

# *Southwest Journal of Linguistics*

The Journal of the Linguistic Association of the Southwest

Volume 15 (1-2)  
1996

EDITED BY  
**Eduardo Hernández-Chávez**  
University of New Mexico

'LANGUAGE LOSS AND PUBLIC POLICY, II'

GUEST EDITOR  
**Garland D. Bills**  
University of New Mexico

SPANISH PROFICIENCY AND LANGUAGE USE IN A  
CALIFORNIA MEXICANO COMMUNITY

LUCINDA PEASE-ALVAREZ  
*University of California, Santa Cruz*

KENJI HAKUTA  
*Stanford University*

ROBERT BAYLEY  
*University of Texas, San Antonio*

This paper reports on a multifaceted study of Spanish language proficiency among Mexican-descent children in northern California. Results of multiple measures on a variety of tasks (a receptive vocabulary test, narrative production) and linguistic variables (preterit/imperfect tense marking, referential cohesion, null and overt subject pronoun variation) converge on the conclusion that children from immigrant families are quite successful at maintaining oral proficiency in Spanish, regardless of language use patterns outside the home, as long as approximately equal amounts of Spanish and English are used in adult-child interactions at home. Once English predominates at home, children's Spanish proficiency drops sharply. These findings bring into question the view that there is a simple linear relationship between amount of exposure to a language and proficiency in that language. Rather, the results suggest that the type of exposure and the social context in which it occurs are of greater importance than simple amount of exposure. The implications for educational policy for language minority children are explored.

INTRODUCTION. Large-scale studies of language shift in Mexicano communities which focus on patterns of language use portray Spanish as seldom lasting beyond the second or third generation (López 1978, Veltman 1988). Indeed, some studies suggest that the shift to English occurs much sooner. Based on self report data from Spanish-speaking parents, Fillmore (1991), for example, found a shift toward English in both language proficiency and choice in young children who attended preschools in which English was used during all or part of the school day. Although

these studies do not attempt to measure language proficiency in Spanish, they contribute to the view that language proficiency and use are directly correlated. However, recent research in first and second language acquisition as well as in first language attrition provides little justification for such an assumption. For example, acquisition research within the UG framework (e.g. Hyams 1986, 1989) suggests that children require only minimal exposure to core features of the grammar in order to select the correct parameter setting for the language that they are acquiring. Research in second language acquisition also suggests that language learners require relatively little exposure to reset core features such as the pro-drop parameter (see e.g. Liceras 1989, Flynn & O'Neill 1988, White 1985, 1986). Moreover, studies of language maintenance and shift have shown that some aspects of native language proficiency are relatively independent of the amount of use. Hakuta & D'Andrea (1992), for example, found that high school students born in the U.S. to Mexican immigrant parents reported using mostly English at home and in school. However, in terms of measures of language proficiency, they had maintained as much Spanish as their counterparts who had immigrated from Mexico during the last five years.

The study of native language attrition among bilingual populations is further complicated by the meaning and nature of language proficiency. Current work on assessment of language learners emphasizes the need for multiple measures in order to evaluate the different dimensions of language proficiency (for overviews see Bachman 1991, Cohen 1994). Indeed, researchers in second language learning and in language loss have devoted considerable effort to defining the various elements of language proficiency and to explaining the discrepancies among various measures (De Jong & Verhoeven 1992, Schils & Weltens 1992).

Problems of definition and measurement are especially acute in assessing what Valdés & Figueroa (1994) call 'circumstantial' bilinguals, that is, speakers whose bilingualism is a consequence of their membership in a language minority community rather than attending language classes or voluntary residence in a foreign country. As Valdés & Figueroa note, most available proficiency measures have been developed either for second language learners or for monolingual native speakers rather than for circumstantial bilinguals, and researchers often give little consideration to the issues of test appropriateness when reporting results.

This paper addresses some of the different dimensions of native language proficiency in a group of circumstantial bilinguals. We report the results of a multifaceted study of native language maintenance and language shift in a group of Mexican-descent children who are members of a community we call Eastside (Hakuta & Pease-Alvarez 1994). This longitudinal study used a combination of approaches to distinguish among various components of language shift (language proficiencies, choice, and attitudes) in 64 children and their family members. To assess the Spanish language proficiency of this group of children, we employed a variety of measures to access different dimensions of linguistic and sociolinguistic competence. Questions which guided the research include:

- What effect does immigration group have on children's native language proficiency and use?
- How do different aspects of children's native language proficiency compare?
- How does language use affect children's native language proficiency? Do patterns of use affect some levels of proficiency more than others? Are some facets of native language proficiency independent of language use patterns?

