

Language Interaction in Nahuatl Discourse: The Influence of Spanish in Child and Adult Narratives

Norbert Francis and Pablo Rogelio Navarrete Gomez
Northern Arizona University, Flagstaff, AZ 86011 USA

This study of code-mixing focuses on the influence of Spanish in Nahuatl discourse as it is revealed in performance in narratives produced by adults and children. Language samples analysed were non-conversational, produced in response to structured Nahuatl language story-telling tasks presented to participants. Narrators were bilingual speakers of the two languages from an indigenous community in Central Mexico. Results indicate differences in the frequency of content word embedded language (Spanish) lexical items across grade level (for children), grade level attained (for adults), and correlations (for children) between the frequency of these Spanish embedded items and a measure of metalinguistic awareness. The discussion of findings is placed in the context of a language contact situation characterised by the rapid shift toward Spanish monolingualism in the broader surrounding region (Tlaxcalan Highlands) despite high levels of Nahuatl language proficiency in the locality in which the study was carried out.

The contact between Spanish and Nahuatl in Mexico, dating from the arrival of Hernan Cortez in the 1520s, has provided one of the richest sources for the study of interlinguistic influences. In the Americas, no other relationship between a colonial/national language (NL) and an indigenous language (IL) has attracted as much attention from historians, linguists and social scientists.

The influence of each language on the other, due to the confluence of unique historical factors, has been extensive. While in regard to the purely lexical transfers that have been integrated into each language as established loanwords, one may be tempted to suggest a certain level of reciprocity, this would surely mask a relationship, today, of unqualified disequilibrium in every other respect (cf. Leon-Portilla, 1992; Lockhart, 1992 for a historical perspective). An index of this lopsided imbalance between an ever-expanding world language status NL and an eroding IL can be found in the respective perceptions of the mutual influences between Spanish and Nahuatl among Spanish-speaking monolinguals and speakers of Nahuatl: for the former, a generally unremarkable phenomenon (albeit, on balance, positive), taken for granted by most, an emblem of Mexican national identity for many. In bilingual communities, among monolinguals of both languages and bilinguals alike, strongly held beliefs, deep-seated prejudices, and a range of opinions and perspectives are more often than not readily volunteered for the asking. Among professionals, for example, who serve bilingual populations, few topics about language and language use spark as much discussion, even without asking.

As in all similar bilingual contexts, studying the patterns of language inter-

action or code-mixing¹ still holds out great promise for opening up new perspectives on as yet unresolved questions of linguistic theory. In the applied fields, a better understanding of how an expanding socially dominant language influences the language it is displacing can shed light on the language shift process itself, inform perspectives on bilingualism and language learning, tied specifically to language interaction, and perspectives on other types, of interlinguistic transfer phenomena that are observed 'in both directions', especially among second language (L2) learners of both NL and IL, literacy learners, bilinguals who are unlearning or forgetting an IL, etc. Important language policy questions, foremost in the area of elementary schooling, will be illuminated by future research: curriculum and methods in bilingual instruction, teacher attitudes toward transfer features among students and among themselves, assessment of bilingual learners' oral and written expression, and effective revitalisation strategies where these may come to be an actual language planning objective (for discussion, Cerron-Palomino, 1993). On a more general level, the discussion of school language policy in situations of wide-ranging inequality is inseparable from closely related social and ethnic conflicts that language teachers and language learners need to understand. As Heller (1995: 374) points out: 'language norms are all the more important when institutional relations of power are tied up with ethnolinguistic ones, as in the monolingualizing tendencies of the bureaucratic state... [The] juxtaposition of codes illuminates [these relations]'.

The analysis of Spanish influence in Nahuatl discourse that we will discuss in the present study, will not take up two important domains that have been, and continue to be, important in the research on language mixing: the nature of the grammatical constraints that account for fluent and automatic processing of dual language sentence patterns, and the 'metaphoric' aspects of bilingual speech. In the first case, since participants in the study form part of a bilingual speech community characterised by high levels of proficiency in both languages, violations of Nahuatl grammatical patterns, occasioned by Spanish insertions and alternations, are uncommon, rarer still under the circumstances of a non-conversational task structured in such a way as to allow for reflection and a certain degree of planning. Nevertheless, how bilingual speakers achieve such interlinguistic compatibility is still an important area of enquiry that for now will be left for another discussion. This would be of special interest, for example, in the contrastive analysis of bilingual speech that might compare mixing of highly proficient speakers of Nahuatl, as is the case in the present study, and bilinguals from a nearby community, for example, in which the erosion of Nahuatl has advanced rapidly in recent years. As a number of investigators have pointed out, despite the temptation to link language mixing with language shift in a one-to-one manner, bilingual speech may also evidence relative stability and adaptation related, in turn, to functions associated with language preservation (Hamers & Blanc, 2000; Hill, 1993; Romaine, 2001); thus, no implication should be drawn from our interest in estimating the degree of Spanish influence in Nahuatl as representing an attempt to measure the erosion or decadence of Nahuatl. In regard to a possible meaning-related analysis of mixing, the data itself (drawn from non-spontaneous, planned narrative) severely limit any attempt at analysis of intention

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or communicative function. Without a doubt, the study of the situational variables linked to language interaction as a communicative strategy would encounter a broad field of opportunities in a speech community such as ours.

