
a segment of the Indian cultural heritage. The second resulted in practical knowl-
dge of spoken Spanish, used during the colonial period chiefly outside the Indian
settlements in connection with Spanish activities. In addition, some of those who
became proficient in the ritual vocabulary also went on, under missionary encour-
agement, to gain a knowledge of reading and writing in Spanish. Individuals with
this sort of knowledge who remained in the Indian country were found chiefly in
the Sonoran communities, not in New Mexico.

How many speakers of Spanish there were or how many were literate in
Spanish by the end of the colonial period can only be guessed at. There are no
systematic records, merely impressions of various ecclesiastical visitors and others.
The lack of such records is of course an indication of the lack of governmental
concern about the state of literacy as well as about the extent of knowledge of
spoken Spanish. (The modern records reflect a concern which developed only
after about the middle of the 1700's.) In 1760 Pedro Tamarón y Romeral, Bishop
of Durango, made an expedition of inspection through New Mexico and came to
the conclusion that the Indians, with the exception of those of Isleta, did not speak
Spanish or understand it. He wrote by way of summary of his inspection: I soon
observed that those Indians were not indoctrinated. They do recite the catechism
in Spanish, following their fiscal, but since they do not know this language, they do
not understand what they are saying. The missionaries do not know the languages
of the Indians, and as a result the latter do not confess except at the point of death,
and then with the aid of an interpreter. I remonstrated about this repeatedly, and
I ordered the missionaries to learn the languages of the Indians.

In 1779 Father Francisco Atanasio Domínguez visited all the Franciscan mis-
sions in New Mexico and made a report. His impression was that in all the pueblos
the people spoke a kind of Spanish, but he wrote of Tesuque pueblo: They also
speak our Castilian, but not very well, for if we and they manage some mutual
explanation and understanding, it is in such a disfigured fashion that it is easier
for our people to adjust to their manner of speaking than for them to attempt
ours, for if one speaks to them rapidly, even without artifice, they no longer un-
derstand.

This estimate he said applied to all the Pueblos. It appears that his contacts
were with relatively few Indians in each case and that those with whom he did
have contact were those put forward as having the best knowledge of Spanish
for dealing with him.

It would appear from these and other confirming accounts that in New
Mexico the missionaries still relied on interpreters for communication with people of the villages and that therefore very few Indians, perhaps only one or two in each village, could be said to have been using Spanish as a means of communication by the end of the 1700's. Yet familiarity with the language as an esoteric ritual medium was extensive throughout the villages.

In Sonora the situation was considerably different for some tribes. The intermingling of Opatas and Eudeves with Spaniards in mining towns and on ranches and haciendas had been intensive enough by the late 1700's so that the impression of Spaniards was that nearly all these Indians spoke Spanish with some degree of proficiency. Father Ignaz Pfefferkorn, one of the last of the Jesuits to work in Sonora, wrote after his expulsion in 1767: The almost general and, so to speak, innate hatred and distrust of the Indians for Spaniards had been noticeably moderated among the Opatas and Eudeves. Frequent association with the Spaniards and a knowledge of the Spanish language thus gained, the customary barter of mutual necessities, but most important the teaching of Christian charity inculcated in them by the missionaries, all these gradually dispelled their ill feeling and made them friendly toward the Spaniards. . . . In short, these Indians were in every respect much more human and civilized than the other Sonorans.

But of the Upper Pimas among whom he also worked he had this to say: Sonorans do not at all like to speak the Spanish language even though they may have learned it quite well by constant association with Spaniards living among them. When they are questioned in Spanish, they reply in their own language. They may rarely be persuaded to give answer in Spanish, even though they know that the person who is speaking with them understands not a word of their language. On the other hand, those who are raised in the houses of the missionaries prefer Spanish to their own language. These are even proud of their eloquence, which they generally like to display by answering in Spanish if they are addressed in Sonoran.

But even they seem to forget every Spanish word the moment they come into the confessional. They say that it is more difficult for them to confess in the Spanish language than in their own. They will, therefore, tell of their sins and answer the questions propounded them only in Sonoran. If, however, the father confessor tells them that he has been unable to understand clearly a word of an expression, they are able to repeat in Spanish what it is they have said.

This considerable acquaintance with Spanish on the part of Opatas, Eudeves, and some Upper Pimas was probably not matched for the Yaquis and Mayos, although there is little data to go on. The penetration of Spaniards into Yaqui country was checked by the rebellion of 1740. Consequently Yaquis were relatively isolated from the kind of opportunities which the Opatas had for learning Spanish. Nevertheless Yaquis began after the rebellion to go out from their river villages to work in mines and on haciendas. That they were moving in the same direction as the Opatas so far as knowledge of Spanish as a second language goes is fairly sure. The Mayos too since the early 1700's had suffered encroachment of Spanish hacendados into their territory and they had gone out to some extent to the mines. Thus a small percentage of Yaquis learned spoken Spanish in these ways;
it was also true that it became customary for Yaqui ceremonial leaders to write Spanish (and Yaqui and Latin as well) as they took over the management of their ceremonies after the Jesuits were expelled in 1767. Details as to how many Yauquis were familiar with Spanish and in what ways are, however, lacking for this late colonial period. We may guess that there were small groups of church leaders, "maestros," who maintained a specialized knowledge of written Spanish, while many individuals had superficial acquaintance with everyday Spanish as a result of work for longer or shorter periods in Sonora or Chihuahua. On the whole, prior to about 1775, more Sonoran than New Mexican Indians had learned Spanish, but except for the Opatas it was primarily an esoteric language still.

In Chihuahua, by the beginning of the 1800's Conchos were probably largely detribalized as were many Tarahumaras. But there was a population of over twenty thousand Tarahumaras, living in the mountains, whose contacts with missionaries had been relatively slight, even during the Jesuit period, and who had had almost no contacts with Franciscans subsequently. Most of these remained with no knowledge of Spanish whatever, except for a word or two introduced by Jesuits. Among them no well-trained ritual specialist group had been developed by the Jesuits, and hence they lacked the body of ritual knowledge in Spanish which characterized the Yaquis, Mayos, and Opatas. Of course, some percentage of Tarahumaras who customarily went to work on the ranches or in the mines had the speaking knowledge of broken Spanish characteristic of the Indian fringes of the Spanish settlements. These constituted some nexus with the still monolingual Tarahumaras, but to what extent they came from settlements deep in the Sierras and returned to them is unknown. At this stage in our historical knowledge, we can only guess that they were on the fringe of the main Tarahumara tribe as well as of the Spanish settlements.

Navajos, Apaches, and Seris all had some contacts with Spanish speakers up to this time. A few Navajos in the vicinity of Santa Clara Pueblo and Navajos who had allowed a mission to be set up briefly among them near Mt. Taylor—the Enemy Navajos—had had passing contacts. These along with others made contacts with Spaniards at the Taos fairs and other trade centers. There were also contacts through Navajo slaves who escaped from the Spaniards in New Mexico. Similarly, the Apaches of the Gila (Western Apaches, Chiricahuas, and Mescaleros) through warfare and the taking of Spanish prisoners in the 1700's had some fleeting contacts, so that they knew Spanish personal names, place names, and the words for various innovations. These were all very minor diffusions and in the main may be classed as so fleeting as to have produced only an occasional Spanish-speaking individual in each tribe. It is doubtful that such speakers commanded the language of the Spaniards in any effective way.

Some Seris, on the other hand, had intensive contacts with Spaniards, both in the pre-1749 mission days at Pópulo and then again during the 1770's and 1780's at Pitic, when they were herded into the Villa de Seris. It is possible that all the Seris who were left by this time had some contact at Pitic and knew Spanish words, but it is also true that military men like Croix consistently made distinctions in the late 1700's between Seris (those who had been at Pitic apparently)
and Tepocas and Tiburones (presumably, those who had not been rounded up and who may have consisted of some of those who had never had mission experience either). It may be said that Spanish was more widely known among Seris than among either Navajos or Apaches, and that ability to “get along” in Spanish existed among them to a greater extent than among Navajos or Apaches.

There were also Upper Pimas, now differentiated as Papagos, living in the desert country west of the Santa Cruz River who had had only the most fleeting contacts with Spaniards and had little or no opportunity to learn the language. In the same classification, we may perhaps put the Yuman-speaking peoples, including both upland and river Yumans, although of course the Yumas had one brief mission experience and had had contacts with Father Kino who did not speak their language at all.

The results of the impact of Spanish language on Indians of northwestern New Spain by the end of the colonial period might be summarized as follows:

Wide-diffused among those tribes to which the missions had penetrated, who constituted a majority, was knowledge of sacred formulas and ritual concepts in the Spanish language. This kind of knowledge was certainly most firmly rooted in the areas of the Jesuit missions, but there was considerable such knowledge also among the Eastern Pueblos. It should be recalled, however, that there were thousands of Indians who had not been reached by the missions, namely, Apaches, almost all Navajos, most Upper Pimas, almost all Yumans, and finally the Seris whose mission history had been drastically interrupted as a result of the rash action of the commander of the first presidio of Pitic. Where the knowledge of sacred Spanish had diffused, its formulas and phraseologies were integrated into the ceremonial culture of the Indians, but in strikingly different ways.

Much less widely diffused among all the tribes, and extending to non-missionized ones, was a knowledge of a fragmentary, but usable, practical Spanish. There was the Spanish of the mine, ranch, and hacienda jobs, the content of which was limited in vocabulary and the grammar of which was probably offensive to missionaries. There was further the still more fragmentary Spanish of the trade contacts in Spanish towns and the New Mexican fairs. This kind of knowledge was most widely diffused among Opatas of all the tribes, but it existed in considerable degree among Mayos, Yaquis, most Lower Pimas, a minority of Upper Pimas, a minority of Tarahumaras, and the Rio Grande Pueblos. Among Western Pueblos, most Tarahumaras, Apaches and Navajos, Yumans, and most Gila Pimas it was even less widely known.

Narrowly diffused was a knowledge of reading and writing in Spanish. No consistent efforts of Spaniards except the Jesuits had been directed toward the diffusion of literacy. The Franciscans seem to have begun with such an objective but in New Mexico and New Biscay their efforts progressively lapsed, so that by the last quarter of the 1700’s they ceased to maintain schools. The Jesuits, whose efforts had been conceived in terms of the creation of a small elite who were literate, were expelled in 1767. Their work along these lines did leave a small number of individuals among Mayos, Yaquis, and Opatas in Sonora who were in some degree literate — how many we can only guess. There is no doubt that a
tradition of literacy had been established among Yaquis, a tradition which con­tinued despite the withdrawal of the Jesuits and which became an important part of the modified Yaqui culture. The chief use of this literacy was in connection with maintenance of the Catholicized ceremonialism. As a repository of historical or any other type of knowledge besides the sacred no literate tradition had been created, in the course of the 250 years of contact, anywhere in northwestern New Spain.

On the other hand a language of intertribal contacts had been introduced which was now employed in some degree from the Colorado to the Rio Grande and from the San Juan to the Fuerte. The Spaniards had imposed their own names for geographical features widely over the region, as in the cases of the rivers mentioned, and these became fixed; Indians employed them, even though they had their own names for rivers and other places, if they wished to be understood by the increasing numbers of Spanish-derived people coming into the region. The Spaniards had further imposed their own selection of terms on the Indians as tribal names, so that Indians who formerly had had no names for distant tribes now began to speak of them by the names which the Spaniards adopted. But the place names and the tribal names used by the Spaniards had not by this time completely replaced existing Indian words, since most of the tribes still retained their own languages and had traditional terms for places and some peoples. What the Spaniards had done was to lay solid foundations, by means of a common language designation, for the linkage of the small tribal worlds with one another and with the wider world of Western civilization. A new framework for thinking about the region had been successfully implanted. Moreover, certain new elements of Spanish culture which had spread widely were accompanied by their Spanish names. Not only the words for God (Dios), Easter, saint, and other ritual concepts were now in some form a part of all the Indian languages of the region, but in addition some elements of mundane life which spread even to tribes having little direct contact with Spaniards had also been accompanied by their Spanish names. Thus work, governor, town, horse, cow, housecat, knife, and others had become parts of the vocabularies of Indian languages from Tarahumara to Tiwa. To be sure, these were altered to fit the various Indian phonetic systems, but they now constituted common elements in languages which before had had no cognates. The diffusion of Spanish was well under way.

