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FOSSILIZATION AND AN EMERGING SOCIAL DIALECT

MARGUERITE G. MACDONALD
Wright State University

In an evolving ethnic community, both fossilization and social dialect may influence the variety of the host language spoken by the community members. The present article examines this phenomenon in the English of the second generation in the Cuban-American community of Little Havana, located in Miami, Florida. While fossilization is usually associated with adult acquisition, this study finds that even if English is acquired before adolescence, there can be psycholinguistic as well as sociocultural motivation for linguistic variation. The phonological variation appears to have both these sources. Subjects who were five or older when they began the acquisition of English appear to exhibit fossilization in their phonology. However, nonphonological variation is primarily the result of sociocultural factors.

INTRODUCTION

It is difficult to distinguish in an emerging ethnic social dialect which of the variant forms result from the dialect being spoken as a second language and which from the acquisition of the community norm. For the first generation in an ethnic community much of the variation is clearly the result of acquiring the target language as an adult. However, for the second generation the issues are less clear. The present study examines an emerging dialect of Hispanic English and attempts to determine the sources of the variation found in this dialect.

FOSSILIZATION

When a language is learned in adulthood, there are often forms that are not totally mastered. Some variant forms in the interlanguage may endure, becoming fossilized. These forms create the linguistic identity of the ethnic social dialect. Selinker (1972: 215) has noted that the variant forms are linguistic items, rules, and subsystems which remain in the speaker's interlanguage "no matter what the age of the learner or amount of explanation and instruction" that the speaker receives.

In the process of becoming fluent in the target language, a speaker may produce variant forms that as yet do not reflect mastery of a particular system (Corder's (1967) presystematic stage). Even after that system has been mastered, there may still be occasional occurrences of these variant forms. Fossilization will reflect the different degrees of mastery, varying from little or no control of a specific aspect of the target language to a postsystematic level, with only occasional appearances of the fossilized form.

The occurrence of fossilization has been linked to the age at which the speaker begins to acquire or learn the target language. It has generally been assumed that a

child will acquire a second language natively if there is regular exposure to that language. In contrast, speakers who begin to acquire the target language after puberty often exhibit fossilization, particularly in the phonological system (Seliger, Krashen, and Ladefoged 1975, Dulay, Burt and Krashen 1982).

Another potential variable in the attainment of native competency is the length of residency. However, Krashen and Seliger (1975) and Oyama (1976) found that length of residency was not significant in their long-term studies. Although Asher and García (1969) did find length of residency to be a significant factor over short periods of time; for periods exceeding five years this was not the case. Therefore, length of residency appears to be significant only for short-term acquisition and not to be relevant to fossilization, a phenomenon that involves maintaining a variant form over an extended period of time.

While children acquiring a second language may have an advantage in their ability to reach native competency, it is possible for the second language of children to become fossilized. Selinker, Swain, and Dumas (1975) propose that when language acquisition is non-simultaneous, with an absence of native-speaking peers of the target language, then fossilization can occur in the language of children. Although these conditions would normally be met in a foreign language learning environment, children learning their second language in the ethnic community may also be subject to these conditions.

The social dialect

While variation in an ethnic dialect can have a psycholinguistic source, it can also have a sociolinguistic source. The variant forms may reflect the community norm. Ma and Herasimchuk (1971) recognized that the ethnic community would not necessarily be exposed to the norms of the monolingual community. They noted that bilinguals interact and communicate with each other more frequently than with the surrounding monolingual community. The result is that "speakers generate their own bilingual norms of correctness which may differ from the monolingual norms, particularly where there is a lack of reinforcement of these monolingual norms" (Ma and Herasimchuk 1971: 352). Thus, when children in the ethnic community produce linguistic variation in the host country language, it is possible for these forms to be either the result of fossilization or a reflection of the community norm.

