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Vowel Disharmony, Mayan Hieroglyphic Writing, and Indigenous Education: cultural catalysts and responsible ethnographic research

Gerardo Aldana

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During the mid-16th century, Maya scribes and Spanish priests struggled to teach and learn from one another both in culture and language. Spanish friars, for instance, claimed to have learned to read and write in the Maya hieroglyphic script (Ciudad Real 1873)—and one even to re-interpret indigenous prophecies according to Christian interests (Jones 1998). Indigenous elites, meanwhile, were being recruited for European educations within the new churches of the Yucatan Peninsula. Mastering Latin, they soon became teachers of Spanish children.

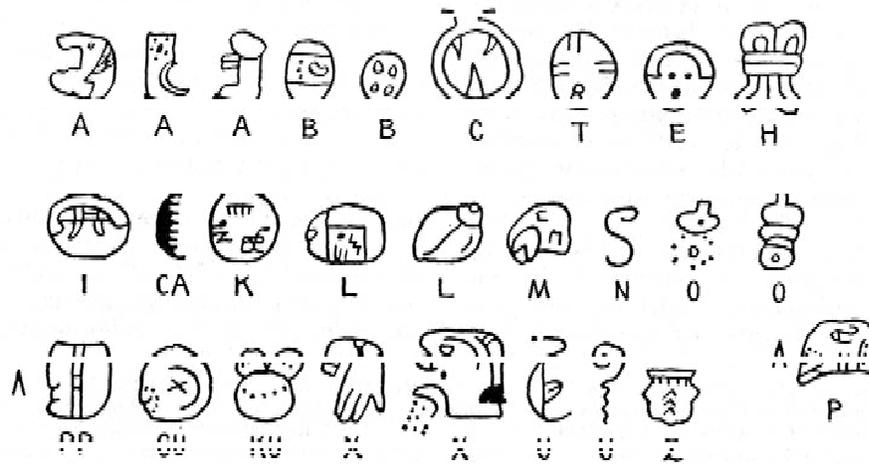
This melange of languages was not short-lived. Historian Nancy Farriss recounts the local legend that in Mérida, Yucatan, a creole physician of social prominence, learned Spanish as his *third* language. “Having spoken only Maya as a boy, he was sent to France for his education and only when he returned to Yucatan after receiving his medical degree did he learn Spanish” (1984:12).

Unfortunately extremely few of the colonial period exchanges concerning language actually made it into the official histories or chronicles of the time. Those that did, however, often give more information implicitly than can be had from explicit explanation. In his *Relaciones de las cosas de Yucatan*, for example, Diego de Landa attempted to describe the hieroglyphic writing system that he struggled to learn from Gaspar Xiu and Nachi Kokom—two local consultants of substantial social prominence. Although Landa’s assumptions about writing systems prevented his getting very far in comprehending it, they provide us with interesting clues into the functioning of the writing system. (See Figure 1)

The point to this introduction, though, is that during the 16th century, before colonialism had matured in Yucatan, Maya and Spanish thinkers were grappling with questions of language together—albeit each for their own purposes and with differing levels of success. And my intent in pointing this out is not to romanticize the past, but (at least temporarily) to de-center our historical understandings of the Maya hieroglyphic script away from a comfortable perspective that sees it as something cataclysmically lost, and now needing external recovery. Such a move then anticipates my goal for this paper, which is to problematize the relationship between cultural “preservation” and academic research with an eye toward exploring new possibilities. To do so, this paper first sketches some of the current pressing epigraphic concerns within the decipherment project in order to point out the role of indigenous Mayan speakers in it. It then goes on to discuss an alternative model that simultaneously engages academic outreach and potential epigraphic research. In doing so, I take up the issue of accountability in academic scholarship, and offer one example, which may hold the seeds for fruitful alternative forms of investigation into indigenous languages *with* indigenous communities.

Linguistics and Maya Hieroglyphic Writing

The alphabet Landa attempted to construct contained several clues as to how the hieroglyphic script works. (See Figure 1) The most curious of these simultaneously demonstrates the frustration Landa must have felt in being unable to get mentally beyond his own biases about how writing works. The text of *Relaciones* gives a description of the writing of the word for noose in Yucatec Mayan, *le*, through which Landa hopes to explain the Maya "alphabet" (Schele and Mathews 1991). Knowing now some of what Gaspar Xiu and Nachi Kokom did then, we may read the hieroglyphic text transcribed by Landa phonetically: "ele e lé" (e-le e le). In Spanish, this is easily recognizable as a spelling bee response: *ele* is the Spanish pronunciation of the letter 'l' and *e* is 'e'. So the scribe here is writing exactly what Landa requested: 'l-e, le', only the scribe has written it out in its entirety phonetically.



Le means a noose and to hunt with it; in order to write it with their characters, we having made them understand that there are two letters, they wrote it with three, putting as an aspiration of the *l*, the vowel, *e*, which it has before it; and in this way they are not mistaken, even though they should be employed⁸⁹² in their skilful device, if they

wish to. For example 
e l e lé

Figure 1: Landa's "alphabet" of the hieroglyphic writing system along with his interpretation of how it functioned (1941).

One of the important clues here is the recognition that individual Maya

hieroglyphs (glyphs) represent either vowels or consonant-vowel pairs, but never consonants alone. This clue is suggested within Landa's "alphabet" since a number of the "letters" in his chart comprise consonant-vowel (CV) pairs (e.g. *ca*, *cu*, and *ku*).

In the 1950s, Yuri Knorosov used Landa's writings (in part) to propose a reading of a pre-Contact manuscript (dated to *ca.* 13th century A.D.) known as the Dresden Codex. Ignoring the very interesting historical process that got him there in the sake of brevity, Knorosov's work provided the ensuing decipherment with three working principles: *i*) script elements were V or CV pairs; *ii*) terminal script vowels could be unvocalized, e.g. $k'u + k'u \rightarrow k'uk'(u) = k'uk'$; $u + tza + ka + wa \rightarrow u\ tzakaw(a) = u\ tzakaw$; *iii*) vowel synharmony. In the latter principle, Knorosov postulated that unvocalized vowels would always maintain agreement with the penultimate vowel, e.g. *tzu-l(u)*, *ku-ch(u)*, etc.

Armed with these principles and a number of Mayan language dictionaries, epigraphers of the 1970s, 80s, and early 90s took a puzzle-solving approach to furthering the decipherment. Having securely identified one or two glyphic elements within a glyph block, (see Figure 2) the possible number of words that could be represented were limited. Logically, then, it became a matter of matching up possibilities from the dictionaries with the rest of the sentence to see if some sense could be made. Eventually, a grammatical layer (i.e. that Mayan languages follow a VOS structure) was added, which provided both further constraints and potential insights. While a substantial number of interesting and provocative readings resulted from this approach, most did not

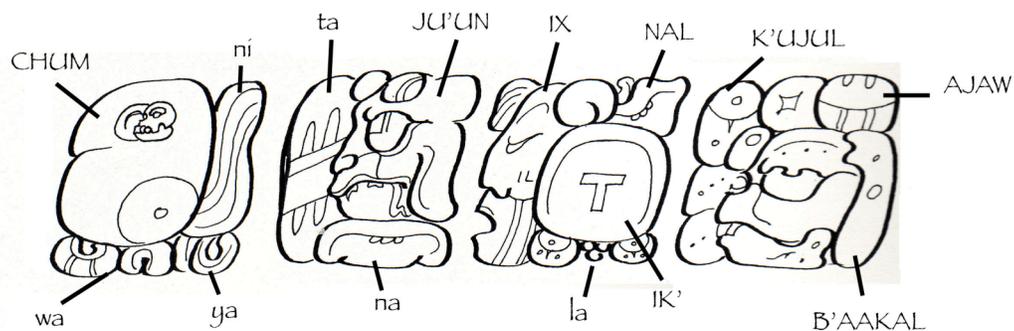


Figure 2: CHUM, wa, ni, and ya are glyphic elements within the glyph block. The entire passage records a woman's accession to the throne of Palenque.

prove very stable.ⁱ

Perhaps more importantly for the discussion at hand, stable readings turned up various counter-examples to Knorosov's third principle. Epigraphers too often confronted situations of vowel *disharmony*: *ch'a-jo-ma*, *a-ku*, *chu-ka*, occurring not only with nouns, but also in the conjugation of verbs: *ju-li-ya*, *CHUM-wa-ni-ya*, etc.

One hypothesis with great currency these days is that harmony and disharmony actually provide yet another level of useful information. In spoken Mayan languages, there is a substantial amount of vowel complexity that is sufficiently represented across variants to suggest that it should have been extant during Classic times. Vowels may be glottalized, long, and short, and there is no evidence that these are accounted for by distinct glyphs; so a word attested as baak (‘bone’) in colonial records (long ‘a’) uses ‘ba’, but so do titles like bakab, attested as having short vowels.

The clever way through this proposed by Stephen Houston, John Robertson, and David Stuart, is that certain conventions within the hieroglyphic writing system amount to a “deferred/deflected spelling” (2000). Specifically, the agreement, or lack thereof, between final and penultimate vowels may alert the reader to vowel complexity.

	<i>Glyphic Transcription</i>	<i>Vowel Activity</i>	<i>Attested Mayan Word</i>
Synharmonic	Tzu-lu	Tzul(u)	Tzul
	K’u-k’u	K’uk’(u)	K’uk’
Disharmonic	Ba-ki	Ba:k	Baak
	Cha-ki	Cha:k	Chaak

As demonstrated in the table above, the hypothesis works nicely in some very provocative cases. It does not always accurately capture the data, though, and it is the “not always” that makes things interesting and that currently has the epigraphy community divided (Wald 2000).

Naturally, there is also more to this intellectual division than just evidence and rhetorical persuasiveness—politics and scholarly reputations are very much at stake in this problem (*cf.* Latour 1987). But it may also be that the problem itself is intractable. At the 2005 UT Meetings, for example, John Justeson made two important comments that are as yet unaccounted for. In the first, he noted that the vast majority of disharmonic examples in the script are restricted to ‘a’ and ‘u’ vowel combinations, e.g. –Ca-Cu, or –Cu-Ca; statistically, he suggested, we may not have enough variation to test *how* explicit any type of disharmony might be. Secondly, he brought up the issue of “underspelling.” It may be that spelling conventions were used only as flags, with the specifics determined either by memorized heuristics or by context.

A third important factor is that the dataset that we have available is really quite restricted in scope. The vast majority of the inscriptions are written in the third person. For verbal endings, this means that all of the interesting complexities that might shed light on this problem are simply not represented. (See Table)

<i>Intransitive verb present tense suffixes in Classic Mayan</i>	
-en	-on
-at	-e’ex
-∅	-o’ob

Indigeneity and Legitimate Academic Research

In this paper, I have nothing technical to offer the decipherment process. However, it has occurred to me that in this situation, we confront a real opportunity to address an Indigenous Studies/Chican@ Studies critique of Anthropology and “colonial” scholarship in general. Broadly considered, I am here addressing the question of how we are to approach the interpretation of a foreign culture when that interpretation is both under-constrained and characterized by a foreignness built on political and economic inequality. The default in academia today is to appeal in some way, shape, or form to “objectivity,” i.e. that there is a right answer out there awaiting our (or someone’s) “discovery” of it. Moreover any contributions made under such a rubric are accepted as constituting steps in that direction, whether or not contributing scholars actually believe objectivity to be realizable.

But as Dipesh Chakrabarty has elucidated so well, objectivity itself has served too often as a mask for the interests of the party with the upper hand (1992). That is, the construction of an objective perspective has allowed for the external characterizations of cultures that in turn have contributed in real terms to the ways in which those characterized cultures have been interacted with. While Chakrabarty focuses on the case of colonial and postcolonial India, Linda Tuhiwai Smith has presented a formidable corroboration from a Maori perspective (1999). She takes it further, though, in examining how the various implications turn back on scholars who are themselves indigenous and interested in studying their own cultures (cf. Emma Perez 1999). The upshot is not intended as a condemnation of certain types of scholarship, but as a recognition that objectivity may function as an aesthetic guiding the work of one community. As an aesthetic, though, it is not anchored to any external reality that is other than socially constructed to be superior to any other aesthetic.

It is my goal to demonstrate that this question has particular saliency in the decipherment of Maya hieroglyphic writing.

As noted above, from the late 1970s through the early 1990s, epigraphers took Knorosov’s insights and transformed them into what is now considered the flourishing of the Maya hieroglyphic decipherment. In turn, the popular culture’s fascination with all things *ancient* Maya, spawned a number of Maya hieroglyphic workshops operating across the country and offered at different levels of expertise. Linda Schele was a champion of hieroglyphic workshops and initiated the now prestigious Texas Meetings—the venue from which some twenty years later now, Justeson’s comments above were taken. Moreover, Schele and Nikolai Grube often traveled throughout Maya lands giving smaller workshops to Mayan speakers.

In these “traditional” workshops, the focus has been and still is quite naturally on the historic hieroglyphic script itself and the ability to read it. Happily, progress can be made in a relatively short time-span since the texts are extremely formulaic, repetitive in content, and singular in voice. (See Figure 3)

In many ways, the ensuing relationship between cultural revival (for that is what the decipherment process has contributed to) and academic research is that the research—the “legitimate” work on the decipherment—is going on in the Ivory Tower across the

border(s), and the nicely packaged results come back to Maya communities—generally without the community’s ability to contest or engage them. This is not to say that unresolved issues are ignored in these workshops, only that native Mayan language speakers are not afforded the opportunity to make significant contributions toward resolution (again, *cf.* Latour 1987). To be “heard”, they must find a way to attend the research workshops occurring in Europe or the States and voice their opinions there. Otherwise, they are left to work with the latest as it arrives from across the border.

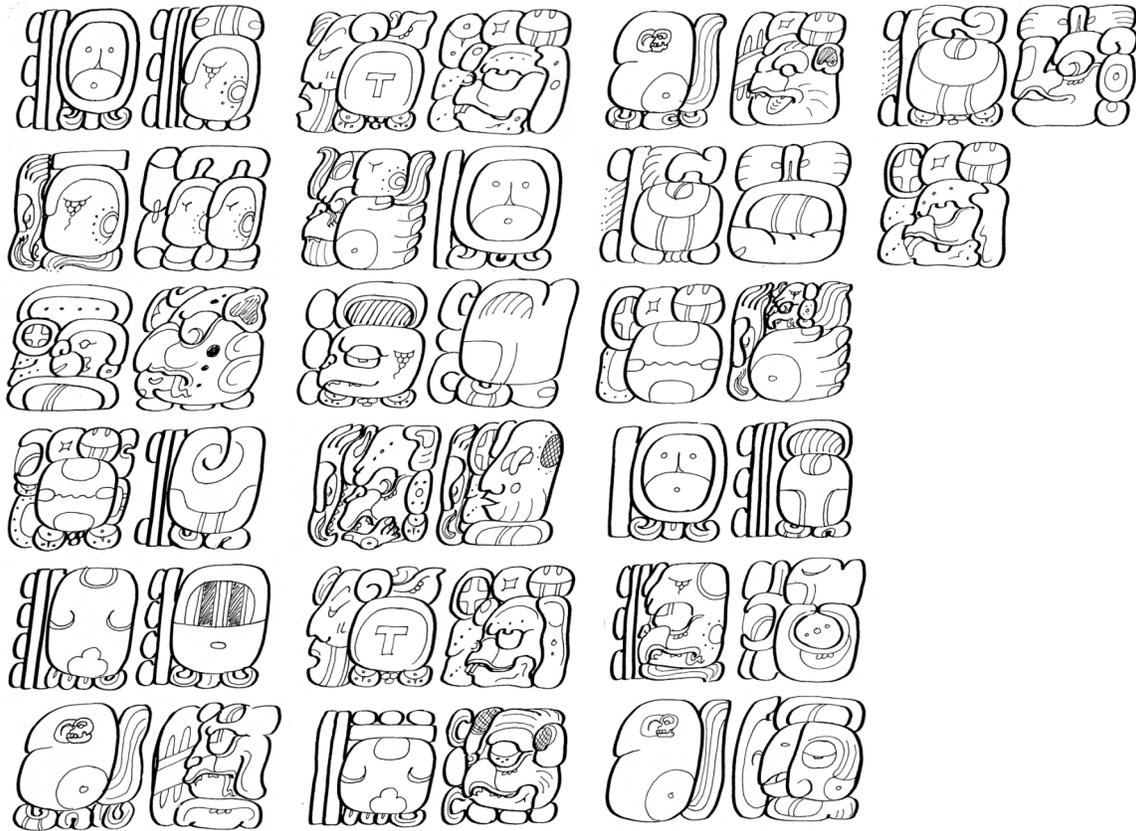


Figure 3: Passage from the East Tablet in the Temple of Inscriptions at Palenque. Note the redundancy in glyphs as three accessions are recorded.

Perhaps as important, when differences in *interpretation* arise, indigenous communities often go the route of ascribing that difference to their own cultural distance from their ancestors, rather than challenging the interpretation itself.

Let me admit that this may sound a bit cynical or unappreciative on my part... after all, the aforementioned scholars and many likely them, *are* engaging in outreach—they are working to give something back to the community—but the entire scenario resonates far too much with the colonial history between these two cultures to get me

beyond appearances. Of course I may be accused of being overly-sensitive to such appearances as my own training has been in Anthropology, History, and Ethnic Studies; but as much of my position on the matter has come from working with contemporary indigenous communities in the U.S., Mexico, and Central America over the last several years.

Exploring Alternative Forms

The work that inspired the basis of this paper finds its origins in a workshop I had been asked to give on Maya hieroglyphic mathematics for teachers at a developing autonomous primary and secondary school in Chiapas. (See Figure 4) What garnered the most interest in that multi-day math and calendric workshop, was an interest in the glyphs—and not so much in reading the ancient texts; more in *adapting* them to write contemporary Tzotzil Maya. The idea originated in a very simple exercise I had developed for outreach programs to Latin@ youth in the U.S. In these, students use the Internet to investigate the original meanings of their first names. Students then translate



Figure 4: Classroom in an autonomous primary and secondary school in Chiapas.

these meanings into Spanish, which then can be translated (with help) into Yucatec Mayan. Once a Yucatec word or phrase is adopted, it can readily be constructed in hieroglyphic text.ⁱⁱ During the workshop in Chiapas, we extended this activity to incorporate Tzotzil sentences and phrases. At one point, we began discussing astronomy, upon which we found that the Yucatec word for Venus (Chak Ek' or 'Red/Great Star') recorded in the Dresden Codex meant something much less pleasant in Tzotzil.

Almost immediately in this new application of Maya hieroglyphic writing, we confronted many of the same issues that are currently of critical concern to the academic epigraphic community. Specifically, the recording of spoken, casual language began to present some really interesting complications, especially with regard to the conjugation of verbs in other than the third person singular. Unfortunately, the week-long workshop ended before we could go any further with these complications. Perhaps more unfortunate has been that other factors have prevented this workshop from continuing.

As the work in Chiapas waned, though, a new opportunity arose in Yucatan with a Maya elder whom I met while I was just beginning my doctoral research some 10 years ago. At that point, I did not expect my time spent with him to contribute directly to the dissertation (which was on astronomy recorded in hieroglyphic texts); rather, what I learned from him (and what I continue learning from him) is what it means to be a Maya intellectual today.



Figure 5: Contemporary ceramic vessel produced in imitation of the Classic style, created for the tourist industry.

Pedro Pablo Chuc Pech was educated as a young man by the Catholic Church on his road to becoming a priest. Very late in the process, he had a change of heart and turned to secular work. Chuc took this otherwise powerful education to work in the schools, became a teacher, and is now a recognized expert in bilingual (Yucatec/Spanish) education. We have kept in touch since our first meeting, but very informally, and mostly just when I had been able to steer a different research trip through a detour in northeastern Yucatan.

Two years ago, though, I mentioned the workshop in Chiapas to Chuc, who took to it immediately. With some luck and a bit of funding from UC MEXUS, we were able to set up a hieroglyphic workshop in Yucatan specifically for the pueblo—not highly educated people from Mérida—but local folk who would be interested out of curiosity, but also because it might be useful in producing crafts for the tourist industry. Actually, the latter became an important factor in generating attendance at the first workshop in 2005. Currently, that is, *artesanía* is produced by indigenous people in Yucatan who do not have an education in the meanings of what they are painting and/or writing. Local labor is being utilized in the creation of mere simulacra, even if it is producing some provocative results. (See Figure 5) In any case, it was not hard for Chuc to convince members of his community that an ability to incorporate meaningful text into otherwise purely decorative pottery could provide a competitive edge in the local tourist industry (e-mail correspondence 2005.7.22).

Besides the mixed intentions of the participants, a second difference between the Chiapas case and that of the Yucatec workshop had to do with pedagogy. Namely, in the

Chiapas case, I was not overly concerned with questions of pedagogy since they had really been resolved for me by the community itself; there, the teachers basically instructed me as to what their interests were and what I might be able to provide. In Yucatan, though, I was explicitly confronted with the question of how to formulate a workshop for local Maya community members—one that took into account the various issues mentioned above including the complications in reading hieroglyphic texts.

So the approach that I/we came up with was to focus on the basic principles of the writing system, i.e. that it is logographic and phonetic, and that it is ideally suited to capture Mayan languages. Once we went through the calendar and some basic nouns in that first workshop, we moved right into the writing of simple sentences in contemporary Yucatec Mayan. This led right away to some of the central problems discussed above: disharmony and verb conjugations. And herein lay the difference with “traditional” workshops: we then collectively explored solutions, accepting some proposals and eventually rejecting others, with the goal of creating a writing system that “makes sense” to them.

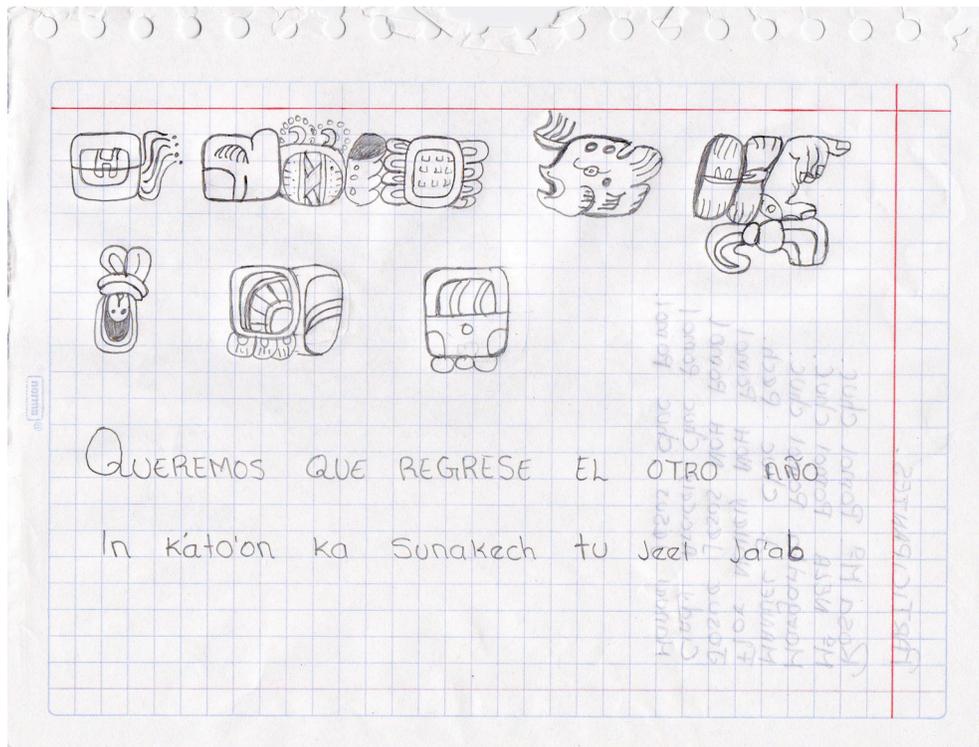


Figure 6: Hieroglyphic text produced by a group of four students during the 2005 Popolá workshop.

In that first workshop, we worked for seven days at six hours a day. By the end of the workshop, most students were comfortable with the math and calendrics, but were struggling with the idea of hieroglyphic writing even though they were able to construct simple sentences and write messages between working groups. (See Figure 6)

Admittedly, there was little engagement with the research process in this endeavor; most of the effort was aimed at instilling the basic ideas behind the writing system.

During the second workshop, however, the character changed significantly. Out of 23 participants last year, 21 returned. Most of the first two days constituted a review of the material we covered the year before, with two notable differences: *i)* the sentences that they wrote for the previous year served as the critical teaching tool; and *ii)* the review itself opened up a venue for the exploration of theory and method. This time, participants openly challenged the proposed heuristics of synharmony and disharmony, asking why other vowel complexities were not explicitly recorded, or if indeed they may have been (field notes 2006.7.27). Participants also queried how much would really be necessary for the writing to be understood. This came up explicitly in the discussion of a sentence written by one working group. Here, participants worked through issues of vowel complexity as well as issues of spoken Yucatec with contractions versus a proper grammatical spoken language, and what *should be* represented in the glyphs. The group decided on accepting a few conventions, but leaving the matter open to further revision.

In my opinion, the success here has been that local indigenous participants with various levels of education (e.g. 10-year-old elementary school students, working mothers, university educated agronomists, elementary school teachers) became active in the research process, simultaneously feeling directly connected to the project at hand. Moreover, I suggest that this was enabled by the approach of resisting the presentation of the material in a top-down fashion; instead, we are presenting what is known at this point—what the problems are—and then as a community, we are inventing ways to handle them. On this level, the more it is worked in this way, the greater the possibility that insight might be produced toward how the Maya were handling the script originally... as a living language.

Of course, the process was not without its complications. Much more so in the first workshop, but with some frequency in the second, those participants who had met anthropologists or epigraphers in the past would state bluntly that “Nikolai [Grube] used to just do this; or Linda [Schele] would just tell us that.” The implication was that I did not carry the authority of Nikolai or Linda—which in many ways is correct—not because of my credentials, but in my view because of the approach I had been taking. What I mean is that when providing people with agency in an arena they are not accustomed to, they are often reticent to accept it. Here, my attempt to involve participants as agents often leads to questions of my legitimacy, as though my unwillingness to provide my answers as definitive suggested that my competence was suspect.

I draw an example from my field notes during the first workshop:
“10 Imix 9 Ch’en, 2005.8.12 Finished the *taller* today. PPChP woke me up at ~4:30 this morning to ask if I wanted to “hacer una meditacion.” What the heck this meant, I hadn’t the faintest idea, but how could I refuse? I walked out and he said he would be “arriba.” I was a bit uncertain what even that meant (*¿en el monte?*), but I had to use the bathroom first anyway. Eventually, he peeked over from upstairs and I followed him up to his new roof. He and Bolay were looking at the stars, and PPChP asked if I knew anything about them: “Linda si conocia todo; nos decia que era eso y eso. No mas senalaba una cosa y lo

nombraba.” I think he’s still testing me. He’s not sure where I fit into the larger scheme of things...”

I remember wondering about the different ways I might complicate Linda’s decisiveness, and discuss how many of her identifications have since been shown to be incorrect. I thought about it, but held my tongue and my position and waited for another meteor to pass overhead.