The independence of Mexico from Spain gave rise to a new set of contrasting influences, in south and north. In New Mexico the short period between the gaining of independence from Spain and the conquest by the United States, from 1820 to 1847, saw one major new development affecting language. In these years there was even more complete isolation from Mexico City and the wider world of Spanish civilization. The Catholic Church as an organized influence dropped out of the picture completely as it had been in process of doing. Spanish military power continued to disintegrate, and the conflicts between Pueblos and Navajos, Apaches, and Comanches intensified. The important influence so far as language was concerned in this brief period was in the relations of Pueblos with the descendants of Spanish colonists, now also isolated from Mexico.
Both the Spanish New Mexicans and the Pueblo Indians were targets of raiding Indians and hence were thrown together as allies against the Navajos, those Apaches who occasionally raided into the area, and the Comanches. While the alliance was not a formal one, it was a basis for friendships and a sense of common cause. The Spanish settlements had slowly increased in size since 1700 and by the middle of the century constituted more than four thousand persons settled in the immediate vicinity of the Pueblos along the Rio Grande. Directly at the edges of Pueblo villages, with the exception of Tesuque, Jemez, Sandia, and the western villages of Laguna and Acoma, small settlements of Spanish-speaking New Mexicans had gathered. At Taos there were three hundred. Across the river east of Santa Clara there was the Spanish settlement of Santa Cruz with a population of twelve hundred. In addition, scattered along the Rio Grande and up into the hills on either side, particularly to the east, there were many Spanish villages, comparable to those of the Pueblos in size and economy. Intermarriages took place, especially involving the Tewa at Santa Clara, Nambe, and Pojoaque. Contacts occurred at the fiestas celebrating saints' days, and the godparent and compadre relations became well established between Indians and Spanish New Mexicans. Considerable visiting took place back and forth. A phase of intimate, as opposed to official and directed contacts developed. As the official contacts had steadily declined during the preceding 150 years, intimacy had increased.

The Mexican breakaway from Spain produced no important political repercussions in the area and so the opportunities for a good deal of intimate language borrowing continued into the period of Anglo-American political control. The results of this informal framework of relationships without political dominance were twofold: (1) probably every person in each of the Eastern Pueblos gained an acquaintance with Spanish through contacts of various kinds with Spanish speakers; (2) a considerable amount of borrowing of Spanish words occurred. There is much evidence that Tiwa speakers (at Taos and Isleta, for example) gained a progressively greater familiarity with Spanish phonetics as indicated in a decreasing tendency to modify the words borrowed from Spanish; familiarity with Spanish continued to increase steadily through the early 1800's. Pueblos did not necessarily become bilingual, able to command both languages; rather, a majority merely learned to understand many Spanish words, because they heard them frequently and perhaps a majority learned how to "get along" in Spanish for particular, practical purposes. The process of increasing familiarity did not involve literacy in Spanish, since there were no Spanish schools.

At the same time hundreds of words were borrowed from Spanish. This, too, was a process which had been going on since the early 1600's; it probably intensified through the 1800's. Words for material items, tools, building materials, foods, clothing were borrowed along with the Spanish words for days of the week and various Catholic ritual occasions, saints, and ritual objects. There is an indication, as will be seen below, that speakers of Tiwa at Taos and Isleta did the greatest amount of such direct borrowing of words, that perhaps Tewa speakers came next, and finally, that Keresans did the least.

In general the Eastern Pueblos, but not the Western, had moved by the
1900's into a situation in which there was more or less equal give and take in relations with Spanish-speaking persons. Practical adaptations involving borrowing and limited language learning were well worked out. Spanish was in no way replacing the Indian languages. Although more Indians were learning actually to use Spanish than vice versa, indicating some cultural dominance of the Spanish New Mexicans, there was no trend toward disappearance of the Indian languages. The borrowing on the part of the Indians was an adaptation to the contact situation in which there had been, and with less intensity continued to be, a flow of cultural elements from the Hispanic culture to the Indian ones. Spanish continued to be important as a general trade language and, even during the major part of the Anglo period, as the language of external political affairs, such as in connection with land titles and local law enforcement. Although there were these few indications of Spanish dominance in the external world of the Pueblo villages, in the main the situation could be described as one of cultural pluralism with cultural adaptation rather than assimilation as the dominant process.

In the south relations between Indians and Spanish speakers were markedly different. Isolation from Mexican political control was never so complete. The mission program of the Catholic Church was ultimately, by the 1830's, completely broken up, but a system of secular priests was maintained at least in theory, and here and there, as among the Yaquis, a few priests continued to function in influential ways in some villages. In Chihuahua the Spanish-descended Mexican settlers steadily pushed the Indians into increased isolation in the mountains. During the early 1800's Mexicans moved deeper into the lowlands of Chihuahua which were well adapted to cattle raising, usurping lands in those areas still occupied by the Indians. As they did so they absorbed many of the missionized Indians, particularly the Conchos, into their own society and pushed most of the Tarahumaras westward. A borderland existed where Mexicans constantly extended their holdings at the expense of the Indians. But in the main by the middle 1800's most Tarahumaras had more or less effectively isolated themselves. The church had entirely disappeared as a bridge between Indian and Mexican cultures and did not reappear until 1900. In this situation the Tarahumaras, rather than learning an increasing amount of Spanish, began in fact to forget what they had learned during the days of the missions. Only here and there in small Mexican mining settlements and along the still advancing frontier was contact maintained. However, there was also some degree of contact with Hispanicized Indians from Sonora in the center of the Tarahumara country, where refugees and rebels from the Indian wars in Sonora settled, as in the vicinity of Tomochic where some vigorously anti-Mexican Mayos, Yaquis, Opatas, and others congregated. Tarahumara thus did not become a completely isolated language, but continued to receive minor influences from Spanish in such areas.

In Sonora the situation was neither like that in Chihuahua or in New Mexico. It was more like the latter in that, in general, Indian villages were not isolated from settlements of Spanish-speaking settlers, but it differed sharply in that the Sonora Mexicans, even before they had the necessary military power, began to assert their political dominance. The results were active hostilities between Yaquis
and Sonorans through the 1900's, a period of intermittent warfare almost as long involving the Mayos, and what amounted to social and cultural absorption of the Opatas and Eudeves. A remnant of the Seris ultimately achieved a fairly complete isolation, while the Pimans south of what became the United States border were almost as completely absorbed as were the Opatas. All the groups, except a majority of the Mayos, were by the middle of the 1900's Spanish speakers. Almost all the two hundred Seris knew a smattering of Spanish words and could "get along" in some degree with the Mexicans. The Opatas and Eudeves spoke only Spanish, having moved rapidly during the 1800's in the direction of assimilation — a direction which they had taken definitely by the end of the 1800's. They were not bilingual; Opata and Eudeve had disappeared as spoken languages, remaining only as recorded in two grammars by Jesuits who had worked among them. Pimans were generally bilingual, as were the great majority of Yaquis. On the other hand, most Mayos were not bilingual, but spoke only Mayo. Yet a third or more of the Mayos did speak Spanish, as well as their own language.

This much more extensive diffusion of Spanish in Sonora as compared with Chihuahua and New Mexico came about chiefly as a result of breakup and redistribution of the Indian communities. This applied especially in the case of the Opatas, Yaquis, and Seris, far less for Mayos and Lower Pimas. The Opata case will be discussed below. The Seris picked up their smattering of Spanish in connection with their forced relocations at Pitic (Villa de Seris) in the 1770's and again in the 1880's, and in their periodic associations with cattle ranchers and at the Mexican fishing town of Kino Bay where most of them camped during the 1930's on the shore of the Gulf of California. For the Yaquis, conditions giving rise to the learning of Spanish were somewhat more complex and resulted by 1960 in a much more intensive and more general knowledge of Spanish. After the War for Independence the state government planned, as has been seen, small day schools throughout the state, equally in the Indian as in other areas. Yaquis (and most Mayos) resisted this program as they resisted all other attempts to integrate them into the state organization. As a result, throughout the 1800's there were no schools in their country. After the first Yaqui-Mayo efforts at independence were put down by armed force, the Sonora state government attempted a program of colonization, which brought some Mexicans as settlers at various times into the Yaqui country. However, all settlers were killed or pushed out of Yaqui territory by the end of the 1830's, and no permanent Mexican settlements were established until Yaquis were defeated again in the late 1880's. Thus Yaqui contacts with the Spanish language within their own territory were very minor except during the period from about 1887 to 1910 and again after 1920 when several thousand Mexicans made their homes in the Yaqui country.

However, Yaqui contacts with Spanish speakers outside the Yaqui country were considerable throughout the 1800's and intensified during the 1900's. Yaqui and Mayo movement out of their territories to work for Spanish employers in mines or ranches and haciendas had begun after the 1740 rebellion and continued unabated for the next two hundred years. The recurrent disorders in and around the Yaqui country throughout the 1800's, and the steady increase in agricultural and
ranching establishments owned by Mexicans, provided appreciable seasonal employment of Yaquis and Mayos. The Yaquis were probably most prompted to this sort of outside labor because of the greater amount of warfare and fighting in their territory, while the Mexican settlers were steadily encroaching on Mayo territory and providing opportunities nearer home for them. By the end of the 1800's there were probably few Yaqui families who had not spent considerable time working at haciendas or in the growing Sonoran towns. Many Yaqui families left the country permanently to reside among Mexicans in different parts of Sonora. Moreover, those Yaquis whose interests were focused on the winning of self-determination also left the Yaqui country to work on haciendas and provide for the guerrilla fighters who remained in the Bacatete Mountains. In addition, after the 1880's the Mexicans began the program of deportation which scattered Yaquis out through Mexico, and this continued until the 1910 revolution. Thus Yaquis and some Mayos (a small minority) were for a hundred years living among Mexicans for greater or lesser periods and thereby came to learn Spanish. The general bilingualism of Yaquis was a result of this pattern of working outside their towns and of the voluntary and involuntary leaving of their towns as a result of the conflict with Mexicans. The general effect was a practical knowledge of Spanish — almost universal among Yaquis by perhaps 1910. Familiarity with Spanish did not result, however, in the disappearance of the Yaqui language, which generally remained the language of the home. Only in some of the fringe settlements around cities in Sonora and Arizona by the 1940's had families begun to replace Yaqui with Spanish, often consciously teaching their children Spanish as a practical measure for getting along in a Spanish-speaking milieu. At the same time that Yaquis reconcentrated in their territory from the 1920's through the 1950's, there was a corresponding return to the use of Yaqui in community life and many children began to grow up with only limited contacts with Spanish speakers. Mexican federal rural schools were set up in most of the larger towns in the 1930's but these were attended by only a small minority of Yaqui children. Most Mayos, in contrast with Yaquis, remained in or near their old towns and were not forced to learn Spanish as the dispersed Yaquis were. Many Mayos, even by 1960, were monolingual in the Mayo language.