1. THE COMMUNITY AND THE SAMPLE. In 1990 we embarked on a study of bilingualism among 64 Mexican origin children and their families. The families, who lived in a 2 mile square area located midway between San José and San Francisco, participated in social networks that extended throughout the southwestern United States and Mexico. The children who were the focus of the investigation were eight to ten years of age. To assess the phenomena of language maintenance and shift at a variety of levels, parents and children participated in interviews and activities investigating their language proficiency, attitudes, and choices. Children were grouped by length of familial ties to the United States. Based on a survey of all of the parents of third graders enrolled in Eastside schools, we identified four groups of children:

1. Born in Mexico, parents born in Mexico.
2. Born in the U.S., parents born in Mexico; mother immigrated at age 15 or older.
3. Born in the U.S., mother born in Mexico, mother immigrated at age 10 or younger.
4. Born in the U.S., mother born in the U.S.

Our final sample was obtained through a random selection of families who participated in our initial survey and met the above criteria. Most of the children and families participating in the study are from groups 1 and 2 (20 per group). There are 13 children from group 3 and 11 from group 4. All children from groups 1 to 3 completed all tasks; only five children from group 4 had retained enough Spanish to complete the narrative task. Two factors explain the relatively small number of children in groups 3 and 4: (1) Mexican immigration to Eastside is fairly recent, having begun in the mid 1960s and increasing by just a few percentage points each year; and (2) the majority of Mexican-descent adults living in Eastside are immigrants. In fact, fewer than 10% of the Mexican-descent parents who participated in the survey used to identify our sample were born in the United States or came here as children.

## 2. TASKS AND MEASURES

2.1. LANGUAGE CHOICE AND ATTITUDES. A variety of data sources were used to examine the children's bilingualism. Language choice was measured by reported use with specific interlocutors. In interviews, children and parents were asked to indicate on a 7-point scale (1 = only Spanish, 4 = both languages equally, 7 = only English) the language that they used with different interlocutors (mother, father,

their two oldest siblings, friends in the neighborhood, and friends at school). Responses were combined to form four scales that described language choice of parents with one another and children with parents, siblings, and friends.

Parents and children also responded to a series of questions using a 5-point scale (1 = not important, 3 = somewhat important, 5 = extremely important) that examined their attitudes toward bilingualism, toward each of their languages, and toward the role they felt each language played in various facets of their lives. After each item, interviewers used probes to get respondents to provide reasons for their ratings.

2.2. LANGUAGE PROFICIENCY. Language proficiency data consisted of oral narratives and a standardized test of English and Spanish receptive vocabulary (Peabody Picture Vocabulary Test). Four Spanish prompts were used to elicit speech samples: structured interview questions eliciting a brief autobiography, a picture book about a family of bears, a surrealist picture of a young child in a bed resting in a large tree with two woodcutters in the background, and a request for an account of the child's experiences during the Loma Prieta earthquake of October, 1989 (if the children were not in the San Francisco area for the event, we asked them to tell a story about the most frightening thing that happened to them). The oral narratives were analyzed for a variety of linguistic features, including referential cohesion, preterit/imperfect verb marking, and subject pronoun use. The following paragraphs provide the rationale for selection of the proficiency measures and linguistic variables.

RECEPTIVE VOCABULARY. The Peabody Picture Vocabulary Test (PPVT) was used to measure receptive vocabulary. Although the PPVT has been criticized for failure to meet a variety of linguistic criteria, such criticism applies mainly to the use of the test as a sole measure of language proficiency (Vaughn-Cooke 1980). In this study, however, the PPVT served merely as one among a number of measures. Moreover, use of the PPVT provided a standard measure of proficiency for purposes of comparison with other studies.

REFERENTIAL COHESION. Contextualization has been discussed by many as a feature that varies across language modes (e.g. Cummins 1981, Wells 1985). Extralinguistic cues, shared experiences, and features in the interlocutors' immediate environment facilitate the transmission of meaning during most informal face-to-face conversations. However, when it comes to understanding formal verbal interactions and written texts, listeners and readers have access to far fewer contextual cues. To facilitate understanding, language must be made explicit so that meaning is largely conveyed through the words and structures within the text itself. In an effort to assess a particular facet of explicitness, we scored the children's narratives about a personal experience, the Loma Prieta earthquake, using a system for scoring errors in referential cohesion that distinguishes between phoric and nonphoric phrases (Pratt & MacKenzie-Keating 1985). Phoric phrases can only be understood by referring to the previous text. Nonphoric phrases introduce referents that are understood without such prior reference. Our error count included

those occasions when a speaker first mentions a referent using a phrase that assumes it has already been introduced (e.g. 'he', 'the man'), occasions when a noun phrase may have more than one referent, and phrases in which a previously introduced referent is mistakenly reintroduced (e.g. 'a man').