Along similar lines, we can assess the relationship between language mixing and language loss, cognitively, at the level of the individual bilingual-speaker. While higher frequencies of switching and borrowing might characterise the performance of bilinguals when they are speaking the language undergoing attrition (Seliger, 1996), mixing itself probably plays little if any role in hastening attrition or expediting the replacement of grammatical features in the eroding language by the expanding dominant language. Code-switching and borrowing also characterise balanced and 'stable' bilingualism, fluent intrasentential switching in particular often indicating equivalent native or near-native level grammatical competence in both languages. Evidence for cognitive confusion, linguistic irregularity/disarray, or deficient acquisition of language abilities, as a result of mixing, is basically restricted to informal anecdote. In fact, any citation in the literature referencing this view of language interaction in bilingual speech is hard to come by (see Bhatia & Ritchie, 1996 for a review of research; and MacSwan, 1999 for findings and discussion from Nahuatl/Spanish data in particular).

The choice of a narrative genre for eliciting language samples, along with the opportunity afforded to participants to be able to impose a measure of control and planning over their discourse, flows from our interest in aspects of bilingual proficiency that may not be revealed in typical everyday uses of language: aspects of knowledge of the two languages and aspects of performance that correspond to potential or latent abilities (Francis, 2000, 2001). A quantitative accounting of Spanish insertions in Nahuatl narratives (short for 'narratives performed in Nahuatl') might offer an index, among others, of Spanish influence generally, and of orientations and postures related to language awareness and consciousness of forms and functions associated with knowledge of the two languages. What do children and adults know about language and language use (and how might mixing open a window upon some interesting aspect of bilingual proficiency), and what do they think about their own proficiency, and bilingual communication in their speech community? This kind of approach we view as complementary to the line of investigation that has taken conversational discourse as its primary object of study, which in turn has attended more deliberately to interactive patterns, meaning, and the social functions of language mixing.

The Study

Participants

The study examined the influence of Spanish in Nahuatl narratives among three separate groups, two from earlier investigations previously reported on in Francis (1999) and Francis and Navarrete Gomez (2000), and the current follow-up study. The two previous investigations focused, respectively, on language interaction patterns in one group of adult bilinguals, and a cohort of school-age child bilinguals.

In the previous adult study, participants represented a small self-selected

group of individuals skilled in the narration of oral tradition stories. All narrators turned out to be males (female candidates declined to be video-taped), aged 17 to 72. Child subjects were drawn from a local bilingual elementary school. Teachers had identified 45 students, 15 from each of the second, fourth and sixth grades who were judged to possess at least adequate Nahuatl listening comprehension skills and who were progressing normally in literacy learning. Children were asked to produce two different narratives in the indigenous language, one oral and one written. For the oral (audio-taped) narrative task 42 of the students (20 boys and 22 girls) were able to produce a complete story in Nahuatl; for the written narrative tasks, 43 of the 45 students complied with the directive to compose their stories in Nahuatl.

Given the limitations of the previous adult sample and task demands that differed significantly from those stipulated in the child oral narratives, a new sample of adult narrators was selected for the present study, at random (during house to house visits and interviews) among known bilinguals in three different neighbourhoods of the same community from which the previous participants were drawn. The procedures that were applied for eliciting the child oral narratives were replicated with the new sample of adult narrators. The 38 adults (21 men and 17 women) who agreed and actually complied with the oral narrative task ranged in age from 16 to 68.

Background to the present study

In the previous adult narrative study, a sample of 11 traditional stories was video-taped from the six different narrators. The analysis of language interaction took up the following aspects of Spanish influence in Nahuatl discourse: (1) type of switch to Spanish; (2) grammatical acceptability of structures that contain-Spanish switches; (3) frequency of switching.

An analysis of the two different child narratives (written and oral) from the previous study served as a methodological backdrop and informal comparison: (a) Prompted by a structured writing task that utilised the traditional narrative *Tecuani uan Coneme [The Lion and the Children]* as a model, children composed written versions of the story as they were able to reconstruct it from memory, (b) separately, children produced oral narratives in response to a series of five illustrations that depicted the preparations and festivities associated with a community celebration, dubbed *The Baptism Party*. Aside from an assessment of coherence and narrative structure, that does not concern us here, the analysis of Spanish switches focused on the same aspects of Spanish influence as in the case of the adult narratives.