The mobility of Yaquis resulted also in a fairly widespread literacy among them by the 1950's. Literacy among a small elite had been characteristic ever since Jesuit times. The determined program of maintaining their own churches with their own independent officials had required a certain number of literate persons in every Yaqui generation, men who could read the prayers, portions of the Mass, and other written ritual. This written tradition, kept alive quite independently of the Mexican culture around them, began by some time in the 1800's to lead to some record taking, to the writing of letters to Mexican officials, and to some development of written historical knowledge. The scattering of Yaqui families apparently also led to a very considerable employment of written Yaqui in the form of letters. Thus Yaquis were generally not only bilingual by 1950, employing Spanish with some facility as a spoken language, but they were also employing Spanish orthography in writing their own language and in maintaining a traditional written knowledge of their own in Spanish.
The state of the diffusion of Spanish as a spoken language in Chihuahua and Sonora could be summed up in the figures of the Mexican census for the year 1940. Of a total population of 840,648 over 5 years of age in these two states, there were a total of 52,984 persons who spoke Indian languages, or 6.3 percent. The number speaking Indian languages in the two states were almost the same – 26,354 in Sonora and 26,630 in Chihuahua. However, in the latter state there was a far higher proportion of monolinguals, that is, persons speaking only an Indian language with no knowledge of Spanish. Monolinguals in Chihuahua, all Tarahumaras, constituted nearly half of the total of Indian language speakers – 12,304 – while there were 14,326 who spoke Spanish in addition to Tarahumara. In Sonora there were only 5,994 monolinguals as against 20,360 bilinguals. The Indian-language speakers in Sonora were scattered among Yaquis, Seris, Upper Pimas, Lower Pimas, Mayos, and some others, including Warihios. The largest numbers of monolingual Indian speakers were Mayos living in three municipalities in the vicinity of Navojoa on the Mayo River, municipalities where the percentages of Indian speakers in the populations ranged from 32 to 57 percent.

The number of speakers of Indian languages in these two states had declined by possibly half the number which had been there at the time of the coming of the Spaniards, and this decline in numbers had been chiefly in Sonora among the Opatas, Eudeves, Upper Pimas, and probably Seris. In Chihuahua the decline in absolute numbers was not so great, possibly only as much as a fourth. The Indian speakers were now, however, small enclaves in the midst of nearly a million Mexican speakers of Spanish. Nevertheless about a third (32.6 percent) of the Indian speakers knew no Spanish whatever, this being the total percentage of monolinguals. The diffusion of Spanish was not complete after 350 years, the Mayas and the Tarahumaras being primarily the groups where the process was obstructed. It is clear that the same causes were not operating in these two cases of similar results.

THE DIFFUSION OF ENGLISH

The impress of Spanish culture, duly modified by the cultures of the various Indian tribes, had extended widely in northwestern New Spain by the early 1800's when Anglo-American traders, trappers, and woodsmen came into the region. New Mexico was by that time an area where Spanish culture and language had become established in local communities side by side with Indian communities which had been strongly influenced by Spanish ways. Indian and Spanish inhabitants of New Mexico lived side by side either as military allies or as enemies. The Spanish language had become the lingua franca among these communities, a far more widely used lingua franca than Keres which to some extent had served that purpose.

The Anglos who entered New Mexico in the period before and during the Mexican War in 1846-48 were for the most part men of no formal education – provincial and ethnocentric in outlook – often inclined to look down on the Spanish New Mexicans as barbarians little less civilized than the Indians. In fact once they had determined the peaceful farming character of the Pueblo villages they tended
to rate the Pueblos as at least as civilized as the New Mexican Spaniards. A few of
the early Anglos came to know and to find attractive the way of life of the wealthier
Spaniards and made some effort to learn the language. But there seems to have
been almost as much readiness to learn the Indian languages as to learn Spanish on
the part of the Anglos. This situation changed sharply, however, as soon as the
United States effected its conquest of New Mexico, when the local New Mexicans
began to share in the responsibilities of setting up government. It became apparent
that because of their numbers, as well as the experience of the wealthier families in
local government, the Anglos would have to work with the Spanish-speaking people
on at least equal terms.

Thus, English did not emerge immediately in New Mexican life as the domi­
nant language but existed for some time merely as a new language in the milieu of
intermingling cultures. Top level state business was, to be sure, transacted in Eng­
lish, but at lower levels of government, in courts and town councils, and even in the
territorial legislature Spanish continued to be widely employed.

Slowly, however, as more English-speaking people entered the territory, Span­
ish, while not generally displaced as the most widely spoken language of the area,
became secondary in the business of government and particularly in the business
of Indian relations. It was Anglos who took the leading roles in planning campaigns
against the “wild” Indians, namely, the Navajos and Apaches, and in planning for
the future with the “civilized” Indians — the Pueblos. In the hands of Kit Carson,
Colonel Donovan, and the others who took the field against the Navajos and
Apaches, the language of treaty-making became English. The Indians who had not
accepted Spanish or Mexican power slowly became aware of a new ethnic group in
the region and at first regarded them as allies since they had taken the field against
the Mexicans. The Pueblos who continued their peaceful behavior also became
aware of the new language and began to make distinctions between the Anglos and
the New Mexicans.

It was not until about 1870, however, that the importance of the new language
and the role that it was to assume began to be apparent. Until that time, the mili­
tary and other Anglo officials who had had dealings with the Indians had been
occupied with consolidating the Anglo military position, both with regard to the
Civil War in the United States and with regard to the first efforts to assert and
define Anglo military power over the Navajos and other Indians. After the Civil
War and into the early 1870’s President Grant’s advisers wrestled with the prob­
lem of Indian policy. Grant established a Board of Indian Commissioners who
gradually formulated the policy which came to be known as “Grant’s Peace Policy.”
It was a response chiefly to the abuses and the high costs which had attended the
subjugation of the Plains Indians. In this respect it was an attempt to correct bad
administration, but it was also a response to a growing humanitarian sentiment
which gave rise to spokesmen for the Indians, men who were sympathetic to the
now largely defeated tribes and their sufferings, and who were opposed to contin­
ued adjustment of the Indian-White conflict entirely in terms of the United States’
military power. Such men as Vincent Colyer, secretary of Grant’s Indian Commiss­
ion, and General O. O. Howard approached Indian-White relations with a distinct
bias in favor of the Indians. They took the view that Indian leaders were good men who would respond with cooperative spirit and integrity to fair offers of rights to certain territory and protection from settlers. Colyer and Howard were often ignorant of the absence of real tribal organization among Indians and of the bitterness of settler-Indian conflict and its background. This lack of knowledge led them into what seemed fatally unrealistic positions from the point of view of old Indian fighters like General George Crook and the settler-oriented territorial governor of Arizona.

The attempt at re-evaluating Indian policy was at its height as the first military phase—the successful campaign against the Navajos—of Indian-White relations in Arizona-New Mexico ended. The major decision of Grant's new Board of Indian Commissioners was to put Indian affairs in the hands of various religious denominations who were interested in converting the Indians to Christianity.

The most important feature of this new plan for cooperation between state and church was that the churches (or their mission boards) undertook to assume responsibility for schools among the Indians, for which the government proposed to furnish funds for schoolhouses and other facilities. The teachers in the schools were missionaries, who included in their educational programs religious instruction in whatever doctrine the particular church favored. Thus the initial educational program launched by the Bureau of Indian Affairs in the Southwest was characterized by two important features: (1) it was religiously oriented and (2) it was not, except for insistence on the English language, unified with respect to what was taught in the schools, the curricula being determined by the religious denominations responsible. In the first respect it resembled the early mission program of the Spaniards; in the second respect it differed sharply but was in accord with the religious heterogeneity of American culture.

The first school established was a small one among the Papagos at San Xavier near Tucson, which as early as 1864 had received some financial help from the Arizona Territorial Legislature, and which was managed by an order of Catholic sisters. This was followed in 1869 by another small day school at Fort Defiance among the Navajos, which was established in accordance with the federal government's agreement in its treaty of 1868 to establish one school and schoolteacher for every thirty Navajo children. The Papago school continued, but the Navajo one was discontinued because of lack of interest in it on the part of the Navajos. These were followed in quick succession by two small schools on the Gila Pima Reservation in 1871 and 1873, one for the Hopis at Keams in 1872, and one near Parker, Arizona, for Mohaves and Chemehuevis in 1873. Of the Indians concerned, only the Pimas and Papagos were reported to have attended regularly and only their schools were rated as more or less successful.

Meanwhile, the Board of Indian Commissioners under the influence of the church mission boards had concluded that the kind of school most likely to get the results they wanted would be boarding schools. In large part this idea was promulgated by General Pratt ("The Red Man's Moses"). A former Army man, he conceived the idea of establishing boarding schools far from the reservations where Indian children would be removed from the influence of their parents. It was his
belief that this would rapidly bring about the civilizing of the Indians. In 1878 it was arranged to open to Indians Hampton Institute in Virginia, a school established for Negroes after the Civil War. By 1881 Hampton had fifteen students from the Southwest—Pimas, Papagos, and Apaches. In 1879 General Pratt founded Carlisle Institute in Pennsylvania; through 1885, Carlisle had some two hundred students from the Southwest—six Navajos, ninety-two Pueblos, and nearly one hundred Apaches (Chiricahuas). The boarding school took hold rapidly, and in addition to the distant ones others were established closer to the Southwestern reservations—at Albuquerque in 1884, at Tucson in 1888, at Santa Fe and Fort Mojave in 1890, at Phoenix in 1891, and near Riverside, California, in 1892.

At the same time a program for establishing boarding schools on reservations was also instituted, so that by 1892 seven such schools were in operation—for Mohave-Chemehuevis on the Colorado River, for Navajos at Fort Defiance, for Pimas at Sacaton (1872), for Hopis at Keams (1887), for Yumas at Fort Yuma (1884), for Mescalero Apaches (1884), and for San Carlos Apaches at San Carlos (1880, 1887). In addition, five day schools were operating on Southwestern reservations—for White Mountain Apaches at Fort Apache, and for Pueblos at Zuni, Laguna, Jemez, and Santa Ana. Thus, within twenty years some sort of school program had been inaugurated for all the Southwestern Indians, either as day or boarding schools, except for smaller groups such as the Jicarilla, Yavapai, Havasupai, and Walapai. It had been assumed that the boarding schools at Albuquerque and Phoenix could take care of these smaller groups, but nevertheless, by 1900 the program had been supplemented with day schools for all the Eastern Pueblos, the Havasupais, and the Jicarilla Apaches, together with another boarding school for the Walapais and three additional day schools for Hopis and eight more day schools for the Gila Pimas.

Most of these schools were run under the supervision of the various religious denominations assigned under “Grant’s Peace Policy,” the Presbyterians having responsibility for more than any other group. Thus, the Pima, Mohave, Navajo, Hopi, and Tucson schools were Presbyterian. The San Carlos and Mescalero Apache and Zuni schools were Lutheran. The Yuma, Papago, and White Mountain were Catholic. However, the policy of placing education entirely in the hands of the religious denominations for which the federal government contributed support had become unpopular, so that after about 1887 the Bureau of Indian Affairs began to manage some of the schools and set up some for which it immediately took the full responsibility, such as those at Albuquerque, Phoenix, Santa Fe, and Riverside. After 1897 the policy of maintaining contracts with religious groups was prohibited by Congress, although some exceptions continued to be made thereafter. From that time on, the denominationally supported schools increasingly became independent of government financing.

The great majority of all Indians who attended school during this period into the early 1900’s were in boarding schools. The total number from New Mexico and Arizona is not available, but in 1917 from New Mexico, Arizona, Utah, and Nevada there were 6,949 in boarding schools. In other words, thousands of Indians had attended the boarding schools and were doing so in increasing numbers. A guess
might be that within fifty years after the inauguration of the school program at least one-tenth of Arizona and New Mexico Indians had been enrolled for greater or lesser periods.

The system under which they were being educated contained some very important features with reference to the diffusion of the English language. In 1887 the Commissioner of Indian Affairs reiterated a rule which had already become a part of the educational policy of the Bureau: *Instruction of Indians in the vernacular is not only of no use to them but is detrimental to the cause of education and civilization and will not be permitted in any Indian school over which the government has any control...* It is believed that if any Indian vernacular is allowed to be taught by missionaries in schools on Indian reservations it will prejudice the pupil as well as his parents against the English language.... This language which is good enough for a white man or a black man ought to be good enough for the red man. *It is also believed that teaching an Indian youth in his own barbarous dialect is a positive detriment to him. The impracticability, if not impossibility of civilizing Indians of this country in any other tongue than our own would seem obvious.*

This was similar to the view expressed by the Franciscan Archbishop of Mexico, Lorenzona, nearly one hundred years before.

