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Prospects for indigenous language bilingualism in Mexico

A reassessment

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This retrospective overview looks back twenty years to the first series of reports from the field on a study of bilingualism and literacy learning. Continuing research in the same community during this period allows today for a reassessment of the claims, proposals and overall approach of the project. The particular language contact situation, that of indigenous language (IL)-national language (NL) bilingualism, adds an important dimension to the discussion, one that has attracted much attention in recent years: the problem of language erosion/language shift in the context of widespread mastery of, and expanding literacy in, the national language. This condition of language replacement still requires further study for the purpose of gaining clarity on important theoretical questions as well as pressing practical applications related to the development of language abilities among the new generation of school-age bilinguals.

Keywords: additive bilingualism, subtractive bilingualism, Nahuatl, language preservation, language attrition, indigenous languages, women's rights

The first assessments of language and literacy

Inaugurated in 1992, the project was established in the bilingual Nahuatl-speaking community of San Isidro Buensuceso, Tlaxcala state, Mexico. Together with the neighboring town of San Miguel Canoa, Puebla, it forms the largest and still to this day most representative indigenous community of the Tlaxcala-Puebla borderlands, situated on the southern slope of the Malintzin volcano. The cross-state community is the largest and most highly concentrated population of speakers of the Nahuatl language in the region. For useful historical and socioeconomic background, Luna Ruiz (2007) and Licona Valencia et al. (2013) provide recent ethnographic information. A review of the first major report of findings (Francis, 1997) appeared in this journal (Wagner, 2001).

The initial phase of the research project focused on the productivity of shared access to knowledge and skills acquired through one language when literacy-related academic tasks are performed in the other, often referred to in the literature as “transfer.” Remarkably comparable performance across the elementary grades in Spanish and Nahuatl represented a broad confirmation of the theory of a Common Underlying Proficiency (CUP) (Cummins, 2000). Based on these results, it was argued that the sharp social disparities between IL and NL do not block or override the cognitive processes of positive transfer and access to the relevant domains of the CUP.¹ That is, access is shared between IL and NL despite the subordinate social status of the IL, discrimination directed against speakers of Nahuatl in the larger society, instruction imparted almost exclusively through the NL, and a near monopoly of uses of literacy by Spanish. The noteworthy bilingual context, described on the basis of extensive testing, was that of a strong additive bilingualism: early simultaneous bilingualism or second language learning of Spanish (or Nahuatl in some cases) with no evidence, at the time, of loss in proficiency in the first language. This maintenance of linguistic competence in the IL could be pointed to as the crucial factor that accounted for the productive “shared access” and transfer of learning resources.

Today, the local elementary school and preschool actively promote literacy learning in both languages (Nava Nava, 2014), a notable change in curriculum over 20 years ago when Nahuatl literacy was valued but not formally integrated into weekly instruction. In fact, prior to the arrival of the project, the school had been recently selected by federal authorities to serve as a pilot bilingual program. A noteworthy feature of the school day was the explicit recognition granted to the language by the newly appointed bilingual teachers. According to the report by Nava Nava, San Isidro is the last remaining locality in Tlaxcala where the Nahuatl language has not entered into a transition toward outright endangerment.

1. As Chireac et al. (2011) point out, the concept of transfer in bilingualism is complex. On the one hand, taken as cross-language influence (CLI) between L1 and L2, second language learners exploit their knowledge of L1 to process L2 input for the construction of successive stages of their interlanguage competence, even as, along the way, performance reveals error. This kind of learning strategy makes use of prior linguistic knowledge (e.g., phonology, morphology and syntax) for building closer and closer approximations to target language forms. On the other hand, transfer is taken as access to discourse-level schemas, metalinguistic awareness, conceptual knowledge and other non-linguistic competencies and skills of the Common Underlying Proficiency. These learning resources are “shared in common” between the language systems because these learning resources are largely independent of the linguistic representations of L1 and L2 (according to the, not uncontroversial, theoretical model proposed here). It was the latter understanding of transfer — “access to resources shared in common,” as opposed to CLI — that the early San Isidro project mainly attempted to describe.

Sociolinguistic factors: Looking ahead

While the great majority of residents are still speakers of the indigenous language, over the years a new relationship with Spanish has begun to evolve. What might prove to be an irreversible tendency of minority language displacement is evidenced by the emergence of a small but important minority of young bilinguals whose primary language is Spanish, who in turn rarely speak Nahuatl with their peers, most importantly with their future or current spouse. This observation by project associates, resident full-time in the community, requires further confirmation beyond corroborating interviews with key informants. Most notably, a number of language promoters and community activists have reported that their own children are not fluent speakers of Nahuatl.

