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ABSTRACT

The amount of English spoken by six-year-old Navaho children as they enter first grade is increasing and will probably continue to increase. Contacts outside the reservation contribute to this increase as do the almost completely monolingual (English) schools. Location of residence is also a factor. Linguistic borrowing of English words is another indication of the increased influence of English. Although the Navaho people remain the largest group of non-English-speaking Indians in the United States, there are signs of a growing diglossia. (VM)

Bilingualism in the Six-Year-Old Navajo Child[1]

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With growing strength in the last twenty years, English has established its place as a second language on the Navajo Reservation. Spreading partly through contacts that take place off the Reservation, and even more significantly through the influence of the school, its position is now such that over two-thirds of Navajo six-year-olds come to school with some knowledge of it. But not enough to do first-grade work in it: under a third are judged by their teachers to be ready for this.

In this paper, we report on studies of the present situation, discuss some of the factors that contribute to it, and make some tentative predictions. As well as the shift from Navajo to English, we discuss details of English borrowings in the speech of six-year-old Navajo children.

Our studies have been intended as background to our investigation of the feasibility and effect of teaching Navajo children to read in their own language first. We carried out a first survey in 1969[4] and repeated it in 1970[5] including a greater number of schools. The general method adopted in each survey was to send a simple questionnaire to all teachers with Navajo six-year-olds in their class. Returns to the 1970 survey provide data on

79% of the Navajo children born in 1964, covering 84% of those actually in school.

The questionnaire asked teachers to rate the language capability of each of their six-year-old Navajo pupils at the time he or she started school in September using the following five-point scale:

N: When the child first came to school, he or she appeared to know only Navajo, and no English.

N-e: When the child first came to school, he or she appeared to know mainly Navajo; he or she knew a little English, but not enough to do first grade work.

N-E: When the child came to school, he or she was equally proficient in English and Navajo.

n-E: When the child came to school, he or she knew mainly English and also knew a bit of Navajo.

E: When the child came to school, he or she knew only English.

To check the reliability of the instrument, ten teachers were asked to fill out the questionnaire a second time some six months after the first: overall correlation of 187 early and late ratings was 0.78. The validity of the questionnaire was investigated by having 194 pupils at

18 schools rated by pairs of trained bilingual judges using a standardized interview: a comparison of teacher and judge ratings gave an overall correlation of 0.67. Similarly satisfactory results were gained in a validity check in a parallel use of the instrument by Southwestern Cooperative Educational Laboratory.

The results of the survey for 1969 and 1970 are similar. The 1970 data are summarized in Table I.

TABLE I.

Language scores in 1970 - Summary

School	Number of six-year-olds	% N	N-e	N-E	n-E	E
BUREAU OF INDIAN AFFAIRS						
Chinle	385	45	43	10	1	2
Eastern Navajo	383	39	48	10	1	1
Ft. Defiance	388	25	49	23	2	
Shiprock	324	39	46	14	1	3
Tuba City	382	62	33	4	.7	.3
Hopi	11	73	18	9		
Total	1873	42	44	12	1.3	.7
PUBLIC						
New Mexico	1046	13	32	37	10	8
Arizona	471	22	35	21	10	12
Colorado	27	11	67	7		15
Utah	86	13	52	23	5	7
Total	1630	16	35	31	9	9
MISSION						
Arizona	56	11	23	20	35	11
New Mexico	35		23	23	37	17
Total	91	7	23	21	36	13
INDEPENDENT						
Rough Rock Demonstration	59	58	29	8		5
Total	59	58	29	8	0	5
GRAND TOTAL-all schools	3653	29.8	39	20.7	5.7	4.8

From the table, it will be seen that 29.8% of the children were reported as knowing only Navajo, 39% as knowing a little English as well, 20.7% as more or less balanced, 5.7% as mainly English speakers, and 4.8% as speaking only English. The weight is clearly on the Navajo side: the child who speaks English is an exception. It is clear that most parents still speak Navajo to their children and that school is the first real contact with English for most children.