The viewpoint was consistent with what had by then crystallized as the policy of the Bureau of Indian Affairs. It was consistent with the Dawes Act which proposed to individualize all Indian land holdings promptly in order to "make Indians into responsible land owners" as self-supporting individuals. It was the general belief of those who were then making Indian policy that Indians could all be rapidly transformed into English-speaking citizens if only the young persons were taken away from their parents and separated from reservation influences. This view led to recruiting children for the schools, often against their parents' will. Nevertheless, a majority of the Indian children attending the schools seem even at the beginning of recruitment to have gone voluntarily and with their parents' consent. This view led also to efforts on the part of boarding school officials to keep students away from their homes even during vacations, and they were farmed out to families who would board them in return for housework or other kinds of employment. This approach, based on the view that separation of children from parents was desirable, was the one generally accepted by missionaries, government officials, and others of the period. It grew out of two conditions: first, the real acceptance of responsibility, after years of disinterest, for Indian welfare, and, second, the assumption that there could be a future for Indians only through complete acceptance of Anglo-American culture. So long as a concept of completely isolated Indian societies had prevailed in American life, responsibility was felt only here and there, and chiefly by missionaries who became individually interested. Once the complete isolation arrangement, by force of events, was seen as impracticable, the next development was the concept of complete assimilation. The boarding-school policy was perhaps the fullest expression of this conception of Indian-White adjustment developed by the Anglos. It was, although in a somewhat more extreme form, the device which Spaniards conceived — in their schools for Indians — some three hundred years previously and applied, not generally as
in the U.S., but rather to a select group who were regarded as the future ruling class of the Indians under the Spaniards.

There would seem to be no question that this device was an effective one for teaching a new language. The children in the schools were from many different tribes and could employ no common language except English. This was the situation in the off-reservation boarding schools, but not, of course, in the on-reservation boarding schools. Out of touch with parents and other Indian adults, and under the instruction of men and women who were officially and usually personally antagonistic to native Indian ways including language, as well as unequipped for learning the Indian languages, the students in periods of three or four years learned how to speak English and, somewhat less effectively, to read and write it. A sort of boarding school dialect of English developed, recognizable as a “foreign” version of English, but still perfectly intelligible to non-Indians. Pimas, Papagos, Apaches, Yavapais, Walapais, and Mohaves all went in some numbers to the boarding schools. There are no adequate figures, only some suggestive items. They suggest that of the Southwestern tribes, perhaps the Papagos, the Pimas, and a few of the Eastern Pueblos, such as Santa Clara, Isleta, Taos, and Laguna were the most influenced; these had the largest percentage of students in attendance at the boarding schools. It seems also to be true that most of the men so educated did not return to their reservations immediately. Most of them went in for periods of wandering, making livings for themselves at odd jobs. Most ultimately returned to their reservations, but an unknown proportion never came back and were assimilated into Anglo society in various parts of the country. It must be remembered that those who returned to the reservations — the majority — rarely had more than the equivalent of a grade school education, for that was the level maintained by Carlisle and the other Indian schools. They also had had some experience with one or more trades, ranging from baking or plumbing to printing. Almost all had become Protestants of some denomination and generally were outspokenly antagonistic to prevailing Indian health and sanitary customs.

It is probable that in 1920-30 on the Papago Reservation there were eight to twelve women in their late twenties and thirties who had completed a full course at some boarding school and there were another thirty to forty who had had from one to four or five years under the boarding-school system. Most of these had been at nearby schools, such as the Pima one at Sacaton, or at Phoenix, or Riverside. These boarding-school-trained persons constituted perhaps one percent of their age group and they were concentrated for the most part in the eastern and southern part of the Papago reservations, where contacts with Whites had been most intensive. Their knowledge of English was good and their communication with Whites at the agency at Sells was good. But none had lost their Papago language ability. They were bilinguals.

The first impact of the boarding-school program certainly resulted in producing capable English speakers. It failed to fulfill the aims of its framers chiefly in that its influence was small in terms of the numbers of Indians who actually became bilingual. Nevertheless, those individuals for the most part began to be an important influence on the Papago, Pima, Mohave-Chemehuevi, and Apache
reservations as mediators between the Indian Bureau officials and the mass of Indians on the various reservations. They interpreted what was going on to their relatives and friends in the Indian communities as they heard or read about it in English. Some moved into positions of leadership, either as go-betweens with the Whites or as recognized representatives and advisers in their home communities. Increasingly, such individuals with boarding-school backgrounds became the means through which Indian Bureau officials dealt with Southwestern Indian tribes. It should not be assumed that they became generally leaders in the sense of trusted judges and speakers in their communities, although some certainly did. Rather, the characteristic role which they came to fill was that of intercessor and interpreter. On some reservations they became focuses of internal factional splits.

This first phase of about sixty years, or two generations, had the following results stated numerically. By about 1930 only the Papagos and Navajos were listed by the Indian Bureau as having more than 50 percent of their numbers who could not speak English. Fewer than 20 percent of Navajos spoke English and only 40 percent of Papagos. Both were rapidly increasing tribes, shortly to become the largest and the second largest tribes, respectively, in Arizona. The lack of knowledge of English among them, in view of the fact that they were offered the first English language schools in the Southwest, would not seem to have rested on lack of government concern. It rested rather on the inadequacy of the boarding-school system—in the sense that the boarding schools were limited in the number of students they could take. These had to serve all tribes and all turned some students away by 1930. But also their very distance from the Indian communities, especially the more remote Navajo and Papago settlements, reduced their influence. Even if there had been enough room in existing boarding schools, it would have required a systematically carried out campaign of compulsory recruiting (which the Indian Bureau tended to shy away from after its experience with the Hopis) to fill the boarding schools. Day schools plus nearby boarding schools had achieved remarkable results for the Pueblos who by 1930 had been reported to be some 85 percent acquainted with English; moreover this knowledge was a fairly full and intensive one since they were reported to be about 75 percent literate in English. The boarding school for the Mohaves (which was close to their residences) was similarly effective as was the Truxton Canyon boarding school for the Walapais. The San Carlos and White Mountain Apaches similarly had day and boarding schools within their own reservations and their rate for both English speaking and literacy was just under that for Mohaves. The Pimas had long enjoyed both day schools and a boarding school within their own reservation as well as a nearby boarding school at Phoenix for all Southwestern Indians. These had resulted in figures with regard to English language skill even higher than for the Eastern Pueblos.

The introduction of English had been a more rapid process than the introduction of Spanish. The knowledge of English was much more extensive among these tribes of Arizona and New Mexico after some seventy-five years of contacts with Anglos than was the knowledge of Spanish by even the Sonoran tribes (the most favorable area for language learning as compared with New Biscay and New
Mexico) after two hundred years of contacts with Spaniards. The device which had brought about this rapid introduction was obviously the school, both boarding and day types, aimed at all the children. By 1930 it was not yet universal, capable of serving all Indian children, but it had been moving steadily in that direction. It was clearly the aim of the Indian Bureau to make the schools, with their absolutely required English learning, universal for all Indians, and as early as 1908 the Indian Bureau began what gradually became of major importance in the Bureau's educational program, namely, the enrolling of Indian children in public schools, wherever possible. In 1908 the Indian Bureau paid the tuition in public school for six Pima children, and by 1921 in the state of Arizona there were 182 Indian children enrolled under these same conditions in Arizona state schools, including Yavapais, Apaches, Mohaves, Chemehuevis, Papagos, Pimas, Navajos, and Hopis. The Anglo-Americans had introduced an institution which the Mexicans fully visualized for Sonora and Chihuahua, but had not been able, until the late 1930's, to get under way because of the general disorder. The Anglo policy was universal secular education for Indians; what interfered with the full realization of the policy was the failure of the national Congress to support the Indian Bureau. Here the difficulty rested on a basic conflict which the existence of the Indians as conquered people had set up in Anglo-American culture.

With the degree of support which Congress gave the Indians of Arizona and New Mexico during the first sixty years of the school program only half of these Indians became acquainted with English. But the efforts of the program were accelerating. It did not appear in 1930 that it would take another sixty years to bring the Indians to the degree of English speaking that the Opatas had attained by 1930 in speaking Spanish.

In 1933 changes came in Indian policy. Chief of these was the attempt to give up the boarding schools and to emphasize day schools. The viewpoint back of this particular change was that the Bureau had been wrong in fostering isolation from parents and community. It was now held that the primary emphasis should be placed on learning to live as members of families in the mixed cultural communities of the reservations. Consistent with this approach, the curriculum of the Indian Bureau schools was modified, or at least beginnings were made. These consisted of attempting to teach Indian children something of their own historical and cultural background as well as that of the United States as a whole; relating the school programs to the existing economic problems of the reservations; and instituting instruction in the Indian languages. These efforts focused on the Navajo Reservation and reached their fullest development there but they also were applied among the Hopi, and in lesser degree among the Pueblos and the Papagos. It is not clear that much change was instituted elsewhere in the Southwest. The closing of boarding schools was already underway before 1933. The Fort Mohave boarding school was closed in 1930, the Pima in 1932, the Colorado River boarding school was converted into a day school in 1934, the Truxton Canyon boarding school for Walapais was closed in 1938, and the Fort Apache became a day school in 1939. Between 1925 and 1935 the number of Indian students in Arizona attending off-reservation boarding schools declined from 37.3 percent to 18.4 percent, and by
1955 some 25 percent of Arizona Indian children were enrolled in the local public schools. Between 1933 and 1936, in an effort to provide schools for the two tribes least fully supplied with them, six day schools were established on the Papago Reservation and forty-three Navajo schools were programmed as day schools. Among these latter were the newly-conceived “community schools” which were designed to be centers of the community life. From 1939 on, the Indian Bureau maintained specialists in the Indian languages, particularly Navajo, and primers were written in Navajo, Hopi, and Tewa. This latter development was consistent with work in the reduction of Indian languages to writing which various mission groups, chiefly Catholic and Lutheran, had been doing already, but the government efforts were more systematic for at least the Navajo and the Hopi.

This second phase of Indian education in New Mexico and Arizona gave way about 1950 to a new one. This was characterized by a return to emphasis on boarding schools for Navajos and Papagos, but not for other reservations, and by new impetus to the long-standing program for enrolling Indians in public schools of the states with the Indian Bureau paying tuition. This phase in education may be characterized in the following ways: (1) The major emphasis on learning to speak, read, and write English was continued. (2) The learning of English was probably slowed because children were less isolated from Indian-language speakers such as their parents, and because they were thrown together in the schools with other children who spoke the same Indian language. Moreover, the use of the Indian language was no longer strictly prohibited, but even encouraged and words of the Indian languages were used by some teachers in the class rooms. (3) Some knowledge of English diffused more widely than under the boarding-school system in that a far larger percentage of Indian children, especially among Papagos and Navajos, attended schools where they learned English. (4) Unquestionably, however, the schools did not produce the very competent speakers of English that the boarding schools had in their program of isolation. This became a sore point with reservation parents, especially those who had themselves been to boarding schools and were able to compare the lesser efficiency of the new day schools.

The results in terms of the diffusion of the English language may be summarized in figures as follows. In 1952 in the state of Arizona there were 100,337 Indians resident on reservations and classified by the Indian Bureau as Indians. Of these 50,081 were non-English-speaking, or about 49 percent. The overwhelming majority of these monolinguals were Navajo—some 44,000 out of the 50,000. The percentage of Navajos who spoke English had doubled since 1930, but still 61 percent of the tribe were monolingual. Only the Papagos approached the Navajos in the high percentage of monolinguals, there being 49 percent of the Papagos who spoke no English. Of the others in the state, the Apaches were about 80 percent English-speaking, the Havasupais and the Hopis about 85 percent, and all the rest, including such larger groups as the Gila Fimas, were from 98 to 100 percent English-speaking. In New Mexico the situation was similar. All the Pueblos ranged from 85 to 100 percent English-speaking, and the Jicarilla and Mescalero Apaches were within this range, being about 87 percent English-speaking, while New Mexico Navajos ranged a little higher than Arizona Navajos.
There was no reason to assume that the Navajos or Papagos would not ultimately become 100 percent bilingual. All trends pointed in that direction, including Indian Bureau aims and Congressional tendencies in providing appropriations, as well as prevailing Indian and Anglo attitudes. But it should be remembered that the figures here report bilingualism, not the disappearance of the Indian languages. While, as a result of the increase in school enrollment, bilingualism appeared inevitable for Arizona and New Mexico Indians, the relation between this condition and obsolescence of an Indian language was not known, nor was the relationship between the speaking of two languages and the disappearance of subordinate cultural values or customs understood.