To briefly review the findings, in regard to the first category of analysis: (No. 1) type of switch to Spanish, adult narratives contained Spanish material overwhelmingly in the form of single lexical item insertions; out of a total of 1050 switches, tokens of single word insertions + multiword insertions + alternations, 87% were single word insertions. Mixing in child narratives, both written and oral, was almost exclusively of the single lexical item insertion type. Speculating that this result may have been an artefact of the procedures applied to elicit the kind of discourse type (non-interactive) that was the object of study, our attention shifted to the second question: (No. 2) grammatical acceptability of structures containing Spanish embeddings. In the case of both

adult and child narratives, the high level of compatibility of inserted items with Nahuatl sentence patterns (another predictable finding given generally high levels of bilingual proficiency and the opportunity on the part of narrators to plan their narratives) prompted a closer look at question No. 3: frequency of Spanish insertions.

An informal comparison: Child and adult narratives

Beginning with the child narratives, a consistent and statistically significant trend appeared to emerge: older children's narratives began to evidence a lower frequency of Spanish content word insertions, while the insertion of Spanish 'discourse connectors' (*por* [because of, in order to], *para* [for, so that], *entonces* [then], *luego* [then, next, later], *cuando* [when], *tambien* [also]) increased. Notably, the same descending frequency for Spanish content word insertions was shown to be significant for both oral and written narratives. Setting aside for now the 'discourse connectors' category (see Suarez, 1977, for a study of this aspect of Spanish influence), the tendency to begin to apparently disfavour Spanish content word nonce-borrowing and insertion found interesting parallels in other aspects of fourth and sixth graders language use, as compared to the younger bilinguals: (1) in a controlled observation of small group play situations, fourth graders were observed to prefer Nahuatl in conversational turns with peers over second graders, likewise sixth graders over fourth graders (Francis, 1997). (2) Interviews that explored ethnolinguistic loyalty, reported preference, comfort and facility when speaking Nahuatl, feelings about 'Nahuatl disappearing one day', desire that the students' own children should learn to speak Nahuatl, etc., tallied high 'loyalty indices' for fourth graders and very high for sixth graders, both markedly higher than those for second graders. A number of items were adapted from Hill and Hill's (1986) language attitude questionnaire, allowing, as it turned out, for a revealing *post hoc* comparison. (3) While an assessment of basic everyday productive vocabulary in Spanish indicated a statistically flat attainment across all grade levels (as would be expected), Nahuatl vocabulary production showed an unmistakably upward developmental trend from second, fourth, to sixth grade.

The progressively lower rate of Spanish content word insertions across the grade levels in narrative production (a finding parallel to points 1, 2, and 3 above) was tentatively attributed to a combination of factors: (1) the favourable balance between Spanish and Nahuatl, community-wide (unlike in the broader region) that to date has not yet resulted in any measurable erosion of the IL (interested readers are encouraged to consult the most recent census report from INEGI 2000 which confirms the continued stability of Nahuatl in the communities under study: San Isidro Buensuceso, Municipality of San Pablo del Monte, Tlaxcala state, and San Miguel Canoa, Municipality of Puebla, Puebla state), (2) a positive valorisation of the indigenous language in school by teachers, and the two principals who publicly espouse the applicability of the concept of bilingual education, (3) late childhood (6-12 years) development of both Nahuatl linguistic competence, and metalinguistic awareness, specifically related in this instance to children's own bilingualism.

The question posed in the examination of the adult narratives centred on

the same postures or predispositions toward Spanish insertions: would the adult narratives reflect a similar inclination toward Nahuatl content words over their Spanish equivalents that sixth graders showed in their narratives? The sample of 11 traditional stories video-taped from our six mature storytellers (originally compiled for a separate project unrelated to the present study) served the purpose of an informal comparison. The comparison with the 15 sixth graders' performance turned out to be suggestive enough to prompt the design of the present follow-up study. The same index of frequency of Spanish insertion from the child narrative study was calculated: for each narrative the total number of Spanish lexical types (number of different content words used at least once) divided by the total number of running words. While sixth graders yielded a measure of 0.016, the six adults seemed to reflect a divergence into two separate narrative styles in regard to this aspect of Spanish influence. In six of the 11 samples produced by two of the narrators, a markedly low level of Spanish insertion (0.003) stands in contrast to the five samples produced by the other four narrators (0.037).

Given that the child and adult cohorts were not comparable for formal analytical purposes, nor did the elicitation procedures lend themselves to any kind of systematic confrontation of the obtained measures, it was necessary to compile a new sample of adult narratives (the present study), that would allow us to replicate the child narrative study.

Replication of *The Baptism Party* narratives

Fortuitously, the visual prompts for the child oral narratives of *The Baptism Party* were not thematically or graphically infantile, and featured both child and adult figures. The same procedure for eliciting an oral narrative in Nahuatl that was followed in the child study was applied to the group of 38 adults selected for the present study: (1) participants were greeted, the project explained, agreement to participate secured, and instructions given monolingually, in Nahuatl; (2) guidelines for the task included: (i) presentation of *The Baptism Party* illustrations, in five scenes, arranged in narrative sequence, explanation that the illustrations represent a story, and a request to study them for the purpose of thinking about the story that will be told; (ii) audio recording of the narration; (iii) query for age and highest academic grade attained. In our previous report in the first phase of the study, we had explicitly formulated the following hypothesis: taking note of the non-comparability of the earlier group of six adult narrators, If we would take a similar sample among adults to that which was taken among the child narrators ... the indices of content word borrowings would fall within the same distribution as that of the sixth graders' (Francis & Navarrete Gomez, 2000: 373).