I realize now that I am more than willing to trade my reputation for even one of the results of the latest workshop. During the last two days of the 2006 workshop, I suggested that we look at a few passages of a colonial Yucatec text written in the Latin alphabet, and attempt to translate them into their hieroglyphic representations. The passages I selected came from Ralph Roys’s translation of the Book of Chilam Balam of Chumayel—a document with origins in the sixteenth century, but last copied and appended by a Maya scribe in the late nineteenth century. I chose the Roys translation because he provided a transcription of the original text along with his translation and heavy footnote documentation of his translation choices.

With the passage on “the Creation of the World”, participants struggled with archaic vocabulary and unfamiliar orthography, but worked their way into a consensus interpretation of the text. In doing so, they made several objections to Roys’s choices and interpretations. By the end of the second day of working on these texts, they readily admitted that they were not one hundred percent confident in their interpretations, but neither were they entirely convinced of Roys’s readings either. In my view, they had entered into a research relationship with the material *and* they were able to perceive themselves differently with respect to circum-Mediterranean-derivative (cMd) scholarship and institutions.

Indeed, it would have been much less messy to go the traditional way, but it is my hope that through an Indigenous Studies aesthetic, this can produce a new kind of “outreach”, a new kind of cultural preservation. Of course there’s no way to say what may come of it, but I’m hopeful that the messiness of it holds the promise of an alternative trajectory to the one set by Landa and Xiu almost 500 years ago.

Notes

ⁱ Especially astronomical readings, see, e.g. Schele and Freidel (1990); Dutting(1985); *cf.* Aldana (2005).

ⁱⁱ The alternative (writing one’s Indo-European-derivative name with glyphs) has proven too frequently unsuccessful, among various other reasons, since there is no ‘r’ sound in Classic Mayan.

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***Áádóó*: An Analysis of a Navajo Discourse Marker**

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Steven Menefee, Lisa Pacheco, and Katy Pieri
Navajo Language Consultants: Melvatha Chee and Jalon Begay**

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I. Introduction

This paper examines and analyzes the Navajo word *áádóó*, as it functions in both narrative and conversational discourse. In our initial elicitations from our language consultants, it appeared that *áádóó* could be translated approximately to mean *and then*. Upon further analysis of conversation and story narration, however, *áádóó* actually seems to have multiple functions, and often follows similar patterns to units of speech that researchers have termed ‘discourse markers.’ The research on Navajo discourse is fairly limited, and based only on monologic speech and narratives. The research presented in this paper offers new insight into Navajo discourse. We base our analyses on real conversational data as well as written data and monologic speech, and thus gain a new perspective on the patterns of the language. We show that *áádóó* functions differently in conversational discourse from the way it functions as a sequential marker in narratives, and that the genre of speech itself will be the determining factor in the grammatical and pragmatic role of *áádóó*. We suggest that *áádóó* most appropriately falls into the category of discourse markers. Since a large part of the analysis that is done on discourse can only be genre-specific, even though there may be certain elements in common, observations about a given text cannot be generalized (Dooley and Levinsohn, 2001). In this study, the analysis of *áádóó* is conducted using various kinds of discourse.

II. Previous Literature

Few studies of Navajo discourse markers and discourse structure exist, particularly in the domain of conversational dialogue. So far, any work on discourse structure has been limited to narrative genres, since a corpus of Navajo spoken language has yet to be produced. One of the more prominent studies of Navajo discourse, however, is that of McCreedy (1989) who bases her analyses on prayers, personal narratives, and Coyote stories.

McCreedy looks at the notion of cohesion and referential continuity and how they relate to discourse structure. She follows Halliday and Hasan's (1976) categories of cohesion, remarking that in Navajo narratives two distinct categories emerge. The first is referential cohesion, in which pronouns refer to a participant or prop from previous discourse as in the following:

- (1) 'At'éédleei'. Jichago, chizh énjíilááh, jini.
Girl-to. 4-subject-cry-subordinator, wood **4-subject**-gathered, it-is-said.
 '(He spoke) to a girl. As she wept, she gathered wood, it is said.'
 (Sapir and Hoijer 1942:24, as cited in McCreedy 1989; pp 446)

The second category prevalent in Navajo narratives is lexical cohesion, which is either repeated reference to a certain action, object, or attribute or the use of semantically related, often co-occurring, items as in:

- (2) I met **Charlie's son** yesterday. That **kid** is a real whirlwind!
 'Though he doesn't attend **church** regularly, Joe considers himself to be a **Methodist**.
 (McCreedy 1989)

McCreedy uses these two types of cohesion as a basis for looking at discourse structure and boundaries, and finds that shifts in coherence, in which referential and lexical cohesion are generally broken, are often marked by the form *áádóó*. From the narratives, she notes that *áádóó* is either always episode initial, or that it introduces a post-peak transition (a resolution section of the story). McCreedy additionally notes that *áádóó* precedes a verb involving high physical activity (run, roast, eat, rush away), and appears to always introduce a new action into the discourse. From these observations, she suggests that *áádóó* functions to indicate both a change in time and a new action in the narrative, thereby concluding its role as a 'temporal conjunction' and 'sequencer' (McCreedy 1989).

The very genre in which *áádóó* is found may have important implications for its role in spoken language. As McCreedy notes, the Coyote narratives tend to follow a formulaic structure, moving from episode to episode until the final resolution. *Aádóó* here is used at the episode boundaries, and so its role may be additionally seen as a sort of formulaic marker. Webster (2004) remarks that the opening line of Coyote stories often begins with either *áádóó* or *ako*. Webster's point here is that 'and' is the English replacement of *áádóó*, which he remarks "allows us to insert ourselves into a larger narrative" (Webster 2004). Therefore, he finds the function of *áádóó*, at least as it occurs in the first line of narratives, to be a pragmatic or stylistic form for situating the listener in the story.

From the literature cited above, *áádóó* appears to function as a 'temporal marker', 'sequencer', 'stylistic' or 'formulaic' form. In the following sections in this paper, we will look at whether *áádóó* functions similarly in our two different narratives, and then at how it functions in our conversational data. Returning to our hypothesis presented in Section 1, we predict that *áádóó* will function rather differently in conversational discourse from its functions in narratives, and that the very genre of speech will be the determining factor in its grammatical and pragmatic role.

III. Theoretical Approach

As mentioned earlier, this paper offers a new look at Navajo discourse, and

particularly the marker *áádóó*, through a usage-based, functionalist approach in which grammar is seen as “emergent” (Hopper 1998). This perspective takes its data from natural conversation, believing that only through this can the true nature and functions of language be revealed, and that grammar is neither a priori or innate. The regularity or structure of grammar is shaped by discourse, “...grammar...like speech itself must be viewed as a real-time, social phenomenon, and therefore is temporal; its structure is always deferred, always in a process but never arriving, and therefore emergent...” (1998, 156). Inherent in this approach is the notion that language is not modular, but rather composed of various parts and subparts that work together to create a speaker’s produced forms. Hopper (1998) argues that grammar is made up of sets of prefabricated parts that are constantly being restructured and "resemanticized" in discourse (Hopper, 1998). Forms emerge out of interaction and represent a speaker's past experience with those forms; they are largely manipulated by speakers who use them for certain pragmatic purposes. Therefore, as we will see in the case of Navajo narrative and conversation, pragmatics plays a large role in shaping discourse.

There has been little research done with Navajo data from a functionalist perspective. For this reason, the findings and analyses in this paper largely differ from those in other studies, and demonstrate that forms are grammaticized in conversation and subject to resemanticization, rather than being attached to one specific meaning or function.

IV. Data

We used five different pieces of data in this research, representative of three different genres of discourse. Two of these are spoken narratives, two are excerpts from natural conversation, and one is a written narrative. The breadth of this data allows us to sufficiently compare the use of *áádóó* in both monologic and dialogic style.

The two spoken narratives are a retelling of *The Pear Story* (Chafe 1980), a film for use in language elicitation, which contains no spoken dialogue. In the first, we gathered the data from a paid language consultant, Begay, a linguistics graduate student who is fluent in both Navajo and English. Begay gave a running monologue in Navajo of the actions portrayed in the film about a boy who steals a basket of pears. The film contains a number of actions involving the boy and several other characters. In subsequent sessions, he then translated each line of narrative. We also had access to a narrative collected in an identical manner from another native Navajo speaker, Chee, complete with the English translation. Although both Chee and Begay’s oral narratives are based on the same film, the final products are strikingly different.

The two conversational pieces are somewhat different. For the first, we recorded a forty-five minute conversation between our two language consultants, Begay and Chee. From this conversation, we transcribed a three-minute section starting from ten minutes into the recording. This transcription was later translated by Chee for use in this paper. Because we had access to the audio of this conversation, we were able to analyze the intonation units in which *áádóó* appears- something we were not able to do for the second

conversation described below.

The second conversational piece we used is a transcription of a conversation/interview between two native female Navajo speakers and two male English speakers (Austin-Garrison, et al. 1996). The topic of conversation is ‘*Diné Bizaad*’, the Navajo language. We counted all instances of *áádóó* from the initial segment of the conversation, and Chee translated both the sentence containing *áádóó* and the one immediately preceding it.

Our last piece of data, the written narrative, is a Navajo joke (Wilson & Dennison, 1970), written in Navajo and including an English translation. We felt that it was important to include this type of genre, as it follows a certain formulaic style. As we mentioned in section II, certain formulaic Navajo narratives represent an interesting use of *áádóó*, and we wanted to compare this with non-formulaic forms.

These five different pieces of data give us a variety of genres from which to analyze the use of *áádóó*. Because narratives offer a different style of discourse from conversation, these pieces of data offer us rich sources of analyzing its function in discourse.

V. Findings

The oral narratives: The Pear Stories

In her analysis of its occurrence in narrative, McCreedy (1989) concludes that *áádóó* mainly occurs episode-initially and is always used to mark sequences of physical action. Occurrence in this function within the narrative might be expected since by definition, a narrative discourse is generally an account of events that naturally occur in sequence. Additionally, in the accounting of events it could also be expected that the use of verbs of speech, motion, and action will be prevalent within this type of discourse; this does appear to be the case. Following is a short excerpt of Begay’s narrative of *The Pear Story* film. The use of *áádóó* in (3) is representative of the majority of phrases in which its function is to introduce a physical action, which follows the previous sequence; however, (4) introduces a physical action that is non-sequential and non-episodic within this particular context. Significantly, (4) is reflective of the way *áádóó* functions in conversation, as we will discuss below, to maintain or reiterate a particular topic from previous discourse. It seems to be used in this case as a temporal discourse marker, which serves to alert the listener to refer back to a previous topic (i.e. that the man continues to pick fruit as he was doing before).

(3) **Áádóó** ts’in bineest’a naazkánée yiyii[tsa
and then fruit baskets he saw it
‘And then the little boy saw the baskets of fruit.’

(4) **Áádóó** hastiin yee dol ahalchííhgóó t’ahdii ts’in bineest’a náyiilááh
and then the man af. obviously still fruit he’s picking
‘And then the man obviously still picking fruit.’

(5) **Áádóó** ts'in bineest'a' yee néidiika
 and then fruit aforementioned he picked it up
'And then the boy picked up the basket of the aforementioned fruit.'

(6) Ts'in benest'a' yee yinyeezáá
 fruit aforementioned he stole it
'The boy stole the aforementioned fruit.'

(7) **Áádóó** bidaa'déé'éí át'ee yázhí léi a'téé uhm dzi'izi bihilwoł
 and then possessor front of boy little some bicycle she's rolling w/the wheels
'And then in front of the boy there's some little girl riding a bike.'

In her account of the same film, Chee's use of *áádóó* is quite minimal. Each occurrence introduces physical action and marks temporal sequencing. Below are the four tokens of *áádóó* that we pulled from her narrative (not in order).

(8) **Áádóó** ashkii yázhí dzi'ízi yikáá naatizhgo
 and then boy little bike above it he fell down

Áádóó ałchíní ashiiké yázhí táa'go
 (9) and then children boys little three when

(10) **Áádóó** ch'ah yái'ni'á' dóó ha'ùshii
 and then hat he gave him and something

Áádóó k'ad yí da'ayá yiwohjó'ó yijah
 and then now they are eating that away from me they are walking

Another function of *áádóó* that occurs in the narrative is as a type of conjunction (McCreehy 1989). Although this type of occurrence is infrequent, *áádóó* does appear syntactically as a conjunctive form, though only once in the narratives analyzed. Notice in the following examples from Begay's account of the story, that while *áádóó* can be translated as simply 'and' the use of the term seems to have been used as a marker signaling that the action is shown in sequence within the film, though the actual events do not occur as a single episode. This is intuitive for someone telling a story that switches between characters, actions and scenes, *áádóó* functions as the transition. In these examples, it is not functioning to introduce a new episode, but rather, it is signaling the listener to refer to another scene that has already been established.

(11) Na'ahooahae lei aní haayáo daats'i biniinaa
 rooster cawing sun-came-out maybe because-of-obj classifier (big,bulky)
'The rooster is calling out maybe because the sun came out.'

(12) **Áádóó** hastiin léi' ts'in bineest'a' náyiilááh
 And then man-indef. wood-bearing-fruit is-picking-it
'And then a man is picking fruit.'

(13) **Áádóó** hastiin ahdii ts'in bineest'a náyiiíááh
 And then man-def still wood-bearing-fruit is-picking-it
 'And t he man is still picking fruit

(14) **Áádóó** naaná éí ashkii yázhí léi' dzi'ízi bił yiwoł
 And then again-anaphora boy small -ind bicycle with rolling-with-it
 'And then again back to the small kid rolling with a bicycle.'

Another interesting finding was that in Begay's narrative seventeen tokens of *áádóó* were found, while Chee's contained only four. Although the same story (*Pear Story*, Chafe 1980) is told by the two different speakers, we find differences in how they are told. Lyons uses the term *individual style* to refer to those features of a text which identify it as being the product of a particular author, or speaker in this case, which represent his or her choice in terms of manner of expression (Dooley & Levinson 2001, citing Lyons 1977); one simple, common difference of individual style concerns sentence-initial connectives (e.g., expressions like 'because of that,' 'after that,' 'so,' etc.). This usage is a common occurrence and we find this is the case with the use of *áádóó* in Navajo (Lyons 1977).

As with McCree (1989), Lyons (1977), Dooley & Levinson (2001) and others who write about the specific elements that occur in narrative according to individual style, we also find that individual style plays a major role with the use of *áádóó* in *The Pear Story* narratives. Chee's and Begay's use of *áádóó* are very different from each other. Depending on the individual style, its use has been shown to vary in frequency and function within the narratives. In the majority of *áádóó* clauses in both narratives, however, its main function appears to be as a sequence marker.

The written narrative: a joke

The function of *áádóó* in the short Navajo joke (Text 12: Wilson and Dennison 1970) is very similar to its function in Coyote narratives and personal prayers, as argued by McCree (1989). Of the fifty-three total words in the joke, *áádóó* occurs five times. At first glance, it is apparent that *áádóó* here occurs only in sentence-initial position. However, when we examine its context more closely, and look at the verbs it precedes and the actions it introduces within the larger story, we see that it does indeed function as both a sequencer and temporal marker.

Significantly, the five occurrences of *áádóó* take place in immediately adjoining sentences. Therefore, the structure is roughly as follows:

- (a). A father said to his son...
- (b). "All right", the boy said...
- (c). *Aádóó* he took a bow and arrows
- (d). *Aádóó* he started out after the horse
- (e). *Aádóó* he overtook the horse
- (f). *Aádóó* he shot it right there
- (g). *Aádóó* he returned home
- (h). his father said ...
- (i) "Well", said the boy...

(Wilson and Dennison 1970)

Clearly, *áádóó* is functioning as a sort of sequential marker, but only within a single episode. That is, we can take lines (e)-(g) to be one episode, evidenced by the fact that each line uses the pronoun 'he' to refer to 'the boy', and the verb in each line refers to an action performed by the boy. In accordance with McCreedy's position, *áádóó* in these lines precedes a highly physical action ('took a bow and arrows', 'overtook the horse', 'shot it', etc.) In line (h), in which *áádóó* is not present, the full noun phrase "his father" is used, and the less physical verb 'said' denotes an action performed by the father, and not the boy. Therefore, *áádóó* in this written narrative does appear to be of a sort of formulaic nature; it marks subsequent events and referential cohesion within a single episode. Additionally, we may say that it functions here as a temporal conjunction; it conjoins sentences and activities that refer to and describe a single participant.

The use of *áádóó* in this joke adds a particular rhythm. This listing rhythm emphasizes each task the boy accomplishes. In this genre, *áádóó* is used to incorporate rhythm and draw attention to salient features of the discourse prompting humorous construal.

The Edited and Transcribed Conversation: Dine Bizaad

The distribution and function of *áádóó* in the edited conversation about Navajo language use is significantly more complex than its distribution in the narrative. We took sixteen instances of *áádóó* from the initial segment of transcribed conversation. In only three of these does *áádóó* seem to function in a way similar to the narratives. First, in one instance it occurs at the beginning of a new speaker's turn. Second, in two utterances, it does appear to act as a sequential marker, but significantly, it does not occur alone, as in the following:

(15) **Ako** *áádóó* biké'di...
so and then afterward...

(16) **Akohgo** *áádóó* nílíi...
so then aadoo over-there...

The rest of the occurrences of *áádóó* function rather differently. First, we notice that while it tends to occur sentence initially, it appears much less formulaic and does not perform any sequential function. That is, except for examples (15) and (16) above, in no instance does *áádóó* report a change in events or time. Furthermore, the verbs which *áádóó* precedes are not activity verbs; more often they are communicative, (e.g. 'to say', 'to think', 'to read,' etc.) This could be an indication that the action being described is not the element to which the speaker is giving the most importance, as is the case in the narratives. Rather, it seems that *áádóó* is working in conjunction with the noun phrase, either to reiterate it or to mark a lexically cohesive and semantically related switch to a new subject/topic, as is evident in the following:

Lexically cohesive

- (17) áádóó aldó' níléí
and then over there ('over there' refers back three sentences to *Tseyi' Ch'inili*, which is a name for a place)
- (18) ..binaaltsoos bee ádaalne' **Áádoó** na'adzooigíí aldó...
their book are-being-made-with-it and then the-one-being-written with

Lexically cohesive, with emphasis on second noun introduced:

- (19) **Shimá** t'eiyá bídíneeshnih nahalin. **Áádoó** índá shizhé'é béhosésíid.
my-mother only I-am-used-to-her it seems. And then then/next my-father I-got-to-know-him
- (20) "Hólah, bimásání bóhólníh" ni. **Áádoó** shimásání éí ání,
(???) his-mat. grandma she-is-in-charge it-said And then my-mat. grandma she-said
- Aádoó** shicheii kódidíniil ho'doo'niid.
And then my-mat.grandpa you-will-say-this he-was-told

Repetition of full NP

- (21) Jó diigi ádaat'éhígíí da shíí díí naaltsoos ályaaígí deiyídóoltah hwiinidzin (2 utterances in between)
so this the-ones maybe this paper the-one-that-is-made they-will-read-it it-is-thought
- Aádoó** índá díí naaltsoos...
And then next this paper

In each example above, regardless of the category, *áádóó* is conjoining two utterances in which a particular subject is being discussed. In some cases, as in (17), (20), and (21), the utterances are not immediately adjoined, but are separated; this only supports the idea that it is the subject or topic here that is of importance in the discourse. In those sentences that are lexically cohesive, *áádóó* serves to announce a continuity of reference; the topic is being maintained. In the sentences which are lexically cohesive but in which the second noun only slightly differs from the first (examples 19 and 20), *áádóó* functions to let us know that while the exact subject may be changed, there is a parallel between the two subjects being marked. That is, in (19) the speaker is talking about her relationship with her mother, and then relates this to her relationship with her father. Furthermore, in (20) **'his** maternal grandmother' changes to **'my** maternal grandmother', which then changes to **'my maternal grandfather'**. In these examples, the lexical cohesion between grandmother and grandfather keeps the topic the same, and the subjects are semantically related. *Aádoó* may be the marker that draws the listener's attention to this phenomenon.

Examples similar to (21), in which the entire noun phrase is repeated serves to reiterate the maintenance of the topic or subject. Rather than use a pronoun, the speaker chooses to repeat 'this paper,' which is definite. This is important because studies of information flow show that when a referent is introduced into the discourse, it tends to be

referred to in pronominal form in subsequent discourse. This supports the idea that *áádóó* may function in conversation to attune the listener to the fact that the topic or subject is being maintained, and that it is the topic/subject that is still of particular importance in the subsequent utterance.

The Natural Conversation: Begay and Chee

Within the two and a half minutes of spoken conversational discourse that were closely analyzed for this study, *áádóó* appears to function to maintain a speaker’s turn, as well as maintain the use of a noun phrase or related noun phrase across intonation unit boundaries. Five occurrences of *áádóó* were found in the 2 ½ minute segment of discourse that begins with the 10th minute of an approximately 25 minute long uninterrupted conversation.

Four of the five tokens of *áádóó* were found to begin a new intonation unit in the conversation. This suggests that *áádóó* functions in discourse to maintain a speaker’s turn and to signal that the speaker has more to say. It also links the current utterance to the proceeding. This is no surprise, due to the semantics of *áádóó*, which has traditionally been analyzed as an adpositional phrase that means ‘from there’ (McCreedy 1989: 450). Examples (22) through (25) exemplify *áádóó* being used at the beginning of an intonation unit.

- (22) **Áádóó** ídíníidée k’ad díí kwé’é saad yilts’iígíí ha’íí oolyé.
 Then what:we:said now this here words he:one:falling what it:is:
called
‘the word that is right here, what does it mean?’

- (23) **áádóó** kwé’é díí yikáá’ nidayiinííł ndi.
 and:then here this on:it they:put(SPO):on:it even:though
‘and then even though they are putting it on here’

- (24) **áádóó** ninaadanihidikid díísh éí ha’íí oolyé.
 and:then they:ask:us:again Thursday DEM what it:is:called
‘and then they will ask us again, what does this mean?’

- (25) **áádóó** akee’di áá éí ha’íí naabikáá’ shoo.
 and:then the:end:at what on:it:again let’s:see
‘and then at the end what else does it say, let’s see’

Due to the fact that the conversation is centered around the issue of language ideology and language use, as stated earlier verbs that appear in the same intonation unit as *áádóó* are verbs are largely related to communication, such as *to speak, to ask, to be called, and to say*. These findings contradict what has previously been said regarding the semantic types of verbs that *áádóó* is found to occur with. For example, McCreedy (1989) found that *áádóó* was found in narrative 100% of the time with verbs that denote

physical action, such as ‘to run’ (McCreey 1989:451). This suggests that the semantics of the verb is not what governs the employment of *áádóó* in conversational Navajo, a finding which we also concluded from the conversational data in *Diné Bizaad*.

In examples (23) and (24), it appears that the noun phrase is what plays a major role in the use of *áádóó*. The intonation unit preceding examples (23) and (24) explicitly mention the use of Navajo language. The use of Navajo language is then elaborated on in the subsequent intonation units with *áádóó* beginning each intonation unit and simultaneously functioning to hold the speaker’s turn. *Áádóó* serves the function of maintenance in two ways; it is used to maintain a speaker’s turn and to maintain the use of a noun phrase or related noun phrase across intonation units.

Example (26) is the only instance of *áádóó* that was found within the boundaries of a single intonation unit. Although it is not performing the function of turn maintenance, it still functions to maintain the use of related noun phrases. In this example, *dínék’elyí* is used in the first clause and *bilagáanak’elyí* is used in the second, with *áádóó* functioning in between them to signal the use of a related NP to follow.

(26)	áá	dínék’elyí	ya’áti’o	áádóó	í’áadoo	bilagáanak’elyí	baa	
	only	Navajo:in:	being:spoken:	and then	not/NEG	white:people	about	
		the:way:of	when			in:the:way:of	them	
	yánaa’áti’igo	hot’áo	éí	ałhíní	yázhí	í	ídahwiidoof’aał	ní.
	being:spoken:	like this	DEM	children	little	they(3’):will	it	
	again:when					learn	says	

‘the children will learn Navajo when speaking only in Navajo and not having to repeat it in English’

Áádóó functions in conversational Navajo for turn maintenance across intonation unit boundaries and to maintain the use of a noun phrase or related noun phrase. Four of five occurrences of *áádóó* in the analyzed conversation are found at the beginning of intonation units, which leads to the conclusion that it plays a role in the way that speakers maintain their turns and signal the arrival of related information into the discourse.

VI. Discussion

From the findings outlined above, we can safely say that *áádóó* does indeed function differently depending on the genre in which it is situated, and all these functions are related. Its function in the narratives, both oral and written, confirms McCreey’s (1989) findings that *áádóó* acts as a sequencer or marker of temporal change. The verbs *áádóó* precedes are physical, therefore, the addition of *áádóó* creates a sense that it is the actions in the story that are of particular importance. Additionally, we see the same pragmatic and stylistic use of *áádóó* in the narratives, as suggested by both McCreey (1989) and Webster (2004): it does seem to occur in formulaic sequences.

In the data from natural conversation, however, *áádóó* is rarely used as a temporal or sequencing agent. Almost never in our conversational data do we see *áádóó* preceding

highly physical verbs. Rather, it appears that *áádóó* signals that the noun phrase, or the topic/subject, is the most important element of the sentence, and that it has been maintained or will be maintained in the discourse. Additionally, from the conversation in which we were able to code for intonation units, it appears that *áádóó* functions to maintain a speaker's turn.

Although the functions of *áádóó* are certainly different across genres, it makes sense to talk about this word as a discourse marker. In the following section, we will briefly discuss discourse markers in general, and highlight some discourse markers as they have been researched in other languages. We should point out again that no literature on Navajo discourse markers exists, at least that we are aware of, because so far no corpus of conversational Navajo has been produced. By looking at the similarities between the functions of *áádóó* as we have suggested above and discourse markers from other languages, we may be able to conclude that this particle functions as a discourse marker in some contexts.

What is a Discourse Marker?

The body of research on discourse markers is quickly growing and while it is impossible to compile an exhaustive list of English discourse markers, the following words, which comprise an incomplete list, have been labeled discourse markers in previous research: *actually, oh, anyway, I mean, you know, like, I think, you know what I mean*. It is clear in the following discussion of some of the research on discourse markers that *áádóó* fits into this category, regardless of discourse genre.

Schiffrin (1987) describes discourse markers as “sequentially dependent elements which bracket units of talk” (1987:31). Aijmer (2002) says they give clues as to “how discourse is segmented and processed” (2002: 1). Essentially, discourse markers alert the listener that the speaker intends for them to take note of an important boundary in the discourse. They guide interpretation of an utterance and reduce cognitive effort on the part of the listener.

One discourse marker studied in Schiffrin (1987) is *oh*. She calls it a marker of information management (1987:73). She says *oh* is found in repairs, to initiate a self-repair. She also finds that it is used when speakers must reorient him/herself to information (1987: 86). Schiffrin also studies *you know* or *y'know*. She believes that this discourse marker functions to ensure that the speaker and hearer have the same background knowledge.

While limited in quantity, there is some research on discourse markers from other languages. In her dissertation, Makowski (in press) analyzes discourse markers in Spanish. She says the following discourse markers signal a relationship of contrast or dissonance between utterances: *pero* (but), *sin embargo* (however), *por el contrario* (on the contrary). Discourse markers that illustrate a relationship of cause, inference or result between current and prior discourse are: *como resultado* (as a result), *por eso* (because of that), and *por lo tanto* (therefore).