The diffusion of English had almost wholly blocked the diffusion of Spanish among Indians in Arizona and appeared to be moving toward a similar situation in New Mexico. In Arizona, despite the fact that better living conditions attracted Papagos from Sonora into Arizona from the 1870's on and thus brought Spanish-speaking Papagos into Arizona, the schools were slowly turning all Papagos into English speakers. However, through frequent daily association in jobs and in residential areas where they were thrown together with Spanish speakers in Tucson and Phoenix, many Papagos continued to learn some Spanish. Elsewhere, except for the acquisition of a few Spanish words by Navajos in a largely hostile situation in northern Arizona, the learning of Spanish had ended by 1950. In New Mexico the situation was different. Spanish was intricately integrated into Pueblo culture, and the clusters of Spanish-speaking rural people around the Pueblo villages continued. Spanish thus was in use among Pueblos to a greater extent than among other Indians of New Mexico and Arizona.

THE EXTINCTION OF INDIAN LANGUAGES

The diffusion of the two European languages among the Indians did not necessarily involve the replacement of the Indian languages. In only one area of the region had there been a consistent trend for a period of some two hundred years toward extinction of the Indian languages. This was the area of the Apache frontier, where the non-Apachean languages were subject to this process. There even seemed to be a phase in the course of cultural adaptation in New Mexico when Spanish existed under circumstances in which no one culture was clearly dominant, so that Spanish was learned by Indians as one tool along with other Indian languages in a pluralistic cultural milieu. Before and following this brief period, however, the European languages were part of politically dominant cultures and during these eras there were strong factors making for language replacement. In the half century before 1950, both in the areas of Spanish and of English dominance, it appeared that only special and perhaps temporary circumstances encouraged the persistence of the Indian languages in the face of growing pressures for language replacement. The relations of Indians and European-derived peoples changed sharply in this period and the new situation appeared to affect the direction of change in language. However, in the first half of the twentieth century,
population dominance of non-Indians with standard Anglo and Mexican dialects being taught in extensive school systems, suggested a new trend toward extinction.

At the time of the coming of the Spaniards, there were at least forty-one dialects of Indian languages spoken. How distinct these were from one another remains an unanswered question, and it is not likely that the question can ever be settled. Since some of the dialects became extinct without ever having been recorded, the materials for determining their nature were not preserved and cannot be resurrected. Therefore the precise number must remain doubtful. We may, however, accept the following as a probable listing of the dialects of the region during the last half of the 1500's:

In the area of what is modern Chihuahua there were possibly five languages recognized as distinct by the Spaniards, who followed the lead of Indians in distinguishing them. These were Tarahumara, Warihio, Corcho, and possibly two others whose distinctness is less certain - Jano and Suma. Ranging into the eastern part of the present state were people speaking "Toboso" and Apachean languages. In the area that is now Sonora there were at least four groups of languages, which have since become differentiated in forms that were not the same as those encountered by the Spaniards: Cahita, since differentiated into Mayo and Yaqui; the Seri group, which may have been composed of five or more different dialects but which by the 1800's was consolidated into the single language known as Seri; the Opatan group, composed of Eudeve, Opata, and Jova; and the Piman group composed of Nebome, Sobaipuri, and six or seven dialects of Upper Pima, later consolidated into Papago and Pima. In New Mexico there were at least eleven groups as follows: Tompiro, Piro, Tiwa, Tewa, Towa, Keres, each of which probably consisted of several mutually intelligible dialects corresponding to the Pueblo villages called by those names by the Spaniards; Navajo, in what is now northwestern New Mexico; Apache, differentiated into Jicarilla, Mescalero, and Lipan; and Zuni, probably then comprising several different dialects very closely similar. In Arizona there were another ten or eleven different languages: Hopi, with minor dialect differences among the villages; Apache, comprising Tonto, White Mountain, and San Carlos, all dialects of Western Apache and Chiricahua; the river Yuman group consisting of Cocopa, Yuma, Halchidoma, Mohave, Maricopa, and possibly another; the upland Yuman group consisting of Yavapai and Walapai; and in addition some doubtful ones, possibly Jocome, Suma, and another language in the same area of what is now southeastern Arizona.

How distinct all of these were remains doubtful. The designations are the ones to which Spaniards had become accustomed by the early 1700's after a century and a half of acquaintance with the Indians of the region. These names used here are the ones adopted by Anglos when they came into the region. They reflect a combination of linguistic difference and locality association. They reflect, as they have come to be used in recent writings, primarily the locality association as ultimately defined by reservations. Thus, for example, the distinction between Yavapai, Walapai, and Havasupai linguistically is not great and these "tribes" have become differentiated largely through their historical experience with white men. Similarly, the linguistic difference between modern Papago and Gila Pima is also slight, the
differentiation depending much more on the reservations established for each.

Perhaps a more accurate listing from the point of view of full-fledged languages would be the following: in Chihuahua two, Tarahumara and Concho; in Sonora four, Cahita, Seri, Opat, and Pima; in New Mexico seven, Tiwa, Tewa, Towa, Keres, Zuni, Eastern Apache and Navajo; and in Arizona three, Yuman, Hopi, and Western Apache. This would make a total of sixteen.

As has been indicated, of the forty-one or forty-two languages listed according to Spanish designation, perhaps twelve had become extinct by 1950. Using the more compressed grouping three out of sixteen had become extinct. Thus about 25 percent linguistic extinction is indicated, however the dialects are grouped.

Nearly all, in fact all but one of the dialects which had become extinct existed in the area of the Apache frontier or "Corridor," that is to say, in the area from central New Mexico across the southwestern part of New Mexico and northern Chihuahua into southeastern Arizona and northeastern Sonora. Those language groups which became extinct were the following: Piro, Tompiro, Concho, Lipan, Opat, Eudeve, Jova, Jone, Suma, Jocome and Halchidoma. The last was a Yuman language spoken by people who inhabited the Colorado River Valley between the Yumas and the Mohaves until sometime in the late 1700's. Through warfare their numbers were decreased and they attempted to move eastward into the Gila Valley. They either were absorbed into the Maricopa who were also moving eastward because of warfare with neighboring Yumans, or disappeared as a biological entity before the middle of the 1800's. They were thus a casualty of the traditional warfare among the Yuman groups, and it seems doubtful that their disappearance was in any way connected with the coming of white men into the region.

On the other hand, the disappearance of the other groups seems definitely connected with the arrival of the Spaniards and the stimulus to warfare which resulted. The events which led to their extinction were climaxed by the Pueblo Rebellion of 1680, but the conditions leading to the extinction arose earlier. The eastern margin of the Rio Grande Valley was subject to attacks from raiding nomads at the time of Coronado's expedition and before 1540. The Tanoan-Tewa peoples were forced out of the Galisteo Basin before 1680 as a result of such raids. At the same time the villages east of the Rio Grande between El Paso and Albuquerque were similarly subject to raids and the Spanish governors of New Mexico made special efforts to protect them and enlisted them in retaliatory military operations. The Piros and Tompiros of this area, in fact, seem to have accepted the Spaniards as needed allies, and when the Pueblo Rebellion broke out, they remained loyal to the Spaniards, accompanying them to El Paso rather than joining the Pueblos to the north. They were re-established in the vicinity of El Paso in mission centers and never returned to their former villages, which had been subject to a failing water supply anyway. From the early 1700's on, there was a progressive cultural assimilation in the small missions around El Paso. There were not only Piros and Tompiros, but also Sumas and other Indians of the El Paso region in the missions. In 1749 there were listed 1,484 Indians in five missions: El Paso, San Lorenzo, Senecu, Isleta del Sur, and Socorro, but living with them in the same settlements were a greater number of Whites, namely 1,648. The next hundred years saw first a succession of attacks on
the missions by the Apaches of various groups and second the steady overrunning of the settlements by Spaniards and Mexicans, so that by the later 1800's the native languages had ceased to be used, intermarriage with Spanish-speaking people was general, and nearly all sense of tribal or cultural identity had disappeared. The same fate overtook the not very populous Concho communities along the Rio Grande and also in northern and eastern Chihuahua. Precisely what happened to the Sumas who were not settled at El Paso, to the Jocomes of southeastern Arizona and to the Janos cannot be said. They either were similarly absorbed by Spanish settlers or possibly even absorbed into the bands of various Apaches with whom they fought in the late 1600's and early 1700's against the Spaniards. These six groups then were early casualties of the Apache frontier, extinct within the first 150 years after the arrival of the Spaniards. Their extinction may be attributed to decimation in numbers through warfare and epidemic, combined with acceptance of the Spaniards as allies, intermingling with them and consequent rapid loss, since they were all small groups, of their distinct linguistic and cultural identity.

The story of the Apache frontier and its cultural effects farther west is somewhat different. Here the people concerned were those who spoke Opata and related languages—Eudeve and Jova. These languages, with the possible exception of Jova, were extinct by 1950, but it is unlikely that Opata and Eudeve were extinct as languages before 1900. Moreover, although the language disappeared it is not true that the Opatas everywhere lost their cultural identity as well. There were still communities in central Sonora in 1950 which identified themselves as Opatas and prided themselves on some distinctive customs. The process was parallel with, but much longer drawn out than the process of assimilation in the El Paso area, and this was correlated with the fact that rather than being in the very center of Apache raiding they were able to move back out of the focus to some extent.

Beginning in the 1680's the northern Opata villages became the object of attack of the tribes which were raiding into eastern Sonora. Opatas in these villages were forced to move south, until finally the whole northern margin of their territory was largely depopulated. This followed what had been a generally peaceful acceptance of Spanish missionaries, miners, and settlers. Never concentrated into large communities, such as those of the Yaquis even after missionization, the Opatas accepted Spaniards in their communities and even before 1700 had intermarried with them. In the face of the Apache attacks, this intermingling was intensified, partly because of the need of falling back to Spanish settlements and partly because of the need for allies against the Apaches. The friendly intermingling, including the learning of Spanish, and alliance continued on through the 1700's and into the early 1800's. Thus, for over a century the Opatas underwent relocation of their communities in many areas, and they accepted responsibility for military operations against the Apaches, several Flying Companies from the mid-1700's on into the early 1800's consisting of Opatas in the frontier presidios.

These conditions brought about the steady replacement of Opata language and culture by Spanish and Spanish-Mexican ways. The integrity of their territory and communities was not maintained as the Yaquis maintained theirs. They voluntarily moved into new settlements close to Mexicans. After their defeat in
the 1820's by Mexicans in their bid for independence, their young men fought alongside Mexicans. The Opata language continued in use probably through the 1800's, but replacement was steady. It would be interesting to know the details of this process, but at present data are lacking. All we know is that the process was complete by 1950. It is also clear that a few customs, such as some connected with basket making and with spring ceremonials have survived the language, as for instance in the Batuc and San Miguel valleys. But replacement of language and other aspects of culture seem to have been almost parallel processes.