TENSE AND ASPECT. In Spanish, perfective and imperfective aspect are obligatorily marked in the past, e.g.

- (1) Perfective: *Nadie tocó el piano tan bien como ella.*  
'Nobody played the piano as well as she did (last night).'
- (2) Imperfective: *Nadie tocaba el piano tan bien como ella.*  
'Nobody played the piano as well as she did (for many years).'

To capture whether children continued to mark the perfective/imperfective distinction across immigrant groups, a third analysis focused on children's use of verbal morphology in their narratives about the earthquake. Our interest in the robustness of the children's aspectual marking arose from the numerous studies in first and second language acquisition that find speakers use verbal morphology initially to mark aspectual distinctions rather than tense (for first language acquisition, see Antinucci & Miller 1976; for second language acquisition, see e.g. Andersen 1991, Andersen & Shirai 1996, Bardovi-Harlig & Reynolds 1995, Bayley 1994, and Robison 1990). Of further interest for this study is Silva-Corvalán's suggestion that

language loss is in fact to a large extent the mirror image of development in creolization, and in first and second language acquisition. That is to say, in acquiring the verb system of Spanish ... learners go through stages of development which are the reverse of loss: the earlier tense forms to be acquired are present and past (both perfective and imperfective), while future, conditional and compound tenses are acquired much in the same order in which they are lost across the bilingual continuum (1991:335).

We hypothesized that perfective/imperfective marking, which is acquired early in first and second language acquisition and lost late in language attrition by Latino adults, would be relatively independent of the amount of Spanish used by Eastside children.<sup>1</sup>

<sup>1</sup>This is not to say that children acquiring a first language and adults a second language mark perfectives and imperfectives accurately in the early stages of acquisition. Rather, the research shows that language acquirers use their available verbal morphology to mark aspect rather than tense. Andersen (1991:315-17), for example, proposes an eight stage model for the acquisition of Spanish preterit/imperfect marking, in which perfective (preterit) marking begins with punctual events and then spreads to telic events, activities, and finally states. Marking of imperfectives (imperfect) begins with states and spreads to activities, telic events, and finally punctual events (used iteratively).

To determine whether Eastside children, like Los Angeles adults, maintain the Spanish perfective/imperfective aspectual distinction across immigrant generations, we conducted an error analysis of past tense marking in the earthquake narratives. The aim of the analysis was to determine whether the children used the preterit (perfective) when they should have used the imperfect (imperfective), the imperfect when they should have used the preterit, or another tense when they should have used either the preterit or imperfect.

VARIABLE SUBJECT PRONOUN USE. Spanish subject pronouns may be expressed on the surface or realized as null, e.g.

- (3) *Yo/Ø quiero ir a la playa.*  
'I want to go to the beach.'
- (4) *Ellos/Ø vivían en Michoacán.*  
'They lived in Michoacán.'

In recent years, the subject pronoun has received considerable attention in Spanish sociolinguistics as researchers have sought to model the linguistic and extra-linguistic constraints on its expression (e.g. Bayley & Pease-Alvarez 1996, Bentivoglio 1987, Cameron 1992, 1993, Enríquez 1984, Hochberg 1986, Morales 1986). Studies of numerous dialects ranging from Madrid to San Juan, Puerto Rico, have shown that subject pronoun expression is a classic sociolinguistic variable, conditioned by multiple linguistic and stylistic factors, among them coreference with the subject of the preceding clause and ambiguity of the verb form. Subject pronoun variation has also been investigated in U.S. Spanish, most notably by Silva-Corvalán (1994), who studied pronoun use by Chicano adults in Los Angeles. Silva-Corvalán tested Klein-Andreu's (1986) quantitative hypothesis that bilingual Spanish in intense contact with English would develop in the direction of greater subject pronoun expression. Silva-Corvalán's results indicate that most restrictions on subject pronoun expression agree with those for non-contact Spanish varieties. However, the results did show a weakening of the coreference constraint across the bilingual continuum. In addition, ambiguous verb forms favored subject pronoun use by first and second, but not by third generation Chicanos.

Analysis of subject pronoun expression in Eastside narratives allowed for a test of whether Mexican origin children observe similar constraints on pronoun use across the bilingual continuum, regardless of patterns of home language use and gains in English proficiency, or whether, as the quantitative hypothesis predicts, their use of subject pronouns becomes more like English as they shift from the use of Spanish in day to day interactions.