Method

The subjects in the present study were all members of the second generation residing in an ethnic community. They had acquired Spanish as their first language and had begun the acquisition of their second language, English, before adolescence. The subjects resided in the Little Havana section of Miami, Florida, an area with one of the highest concentrations of Cuban-Americans in the United States. Within Little Havana there are a variety of socioeconomic levels contained in a common neighborhood and school district. Spanish is the dominant language of the community. Levitan (1980) found that, of all the Cuban-American communities in South Florida, Little Havana had the greatest use of Spanish in the home and among the second generation. This, therefore, is an area where fossilization could potentially occur in the English of the second generation.

In order to control the selection of the participants, all subjects were chosen from the senior class at Miami Senior High School, located in the Little Havana community. Aproximately 90% of the student population at the high school was Hispanic. Because parental permission was required, random selection was not possible. However, the subjects represented a cross-section of socioeconomic levels and were distributed among the two levels of regular English classes, as well as the honors section. There were sixteen females and seventeen males. Table I illustrates this distribution.

Table I
SUBJECTS ACCORDING TO ENGLISH CLASS LEVEL AND GENDER

		Gender	
		F	M
	Level		
(low)	I	7	6
(intermediate)	II	8	10
(honors)	III	1	1
	Total:	16	17

All but three subjects had lived the majority of their childhood in the Little Havana area. One subject had moved during high school from an Anglo/Black/Hispanic community in Indiana and another from a Black/Hispanic community in Miami. The third subject was the latest arrival, having spent the majority of his childhood in Cuba and Spain. Only subjects who had begun the acquisition of English by age ten were included in the study since puberty has usually been the dividing point in determining ability to achieve native proficiency in the target language. Twelve subjects were born in the U.S., seven arrived by age four, while the remaining fourteen arrived by age ten. The mean age of arrival was 3.39. Although all subjects were bilingual, twenty-six felt that English had become their stronger language. Nineteen claimed to use English more than Spanish. However, all but four subjects spoke with their parents exclusively in Spanish.

Three measurements were included in the research design to elicit different styles of spoken English. The subjects first read a paragraph. Next they were given the *Bilingual Syntax Measure* in English. After this there was an informal interview of approximately twenty minutes. Finally, to establish fluency in their first language the *Bilingual Syntax Measure* was administered in Spanish. The data in the present study are based only on the eleven and one-half hours of informal interviews.

Results

The English of the Cuban-American subjects in this study showed considerable diversity from speaker to speaker. Most variation was sporadic, encountered only in the speech of a few subjects and then in minute percentages, resembling the postsystematic stage discussed earlier. Yet all subjects displayed linguistic variation to some degree.

To quantify this variation, for each subject the overall phonological and nonphono-

logical variation was determined. The nonphonological variation consisted of morphological, syntactic, and semantic/lexical forms. If the variant form was morphophonemic, it was counted in both the phonological and nonphonological categories. Any variant form that had been reported in the literature as present in Hispanic English was noted. (See Cohen 1975, Duncan 1983, Hartford 1975, Jameson 1967, Johnson and Abraham 1973, Lastra de Suárez 1975, Ma and Herasimchuk 1971, Metcalf 1979, Natalacio and Natalacio 1971, Natalacio and Williams 1971, Peñalosa 1980, Politzer and Ramírez 1973, Sawyer 1975, Williams 1972, and Wolfram 1973.) Next, the total number of variant forms produced by the subject was divided by the total number of words produced by that subject. This figure was then converted into variant forms per hundred words, as shown in Table II. The mean phonological variation was 1.88, with a standard deviation of 1.59. The mean nonphonological variation was .87, the standard deviation .63.