THE PERSISTENCE AND MODIFICATION OF INDIAN LANGUAGES

Three-quarters of the Indian languages had, as seen above, persisted up to 1950, and all indications were that most of these would be spoken for indefinite periods in the future. Due to the number of speakers, there was no likelihood that Navajo, Hopi, Zuni, Keres, Tiwa, Tewa, Western Apache, Papago, Gila Pima, Tarahumara, Mayo, or Yaqui would disappear under any conditions foreseeable in 1960. There was room for doubt about the indefinite persistence of Mohave, Yavapai, Walapai, Havasupai, Seri, Maricopa, Chiricahua, Cocopa, Lower Pima (Nebome), Yuma, Chemehuevi, and Warhio, the chief reason for uncertainty about these resting on the small numbers of those speaking them. Any trend toward complete replacement could rapidly affect a group of less than one thousand. Disease could wipe out such small groups suddenly. For these reasons there was less assurance that the languages of the smaller groups would persist. Nevertheless, nothing in the record pointed to any clear basis for expecting replacement of any of the languages listed. Even such factors as drastic demographic shifts, to the point of breaking up communities, did not always result in language replacement — as the Seris and Yaquis had demonstrated. Thus, on the basis of the evidence, no such external, or noncultural factors could generally be considered as pointing toward replacement. The replacement of language was evidently a complex process, which might be triggered by such noncultural factors, but which worked itself out in the field of cultural factors. One factor which appeared to be of great importance was the growth of bilingualism. Some small groups, such as some Yavapais, Gila Pimas, and Chemehuevis, had become 100 percent bilingual, and this was further reason for thinking that these languages were likely to become extinct more rapidly than those like Papago, Navajo, Tarahumara, and Mayo where some proportion of monolinguals existed. Nevertheless, it was easy to imagine some of the small bilingual groups developing, under some circumstances, nativistic movements which would give high value to the speaking of their languages under conditions important in their lives. For this reason, then, further prediction seemed dangerous on the basis of any combination of probable factors.

It should be emphasized that the languages listed as “persisting” had not gone unchanged during the course of contact. This statement rests on facts known
about only a few of the languages. Those which have been studied all indicate
some degree of change in the process of adaptation to the new cultural conditions.
This applies both with reference to change in form and in function of the lan­
guages. Unfortunately, neither aspect of change has been analyzed in any detail
for more than three or four languages and none of these analyses is complete, every
study having been concerned primarily with form rather than function.

SPANISH INFLUENCES — However, some analysis of five languages with respect to
formal changes has been made and these data can be reviewed and a little insight
 gained thereby into linguistic adaptation under the conditions of contact. The
languages about whose changes a little is known are Tiwa, Tewa, Keres, Pima, and
Yaqui. As might be expected in view of the different circumstances of contact, these
five have not changed in the same ways.

In their adaptation to contact all of these languages were characterized by an
increase in their vocabularies by adding words derived from Spanish. The borrow­
ing was not, however, patterned in the same way. Yaqui borrowed freely and
extensively, Pima considerably less so, while the three Pueblo languages borrowed
very sparingly. Nevertheless they all borrowed, as languages in contact unfailingly
do. The way in which they borrowed sheds a good deal of light on the circum­
stances of the relationships between the Spaniards and Indians as well as on the
structural characteristics of each of the languages.

Speakers of the three Eastern Pueblo languages — Tewa, Tiwa, and Keres
apparently began using Spanish words for some of the new things and ideas intro­
duced by the Spaniards at the very start of their contacts, in the first decade of
the 1600's. They all adopted the Spanish words for new things that the Spaniards
brought such as bull, cow, ox, horse, burro, mare, and pig, and for grape, pear,
probably peach and apple, chile, melon, oats, and wheat bread, and for such uten­
sils as bottle, sword, fork, pistol, spoon, and table. In addition, they uniformly
adopted the Spanish terms for godparents (comadre and compadre), for saint,
for Mass, and perhaps for captain, lieutenant governor and governor, fiscal (church
official), bishop, the Blessed Virgin, and soldier. They also generally adopted
words for measurement which covered such new concepts as, for example, the
days of the week, the week as designated by the word for Sunday, numbers of large
quantity such as one thousand, hour, and perhaps league and mile. Less uniformly,
the various villages made use of the Spanish words for Christian festivals such as
Easter and Christmas, for God, the soul, the Vespers service, and a number of
others. The acceptance of these varied among villages, as did the use of other mis­
cellaneous terms such as bridge, coffin, chair, lamp, button, hammer, ribbon and
some others. But the considerable uniformity with which such adoptions were
made among all the Eastern Pueblos suggests an early readiness to borrow the
words along with the things and ideas themselves; it also suggests the utility im­
mEDIATELY felt in domestic animals and plants, metal and glass artifacts, time and
space measures, as well as an interest in some of the social and religious innova­
tions, such as the liaison officers for the villages and the ritual of Mass and cere­
monial sponsorship and the figure of the Catholic female supernatural — the Virgin
— although of course the acceptance of these last indicates also the importance attached to them by the Spanish innovators.

Although these early word adoptions became rooted solidly in the Eastern Pueblo languages and some others were also adopted from time to time as contacts with Spanish-speaking people continued on down to 1950, it is an interesting fact that the process of acceptance of Spanish words seems to have slowed down after the initial contacts. All observers agree that some 350 years later not more than 5 percent of Spanish words were included in the vocabulary of the three languages mentioned. We may guess that certain checks on the ready adoption of words from Spanish developed in the period leading up to the Pueblo Rebellion of 1680 and that perhaps these checks were intensified during the following period of hostile relations with Spaniards. As more friendly relations with New Mexican Spanish-speaking people developed during the early and middle 1800's more casual borrowing of words undoubtedly took place again, but by the middle of the 1900's it was clear that the dominant tendency was to curb such borrowing. In fact, it appeared that a conscious policy of avoiding the use of Spanish words among the Tewas, Tiwas, and Keresans had been adopted. Speakers of Tewa were reported to be aware that many words were borrowed from Spanish and were not part of the Indian language, and so were finding ways to avoid using them.

This consciousness of the small Spanish-derived vocabulary in Tewa existed in 1950 as a reflection of the hostile Pueblo-Spanish relations of the late 1600's and the 1700's. It existed despite the growth during the 1800's of friendly accommodation with Spanish-speaking people and a good deal of cultural borrowing during that time. It existed also in conjunction with what by 1960 was a widespread familiarity with Spanish on the part of Tewa-speakers and a general ability to use the language. Evidently there was a definite and conscious process in operation which kept the languages separate.

One effect was the employment of loan translations rather than the borrowing of words. As many items of Spanish culture became interesting to and were adopted by Pueblo Indians, instead of borrowing the words for such items as had been done rather generally at first, the tendency now was to reject the Spanish word and to coin a new expression in Tewa for the cultural element which came to be used. Thus, in Tewa, there were a good many alternate forms of this sort, which might be used on occasion rather than the Spanish loanword. There were such alternates for burro, goat, horse, and watermelon, words for which had originally been borrowed from Spanish. There were numerous loan translations for other borrowed elements for which a Spanish word probably had never been borrowed. Words of this sort in modern Tewa were those for baptism, holy water, cross, Devil, sin, and Catholic priest. There were others such as words for peach, wheat, for beets and carrots, for hammer, mirror, gun, chair, and also for airplane and automobile. Loan translation was accomplished not only through the coining of new words but also through the extension of new meanings to old word forms, as for example, the extension of the meaning “Christmas” to the old Tewa word for winter solstice, of the meaning “governor” to the Tewa term for leader, of “ammunition” or “bullet” to the Tewa word for arrow, and many others. The absence of loanwords for such recent things
as airplane suggests that a type of accommodation was developed which empha-
sized the Tewa language as a value in itself and which operated against the borrow-
ing of words, either from Spanish or English, although the item itself might be well
known, much used and appreciated. The evidence tended to suggest that word bor-
rowing had been more common at the beginning of the contacts with Spaniards
than it was later, by the middle 1900's, in connection with either English or Spanish.

The processes of language accommodation for Tiwa and Keres were essen-
tially similar with respect to Spanish. There is evidence of a check on the tendency
to borrow words, with resultant similar effects — vocabularies of 5 percent or less
derived from Spanish. But the ways in which words were handled varied. Like
Tewas, Keresans made up their own words for baptism, holy water, sin, Hell, cross,
and Devil, or better it should be said that they did not make up new words after the
manner of Tewa speakers, but rather extended new meanings to old words. This
lesser freedom with regard to new word formation was characteristic of Keres and a
contrast with Tiwa. Nevertheless the two languages tended to behave in about the
same ways with regard to linguistic borrowing. In connection with Tiwa it is inter-
esting to note that, on the basis of an analysis by one linguist of a short list of bor-
rrowed words from Taos, it appears that there were three phases of borrowing: an
early one in which Spanish words were very much modified, a middle phase in
which they were considerably less modified, and a third phase when the Spanish
words were modified hardly at all. This suggests that borrowing from Spanish con-
tinued throughout Taos history to 1960, but speakers of Tiwa became increasingly
familiar with the phonetics of Spanish during the three hundred years of contact.

Phonetic modification characterized the borrowing of all three of the Indian
languages discussed. Tewa lacks the Spanish / sound and hence in borrowing sub-
stituted usually a t or r sound. Also Tewa words do not end in consonants except m
and n and hence final consonants in Spanish words were usually omitted. In Keres
the Spanish b, d, and g were generally, especially at the beginning of and in the
middle of words, changed to p, t, k, since Keres lacks the voiced stops. Spanish h
was also often replaced by Keresan sh. The greatest alteration of Spanish words
was in the Keresan insertion of a vowel between members of consonant clusters or
the omission of one member of the cluster in order to adjust to the usual pattern of
alternating vowels and consonants characteristic of Keres. In Taos, since Tiwa has
no voiced stops at the beginning of words, b and d were omitted. Spanish f became
p. And there were shifts in the vowels, such as e to a, a to o, and o to u.

In the case of all three of the Pueblo languages which have been studied it
was only the names for things which were ever borrowed from Spanish. Words
for doing and acting — verbal expressions — were not borrowed, nor were other
kinds of words, so that the main fabric of the Indian languages was not at all affect-
ed by contact with Spanish speakers. Neither the sound patterns nor the grammati-
cal structures of Tiwa, Tewa, or Keres appear to have been altered. It was only the
vocabulary which was affected and this was simply added to in small part.

The language of the Pimas of the Gila River was affected in very similar fash-
ion to that of the Pueblos. Despite much less intensive contacts with missionaries or
with colonists, the Pimas borrowed very much the same Spanish words as did the
Pueblos — days of the week, domestic animal terms, measures and counting terms, and words for useful new artifacts such as table, knife, muslin, money, glass, and terms connected with the new Christian beliefs, such as Easter, church, saint, God, and fiesta. The list of borrowed terms for this early period varies in detail, but it is essentially the same as for the Pueblos. The list as recorded is fuller than for the Pueblos. Some of the borrowing for the Gila Pimas may have been indirect through the Papagos and Sobaipuris of the San Pedro Valley, since the Gila Pimas were not missionized, nor were they in very close contact with Spaniards. The striking similarity in the list of borrowed words to those of the Pueblos indicates the generally similar impact of Spanish culture on all the Indian groups of the region and suggests again readiness to borrow at the time of the initial contact. It is apparent from the study of Pima that has been made, however, that the borrowing from Spanish did not continue at the same rate that it had begun. After perhaps 10 percent of the nominal vocabulary of Pimas had become Spanish-derived, there was fairly complete isolation from Spaniards — during the late 1700’s and early 1800’s. During this period and extending into the early reservation period when Mexicans as well as Anglos were in contact with Pimas, it appears that a new process began to dominate. This was the one discussed above, namely, the making up of new words and the extension of the meaning of old ones. Pima, in fact, during this phase seemed equally as fertile in word invention as was Tewa, and many new words for new things were developed. Thus various varieties of wheat were named by Pima words, as were fruits such as bananas, lemons, and dates; unfamiliar animals such as camel, elephant, and monkey were named in Pima in this way. And some new measures had terms injected for them in Pima. It is interesting to note that of the days of the week, only Sunday, Monday, Friday, Saturday were terms borrowed from Spanish, and in the subsequent phase words were coined for Tuesday, Wednesday, Thursday. As this phase developed Spanish influences steadily declined, so that by 1960 Gila Pima was borrowing from English very heavily and not at all from Spanish.