Results

General features of *The Baptism Party* stories

Adult narrators produced stories that varied in length from 27 words to 783 (although note should be taken that compared to the longest story, no other sample surpassed 190, with an average of 92). Overwhelmingly, Spanish material entered in the form of insertions into Nahuatl grammatical structures. Out of a total of 365 switches (tokens of: single word insertions + multiword

insertions + alternations) 79.5% were single word insertions; of the remaining, the great majority (segments of two or more words) would be categorised as insertions as well:

in occe zoatzintli tlacualchihua *para* in *mayordomía* nocce in conetl ca *atrás den* zoatzintli

[the other woman is making the food *for* the (*mayordomía*) *celebration* the other the boy is *behind* the woman...] (A06)

In zoatintli mopepetla ica in *peine mientras* in occe zoatzintli pacá ni cone ica *jabón* huan *agua* niuhqui in occe zoatzintli quitzquitoc ni piltzintli

[The woman is combing with a *comb* *while* the other woman washes her child with *soap* and *water* also the other woman is holding her baby...] (S14)

cequi este xihuitl umpa quintlapachotoc *para* amo *tanto* tlatotonia.

[some grasses there cover them (with shade) *so that* it does not get *so hotj* (L16)

te *maman* caltia ni almatzintzin *luego* tetlapatilia

[the *mother* bathes her *children* (*literally: souls + endearment diminutive*) *then changes them*] (C26)

Mixed language sentences that could possibly be categorised as alternations accounted for a small portion of the Spanish material:

Bañando, no es cierto, cuatequia entonces nin tlen chihua nin motzonilpia /Bathing, that's not right, throwing water on his head *then* the one that is doing this is tying up her hair] (S32)

Quiiquitzquitica ipan ni chichiquil, octopehua ce maceta,... tiene la guitarra nin ... yo *creo noviotin monotzahte, ¿verdad?*

[He is grabbing him on the back, he pushes a *flowerpot*,...he has a *guitar* uhm... *I think they are boyfriend and girlfriend* that are conversing, *right?*] (M31)

Again, given the method of elicitation (aside from the explicit request to narrate in Náhuatl, participants were approached, and instructions for the task were given in Náhuatl), the preponderance of insertions would be expected. Of the 120 different Spanish lexical items (contení words) recorded, 65% were nouns, 20.8% verbs, 7.5% adjectives, and 6.7% adverbs. While facilitating a straightforward quantitative analysis of content word insertion (and a meaningful comparison with the child narratives), no speculation would be warranted in regard to typical, everyday, non-elicited, conversational discourse. For example, narrators may have been induced into a performance set that inhibited alternation between Náhuatl and Spanish grammatical patterns; see Grosjean (1997) for a discussion related to this point of the key methodological considerations in studying bilingual speech.

Comparing frequencies of Spanish insertions

Again; postponing the question of grammatical compatibility of Spanish, switches,² the index for frequency of Spanish insertions was calculated. For consistency, all content word types, even if they occurred in a structure that might be considered an alternation, were tabulated, then divided by the total of running words.

Prior to transcription and analysis of the adult narratives, an informal assessment of switching frequency clearly indicated that our initial hypothesis was too sweeping. At the same time a divergence between two kinds of mixing pattern (similar to the divergence in the previous adult study) seemed to reveal itself, suggesting where our original hypothesis was lacking in precision. If (among the child narrators) the older students' tendency to favour Nahuatl content word equivalents for items that they had previously 'borrowed' from Spanish was related to schooling in some way (e.g. greater development of metalinguistic awareness, related to higher literacy abilities, with each grade completed) then level of academic attainment among the adult narrators might be a factor to consider as well. Thus, the adult narratives were subcategorised, separating those produced by participants who had completed sixth grade from those produced by participants who had not. Primary school completion represents a natural cut-off in general (among the non-completers none had attained third grade), and made for a reasonable approximation for comparison purposes to the level attained by the sixth grade children. As a result we could compare sixth grade children's narratives, first with the narratives produced by adults with an equivalent or higher academic attainment, and subsequently with adults who did not complete primary school.