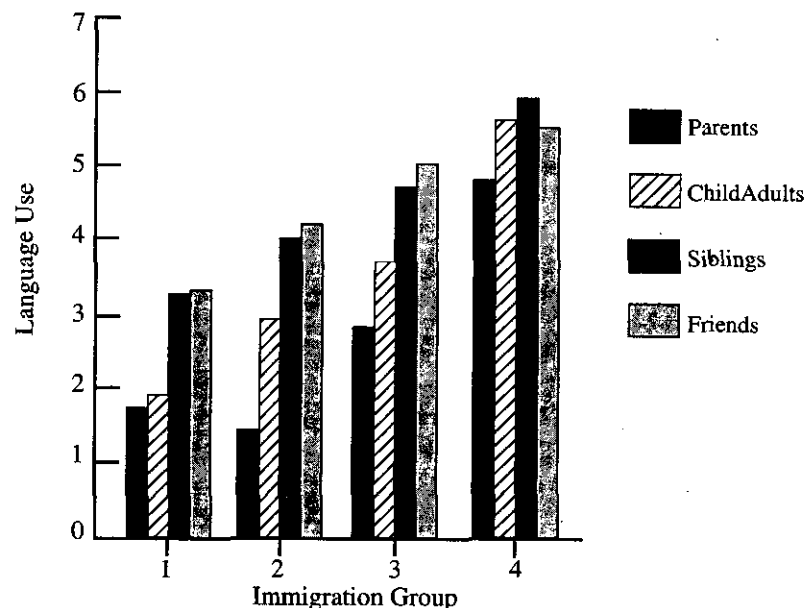
3. RESULTS. Overall, our findings reveal considerable maintenance of various aspects of Spanish language proficiency in children of immigrant families. However, it is important to note that for many of these children (particularly those in

Groups 2 and 3) Spanish is used primarily in one domain, with parents in the home. Children of U.S.-born mothers (group 4) are considerably less successful in maintaining Spanish as indicated by their PPVT scores and the fact that they were unable to participate in tasks requiring Spanish production. The following describes the major findings thus far from our analyses.

3.1. LANGUAGE CHOICE. Means on the measure of reported language choice as a function of immigration group are shown in Figure 1. The measures are for what the parents use with each other (Parents), what the parents use with children (ChildAdults), what the children use with their siblings (Siblings), and what the children use with their friends (Friends). Adults in the first two groups use Spanish almost exclusively with each other. Language use among siblings and friends is virtually identical, and shows a stepwise shift toward English with each successive group. Parents use increasing amounts of English with their children with each successive group.

3.2. LANGUAGE ATTITUDES. Children and parents show strong support for both English and Spanish and bilingual maintenance. When asked to elaborate on their views about their languages and bilingualism, parents and children told us that bilingualism leads to economic security in this country and in Mexico, ensures

FIGURE 1. Mean reported language use between parents, between child and adults, among siblings, and with friends as a function of immigration group



the ability to communicate and interact with a wide range of people, and provides access to knowledge sources both inside and outside of their community. Parents frequently talked about the advantages of having children who are able to translate for adult family members. For some children, the desire to take on the role of family translator was part of what motivated them to learn English.

Our interviews with parents revealed a strong commitment to Spanish maintenance. In general, they considered themselves to be deliberate and key participants in their children's language development. Using Spanish with their children or insisting that Spanish be used in their homes was one thing they did to make sure that their children maintained the language. Some deplored the use of English at home. Most were confident that their children would not lose their Spanish. When asked to consider how they would feel if they had a child who no longer spoke Spanish, many parents displayed strong emotional reactions that revealed the depth of their commitment to their Mexican roots and, in some cases, the difficulties that they had adjusting to life in the United States.