Table II
INDIVIDUAL PHONOLOGICAL AND
NONPHONOLOGICAL VARIATION

Subject	Number of Variant Forms/100 Words	
	Phonological	Nonphonological
# 1	0.58	0.28
# 2	2.15	1.38
# 3	1.39	1.39
# 4	1.35	0.41
# 5	2.33	1.40
# 6	0.44	0.52
# 7	3.79	0.93
# 8	0.63	0.90
# 9	3.18	0.96
#10	2.68	1.00
#11	1.08	0.38
#12	1.23	0.90
#13	1.05	0.43
#14	0.44	0.47
#15	0.23	0.21
#16	4.37	0.71
#17	0.12	0.25
#18	7.42	0.82
#19	1.67	0.42
#20	0.51	0.12
#21	1.18	1.15
#22	0.88	0.32
#23	3.44	3.05
#24	1.62	1.03
#25	2.31	1.27
#26	3.97	2.38
#27	1.51	0.65
#28	1.48	0.86
#29	2.03	1.01
#30	4.65	1.62
#31	0.60	0.80
#32	0.23	0.29
#33	1.64	0.46

The frequencies of phonological and nonphonological variation were compared in order to determine if there was a significant relationship between the two. Pearson's Correlation Coefficient revealed a moderately positive correlation, r=.51. This proved significant at the p <.001 level. Overall the same subjects who exhibited greater degrees of phonological variation also showed greater degrees of nonphonological variation.

The phonological and nonphonological variation were correlated with age of arrival, again using Pearson's Correlation Coefficient. Age of arrival proved to be positively correlated with both phonological ($p < .001$) and nonphonological ($p < .05$) variation. The correlation was, however, much stronger for phonological variation, r=.58, than for nonphonological variation, r=.36.

Other variables were also examined in relation to linguistic variation. To establish the relationship of these variables with the phonological and nonphonological variation, Pearson's Correlation Coefficient was calculated for the variables that were quantitative. If the variable was qualitative and had two possible values, a T-test was used. If the variable was qualitative and had more than two possible values, an Analysis of Variance was performed. Table III shows these results.

Table III
RELATIONSHIP BETWEEN LIGUISTIC VARIATION
AND ADDITIONAL VARIABLES

Variable	Categories	Nonphon. p <	Phon. p <
Gender	Male/Female	ns	ns
English Class Level	I/II&III	ns	ns
Socioeconomic Level	1-6 (Duncan's Index)	ns	ns
Mother's/Father's Education	0-18 Years of School	ns	ns
Mother's Employment	Home/Outside Home		
Self-evaluation of Language Spoken Best	Spanish/English	ns	.01
Self-evaluation of Language Used Most Overall	Spanish/English/Both	ns	.05
Language Used Most:	Spanish/English/Both		
a. at Home		ns	ns
b. in School		ns	ns
c. with Friends		ns	ns
d. in Stores		ns	ns
Intention to Remain in the Miami Ethnic Community	Yes/No	ns	ns
Membership in a Prestigious Club	Yes/No	.05	ns

Speaking Spanish most and best were related to high phonological but not nonphonological variation. In contrast, membership in a prestigious social club was related to low nonphonological but not phonological variation. An examination of these results reveals a relationship between age of arrival and language use. In general those who arrived in the United States at a later age spoke Spanish more often than English and still considered Spanish to be their best language.

The relationship between club membership and linguistic variation is more complex. At Miami Senior High School there were two male social clubs and two female social clubs which produced the majority of leaders for school organizations, including class officers. Students in these clubs were more involved in school activities and tended to arrange their social lives around school functions. A Fisher's Exact test found membership in a prestigious social club to be positively related to both a higher English class level ($p < .05$) and a lower age of arrival ($p < .05$).

Discussion

There are two possible explanations for the relationship between linguistic variation and age of arrival. The first is sociocultural in nature. As Ma and Herasimchuk (1971) pointed out, the members of a bilingual community acquire the linguistic norms of that speech community. It is possible that the older arrivals were exposed to a different set of norms than the younger arrivals. If the later arrivals tended to associate with each other in a less mainstream environment, they would be further removed from the English of monolingual speakers than would their earlier arrival counterparts. The second explanation is psycholinguistic. Although puberty has been considered the cut-off point for attainment of native proficiency, as noted previously, children can also undergo fossilization. Asher and García (1969) found differences in their study among preadolescent acquisition groups, favoring the younger acquirer.