Unambiguously, the adults as a whole inserted Spanish content words at a higher rate (0.065) than sixth graders (0.016) allowing us to discard the prediction that the overall frequency of adults' insertions and borrowings 'would fall within the same distribution as that of the sixth graders'. However, comparing primary completers ($n = 24$) and non-completers ($n = 14$), a difference appears: the average insertion index for the latter is twice that of the former (0.095 and 0.047, respectively, significant at $p = 0.014$, $f = 2.58$). Among primary completers, five of the 24 avoided any Spanish content word insertion for an index of 0.00, while only one 'purist style' was recorded among the narratives of non-completers. Parenthetically, length of narrative did not correlate with the index of Spanish insertion frequency, and statistically, comparisons indicated no significant difference in length between completers and non-completers. Although adults in general appeared to mix more frequently than children, the comparison between sixth grade children and adults who had completed the sixth grade evidenced a difference that was not statistically significant (i.e. partially 'salvaging' our original hypothesis in the case of, but only in the case of, adult primary completers). Not surprisingly, but worthy of note in light of the new distinctions that we have proposed, the mature story-tellers from the previous study, adult primary completers from the present study, and sixth grades all fall within the same distribution on the measure of Spanish insertion (story-tellers vs. sixth graders: $t = 0.45$, $p > 0.05$; story-tellers vs. adult primary completers; $t = 0.76$, $p > 0.05$).

Men and women, boys and girls

Unfortunately, from the point of view of the objectives of this study, sex correlated too closely with primary school completion, introducing, as it did, this confounding factor that happens to be difficult to control for in rural and semi-rural indigenous communities. At the same time, it prompted us to examine the diverging patterns among men and women, and boys and girls,

a social dimension of language use that we had assiduously neglected in previous analyses. Among adult primary completers 20 were men and four were women; all non-completers, except one, were women. Predictably then, comparing Spanish insertion frequency between men and women, the difference is significant at $p = 0.018$, $t = 2.48$, women inserting Spanish content words at a rate twice that of men. In contrast, among children (all grades), the difference between boys and girls is not significant, $t = 0.73$, $p > 0.05$, respective averages, in fact, differing only slightly (0.024 and 0.032). These differences, of two kinds, will be taken up in the following section in the context of a reconsideration of data gathered from previous studies that had been left unreported.

Discussion

The following discussion of the findings will consider, in turn, the two patterns of results: (1) the differences between men and women and boys and girls, and (2) the frequency of insertions in general across generations and levels of academic attainment.

Schooling and possible generational shift No. 1

In this linguistically conservative community, a major opening of access to elementary schooling over the past 20 to 30 years is one of the interesting stories to be told. While the community still falls into the lowest range, regionally, in actual school attendance, the expansion of primary public education has been significant. More to the point, for our purposes, overall increased access has also been accompanied by greater equity. Today, graduating sixth grade classes begin to approach a 50-50% balance between boys and girls, while only 10 years ago, the ratio had still tipped heavily toward boys. Unlike the almost exclusively male teaching staff of the past, the current faculty includes a number of women, including both administrators.

Upon noting the difference between women ($n = 17$ from among the adult narrators) and girls in how they compared with men and boys on Spanish insertion, we took a second look at the academic assessments and sociolinguistic interviews from the previous child study. On all measures of Spanish literacy and academic language proficiency (reading comprehension, written expression, coherence in oral narrative), differences between boys and girls turned out to be negligible. Equivalent assessments in Nahuatl revealed, without exception, the same balance in school achievement (Francis, 1997); the same equilibrium between boys and girls on these measures was in evidence in a separate assessment of metalinguistic awareness (Francis, 1998). Indices of ethnolinguistic loyalty were also comparable with no significant differences. Only on the queries regarding a recollection of incidents of embarrassment when speaking Spanish or Nahuatl did any divergence appear. Percentage of children who reported at least one incident of embarrassment when:

Speaking Spanish	Boys 55%	Girls 23%
Speaking Nahuatl	Boys 50%	Girls 32%
Combined (Spanish or Nahuatl)	Boys 73%	Girls 40%

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The available data at the time of the interviews pointed to no explanation as to why girls reported a lower incidence of language-related inhibitions than boys.³

The comparisons between boys and girls that so robustly and uniformly showed no unfavourable divergence for the latter are noteworthy in and of themselves, reflecting, in retrospect, the cumulative effects of long-term historical trends in traditional communities of this type.⁴ The same finding for children of no divergence between boys and girls in the domain of Spanish influence in Nahuatl narrative appears on the surface to follow from the above equilibrium in assessments of academic language proficiency and ethnolinguistic perspectives. In addition, the finding reveals itself as salient in contrast to the significant difference between men and women on this measure. However, the reader is cautioned against premature interpretations of this contrast between girls and women. Simply, the available data, including that from all phases of our investigation and that of other investigators, do not warrant any conclusion related to these comparisons and contrasts (e.g. drawing a possible connection between bilingual proficiency, biliteracy and reported ethnolinguistic loyalty, on the one hand, and frequency of Spanish insertions in Nahuatl narrative discourse).