Looking back, the 1997 study (data from 1992) conducted a controlled sampling of actual language use among elementary school students and showed a clear preference for Nahuatl over Spanish in the oldest age group (a significantly stronger preference than their younger schoolmates). Importantly, the younger subjects at the time generally expressed motivation to maintain their expressive abilities in the indigenous language. The few children who were L2 learners of Nahuatl openly aspired to become proficient speakers. But upon reviewing more recent data and reports from community residents, we can now say that the characterization of a robust additive bilingualism was probably overstated. Recent observation suggests that in the current child and young teenage generation, there might soon appear a minority, but not marginal, sector with only passive ability in the IL and with less incentive to further develop their (now) L2 Nahuatl abilities. The balance in language use at some time in the future might shift rapidly toward predominant use of Spanish in all domains except at home in the company of grandparents. Outside of the family, the social rule of politeness dictates that in the presence of bilinguals no longer conversationally proficient in Nahuatl, Spanish is the unmarked language because it can be almost assumed that all young people possess sufficient mastery of Spanish. Marriage will be contracted more often with either mother or father not fluent in Nahuatl, in turn dictating the customary or default language of the new family unit. Even if these indicators, based on informal monitoring of language use patterns, reflect actual distribution in the population as a whole, there is no way to predict the eventual new or end-state percentage of monolingual Spanish speakers in the coming years. Informal testimony predicts that the percentage will never attain 100% due to the relative prestige of Nahuatl in Tlaxcala and its privileged status as a heritage language of central historical importance

for national identity.² Finally, returning to the report by Nava Nava, there is no credible reason or empirical evidence to suggest that over the long term San Isidro will resist the region-wide tendency of language displacement, amply verified in official population surveys of the last fifty years. Surveys of the current state of the language throughout Central Mexico generally concur with this assessment (Olko & Sullivan, 2014). To be clear, there still remain intact countervailing tendencies that favor community-wide maintenance of Nahuatl language proficiency, most notably among a layer of resident L1 Spanish speakers who have learned Nahuatl as L2, even later in life, then to speak the language to their children.³

One of the few approximations of an index of language shift can be gleaned from the national census report for Tlaxcala state, tracing a possible trend from 1990 to 2010. However, an unfortunate loss of data, no longer collected after 1990, weakens the analysis. The 1990 data provided the detail for every town and village, localities that altogether form the municipality. From the year 2000 onward, the number of indigenous language speakers is aggregated — total number of speakers residing in the municipality as a whole. San Pablo del Monte is the municipality to which San Isidro belongs (see Figure 1). The rapidly growing urbanized center at the southern portion closest to Puebla city at one time was an important Nahuatl-speaking town in its own right (Nutini & Issacs, 1974); today speakers mainly number among the remaining elderly residents. For the municipality, even though the absolute number of IL speakers is at a twenty year, possibly all time historic, high (9,764), the percentage has declined from 19.7% (INEGI, 1990) to 14% (INEGI, 2010). Because today, as in 1990, the vast majority of these speakers are from the highland section, San Isidro, the municipality-wide census total might provide a rough estimate of recent tendencies. This projection, neverthe-

2. It is not a contradiction that speakers of an IL can be subject to discrimination, that the language they speak suffers subordinate status in relation to the status and utility of the NL, and at the same time are aware that the nation grants their language an exalted historical recognition. In the case of Mexico, Nahuatl was the language of the imperial Aztec culture, lingua franca of its empire and its literature. Another aspect of the current-day national recognition of the language can be traced back to its role of lingua franca, and medium of (ecclesiastic) higher learning and literacy, even after of fall of Tenochtitlan in 1521, promoted as language of wider communication by the New Spain colonial administration during the remaining period of the 16th Century and for many years after (Schwaller, 2012).

3. Examples of this interesting counter tendency (that of late L2 learning of Nahuatl, up to near-native and native-speaker levels) can be observed in the burgeoning presence of the language on the internet. Cases include adult learners, previously completely monolingual in Spanish, who acquire Nahuatl, attaining virtually native-speaker competence, by means of naturalistic exposure and immersion. See Note (5) below for narrative performances online that evidence this aspect of language recovery.