In her study on discourse markers in French, Rey (1997) finds that the word *donc* is roughly equivalent to English *therefore, so* or *hence*. She says it can indicate a consequence or reformulation or can signify that the speaker is returning to the main topic after digressing. The phrase *en effet* can express confirmation or introduce a cause. She likens it to the English *indeed*. She also finds that the following French words function as discourse markers: *mais* (*but*), *cependant* (*however*), and *car* (*because*).

Maschler (2002) studies the role of discourse markers in conversational Hebrew. She believes that discourse markers “must refer metalingually to the realm of the text, to the interaction between its participants or to their cognitive processes” (2002: 2) and that it must occur initially in the intonation contour. She finds that the Hebrew word *tir’e* (*look*) fits both sets of criteria. It is not actually instructing the listener to look at anything, but is focusing their attention within the discourse.

The above discussion of discourse markers cross-linguistically certainly can be applied to *áádóó*. Its primary function, both in the narrative and in the conversation, is to alert the listener to the fact that something important is either being maintained or introduced in the discourse, whether it is a new episode and event, or a topic from previous sentences. Although its functions vary across genres, the overall finding that it is a communicative tool used by the speaker for the listener makes the analysis that *áádóó* is indeed a discourse marker highly plausible.

VII. Conclusion

In our analysis of *áádóó*, we have found several distinct but related functions. In conversation, it can signify that the speaker is returning to the main topic after digressing or it can maintain lexical cohesion. This is similar to the function of discourse markers in other languages, which guide the interpretation of an utterance and as was found in previous research, it occurs initially in the intonation contour. In narrative, its main function appears to be as a sequence marker. The uses of *áádóó* in each genre examined are in line with the functions of that particular genre. Narratives are composed of episodes, which are related to each other, and *áádóó* functions to link these related episodes. In conversation, *áádóó* links utterances within a single turn, as it is organized in turns rather than episodes. Our findings suggest that while the functions of *áádóó* are varied depending on context of use, it appears to function similarly to discourse markers in other languages.

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On Nanbé Tewa Language Ideologies*

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The heritage language at Nanbé Pueblo (hereon referred to as Nanbé Owîngeh), New Mexico—Nanbé Tewa—has been spoken in the same place for several centuries. Having withstood foreign political and linguistic hegemony for many generations, the language survives yet today, even in the face of growing external pressures.

Like many North American indigenous languages, the status of the heritage language at Nanbé is grim, but although this community has been increasingly experiencing language shift for multiple generations, this shift is far from deterministic. Community initiatives such as developing language programs and youth projects, practicing tribal dances, and supporting community awareness gatherings reinforce the grassroots collaborative spirit that has sustained the heritage language at Nanbé for so many years. The Pueblo's unique sociopolitical context affords the student of language ideologies an opportunity to investigate the nature of Tewa metadiscursive practices and the extent to which they index specific social relationships in Nanbé.

This paper represents a preliminary attempt toward outlining potential areas for investigation of language ideologies at Nanbé Owîngeh and presents several organizational frameworks through which such analyses might proceed. First, some demographic information concerning the pueblo as well as a brief typological overview of Nanbé Tewa is presented; second, I will discuss the history of ideology and language ideologies as emergent concepts in anthropological linguistics; third, I will explore language ideologies in relation to notions of landscape and grounded experience; fourth, I will discuss how social policy has impacted language practice in Nanbé Owîngeh; fifth, I will discuss the import of language ideologies in ongoing language preservation efforts in the Pueblo; and lastly, I will present further directions for future research of language ideologies in Nanbé Owîngeh.

1. Nanbé Pueblo and Nanbé Tewa

Nanbé Owîngeh is located approximately twenty miles north of Santa Fe, New Mexico, and its language—Nanbé Tewa—is among the most endangered indigenous languages in North America. Fewer than forty native speakers remain at the Pueblo, and the heritage language is rarely—if at all—passed down to children as a first language. Most fluent speakers are over the age of 65, which places Nanbé Tewa in category C in the model proposed by Krauss (1992). Most recent estimates (as of March 2006) cite approximately 640 tribal members, with 400 reservation members (residing in the Pueblo) and 240 non-reservation members (residing outside the Pueblo).

Nanbé Tewa, a Kiowa-Tanoan language, exhibits a great deal of synthetic morphology, although one could argue for its polysynthetic status given the presence of obligatory marking of person, number, aspect, and mode on the verb and the productive noun-incorporation process. Nanbé Tewa has an unmarked past tense, which, as Bybee (1985) notes, is cross-linguistically rare, as well as a dual-marking number system.¹ The

language has three tones: high, low, and rising-falling. While this paper is not primarily concerned with the typological aspects of the Nanbé Tewa language, the reader is referred to the works of Harrington (1910, 1912), Dozier (1949, 1953), Hoijer and Dozier (1949), and Spiers (1966) for detailed analyses of Tewa structure.

Notions of ideology and linguistic ideologies are not easily separable because the jurisdiction of the ideological domain is itself not easily delimited. First, a brief history will be presented of the term “ideology” and its development as an enterprise for scientific study, followed by a discussion of the emergent field of language ideologies.

2. Ideology and language ideologies

Idéologie, as first conceived by Destutt de Tracy, was a science of ideas whose theories and methodologies required the same systematic attentiveness as any other –ology. Born out of the spirit of the French Enlightenment, *idéologie*, according to de Tracy, considers the nature of ideas as structures through which internalized concepts are socially mediated—or an externalization of these concepts through systems of articulated signs (Silverstein 1994:123). By proposing its inclusion as a subfield of zoology, de Tracy sought to legitimize the ideational domain as a valid object for scientific study. While not privy to discussions in modern semiotics, de Tracy anticipated many current issues in the study of metadiscourse and second-order indexicality in language.

Although de Tracy’s vision of a “science of ideas” was essentially lost during the eighteenth and nineteenth centuries through somewhat limited definitional connotations of ideology as linked solely to relations of power (i.e., between the bourgeoisie and working class), the term has since enjoyed a rebirth. Current interpretations explore ideology more neutrally as an organic, embodied system interwoven into the fabric of discursive practice rather than as an independent structure prescribed through hegemony.

Woolard (1998) analyzes the term as including four strands (which can no doubt be further separated into several sub-strands): 1) ideology as mental phenomena (as De Tracy first conceived the term)—the domain of the ideational and conceptual; 2) ideology as the foundation of metapragmatics; 3) ideology as linked to positions of power through discursive practice—the struggle to acquire and/or maintain power (in this strand, one can speak of ‘your ideology’ or ‘my ideology’); and 4) ideology as distortion or illusion—maintaining the relations of power by disguising or legitimating these relations (see Thompson 1984). This fourth strand conforms most closely to the most commonly (mis)understood meaning of ideology as the rose-colored glasses through which one views the world (e.g., Marx’s *camera obscura*—see Eagleton 1993: 76).

Of course, all four strands contribute greatly to the overall understanding of ideologies about language; however, it would appear that the second strand, in which, Woolard considers ideology “... as derived from, rooted in, reflective of, or responsive to the experience or interests of a particular social position” (1994:6) is particularly amenable to studies of the relationship between ideology and language (for further discussion of ideology, see Woolard & Schieffelin 1994, Eagleton 1991, and Williams 1977).

One commonly accepted definition of language ideologies as “...any sets of beliefs about language articulated by the users as a rationalization or justification of

perceived language structure and use” (Silverstein 1979:193) is a productive starting point. Language ideologies extend beyond the realm of referentiality to address language through its indexical nature—to understand language not merely in terms of its semantic denotata (de Saussure’s *signifié* and *signifiant*), but rather as mappings of relationships in the broader social matrix. Such ideological systems, understood as constitutive of a language’s metapragmatics, hold far-reaching implications for studies of community discourse practices as well as for appreciating the political context in which these languages are seated.

The term “ideology” itself is subject to the very metapragmatic phenomena it describes. Just as socioeconomic class registers are responsible for differences in pronunciation between *v[ei]ses* and *v[az]es*, as has been examined in variationist sociolinguistics, pronunciations of the term may vary from [I]deology to [ai]deology according to the practices of particular speech communities (see Silverstein 1994:130). We will return this idea later in section 5.

Given the pervasive nature of linguistic ideologies, these practices can be considered significant acts of social symbolism. Yet the social domain is not the only domain of which language is considered emblematic; one particularly good example of linguistic ideology at Nanbé Owíngēh involves discussions of the landscape surrounding the community. Community language practices can, in addition to map the social matrix, index an important relationship between community members and their native environment.

3. Landscape

3.1 Land and place

Notions of “land” and “landscape” have too often been treated—whether implicitly or explicitly—from externalist, absolute positions regarding studies of local environments (e.g., geography, ethnobotany) and autochthonous social, cultural, and linguistic systems as separate and unrelated. A growing body of literature has recently emerged from subjective associationist frameworks that are more amenable to analyses of landscape through embodied experience and grounded perspectives.

In *Yellow Woman and a Beauty of the Spirit*, Leslie Marmon Silko observes that “viewers are as a much a part of the landscape as the boulders they stand on” (1996:27). The relationship of language and landscape must be approached not merely from the standpoint that raw physical geography, e.g., geographic isolation, is involved in the form and use of language with that isolation responsible for dialect formation and other processes of language change. Rather, this relationship is based on subjectively-experienced local environments mediating social context through language. That is, landscape is not merely the setting in which language takes place, but an actor whose involvement in language is as intimate as those who use it. Traditional approaches to the relationship between language and landscape are defined in static terms through which landscape is considered only insofar as its physical features and associated consequences on language use are concerned, whereas more recently this relationship has come to be defined more dialectically as the interaction between a community’s language practices and the native physical environment in which such practices are borne out.

For example, Silko cites an interesting Acoma greeting, *Nayah, deeni*, or, “Mother, upstairs!”, which was used long ago when Pueblo homes were several stories high and were entered from the top (ibid. 54-55).² On one level, this expression resembles the modern English greeting “Honey, I’m home”; however, Silko’s example carries further significance beyond its function as a domestic greeting and implies a deeply rooted symbolic link between the speaker and the environment in which the speaker experiences the world. Similarly, Basso (1996) stresses that in Apache society certain concepts can only be completely understood in the context of particular physical locations. His discussion of place names brings to bear the fundamental symbolic nature of local landscape and its impact on a community’s heritage language practices (see also Basso 1990).

As mentioned earlier, Nanbé Owîngeh is located roughly twenty miles north of Santa Fe, and while the Sandia Mountains are not directly visible from the Pueblo itself, the Nanbé do have a term for the Sandias, *oku p’iin* or ‘turtle mountain.’ What is particularly striking about this term is that from the northeastern part of New Mexico (in which the back of the Sandias are visible), the western side appears to raise smoothly to its peak and drop off abruptly on the eastern side. Thus, whereas the Sandia (‘watermelon’) Mountains were so named by the Spanish due to their shape and color at sunset, the Nanbé have adopted the same strategy, but have applied it more specifically to the mountains’ position in relation to the Pueblo by imagistically encoding its gestalt into a place name. Understandably, Sandia Pueblo, a Tiwa-speaking tribe located at the base of the eastern side of the Sandias do not regard these mountains as resembling the shape of a turtle because they have a much different perspective on the mountains’ physical geography.

However, geography plays another role in Nanbé Tewa, which effects discursive practices more than language form. As a result of the areal organization of Nanbé Owîngeh and implementation of HUD housing, landscape carries a more indirect, though no less significant, effect on language practices in Nanbé Owîngeh.

3.2 Effects of Housing and Urban Development

The Department of Housing and Urban Development (HUD) has had a long and important role in Native American communities, and while a complete history of the department cannot be outlined here, two of its most noticeable pieces of legislation are the Housing and Urban Development Act of 1965 and the Housing and Urban Development Act of 1970. The former established the department at the Cabinet level, and the latter approved more substantial subsidy programs aimed to provide further financial support to lower- to moderate-income households. The basic goal of HUD is to provide affordable housing while maintaining acceptable standards of living and thereby reduce levels of homelessness. While HUD is a large governmental department, I will here concentrate on HUD with respect to its implementation in indigenous communities.

The traditional layout of Nanbé Owîngeh was that of closely-knit living arrangements localized around the Kiva, which served (and continues to serve) as the spiritual nucleus of the Pueblo. This long-established pueblo design that promoted intimate communal relationships has since become dispersed through the introduction of

HUD housing. This decentralization of the Pueblo into more geographically separated housing has two significant consequences for heritage language practices in Nanbé.

First, from a strictly geographic perspective, the move from higher population density in traditional pueblo societies to more diffuse pueblo housing decreases social access. If one's neighbor is located five hundred yards away rather than fifty yards away, this by nature provides neighbors with fewer opportunities for interaction (after all, it is difficult to greet, let alone engage in conversation, with a neighbor who is outside of earshot).

Second, while HUD housing may have raised the standard of living for its occupants, many families are forced to work harder to maintain this standard of living. Therefore, because families must work more hours, this increase in time away from home detracts from familial interaction, such that parents will have fewer opportunities to interact with their children in the heritage language. While it is not my intention to criticize HUD practices, as their financial and health advantages are numerous, there are nonetheless unforeseen repercussions incurred by its occupants—specifically that heritage language preservation is adversely affected by the dispersal of housing. Longitudinal study into the effects of HUD housing will be necessary to understand the relationship between housing situations and language shift.

The need to understand the impact of native landscape on heritage language practices calls for an investigation of what constitutes a given community's "ideoscape". To this end, Silverstein (1994, 1998, 2000) investigated the significance of "sites" as places where social groups articulate the ideological through institutionalized ritual. Sites may serve to promote language practices positively, as in Arizona Tewa Kiva speech (Kroskrity 1992, 1993, 1998) or negatively as in women's *kros*-talk in Gapun (see Kulick 1992, 1993). It is important that the notion of site not be limited to the symbolization of physical structures, but that the goings-on within the walls of these structures serve to index specific social relationships. For example, the extent to which Nanbé Tewa is used in Tribal meetings (or its absence, for that matter) could reveal much about the sociopolitical environment in which the heritage language is seated. Further, while Silverstein defines sites in terms of the ideological as articulated through ritual, this by no means restricts its influence to the religious or the traditional spheres, as the educational, domestic, and governmental domains are also possible candidates for ideological sites.

This idea of sitedness in many cases extends beyond the boundaries of the local community and becomes subject to outside interests. In the case of Nanbé, valid sites outside the Pueblo might include university classrooms or grant workshops, in which the use of the heritage language becomes influenced by external pressures. Such pressures could arise as a result of both the local and global sociopolitical environments, particularly with respect to issues of language policy.

4. Language policy

That language practice is in part determined through language policy is not a new idea and is perhaps nowhere more evident than in the unique language situations among indigenous communities of New Mexico. What remains relatively unexplored, however, is the extent to which these policies affect metadiscursive practices within local communities. Among the most controversial English-education enactments passed by the

Bush administration, the *No Child Left Behind Act* may be the most harmful to local heritage language programs.

Meyer (2006) notes that this policy is particularly detrimental to indigenous communities because by defining success in terms of a speedy transition to English, the non-English student's ethnocultural identity is further marginalized. While on the one hand, indigenous students may successfully learn English and conform to the standards prescribed by this policy, they are, on the other hand, acquiring proficiency in English at the expense of the heritage language. This policy, in effect, places the heritage language on the backburner and could potentially marginalize non-English-speaking students not only at school and outside the community, but within the community as well. Thus, students (and their parents) are essentially forced to choose between transitioning to the dominant language which is advantageous for employment or maintaining connections with the heritage language.

Because there are no public schools in Nanbé, schoolchildren must attend nearby Pojoaque public schools. The Pojoaque Public School System offers Tewa classes from kindergarten through twelfth grade for one to two hours a day. These Tewa classes, taught in the Tesuque dialect, fulfill foreign language requirements but are not classified as core curriculum. Despite the wonderful opportunities offered students by Tewa instruction in public schools, there remain several problems.

First, because these classes are not mandatory, many parents choose not to allow their children to take these classes. One reason for this aversion could be related to the previously mentioned fact that such instruction would detract from their children's perceived ability to learn English. Also, due to the grammatical complexity of many Native American languages, parents feel that their children might feel overwhelmed by the subject matter introduced in these classes.

Second, although providing a couple hours of Tewa instruction per day is undoubtedly better than no time at all, this brief class time still limits instruction on the language to a kind of scratching-the-surface pedagogy, in which Tewa structure is only discussed in isolation from its sociocultural context.

Third, while instructors teach in the San Ildefonso and Tesuque Tewa dialects, and all Rio Grande Tewa dialects are for the most part mutually intelligible, our Nanbé consultants report that it is important for students to learn the unique variety of Tewa spoken in Nanbé Owíngéh. Again, while Tewa instruction (in whatever form) is surely positive, students might consider the Tesuque dialect most preferable because this is the variety they experience in the classroom; thus, there could arise an implicit prescriptivist assumption by students that the Tesuque dialect somehow represents "correct" Tewa whereas Nanbé Tewa does not.

Another issue raised by our consultants concerns the process of teacher certification. As Brenda McKenna notes, "The New Mexico State Education Department wants to have certified language teachers for indigenous languages. The pueblos have the authority to certify, and many conclude that if the teacher can speak, this satisfies the requirement of 'certified.'" Also, public school systems might carry additional criteria that prospective language teachers must meet, thus further complicating issues of heritage language instruction.

5. Acts of identity

Before discussing the particulars of language preservation efforts underway at the Pueblo, it will be necessary to present a general overview of the language program at Nanbé. The language program, led by Cora O. McKenna, Evelyn O. Anaya Hatch, Brenda McKenna, and Quella Musgrave, holds classes once a week at the Pueblo for several hours. This program is rather informal and class attendance is not mandatory; students range in age from young children all the way up to Tribal elders. The impetus for this program was borne out of a need for community-level involvement in language education and cultural awareness. Other activities of the language program include an NSF-funded project to compile a dictionary and electronic archive of Nanbé discourse and summer programs for young people (e.g., Youth Conservation Corps, informal summer Tewa classes).

Because the program receives little funding other than generous grants from the National Science Foundation and New Mexico Public Education Department and support from the tribal administration, pedagogical resources are limited, and the language class shares space with the community center located in the Nanbé Owíngéh Tribal Office. Without a space devoted entirely to language education on the Pueblo, the program leaders are essentially forced to work out of the “trunks of [their] cars”, as Cora McKenna puts it, transporting materials from home to the community center. Negotiations are currently underway to assign a full-time classroom space devoted to heritage language and cultural education. Such a space would also allow room for a community library of Tewa writings.

It has been noted (e.g., Pieri 2006) that women often shoulder the great responsibility of revitalization efforts. This is particularly evident in Nanbé Pueblo, where all of our consultants are women. Of course, this is not due to an absence of male native Tewa speakers, nor because of their inability or refusal to engage in such work; rather, the prominence of women in language revitalization efforts could be due to a kind of unspoken mutual agreement among community members—a common understanding that certain individuals are more equipped for the rigors and responsibilities of language work than others.

While numerous scholars have proposed that women’s involvement in such programs is attributable to their role in the domestic domain (“the keepers of the hearth”) as opposed to men, who are traditionally considered the breadwinners of the household, such a distinction essentially promotes an *a priori* disinclination to language preservation work on the part of men. Of course, this is too strong a position; often language programs are spearheaded by men (I am thinking specifically of Tiwa language programs at Sandia and Picuris Pueblos in New Mexico, for example). The ideological implications of gender roles in language revitalization work contain a great deal of interconnections that I will not try to disentangle here, but future research could prove fruitful for discussions of language ideologies and language revitalization work as well.

Some of the most difficult work in language revitalization concerns orthographic choices; these decisions are rarely settled quickly by individuals, let alone through community discourse. As Schieffelin and Doucet observe in Haitian Kreyol, “... metalinguistic terms and ... orthographic debate[s] are deeply rooted in symbolic systems

of representation and in the different and ambivalent meanings ascribed to [ethnic identity]” (1998: 306). This discussion is applicable to the orthographic debate ongoing in the Tewa language program at Nanbé Owîngeh in terms of orthographic type and representation of sounds.

Before a language can be represented in written form, decisions must be made concerning the type of orthography to be used. Decisions whether the language in question should be represented through a logographic, syllabic, or alphabetic system (to name a just a few possibilities) strike at the core of socio-evaluative and metalinguistic issues. While a few communities have adopted non-phonetic writing systems such as the kind implemented for Cherokee in the nineteenth century, most modern language revitalization programs have opted to employ phonetic systems derived from the Roman alphabet. While it might appear an inescapable contradiction to implement writing systems for traditionally orally-transmitted languages—the speakers of which are attempting to minimize or avoid foreign influence (i.e., from English or Spanish) by adopting Western scripts—communities often choose this option because to introduce an altogether different and unfamiliar writing system could mean unnecessarily complicating language instruction and exposing students to further obstacles to learning an already complex language. Indeed, some communities (notably, the Keresan Pueblos of New Mexico) don’t want to adopt any script at all, fearing that writing, and its focus on Western educational technologies, will detract from the practice of speaking the language, thereby increasing the number of speakers while also furthering the traditional language practices of oral societies.

Once a general orthographic system has been agreed upon (if these issues are ever truly resolved), the real labor begins as community members and their linguist assistants decide how best to represent a given language’s specific phonological inventory using the (generally) accepted writing system. This has proven to be extremely arduous work for those of us involved in the Nanbé Tewa dictionary project. For instance, in the particular system we have adopted, the word for chicken [dii] is represented as “dee”. Of course, many linguists would prefer as little disparity as possible between the phonetic transcription of a word and the conventionalized writing system through which it is represented by simply adopting IPA as the *de facto* orthography. However, because the impetus for establishing heritage language orthographies must come from the within the community rather than at the behest of outsiders, the orthographical predilections of linguists are immaterial. Mithun remarks, “Community orthographies must not only reflect distinctions inherent in the language. They must also be easy to learn, which often means exploiting existing literacy skills ... They must also be aesthetically pleasing to their users” (1999: 21).

Even in situations where every team member agrees that a certain sound must be represented a certain way in accordance with the conventions dictated by the alphabetic system employed, the feeling that *x* does not look right sometimes arises. While these discussions may appear trivial, they are of central importance to the role of language ideologies in orthographical issues.

Perhaps the most immediate example of ideological import in orthographic issues can be found scattered throughout this very paper—the use of *Nanbé Owîngeh* as

opposed to *Nambé Pueblo*. In the first draft of this paper sent to my consultants at Nanbé, they suggested *Pueblo* be changed to *Owîngeh* because they felt it better represented the spirit of Nanbé. Also, they suggested I use the form *Nanbé* as opposed to *Nambé* because, the former better represents its actual pronunciation. At a fundamental level, the decision by language program leaders to use *Nanbé* instead of *Nambé* and *Owîngeh* rather than *Pueblo* reflects a symbolic preference for that which best represents “Nanbé Tewa-ness”. San Juan Pueblo has done much the same thing by officially changing their name to “Ohkay Owîngeh”.

At another level this orthographic decision offers us a microcosmic view of the language preservation efforts at Nanbé. While language practice no doubt indexes complex social relationships, the written representation of the language further reproduces cultural norms by instantly proclaiming itself as authoritative. This is the reason why, to whatever degree, their suggestion is a successful act of language preservation—the reader will have had to understand *owîngeh* as village or community, if even for the limited time spent reading this paper. To step back and address the ideological import in language preservation more broadly, the metadiscourse that communities engage in when making such critical decisions on orthography issues is a necessary endeavor, and one that must be addressed first and foremost before reversing language shift is even possible (see Dauenhauer and Dauenhauer 1998).

As mentioned, the language program at Nanbé Owîngeh does not yet have a space devoted solely to language instruction or the archiving of various language materials, so there is no centralized location to which interested students can be referred for accessing language resources. Although the idea of language resources often connotes the collection of written documents and audio recordings, this is not necessarily the shape that such resources must assume. To return to the notion of sitedness, the development of language nests in many communities, for example, also provide a space where the ideological is articulated through ritual; by cordoning off a physical location within which particular social and cultural norms are promoted, participants’ actions are determined in relation to their expected conformity to the rules of the site. This is what is particularly appealing about language nests—both teacher and student, master and apprentice are subject to the same governing requirements (e.g., “only Tewa can be spoken in this space”), whereas in traditional Western instruction, the teacher is considered the absolute authority on everything inside the classroom. In working out the myriad issues of language preservation, community members want what works best for them because such efforts are an act of claiming identity.

6. Future directions

6.1 Iconization, fractal recursivity and erasure

Irvine and Gal (2000) propose three semiotic processes through which speakers understand connections between linguistic forms and social phenomena: 1) iconization—transformation of the sign relationship between linguistic features and the social signs they are linked to; 2) fractal recursivity—projection of an opposition onto some other level; 3) erasure—the process through which ideology renders some sociolinguistic phenomena invisible.

An example of iconization is the change in rules for unidentified third person in sentences such as *everyone should bring his swimsuit*. Whereas fifty years ago when the rule governing the use of the singular “generic” masculine as anaphoric to the indefinite pronoun was considered inviolable, it has today become generally accepted to use *his or her* or even *their* in this context. This change in prescriptive conventions reflects a broader transformation in social attitudes which has been reintentionalized among many communities of writers.³

One can find a similar example of language use reflecting changing social attitudes at Nanbé Owîngéh. In Nanbé Tewa there are two future suffixes: *-hâymáa*, which is generally understood by all Rio Grande Tewa groups to represent future action, and *-gít’óo*, which is also understood as an indicator of future action among all Rio Grande Tewa languages (the San Juan Tewa Dictionary notes this as a possible future form) but exists as a form that, according to Nanbé consultants, is “uniquely Nanbé”. While the exact motivations behind Tewa speakers’ use of one form over the other remains unclear, such decisions likely involve a recognition of the connotational subtleties attached to the use of each respective form, such that Nanbé speakers might prefer the *-gít’óo* form because it reflects an attempt to promote Nanbé Tewa language practice as separate and special among the Tewa varieties, whereas San Juan speakers might prefer the *-hâymáa* form because it conforms a more general “Tewa-ness”, emphasizing solidarity among the different Tewa pueblos.

An example of fractal recursivity presented by Irvine and Gal (2000) is the adoption of Khoi click consonants in Nguni to indicate social distance. Thus, the introduction of a phonological change in Nguni has come to serve as an emblem for more general social relationships between the Nguni and the Khoi (ibid. 46; for further discussion see Phillips 1998). Similarly, in Nanbé Tewa, our consultants often use the Spanish *café* for ‘coffee’ even though there exists an autochthonous term, *fénp’oo* (‘black water’). As most native Nanbé Tewa speakers are trilingual in Tewa, Spanish, and English, one always has a choice of which term for ‘coffee’ to use, and thus differences at the lexical level can be considered emblematic of differences at the sociological level.

An example of erasure can be found from early twentieth-century accounts of the ethnocultural and linguistic makeup of Macedonia. This region of Europe, which had long received incomplete treatment in mapping and census projects in the writing of outside observers, suffered a kind of historical misrecognition in which the character and range of Macedonian identity was drastically underestimated, and thus, a complete understanding of that identity was rendered invisible (Irvine and Gal 2000: 60-72). Another example can be seen in late nineteenth- and early twentieth-century Native American boarding schools in the United States which demonstrate the misrecognition by the government of the unique intra- and inter-social history among Indians. Students from various tribes were often grouped together regardless of their inherent cultural and linguistic differences and treated homogenously, thus rendering invisible the socio-historical identity of each individual and tribal group (see Spicer 1966).