In great contrast with the four languages discussed so far, Yaqui of Sonora was not limited in its borrowing either by the growth of antagonistic attitudes between Indians and Spaniards or by loss of contact with Spanish speakers. The outstanding result of the contact between Yaqui and Spanish speakers was by 1960 a very extensive permeation of Yaqui vocabulary by Spanish together with some less extensive, but nevertheless important modifications of the language structure.

One investigator estimated that Yaquis resident in Arizona in the 1940’s employed Spanish-derived words when speaking Yaqui for as much as 65 percent of the total words used. This estimate did not mean that in the speech of Yaquis in Arizona one heard sixty-five Spanish-derived words for every thirty-five words; it meant rather that a listing of terms for artifacts, for social statuses recognized by the Yaquis, and for religious ideas and rituals resulted in showing that some 65 percent of these terms were Spanish-derived. It was true also that, in contrast with the languages just discussed, the Yaqui language in the 1940’s contained a sprinkling of verbal, adjectival, and other expressions derived from Spanish. The vocabulary of Yaqui had to a large extent been remade, then, as a result of contacts
between Yaqui and Spanish speakers. The situation was somewhat analogous to that of the Anglo-Saxons after the Norman Conquest, when large numbers of Norman-French terms were borrowed and supplemented the basic Anglo-Saxon vocabulary. Through the generations from 1617 on to 1950 borrowing continued and, relatively speaking, new word formation—loan translation—and extension of meaning of old words to cover new cultural items were unimportant. This borrowing went on despite the Yaqui rebellion of 1740 (which was almost as destructive as the Pueblo Rebellion of 1680) and the Yaqui-Mexican wars of the 1800's.

The list of words incorporated into Yaqui included all of those borrowed in the early phases of contact by the Pueblo and Pima languages, but it included many more not only in the realm of material culture, but also in social life and organization and in religion especially, where Catholicism permeated Yaqui life more deeply and more extensively than it did either Pima or Eastern Pueblo religious life. Thus kinship terms and nearly all the status terms of town organization and military life had been borrowed. Similarly ceremonial organization, which was so involved and important in Yaqui life, was carried on in an almost wholly Spanish-derived set of terms. Sermons and the many formal ritual speeches characteristic of Yaqui religious life were to a very large extent permeated with Spanish-derived words.

Twenty to 30 percent of the words in a sermon recorded at a Yaqui settlement in Arizona in 1941 were Spanish-derived. They ranged from particles and connectives like if, or and because through status terms like sir, governor, captain, soldier and all the offices of the ceremonial organizations, through ritual terms like God, Blessed Mary, Virgin, Jesus Christ, benediction, prayer, Holy Spirit, Trinity, and many others, to words which have become fixed in Yaqui religious thought as "technical" terms, such as license, presence, ceremonial work, tribulation, punishment, indulgence, dawn, and so forth. In this extensive use of Spanish-derived terms, it was apparent that many had become fixed in the Yaqui language at a time when few Yaquis knew Spanish, so that the words were very much modified as they were fitted to the aboriginal Yaqui phonetic system. Thus where d occurred in Spanish an l was substituted, since no d existed in Yaqui, as in Lios for Dios; initial consonant clusters not occurring in Yaqui, words like cruz in Spanish became kus in Yaqui, one member of the cluster being omitted. Many such words were an integral part of modern Yaqui, even though as borrowing had continued under conditions in which Yaquis had become thoroughly familiar with Spanish phonetics they also borrowed words which were not at all or only slightly modified. Under the conditions of general bilingualism which obtained by the 1940's Spanish words were often not adjusted to Yaqui phonetics even though an individual was speaking Yaqui.

It was difficult to determine whether Yaquis were aware of the origins of the Spanish-derived words. They seemed generally not to be so. There was certainly no reluctance to employ Spanish words and no cultural block to further borrowing. The attitude seemed to be that, even when the similarity with current Spanish was recognized, the words were as much Yaqui as Mexican. Hence the process of Hispanicization of the Yaqui vocabulary was continuing vigorously in the 1940's and promised to go on indefinitely.
The Yaqui language nevertheless remained a distinct language from Spanish in the sense that it maintained a Uto-Aztecan phonetic system and grammatical structure. The Spanish words which were borrowed were incorporated into Yaqui by the same morphological and grammatical processes which governed the arrangement of Yaqui verbs. Spanish-derived verbs, such as to invite, to think, and to attend-an-all-night-ceremony, were conjugated in the same way as Yaqui verbs, that is, were employed with the Yaqui pronominal prefixes and the Yaqui modal and aspectual suffixes. The nominal expressions were similarly treated by the use of the usual suffixes for location at, in company with, and so on. Thus, the Spanish-derived verb velar (to hold an all-night ceremony) was directly incorporated into Yaqui by the addition of the Yaqui suffix -oa and conjugated like any Yaqui verb, e.g., nevelaroane, "I intend to hold an all-night ceremony." The first ne- is the standard Yaqui prefix meaning "I" and the final -ne is the suffix indicating intention or expectation.

It was true at the same time that there was some influence from Spanish on both the phonetic and the grammatical structure. The Yaqui vowel system, for example, seemed in the speech of those Yaquis who were largely bilingual to be approximating that of the Spanish vowel system. Yaqui speakers tended to slur the differences between long and short vowels and to eliminate the geminate vowels, although the same speaker handled the vowels differently under different circumstances of speech. Also the semi-vowel w appeared to have changed in the direction of the Spanish g since the days of first contact. There was some influence on word order in connection with prepositional phrases by analogy with Spanish word order for equivalent phrases. There was further analogic change in connection with prepositional constructions. All of these latter changes were well fixed in the language but they were relatively slight. The basic grammatical categories were probably influenced to some extent, especially with reference to the substitution of the strongly emphasized tense categories of Spanish in translation of some of the modal categories of Yaqui unexpressed in the structural principles of Spanish. These changes, few and not well fixed in the language, had come about over a period of 350 years. They pointed to a persisting influence, the outcome of which could not be predicted, but they had not yet resulted in the alteration of the major structural features of Yaqui.

Spanish influence was much less on all the other languages still persisting. Neither Seri, Tarahumara, nor Lower Pima had been influenced lexically to the extent that Yaqui had, although all three were probably moving in that direction. The Athapaskan and Yuman, Zuni, and Hopi languages had hardly been influenced by Spanish. It was not likely in view of the change in political dominance in their areas that they would be.

**English Influences** — The influence of English developed in a different way from that of Spanish. The Anglo-Americans did not come into the New Mexico country as bearers of new and wondrous things, as did the early Spaniards; they did not come first as great religious teachers. Consequently there is not a common layer of borrowed words from earliest contact, corresponding with early borrowed culture
elements. The metal, the guns, the horses, and other trappings of Anglo civilization were already familiar to Indians through Spanish contacts. Hence English speakers appeared on the scene at first in roles little different from those of other Indian tribes; the Apaches of the Gila regarded the Anglos as equals rather than politically dominant people when they found that they were indeed — up until 1848 — allies against the Mexicans. The emergence of the Anglos as a new controlling power, far stronger than Spain or Mexico had shown itself to be, took place slowly, particularly because of the Civil War. By the time the intimate contacts with Indian agents began in the late sixties, the United States was already regarded as an enemy tribe. No longer were there the incentive and the favorable attitudes for borrowing from the new language that had existed at the time that the wonderful new things from Spain were introduced. Moreover, it was not until the early 1870's that intensive contacts began to develop of the nature of those that had accompanied Spanish mission life. It was then that the first schools were built. As the early day schools gave way to the boarding schools, a situation was created not for the blending of languages as had begun to take place in the Jesuit missions, but for a sharp separation of the languages, often into two quite distinct compartments in the minds of the boarding-school graduates. It was not until the later reservation period that important borrowing from English began to take place. It has been pointed out in connection with the Gila Pimas that a period began in the 1930's which in its effects on language was somewhat similar to the early Spanish period. Direct borrowing from English began to take place, superseding loan translation and new word formation which had characterized the period of earliest contacts with Anglos. This tendency increased at an accelerated rate during the next twenty years, as the Indians in Arizona and New Mexico became increasingly familiar with English and with Anglo culture. One area of life where direct borrowing became most important was the political, as tribal councils developed. In tribal council sessions there was a great deal of use of the Indian languages and many council meetings, such as the Papago, the Navajo, the Gila Pima, and the Eastern and Western Pueblo, were conducted wholly in the Indian languages except when Anglos of the Indian Bureau or others were called in specially for information. In such sessions, it was apparent that an increasing number of words from the English vocabulary of political organization and law were being introduced into the discussions. Words like democracy, contract, tribal council, president, governor, chairman, Congressional, and so on crept with increasing frequency into the vocabulary of common usage for members of the tribal councils and for many with whom they associated. The same phenomenon was to be noted in connection with the Anglo vocabulary of economic thought and activity. Tribal councils as business organizations found it necessary to employ English words in their attempts to establish types of business organization similar to those in the dominant economy. Since many, but by no means a majority, of council members spoke English fairly well, this being often one of the bases for election, the process of borrowing was accelerated. Also, by the 1920's as the Anglo missionary program intensified, another area of borrowing was in that of religious life, so that the words of hymns and the ritual vocabulary of Anglos became available in intimate contacts and many such words were taken into
the Indian languages. By the 1950's a process something like that which had resulted in the early borrowing of Spanish had been set well in motion, and the Indian languages were on the road to the inclusion of another layer of borrowed words from another European language. No studies had been made which gave any clear idea as to just how this process was working out.

**Influence of Literacy Programs**

Another major influence on some of the Indian languages was the literacy programs in the Indian languages set up by both the Mexican and the United States governments in the 1930's. The languages directly affected by such programs in the Southwest were Tarahumara, Navajo, and to a lesser extent Yaqui.

The Mexican government, under the administration of President Lázaro Cárdenas, began in the late 1930's to develop a program of literacy in Tarahumara. Linguists were employed who devised a system of writing. Primers were prepared and a few score Tarahumaras were taught to read and write their language. It was expected that such individuals would spread their knowledge among the tribe. An effort to prepare news sheets in Tarahumara was made. This program continued into the 1940's, but no figures were available on the numbers affected or any studies on the effects generally of this establishment of a written tradition. The program was continued with the establishment of a National Indian Institute center in the Tarahumara country in 1952.

The program of the U. S. Bureau of Indian Affairs for writing the Navajo language was carried out more systematically and probably with greater effect. About 1939 an alphabet of forty-five characters was worked out by an Indian Bureau employee assigned to the problem of preparing a system which would accurately distinguish the essential sounds of the language and at the same time be simple enough for use by English-speaking typesetters and others familiar with the English alphabet. This system was arrived at after considerable study of the systems already devised by missionaries, such as those of St. Michael's Catholic mission, and by professional linguists who had recorded and analyzed the Navajo language. Using this system, primers in the Navajo language were then prepared and eventually a phrase book and lists of words in medicine, agriculture and range management, and administration which the Indian Bureau was interested in having Navajos understand. It was contemplated that the primers would be used by members of the Indian Bureau staff working on the Navajo Reservation and also in Navajo schools. Some advocates held that it would speed up and simplify the teaching of literacy in English if children could first become literate in the Navajo language. The use of the program in the schools was not developed or carried on because of disagreement of the school administrators over the efficacy of the method and also because it was not accepted by the United States Congress that government schools should teach a language other than English to Navajo children. In 1943 the Indian Bureau began to publish a monthly news magazine in Navajo with some English summaries, called Adahooniligii ("Events"). For some years twenty-five hundred copies were issued monthly and distributed to schools, to six training-in-literacy centers, and to other subscribers. The purpose of "Events" was to provide informa-
tion concerning happenings on the Navajo Reservation for the large numbers of non-English-speaking Navajos, so that they might better be fitted into the Indian Bureau programs of development and cultural assimilation. At first there was some opposition by Navajos to this program, but by 1950 it had been accepted and the magazine continued to be issued. It had been demonstrated that a non-English-using Navajo could, after a short period of instruction, make some progress in reading the magazine. Also, it had been shown that a person already literate in English, whose first language was Navajo, could learn to read Navajo after six hours of instruction. In 1952 information with regard to the candidates for election to the Tribal Council was printed in Navajo and distributed throughout the reservation, together with other matters such as the regulations for elections, and was widely used in the various election districts. In addition, in 1949 the Indian Bureau began a series of publications in the Navajo language called the Navajo Historical Series. The first issue dealt with the history of the Ramah Navajos as told by The Son of Former Many Beads, an old Navajo man of the area. It appeared that by 1950 a written tradition had been established for Navajo. It was, however, wholly financed by the Indian Bureau and depended for its existence on money appropriated by the national Congress of the United States. A body of literature had been created and possibly several hundred Navajos were writing and reading, particularly reading, the language. With such sources as the Navajo Tribal Council minutes, it was possible that the writing of the language would be taken up more extensively and that it would be continued whether or not the Indian Bureau continued its subsidization. At any rate three requisites for a written tradition had been created—a fairly simple system of writing, a number of individuals versed in the system, and a small body of literature. The need for information about the activities of the tribal political organization which was actively drawing into its web all Navajos, whether English-speaking or not, appeared as if it might be a stimulus to further growth of written Navajo.