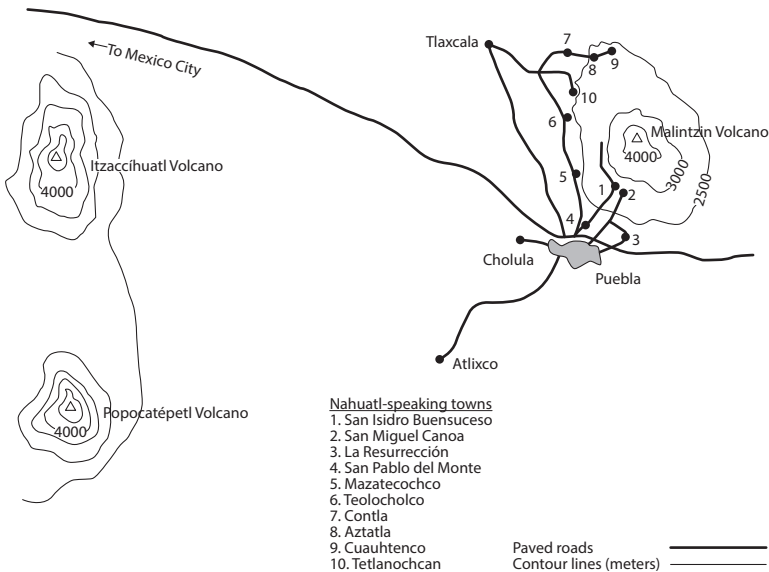


Figure 1. Nahuatl-speaking communities of the Malintzin

less, is subject to confirmation by locally gathered data in the majority Nahuatl-speaking barrios. Recent interviews with key informants on both sides of the state line uniformly coincide with the approximate census indicators. One complicating factor, impossible to disaggregate, is the influx since 2000 of immigrants (among Spanish-speaking monolinguals and indigenous bilinguals) to San Pablo from other regions of Mexico. Readers can consult the 1990 census data for each section of the municipality (INEGI, 1990), which placed the percentage of IL speakers in San Isidro, among bilinguals and monolinguals, at over 92% with a significant segment of the child population plausibly monolingual (inferring from the approximately 30% of school-aged children not enrolled in school). The tentative inference from all of the above is that the current percentage has fallen below 90%, an historic precedent to be sure.

The relationship between second language learning and first language attrition

Among the new generation of children, the normally occurring instability of bilingual competence in situations of a community-wide language shift toward the NL imposes an additional constraint. As has been widely confirmed in the neighboring towns of Tlaxcala and Puebla, the complete shift away from the local IL in this age group can occur rapidly as language input from adults becomes bilingual;

Loakes et al. (2013) report on an example from Australia where the replacing language was a non-standard vernacular form of the NL. Displacement of a minority heritage language can proceed even under favorable conditions of official government recognition, ethno-linguistic loyalty, active language planning, and significant material support for language learning (Ascencio, 2013).

Sparked by our own observations and reports from other studies, a survey of the literature on child L1 attrition, summarized in Francis (2012), shed light on the above mentioned idea of instability in bilingual development. The interesting imbalance reported by researchers was the kind that begins to emerge in childhood even from balanced bilingualism (early 2L1), or where an early L2 comes to replace a child native-speaker competence in L1 (known as subtractive bilingualism). The critical finding is that while this subtraction often advances under an unequal input of the languages to the child (the unsurprising outcome), L1 attrition can also run its course under conditions of adequate exposure and use of the L1, and even under balanced input conditions. In other words, the guaranteed outcome of the balanced or adequate bilingual socialization condition is not balanced native-speaker competence in two languages. Balanced and stable bilingual competence is a common outcome, but full competence is guaranteed only in one or the other language. Of course, we are leaving aside for now cases of obvious congenital language impairment, brain damage, etc., which can affect both languages of the bilingual child. First language attrition, as described here, may be one of the key causal factors in the near total displacement of Nahuatl in most neighboring towns and villages along the lower slopes of the Malintzin and in the valley below, where only recently, the language had a strong presence, of many hundreds of years.

Recall that the 1997 report called attention to an apparently balanced distribution of the languages, an example of additive bilingualism (as proficiency in Spanish continued to advance). Even today, casual observation suggests that the learning of Spanish is still, perhaps more often than not, associated with a preserved competence in Nahuatl. But as was suggested in the previous section, the original assessment may have been incorrect. The evaluation instruments were perhaps not sensitive enough to capture subtle shifts in proficiency as children advanced in their mastery of Spanish. If the present tentative prediction turns out to be accurate, San Isidro Buensuceso may represent the model of indigenous language replacement of a particular kind, that of a one-time highly ethnolinguistically vital indigenous language-speaking community located in proximity (commuting distance) to an urban area. Representative of this category is the indigenous community where less than 10% of residents are monolingual speakers of the NL in which a small opening begins to appear for greater use of the NL. Ability to use the NL starts to improve, leading eventually to its dominant status

among some children, dominant *cognitively* now in actual superior competence, not just in preference for use.