Schooling and possible generational shift No. 2

All of the above prompted us to re-examine unanalysed data from the previous study, and to compare the results with findings from an earlier investigation by Hill and Hill (1986) conducted in the same region. The same sociolinguistic interview conducted with the child participants was conducted with the children's adult family members. As reported in Francis (1997), while the children enrolled in the bilingual school overwhelmingly reported positive perspectives regarding the continuity of their indigenous language ('happy', 'approving', or 'indifferent' to the prospect of the language disappearing: sixth graders, 0 ($n = 15$); fourth graders, 4 ($n = 15$); second graders, 4 (< 15); their parents and other adult relatives were sharply divided: 22 'approving' or 'indifferent', 24 'unhappy', 'ashamed', 'disapproving', or clearly resisting the idea in some way. Again, however, women differed from both men and from their school-attending daughters, nieces and grand-daughters. Of the 35 adult female respondents, 20 expressed 'approving' or neutral postures, 15 'disapproving'. Among men ($n = 11$) the relation is inverted, two and nine, respectively. .

An earlier study

The above patterns represent a confirmation of Hill and Hill's (1986) earlier findings related to this domain of language use and to bilinguals' perceptions of key aspects of language contact. An important component of their study categorised speakers of Nahuatl according to the completeness of use of the honorific system in reference (i.e. talking about someone, as opposed to 'direct address' for which the full honorific system is maintained in usage by all informants who participated in the study): *narrow-honorific* speakers, 'almost always factory-workers or men who work as household weavers and members of their families' (p. 152), and *broad-honorific* speakers who retain the full range

of distinctions even in reference (pp. 144-55). Critically, as the authors emphasise, the amplitude of honorific usage is not a reliable indicator of grammatical competence in Nahuatl.

On a number of key language attitude questions a clear difference between men (and narrow-honorific speakers generally) and women emerged: men were more likely than women to say that they want their children to speak Nahuatl, that the language be taught in school, and more likely to express sadness in response to the suggestion that Nahuatl is disappearing (pp. 406-7).

In regard to codeswitching and borrowing from Spanish, Hill and Hill found that 'purists' tend to be middle-aged men. The analysis in *Speaking Mexicano* merits our attention on this point. Narrow-honorific speakers, in large part male wage workers who commute to the city, might favour relativising the 'subtle gradations of status among town members in favour of emphasising the sameness and equality of all' (p. 154). On the other hand, since they owe part of their relative wealth and prestige to activity in the Spanish-speaking urban centre and industrial corridor it would be less appropriate for them to favour a hispanicised Nahuatl discourse strategy in town, especially if their claim to community resources might be placed in doubt because of their long absences, commitments to employers, etc. Thus, their use of Nahuatl in 'contexts where emphasis is on solidarity and mutuality', in addition to resorting to the 'metaphor of equality'⁷ of narrow-honorific usage, also tips toward more purist styles. Broad-honorific speakers, in contrast, are more 'likely to use Mexicano [Nahuatl] across its full functional range', including more heavily hispanicised registers (pp. 154-55).

Reflecting on the irony that portends an accelerated shift toward Spanish monolingualism, Hill and Hill discuss the perspectives of broad-honorific women. By all accounts they would be counted among the most proficient speakers of Nahuatl, and among the most central transmitters of the language to the next generation. Women's higher proportion of negative postures toward Nahuatl is, nevertheless, consistent with their more vulnerable position: more likely to be not proficient in Spanish and not literate, more likely to be at the receiving end of offense and differential treatment in the city because they are more visibly, and audibly, indigenous. On the other hand, within the community itself, access to systems of reciprocity, for example, facilitated by display of proficiency in Nahuatl, is limited by their diminished control over material resources. As the authors conclude: "women are aware of the male support for the Mexicano language, but they are dubious about the validity of such support" (p. 140) - all of the above surely contributing to an entire array of ambivalencies in regard to their own language ability, and the perceived social value of the indigenous language in general.

Conclusion: Studying Awareness of Language

To recapitulate, our study of Spanish influence in Nahuatl discourse deferred the analysis of the grammatical integration of mixed language sentences, because not even the slightest differences between children and adults, men and women, boys and girls, or primary completers and non-completers were in evidence on this point. The few questionable sequences in all likelihood consisted mainly of performance slips; cf. our previous attempt

(Francis & Navarrete Gomez, 2000) at identifying even isolated examples of ungrammatical mixing or degrees of degraded Nahuatl grammar in participants' narrative performance. On the other hand, the task restrictions placed on narrator's performance excluded any functional analysis related to 'metaphoric effect' or illocutionary import, as in Gumperz (1982) and Hill (1995).

In contrast, the statistically significant differences in frequency of Spanish insertion (across academic grade level, age/generation, and between men and women) merit, at very least, an attempt at description. Further research related to these tendencies (if they indeed hold up empirically) might take up questions related to: (1) social and sociolinguistic correlates of different aspects of language interaction tied to schooling, literacy, wage employment outside the community, migration, etc.; (2) orientations and postures toward each language and different aspects of language use; (3) frequency of insertion as an index of Spanish influence generally. While in this ethnolinguistically conservative community, insertion frequency clearly does not reflect the erosion of Nahuatl, might it be shown to be related to language shift in other communities of the region in which a wide variation of 'unbalanced' bilingualism could be sampled? For a discussion of 'dimensions of attrition' and influence of the national language, see Hill (2001). (4) What might frequency of insertion reflect regarding aspects of the bilingual speaker's language proficiency (i.e. the ability to use their underlying knowledge of each language) - metalinguistic awareness, consciousness of the uses and functions of Spanish and Nahuatl, and consciousness of form, knowledge and skill related to different registers, performance capabilities in the higher-order discourses, written forms in both languages, etc?