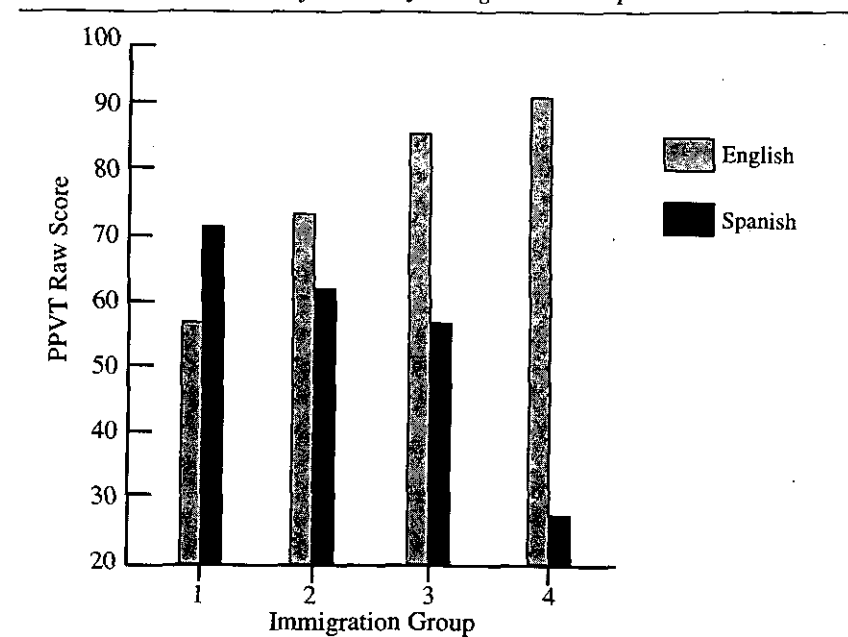
Despite their commitment to Spanish in the home, parents did not agree about the role Spanish should play at school. Most were grateful to have their children enrolled in bilingual classes where teachers used Spanish when giving directions and explanations. Yet no one wanted their children's teachers to rely exclusively on Spanish for instruction. Twenty percent of the parents felt that Spanish should not be used for instruction. The eight parents with the most negative attitudes toward the role of Spanish in the school were evenly distributed across groups. Moreover, their children varied considerably in their language choice with parents. It appears that parental attitudes about language and schooling are not necessarily correlated with language practices in the home.

Overall, parents conveyed additive notions toward acculturation as well as bilingualism. For most, being Mexican was not viewed as something that would infringe upon their children's success. In fact, half of the parents viewed maintenance of Mexican culture as enhancing their children's quality of life in the U.S.

3.3. SPANISH LANGUAGE PROFICIENCY. We report here initial analyses of the performance of the subjects on the measures of Spanish proficiency described earlier.

RECEPTIVE VOCABULARY. In analyses reported in a separate paper (Hakuta et al. 1995), our measure of Spanish receptive vocabulary showed no statistically significant differences between the first two groups, nor between the second and third groups. The major difference was between these groups and group 4, where there was a sharp drop-off in performance. The means of the raw scores on PPVT are displayed as bar graphs in Figure 2 (for comparison purposes, the means on the English version of PPVT are also displayed, but the scores should not be compared across languages since they are raw, unstandardized scores). Overall, these findings suggest that immigrant children are quite successful at maintaining Spanish proficiency as measured by this receptive vocabulary test. Even the children

FIGURE 2. Spanish and English Peabody Picture Vocabulary raw scores as a function of Immigration Group



of mothers who came to the U.S. as children (Group 3) performed relatively well on this task. Moreover, analyses of standardized scores on the Spanish version of the PPVT reveal that Groups 1 through 3 are well within one standard deviation of the Mexican norm.

Hakuta et al. (1995) also analyzed Spanish PPVT scores as a function of patterns of language use between adults and children. They found that Spanish proficiency is maintained as long as approximately equal amounts of English and Spanish are used between adults and children. Once English use exceeds Spanish use, Spanish performance drops precipitously.

REFERENTIAL COHESION. The second assessment of children's Spanish proficiency—use of referential cohesion—yields a similar pattern. Using a system that distinguishes between phoric and nonphoric phrases, the earthquake narratives were coded for errors that caused a reduction in referential cohesion. Results of this analysis are negatively correlated with children's scores on Spanish vocabulary ( $r = -.261$ ,  $p = .073$ ). Across groups, there were no significant differences in error rates, although the two subjects who were able to produce Spanish narratives in Group 4 showed among the highest error rates in our total sample.

TENSE/ASPECT MARKING. Performance on this aspect of language was measured as a proportion of correct marking of imperfect and preterit forms in required

contexts. Children demonstrated a high level of control over these distinctions, with a mean proportion of .935 (SD = .089) for preterit and .944 (SD = .114) for imperfect across all groups, and there was no meaningful variation across the groups. Thus, for those children who were able to produce a Spanish narrative, there was almost universal retention of the distinction between these two forms of the past tense.

**SUBJECT PRONOUN VARIATION.** The patterning of subject pronoun variation as a sociolinguistic variable was analyzed with GoldVarb 2.0 (Rand & Sankoff 1990), a Macintosh version of VARBRUL 2 (Rouseau & Sankoff 1978). VARBRUL analysis enables us to account for the many factors that affect subject pronoun expression and to examine possible changes across the bilingual continuum.

All possible sites of expressed or null subject pronouns were coded in the interviews with all children who had maintained sufficient Spanish to be able to participate in the narrative tasks, however minimally. In addition to immigrant group, factors analyzed person and number of the subject, coreference with the subject of the preceding clause, surface ambiguity of the verb form, co-occurrence of a reflexive pronoun, speaker gender, and speaker birth order.