Further study will reveal how language shift proceeds under the current conditions of active contact with the national language (in contrast to the superficial contact of the past) and of *the breakdown of historical patterns of segregation and isolation*. Understanding the shift in preference (in language use) followed naturally by an actual imbalance in competence among child bilinguals is an important research challenge by itself. “Naturally” here refers to the process of attrition in the absence of any intervening pathology or trauma, any resulting deficit in the new “replacing language,” or any coercive prohibition or strong disincentive on using the IL in the community. How the balanced bilingual (two first languages) begins to favor one language over the other, leading to L1 attrition, even under adequate input conditions in the eroding L1, will ultimately be a question for cognitive science research approaches to bilingualism. Carefully controlled and experimental studies will eventually take the lead in resolving this puzzle. Theoretically, it is basically the same hard question for how a developing L2 can come to replace a native L1 as the new dominant language. Associated with these imbalanced and unstable language contact conditions that set the stage for L1 attrition are accelerating changes in access to public education, electronic media, mobility (contact with young people from other cultures) and wage employment, and greater opportunities, in all the mentioned realms, for women in particular.

On a related note, the early findings on borrowing and codeswitching were revealing in regard to the relationship between Nahuatl and Spanish. While speaking or writing in Spanish, any kind of Nahuatl insertion (historical loanwords aside) — i.e. switching or (nonce) borrowing — was exceedingly rare. Among the child subjects of the study, zero instances were recorded in the oral and written language samples. On the other hand, in Nahuatl discourse, if the writer or speaker is bilingual, Spanish insertion is prolific. The “purist” style always calls the attention of listeners — casual observers sometimes express admiration. Under the category of single word insertion, Spanish discourse incorporates numerous historic loanwords from Nahuatl, which form part of the Mexican Spanish lexicon of monolingual and bilingual speakers alike. But in contrast, speech or writing in Nahuatl will incorporate both historical loanwords *and* frequent nonce borrowing. In addition, intersentential alternation involving actual switching from one grammar to the other is a common feature of Nahuatl discourse, not of Spanish spoken by bilinguals (Francis, 2012). Nevertheless, no evidence came to light of the emergence of an intermediate (Media Lengua-type) contact-language variety; see Muysken (1997) for full description of Media Lengua from Ecuador. Knowledge of Nahuatl among bilinguals maintains an autonomous mental representation, as an independent language system even among speakers who borrow and code-switch

with great frequency. This separation appears to hold even under the present hypothetical conditions of language shift toward Spanish dominance, passive bilingualism and Spanish monolingualism. Overall, descriptions from recent studies of Spanish influence on Nahuatl are consistent with the project's observation on this point (Cerón Velásquez, 2013; del Castillo, 2012; Olko & Sullivan, 2014; Ramírez-Trujillo, 2010). In addition, informal notions such as "semilingualism" or "half-speech" have no relevance to the analysis of any bilingual speech sample (again, language pathology, trauma to neural networks, aside). Finally, there was no evidence in our study that frequent borrowing and switching is a causal factor that favors attrition of the IL. Over the long term it may count as an *index* of attrition under certain conditions, but not enough is known yet about how these two different aspects of bilingualism might be linked (Francis, 2012).

A proposal for future research

The theoretical framework for predicting language displacement should be credited to Baker (2001) for a set of observations made regarding factors that are associated with preservation or erosion, generally not acknowledged in the professional literature, except for references to it made by our project, for example in Francis & Navarrete Gómez (2009). The hypothesized correlates of language erosion, in fact, are both plausible and provocative: greater access to public education, literacy and second language learning of the NL, socioeconomic mobility, and the breakdown in segregation and isolation. Conversely, maintenance of the minority language of communities with distant contact with the national culture and language is associated with limited access to public education and literacy, fewer opportunities for L2 learning of the NL and stability in socioeconomic status, among other factors. Bondarenko (2010) discussed the factor of greater mobility in pointing to the related trend of more frequent intermarriage (husband and wife from different indigenous communities who share the same L2, Portuguese in this case).