Pertinent to the metalinguistic awareness factor, that we believe is deserving of further enquiry, is a line of research on the differentiation of the linguistic systems in bilingual speakers. For example, in early bilingual development, evidence points to a surprisingly expeditious separation of L_a and L_b in children exposed to sufficient input in both languages.⁵ Grammatically well-formed mixing, even at the onset of the two-word stage, and a progressive diminution of mixing have been offered as evidence of early differentiation (Deuchar & Quay, 2000; Genesee, 2001; Paradis & Genesee, 1996; as well as Koppe & Meisel, 1995 for further discussion and a somewhat different perspective regarding the onset of separation). Central problems of child language development and linguistic theory are likely to be addressed in this important work as findings are compared and discussed.

Our interest in the metalinguistic factors, on the other hand, seeks to highlight aspects of language differentiation that fall largely outside the study of the underlying cognitive representations of each language. While the study of early differentiation of bilingual competence (e.g. Paradis & Genesee) as well as the study of adult bilingual competence (MacSwan, 1999; Muysken, 2000) bears directly on the nature of the language faculty and grammatical knowledge *per se*, the study of metalinguistic aspects of bilingual proficiency should be taken up separately, at least for now, corresponding as they do (as we see it) to domains of language ability that largely depend on or rest upon competencies outside the language faculty. An unforeseen expedient of this potential division of labour might be, at least at this conjuncture, that some

of the theoretical contention dividing generativist, universal grammar-oriented, and functionalist approaches can be set aside on this point. Since greater consensus is potentially attainable around frameworks for studying pragmatic differentiation, language interaction phenomena related to general cognitive processes, and aspects of bilingual discourse ability, the discussion might actually be able to take advantage of a greater degree of openness.

Evidence for this or that differentiated underlying mental representation of intrasentential mixing involves unconscious knowledge of the respective grammatical systems, patently in the case of the 3-year-old bilingual, arguably in fluent adult codeswitching. In contrast, the ability to make interlinguistic distinctions at the discourse and pragmatic levels, draws on resources and domains that are more accessible to awareness. Frequency of borrowing and insertion, in narrative discourse for instance, would be related to the speaker's ability to attend to these features, if they come to be, for some reason, an object of awareness. A case in point from our own study is the starkly contrasting patterns of insertions in Spanish and Nahuatl narrative performance in children, reported previously in Francis (1999): virtually complete avoidance in both written and oral story-telling when narrating in Spanish, prolific switching to Spanish when narrating in Nahuatl in almost all cases, in both modalities. Pfaff (1998) reports on an illustrative example (in this case Turkish/German bilingualism, in Germany) of this kind of pragmatic differentiation, related to the development of proficiency in each language: 'the amount of Turkish in German declines over time while the amount of German in Turkish increases ... developing toward a monolingual mode in German and bilingual mode in Turkish' (pp. 100-101). The parallel with the Mexican NL-monolingual mode/IL-bilingual mode contrast would coincide as well with children's conscious awareness of diglossic relations and specific pragmatic constraints that characterise the conditions of language contact in each context, Germany and Mexico, respectively. Presently no data are available regarding this particularly visible asymmetry among adults. How this interesting example of differentiation might be even explored in conversational discourse is still an open question.

Our concluding observation takes the form of a proposal for further research, one that is suggested by the findings from the series of studies on language interaction outlined in this report. In the domain of that aspect of bilingual speech that is accessible to consciousness, consideration of the 'metalinguistic awareness factor' would round out both descriptions and analyses of language interaction specific to bilingualism. From this point of view, 'purist' tendencies among speakers of the subordinate vernacular, under pressure from an expanding (at its expense) NL represent responses of different kinds. Complex and contradictory as they have shown themselves to be (Dorian, 1994), no single approach to this diversity of perspectives on mixing will allow us to tell the whole story. Metalinguistic awareness, tied up as it is with schooling, literacy, higher-order discourse abilities, and reflection on bilingualism itself (Bialystok, 2001; Gee, 2001), might draw in these related factors as well into the assessment of degrees and varieties of syncretic and purist discourses.

The attentive reader of a certain predisposition (which we will refrain from

characterising) has perhaps already anticipated where our work is cut out for us: the narrative performance of bilingual women from San Isidro and San Miguel who have completed sixth grade. As we can see, bilingual speech (as well as bilingual composition) will continue to be a privileged site of research for some time to come, the potential for more interdisciplinary discussion on this common ground being one of the good reasons.