Only a few local examples of these semiotic processes have been presented here, but it should be clear that such a framework offers insights for the study of language ideologies at Nanbé Owîngéh. I shall now like to turn attention to something not

altogether unrelated to the issues presented in the previous section, which concerns the effects of multiple local language revitalization programs.

6.2 Effects of multiple local language preservation programs

The relative success of such preservation efforts as those in New Zealand among the Maori and in Hawaii among native Hawaiians raises more pressing questions concerning the nature of language ideologies between and within local communities. While many of the problems encountered by the Maori and Hawaiians in their respective language programs persist today, the efforts of each group are nonetheless widely accepted as paragons of language revitalization for several reasons, not the least of which is the political environment in which these native languages exist and in which their language programs develop.

In both the case of the Maori and Hawaiians, each language exists as the lone indigenous language in its particular area. Thus, although these locales are not removed from outside linguistic influence, their physical geographies are such that outside influences are minimized. In addition to New Zealand and Hawaii existing as linguistic islands, their relatively isolated locations offer further geographic advantages for engaging in language preservation work. Because each heritage language is the only indigenous language in its area, there is less contention among communities when applying for funding than would be encountered in areas where several linguistic groups are represented.

By contrast, in the case of Nanbé (and most indigenous languages in New Mexico), the Pueblo is neither geographically isolated nor the lone indigenous language in the area. This unique indigenous language situation presents a suite of problems absent from New Zealand and Hawaii. One of the most apparent difficulties resulting from the areally clustered indigenous languages of New Mexico is the variation of writing systems. While several heritage languages have not introduced writing systems or are relatively closed to outsiders (e.g., Jemez Tewa), the communities have often disagreed on issues of standard orthography. Obviously, one of the aims of a local community in implementing a writing system for its heritage language is to represent the specific historico-cultural context as unique to *x* community; however, one consequence of this distinctiveness is the absence of a universal standard orthography. So instead of a unified Tewa orthography, there are multiple generally accepted alphabets (e.g., Nanbé Tewa, Santa Clara Tewa, San Juan Tewa).

This is not to claim that all Tewa-speaking Pueblos should adhere to a universal Tewa writing system—such a goal might ultimately be unattainable (or inappropriate); rather, the long-term ideological implications of such orthographic decisions must be kept in consideration when developing writing systems. Future research could prove fruitful in determining the nature of the relationship between modalities of language revitalization and the ethnocultural, sociohistorical and political context in which indigenous languages exist.

Notes

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1. I note that Nanbé has an unmarked “tense” here because, as Mithun (1999) observes, even though Tewa verbs may in fact mark temporality through aspect, speakers nonetheless treat these as tense distinctions.
2. It is unclear if this expression remains in use today by Acoma speakers.
3. By some, though not all, communities of writers, I mean that many traditionalists continue to use *he* to represent an unidentified third person, while other groups of writers have adopted *he or she/she*.

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Determiners semantically encode features for gender, number, “visibility”, and location. Their prosodic behavior has not been described in very much detail.

While there are numerous determiners available in the language, very few are used in spontaneous speech. For example, in the Sasq’ets text, only the determiners *te*, *ye*, and *kwe* are used. The following illustrates the frequency of use for each text analyzed:

(4) Textual Frequency of Upriver Halkomelem Determiners

Form	Frequency in text
te	71
ye	8
kw’e	5

It can be pointed out here that *te* is used an overwhelming majority of the time in these texts, perhaps due to the fact that it is an unmarked form (note also the unmarked status of *ye* and *kw’e*).

3. Textual Cases of Determiner Clisis

It is observed that in texts, such as narratives, determiners exhibit unexpected behaviors. For instance, the examples below illustrate how determiners tend to encliticize onto a preceding element:

- (5) su me xwí=**te** swíyeqe
and then come wake.up=**det** man
‘and then the man woke up’ (Sasq’ets line 5)
- (6) te-wát-es kw’e tíl-t=**te** teqtál-tset
somebody det clear-trans=**det** door-1pl
‘Somebody cleared our door’ (Sasq’ets line 27)
- (7) xwem kw’e-s xwemá-s=**te** teqtál-tset
possible det-nom open-3s=**det** door-1pl.poss
‘It’s possible to open our door again’ (“We can open our door”) (Sasq’ets line 28)
- (8) osu lh̄e::lexw te swíyeqe li=**te** skwchós-tel
and so stand det man prep=**det** window
‘So the man was standing by the window’ (Sasq’ets line 62)

What results is a mismatch between prosody and syntax, given that the syntactic elements forming a constituent (determiner and noun phrase) are prosodically split. This situation is shown in examples (1) and (2), repeated below as (9) and (10) with brackets to illustrate the different groupings (square brackets indicate syntactic constituency, while curly brackets show prosodic constituency).

- (9) osu {thíy-t-es=**te**} sil-áwtxw] {s-kwtáxw=**te**} lále^m]
and.then {build-tr-3S=**det**} cloth-house] {nom-let.inside=**det**} house]

- (10) “oh my” éwe i-s olu {qel=[ye} **sásqets]**
 neg aux-3SS as? {bad=[**det.pl**] sasquatch]

While such a phenomenon is attested in certain other languages of the Pacific Northwest, such as Kwakw’ala and languages in the Tsimshianic family, no mention has been made of the process in Salish languages. The Kwakw’ala case is well known, and examples are presented below:

- (11) Nep’id-i-**da** gənanəm-xa guk^wsa t’isəm
 throw-SUBJ-**ART** child-OBJ house-INSTR rock
 ‘The child threw a rock at the house’ (Anderson 1985:166)
- (12) yəlk^wəmas=**ida** bəg^wanəma=**x-a** ‘watsi=**s-a** g^wax^hax^h
 cause hurt-**DEM** man-OBJ-**DEM** dog-INST-**DEM** stick
 ‘The man hurt the dog with the stick’ (Anderson 2005:16)

Anderson notes that although the determiner “provides case marking and deictic information about the nominal that follows, it attaches phonologically to the *preceding* word, regardless of that word’s syntactic affiliation.” (2005:16-17; emphasis in original). As Jackendoff (1997:112) has additionally noted, “This looks so strange because it is a massive violation of the overwhelming preference for syntactic words to correspond to phonological words.” There is a similar phenomenon found in Tsimshianic languages. For instance, in Gitksan, the “connectives”, which encode certain properties of noun phrases, are enclitic to the verbal complex rather than prosodically affiliated with the noun phrase (Rigsby 1986):

- (13) Had-ixs=hl gat=gi
 swim=CNN man=DIST
 ‘The man swam’ (Rigsby 1986:277)

In contrast to these other cases, the process is restricted in Upriver Halkomelem to connected-speech contexts, and displays a great deal of variability. Furthermore, there are numerous cases where a determiner will *not* encliticize onto a preceding host. For example:

- (14) su le tl’ékw’el **te** **heyqw-s** álhtel
 and.then aux go.out **det** **fire-3rd.poss** 3rd pron
 ‘and then their fire went out’ (Sasq’ets, line 3)
- (15) s-pípew **ye** **thqát**
 nom-freeze.dim **det.pl** **tree**
 ‘the trees were frozen’ (Cottonwood, line 2)

While at first glance this variability appears to suggest unconstrained optionality in rapid speech, the phenomenon is robust enough to warrant an explanation. We will therefore

develop two accounts of potential sources of cliticization and test them against the available data.

4. Two Possible Analyses

In this section we outline two possible analyses for the determiner clisis phenomena in the language. One possible account involves the determiner being grammaticalized as a part of the verbal complex, perhaps as an agreement morpheme. An alternative account would view the clisis as a phonological phenomenon, driven by the conditions on stress or prominence in the language and restricted to connected-speech contexts. Both of these analyses are outlined below.

4.1. A Morphosyntactic Account

A potential syntactic account of determiner clisis in Upriver Halkomelem would view the determiners as undergoing a diachronic change whereby they are being reanalyzed as components of the verb phrase, rather than as specifiers to the following noun phrase. This grammaticalization of the determiners would potentially result in something like an agreement marker on the predicate.

There are, however, three broad criticisms to be leveled at this sort of account. The first complication comes from the existence of an agreement system with properties very much unlike those displayed by the elements under consideration here. For instance, while the determiner system tracks gender, number, and ‘deictic’ properties of noun phrases, the agreement system tracks person and number features. The syntactic distributions are also quite different. Agreement morphology must be located on complementizer, mood, or verbal heads (Wiltschko 2003), while, as we shall see, determiners are not so constrained. Finally, there are two series of agreement morphemes whose appearance depends on clause type. Determiners, on the other hand, do not vary from one clause type to the other. While it is still possible that, despite these marked differences, the determiners have in fact been subsumed into the agreement system (perhaps as an early stage of a process that would see the two sets ultimately fused), we think this is unlikely. Further reasons to doubt this are adduced below.

There are also clitic-host dynamics which cast doubt on the morphosyntactic account, as there are examples with preceding elements which are not verb phrases. For instance, (16) illustrates a determiner which has encliticized onto a preposition.

- (16) li ye si-l-yólexwe lo-lets’e álhtel li=**te** lálém
 aux det.pl old.people.pl one.redup. 3rd.pron prep=**det** house
 ‘the old people, they were alone in the house’ (Sasq’ets line 2)

At this point it may be argued that the determiner will encliticize onto preceding elements which are predicative in nature, or that are case assigners. However, there is additional evidence which suggests that this is not the case. For example, in (17) the determiner is enclitic to a nominal complex. The nominal status of this element is confirmed by the possessive marker which is suffixed to it.

- (17) lepexw li=**te** axelesmel-s=**te** xélh
 thump prep=**det** front-of-house-poss=**det** door
 ‘it thumped in front of their door’ (Sasq’ets line 21)

Since there is no consistent syntactic category that serves as a host to enclitic determiners, it seems highly unlikely that determiner clisis is syntactically motivated in the language. We turn next to the possibility that the process is phonologically motivated.

4.2. A Prosodic Account

Having shown a likely syntactic account to be insufficient in characterizing Upriver Halkomelem clisis, we will attempt in this section to construct a plausible prosodic account. As is often the case with functional elements, the determiners in Upriver Halkomelem are phonologically weak, consisting of a single open syllable headed by a schwa. We will explore the hypothesis here that the process of determiner clisis in Upriver Halkomelem is a product of the word-level stress system of the language, which would be viewed as being extended to a larger prosodic and morphological domain in running speech. The effect of this extension is a pressure towards incorporating determiners into the computation of stress when it results in a preferred metrical structure.

In all of the cases seen thus far, a determiner has encliticized onto a preceding element when the preceding vowel was a full vowel. This is again illustrated in (18-19).

- (18) xwem kw’e-s xwemá-s=**te** teqtál-tset (Sasq’ets, line 28)
 possible det-nom open-3s=**det** door-1pl.poss
 ‘It’s possible to open our door again.’ (“We can open our door”)

- (19) le kw’áts lam=**te** teqtál (Sasq’ets, line 42)
 aux look dir=**det** door
 ‘He looked out the door.’

In cases where a reduced vowel precedes, there are examples where no clisis occurs:

- (20) det preceded by reduced vowel
 me kw’ets-l-óxw-es kw’e tewátes (Sasq’ets, line 15)
 come see-trans-1pl.o-3rds **det** somebody
 ‘Somebody has seen us’

- (21) “oh my” xete, su xwmá-x-es **te** xálh (Sasq’ets, line 26)
 say so open-trans-3erg **det** door
 “oh my”, he said. So he opened the door.’

This pattern is mirrored by the stress pattern of the language, whereby full vowels will receive primary stress; otherwise, *ceteris paribus*, a trochaic pattern will emerge such that a series of reduced vowels (or schwa, represented orthographically by unstressed <e>) will be footed as (ǎ ə) (see Bianco 1998 and Shaw et al. 1999 for the stress patterns in

other dialects, as well as Bar-El & Watt 1998 for a similar analysis of Squamish).

Under this analysis, it is assumed that in the default case, syntactic constituency will be respected by prosodic constituency. However, there are two conditions under which this approach predicts enclisis to occur – a noun with a full vowel in the initial syllable will tend to repel the determiner, and a full vowel in the final syllable of the preceding word will tend to attract the determiner. The former case reflects a tendency to maintain a trochaic rather than iambic footing; the latter reflects a tendency to compose well-formed trochaic feet from full vowels and stray schwas. A further prediction is that a reduced vowel in the preceding word (which ends in a well-formed foot), and a full vowel in the following noun will derive ambivalent results. This is the case in examples such as (22-23).

(22) su qól-em te máqa
 so scoop-intrans **det** snow
 ‘So they scooped up some snow.’ (Sasq’ets, line 35)

(23) xete te swíyeqe “ewete-l lhq’é-l-exw”
 say **det** man neg-1sg.subj know-trans-3o
 ‘The man said: “I don’t know.”’ (Sasq’ets, line 32)

If this is indeed the mechanism behind Upriver Halkomelem clisis, we should expect clisis wherever the determiner follows a word ending with a stressed vowel, and variability after words ending with an unstressed vowel. This variability should reflect the possibility of clisis being employed as a strategy for optimal footing at the word level. These predictions are summarized in the table below.

(24) Predicted typology of clisis on prosodic account

<u>pre-s</u>	<u>det</u>	<u>post-s</u>	<u>prediction</u>
stress	schwa	stress	clisis
stress	schwa	non-stress	clisis
non-stress	schwa	stress	variable*
non-stress	schwa	non-stress	variable*

*variability should depend on the possibility of the preceding syllable forming an optimal foot with *its* preceding syllable

As it happens, these clear-cut predictions are not borne out. The next table gives the numbers for the determiners in the two texts represented in this study.

(25) Actual distribution of Upriver Halkomelem clitics

a. ‘expected’ cases

	<u>Tokens</u>	<u>Clitics</u>
‘Sasqets’	17	10
‘Cottonwood’	8	5
<u>Totals</u>	25	15

b. ‘ambivalent’ cases

	<u>Tokens</u>	<u>Clitics</u>
‘Sasqets’	34	11
‘Cottonwood’	13	5
Totals	47	16

It quickly becomes clear that the extended footing hypothesis does not make the correct predictions. There is a high degree of variability in the case that is meant to be most favorable to clisis, although those cases are predicted to be relatively invariant. While variability is expected when an unstressed syllable precedes the determiner, the variability that is displayed does not correlate with the predicted factors. Thus, the attempt to reduce Upriver Halkomelem determiner clisis to an extension of word level footing does not capture the attested patterns.

4.3 Summary

We have so far explored two potential analyses of Upriver Halkomelem determiner clisis – a morpho-syntactic analysis in which the determiner system is being absorbed into the agreement system, and a prosodic analysis in which the phonologically weak determiners are commandeered by the word level footing strategies of the language in connected speech contexts. Both of these accounts were found lacking in crucial respects. While this does not guarantee that there is *no* adequate account that appeals only to syntactic or prosodic mechanisms, we assume at this point that such is indeed the case. In the next section, we extend the domain of inquiry to the auxiliary system, where similar cliticizing behavior is exhibited.

5. A larger context?

Thus far, we have considered only the behavior of determiners in discourse situations. Neither of the proposed solutions are capable of generating the type of behavior we have seen. It is possible, though, that the real generalization lies beyond the limited domain we have considered thus far. In this section we consider a further context in which similar behavior is exhibited, this one involving some of the auxiliaries.

Upriver Halkomelem employs two separate sets of auxiliaries which have distinct syntactic distributions and semantic functions (see Galloway 1993 for a discussion). These are shown below.

(26) Upriver Halkomelem auxiliaries (from Galloway 1993:359)

me ~ mí	‘come to’	from the full form	emí ~ mí	‘come’
le	‘go, go to, going to’	from the full form	lam	‘go(ing) (to)’
í	‘here’			
li	‘there’			

While one auxiliary (*lam*) does not appear to engage in clisis, the others (*me,li,i*) seem to exhibit the same sort of gradient cliticization we have noted in the determiner system.

(27) kwú-t-es te steliq'áyus=the xwelítem
 take-tr-3S det horse=det.fem white.person

qesu=**me** má-x-es te thqát...
 and.then=**aux** take-tr-3S det tree

He fetched the white person's horses and then he took the tree away...
 (Cottonwood, lines 14-15)

As shown in (27), auxiliaries that are following a sentential conjunction will in some instances encliticize. While it is certainly possible that the behavior of determiners and of auxiliaries is unrelated, we suspect that a unified account is in order. If this is so, it would seem that the pauses come 'in the wrong places' (Donna Gerdts, p.c.). Rather than lining the prosodic boundary up with a major syntactic constituent, the intonation unit includes the first element of the following constituent to the exclusion of the rest.

This suggests that what may be at work here is something operating on a higher level, on the order of information structure, discourse-level intonation units (Chafe 1994), or processing strategies (Bybee 2001). For instance, the encliticization exhibited by the determiners and auxiliaries in Upriver Halkomelem may be instances of the process of "chunking" discussed by Bybee. As Bybee states,

"The production of linguistic material is not neutral with respect to directionality. Since one word follows another in a temporal sequence, it is plausible to suppose that the tendency to chunk as much material as possible proceeds in the same direction as production. Thus, given a word as a starting point, as much material as possible is pulled in after, or from the right of, that word. It is possible, then, that chunking favors situations where the first element is highly predictive of the second element" (2001:163-164).

Such a process may very well be at work in the language. A determiner (in this case most specifically *te*) will typically follow a verbal complex, and thus is likely to be chunked with that verbal complex. The result of this chunking could perhaps then serve as a pause point.

All speculation aside, clearly more work is needed to establish just what the generalizations are, and to see if there is indeed something systematic about the behavior of determiners and auxiliaries at one or both of these levels.

6. Conclusion

This paper has illustrated some of the unexpected behaviors of determiners in Upriver Halkomelem spoken narratives. One of these behaviors is the tendency to encliticize onto a preceding element. A syntactic analysis was offered that keyed in on the agreement-like properties of the determiner system, but it was shown to be inadequate. A prosodic account was also offered, one based on the word-level footing strategies of the language and the system that would emerge if the parsing mechanisms were able to co-opt the determiners as weak elements of feet. This too was shown to be inadequate.

Then further findings involving the auxiliary system were reported, a system which also takes part in the cliticization processes in discourse contexts. The connected-speech status of this process indicates that this may have to do with some higher-level mechanisms centered on information structure or discourse-level intonation units. While it is likely on such an account that this is a stable system, it may also be that such mechanisms could be motivating a diachronic change whereby determiners and auxiliaries will consistently be enclitics to a preceding element (as is the case in languages such as Kwakw'ala; cf. Anderson 1985).

Finally, it is a noteworthy discovery that other dialects of Halkomelem display similar properties, such as Cowichan (Donna Gerdts, p.c.), and that the same is true for other closely related Coast Salish languages, such as Sencoten (Benner, 2006). We speculate that further investigation into determiner clisis within Upriver Halkomelem, as well as in these neighboring dialects and languages will provide further clues as to how clisis operates, what governs variability in certain contexts, and also whether this is a diachronic change in progress.

Notes

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1. The Upriver Halkomelem forms are presented in the official orthography used by the St'ó:lô people. The key to the orthography of Upriver Halkomelem is as follows a = æ or ε; ch = tʃ, ch' = tʃ', e (between palatals) = ɪ, e (between labials) = ʊ, e (elsewhere) = ə, lh = ɬ, o = a, õ = o, xw = xw, x = ɣ, y = j, sh = ʃ, th = θ, th' = tθ', tl' = tɬ', ts = c, ts' = c', x = x or xj, xw = ɣw, ' = ˀ, ˀ = high pitch stress, ˘ = mid pitch stress (see Galloway 1980 for discussion). Original data are used with permission of the Stó:lô Nation language program.

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Narrative, Place, and Identity in a Southern Paiute Community

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For Paiute-speaking adults in the San Juan Paiute community, it is often through narratives told in everyday interactions, as well as through the traditional myths and legends, that they create and recreate their identity as Paiute people. Presently, San Juan Paiute society and culture is changing rapidly and narratives provide a resource for Paiute people as they attempt to understand and fashion their place in a reconstructed socio-political landscape. San Juan Paiute storytellers, themselves, are well aware of the power of their narratives as these stories are recontextualized and performed in novel settings, in varying forms, and for shifting purposes. Both in narratives embedded in conversations and in traditional myths and legends, Paiute storytellers control metadiscursive practices that reflect and reconstitute the social and political landscape.

In this paper, I use video-taped interactions to examine informal narratives that came up naturally in conversation. Although more formal traditional stories are still told, everyday stories are informal. In particular, I analyze the ways these narratives shape and are shaped by the social context and the ways these narratives and narrative events have changed or remained the same. I focus on how the storytellers are using various kinds of stories (meta) discursively to re-create what it means to be Paiute.

Twenty-five years ago when I first visited them, the San Juan Paiutes were a small band of less than 200 members located on their traditional territory on the present-day Navajo Reservation. By the 1980s, the tribe consisted of between six and nine extended families (depending on how one counts them) that were Paiute-speaking and of three or four families who through particular historical circumstances had become Navajo-speaking. The San Juan Southern Paiute Tribe was unique at that time as the only one of the 10 Southern Paiute tribes where a number of families still used Paiute as an everyday language and where some children were still speaking Paiute. Most lived in one or two room self-constructed houses. They had no relationship with the federal government and most did not receive any services either through the B.I.A., the local Navajo government, or the County. Also no San Juan living on the Reservation was employed. They supported themselves primarily through subsistence farming and basketmaking—they were the primary producers of the Navajo Wedding basket, a trade basket, which the San Juan Paiutes sold to trading posts and individual Navajos who used them for ceremonies. Since that time, there have been a number of events that have changed their lives: the most important of these was their Federal Recognition in 1990 which gave them a government to government relation with the Federal Government and access to many programs. After Federal Recognition, many tribal members moved to Tuba City where their tribal offices have been "temporarily" located for the last 15 years or so. In Tuba City, they were able to live in trailers with electricity and running water and the San Juan Tribe has been able to provide employment and programs that serve Tribal members. Simultaneous with pursuing Recognition, they were intervening in the Navajo—Hopi land claims lawsuit which then became the Navajo—Hopi—Paiute suit in

1983 . Their goal was to gain title to at least a part of their traditional lands. In 2000, this goal came a little closer when the Paiute Tribe signed a land treaty with the Navajo Tribe which would give them a small reservation of their own. Today in 2006, they are still working to have Congress put their land into trust, i.e., a reservation and, so, are on the verge of finally being able to develop their land—including the simple construction of houses with modern services on their traditional land.

Although the physical and social context has changed a great deal, some things have remained the same—stories, especially informal stories, were in the past and are still a major form of entertainment and instruction when people get together. The telling of stories is important in itself and Paiutes expect that events that happen to them will get turned into stories. Stories often deal with what the storyteller observed, heard, or did, and often lead to multiple participation in a storytelling event itself. Children listen to these stories and sometimes try to participate. Generally, this participation is encouraged. The changing context has not made them perceive themselves as less Paiute. But it has meant that they have to work at making sense of their changing experiences, especially in terms of constructing and reconstructing their identity. Narratives, especially co-produced informal narratives, provide Paiutes with a metadiscursive resource to do just that. In the stories that follow we see various approaches that Paiutes are using. One of them has to do with linking Paiute life ways, morality, and history to places in the physical landscape. And a second has to do with using humor to contrast Paiute and non- Paiute identity.

Places are of great importance to most Paiutes, especially the ones who remember living on their traditional land—most Paiute-speaking families have only moved to Tuba City in the last 10 years and some still live there or have livestock and visit daily. Their traditional territory as a whole is made sacred by myth time events that are said to have taken place there. Also, Paiute ritual activity that takes place in and around homesites makes all Paiute homesites (extant or not), as well as other kinds of places, sacred.¹ Proximity to a place where Paiutes once lived or traveled invariably produces narratives about something that happened at that place.

In this example, we were on a pinyon nut gathering trip in an area near Paiute Canyon and I asked one Paiute woman, Na'auntsits Wʉn,² to tell me about pinyon picking; however, when her 31 months old grandson, Shushʉxats, who had followed me, began to repeat her phrases, she refocused the interaction to include him as a co-narrator. The interaction, which follows, provides a demonstration of how Paiutes socialize a very young child to be a storyteller. Note that as soon as she realizes that he is trying to participate, she pauses (one time for six seconds) after speaking and turns and looks at him, waiting for him to repeat. He, then, turns towards me and repeats her utterance:

Example 1. [sh=Shushʉxats; nw= Na'auntsits Wʉn; and pb=Pam Bunte. The first initials refer to the speaker; the initials following the dash refer to the addressee. Italicized segments in the original and translation mean that the segment was originally in English.]:

nw--pb nʌ'av tʌvwachʔai.³
I'm gathering pinyons.(1)⁴

nw--pb nʌ'av tʌvwachʔaiyʌ'm kaxutsing'wa. =
I'm gathering pinyons with my grandson.

pb--nw =um hmm= [Shʌshʌxats softly repeating tʌvwachʔay 'gathering pinyons' in background].

nw--pb =ichʌ aʌv ar'ai=
Now, it is this.

sh--pb =tʌvwachʔay. =
gathering pinyons.

nw--pb tʌvwachʔai'yʌm, (1)
we're pinyon gathering,

nw--pb tʌkavatsiaka'am ichʌ tʌvay. (1)
we're about to eat these pinyons.

tʌnkamais tʔm tʌkat'a ich. (1) tʌnkamar. (1)
It tastes good in the wintertime when you eat these. They taste good.

shakaih kunanax, (1)
When they cook [them] in the fire,

nw--pb/sh manikay paninax, =
they move them around in the pan,

pb--nw =ʌnga=
yes.

nw--pb/sh =kumixamap, popcornip'ani, sha'akaih. tʌnkamay. ʔavimakw
tʌnkamay. =
like corn, popcorn, when they cook [them].They taste good. With salt on them,
they taste good.

sh--nw = [turns and looks at pb] popcorn ʔavi [gə gə] (.0)
popcorn salt [?]

nw--sh ʌ'ʌng. unikay tʌkamar iinch. [turns and looks at Shʌshʌxats] (3)

Yes. This tastes good.

sh--nw [turns and looks at pb] tæukamay iich
This tastes good.

nw--sh æuviakan u æuviakan u tækavani. [turns and looks at Shæshæxats] (6)
Now, I'm going to eat it. [bites pinyon]

sh--nw [turns and faces pb] æuv tækavani.
Now [I]m going to eat [it].

nw-pb/sh ichæra. ichæra. næm, tækavianiam ichæ nænai chøakain (1)
This. This. We, we will eat this one that I picked

kaivaxavachu tævapaxavachu. (.0)
in the mountains in the pinyon area.

pæp'aniak uruh.(.0)piaxairæav, kaxukaiæav pæpa//nika'//am aniræ.
This is the way. My late mother, my late grandmother used to do it this way.

sh-nw/pb //iits// iits
This, this

nw-pb/sh chøaræaka'am up'ani h//ani//xa. (.0)
That's how they used to pick them .

sh-nw/pb //pæp// iits (.0)
[?the way?] this

nw-sh/pb tømøøngütækanæp ara'ay. =
It used to always be in the winter.

sh-nw/pb =kæ pæp ii (.0)
? [?the way?] this

nw-pb inaku ampaxaiyuk ampaxay ukwa aipats. (.0).
This boy is talking about it.

tæutæniayaku. tæniavat'atæak ara'a, nanakuts. (1.5)
It's a good story. He will tell about it, when he's all grown up.

nw--sh aingu', kaxutsin. (.0)
Say [that], Grandson.

sh-nw Hunh? (.0)

nw--sh aingu' kaxutsin. (1)
Say [that], grandson.

nw—pb inaku taniavant. (.0)
He is going tell about it

nw—sh ʌ'ʌng ingu'. (.0)
Say "yes."

sh--nw ʌnga
Yes.

nw—sh ʌm hʌh
[agreeing]

Na'auntsits Wʌn's statements in the example above implies that Shʌshʌxats's cultural prowess and his present participation in the storytelling has made this story part of his identity. In fact, she links his present performance with his continued ability to tell this story "when he is all grown up" and indeed his identity as Paiute is indexically related to this and other stories he will tell. Na'auntsits Wʌn also retroactively frames the description of pinyon gathering as a story. Although while she doing the describing no one may have thought of it that way, now that she has constructing the interaction as a story it is a story. Notice too that although place is not highlighted in this narrative Na'auntsits Wʌn in her story says that the place where she picked the pinyon nut that she is eating is "kaivaxavachu tʌvapaxavachu" 'in the pinyon gathering mountains'—where we were sitting at the moment. In fact, we were very near some historic pinyon gathering camps that i had been taken to several years previously—probably where Na'auntsits Wʌn's late mother and grandmother stayed. Place actually played a large part in the way this narrative developed.