FUNCTIONAL CHANGE—Twenty-eight of some forty Indian languages continued to be spoken by a hundred or more people down to 1960. Those languages which persisted had changed as the speakers' interests and ways of life changed. In some cases, as in Tewa, there was relatively little change in structure through the 350 years; in other cases, such as Yaqui, the language had undergone so much change that it might have been difficult for a Yaqui who lived in 1600 to have recognized it without some study.

The changes in functions, if looked at in the perspective of 350 years, seem very great for all Southwestern Indian languages. Let us take as a single example the Tewa language of the Pueblo village of Santa Clara. In 1590 an inhabitant of this village lived his whole life entirely and literally in terms of the Tewa language. Even the nearest villages with whom some visiting or exchange took place were inhabited by people who spoke Tewa. Occasionally a trader came by from a Keresan-speaking village or sometimes one went to a Keresan or a Tiwa village perhaps, when peace prevailed, for a ceremony or gathering. But in 1950 it was no longer possible to say that any individual's life in Santa Clara was lived wholly in
terms of Tewa. Every child of the village was in school and in the school there was constant pressure to learn English, whether in the day school at the village or at boarding school and most Tewa children experienced this pressure for at least eight or ten years. It resulted in their associating English with certain kinds of activities and aspects of life with which they did not associate Tewa at all—for instance, engineering and the professions, written literature, mathematics, and so on. Large areas of living or at least glimpses of such areas were opened up and the awareness of the relative smallness of scope of Tewa was suggested. So many things learned about in school, read about in newspapers, seen in moving pictures, encountered on the streets of nearby Espanola or Santa Fe or Albuquerque, or read about in English, simply did not lend themselves to being talked about in Tewa. The very use of the language was in some measure restrictive of the scope of participation in the total life round about. To the extent that one sought such restriction he or she could function better in Tewa, but to the extent that interest in the wider participation was roused by school and other influences, the use of Tewa was felt to be undesirable. In this situation individuals lived double lives to some extent as they became proficient in English and were attracted to the cultural world which it designated and expressed. There were those who moved out of the English world after having experienced it and others who constantly reduced their participation in the world expressed by Tewa.

The movement out of the Tewa world was a process influenced by status as well as cultural interests. From the time of entering school at least, it was subtly impressed on children that the Indian world was inferior in some way. This was reinforced in a thousand ways through all the institutions of the dominant culture with which an individual became acquainted. Individuals differed as to how they were affected by these inter-ethnic attitudes. Some became more sensitive to them than to the ethnocentric values of the village and in so doing became sensitive to the use of the Indian language as a symbol of inferior status. Some who became aware of the valuation reacted against it and accepted the prevailing village reverse valuation. But for all, especially as schooling became general, the awareness of language as a status symbol grew stronger. Acceptance equally with rejection of the Indian language as a status symbol indicated the changed function of the language in the complex milieu of different cultures and articulated societies.

Although no studies of the changing functions of Indian languages had been carried out by 1950, it appeared that an understanding of these functions would shed far more light on the direction of language change than would the analysis of structure and form of the Indian languages. It was not changes in form that were significant with regard to the disappearance or persistence of the language, but rather changes in the social situations of individuals using the languages. It was evident that situations in which the Indian languages were used continued to have high value for thousands of individuals, but it was also apparent that there was devaluation of such situations for hundreds more. In this sense, since no white men were moving into the Indian language situation, the European languages had become dominant and the Indian languages, however stable their forms appeared to be, were changing rapidly in regard to function.
No discussion of linguistic change in the Southwest would be complete which failed to consider the influences which Indian languages exerted on the two European languages which, by 1960, had become dominant in the region. The processes of diffusion and the restructuring of society by which the European languages became dominant have been sketched. In large part their prominence was a result of the immense increase in the numbers of speakers as compared with a relatively static population for the Indians. It was also a result of the control by the European-language speakers of political, educational, economic, and religious institutions. In the course of these developments it was clear that the influences were largely, almost exclusively one-way, that is, from the European languages to the Indian languages. The reverse influences remained very slight throughout. Nevertheless there were some.

It certainly would appear unreasonable to attribute Tewa behavior in connection with linguistic change to the structure of the language alone and to ignore the fact that English, which has borrowed readily in the course of its history, has borrowed even less from Tewa than Tewa has from English or Spanish. Obviously the nature of the relationships between individuals of societies in contact is an important factor in linguistic acculturation, and languages behave differently as conditions of contact change. The speakers of vernacular Spanish of New Mexico had borrowed a few words from various of the Pueblo Indian languages. Both Spanish and English speakers borrowed a few words from Navajo. Spanish speakers in Sonora borrowed a number of words from Yaqui and Opata. Everywhere some borrowing of this sort occurred, but it was a decelerating process by 1960.

One area of borrowing by Spanish and English which accounts for probably most of the loanwords from Indian languages is that of topographical and geographic names. This was especially notable in Chihuahua and Sonora, where the early missionaries and explorers tried repeatedly to obtain the Indian names for rivers, settlements, and mountain ranges. The result in Sonora was the naming of two major rivers with what the Spaniards thought were Indian names – Mayo and Yaqui – although neither of these words were the actual tribal names which the Spaniards thought they were. Nevertheless most of the major settlements of the Yaquis, as of the Tarahumara, and many Mayo and Opata settlements came eventually to be called by terms derived from the Indian words for the places. Like the Indians, the Spaniards in attempting to borrow the Indian words modified them in accordance with their own phonetic patterns. Thus the eight Yaqui towns consolidated by the Jesuits became established on Spanish and Mexican maps as Cocorit (from Yaqui ko’oko’im), Bacum (from Yaqui baakum), Torin (from Yaqui torim), Vican or Vicam (from Yaqui biikam), Potan or Potam (from Yaqui potam), Rahum (from Yaqui ra’um), Huirivis (from Yaqui wiibisim), Belen (from Yaqui beene). The modification of the Indian words was very considerable in both the Yaqui-Mayo and the Tarahumara countries, so that although several hundred Indian place names are preserved on modern maps, many of these are not easily
recognizable to Indian speakers and they regard them as the “Mexican names.”

In New Mexico and Arizona a much smaller proportion of place names is derived from Indian languages. Spaniards renamed nearly all the rivers in Spanish, such as Rio Grande del Norte, Colorado, Pecos, as well as the mountain ranges and most of the Indian settlements. Most of the Eastern Pueblo villages were renamed with names of the saints or other Spanish designations. The Anglos when they came in adopted the Spanish names, only occasionally renaming. At first they made less effort than did the Spaniards to attach Indian names to the places of the region, although they did adopt a few Navajo and Hopi place names. Later the Indian Bureau, beginning in the 1930’s, made a definite effort to place on the official United States maps the Indian place names wherever they had not been completely superseded already by Spanish or English names. The Papago area was the one in which this policy was most thoroughly applied, so that from the 1930’s on Papago place names began to appear in increasing number on road and other maps. The use of Indian names, especially as a result of employment on road maps, was well established within some ten years. Similarly, many Navajo and Hopi names were introduced into the Indian Bureau maps. Elsewhere no effort of this sort was carried out, so that the Apache reservations, the Yuman reservations, and most of the Pueblo grants remained unaffected by this policy. The areas of greatest borrowing of Indian place names were those of the Tarahumara, Yaqui-Mayo, Papago, Hopi, and Navajo, and to some extent Opata. The other languages left relatively little mark on the European languages. It should be noted also that the most recent borrowings from the Indian languages, as on the Papago and Hopi reservations, showed the least amount of modification from the original Indian terms. It took over a hundred years for Anglos to learn enough about the Indian languages to record them with some accuracy. There were by that time a number of traders and some Indian Bureau employees who, together with a few linguists, were able to transcribe the Indian terms.

In other areas the borrowing from the Indian languages occurred much less often. Some terms for plants and animals peculiar to an area were borrowed by Spanish, such as the Yaqui word ubari for a spider, the Tewa word for greasewood, the Keresan word for the bee plant; these became a part of the local Spanish vernacular. Words for material culture items were borrowed most frequently by Spanish speakers in New Mexico in the area of equal coexistence along the Rio Grande drainage. But probably with equal frequency the words for ceremonial performers and acts and objects for which Spanish culture had no equivalents were borrowed in the Pueblo-Navajo area. Examples are yeibichei for a Navajo ceremony, Tiwa chifonete for an Isleta-type clown, koshare for a Keresan-type clown, kachina for representations of Pueblo supernaturals, paho for Hopi prayersticks. These borrowings in the north were paralleled by similar ones in the south, where pascola for a type of dancer from Yaqui became a part of Sonoran Spanish. There was indeed an increase in the area of borrowing with reference to ceremony as Anglos and Mexicans became more familiar with Indian ceremonies and linguists contributed more accurate recordings of the Indian words. These words were increasingly becoming a part of the technical language of anthropologists and some other students.
Another type of influence on the dominant languages consisted of the growth of distinct dialects of Spanish and English employed by persons of Indian background. The rapid bilingualization of Yaquis during the period of their deportation had resulted in the growth among them of a dialect of north-Mexican Spanish, characterized by a somewhat special vocabulary and phonetic pattern. It had spread into Arizona and was recognizable there as a distinct dialect of Mexican Spanish. In a different way a dialect of English was also created in Arizona and New Mexico. This was a variety of English which developed in most of the boarding schools, where Indians from many different tribes assembled, such as at Albuquerque, Santa Fe, Phoenix, Riverside, and some of those outside the Southwest. In such schools English quickly became not only the language required by the matrons and administrators but also the necessary means of communication, as the lingua franca, among the Indian students. Thus a way of speaking developed which was not wholly controlled by the teachers and administrators who were relatively few in number. The determining factors in the development of this language were the phonetic systems in which the various children had grown up. At Phoenix Indian School, where the prevailing numbers of students were usually Pimas, Papagos, and Hopis—all Uto-Aztecan speakers—the whispered syllables and some other characteristic phonetic elements strongly influenced the "boarding-school dialect" of this sub-area. On the other hand, the predominant numbers at Albuquerque consisted of Navajos, with many different kinds of speakers from the Pueblos. Here the boarding-school dialect took on influence from the Athapaskan languages. The two varieties of boarding-school dialect were nevertheless surprisingly similar. As yet, they have not been studied carefully with reference to the phonetic factors giving rise to them.

By 1960 all the surviving languages had been recorded by Mexican or Anglo professional linguists. The adequacy of these recordings varied greatly, but there was a fairly full record of most of the languages. Considerable bodies of folk literature had been collected in most of them. Thus, the social sciences of the dominant cultures were the richer for such material. And increasingly intensive studies of some of the languages, such as Hopi and Navajo, were being made. At the level of technical thought in English the analysis of Hopi was having an important influence through the brilliant papers of Benjamin Whorf analyzing the categories of space and time as expressed in Hopi.