The interview data yielded a total of 3,170 tokens, of which 20 percent were overt and 80 percent null. Results of VARBRUL analysis reveal a complex pattern of variation in which all of the linguistic factors and speaker gender significantly affected children's choice between expressed and null subject pronouns ( $p < .05$ ) (see Bayley & Pease-Alvarez 1996 for a fuller analysis).

Crucially, the immigrant group factor did not significantly affect variation. That is, the results provide no evidence to support the hypothesis that increased use of English leads to a higher rate of subject pronoun expression in Spanish. Rather, VARBRUL weights for the four groups all hover around .50, indicating that the factor has no effect on the choice of expressed or null subject pronoun. Results by group are shown in Table 1.

Although the immigrant group factor did not affect the overall likelihood of subject pronoun expression, results do suggest a weakening of the effect of the

TABLE 1. *Subject pronoun expression by immigrant group*

IMMIGRANT GROUP	% OVERT PRONOUN	VARBRUL WEIGHT	N
1. Born in Mexico, parents born in Mexico	23	.537	257/1106
2. Born in U.S., parents born in Mexico, mother immigrated after age 14	19	.493	275/1467
3. Born in U.S., mother born in Mexico, mother immigrated before age 11	19	.472	79/411
4. Born in U.S., mother born in U.S.	20	.515	38/186

TABLE 2. *Cross-tabulation: Surface ambiguity by immigrant group*

		1	%	2	%	3	%	4	%	Σ	%
Non-ambiguous	+pro	207	21	208	16	65	18	35	21	515	18
	-pro	762	79	1084	84	295	82	131	79	2272	82
Ambiguous	+pro	50	36	67	38	14	27	3	15	134	35
	-pro	87	64	108	62	73	73	17	85	249	65

ambiguity of the verb form across groups. Group 1 children used pronouns with 36 percent of ambiguous verbs and group 2 children with 38 percent. The percentage dropped to 27 percent among group 3 children and to only 15 percent among group 4 children. In fact, group 4 children used subject pronouns more frequently with non-ambiguous verbs than with ambiguous verbs. Caution is necessary, however, before attributing too much to this result, which is shown in Table 2, because the token count for group 4 is quite low.

In summary, findings from these analyses reveal considerable maintenance of competence in various aspects of Spanish. Moreover, this maintenance seems to occur despite evidence of shift in use toward English as well as gains in English language proficiency.

**4.0. DISCUSSION.** If one were measuring Spanish maintenance in terms of language use or choice, the data shown in Figure 1 clearly demonstrate a dramatic shift toward English. The conclusion here would be that Spanish use erodes quite easily, a pace that we may presume is only bounded by the English proficiency of the speakers. By contrast, the results from the four measures used here suggest that Spanish proficiency, once acquired by the child, appears to be quite robust. It is worth noting that the receptive vocabulary test was administered to all subjects and therefore provided the fullest sampling of Spanish proficiency across the different groups. Although there were some signs of loss between Groups 1 and 3, the data generally show maintenance up until Group 4. The other measures were based on narrative production tasks that required a higher level of Spanish proficiency, and therefore many of the subjects in Group 4 were not administered the task. Thus, the results from these measures, naturally, apply only to those subjects who had a threshold level of Spanish (i.e. who were able to produce narratives in Spanish). Nevertheless, given this threshold, the data show that there were strong similarities across the different background groups. The proficiency data, then, all converge on the conclusion that there is a remarkable amount of maintenance of Spanish proficiency.

In addition, the results of variable rule analysis of null and expressed subject pronoun variation fail to confirm Klein-Andreu's (1986) quantitative hypothesis that Spanish in intense contact with English will tend to prefer the variable that is

congruent with English. Although there is some evidence of weakening of the ambiguity constraint on subject pronoun expression, the overall results of our analysis of pronoun use suggest that aspects of the native language that are acquired early appear to be relatively immune to effects of language contact. The stability of the results for aspectual marking suggests a similar conclusion.

Findings from this study have special implications for the way we school bilingual children. This research discredits the common sense view that there is a simple linear relationship between exposure to a language and proficiency in that language. This view can be heard on both sides of the bilingual education debate. Advocates often claim that too much exposure to English early on will be at the expense of native language development and, ultimately, any possibility of maintenance of bilingualism. Opponents of bilingual education in the U.S. continue to rely on this view when arguing that children schooled in their native languages will be delayed in their acquisition of English. Our research brings into question the whole issue of exposure. Indeed, we have found that amount of exposure plays a relatively minor role when it comes to retaining certain features of one's native language. As previously mentioned, others have also found this to be the case for individuals acquiring a second language. The conditions under which this holds true clearly merit further consideration.