Although it happens less predictably, such a narrative may also be told when a place is simply mentioned in conversation. For example, Kaamp, his cousin Wasimpʌl, and Wasimpʌl's mother, Ani, were preparing and eating dinner around Wasimpʌl's kitchen table in Tuba City one evening in July 1999. Kaamp had been doing most of the talking on various topics while Wasimpʌl was fixing and serving dinner. When Wasimpʌl sat down Kaamp mentioned that another cousin had seen some tents in an area near the modern day town of Page. Page is near a place important to San Juan Paiutes called *nʌvaxarʌr* 'wild sheep mesa' in Paiute. At that point, Ani, who had up to this time been providing only encouragement in the form of minimal responses to Kaamp, began with the story introducer "*uvai uvaiyuruh*" 'then' to begin tell the story.

Example 2. [Kaamp =k; Wasimpʌl =w; Ani =a]

a: uvai uvaiyuruh navaiyurokwa'ang kaap kaivayuxwichuxw uruh uvai
Then it was he sang a protection song by those hills

Wasimpul then asked several questions trying to find out if it was a song she knew.

w: axani kaaruxa?
what song did he sing?

a: nux' ukwai kaxami'akw.
I can sing it.

w: axat ukur? kaxa'ak. uvai 'kiya'ningwavaxai' shuuv? [laughing]
which one? sing it. Is it "noisy laughter" maybe?

a: k ururuh impuvat poavuvat.
This one is about the medicine.

a: ungwaxura hanakapayukw inakapayukw airuxaivaich.
naxavukaruxa inakapayukw hanakapaiyapakw airuxaivaich.
shuuv inakapaiyuk airuxaivux.
"He was on that side (maybe) on this side he probably said.
"On this side of Wild Sheep Mesa" or "on that side," he probably said.
"Maybe this side," he might have said.

a: impuvø'ap tangwivachu sukain'ivani iruxa ukwai.
ungwah kwai nangutsung poatsixat uvwaiyønakatumkw ukwai kaxaruxa
"Some type of disease will appear," he said.
The Paiute medicine man sang a protection song.

w: impura'iyur
what is it?

a: aiy yeh yeh ankasia ankasia ankasia
kwanantsixaiyoni wiyuxwanikovani
tavaiyaukw kwimituxwashoni wii'yuxwanikovani
[sings] Pinkish pinkish pinkish [sky]
As an eagle moving slowly back and forth
Sun setting moving in circular direction back and forth

a: haingwatsi'ik kwai øønax ungwaxøønax
mpukwai kukwatsini'kwai puwamanixya kwanantsixwiyavux.
unikaikungwah puva'anayu'ng kwai powanakan ungwaiyønaxatuxw kwai
kwiyunt'iruxa, pukwipuxai'kw tavayookwimituxw
Having said it while circling around the patient,

it was like what Navajos usually do performing a ceremony with the eagle feather. When he did that--performing the protection ceremony around the patient, He turned it (the disease) around towards the sunset.

a: imiaxwangukwai muwanixaip
My late father told this story.

Ani clearly framed this telling as a story. The first phrase, *uvai uvaiyuruh*, translated as 'then' is one of a set of phrases that are used at the beginning of stanzas and also sometimes introduce stories. For the ending frame, she uses, *imiaxwangukwai muwanixaip*. *muwanixaip* means 'my late father' and invoking the name of the person—most commonly an ancestor—who told them the story is a common way to frame the beginning or end a narrative. However, although *imiaxwangukwai* is also used as a story frame, in my experience it is only used to start a story and, then, only myth stories. Furthermore, it appears to be untranslatable—even by the Paiute storytellers who use the term. When I asked for a translation the only one I ever got was that it was like 'Once upon a time.' In other words, it is being used metacommunicatively to cue the listener into the kind of story to which they will be listening. It clearly does not mean literally 'told this story.' I believe what Ani was doing here by using a framing device more usual for the beginning of myth stories was simply emphasizing the storyness of her narrative.

For our purposes, this story's reliance on place is also crucial. It is the place that triggered/ keyed the narrative and for Ani the landscape was so essential that she had to remember which side of Wild Sheep Mesa it was that the Paiute medicine man performed the protection ceremony before she could go on with the narrative. For the San Juan people this area is particularly sacred because it is where Coyote let the Paiute people out of the quiver—it is the center of the earth. This would not be mentioned because it is considered common knowledge.

During the narrative, Wasimpul kept asking what the song was that was referred to in the opening line, even trying to guess at which one it was—"which one? sing it. Is it *noisy laughter* maybe?" *uvai 'kiya 'nitingwavaxai' shuuv?* However, her mother kept putting her off and instead spent quite a bit of time contextualizing the story as happening at a certain place. I was surprised when Ani finally sang the song because it turned out to be a popular song—one that even I knew. By not revealing the song to the end, she emphasized the central importance of place and put the song into what for her was the significant context. She knew that most people liked and could sing the song but also she must have realized that most people like her daughter did not realize the original purpose of the song since they had never witnessed a Paiute medicine man performing a protection ritual. I think that she wanted to make sure that her knowledge about this song was recontextualized for the new generation and that the importance of place in Paiute life ways was made clear. Ani died less than a year after this conversation.

The following story was told in January 2000 during after dinner conversation in Mukwiv's trailer and refers to an event that had taken place only a month or so earlier in the same location. On this occasion, Mukwiv is the primary storyteller although

everybody contributes. Everyone present on this occasion in Mukwiv's trailer (except me) had actually witnessed the event reported in the story. It is also very likely that all (or most) had either told or listened to this event as a story before, as well. The present event was therefore, a retelling, and a recontextualizing of the narrated event on at least two levels: a cautionary tale for the three year old at the table and an attempt to relocate and reconstruct Paiute identity metadiscursively for all present (including the three year-old). The telling is complicated and enriched by multiple co-tellers, by the ambiguity of the framing, and by multiple focuses. As background to the story—there was a group of people, mainly Anglos but composed of several ethnicities (including other Indians), whose mission was apparently to show Indian people how to dress and behave "properly." Mukwiv calls them "business peoplingw" adding the Paiute animate plural suffix. They had been invited to go to Mukwiv's house; and other Paiutes and some other Indians (including a policeman) showed up. When the "businesspeoplingw" were in the middle of explaining the virtues of middle class Anglo table manners and dress, a Paiute man, Kaamp, shows up drunk and falls down right in front of these well-dressed people. The videotaped interaction shows that at first when they are talking about what happened Tsanna is playing with her nephew, Shushuuxats, and is not paying attention to the story (even though it is actually her comment that led into the story). Notice how suddenly her attention shifts back to the story; and that this is when Mukwiv takes the lead.

The storytelling took place in Tuba City Arizona when four adult siblings, Mukwiv, Piki, Tsana, and Shaivingo'o, and their cousin, Shøøtsi, their mother's sister, Kwis, and cousin's son, three year old Shushuuxats, were eating dinner at Mukwiv's trailer. Tsanna made a comment about the effect of sweet drinks on Shushuuxats: "*aʌviyang tʌvwitsi anikovani marʌ ivinguts*" 'Now when he drinks [he's] more out of control.' This led to a story that everybody in the room was already familiar with.

Notice too that--although place does not have the central importance in this narrative that the previous story had, it is still felt necessary to note that they were in the exact place where the narrated event took place and even to establish from which side the main character had entered.

Example 3 [m = Mukwiv, p = Piki, ts = Tsana, and shai = Shaivingo'o, Shøø = shøøtsi, k = Kwis, and shʌ = Shushuuxats.]

ts: *aʌviyang tʌvwitsi anikovani marʌ ivinguts.* (.0)
Now when he drinks more out of control.

m: *mait'aियungwano haʌv kaamp. "aiyʌngw'atʌm tʌvwits ivikarʌm," aikarʌm.*(.0)
That's what they're telling Kaamp now. "It's not good drinking too much," they say

shøø: [unclear others talking and laughing at same time about 20 seconds]

p: *kaichoxo'ang tuxutuxwa marø'øngut'aa.* (1)

His hat was pushed upwards [upwards folded] by someone.

shøø: maningwata'akw tuxutuxw=
Somebody did this upwards (with upwards motion of both hands)

ts: = 'aaah' aik ungwah. (1)
He said "aaah"

shu-- "aaah" =

I was the only one present who had not been at the meeting; and, as I was concentrating on Tsanna's interaction with the three year old, I was not listening to the story being told in the background. I became aware that an event was happening as Tsanna's attention shifted to the on-going narrative. The point when Tsanna reported "he [Kaamp] said, 'aaah' and Shashuats repeated the "aaah" seems to have been a turning point and Mukwiv retakes the lead in the narrative and "breaks into [animated] performance" (Hymes1975, Bauman 1993).

m: =mavai pa'aiyungwatumu businesspeopling tawitsi taara'u'akatam shuupaxa
inaax kaninaxain. (1) aaxaap'ahap? iyupaungwupaxair'angw kwayi
tanankw?

Over there there's lots of business people [wearing] fancy clothes at a meeting in my house. (1) Which way did he come in? Was it this way through here? [pointing]

ts: imainakwa (1)
From this side.

k: imainakwa =
From this side.

m: =imainakwa ungwah wakaingu
ma'n paxa'imai ungwah. toxoivatø taiyainukwika'a.
pu'ivatøum umuh tawitsi taruaka'tømu, taiyainukwika'
From this side, he comes in
He's walking like this. (with arms showing walking motion)
Right over here his feet flipped over head. (with upwards motion of both hands)
right in front the ones wearing fancy clothes his legs went up over his head.

[Laughter (3)]

ts: matsikw up'aang pioxwøpapaxa'ing.
Matsikw dragged him out.

m: tuxwaivøvøti'ikw ukwain uvai
Instead, he's putting up a show [Laughter]

shai: umuaxav ukwai karæi pørisits
Sitting among the people was the police [more laughter]

m: yaaikiyaka'ni shuwatəmæni, marəkatsing uwanai apaxai // tærian
The others were dying laughing, while the white person kept talking instead

ts: //apaxaixai =
talking, huh?

m: = tærian shuwatəmæni yaaikiyaka'ni=
instead the others were laughing

shai: =shuyukwai //pørisits ura'ai
one of them was police.

m: //shuyukwai// pørisits ura'ai kamutsipa//ni næranukwivøri//
one of them was police. Like a rabbit, playing and running around.

shæ: //kamuntsini. where you//
going you runaway, hunh? maning. =
like a rabbit. where you
going you runaway, hunh?[He]'s doing that.

ts-- shæ: =maning = [laughs]
[He]'s doing that.

shæ: =like that maning
like that doing that.

m-- shæ: kamuts=
Jackrabbit

shæ: =kamuts like that runaway
Jackrabbit like that runaway

k-- shæ: runaway

ts--shæ: axap'a? toxowaikaip'av?
What way? Any old way?

shə: tʌvwitsikwan, // *runaways--*
Really fast like, *runaway*

m: //tʌvwitsikwan
Really fast like.

ts: piya murachi. piya murachiyʌngu hin. =
He 's drunk on sweets. He 's suddenly drunk on sweets.

m: =piya murachi (1)
He 's drunk on sweets.

sh∅∅: piya murachi
He 's drunk on sweets.

When Tsanna switches her attention from Shushʌxats to the ongoing narrative, it seems at first that the boy is paying attention to something in the next room rather than the story; however, closer attention to the footage reveals he is listening to the narrative all along and therefore it is not surprising when he re-enters the narrative interaction. Notice also how the storytellers encouraged his participation by repeating his statements and asking him questions about the actions of the character in the story. Just like Na'auntsits Wʌn in example one, they have, in effect, reoriented the story in order to include him.

This story displays multiple perspectives and stances. 1) There is Tsanna's perspective about Shushʌxats being out of control, drunk on sweets. 2) Mukwiv related Shushʌxats's case to Kaamp about whom she reported that "they say": "it isn't good to drink so much," and 3) Tsanna reported that Matsikw dragged Kaamp out of the meeting. However, the humor of the narrative is directed at the people in fancy dress rather than the drunk man. To understand what is going on here, we have to understand that drinking and alcoholism does not have the same stigma in Paiute society as it does in Euro-American society. People just think of it as a disease and continue to respect the person. In this case, Kaamp was compared to Jackrabbit while with other people it has been to the trickster, Coyote. This narrative, then, is also about identity and being Paiute. Like Coyote stories and Basso's Portraits of the Whiteman (1979), it shows the listener how not to act, i.e., like silly Anglos who think it is important to wear fancy clothes and act "properly." But also not like the undisciplined Jackrabbit jumping around and falling in front of a hunter or in this case a policeman.

All three of these narratives can be understood as participants' attempts to reconstruct what it means to be Paiute in changing social, political, and physical landscapes, but they accomplish this in different ways. Na'auntsits Wʌn and Shushʌxats co-told story is perhaps an attempt to keep some things as much the same as possible in a rapidly changing world. Shushʌxats was a two year old who was being raised in a monolingual Paiute-speaking household and he was out at the place where the traditional event should be, where it actually was taking place—the normal situation for this kind of narrative. He was also speaking in Paiute about traditional events. What I

think was innovative about the story was the way Na'aintsits W̄n framed it by saying that he was telling this "good story" and linking it subtly to both his language ability and the place. In the past, she would not have needed to do any of that because the linkages were all just taken for granted.

In Ani's story, the narrative genre already existed, but this time the context of its telling (the physical place) had to be discursively created. Ani reconstructs a traditional event witnessed many years before, taking her daughter and nephew metaphorically back to an important part of their physical and cultural landscape. In the past, the kind of information contained in this story would get passed down while visiting the place itself. The changing political situation between the Paiute and Navajo tribes makes this more difficult today. Also, in the past, children and young adults would have been naturally exposed to Paiute ritual practices. Now, a story stands in for the experience, albeit a story that was carefully fashioned with strong ties connecting the narrating event to the narrated event. These include ties, such as reported speech, reported song, and the references to place. In addition, by framing the story with devices more usual for myth or legend stories, Annie has extracted, or released the story from the landscape, making it available for telling in social situations not physically associated with the place of its occurrence.

The co-narrated story where the participants co-construct a retelling of the story about the drunk man and the business people, is also a traditional story form, but one which the Paiutes have frequently used to comment on social change and differences between themselves and others. The situational context of its re-telling allows a unique structure to emerge (Bauman & Briggs 1990). This emergent structure allows the participants to make this a narrative about what it means to be Paiute; at the same time, it becomes a narrative about Sh̄sh̄x̄ats and a language socialization event, socializing him both to begin to know how to think about people wearing fancy clothes and to begin to be a storyteller. His participation in narrating the story was key to Tsanna closing the story with a version of the opening frame which was—"when he drinks he's more out of control," but recontextualized by the intervening narrative to—"he 's drunk on sweets." Without his participation at the end of the narrative event it is unlikely that Tsanna would have commented on his behavior and it is only the parallel "he 's drunk on sweets" comment that constructs the beginning comment in retrospect as a framing device.

Whereas at least one Paiute narrative form is changing as a result of changes in the social and political environment, others are already constructed to take advantage of the social changes to contextualize and reinforce Paiute behaviors and values.

Notes

1. See Franklin and Bunte 1994:249-252) for a discussion of sacred places and of Paiutes feelings about them.
2. The names used in this paper are their own Paiute names. Almost all Paiutes have several names including their Anglo or Euro-American one. I asked them what they wanted to be called when I wrote about them. I told them I was uncomfortable just using their legal Anglo name. So since they are a small community anyone who knows them

can figure out who they are anyway, they decided to use one of their Paiute names..

3. The orthography used here was developed for Kaibab Paiute by me and the late Kaibab elder Lucille Jake. It has been used for educational and other purposes by members of the Paiute Indian Tribe of Utah, by Kaibab, and by the San Juan. It is the official orthography of the San Juan Southern Paiute Tribe. Most characters have their International Phonetic Alphabet values. The following are exceptions or are otherwise worthy of special mention. The apostrophe ['] is the glottal stop. The letter [x] is the spirantized version of [k] and stands for a (usually) voiceless velar fricative. [y] is the glide. [r] is a short apical trill or flap and is the spirantized version of [t]. The digraph [ng] stands for a velar nasal. Before [k], however, the velar nasal is written simply as [n]. The digraphs [ts, ch, sh] are pronounced [ts, tʃ, ʃ]. [ɯ] is a high back unrounded vowel similar to the [ɨ] in Russian. [ø], a sound that in Southern Ute and San Juan Paiute replaces Kaibab and other Southern Paiute open *o*, is a mid front rounded vowel often pronounced with noticeable retroflex approximant *r* coloring. Long vowels are phonemic and are written as double vowels [aa]. Three or more identical vowels in a row signal stylistic lengthening. A voiceless vowel is written with a small circle under the vowel [ə̥]. Voiceless vowels are frequently dropped at the end of words. An acute accent on a vowel [í] indicates word stress.

4. In the transcribed examples, italics is used to indicate that the original was spoken in English rather than in Paiute. Numbers enclosed in parentheses designate the number of seconds of a pause. (2) is a two second pause. A very brief pause is noted by "(.0)." Latching between speakers is designated by an equal sign "=". Overlap or simultaneous speech is designated by "//". Square brackets [] are used to present contextual information

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The Language of Humor: Navajo

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1. Introduction

We all laugh at jokes, exchange humorous stories for entertainment and information, tease one another, and trade clever insults for amusement on a daily basis. Scientists have told us that laughing is good for our health. But what makes something funny? Prior definitions of humor, like this one by Victor Raskin (1985), have categorized humor as a universal human trait:

"responding to humor is part of human behavior, ability or competence, other parts of which comprise such important social and psychological manifestations of *homo sapiens* as language, morality, logic, faith, etc. Just as all of those, humor may be described as partly natural and partly acquired" (Raskin 1985: 2).

The purpose and end result of humor, much like that of language, is the externalization of human thought and conceptualization. This externalization carries multiple meanings, partly as an outlet to express certain emotions, partly as a social device, and partly as an exercise of the intellect. The active engagement of this human ability allows some to earn their livelihood from a career in making jokes. Thus, there is the possibility in a culture to broadcast one's own personal opinion and world view in a series of jokes. Chafe explains that this is an intrinsic attribute of *Homo sapiens*; it is "The essence of human understanding: the ability to interpret particular experiences as manifestations of larger encompassing systems" (1994: 9). Humor acts to level the field, allowing people who identify with each other to create social groups. As Raskin points out, "It seems to be generally recognized that the scope and degree of mutual understanding in humor varies directly with the degree to which the participants share their social backgrounds" (1985: 16). This understanding, as part of the collective, is what creates the shared common ground and knowledge base that are the foundation for culture. Thus humor becomes a voice of the people, spoken in many instances under many contexts. It is a means for us to transmit experience and claim values to one another while also highlighting solidarity and shared identity.

The intersection between humor and language is rife with complex cognitive, cultural, and social variables that all work together to create a very specific sort of understanding between people. Prior theories of humor have been unable to establish clear criteria for what is or can be funny. However, the realms of cognition, culture and society are deeply intertwined in this phenomenon.

Humor is, for example, steeped in and shaped by culture. The experiences that we share as members of a culture are the basis for jokes, humorous observations, puns,

ironies, satires, and punchlines that strike us as amusing. In researching the humor of languages across widely differing cultures, language families, and typologies, we can better understand the linguistic, cognitive, and cultural influences on humor, and see these same influences as reflections of the culture through humor. From language emanates the very essence of the world view encoded in a joke or story, and in its realm the abstract is given form and transmitted to others.

In what follows, we examine joking and humor in Navajo. We will demonstrate that the way a joke is structured, the rhetorical devices that are manipulated, and the relationship between a language's word formation strategies and humor all fall within the sphere of linguistic analysis. Jokes yield insight into the structure of the language being spoken, and by very close relation, to the people that are speaking that language. We begin with an overview of Navajo grammar.

2. The Navajo Language

Navajo is a Southern Athabaskan language spoken in New Mexico and Arizona. A polysynthetic language, Navajo is related to other Apachean languages in the Southwest and other Athabaskan languages in the north. Navajo sentences employ Subject Object Verb order. The majority of meaning is concentrated in the verb in this language. Some of the prefixes that attach to the verb stem include number, subject and object pronoun markers, negative, valence, and mode. There is a set of classificatory verb stems which specify what type of object is being talked about, whether round, flat and flexible, long and thin, etc. Leonard M. Faltz provides a diagram of the verb structure of Navajo in the following diagram (1998: 10):

outer prefixes + plural + object prefix + inner prefixes + subject prefix + cl + stem

When looking at humor in Navajo it is important to understand the phonology and morphology of the language. Following is a general sketch of the most important aspects of Navajo in these regards.

In Navajo, vowels have phonemic tone (high vs. low), nasality, and length. Examples (1) - (3) show that high tone is marked in Navajo.

Examples:

- (1) Yootó
'Santa Fe'
- (2) jóhonaa'éí'
'sun'
- (3) t'éhonaa'éí
'moon'

The minimal pair below is an example of nasality as a contrastive feature. Compare the final vowel in words (4) and (5).

(4) dii
'this'

(5) díí
'four'

Vowel length is illustrated in examples (6) - (9). Notice that nasal vowels can be long or short as well, as in the second syllable in example (7).

(6) hágoóne'
'good bye'

(7) ashóqde'
'please'

(8) yiyiyiꞤ
'she ate it'

(9) naané'
'play'

(10) léichꞤ'í
'dog'

Navajo also has some consonants which are less common in languages of the world as well, such as the voiceless lateral fricative /ɬ/, transcribed as [ɬ]. This sound is found in the transcriptions of the words (10), (11), and (12). When the [ɬ] is word initial, it tends to become velarized, as in (10) and (11). This is possibly a result of coarticulation. When preceded by a possessive prefix, the voiceless lateral fricative becomes a voiced lateral approximant or [l], as shown in example (13).

(11) ɬeezh
'dirt'

(12) aɬwosh
'sleep'

(13) shileichꞤ
'my dog'

Glottal stops and ejectives occur relatively often in various positions. A glottal stop is both a phoneme, /ʔ/, as in (10), and a characteristic of other phonemes, such as the /tʰ/ in example (15). Example (14) shows instances of both representations of glottal stops. It can also be seen in word final position such as (9). In Navajo, the phoneme /t/ is

often highly affricated, which is the sound [t^x] in (16), and it is also found palatalized before front vowels, which is the sound [t^y] in example (17). Both are represented by the grapheme <t>.

(14) yá'át'éeéh
'hello'

(15) at'éeéd
'girl'

(16) tó
'water'

(17) tin
'ice'

The phoneme transcribed as /d/, word finally in example (15), is actually an unaspirated voiceless alveolar.

Morphologically, Navajo employs a number of bound and free morphemes to convey information within the language. Some of the free morphemes in this language include nouns, adjectives, and deictics. Verb stems are not free morphemes, and cannot stand alone to convey meaning. Adjectives are expressed as verbs. The order of elements in the sentence is SOV, as in examples and come after subjects in examples (18), (19), and (20) below, though it should be noted that in example (20), the adjective 'old' no longer has the meaning of aged, but is closer to the idea of a maternal relationship.

Examples:

(18) éí k'éichaa'í' yoinildiil
that dog huge
'that dog is big'

(19) dii sits'a nidaz
this box heavy
'this box is heavy'

(20) shimasaani a'tsi yiist'e'
my-mother-old meat cooked
'my grandmother cooked the meat'

The majority of meaning is concentrated on the verb in this language. Examples (21), (22), and (23) include analyses of the verb and all its prefixes:

(21) adisk'óqs
adi- -s- -k'óqs
reflexive 1p sg. subj. verb stem 'stretch'

‘I am stretching.’

(22) na’isht’ó’
na’- -i- -sh- -t’ó’
repeatedly asp. 1p sg. subj. verb stem ‘suck’
‘I am smoking.’

(23) aa’dilzhée
aa’di- -l- -zhée
reflexive cl./val. verb stem ‘shave’
‘He is shaving himself.’

Because of the rich morphological structure of verbs in Navajo, words that vary only slightly in sound can have very different meanings, and this fact is exploited in producing humor. These strategies will be described in the next section, along with their consequences for humor in jokes. The ability to use language with a metacommunicative purpose, such as making a joke, is based on the idea that the speaker and hearer share enough social and cultural context, i.e. common background and information, so that the utterance is understood as humorous.

3. Linguistic Strategies in Joking

In order to speak about humor, certain terminology must be defined. For the purposes of this paper, we distinguish between formal humor and informal humor. These definitions parallel Raskin’s idea of intentional and unintentional humor. However, based on the functionalist idea that discourse is never unintentional, we have instead highlighted the differences between structuralized occurrences of humor, and those that arise spontaneously in interaction, and describe these two categories of humor in the following section. Next, in order to approach the question of why and how something is funny, we provide some discussion of common types of verbal humor, including puns, sarcasm, etc. Finally, we present the semantic methodology by which we analyze why certain ideas, coded in words and phrases, strike the hearer as funny or amusing.

Because of the complex relationship between what we say and what we imagine, it is necessary to analyze humor semantically and we propose, in section 3.3, a theoretical framework for explanation that incorporates frame semantics (Fillmore 1975) and a theory of mental spaces (Fauconnier 1994) in social interaction. Fauconnier distinguishes between the base space, the mutually known world of the interlocutors, or the reality space, and other proposed fictional spaces, that is, between the real world (as speakers and hearers see it) and the discourse world. As Croft and Cruse put it, “just as words and constructions evoke semantic frames/domains, words and constructions also build spaces” (2004: 34). Our framework also includes Lakoff’s approach to categorization (1987), which we use to create a Linguistic Map of the categorization of humor in the Navajo language. This allows us to identify the most common type of humor in Navajo and explain its linguistic attributes. By looking at the phonology, morphology, semantics

and syntax of Navajo, we will present those characteristics of Navajo which are used and manipulated the most in humorous exchanges. Doing so not only allows us to study the linguistic characteristics of the language, but also allows us to examine closely the salient social and cultural ties within the community.