Acknowledgements

The authors gratefully acknowledge Pedro Monarca Amador for his assistance in interviewing the participants in the study. The research was supported by grants from the Office of Grants and Contracts of Northern Arizona University, and the US/Mexico Fund for Culture. To both, the authors extend their appreciation.

Correspondence

Any correspondence should be directed to Norbert Francis, Northern Arizona University, Flagstaff, Arizona 86011, USA (norbert.francis@nau.edu).

Notes

1. In this report, for purposes of consistency, we will adopt Muysken's (2000) terms for the different language interaction phenomena: (1) 'code-mixing' - a general cover term to refer to all cases in which single lexical items, longer sequences, and grammatical features from Spanish and Nahuatl appear in one sentence (thus, 'mixing', here, does not imply or connote a variety of unsystematic or grammatically degraded bilingual speech, such as the term is used in some discussions); (2) 'insertion' - single lexical items or longer constituents from one language are *embedded* into a structure from the other language; (3) 'alternation', akin to Poplock's (1980) description of 'codeswitching' in which the languages alternate, the sentence beginning in one language switches to the other, from the syntactic structure of one to that of the other. In contrast to No. 3, insertion (No. 2) implies that the grammatical constraints of the sentence containing material from Spanish and Nahuatl can be evaluated in terms of the patterns of a base or matrix language. Again following Muysken, our use of the term 'switching' (also 'switch') should be taken as referring to the general category covering all types of mixing: insertion, borrowing, alternation ('code-switching'), etc. A continuing analytic uncertainty related to these categories concerns the differentiation between nonce-borrowing (inserted lexical items that fall outside the generally recognised borrowed vocabulary from the donor language that form part of the lexicon of bilinguals and monolinguals alike; i.e. only bilinguals would nonce-borrow) and codeswitching (Poplack *et al.*, 1988). One criterion applied to true codeswitching has been the degree of (non)-assimilation of the inserted lexeme. However, researchers have found it difficult to apply the grammatical integration test universally, citing in particular data from languages with highly productive morphological systems, as is the case of Nahuatl. For examples, see Hill and Hill, 1986, Myers-Scotton, 1993 and MacSwan, 1999 for Spanish/Nahuatl. The reader will note that regardless of the analytical category one favours for any given item in a mixed language sentence pattern, for example a^single lexeme from language B embedded in a language A structure (borrowing or codeswitching?), the bilingual speaker must still find a way to insert the item in such a way as to try to satisfy the grammatical constraints of both languages on one level (e.g. an abstract underlying level) or another.
2. Grammatical acceptability studies, even in monolingual contexts, are plagued by a number of methodological hitches (Birdsong, 1989). Judging mixed language sen-

tences gets harder still. Native speakers (those with trained ears and novice sentence parsers alike) confront the problem of what criteria to apply (e.g. an apparent mismatch on the surface may obscure a well-formed grammatical alternation at an underlying level), and how to focus on strictly syntactic structures abstracted from (more often than not) interpretable semantic patterns. On another level, we were compelled to exclude a promising candidate judge from the previous study because he refused to even contemplate anything but unmixed Nahuatl discourse as 'acceptable' - indicating, pointedly, a clearly grammatical test sentence containing a Spanish switch as 'not my language'.

As we have speculated on previous occasions, reports of 'embaixassmenf associated with language use are difficult to interpret. For example, no direct relationship should be inferred regarding degree of language loyalty⁷, such as was suggested by one teenage informant's report of being 'embarrassed' for not having used a proper honorific form in a passing greeting and leave-taking exchange (in Nahuatl) with an elderly woman.

In our first report of school-based assessments in Spanish and Nahuatl, we simply took note of the broad equivalence in performance on literacy and academic language proficiencies between boys and girls. At the time we welcomed the results as an indirect index of reliability, allowing us to dispense with the task of trying to explain differences that were unrelated to the principal objectives of the study. Given the re-analysis of the adult language attitude survey, now indicating a divergence between both children and adults *and* girls and women, we propose for discussion a modest extension of our interpretation of the results. The historically recent introduction of public schooling in this community, and again by extension to other rural and semi-rural indigenous communities like it in Latin America, coincides with wide-ranging integrative tendencies, that have visited upon communities such as San Isidro an equally wide-ranging access to the material and cultural resources of the nation-state and national economy. This despite the uneven development of these tendencies and stubbornly persistent inequality. Restricting, for now, our discussion to the findings at hand regarding children's performance on academic tasks and their reflections on language, the across-the-board favourable comparisons between boys and girls point to an important democratic leveling effect of public schooling, another index of the generational shift alluded to in the Discussion. Again, despite the unevenness of this democratisation in the domain of public instruction (in addition to the egregiously prolonged deferment of its unfolding), both the assessment data, and significant shifts in female enrollment in the upper primary grades suggest this theme for further research.

In this paper, L_a and L_b refer to the two languages that develop concurrently in early childhood bilingualism, such that neither can be identified as LI or L2.

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