Finally, this research shows the importance of considering the role that social phenomena—specifically, language use practices—have on the maintenance of native languages. Standard arguments for bilingual education programs in North America have concentrated on the importance of cognitive and academic language proficiency in the native language as a basis for developing those abilities in English (Cummins 1981). Although a cognitive and academic foundation in two languages is important for school success, our research suggests that social considerations are critical for the maintenance of bilingual proficiency in communities like Eastside. Immigrant children in this study maintain proficiency in various aspects of Spanish despite evidence of a shift toward English in their language choice practices.

However, most of the children of U.S.-born mothers did not exhibit any productive abilities in Spanish. Thus, the intergenerational transmission of Spanish and long term community bilingualism may be in greater jeopardy than the bilingualism of immigrants and their children. From the perspective of educational policy, schools may well have an important role to play in averting a shift to monolingualism. They could, for example, provide opportunities for students to use Spanish throughout their academic careers and thereby encourage the kinds of attitudes that lead to the continued use of Spanish in a range of contexts.

5. CONCLUSION. Much of the thinking that underlies discussions of bilingual maintenance and loss in the United States has been based on the notion that there is a one-to-one relationship between amount of language use and language proficiency. Studies that have contributed to this viewpoint have neglected to carefully

assess and examine Spanish language proficiency. In contrast, the results that we have presented here show that such a belief oversimplifies the complex dynamic of language maintenance and loss in language minority children. Despite a shift toward English in many domains, many Eastside children appear to be retaining oral proficiency in their native language. What remains to be learned is the degree to which this trend continues to characterize the route bilingualism takes in Mexican-descent children, particularly as they enter a crucial period of their lifetime—adolescence. Also, a more comprehensive view of the process of native language maintenance and shift needs to focus on other features of native language proficiency, including literacy and the ability to manipulate and produce a variety of texts, both academic and non-academic.

#### REFERENCES

- ANDERSEN, ROGER W. 1991. Developmental sequences: The emergence of aspect marking in second language acquisition. *Crosscurrents in second language acquisition and linguistic theory*, ed. by Thom Huebner and Charles A. Ferguson, 305-324. Amsterdam: John Benjamins.
- , and YASUHIRO SHIRAI. 1996. The primacy of aspect in first and second language acquisition: The pidgin-creole connection. *Handbook of second language acquisition*, ed. by William C. Ritchie and Tej K. Bhatia, 527-70. San Diego, CA: Academic Press.
- ANTINUCCI, F., and R. MILLER. 1976. How children talk about what happened. *Journal of Child Language* 3.167-89.
- BACHMAN, LYLE F. 1991. *Fundamental considerations in language testing*. Oxford: Oxford University Press.
- BARDOVI-HARLIG, KATHLEEN, and DUDLEY W. REYNOLDS. 1995. The role of lexical aspect in the acquisition of tense and aspect. *TESOL Quarterly* 29.107-31.
- BAYLEY, ROBERT. 1994. Interlanguage variation and the quantitative paradigm: Past-tense marking in Chinese-English. *Research methodology in second language acquisition*, ed. by Elaine Tarone, Susan Gass, and Andrew Cohen, 157-81. Hillsdale, NJ: Lawrence Erlbaum Associates.
- , and LUCINDA PEASE-ALVAREZ. 1996. Null and expressed subject pronoun variation in Mexican-descent children's Spanish. *Sociolinguistic variation: Data, theory, and analysis*, ed. by Jennifer Arnold et al., 85-99. Stanford, CA: CSLI.
- BENTIVOGLIO, PAOLA. 1987. *Los sujetos pronominales de primera persona en el habla de Caracas*. Caracas: Universidad Central de Venezuela, Consejo de Desarrollo Científico y Humanístico.
- CAMERON, RICHARD. 1992. *Pronominal and null subject variation in Spanish: Constraints, dialects, and functional compensation*. Ph.D. dissertation, University of Pennsylvania.