Partly with these relations in mind, beginning in the last decade, the project began to focus attention on the changing role of women in language socialization as it affects acquisition and maintenance of the indigenous language. The rapidly growing participation of girls in the higher grades beyond elementary school was the most visible evidence to take into account. These changes have been closely associated with incremental trends favoring *the integration of girls and women* into the institutions of the community and their insertion into new spheres of social life and economic activity outside of the home. The same gradual tendency, difficult to notice from one year to the next, appears to have begun to tip the balance toward new cultural expectations in many of the rural areas of Mexico in contact

with the urban centers. In a compelling report from the field, Chanona Pérez (2014) outlines the transformative impact of reading and writing in school on the life horizon of indigenous girls and young women (Lacandon region of Chiapas), today in their majority bilingual speakers of Spanish and literate.

Not counting among the original objects of study, this variable was called to our attention by observations made by Hill (2000) in her review of the first set of the project's findings of 1997: early signs of increased activity by women in the public square. Thus, a working hypothesis emerged from our first engagement with the generation of adult women, typically married with children of their own (by coincidence, one young mother is among the original 6th grade subjects of the 1992 Nahuatl-Spanish literacy experiments): that the expanding rights, opportunities and responsibilities of women, apparent to anyone with day to day contact with the community over the last 20 years, appear as associated with indices of language shift. Coincidentally, the women's group with which the project formed a partnership consists mainly of adult literacy learners who are also L2 learners of Spanish, led by a community literacy volunteer who herself was studying at the time to complete her high school equivalency.

But most interestingly of all is the following possibility that is now being proposed as a line of investigation for future work on this question: that the link between greater opportunities for women and language shift might be more than one of simple correlation. In effect, a dilemma presents itself, borne of converging economic and historical tendencies, of over-reaching societal proportion, far beyond the boundaries of the municipality of San Pablo del Monte. In many ways these factors flow from driving objective forces that far overshadow perceptions and opinions of individuals about how they might prefer events to unfold. Only a few generations ago, women were the most able and reliable guarantors of indigenous language transmission to the next generation. Entrusted exclusively to childcare at home, they were the most competent speakers of Nahuatl, in large part because it was almost always either their dominant language or the only language they spoke. Today, this reserve of highly fluent Nahuatl-dominant/monolingual speakers has been reduced, for the obvious reasons already outlined. Spanish might be the home language simply because this is now no longer impossible; and recall that because of the breakdown in segregation and isolation, the use of both languages, or Spanish only, may be preferred or more convenient, even necessary. Modern life (sometimes called modernity) has changed the horizon of women in towns like San Isidro Buensuceso: the average 21 year old mother is more likely to be literate and speak Spanish, more likely to own or manage a small business in town or even earn a wage. Today, she is more likely to wear shoes than 20 years ago, have fewer children, who are more likely to survive thanks to the significant expansion of public health services in the communities of this region. The hypothesis to be

empirically tested is that the above-mentioned historical and societal forces impacting schooling, literacy and L2 learning of Spanish for women, such as has been recently in evidence, are among the important causal factors in the emergence of subtractive bilingualism in towns like San Isidro. For their brothers and husbands as well, these forces are among the causal factors. But for men they have been so for a much longer time, and probably not with the same proximal impact on the advance of subtractive bilingualism in these communities, both then and now (according to the hypothesis, still to be tested).

The first incorrect reading of this proposal for further research would be that the greater freedoms and opportunities, and the new skills and knowledge, that women have acquired are the most important causal factors in language shift; that woman's new participation in community life can in some way be held responsible for the growing percentage of monolingual or Spanish-dominant speakers among their children. In the first place, if the hypothesis were to be shown as correct, these changes are only one part of a broader democratization of Mexican society, economic growth, gradual transformation in expectations, engagement, education and connectivity with the national culture. The second misreading of the hypothesis would be that these progressive social and cultural developments (stipulating for arguments sake that they are in fact progressive) are the only or the primary driving factors in IL displacement. Recall that ILs for over 500 years have occupied, and still do occupy, a subordinate status to Spanish, with all that this implies. I have chosen the "progressive social change" variable among the others because it is the one that has appeared most visibly in recent years (such perception, of course, might be for subjective reasons). The other reason is that the changes are broadly comprehensive, affecting acquisitions on which, we can be certain, the clock will not be turned back; and if we go down the list, few readers of this journal would think anyone should want to try to turn it back. The question, then, is to consider which conceptions of language preservation might be compatible with this constraint, case-by-case. What approach to the problem of language loss could be shown to be viable and practical within this framework?