But there is evidence that the use of English is growing. In the case of a good number of schools, we have data for both 1969 and 1970. Comparison of these data for the same schools gives the following results:

1969 Mean Language Score 3.99 (S.D. 1.01)

1970 Mean Language Score 3.90 (S.D. 1.04)

The change of 0.09 is significant ($F = 8.97$, significant at the $p. < .01\%$ level).

Any prediction based on these data is speculative, but certain guesses can be hazarded. Assuming the data are accurate (or at least that the error each year is likely to be the same), there was in one year a change towards English of .09 on a scale ranging from 5.00 (Navajo only) to 1.00 (English only). A conservative guess would choose 1949

as the last year in which almost all Navajo six-year-olds would have come to school speaking only Navajo. In twenty years; then, there has been a shift from close to 5.00 to 3.99, which averages 0.05 a year. A language shift is not a simple progression, but tends to accelerate: the larger the proportion using the new language, the faster others are likely to learn it. The 0.09 for 1969-70 is probably not a doubling of the average rate but a point on a steady increase. Assuming this to be the case, it is not unreasonable to suspect that by the end of the present decade, the mean language score might be close to 3.00, which is bilingual on the scale.

But it would be a mistake to predict that all Navajo six-year-olds will be bilingual in 1980. The kind of situation that is more likely is one developing out of the currently observable difference between children in rural areas and those living in the newly developing semi-urban settlements. This becomes clearer if one notes the distinction between public schools and Bureau of Indian Affairs schools. About 50% of the 55,000 school age Navajo children attend public schools which operate according to the state in which they exist: public school districts on the Reservation range in size from Gallup-McKinley with close to

10,000 pupils to Navajo Compressor Station No. 5 with 21. By agreement between the Bureau of Indian Affairs and the Navajo Tribal Council, public schools usually enroll children who live within a mile-and-a-half of the school or of an established school bus route. The widely dispersed pattern of traditional Navajo rural settlements and the lack of paved roads on the Reservation means that public schools draw their pupils mainly from government compounds or from the developing towns where most of these schools on the Reservation are located. A comparison of the language situation in the two kinds of schools reveals a striking difference: for BIA schools, the average language score in 1970 is 4.26 and for public schools it is 3.39. Only 14% of the children in BIA schools were considered to know enough English for first grade work, while 49% of the children in public schools reached this figure.

From this additional fact, then, it might be guessed that an overall mean score of 3.00 in 1980 would be likely to reflect a situation where Navajo "urban" children will come to public school speaking a variety of English and Navajo rural children will still be mainly speakers of Navajo.

A study of some of the factors contributing to this increase in the use of English throws more light on the

kind of bilingualism that the Navajo child lives with. For Navajo, there have been two distinct classes of contact with English. The first class is made up of contacts that occur off the Reservation. Many Navajos live and work in a city far away: Los Angeles, the Bay area, Chicago, Denver and Albuquerque all have large Navajo populations. Many leave the Reservation for schooling, attend a boarding school or a border-city dormitory or go away to college. And the shopping trip to a town on the edge of the Reservation is a common event. The second class of contacts is on the Reservation itself. In this class, the major factor is school. Traders generally have learned Navajo; churches and missions mainly use Navajo; Public Health Service officials who do not themselves speak Navajo. Radio stations broadcast in Navajo about 150 hours a week. But the school is still almost completely monolingual in English. There are exceptions: a few pilot bilingual education programs, Navajo speaking teacher aides in beginner's classes, Navajo-speaking employees to serve as interpreters, but basically school is a place where English is spoken, and were one must speak English to participate in the institution.

In looking at the increase of English, two main centers of diffusion might be expected: off-Reservation towns, and

schools on the Reservation. To investigate the relative influence of these factors, we studied the relation between six-year-old language use and ease of access to these two places.[6]

For language use, we used the teacher rating described above. For ease of access to off-reservation town, we calculated an index which consisted of distance plus factors added to represent the state of roads (paved roads for instance were taken at face value, ungraded dirt roads multiplied by four). The correlation between a school's mean language score and its accessibility index was calculated: in 1969 the correlation was .517 and in 1970 it was .55. We can reasonably conclude that the closer a community is to the edge of the Reservation, the greater the likelihood of speaking English at home.