3.1 Formal vs. Informal humor

Jokes are a formal expression of humor. Formal humor is a premeditated effort to create amusement and is dependent on a correct delivery. As pointed out by Katharina Barbe in *Irony in Context*, jokes are not copyrighted and “as they are based on comparable human experiences, [they] recycle. Similar to metaphors and idioms, jokes are told, heard, told again, forgotten, reworked or even reinvented” (1995: 95). As such, jokes are formulaic, shared across languages and across time and easily recognized by their structure and content. Knock-knock jokes, as well as the nearly infinite answers to the “Why did the chicken cross the road?” question are all easily understood to be jokes by members of a common culture. What are today blonde jokes used to be Pollack jokes, just like a myriad of other jokes where the punchlines remain the same while the names, races, and gender of the characters change as needed. In terms of formal humor, the joke acts as the prototype, the prescribed form in which to create humor.

Situational humor is an informal expression of humor that is dependent on context. Jokes can and do exist within informal humor, but the funniness of an informal situation is based on a greater understanding and shared common knowledge. The punchline to a joke, then, can be part of a funny informal situation, but is not the only or necessarily funniest part of the whole. Situational humor is of a spontaneous nature; it can be created inadvertently or on purpose with a well-placed witty remark. Situational humor is marked by its reliance on quick thinking, and creative and inventive use of language. Sarcasm, puns, double entendres and irony are often the devices used in situational humor. Another characteristic of informal humor is that it cannot be replicated easily or successfully, since the context, just like the words, is transitory and always changing. This characterizes the “you had to be there” nature of situationally funny stories, many of which are not amusing in the least to those who were not present.

3.2 Categories of Verbal Humor

The way humor is transmitted is through a specific use of a linguistic structure. Following are terms that will connect familiar notions within humor to a linguistic explanation. Doing so allows a deeper analysis of how words and sounds are used in the creation of a funny utterance.

Linguistically speaking, puns present a dichotomy between two words that are very similar. This can be due to homonymy, which is broken down into homophony, words that sound the same, and homography, words that are written the same. Additionally, paronymy presents two words that are phonetically or semantically very similar, though not exact duplicates as in homophony. According to Attardo (1994: 114), puns can also include polysemy and antonymy. Puns are also present in non-spoken

languages such as ASL, where similarity can occur in any of the four phonemic parameters (location, hand shape, movement, and orientation). Puns emerge as a very important element in Navajo humor, where, later in our paper, we will demonstrate that word play and misunderstanding between two phonetically similar words are common in Navajo jokes.

Irony has everything to do with speaker intentions; there is a surface meaning and an underlying meaning, which sometimes intersect. Depending on situational context, the addressee may or may not be aware of this. Sometimes a speaker's tone can mark an ironic statement. Two examples, taken from Barbe (1995: 24 & 41) are: "I love people who signal" and "I love people who don't signal." In the first example, the underlying and surface meanings are the same, and both statements function as an indirect way of telling a driver what you think he should do. Irony can be used as an indirect insult, but between friends with no insult intended, the results can be humorous.

Sarcasm often occurs along with irony. In a sarcastic statement, similar to irony, the surface meaning of a speaker's statement does not match the underlying meaning, and this can be marked by tone of voice. This can lead to confusion if the addressee does not realize that the statement was not made in all seriousness.

Incongruity is a form of surprise. Not all surprises are funny; physical pain, for instance, is sometimes funny but not always in good taste (Weiner 1996: 141). In our linguistic analysis of humor, incongruity can arise from something unexpected or nonsensical entering one of our normal frames of reference. "How would you fit four elephants in a VW bug? Two in the front seat, two in the back" (1996: 143). This joke violates an expected property of our common frame of elephants, namely their size. "This riddle is funny because it leads the hearer to try to solve a problem of incompatible sizes. The punchline causes a salient feature of elephants to be ignored after which the resolution of the problem becomes trivial" (Ibid).

3.3 Theoretical framework

In this section, we discuss the theoretical framework we propose for analyzing humor in Navajo, beginning with an overview of frame semantics, and then concluding with an summary of work by Lakoff and others on cognitive categorization.

A **frame** can be defined as a "coherent region of conceptual space" (Croft and Cruse 2004: 14). Fillmore defines it as "any system of concepts related in such a way that to understand any one of them, you have to understand the whole structure in which it fits" (cited in Croft and Cruse 2004: 15). A basic definition of frame semantics is provided by Fillmore (1975: 123):

"[P]eople associate certain scenes with certain linguistic frames. I use the word scene in a maximally general sense, including not only visual scenes but also familiar kinds of interpersonal transactions, standard scenarios defined by the culture, institutional structures, enactive experiences, body image, and, in general, any kind

of coherent segment of human beliefs, actions, experiences or imaginings. I use the word frame for any system of linguistic choices—the easiest cases being collections of words, but also including choices of grammatical rules or linguistic categories—that can get associated with prototypical instances of scenes.”

As Fillmore explains, frames are the sets of ideas, linguistic and non-linguistic, that is, words and mental imagery, which are triggered when we hear a word, phrase, or set of utterances. According to Croft and Cruse, our understandings are complex: in a frame semantic analysis, for example, “*man, boy, woman, and girl* evoke frames that include not just the biological sexual distinction but also differences in attitudes and behavior toward the sexes . . .” (2004: 9)

These frames are formed out of our experience in the culture and society around us. They are shaped from the time we are born and redefined throughout our day-to-day interactions with our environment. The hearer’s expectation, once a frame is activated, is that it will match sufficiently with what the speaker is saying to create a common understanding. Likewise, a speaker’s choice of words reflects her own expectation of the hearer activation of overlapping frames in the hearer’s mind. This is in keeping with the speaker/hearer expectations that Grice has outlined in his maxims, those of quality, quantity, relevance, and manner. It is often just these expectations that are actively and purposefully violated in humor.

Categorization and Prototypes:

Lakoff expands on Rosch’s well-known prototype theory in *Women, Fire, and Dangerous Things* (1987). According to prototype theory, some examples of words may be more central and/or more basic than others. The most basic, central example is termed the prototype of the category. In order to fit into the category, another example need not match all the characteristics of a check-list, it only has to be a reasonable match to the prototype. Rosch’s (1975) experiments explored what people had in mind when they used words which refer to specific categories of items. Respondents rated items as better or worse examples of particular categories (e.g., the most “doggy” dog or the most “birdy” bird). In order tasks, she checked response time for respondents to verify category membership. Results on all tests were very consistent, and agreement was very high. When people categorize objects they seem to have in mind some idea of the characteristics of an ideal exemplar, a prototype. This notion of prototype is important in frame theory as well. According to Fillmore (1975), frames impose structure on areas of human experience, and in some cases, those areas of experience are prototypes.

In addition to the conceptualization of prototypes such as birds, cars and other “nouny” nouns, Lakoff (1987) states that we can conceptualize other linguistic categories in the same way. As he explains, linguistic categories also have asymmetries within themselves and gradations away from the “best example.” One asymmetry in linguistic category is markedness, which is the smallest level of a prototype effect. In morphology, markedness relates to whether a word is the basic instance of the meaning. For example,

in English, plurals are considered to be marked, (Lakoff 1987: 59) since the majority of our nouns are used in the singular form, and plural is used to specifically denote more than one. Markedness is also found in phonology. For example, voiced consonants (unless it is between two vowels) and voiceless vowels are both considered to be less common. This result is also found when looking at other larger asymmetric categories, e.g., if one member of the category is more basic than the other(s), the basic member is considered to be unmarked (1987: 60-61). As will be seen in the conclusion, markedness is responsible for the humor in the utterances we produce. We have labeled this use of markedness Frame Shift (see linguistic map at the end of the paper).

In humor, the discussion of markedness ties into frame theory in that the unmarked situation is the one typified within a frame. A joke that draws the marked situation into focus will break the frame and create humor. An example of a marked/unmarked distinction is the following joke, taken from Raskin (1985: 157):

“At a costumed party, the first prize for the most elegant outfit went to the Six of Spades, a pretty brunette wearing a pair of high-heeled black shoes, (Soviet, 1950s).”

Raskin points out that in sexual humor, being clothed is the unmarked, expected response. Nudity is the marked, abnormal, or unexpected option. Since the winner was unclothed, and her nudity was pointed out by only mentioning her shoes, our frame of what would constitute a winning costume at such a party is completely shattered.

For the purpose of this paper, the term “prototype” will be used in two distinct manners. Firstly, we seek to define the most prototypical types of humor in language, in this case Navajo. This will be based on our analysis of the typologies of the languages and will be reflected in the linguistic map at the conclusion of this paper.

Semantically, the term prototype will be used in conjunction with our presentation of frame theory and the idea of stereotypes. Humor steps beyond the boundaries of prototypes and frequently uses the stereotype as part of its repertoire. The difference between a prototype and stereotype is tenuous. As Lakoff states, “[s]ocial stereotypes are cases of metonymy—where a subcategory has a socially recognized status as standing for the category as a whole, usually for the purpose of making quick judgments about people.” (1987: 79) Stereotypes are a frequent source of humorous material, and they are particularly salient in the United States, where racial, social, and economic distinctions play large roles in the creation of stereotypes as well as jokes.

4. Data & Analysis

Navajo’s phonological complexity is a large part of the focus of the humor. *Laughter, The Navajo Way*, written by Alan Wilson and Gene Dennison (1970) is an in-depth look at humor found in Navajo. This book is one of the only publications focusing on this subject. Many jokes analyzed in *Laughter* comment on the intricacies of the phonology. One example is as follows:

(A) Wilson and Dennison (1970: 6)

Text

Ashkii yázhí léi' bimasání íłní jini:
"Shimasání éii, hahgoósh neeshch'íi' tahgóó nádínídzá?"
"Yú-úh, shiyáázh ch'íiditahgóó doo shini' da," ní jini.

Translation of Text

There was a little boy who said to his grandmother: "Grandma, when are you going back to gather pinions?" "Oh, I don't want to go to hell," she replied.

Explanation of Text

A play on the two words *neeshch'íi'tah* (among the pinions) and *ch'íiditah* (among the evil spirits, hell) is intended. The explanation as Wilson and Dennison present it has many cultural and linguistic implications. The character of the grandmother represents several salient characteristics of Navajo culture. She is elderly and hard of hearing, as they explain, and creates a comical situation where the Navajo value of respect for the elders is juxtaposed with a situation where it is acceptable to laugh at the folly of one such elder, and it fulfills a hearer expectation of the elderly. The introduction of 'hell' as a frame creates humor because it is so distant from such a harmless activity as picking pinion nuts. The role of the child is to further the separation between the two notions, since children are hardly expected to ask their grandmothers if they wish to go to hell.

Our next example of a Navajo joke comes from natural discourse between two native Navajo speakers at the University of New Mexico. The joke was told spontaneously and we used Wilson and Dennison's format to analyze the joke. Here we present the transcribed speech, as well as an English translation and an explanation of the punchline.

(B) Joke told and transcribed by Jalon Begay and Melvatha Chee.

Text

Spkr One: Shaą ale'í shaą Nl'éi Ndaadí asdzaan shíí askii 'aahłni-jin Nléi' hooghan nimaz'oo dílyeed 'ashjááshíí doo' hastóí' díkwii Ndaahaaztáá' shíí bi'doo'néed, ('éish sídintsáá'?)-

Spkr Two: digha'

Spkr One: Ashikii yazhi shíí 'akóó'/hóó' nashwod-'aoo' naalwaod Nt'éé' 'ajini jin "shimasání neeznaa lá"

Both: (laughter)

Spkr Two: neeznaa lá’

Spkr One: neezna lá’...just neeznago. Da’ masání ‘aní jin (sound of surprise) shítsóí’
haa’at’éeelá ‘oolyé’ (laughter)

Spkr Two: da’ neezna’

Spkr One: da neezna’ ‘íís...

Spkr Two: da’ dikwii nahaajezt’áá

Spkr One: neeznaa shíí naahaajezt’áá’oo...

Translation of Text

At a ceremony, the grandma told the little boy, go run to the Hogan and see how many men are sitting over there.

So the little boy went over there and he checked and he came back and he goes, and in Navajo this sounds funny, “grandmother, there’s ten of them over there.”

And the grandma’s like, “whoo!, what do you mean, they’re dead?” (UNM, 11/22/05)

Explanation of Text

This joke employs homophony like many other Navajo jokes. It falls under the category of word play like many of the jokes found in Wilson and Denninson. It also plays upon the misunderstanding of words by the elderly and hard of hearing. Unlike those jokes, this one does not present the opposition of the two words that sound very similar, *neeznaa* ‘ten’ and *neeznah* ‘dead’. The two speakers laughed as soon as *neeznaa la* was spoken; it is possible that even though Speaker Two had not heard the joke previously, he already guessed the punchline that grandma would misunderstand this statement as *neeznah*, ‘they are dead’. This is due to the shared information between the two speakers and the cultural understanding that many Navajo jokes take the form of word play and misunderstanding from homophony.

Another source of humor in Navajo comes from the well-known *yi-/bi-* inversion. When a third person singular subject is an animal or inanimate rather than a human being and that subject is acting on a human third person singular direct object, this situation is marked. It is the reversal of the usual, or prototypical, situation, in which a human being does the acting. This marked situation is indicated by the third person direct object prefix *bi-* rather than the unmarked *yi-*.

The following examples are from Gary Witherspoon’s article “Language in Culture and Culture in Language” (1980):

(i)	at’éeéd (girl)	tó (water)	yoodláá’ (it-it-drank)
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(ii)	tó	at’éeéd	boodláá’
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(water) (girl) (it-it-drunk)

The first sentence says “The girl drank the water”. This is a grammatically and culturally acceptable sentence, an unmarked grammatical construction. However, the second example is an attempt to say “The water was drunk by the girl” (still an unmarked construction in English). As Witherspoon goes on to say, “it is much more absurd to say that *the water was drunk by the girl*. Navajos laugh profusely when they hear a sentence like [this]...A better translation of the sentence would be *the water decided to let the girl drink it*. The syntax of this sentence attributes intelligence and intent to the water, a proposition which the Navajos find to be humorous and absurd” (1980: 10). Another example of the inversion necessary to prevent an absurd or incongruous frame from being created is evident in the next two sentences, taken from Witherspoon as well (Ibid: 5). The first is acceptable, the second is not:

(iii)	hastiin (man)	híí’ (horse)	bitzał (it-it-kicked)
(iv)	híí’ (horse)	hastiin (man)	yiztał (it-it-kicked)

The first sentence is translated as “The man was kicked by the horse”. The second, theoretically, should be also. However, it is instead viewed as absurd in Navajo because:

“[i]n the Navajo view of the world horses cannot take it upon themselves to kick men, for men are more intelligent than horses. Navajos would explain this by saying that it is not within the intellectual capabilities of the horse to conjure up a plan by which he decides that he does not like some man and decides that when that man comes near him the next time, he will give he man a swift kick. Navajos say the behavior of horses is more spontaneous than that and that they are not capable of long-range planning.

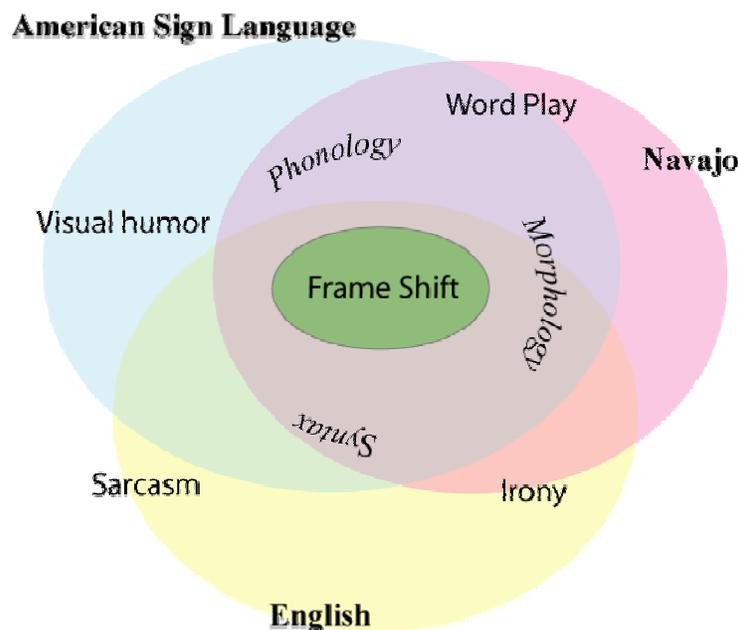
The conclusion that we can draw from this is that if a man gets kicked by a horse, it is his own damn fault for not using the intelligence with which he was born.” (1980: 9)

The intersection between language and culture, therefore, shows us what is marked and therefore funny, since it is unexpected and incongruous that water would decide to be drunk or the man would let himself get kicked by a horse. The frames conjured by such constructions are inconsistent with the real spaces of Fauconnier’s, that which the hearer expects to find in the real world. Thus, the humor is created in a shift of expectation where the prototype in the original frame and the newly presented situation do not resemble each other.

5. Conclusion

Humor exists across all languages and cultures as an essential human characteristic. The need to express amusement and lightheartedness in life makes humor central to human interaction. Humor can be used as a marker of solidarity and bonding in specific social contexts. The endeavor of this project is to highlight the most outstanding characteristics of humor in the Navajo language. In doing so, we have outlined the most prototypical joke structures as well as the most salient linguistic characteristics of Navajo that are used and exploited in humor.

As a result of our analysis, we have created a linguistic map, based on the idea of the semantic map as used by many scholars (e.g., Haspelmath 2003). Since our analysis incorporates different levels of linguistic analysis, we have attempted to show through this diagram the overlapping qualities that humor shares across cultures. It should be noted that the original scope of this paper included American Sign Language (ASL), which is why it's part of the following linguistic map:



The idea of Frame Shift plays a central role in how hearers interpret an utterance. In analyzing both the form and the meaning of a construction, the hearer uses expectations as landmarks in a conversation. An important part of successful humor involves a certain amount of surprise. This is what hearers feel when the mental landmarks are not what he or she expected. A statement can unexpectedly shatter our frame, jolting our consciousness away from the norm and what is comfortable or deemed appropriate. The activation of this new frame creates a humorous juxtaposition between the newly created marked incongruity and the previously expected, unmarked outcome.

The Navajo *yi-/bi-* inversion provides an example of how hearers form an expectation based on fundamental grammatical and cultural conventions. When these conventions are manipulated, in this case by switching the 3rd person pronominals asymmetrically (and mismatching the agent and patient agreement roles), the mental landmark is moved, the frame contradicted, and the prototype challenged.

Our data suggests that styles of humor are largely dependent on the typologies of languages. ASL and Navajo are morphologically complex in comparison with English, leading to wordplay and puns being a more prototypical style of humor. In English, it is more common that the whole sentence becomes humorously marked than the individual morphemes or phonemes. The linguistic map should not be construed as complete or exclusive. For example, irony and sarcasm are more likely to be found in informal or situational humor, as is the case in Navajo, so Navajo should not be viewed as being devoid of these humor mechanisms. From our data, we conclude that word play is more humorous in Navajo and ASL than it is in English, where puns are more often the source of groans and moans. In ASL, visual humor is very prevalent because of the visual nature of the language and the use of iconic signs and classifiers. Visual humor exists in Navajo and English as well, but is not the primary channel for communicating the lighter side of life.

Culturally, we have seen several recurring themes in the jokes. Navajo culture holds close the ideal of respecting one's elders. Conversely, the jokes told create a humorous interpretation of one's elders and their shortcomings. Homophony and near homophony are mechanisms that work within the joke due to the poor hearing of the elderly protagonist. The comparison between what was actually said against what the elder heard creates the humorous incongruity, since they are often completely unrelated concepts. The concepts of death and hell as the ultimate crisis situation becomes the punchline when contrasted against daily life exercises such as gathering piñons and running errands for grandma. Other interesting characteristics of the jokes include the intergenerational commentary, which the grandmother or grandfather interacting with a child. This type of prototypical situation sheds light into the modes of transmission used in teaching children about their culture and language.

This paper represents only a brief linguistic analysis of humor in Navajo. There is much work to be done in the area of informal humor situations, since it requires the documentation of spontaneous conversation among native speakers. Future developments in this inquiry would use as much natural discourse as possible to continue to define, categorize and document humor as it occurs in our daily lives. Furthermore, investigations of humor can be used in ethnographic studies as a reference to salient cultural traits. In terms of an accurate theoretical framework for humor as a human phenomenon, there is still much to be agreed upon. Like many human faculties, it is a diffuse and flexible category that is inherently dependent on the context of the culture and society in which it occurs. However, there are generalities that can still be ascertained, which we hope to continue to explore through analyses such as these.

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How to say ‘we’ in Aleut: choices in a topic-tracking language

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Introduction

This paper is dedicated to the problem of tracking 1PL and DU agent in Aleut. While morphological means of expressing these categories were described in Knut Bergsland’s grammar of Aleut, the behavior of these categories in discourse has not been discussed before. I will discuss the ways of expressing and tracking 1PL/DU agent in the discourse in Atkan and Eastern Aleut. It seems like the phenomenon considered here is typologically rare, in the form that it exists in Aleut.

The data of my study comes from narratives, conversations and elicitations collected in field by Anna Berge and me, from texts recorded by Knut Bergsland and Moses Dirks, and from the text collection of Valdemar Jochelson, translated and published by Knut Bergsland and Moses Dirks.

Problem: there is no distinct morphological marking of 1PL/DU agent in Aleut.

Table 1. Agent marking on the Aleut verb

	SG	DU	PL
1	qa-ku- qing ‘I eat’	qa-ku- n ‘we two eat’	qa-ku- n ‘we eat’
2	qa-ku- txin ‘you eat’	qa-ku- txidix ‘you two eat’	qa-ku- txichin ‘you all eat’
3	qa-ku- x ‘he/she/it eats’	qa-ku- x ‘they two eat’	qa-ku- n ‘they eat’

Table 1 demonstrates the verb endings marking agent in Aleut. As it is shown, 1DU/1PL (henceforth we will talk only about 1PL forms, as 1DU comes across very rarely, and coincides in marking with 1PL anyway) is marked in the same way as 3PL. At the same time, all the other person forms of agent are distinctly marked. Since there is no morphological marking of 1PL agent, we will further explore the possibilities of syntactic marking.

Syntactically, there are two strategies of covering 1PL agent in discourse: for one, use of the suffix *-n* (*-s* in the Atkan dialect), and for another, use of the passive construction. The functioning of the suffix *-n* is illustrated in examples (1)-(5). The suffix marks 1PL agent in (1)-(3) ((3) is an Atkan example with the suffix *-s*, which parallels *-n* in Eastern); in (4) the suffix marks 3PL, and in (5) the suffix may mark 1PL or 3PL agent.

The interpretation of *-n* marker as 1PL in examples (1) and (2) is based on the semantic context. In both instances the speaker is talking about her personal experience, and it is expected that she includes herself into the groups of people that she is mentioning. In (1), a pronoun *ting* ‘I’ in the first clause provides a stronger link to the 1PL agent in the second clause, whereas in (2) the agent is inferred from the contents of the paragraph.

Likewise, in example (4) the speaker starts a paragraph with a reference to *anġaġinan* ‘people’, a group of agents into which the speaker does not include herself. Based on this the addressee can assume that the *-n* marker in the clause refers to 3PL.

In (5), the presented chain of clauses introduces a new subject of discourse, the Ukalga village, and the agents marked with *-n* marker are not fully identifiable on the basis of the previous context. The *-n* marker here can equally be interpreted as either 1PL or 3PL, and further context also doesn’t provide hints to specify the agent.

These examples demonstrate that when the *-n* marking strategy is used the agent is underspecified both morphologically and syntactically.

Eastern dialect

(1) 1PL agent marked with *-n*

Ting chulilix bruudniking angasix chiġanam adan uyadanan.

ting chu-li-lix bruudniki-**ng** anga-six
PRON.1SG dress-ASP-CONJ boots-**POSS.1SG** pull.on-CONJ

chiġana-m adan uya-da-na-**n**
creek-REL to.LOC.3SG go.to-HAB-PART-**1PL**

‘I would just get dressed (lit.: dress myself), pull on my boots, and we would head to the creek.’

(2)

Skuulaqadgungin isuġim igluqaa saaqlixtalix qaaxsaadalix adanan.

skuula-qada-gu-ngin isuġi-m igluqa-a
go to school-CESS-COND-1PL seal-REL skin-POSS.3SG

saaqali-ġta-lix qaaxsaada-lix a-da-na-**n**
dry seal skin-VZ-CONJ slide down a hill-CONJ AUX-HAB-PART-**1PL**

‘After school we used to slide downhill on a piece of seal skin.’

(3) 1PL agent marked with *-s* (Atkan dialect)

Ayuxtal ukutizanas.

ayuxta-l ukuti-za-na-s
go.on.a.boat-CONJ do.something.for.a.long.time-HAB-PART-1PL

‘We used to go out in the boat for extended periods’.

(4) 3PL agent marked with *-n*

Anġaġin taangalix kuraastangin aqagung(in), chiġanam adan uyaqadgung(in), <...>, qam amnaġuu agulix adan(an).

anġaġi-n taanga-lix kuraasta-ø-ngin aqa-gu-ngin
human-PL drink-CONJ be.drunk-PART-POSS.3PL come.about-COND-3PL

‘When people would drink and become drunk,

chiġana-m adan uya-qad-gu-ngin
 creek-REL to.LOC.3SG go,get.to-CESS-COND-3PL
 [after] they would go to the creek

qa-m amnaġu-u agu-lix a-da-na-n
 fish-REL many-ABS.3SG catch-CONJ AUX-HAB-PART-3PL
 [they] used to catch a lot of fish.'

(5) Agent can't be identified

Tanam angunaa, Ukalġa ngaan asaġadaqaġ inga. Umaltalix usugaan qawanaaġdanan.

tana-m anguna-a ukalġa ngaan
 island-REL big-POSS.3SG Ukalġa DAT-LOC.3SG

asaġa-da-qa-ġ inga
 be.called-HAB-PART-3SG DEM.PROX
 'A big island, it's called Ukalġa.'

uma-lta-lix usugaan qawa-naaġ-da-na-n
 DEM.PROX-go.to-CONJ always sea-lion-hunt.for,catch-HAB-PART-[1/3]PL
 'When we [or, the people] went there we [or, the people] always hunted for sea-lion.'

Another strategy that covers 1PL is the use of the passive construction, as exemplified in (6)-(8). In the Aleut passive construction, the agent slot in the sentence is never filled, therefore the agent may not be recovered morphologically or syntactically. Number (6) may in fact be interpreted ambiguously as a 1PL agent sentence or as just a passive sentence.

Thus, it comes into question on what basis we can interpret the passive construction as marking 1PL agent. There are two arguments in favor of such interpretation. During elicitation speakers often translate English 1PL clauses with Aleut passive constructions, as demonstrated in (7), or they translate the Aleut passive constructions from their own narratives with 1PL. The second argument is illustrated in (8), where the passive construction is used for marking 1PL in imperatives even when there are no arguments other than agent in the semantic structure of the verb.