In a discussion of language revitalization in the department of El Cauca, Colombia, Díaz Montenegro (2012) indirectly alludes to the same dilemma of social integration and indigenous language displacement. Why, conceivably, might the expansion of bilingual education together with greater institutional recognition of the indigenous culture by the school not only fail to show tangible progress in preservation, but, depending on circumstances, actually accelerate shift to the NL over the long term? Hypothetically, the most counterintuitive relation might even hold up in some cases: the more well designed and effective the indigenous language/first language instruction, the greater the eventual effect of displacement. The previously strict exclusionary Spanish-only policy, in its effect,

excluded many monolingual IL-speaking children, in part by maintaining them in an at-risk condition, at-risk of desertion, result of early academic failure. The current more *inclusionary* model, with the provision of a learning environment that includes the language children understand, not just the L2 that they need to learn, should tend to keep greater numbers of indigenous children in school; and school will help them learn Spanish. The linguistically inclusionary policy would also attract a greater portion of the non-attending child population that previously never came to school. This is exactly the result that we were able to verify over the period of 20 years in San Isidro: the significant expansion of school enrollment in the new official bilingual school, La Escuela Xicohténcatl and in other educational institutions. As we summarized in Francis & Navarrette Gómez (2009), the difference between 1992 and just fifteen years later was nothing less than dramatic. At the Escuela Xicohténcatl, 1992 evidenced a desertion rate for girls: the first grade equal in numbers of boys and girls, but graduating 6th graders were predominantly boys. Only 15 years later elementary school completion rates were almost equal. In 1992, very few girls left town to study *secundaria* and *preparatoria* (high school). Fifteen years later the new Centro Escolar (serving 7th–12th grades for the first time) in neighboring San Miguel is approximately 25% female. Since the opening of the Centro Escolar, San Isidro's first high school, a CECyTE,⁴ was founded in 2008, with a similar composition.

In light of the perspective outlined above, how should the tasks and objectives of language preservation be better understood or even reconsidered? In the face of language replacement, an objective assessment of priorities is posed as necessary for the effective and efficient use of resources. In the first place, the conclusions to be drawn are different from those for languages that are not undergoing steady erosion. These are the cases for which intergenerational transmission continues to reproduce new generations of native speakers. At the same time, no suggestion is implied in the present proposal that speech communities for which erosion is irreversible should abandon support for language preservation, topic of the final section, concluding reflection of this retrospective.

Prospects and opportunities for communities at different stages of language displacement

Language conservation programs for L2 learners and native speakers

Depending on the IL community in question, often, usually, or always, school-age learners speak the NL as their L1, even children from bilingual families where

4. Colegio de Estudios Científicos y Tecnológicos (CECyTE) — technical high school.

both languages participated in socialization and everyday home language use. These even include cases when the IL might have actually been L1. One proposal for this scenario is the application of teaching methods for the IL commensurate with its status of a kind of second language that it truly has become in these cases. Educators then can take up the best practices from the field of *second language* learning and teaching. This curricular model would imply the systematic implementation of direct instruction, including the integration of content and grammar learning, form-focused instruction and active promotion of metalinguistic skills, as exclusively “meaning-focused,” so-called naturalistic “comprehensible-input” and “zero grammar” approaches would result, on average, in less than adequate mastery (Ellis, 2005). Crucially, mastery would be inadequate not only in the domain of academic literacy-related language proficiency, but also (according to the hypothesis following Ellis) in the domain of basic linguistic competence in the IL, if it is no longer the primary L1. According to the proposal in this section, the example reported in Note (3) of an apparent counter-example should still be taken as exceptional unless evidence can be presented of a verifiable shift back toward IL preservation (i.e., evidence of a recovery), reversing the historical tendency of IL replacement of the last fifty years. See the example of proposals for Cherokee immersion (Hirata-Edds, 2011; Peter & Hirata-Edds, 2009) that consider the approach outlined here — teaching IL as L2.

A large number of endangered languages fall into the category of the IL spoken natively only, or almost only, by a minority of the adult population. Again, for communities where the indigenous language faces such a situation of advanced displacement by the NL, experimental immersion programs need not be abandoned. To the contrary, they deserve further study by independent researchers to better understand the viability of their learning objectives, the efficacy of instructional methods, and the learning processes that contribute to developing students’ language and academic abilities. There does not yet exist a broad consensus from past experience, based on systematic evaluation of student learning outcomes, to guide the implementation of such program models. Then, discussion that takes as its point of departure objective assessment of ultimate attainment of learning objectives will inform final school/community decision. The interesting example of the use of the traditional Cherokee syllabary (as opposed to the Roman alphabet orthography) for initial, K-5, reading and writing instruction is one, among others, that will merit future scrutiny. Independently of whether or not one agrees with their approach to literacy teaching, the lead investigators in this instance are to be commended for their frank and unadorned report of verifiable assessment data (Hirata-Edds, 2011), notable departure from descriptions of other school programs. To be sure, the content-based language learning model (immersion)

has become the programmatic choice for best practice teaching of indigenous languages (May, 2013).