In the present study those subjects who differed from the overall relationship between age of arrival and linguistic variation provide insights into the nature of this variation. Subjects #18 and #23 are of particular interest since they showed the greatest phonological and nonphonological variation respectively. Subject #23 arrived at age three, below the mean age of arrival, yet both his phonological and nonphonological variation were considerably higher than the mean. Although #18, the latest arrival, exhibited an expected high level of phonological variation, his nonphonological variation was much lower than anticipated.

An investigation of the life styles of these two subjects suggests that it was the sociocultural environment, the quality of the input, that influenced much of the nonphonological variation. Subject #23 was not a member of a social club and instead associated with those who were older arrivals. These companions had little or no contact with the school environment. In contrast, subject #18 was a member of a prestigious social club and associated with younger arrivals, spending much of his leisure time at school. While his phonological variation reflects his late age of arrival, his nonphonological variation is similar to that of younger arrivals.

Cause and effect are not easily established for the relationship between social involvement in school activities and linguistic variation. To a considerable extent, social involvement may be the result of acceptance due to low linguistic variation, which in turn is caused by an early age of arrival. However, it is also possible that social involvement may be a causal factor as well. Associating with those who speak a variety of English with less Hispanic-influenced variation may affect an individual's nonphonological production, although for later arrivals phonological variation appears to be relatively unaffected by this association. Conversely, association with those who speak a variety of English with greater variation may influence the linguistic output.

Table IV shows the distribution of age of arrival in relationship to degree and type of variation.

Table IV
SUBJECTS WITH GREATER THAN THE MEAN LINGUISTIC VARIATION IN RELATION TO AGE OF ARRIVAL

Age of Arrival	Greater than the Mean Variation			
	Only Phon.	Only Nonphon.	Both	Neither
0-4	1	4	1	13
5-10	1	1	9	3

Of the subjects in Table IV with greater than the mean nonphonological variant forms, all were isolated to a degree from early age of arrival peers. Either they were loners with few friends or they were friends primarily with later arrivals. In contrast, there were four older arrivals with lower nonphonological variation. One was subject #18. Of the other three, one was the subject from Indiana, while the remaining two were members of social clubs.

Unlike nonphonological variation, phonological variation paralleled much more closely age of arrival. Of the fourteen arrivals between age five and ten, only four did not exhibit greater than the mean phonological variation. Three of these arrived at age five and the fourth was the subject from Indiana. Of those subjects arriving before age five, only two showed phonological variation above the mean. One was subject #23, the other was a subject who appeared to have a slight speech disorder.

Thus, for those subjects who acquired their second language before puberty, this study suggests that the nonphonological variation is sociocultural in nature, the result of exposure to a variety of English exhibiting this variation. On the other hand, phonological variation results both from sociolinguistic and psycholinguistic sources, with five being a pivotal age. This conclusion accounts for the significant relationships in Table III. The later arrivals, who speak Spanish most and best, also show greater phonological variation. On the other hand, those subjects who are club members are exposed to a more mainstream variety of English and show less nonphonological variation.

That the nonphonological variation is primarily sociocultural in nature while the phonological variation is more closely related to psycholinguistic factors supports a claim made by Ervin-Tripp (1974). She stated that the optimal period for activating the learning of phonology was in the first five years of a child's life, while for syntax age two to ten was the crucial period. In contrast, vocabulary continued to be learned throughout the speaker's life. Fossilization, then, appears to be more relevant to the phonological system than to the nonphonological systems in relation to preadolescent second language acquisition in the ethnic community.

Conclusion

The results presented in this study are tentative and need to be supported by more empirical data. They do suggest, however, that the source of variation in the English of

the second generation of an ethnic community can be both sociolinguistic and pyscholinguistic in nature. There can be fossilization in the second language of preadolescents who live in the ethnic community. This fossilization is primarily phonological in nature and is related to the age at which the child begins acquisition of the second language. In contrast, nonphonological variation does not appear to be the result of fossilization. It, as well as some phonological variation, is influenced by the sociocultural environment to which the child is exposed.

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