The second kind of accessibility we considered is ease of access from the child's home to school. This shows up first in the variation between kinds of schools that was discussed above. It is almost always the case that children attending public schools live closer to school than those who attend BIA schools: the much greater amount of English spoken by the former has already been pointed out. This difference shows up when we compare cases of BIA and

public schools in the same locality (and therefore having the same index of accessibility to town): in twenty such pairs, the six-year-olds come to public school with much more English.

To look at this further, we calculated the correlation between individual language scores and individual ease of access in the case of two schools, Rock Point and Lukuchukai. In Rock Point, with 48 six-year-olds, the average language score in 1970 is 4.26, the average index of accessibility from home to school, 12.7 (S.D. 12.9), and the correlation between the two 0.28. In the case of Lukuchukai, we compared accessibility of the off-Reservation town (Gallup), accessibility of the school, and language score. The two accessibility indices correlate negatively in this case (-0.39) because the closer a family lives to school, the further it lives from town. No correlation (-0.01) showed up between individual language scores and individual accessibility from home to town, showing that this is a factor affecting a whole community rather than individual members of it, but there is a correlation (0.12) between individual language scores and ease of access to school.

Further light on linguistic acculturation comes from a study of English loan words in young children's speech.[7]

Earlier descriptions of Navajo agreed on the lack of receptivity to borrowing. Haile summed up the general view when he wrote: "Pueblo contact has not influenced Navaho to a noticeable degree, while Spanish elements in the language are comparatively few, and English elements practically none."[8] This supported notions that there was something about the structure of Athabaskan languages that makes them unwilling to borrow.[9] But as Dozier points out,[10] sociolinguistic factors are more influential in borrowing than linguistic ones. With the increased contact that took place during and after World War II, there was increasing pressure from English, resulting, it seems in a great deal of borrowing.

In our study, we looked at English words that appeared in interviews we had recorded with over two hundred young Navajo children. Of the 5,756 different words that occurred in the text, over five hundred different English loan words occurred. Generally, as would be expected, they were words for objects or concepts introduced through the English-speaking culture. A large number of words were school-related (bus, book, chalk, ball, pencil, puzzle, blocks, math); others were names of objects or concepts probably introduced through the school (camel,

elephant, alligator, Christmas tree, record player, teeter-totter, swing). A good number were names of foodstuffs or household objects (beef, oatmeal, lettuce, ice cream, butter, grapes, cookies, chips, chair, table, toilet, mouse trap, cup, spoon, clock), tending to be articles not traditional in Navajo life. Numbers and colors were also common, and terms for occupations (babysitter, cowboy, clown, policeman, principal). Surprising were the kinship terms (father, grandma, little sister).

As a general rule, the words borrowed were nominal in character: 453 of the 508 were nouns in English; and with a few interesting exceptions, they were all used as nouns in Navajo. Appropriate prefixes (shipant 'my pants') and suffixes (schooldi 'at school', record playeryéé' 'the absent or non-functioning record player') were added. Often, a complete phrase (hide and go see, window close) occurred, sometimes as a free form and sometimes integrated into the Navajo sentence. In no case, however, did we find an English word treated as a verb stem and integrated into the complex verbal system.

We have no definite evidence on the status of the words in Navajo. On occasion, a child was willing or able to give a Navajo equivalent when the interviewer insisted.

Four bilingual college students were able to think up Navajo equivalents for most of the words, but agreed that they themselves would be likely to have used most of the loan words when speaking Navajo to someone they knew to be bilingual.

Writing under thirty years ago, Reed reported the Navajo as a people with a "highly independent spirit" and "a definite disinclination to learn and speak the languages of other people."[11] Absolutely and proportionately, the Navajo people remain the largest group of non-English speaking Indians in the United States, but there are clear signs of a growing diglossia. The six-year-old Navajo child is far from being bilingual, but there is a growing chance that he will be acquainted with English before he comes to school.

Notes - continued

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