In remote IL communities not in daily contact with a NL population center (not the example that is the primary focus of this discussion), the language learning needs of students are not the same as just outlined, in two important ways: (1) Students will be high-level native speakers of the IL and deserve challenging academic instruction in IL-medium classes, deliberately tailored to L1 speakers of the language. (2) Many will be L2 learners of the NL, requiring methods and materials specially geared for mastery of the NL. The L2 immersion approach in this instance also represents best practice.

The training of future IL investigators and analysts, who are also speakers of the language, begins early in elementary school and ends in the university. Readers are referred to the recent report by Olko & Sullivan (2014) on the program of the Instituto de Docencia e Investigación Etnológica de Zacatecas that prioritizes the preparation of native speaker researchers.

Social media

A new initiative presented itself in 2012 in response to suggestions by volunteers and project associates mindful of the gradual displacement of social functions tied to the oral tradition. As was plain as day, this displacement has been accompanied by the current virtually universal access to electronic media, television in particular. The overriding consideration was that the narrative and poetic discourses, along with the related genres of ceremonial oratory, riddles, proverbs, oral history and religious plays, normally performed in Nahuatl, have been and still are the most complete and well formed samples of the language itself (Francis & Navarrete Gómez, 2014). Together, they form a representative corpus of the modern day literary styles of the Nahuatl-speaking communities, the cultural heritage of the verbal art tradition received from past generations. Elements of this tradition pre-date the Spanish Conquest, as is the case of the formal higher-order discourse of all Latin American IL speech communities; one prominent example is the device of parallelism in all its varied forms (Montes de Vega Oca, 2008).

Utilizing the complementary platforms of YouTube and Facebook, a video channel featuring a selection of this material was launched. The on-line versions serve not only for archiving but for broad distribution through these popular interactive media.⁵ The experience with digitization and community participation in

5. Needless to say, it is to the younger generation of speakers that the internet programs appeal most. Parenthetically, this age group, from the same region of Tlaxcala where the *TV Malintzin* project is based, was the focus of Messing's (2009) study on ambivalent attitudes

the social media networks has, for us, dissolved once and for all the claim of cross-purpose or contradiction, if there ever was a substantive claim in this criticism, between archival work and language teaching/revitalization. At the same time, the project recognizes that this view is still controversial, pending question that must be left for another occasion.

Documentation, from its origins utilizing the first technology of the word centuries ago, continues to play an essential role in the preservation of indigenous languages and in particular the recording and dissemination of the verbal art forms closely associated with them (Mason, 2010). One of the uniquely productive features of the modern-day archive, as described by Mason, is the possibility of coding the poetic functions of the vast body of the popular aesthetic genres, recovering them for study from the practice of poetics in social life. Today, truly interactive access to (not to mention opportunity to actively participate in the development of) the archived materials by native speakers has never been as complete. Similar arguments can be made for the valuable contribution of dictionary compilation in on-line formats (Ogilvie, 2011). The lexicon of the Nahuatl language, modern and “classical,” Spanish-influenced and “purist,” remains one of the topics of lively discussion and debate among bilingual speakers.

The video channel of the *TV Malintzin* project (to date 24 presentations, with over 10,000 downloads) drew inspiration from this kind of documentation work to then extend the relevant methods to the social media where, today, young bilinguals of the Tlaxcalan highland communities congregate. A complementary printed anthology, distributed locally since 2009, is now in its second edition (Navarrete Gómez, 2015). With additional material projected with the goal of compiling a comprehensive digital anthology, as new informants come forward, the hope is that it will also serve as a data exchange repository for scientific research. This literature is the patrimony of the Nahuatl-speaking people and the patrimony of humanity (the view of the project, which we also recognize is not universally accepted). With this idea in mind, authors and volunteers might discuss possible future submission to the Archive of the Indigenous Languages of Latin America (Kung & Sherzer, 2013). In line with this idea, and as described by

toward knowledge of Nahuatl and bilingualism. As Messing reports, many of these teenagers and young adults are no longer natively competent speakers of the language. But their adequate receptive ability makes them ideal candidates for using on-line resources for recovery or L2 learning of *their* indigenous language. Interested readers can examine the materials at: <https://www.youtube.com/user/TVMalintzin> and <https://www.facebook.com/pages/TV-Malintzin/609100105778209> The project offers the design and format of these powerful but low-cost on-line tools for replication by other IL communities. The author is available for start-up consultation free of charge.