- COHEN, ANDREW D. 1994. Assessing language ability in the classroom. 2nd ed. Boston: Heinle & Heinle.
- CUMMINS, JAMES. 1981. Schooling and language minority students: A theoretical framework. California State Department of Education, Sacramento. 33-49.
- ENRÍQUEZ, EMILIA V. 1984. El pronombre personal sujeto en la lengua española hablada en Madrid. Madrid: Consejo Superior de Investigaciones Científicas, Instituto Miguel de Cervantes.
- FILLMORE, LILY WONG. 1991. When learning a second language means losing the first. *Early Childhood Research Quarterly* 6.323-46.
- FLYNN, SUZANNE, and W. O'NEILL (eds.) 1988. *Linguistic theory in second language acquisition*. Dordrecht: Kluwer.
- HAKUTA, KENJI, and DANIEL D'ANDREA. 1992. Some properties of bilingual maintenance and loss among Mexican background high school students. *Applied Linguistics* 13.72-99.
- , and LUCINDA PEASE-ALVAREZ. 1994. Proficiency, choice, and attitudes in bilingual Mexican-American children. *The cross-linguistic study of bilingual development*, ed. by Guus Extra and Ludo Verhoeven, 145-64. Amsterdam: Royal Netherlands Academy of Arts and Sciences.
- , —, YURI L. KUWAHARA, GRISELDA SILVA, DAVID WHITENACK, and ADAM WINSLER. 1995. *Language shift in a Mexican-American community*. Stanford: Stanford University, MS.
- HILLES, SHARON. 1986. Interlanguage and the pro-drop parameter. *Second Language Research* 2.33-52.
- HOCHBERG, JUDITH. 1986. Functional compensation for /s/ deletion in Puerto Rican Spanish. *Language* 62.609-21.
- HYAMS, NINA. 1986. *Language acquisition and the theory of parameters*. Dordrecht: D. Reidel.
- , 1989. The null subject parameter in language acquisition. *The null subject parameter*, ed. by Osvaldo Jaeggli and Kenneth J. Safir, 215-38. Dordrecht: Kluwer.
- KLEIN-ANDREU, FLORA. 1986. La cuestión del anglicismo: Apriorismos y métodos. *Thesaurus, Boletín del Instituto Caro y Cuervo* 40.1-16.
- LICERAS, JUANA. 1989. On some properties of the 'pro-drop' parameter: Looking for missing subjects in non-native Spanish. *Linguistic perspectives on second language acquisition*, ed. by S. M. Gass and J. Schacter, 109-33. Cambridge: Cambridge University Press.
- LÓPEZ, DAVID. 1978. Chicano language loyalty in an urban setting. *Sociology and Social Research* 62.267-78.
- MORALES, AMPARO. 1986. *Gramáticas en contacto: Análisis sintácticos sobre el español de Puerto Rico*. San Juan: Editorial Playor.
- PRATT, MICHAEL W., and SANDRA MACKENZIE-KEATING. 1985. Organizing stories: Effects of development and task difficulty on referential cohesion in narrative. *Developmental Psychology* 21.350-56.
- RAND, DAVID, and DAVID SANKOFF. 1990. *GoldVarb: A variable rule application for the Macintosh (version 2.0)*. Montreal: Centre de recherches mathématiques, Université de Montréal.
- ROBISON, R. E. 1990. The primacy of aspect: Aspectual marking in English interlanguage. *Studies in Second Language Acquisition* 12.315-30.
- SCHILS, ERIK, and BERT WELTENS. 1992. Modeling and assessing foreign language loss. *The construct of language proficiency*, ed. by Ludo Verhoeven and Johan H.A.L. de Jong, 175-86. Amsterdam: John Benjamins.
- SILVA-CORVALÁN, CARMEN. 1990. Subject expression across the bilingual continuum. Paper presented at *El Español en los Estados Unidos XI*, University of Illinois at Chicago.
- , 1991. Cross-generational bilingualism: Theoretical implications of language attrition. *Crosscurrents in second language acquisition and linguistic theory*, ed. by Thom Huebner and Charles A. Ferguson, 325-45. Amsterdam: John Benjamins.
- , 1994. *Language contact and change: Spanish in Los Angeles*. Oxford: Clarendon Press.
- VALDÉS, GUADALUPE, and RICHARD FIGUEROA. 1994. *Bilingualism in testing: A special case of bias*. Norwood, NJ: Ablex.
- VAUGHN-COOKE, FAY. 1980. Evaluating the language of Black English speakers: Implications of the Ann Arbor decision. *Reactions to Ann Arbor: Vernacular Black English and education*, ed. by Marcia Farr-Whiteman. Washington, DC: Center for Applied Linguistics.
- VELTMAN, CALVIN. 1988. *The future of the Spanish language in the United States*. New York: Hispanic Policy Development Task Force.
- WELLS, GORDON. 1985. Preschool literacy-related activities. *Literacy, language and learning: The nature and consequences of reading and writing*, ed. by D. R. Olson, N. Torrance, and A. Hildyard, 229-55. Cambridge: Cambridge University Press.
- WHITE, LYDIA. 1985. The 'pro-drop' parameter in adult second language acquisition. *Language Learning* 35.47-62.
- , 1986. Implications of parametric variation for adult second language acquisition: An investigation of the pro-drop parameter. *Experimental approaches to second language acquisition*, ed. by Vivian Cook. London: Pergamon.