(6) 1PL agent in a passive construction

Amaya ugunuġalix aġiilaqa aġtanaġ chugum ilan. (Eastern dialect)

amaya ugunu-ġa-lix aġi-ila-qa-ġ
 DEM.DIST forget-PASS-CONJ leave-PASS.APPL-PART-3SG

a-ġta-na-ġ chugu-m ilan
 AUX-CONT/PF-PART-3SG sand-REL in.LOC.3SG

'We apparently forgot that we left him in the sand.' (or: 'he [Feofan] being forgotten was left in the sand')

(7) Translation of a 1PL clause with passive during elicitation (Eastern dialect)

A.B.: We can raise money for a trip to Anchorage.

M: *Aguun, qichitaġ agulgaduukuġ, Anchorage aan.*

aguun	qichita-ġ	agu- lga -duu-ku-ġ	Anchorage	aan
then	money	make- PASS -PROB-IND-3SG	Anchorage	DAT-LOC

Lit.: ‘Then, money can be made for Anchorage’.

(8) 1PL agent in passives with an imperative meaning (Atkan dialect)

Iġchilgaaxġtaġ!

iġchi-lga-aġtaġ

go.home-PASS-OPT.3SG

‘Let’s go home!’ (*lit.*: ‘it should be gone home’)

It is evident that, with the exception of sentences like in (8), the agent in Aleut passive constructions is not recoverable grammatically. Thus, with both strategies, the *-n* marking and the passive construction, the 1PL agent is in effect underspecified. I suggest that the explanation for this underspecification can be found in the discourse structures, and in functioning of the grammatical forms in discourse.

If we look at how parts of narratives are organized we see that discourse is typically organized through paragraphs of chained clauses (this was demonstrated in the latest papers of Anna Berge). It appears that the Aleut narrative is structured around something other than agent. Often we see paragraphs containing chains of passive constructions, like (9). In this paragraph, agent is not the relevant entity in the narration. The relevant one is fish that was processed. Therefore, fish becomes promoted to subject, and a passive construction arises. It’s a rather trivial transformation of a sentence, but it is not so trivial that in Aleut this happens necessarily when there is a mismatch between the relevant argument and the subject (which is most often the agent), thus the agent is sacrificed for the sake of keeping the relevant argument in the subject position. It looks like chaining passives in this manner is a way to track topic in Aleut, if we define topic as the most relevant entity in the scope of the clause chain, or the entity that the clause chain is ‘about’.

The examples (6) and (7) also support this interpretation of the passive construction: (6) is part of a story about a boy who the children buried in the sand (it’s a part of a clause chain shown further), so the topic in the clause is really this boy. In (7), the speaker not only translates the English sentence, she rephrases it in such a way that the topic, ‘money’, comes to the foreground of the sentence.

(9) A chain of passives tracking the topic

[MD]: -*Qanaliidam qangis?* [IG]: - *Qakiidas, adgayus, hudalgal, suulilgal, unalgal...*

[MD]: - *Hudal ama sulil?* [IG]: - *Baliikaâsilgal dimilgadaqağulax.* (I. Golodoff, M. Dirks 1987, Atkan dialect)

qanaliida-m qa-ngis
what.kind-REL fish-POSS.3PL

qakiida-s adgayu-s huda-**lga-l** suuli-**lga-l**
silver.salmon-PL pink.salmon-PL dry-PASS-CONJ salt-PASS-CONJ

una-**lga-l**
cook-PASS-CONJ

huda-l ama sulil
dry-CONJ and salt-CONJ

baliika-âsi-**lga-l** dimi-**lga-da-qa-ğ-ulax**
balik-VZ.CREAT-PASS-CONJ smoke-PASS-HAB-PART-3SG-NEG

‘[MD]: - What kinds of fish? – [IG]: Silver, pink salmons, we dried, salted, cooked them, (or: *they were dried, salted, cooked*). – [MD]: Dried and salted? -[IG]: We made *balik* (smoked fish) [but] we didn’t smoke it.’ (or: ‘*the fish* was made into *balik* [but] it wasn’t smoked’).

While it is plausible that the passive construction with an implied 1PL agent has really the function of topic tracking, it’s not so obvious why the same passive construction is used for 1PL imperatives, where the agent is the topic, like in (8).

For this function of passive, I suggest a hypothetical sociolinguistic explanation. One of the strongest semantic features of passives is their indirectness. In Aleut, passive might have been preferred as an indirect way of inviting somebody to an activity without directly naming the person who you want to cooperate with. The avoidance of overtly marking agents may be somewhat paralleled by Japanese, where the speakers tend to avoid pronouns when referring to a person, and use either full nouns or zero marking instead. However, this is only a suggestion, as the category of indirectness in Aleut deserves a study on its own.

Indirectness might also be a factor in the use of passive in the non-imperative utterances with 1PL agents. The avoidance of 1PL helps make a story sound more objective, focusing more on events than on personalities. It also helps to understate the role of the speaker in the events spoken of. We can see this effect of passive in a little story in (10). Although the chain of passives here is broken in one place (in line 4, there is an instance of a 1PL form that is not ambiguous in the anterior mood), in all the other clauses agent is zero-marked, which creates an overall impression that the speaker is focused on that little boy who they buried in the sand, and somewhat distances herself from taking part in this event.

(10)

Kamganaâ aadalix, anâgâgim asâaâtaa kamgaasanaâ italix, kamgalix, aman anâgâgim kamgaal(a)naa chuguxâ asuxsix aqadaang(in) chugum ilan aâsxalix chuguxâ ngaan chachiilaqax. Amaya ugun(u)âgalix aâgiilaqax aâtanax chugum ilan. Lakaayaâ Fiyufaanaâ asaâtaa anaâ am(a).

kamga=na=â aada=lix anâgaâgi=m asâaâta=a
pray=NZ=ABS pretend=CONJ human=REL dead=ABS.3SG

kamga=asa=na=â ita=lix kamga=lix
pray=APPL=NZ=ABS say=CONJ pray=CONJ

‘Pretending to hold burial services, saying a prayer for the dead person, praying’

aman **anâgaâgi=m** kamga=**ala**=na=a
DEM.INVIS.ABS **human=REL** pray=**PASS.APPL=PART=ABS.3SG**

‘this person that was prayed over [or: the person that we prayed over],’

chugu=â asuâ=six a=qada=angin
sand=ABS dig.a.pit=CONJ AUX=CESS=ANT.1PL

‘when we finished digging a pit [in the] sand,’

chugu=m ilan aâ=**sxa**=lix chugu=â ngaan
sand=REL LOC.3SG put=**PASS=CONJ** sand=ABS DAT-LOC.3SG

chachi=**ila**=qa=â
cover=**PASS.APPL=PART=3SG**

‘we put him in the sand, and we used the sand for covering him [or: being put in the sand, the sand was used for covering him].’

ama=ya ugunu=**âga**=lix aâgi=**ila**=qa=â
and=DEM forget=**PASS=CONJ** leave=**PASS.APPL=PART=3SG**

a=âta=na=â chugu=m ilan
AUX=CONT-PF=PART=3SG sand=REL in.LOC.3SG

‘We apparently forgot that he has been left in the sand.’ [or: He apparently was forgot and left in the sand]’

lakaaya=â Fiyufaana=â asa=âta=a a=na=â
boy=ABS Feofan=ABS name=VZ/PROP=0=ABS/3SG be=PART=3SG

ama
DEM/DIST

‘The boy’s name was Francis (actually Feofan – Russian Orthodox name)’

We have looked at the possible functional implications of using the passive construction and the verb form with *-n* suffix, and now I would like to address the question how the speakers are able to follow the discourse and track the 1PL agent. Below are presented some patterns that I have discovered, that show different techniques of tracking 1PL. This

is by no means an exhaustive list of patterns: the problem of tracking 1PL requires further exploration in a larger body of texts.

1) 1PL may be marked in a different role in an adjacent clause, for example in (11) it is marked as an object pronoun that becomes an anchor point for tracking the 1PL in the following chain of clauses. Another example of how it works was shown in (10).

(11)

Tuman uyaagân tanaâ nunaâ. Akuâan ingay malganaan aqatalkaâiniin malix ulaâinan.

tuman	uya-aâan	tana-â	nu-na-â
PRON.1PL	get-INT.3SG	land-ABS	reach-PART-3SG

a-ku-â-aan	ingay	malga-na-n
AUX-IND-3SG-ENCL	DEM.PROX	occur-PART-3PL

aqata-lkaâi-n-iin	ma-lix	ulaâi-na-n
know-IND.NEG- 1PL -ENCL	do-CONJ	stay.home-PART- 1PL

‘It landed to get us (pick us up). At that time we did not know what was happening so we stayed home’

2) *-n* marking of 1PL without any anchor points of tracking appears where it is obvious that the speaker was part of the action. For instance, in (12) there is a fragment of a letter in Aleut to Valdemar Jochelson. This is a fragment from the author’s account of a trip to Chernofski. It is a start of a new paragraph, where a change of both topic and agent occurs. However, there is no explicit reference to the 1PL agent anywhere in this paragraph.

(12)

Ikalâan uglagaan tanaâ uâxtalinanulux. Wangun aalgidim saâanan. Voskrisiiniyam angalii qam agalaan chaang chaasam ilan Iluulaâ unan.

Ikalâa-n	ugla-gaan	tana-â	uâxtali-na-n-ulux
Chernofski-REL	other.than-ABL.3SG	land-ABS	go.to-PART- 1PL -NEG

‘We did not go in to any other place than Chernofski.’

wangun	aalgidim	saâa-na-n
there	twice	sleep-PART- 1PL

‘There we spent two nights.’

Voskrisiiniya-m	angali-i	qa-m	agala-an	chaang
Sunday-REL	day-POSS.3SG	food,meal-REL	after-ABL.3SG	five
chaasa-m	ilan	Iluula-â	u-na-n	
hour-REL	in	Unalaska-ABS	reach-PART- 1PL	

‘Sunday at five o’clock in the afternoon we reached Unalaska village.’

3) This pattern requires further verification. My hypothesis is that it represents a particular strategy of tracking 1PL and 3PL agents when both are involved in discourse at the same time. It looks like speakers tend to avoid the concurring marking of the 1PL and

3PL agents, and one way to do this is to consistently track one of the arguments as topic. In (13), the speaker is continuing her account of what had happened to her and her family in the past. Normally, one would expect to see a non-passive sentence with a 3PL subject, but apparently the speaker is trying to maintain the continuity of tracking the 1PL participant.

(13)

Uyalgaaġiniin aqalgalix braatang ngiin iistakuġaan malix.

yua-**lga-aġin** iin aqa-**lga-lix** braata-ng
get-PASS-INT.1PL DAT-LOC.PL come-PASS-CONJ brother-POSS.1SG

ngiin iista-ku-ġ-aan ma-lix
DAT-LOC.PL say-IND-3SG-ENCL do-CONJ

‘My brother told us, they have come to get us.’ (lit. we are being approached in order to be taken.)

Conclusions

1. The Aleut data shows that 1PL agent is not grammatically marked in discourse, moreover, it doesn’t have to be marked in any other way.
2. There are two possible functional explanations of this fact, which both need to be further explored. One is the tendency in Aleut to track topic and leave the agent underspecified; another one is the role of indirectness in the Aleut discourse and culture.
3. The structural background of the Aleut 1PL phenomenon needs studying as well. There are many ambiguities throughout the Aleut inflectional paradigms, which may explain how the ambiguous 1PL/DU marking became feasible in this system. The path of historical development of this grammatical feature is yet to be discovered.
4. In the modern language, there are several strategies of tracking the 1PL/DU in the discourse. The speakers tend to rely on the addressee’s equal informational background. They may provide occasional hints by pronominal marking, or else develop complex grammatical patterns, such as using passive constructions for tracking a selected entity in discourse. These grammatical patterns also need to be studied further.

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The Argument Structure of Halkomelem Verb Roots: Evidence from Intransitive/Transitive Alternations*

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1. Introduction

Research on the lexical semantics of argument realization starts from the viewpoint that the mapping of the roles AGENT and PATIENT to argument structure can be used to classify predicates. More precisely, verbs sort into transitive and intransitive types, and intransitive verbs further sort into unergative and unaccusative types. Language-internal tests can be used to organize verbs with shared morphological, syntactic, and semantic properties into verb classes. The research on any language seeks to answer the following questions: What are the verb classes? What are the properties that distinguish them? How are the verb classes of a language similar to and different from verb classes in other languages of the world?¹

Salish languages are noted for their “inchoative/causative” alternation: the inchoative forms are usually unmarked, while the corresponding causative verbs require the transitive suffix. This is demonstrated by the following Halkomelem data: *q̣aʔ* ‘get added’ in (1) contrasts with *q̣aʔ-t* ‘add it, put it in with’ in (2):²

(1) niʔ q̣aʔ kʷθə nə ʃeləmcəs ʔə kʷθə nə s-kʷu:kʷ.
AUX add DT 1POS ring OB DT 1POS NM-cook
‘My ring got into my cooking.’

(2) nem č q̣aʔ-t tʰə sqewθ ʔə tʰəñ sɫəp!
go 2SUB add-TR DT potato OB DT.2POS soup
‘Go put the potatoes into your soup!’

Such examples seem to be a prima facie case for deriving the causative verb from its intransitive counterpart (à la Levin & Rappaport Hovav 1995).³ The verbs in question all have bare root intransitive alternants and marked transitive alternants in Halkomelem.

In fact, a look at most Salish languages gives the impression that a vast majority of verb roots are of this type. This has led to two hypotheses. First, some Salish scholars, for example Kuipers (1968), Hess (1973), Jelinek (1994), and Suttles (2004), claim that all verb roots in Salish languages are intransitive and require the addition of transitive morphology in order to serve as transitive stems. However, this result is somewhat misleading because in fact all syntactically transitive constructions in Salish, i.e. those with two direct nominal or pronominal arguments, take transitive marking. This has led to an alternative view taken by some Salish scholars, including Gerdts (1988a), Nater (1984), Thomason & Everett (1993), and Gerdts & Hukari (1998): the transitive suffix is a verbal inflection that appears on bases that are already semantically transitive. We explore this issue in section 2, showing that in fact at least some roots in Halkomelem are transitive.

Second, some Salish scholars take the hypothesis of intransitivity a step further, claiming that all roots are unaccusative in the argument structure (Davis 1997, 2000; Davis and Demirdache 2000). In our research, however, we have maintained an unergative/unaccusative distinction (Gerdtts 1991, Gerdtts and Hukari 1998, 2001). We explore this issue in section 3, showing that our tests reveal that at least some intransitive verb roots are unergative in Halkomelem.

2. Transitivity revisited

One way to explore the status of roots is to make a more complete survey of the \emptyset /*-t* pairs in the language, classifying them according to the semantic properties of the root. This is undertaken by Gerdtts and Hukari (2006b); some of their results are summarized here.

Section 2.1 shows that around one hundred verb roots that appear with the transitive suffix do not occur as a \emptyset -form intransitive. Section 2.2 shows that many bare roots used unaccusatively seemed to be coerced into this frame while the transitive alternants are more basic. We, thus conclude that the Halkomelem data do not support the viewpoint that all roots are intransitive. Rather, Salish verb roots should be classified, like those in other languages, into intransitive and transitive roots.

2.1 Some bare roots do not appear as words

Some verbs that occur with the suffix *-t* lack a corresponding bare root alternant that can appear as a free-standing word (93 of our sample of 489 roots (19%)). Some examples are:⁴

ACTIVITIES INVOLVING MANIPULATING, MOVING, ACQUIRING, INGESTING, ETC.

$\sqrt{ha}^?x^w$ ‘steam bathe’, \sqrt{hes} ‘ritual brushing’, \sqrt{k}^wey ‘bathe in cold water’, $\sqrt{y}ak^w$ ‘scrub, rub together’, $\sqrt{y}atq^w$ ‘scrub’, $\sqrt{y}ic$ ‘sand’, $\sqrt{x}ip$ ‘scratch’, $\sqrt{x}ay$ ‘beat’, $\sqrt{t}ayq$ ‘move’, $\sqrt{q}ix$ ‘slide’, $\sqrt{y}iq$ ‘fell, tip over’, $\sqrt{q}lax$ ‘drop off’, $\sqrt{h}ik^w$ ‘rock’, $\sqrt{c}am$ ‘pack on one’s back’, $\sqrt{?}it$ ‘carry by the handle’, $\sqrt{se}^?$ ‘put on lap’, $\sqrt{t}aq^w$ ‘tap, pat’, $\sqrt{k}^we^?$ ‘drop it, let go, leave it alone’, \sqrt{tan} ‘leave behind’, $\sqrt{x}im$ ‘grab’, $\sqrt{x}k^wa$ ‘grab and pull’, $\sqrt{m}ak^w$ ‘pick up off the ground’, \sqrt{wen} ‘throw’, $\sqrt{?}im$ ‘step on’, $\sqrt{t}al$ ‘bail it out’, $\sqrt{ma}^?$ ‘start a fire’, $\sqrt{?}ilax$ ‘buy it’, $\sqrt{t}k^wa$ ‘peck’, $\sqrt{k}^we^?q$ ‘pop, slam, snap’, $\sqrt{l}aq^w$ ‘drink in one swallow’, $\sqrt{t}ok^wax$ ‘eat, riddle (as pests do)’

VERBS OF COGNITIVE AND SOCIAL INTERACTION

$\sqrt{t}eq$ ‘whisper’, $\sqrt{k}^we^?q$ ‘pop, slam, snap’, $\sqrt{l}em$ ‘look at’, $\sqrt{y}an$ ‘laugh at’, $\sqrt{t}qax$ ‘insult, jeer’, $\sqrt{x}itax$ ‘jinx’, $\sqrt{x}k^wax$ ‘beat (in a game, race)’, $\sqrt{na}^?$ ‘find s.o. dear, miss’, \sqrt{nan} ‘take someone’s side, defend’, $\sqrt{p}x^wa$ ‘keep quiet, calm down’, \sqrt{neh} ‘name someone’, $\sqrt{t}ih$ ‘ask him/her, beg’, $\sqrt{?}a:$ ‘call for, invite’, \sqrt{ya} ‘order’, $\sqrt{c}se$ ‘tell (to do)’, \sqrt{k}^wax ‘forbid’, $\sqrt{?}ex^we^?$ ‘give, share with’

These verbs typically appear as transitives cross-linguistically, e.g. activity verbs involving a direct effect on the patient, often with an instrument; verbs involving the agent moving

the patient; ditransitive verbs of giving, letting, and telling; etc. The simplest analysis to posit for these verbs is that the roots are transitive.

2.2 Bare root is syntactically unaccusative but semantically transitive

A second challenge for the claim that all roots are intransitive come from a class of verbs that might at first seem like classic unaccusatives, since they appear in intransitive clauses where the sole argument is the patient. The following are typical examples:

- (3) ʔi ceʔ ʔə təʔi kʷs taχʷ-s kʷθə sənixʷəl
 AUX FUT OB here DT.NM beach-3POS DT canoes
 ʔəw̄ kʷeyələs.
 LNK tomorrow

‘You will beach the canoes over here tomorrow.’
 [Lit: ‘The canoes will be beached here tomorrow.’]

- (4) nem̄ ceʔ p̄ələç θəñ swetə kʷəñs çəyχʷ-t.
 go FUT turn.inside.out DT.2POS sweater DT.2POS dry-TR
 ‘You will turn your sweater inside out to dry.’
 [Lit: ‘Your sweater will be turned inside out when you dry it.’]

- (5) ʔəȳ kʷs qiç-s t̄ə qeq ʔəwə kʷl ʔiʔ ʃaʔ.
 good DT-NM bind-3POS DT baby not EMPH and stop.cry
 ‘You’d better bind the baby that hasn’t stopped crying.’
 [Lit: ‘It’s good for the baby that hasn’t stopped crying to be bound.’]

However, this construction is highly marked semantically. While the transitive alternants of these verbs are easily used in a variety of contexts, the intransitive verbs are used only in a construction that we call the pseudo-intransitive imperative. It functions as a polite or indirect imperative, with an implied second person agent. The sentence is usually framed in the future (3)–(4) or with the higher predicate ʔəȳ ‘good’ (5). Furthermore, the construction allows the motion auxiliary *nem̄* ‘go’, which is otherwise limited to clauses in which there is an agent that can move (Gerds 1988b); in (4) it is the implied agent that is moving.

A fair number of verb roots (37 out of 489, or 8%) appear in the pseudo-transitive imperative construction:

PSEUDO-TRANSITIVE IMPERATIVES

ʔiyeʔq ‘change’, h̄te ‘flip’, p̄eʔ ‘skim cream off milk, flatten’, qəyeʔ ‘take out’, ʔaləχ̄ ‘collect’, ʃəp̄χ̄ ‘scatter it, spread it, broadcast’, çəȳt̄ ‘bring -together’, çəȳ ‘scrape, singe a canoe’, saʔ ‘suck’, səȳt̄ ‘tickle him/her’, šakʷ ‘bathe’, šem ‘dry, smoke’, taləχ̄ʷ ‘send away, chase away’, weʔ ‘knit; pry with a tool’, χcə ‘figure out’, çxʷa ‘more, add more to it’, θəyχ̄ ‘stoke, rake’, t̄əlqiʔ ‘soak’, t̄əkeʔ ‘pinch’, yəʃq̄ ‘paint’, məlxʷ ‘rub

oil on it, grease it’, $k^w cə$ ‘shout at, use a sharp tone with’, $k^w θə$ ‘lie down (a quadruped), crouch’, $k^w še$ ‘number’, $lə x^w$ ‘cover’, $pəl ə c̣$ ‘turn inside out, turn over’, $ta x^w$ ‘beach’, $ṭaʔ$ ‘pull apart’, $θə yq$ ‘uneven, staggered’, $x̣θe$ ‘jerk’, $ya x̣$ ‘rub’, $yeʔ$ ($yaʔ$) ‘paddle backward’, $q̣əl p̣$ ‘curl, bend’, $θimaʔ$ ‘freeze’, $x̣ q̣^w ə$ ‘wrap up, tidy up’, $ṭ^θ a ḷ$ ‘dampen’, $x^w k^w a$ ‘pull, pull the slack up’

Gerds and Hukari (2006b) conclude that the best analysis for these roots is that they should be classified as transitive, since the transitive alternants seem semantically more basic than the intransitive ones. The unaccusative verbs are derived from transitive roots through zero derivation.

2.3 Summary

In sum, we posit that the 130 verb roots discussed in sections 2.1 and 2.2 are transitive. The recognition of a class of transitive roots opens up a Pandora’s box of questions about how to distinguish intransitive from transitive roots and how to relate the two types to each other—questions beyond the scope of this paper.

3. Intransitivity revisited

The question addressed in this section concerns intransitive verb classes: are unergative and unaccusative verb roots lexically distinguished in Halkomelem? We claim that they are. Unergative verbs, such as *yays* ‘work’, appear as bare roots in an intransitive construction where the sole argument is the agent of the event (6), while unaccusative verbs, such as *q̣aʔ* ‘get added to’, appear as bare roots in an intransitive construction where the sole argument is the patient of the event (7):

(6) $niʔ \quad yays \quad ṭ^θ ə \quad swə ỵ qeʔ$.
 AUX work DT man
 ‘The man worked.’

(7) $niʔ \quad q̣ aʔ \quad k^w θə \quad nə \quad šel ə m cəs \quad ʔ ə \quad k^w θə \quad nə \quad s-k^w u:k^w$.
 AUX add DT 1POS ring OB DT 1POS NM-cook
 ‘My ring got into my cooking.’

Furthermore unergative and unaccusative verb roots behave differently with respect to how they form transitives, as discussed in section 3.1. They also behave differently with respect to suffixes of agent-oriented modality, as discussed in section 3.2. These differences allow us to derive profiles for canonical unergative versus canonical unaccusative verb roots, as summarized in section 3.3.

3.1 Two types of transitives

As pointed out in Gerds (1988a, 1991), unergative and unaccusative verbs differ with respect to how they form transitive clauses. Unergative verbs transitivize with the causative suffix *-stəx^w*, for example *yays-stəx^w*:

- (8) niʔ cən yays-stəx^w tʰə swəy̌qeʔ.
 AUX 1SUB work-CS DT man
 ‘I put the man to work.’

In contrast, this suffix is not usually allowed with unaccusative verbs, for example *q̌aʔ-stəx^w (‘add’ + CAUSATIVE). Other examples of unergative verb roots that form causatives are given in Table 1.

BASIC VERB		-stəx ^w CAUSATIVE	
ɲem	‘go’	ɲeməstəx ^w	‘take it’
m̄i	‘come’	m̄istəx ^w	‘bring it’
cam	‘go uphill’	cəməstəx ^w	‘take it uphill’
l̄ew̄	‘run away, flee’	l̄əw̄stəx ^w	‘run away with him/her’
ʔa:l̄	‘get on board’	ʔa:l̄stəx ^w	‘put it on board’
t̄ək ^w	‘go home’	t̄ək ^w stəx ^w	‘take it home’
ʔənəx ^w	‘stop’	ʔənəx ^w stəx ^w	‘stop it’, ‘make him/her stop’
k̄ ^w iʔ	‘climb’	k̄ ^w iʔstəx ^w	‘lift/raise it’, ‘make him/her climb’

Table 1. Unergative verb roots with the causative suffix

As discussed in Gerdts and Hukari (2006a), causatives formed on activity verbs usually have the meaning of a causer making the agent perform the action indicated by the verb root, while causatives of motion verbs often have an associative meaning: the object expresses the person or thing that is taken or brought along during the performance of the motion.

In contrast, unaccusative verbs form transitives with the transitive suffix *-t*, for example q̌aʔ-*t*:

- (9) nem̄ č q̌aʔ-t tʰə sqewθ ʔə tʰəñ s̄lap̄.
 go 2SUB add-TR DT potato OB DT.2POS soup
 ‘Go put the potatoes into your soup.’

In contrast, this suffix generally does not appear on unergative verbs, for example *yays-*t* (‘work’ + TRANSITIVE) ‘work it’. Table 2 gives additional examples of verbs with the transitive suffix.

BASIC VERB		-t TRANSITIVE	
ʔak ^w	‘get hooked’	ʔak ^w ət	‘hook it’
čəx ^w	‘increase’	čəx ^w ət	‘add more to it’
k ^w ət	‘spill’	k ^w ətət	‘pour it’
lək ^w	‘break in two’	lək ^w ət	‘break it in two’
čəy ^x w	‘get dry’	čəy ^x wət	‘dry it’
ləc	‘(container) get full’	ləcət	‘fill it’
ləq ^w	‘get wet’	ləq ^w ət	‘wet it’
čəq ^w	‘get pierced’	čəq ^w ət	‘pierce it’
səq	‘get torn’	səqət	‘tear it’
ləx ^w	‘get covered’	ləx ^w ət	‘cover it’
k ^w es	‘burn’, ‘get hot’	k ^w esət	‘burn it’, ‘singe it’, ‘scorch it’

Table 2. Unaccusative verb roots with the transitive suffix

3.2 Two tests for agentivity

Two suffixes of agent-oriented modality, in the sense of Bybee et al. (1994), give additional evidence for intransitive verb classes. As discussed in Gerdtz (1988b, 1991) the desiderative suffix *-əlmən* behaves differently on unergative and unaccusative verbs. On unergative verbs like *yays* ‘work’, the suffix straightforwardly indicates the desire of the agent to perform the action:

- (10) ni[?] yays-əlmən t^θə swəy[?]qe[?].
 AUX work-DES DT man
 ‘The man wanted to work.’