numerous field workers, the transfer of technology and training for community research associates is an indispensable component of successful documentation.⁶

Second language learning as preservation of an inheritance

The remaining speakers of an indigenous language undergoing advanced erosion (along with community members who are passive bilinguals and monolingual speakers of another language that displaced the IL) may no longer be able to find a pathway to reestablishing it as a language acquired natively by children. A report from the Atlantic Coast of Nicaragua by Pivot (2013) describes this scenario, that of the “post-vernacular language.” As the language is still an artifact of symbolic value and as an inheritance of its people, L2 study and documentation contributes to legitimizing the community as a distinct historical entity. This example from the Rama people would be representative of the indigenous bilingual speech community where among individuals with any knowledge of the IL, all are, or soon will be, L2 learners of the language. Thus, the preservation of this linguistic heritage, even in a form that serves no typical communicative function, would serve as an emblem of coherence of the community, evidence of an independent identity and an autonomous culture. Beyond this goal, as in all the cases mentioned above, is the historical and scientific value of archived language material, a topic that also needs to be deferred for another time.

The above is a short and incomplete list of prospects and opportunities. But it offers another perspective for researchers of endangered languages where the possibility exists for implementing a program of preservation. At the same time, research on language attrition, as an object of study by itself, presents scientists with a valuable opportunity to better understand the cycles of development and change in language competence, an opportunity that bilingualism uniquely makes possible.

6. Viñas-de-Puig & Benedicto (2012) outline an approach to community-engaged research based on their project in Nicaragua, participatory action research (PAR), that parallels the *TV Malintzin* model. In the first place, volunteers who record their performance maintain ownership of the material, including the right to withdraw it at any time from the on-line channel/archive. In PAR, the formation of human resources is the centerpiece of fieldwork and research with a long-term perspective. With this same perspective, in the Mexican project, training for project associates includes: computing, digitalization and internet skills, applications of audio and video technology, transcription and editing (in particular, texts in the indigenous language), working with neighbors to identify and preserve by recording exemplars of the oral tradition, negotiating performances by volunteers and following up with updates and consultation and local publishing. The revolution in social media access of recent years, a true democratization in this realm, has put simplicity of website design and management, at virtually no cost, into the hands of remote communities whose connectivity 20 years ago consisted in a single public telephone (“la caseta”) at the corner store on the main plaza of the town.

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Resumen

Perspectivas para el bilingüismo en las lenguas indígenas de México: Una reevaluación

La siguiente retrospectiva retoma la experiencia de veinte años, a partir de la primera serie de informes, en un estudio sobre el bilingüismo y la alfabetización. La investigación subsecuente en la misma comunidad durante este período nos permita hoy reevaluar las hipótesis, las propuestas y el acercamiento metodológico del proyecto. La situación de contacto lingüístico específica, de un bilingüismo lengua indígena-lengua nacional, presenta una dimensión importante para la presente reflexión, una que ha llamado mucha la atención en años recientes: el problema del desplazamiento y la erosión de una lengua minoritaria en el contexto de un amplio dominio de, y el avance de la alfabetización en, la lengua nacional. Dicha condición del desplazamiento (“reemplazo”) todavía requiere más estudio con el propósito de aclarar cuestiones teóricas centrales, y también para avanzar en la aplicación de modelos educativos para el desarrollo de las habilidades lingüísticas entre la nueva generación de bilingües de edad escolar.

Resumo

Perspektivoj por indiĝena lingva dulingvismo en Meksiko: Nova pritakso

Tiu ĉi retrospektiva superrigardo reiras dudek jarojn al la unua serio de surlokaj raportoj pri studo de dulingvismo kaj alfabetiga lernado. Daŭra esplorado en la sama komunumo tra tiu periodo ebligas hodiaŭan retakson de la pretendoj, proponoj, kaj ĝenerala aliro al la projekto. La aparta lingvokontakta situacio, nome dulingvismo indiĝena lingvo (IL) / nacia lingvo (NL), aldonas gravan dimension al la diskuto — dimension kiu allogis multan atenton en lastaj jaroj: la problemo lingva erodiĝo / lingva ŝoviĝo en kunteksto de larĝe disvastigita mastrado kaj vastiĝanta skribkapablo de la nacia lingvo. Tiu stato de lingva anstataŭigo ankoraŭ postulas plian studadon cele al klarigo de gravaj teoriaj demandoj samkiel premaj praktikaj aplikoj rilate la evoluigon de lingvokapabloj inter la nova generacio de dulinguloj de lerneja aĝo.

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