Other examples of the desiderative use of this suffix are given in Table 3:

BASIC VERB		-əlmən	
k ^w i [?]	‘climb’	k ^w i [?] əlmən	‘want to climb’
lək ^w	‘fly’	lək ^w əlmən	‘want to fly’
neṁ	‘go’	neṁəlmən	‘want to go’
q ^w al	‘speak’	q ^w aləlmən	‘want to speak’
lək ^w	‘go home’	lək ^w əlmən	‘want to go home’
həye [?]	‘depart’	həye [?] əlmən	‘want to depart’

Table 3. Desiderative use of *-əlmən*

Attaching the desiderative suffix *-əlmən* to an unaccusative verb root gets a much different result. Either the form is not acceptable at all, or it has an aspectual meaning,

REFLEXIVE		LIMITED CONTROL REFLEXIVE	
q̣ayθət	‘kill self’	q̣aynamət	‘accidentally kill self’
həliθət	‘save self’	həlinamət	‘manage to save self’
q̣ ^w aq ^w əθət	‘club self’	q̣ ^w əq ^w namət	‘accidentally club self’
ʔak ^w əθət	‘hook self’	ʔək ^w namət	‘accidentally hook self’

Table 6. Two types of reflexives

In addition, the limited control reflexive *-namət* regularly appears on unergative verbs with the meaning of ‘manage to do something’, as in:

- (12) niʔ yays-namət t^θə swəỵʔeʔ.
 AUX work-L.C.REFL DT man
 ‘The man managed to work.’

BASIC VERB		<i>-namət</i>	
taḵ ^w	‘come home’	taḵ ^w namət	‘manage to come home’
təs	‘get there’	təsnamət	‘manage to get there’
q ^w al	‘speak’	q ^w əlnamət	‘manage to speak’
tax ^w	‘go down’	tax ^w namət	‘manage to go down’

Table 7. Non-reflexive use of *-namət*

Furthermore, on process and stative verbs, *-namət* has an aspectual meaning; it indicates an anterior (perfect) whose endpoint is in the recent past, and thus is translated ‘finally’, ‘just’, ‘now’, etc.

- (13) a. niʔ q̣^wəl t^θə st^θu:m.
 AUX ripe DT berry
 ‘The berries got ripe.’
- b. niʔ q̣^wəl-namət t^θə st^θu:m.
 AUX ripe-L.C.REF DT berry
 ‘The berries are finally ripe (despite the inclement weather).’

BASIC VERB		<i>-almən</i>	
tʰex ^w	‘(sun) set’	tʰəx ^w namət	‘(sun) has finally set’
ʒəlʒ	‘(fire) spark’	ʒəlʒnamət	‘finally start sparking’
ləm	‘erode’	ləmnamət	‘has finally eroded’
k ^w əyʒ	‘stir, (car) to start’	k ^w əyʒnamət	‘(car) finally started’
qis	‘get knotted up’	qisnamət	‘all knotted up now’
təl	‘unravel, spread open’	təlnamət	‘finally spread open’

Table 8. Aspectual use of *-namət*

Bybee et al. (1994) cite cases of anteriors developing from resultatives, passives, or dynamic verbs (‘finish’, ‘complete’, ‘do before’). But, since *-namət* has its historical source in a limited control reflexive, we suggest the following pathway: limited control > managed to do > managed to finish > finished. Table 9 gives results for 467 roots tested for *-namət*; some roots allow more than one use.

	+	–
	<i>namət</i>	<i>namət</i>
REFLEXIVE	109	—
MANAGE TO	156	—
ASPECTUAL	74	—
TOTAL	339	128

Table 9. Verb roots and uses of *-namət*

We see then that the suffixes *-almən* and *-namət* indicate agent-oriented modality only when they appear on unergative verbs. With unaccusative verbs, if the suffixes are allowed at all, *-almən* has an aspectual meaning and *-namət* has either a reflexive or aspectual meaning.

3.3 Profiling unergatives versus unaccusatives

To summarize the previous sections, we can develop a profile for canonical unergative or unaccusative verb roots. The unergative root in the bare form takes an agent as the sole argument and transitivizes by means of the causative suffix. The agency of the argument is further established by the use of the desiderative or limited control suffixes with the agentive meaning. Unaccusatives on the other hand, take the patient as the sole argument, transitivize with the suffix *-t*, and do not take agentive meanings for the desiderative and limited control suffixes.

FORM	FUNCTION	UNERGATIVE	UNACCUSATIVE
∅	intransitive	agent	patient
-stəx ^w	causative	yes	no
-t	transitive	no	yes
-almən	desiderative	‘want to’	no/aspectual
-namət	limited control	‘manage to’	no/reflexive/aspectual

Table 10. Unaccusative vs. unergative verb profiles

A search of our database for these five features reveals that 28 verb roots test to be canonical unergatives:

CANONICAL UNERGATIVES

cam ‘go uphill’, hek^w ‘recall to mind’, həye[?] ‘depart’, k^wi[?] ‘climb’, lak^w ‘fly’, nem ‘go’, q^wlan ‘be forward’, q^wal ‘speak’, tax^w ‘bring down’, tak^w ‘go home’, θət ‘say to’, x^win ‘growl’, x^wte[?] ‘go/come to’, yays ‘work’, ʔəmət ‘sit down/rise out of bed’, ʔənəx^w ‘stop’, ʔa:l ‘get on vehicle’, ʔeli ‘away, take away’, ʔewə ‘come here’, ʔitət ‘sleep’, ta:l ‘go to middle of floor’, x^wiw ‘sneak off, run away’, he:wə ‘go away for a long time’, k^wayək^w ‘fish with line, gaff’, ləne ‘go along a way’, təy ‘pull (race) a canoe’, ləw ‘flee’, tel ‘be like’

Searching for canonical unaccusatives yields a larger, but still unexpectedly small result. Only 55 verb roots, which Gerdts and Hukari (2006b) further divide into three types: spontaneously-occurring processes (26 verbs), externally-caused events (17 verbs), and states (12 verbs):

PROCESS (SPONTANEOUS) VERBS

lək^w ‘break’, me[?] ‘come off’, yəx^w ‘come undone, set free’, q^wəl ‘cook, bake, ripen’, k^wes ‘get burnt, scald, injure by a burn’, m^wqə ‘get full of food’, xəł ‘get hurt’, q^wis ‘get knotted’, q^way ‘get sick, die’, liq^w ‘get slack’, cəq ‘get surprised’, s^wqe ‘tear’, c^wq^wa ‘absorb’, ləłq ‘soak, flood, (river) rise’, l^wq^wa ‘take bark off’, ləm ‘fold, hem’, pq^wa ‘break’, səłq ‘twirl, swing’, x^wk^wa ‘wedge, get stuck’, x^way ‘die (plural)’, si^wk^w ‘peel’, ca[?] ‘pull off a layer of clothing’, t^wə ‘spread, open’, tx^wa ‘uncover’, cən ‘lean against something’, x^wi^wq ‘cheer up’

EXTERNALLY-CAUSED EVENTS

t^θas ‘get bumped’, q^waq^w ‘get clubbed’, pas ‘get hit’, t^θəx^w ‘get washed’, q^wa^w ‘wrinkle, pleat’, qəp ‘stick something to something’, x^wi^wq^w ‘loop’, qit ‘tie in the middle’, ʔaq^w ‘soak up, absorb’, ʔaq^w ‘brush’, t^θek^w ‘shine a light on’, pah ‘blow on, blow out, inflate it’, qem ‘bend’, t^θis ‘nail’, le[?] ‘put away’, pšə ‘spit medicine’, t^θəl ‘lose it all gambling’

STATES

həli ‘be alive, living’, ʔəʔw ‘be hard’, qəʔ ‘much, lots’, tq^wa ‘be taut’, ʔəq^w ‘be wet’, məs ‘decrease in size’, ʔəʔə ‘close together’, ʔpə ‘deep’, p̄il ‘fill to brim’, ʔec ‘dark’, ʔəlp̄ ‘flatten, flop’

In sum, 83 verb roots (17%) test to be canonically unergative or unaccusative. Although they comprise less than a fifth of the total data, these roots suffice to show that both unergative and unaccusative verb roots exist in Halkomelem.

However, it also raises the issue of why so few verb roots test to be canonically unergative and unaccusative. First, as discussed by Gerds (2006), half of the verb roots in our sample are “swingers”. That is, the bare root appears in either an unergative or an unaccusative frame, as required by the context. For example, the root *p̄ək^w* ‘float’ behaves unergatively with a sentient subject, denoting an action under the control of the agent NP (see (14)), but it behaves unaccusatively with inanimates, denoting an activity that the NP undergoes (see (15)).

- (14) *nem̄ cən nəqəm-nəs ʔəw̄ p̄ək^w ceʔ niʔ*
 go 1SUB dive-APPL LNK surface FUT AUX
ʔə t̄ə niʔ ʔam̄ət s-q^wəs=ʂeñ.
 OB DT AUX sit NM-submerge=foot

‘I’m going to dive, and then I’ll come out in front of the one that’s got his leg in the water.’

- (15) *naʔət wəʔ p̄ək^w t̄ə q^wleý.*
 AUX:DT now surface DT log
 ‘The log has floated up.’

Since the verb root can be either unergative or unaccusative, the suffix *-əlmən* can appear on the root with either meaning, depending on the context. In (16) *-əlmən* has the agent-oriented modality meaning and in (17) it has an aspectual meaning.

- (16) *niʔ p̄ək^w-əlmən t̄ə təməs.*
 AUX surface-DES DT sea.otter
 ‘The sea otter wanted to surface.’

- (17) *ʔi ʔə p̄əp̄ək^w-əlmən̄ t̄ə stəq-s t̄ə sqəlew̄.*
 AUX EVID surface(IMPF)-DES DT dam-3POS DT beaver
 ‘The beaver’s dam is starting to float up.’

This fact is not unexpected; work on unaccusativity cross-linguistically has shown that verbs in many languages switch easily from one type to another and that some classes have mixed properties (Rosen 1984, Levin and Rappaport Hovav 1995). For example,

Halkomelem motion verbs (Gerdtts and Hukari 2001) and middles (Gerdtts and Hukari 1998) show mixed properties, manifesting some unergative and some unaccusative features.⁵

Second, as discussed in Gerdtts (2006) and Gerdtts and Hukari (2006a), some attention needs to be paid to the accuracy of the transitive test. We posited that unergativity is correlated with the causative suffix and unaccusativity with the transitive suffix. But in fact, many verbs take either suffix. So clearly this test should be fine-tuned.

4. Conclusion

We conclude that any analysis that tries to put all the roots into a single class is un insightful for Halkomelem. At least some of the roots are transitive, as discussed in section 2, and the intransitive verb roots can be separated into unergatives and unaccusatives, as discussed in section 3. We give the totals for the number of verb roots of each type in Table 11:

TRANSITIVE	UNERGATIVE	UNACCUSATIVE	TOTAL
130	28	76	234

Table 11. Classes of Halkomelem verb roots

In other words, Halkomelem probably exhibits a normal tripartite system: there are three major verb classes—unergative, unaccusative, and transitive—and these map to three different syntactic structures.⁶ It is unnecessary to posit a view of argument realization in Salish languages that is radically different from that proposed for English or other languages of the world. Differences between Halkomelem and other languages should not be handled by positing deep conceptual differences, but rather by accommodating differences in the verb class of particular roots, or in their ability to swing between types.

Notes

* Halkomelem is a Central Salish language spoken by around one hundred elders in southwestern British Columbia. For the last twenty-five years, we have been studying verb classes in the Island dialect. Thanks to the expertise of three native-speaker linguists, Ruby Peter, the late Theresa Thorne, and the late Arnold Guerin, around 486 verb roots have been identified and tested in combination with two dozen affixes (transitive, causative, reflexive, etc.). Forms were judged for acceptability, and illustrative sentences were composed for each allowed form. From this corpus, supplemented by additional verb data culled from elicitations, texts, dictionaries, and language teaching materials, we have constructed a database coded for argument realization and semantic nuances. Thanks also to Sarah Kell and Kaoru Kiyosawa for research assistance, to Todd Peterson and Charles Ulrich for editing, and to SSHRC, SFU, UVic, Jacobs Fund, Phillips Fund, The Museum of Civilization, Ottawa, and the Canadian Consulate, Washington, D.C., for funding.

1 We use the term ‘root’ to include both monomorphemic bases and frozen forms that include one inseparable suffix. Much of what we say here also applies to complex forms.

2 The following abbreviations are used in glossing the data: APPL: applicative, AUX: auxiliary, CS: causative, DES: desiderative, DT: determiner, EMPH: emphatic, EVID: evidential, FUT: future, IMPF: imperfective, L.C.REFL: limited control reflexive, LNK: linker, NM: nominalizer, OB: oblique, PL: plural, POS: possessive marker, Q: interrogative, SER: serial, SUB: subject, SSUB: subordinate subject, TR: transitive.

3 Indeed, Salish languages are “transitivizing” languages in the sense of Nichols et al. (2004), who looked at eighteen intransitive/transitive pairs in eighty languages, including the neighboring Salish language Squamish, and rated them on the basis of whether the intransitive or the transitive alternant was morphologically marked.

4 Eight of these verbs form intransitive forms with the middle suffix: *təyqəm* ‘move’, *qixəm* ‘slide’, *tətχəm* ‘shiver, tremble’, *qətʰqəm* ‘squeak, rasp’, *qʰəm* ‘drop off’, *yiqəm* ‘fall, tip over’, *təpʰqəm* ‘boil’, and *χəwqəm* ‘flicker’.

5 Section 2.2 shows that around forty Ø/transitive pairs show an unergative/transitive alternation, where the agent remains constant, rather than an inchoative/causative one, where the patient remains constant.

6 See Levin & Rappaport Hovav 2005 for a survey of how this is accomplished in various theories.

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Use of causatives in Navajo: Syntax and morphology.

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1. Introduction

Any causative expression involves two situations, the cause and the result. Causative constructions across languages can vary according to the pragmatic meanings of causation and how the sequences of goal, event, and result are expressed. A study of the causative constructions therefore involves both formal syntax and semantic analysis.

This paper explores causative constructions in the Navajo language and deals with the research question: How is causation expressed in Navajo? We were also interested in the expression of meaning, depending on how causation was stated.

Navajo is an SOV polysynthetic language spoken in parts of New Mexico, Arizona and Utah. The language belongs to the Na-Dene Language Family, Athabaskan Language Branch. The Athabaskan Language Branch includes the Alaskan language group, the Western Canadian language group, the Northwestern Pacific Coast language group, and the Apachean language group

We identify three types of causatives in Navajo; 1) analytic constructions, containing three subclasses; analytic juxtaposition, temporally marked analytic constructions, and postposition analytic causative constructions, 2) a morphological or derivational causative with two subclasses; positional causative constructions and lexical causative constructions, and 3) metaphoric causatives.

The first type of causative is used when the causation is indirect. Analytic juxtaposition is used to show indirect causation when the cause is an internal force, such as sleepiness or hunger. The second, temporally-marked analytic construction is used when there is a temporal relationship between the cause and the result. The third, post-position analytic causative construction is used to express situational causation.

Morphological or derivational causatives are used when the causation is an agentive causer. Derivational morphological causative constructions are indicated by a derivational morpheme prefixed to the verb.

Additionally, a few metaphors are used in Navajo to express causation.

We compare causative patterns identified in other languages and from literature to the data we gained from our consultants.

2. Defining causatives cross-linguistically

Causation can be defined as an expression in which an event (the caused event) is depicted as taking place because someone does something or because something happens (Goddard, 2002: 260). Two events qualify as a causative situation if:

- The speaker believes that one event has happened.
- A second event has happened at some later time.
- The speaker believes that there is a relationship between the two events.
- The second event is wholly dependent on the occurrence of the first causing event.
- There is no proof that the caused event would have happened if the first event had not happened.

Causation may imply coercion or permission in some languages, or the causer may have the power to prevent an event or situation from occurring.

In our analysis we were concerned with the subject and the topic of clauses and sentences, in addition to examining speech for lexemes that could be translated 'cause' or 'because'. Clauses that were examined included those that described the causer of an event, the actor in an event, or the one person exercising volition with respect to an event.

Comrie (1985: 331) describes three general kinds of causatives: 1) lexical causatives, 2) situations in which two clauses are placed together so that one denotes an event and the other realizes the event, and, 3) instances in which the clause of cause and the clause of effect are coordinated by morphemes.

The communicative task of showing causation in a language will often have specific analytic constructions that are used solely for that purpose. These constructions include special particles, words, word order changes, affixes, intonations and phonological alternations. Lexical classifiers are altered by *l-* in which an argument is added to a verb, often creating a causative. This Koyukan example is from Axelrod (1998: 48):

estseh
se + θ + tseh
1sgS + CL + cry
'I cried'

etltseh (causative)
se + † + tseh
1sgS + CL + cry
'I made him cry'

In the second situation, listed above by Comrie, the coordinated utterance involves the placement of two clauses, in which there is zero marking of the causative coordinator. Coordinated clauses involve two clauses in which one expresses the cause and the other the effect. The order of clauses is fixed.

The following example from Bubungo (Bantu) illustrates this zero causative construction. An element (*laa*), marks the clause boundary.

vì yáá yìsə laa ɲwə gə ntó'
 They-IMPERF PST make-PERF (that) he go-PERF palace
 'They made him go to the palace.'

In Vata (Ivory Coast), the conjunction *le* coordinates NPs, PPs, or S:

ń gba le yò-ò li
 I speak CONJ child DEF eat
 'I make the child eat.'

The third situation describe by Comrie, morphological causation, is also described in chapter 11 of Haspelmath (2002) in which the use of causatives involves a valence-changing operation for the verb. In particular, he calls them “agent-adding” operations, and he gives these examples from Japanese:

Taroo ga ik-u
 Taro NOM go-PRES
 'Taro goes'

Hanako ga Taroo o ik-ase-ta
 hanako NOM Taro ACC go-CAUS-PAST
 'Hanako made Taro go'

Taroo ga hon o yom-u
 Taro NOM book ACC read-PRES
 'Taro reads a book'

Hanako ga Taroo ni hon o yom-ase-ta
 Hanako NOM Taro DAT book ACC read-CAUS-PAST
 'Hanko made Taro read a book'

For coordinated morphological constructions, causation may be indicated by adding affixes to non-causative verbs. This example from Song (1996: 88), shows in Bilaan (South Mindanao), the causative prefix f(a)- is used to causativize verbs.

fa-tam-gu dale saló
 CP-light-I them lamp
 'I have them light the lamp'

In Classical Nahuatl, a suffix is added to the verb to show causation (Comrie, 1985: 318).

Ni-mitz-tla-pāca-ltia
 I-you-something-wash-CAUSE
 'I make you wash something.'

3. Data and methodology

The data we collected was provided from interactions with Jalon Begay, a fluent, first-language Navajo speaker and graduate student studying linguistics. Jalon participated in the University of New Mexico linguistics field methods class as a language consultant for fall semester 2005. We also obtained information from Melvatha Chee, a native speaker of Navajo and linguistics graduate student, in order to expand upon our previously collected data. Roseann Willink, a native speaker and Navajo instructor at the University of New Mexico, and Jay Williams, a doctoral student specializing in Navajo grammar also provided examples and illustrations.

We asked our consultants to provide Navajo equivalents of certain English verbs such as bring about, cause, or make, and then to use them in sentences. We chose verbs that often are used to express causative relationships including make, cause, move, boil, burn, break, put to bed, die, and kill. We sought patterns in the responses, indicative of causative constructions.

In addition, we elicited responses from our consultants in an attempt to equate commonly used English constructions such as:

- I fell because of the high winds.
- I'm not going to help because I don't like you.
- The policeman killed the bank robber. (He caused him to die.)

Numbered examples that follow are those we obtained from the consultants, while lettered examples are from literary sources. Navajo words and expressions are in italics, and English equivalents of Navajo are identified by single quotes.

4. Analytic causatives in Navajo

According to Comrie (1985: 331), an analytic (syntactic) causative is "...one that uses regular syntactic devices of the language for forming complex sentences out of simplex sentences without fusing together the predicates of those simplex sentences; ..." In the examples he uses, 'Sam slid off the roof' would be the simplex sentence, while 'Mary caused Sam to slide off the roof' would be the analytic causative.

In Navajo, the causative relationship is often inferred from the ordering of the clauses, where the cause clause precedes the result clause in three different forms. We identify these three subgroups as analytic causatives: analytic juxtaposition temporally marked analytic constructions, and postpositional analytic constructions.

4.1 Analytic juxtaposition

The juxtaposed analytic causative construction is used when the cause is an internal force, such as sleepiness or hunger. In this case, two clauses are presented by the speaker with no conjunction or coordinator present. The first clause expresses an event that precludes the second event. It is understood that the second event happened as a result of the first event. Song (1996: 142) mentions that juxtaposing the two clauses alone iconically performs the function of registering the temporal sequence of the

described events in many languages. These examples from Navajo have cause clauses consisting of a noun and a verb of cognition followed by the result clause.

1. *dichin nisin bááh nahashniih*
hunger I want/I think bread I buy it
'I buy bread because I am hungry'
2. *bił nisáá iixazh*
Sleepiness I knew I went to sleep
'I went to bed because I was sleepy'
3. *dichin nizíí'ó íiyáá'*
Hunger I became aware of it I ate
'I ate because I was hungry'

4.2 Temporally marked analytic constructions

Temporally marked analytic constructions occur in Navajo when there is a temporal relationship between the cause and the result:

4. *éí biniinaa yishcha*
it because I cry
'because of it I'm crying'
5. *ayóo ahii nishnígo biniinaa akwisdzaa*
very you (INDEF DET.) I love because I did it (INDEF)
'I did it because I love you'
6. *éí baq shibéeso ádin.*
because of that my money nothing
'that's why I have no money'
7. *t'áadoo hazhó'ó iilaazh dago ch'ééh déyá.*
RELATIVIZER before many days good sleep up unsuccessful I started went
'because I didn't sleep well, I'm tired'

According to Shauber (1979: 224), the *-go* enclitic, is an adverbial subordinator. The enclitic *-go* subordinates clauses adding a sense of 'while, 'when,' or 'because'.

- A. *aho'niiltáago t'éiyá hooghan góne' yah anideesháát*
begin to rain when (because) only house inside into I will go
'When it starts to rain, I go inside'

This is also shown in an example that means that the cause of driving fast is related to the act of driving:

9. *shichidi naasbaqsgo, tsxiít nisin.*
 my car I drive when fast I want to go
 ‘When I drive my car, I want to go fast’ (It causes me to go fast)

4.3 Postpositional causative constructions

The postposition, *-niinaa* is affixed to pronouns to express ‘because of’. *Biniinaa*, ‘because of him, her, it’, is the most common construction that was encountered. The postpositional object pronominal prefix, e.g. *bi-* ‘him, her, it’, is used both by itself and also with a nominal postpositional object. The causative construction must always precede the verb. The cause clause is followed by the causative expression, and then by the resultant clause in these examples:

10. *ashkii biniinaa yáshti’*
 boy because of him I am talking
 ‘I am talking because of the boy’
11. *ashkii al’ééd yinniinaa yálti’*
 boy girl OBJ because of her he is talking
 ‘he is talking because of the girl’
12. *tsxi’deezyágo biniinaa akodzaa*
 he became crazy because he did it (INDEF)
 ‘he did it because he was crazy’
13. *shibéeso ádingo biniinaa doo déyáá da*
 my money away out of sight because neg I started went PART
 ‘I’m not going because I have no money’
14. *shi’niinaa dah dee yah*
 me because up out of sight
 ‘because of me, he left’
15. *niniinaa éi doo shił akótée da*
 you because not with me that’s the way it is PART
 ‘because of you, it doesn’t suit me’

The following examples show that both *biniinaa* and *biniyé* are used to account for conduct, but *biniinaa* might tend to be used to explain personal situations, as shown in examples A and C, and *biniyé* would be used when the causation is more general, or due to circumstances, as in B.

Personal cause:

- B. *hooghandi chýáán ádingo biniinaa kingóó déyá.*
 Home at food none since because of it to store I go
 ‘I’m going to the store because there is no food in the house’

More general case:

- C. *ch'iyáán biniyé kingóó déyá.*
food for purpose to store I go
'I'm going to the store for, in order to get groceries'
- D. *ha'át'ii biniinaa kóó naniná?*
why for what reason (it because) here be your reason
'How come you're here? What is your reason (that you're not somewhere else)?'

Another postposition used in causative constructions is *háálá* shown in example D (Goossen 1995: 204).

- E. *doo kingóó déyáa da, háálá shibéeso ádin.*
NEG it broke I started to go PART how, what my money nothing
'I'm not going to the store because I'm out of money'

Goossen also provides this example with *ébiniinaa* in free variation with its reduced form *baq*.

- F. *beisénah lá. ébiniinaa/baq coo yínishta'daítéé'.*
I forgot puzzlement that because PART I to read that thing
'I forgot about it. That's why I didn't read it'

4.4 Lexical constructions

Languages that use lexical causatives use different lexical items to show causation. Comrie (1981: 161) describes the lexical causative as, "...the lexical causative, i.e. examples where the relation between the expression of effect and the expression of causative macro-situation is so unsystematic as to be handled lexically, rather than by any productive process."

Several lexical approximations to the English 'because' exist in Navajo according to Haile (1950: 101) and Young and Morgan (1972: 132, 2000: various entries). When questioned about these lexical expressions, our consultants did not recognize all the lexical words translated 'because'. Some of these words may be archaic, infrequently used, used regionally, or may have meanings that have changed over time.

- G. *bee 'at'é* 'due to it' (Haile examples)
xá'lá 'because, because...therefore' (modern spelling: *háálá*)
'éi biniyé 'because of it, account of it, purpose of it'
(modern spelling: *'éi biniyé*)
'é t'é 'because' (questioned)
'ékódigí 'because of' (questioned)
'éi baqah 'for that reason, because of that'
'éiba 'because' (modern spelling *'éibaq*)

<i>'ádik'ee</i>	‘because of self’ (questioned) (Young & Morgan examples)
<i>'éi binahjí</i>	‘on that basis, due to that, assistance is provided’
<i>bik'ee</i>	‘because of it’, also, <i>binah</i> , <i>binahjí</i> , <i>bee 'át'é</i>
<i>'alk'ee</i>	‘because of each other’

Éi baq̄h or *éi baq̄* is a synonym of *éi bininaa* and can be used interchangeably, according to Goossen (1995: 204). *Éi* is the demonstrative ‘that’. However native consultants felt that the *éi baq̄h* does not contain the same meaning, and that it is more emphatic, as in this example provided by Rosann Willink:

16. *béeso adin éi baq̄ naashnish*
 money nothing for that reason I work
 ‘I have no money therefore I must be working’

It was mentioned by consultants that *bik'ee*, (literally 'because of him/her/it'), is a lexical item, a postpositional phrase, that in general use can mean ‘because of it’ and that it is used infrequently, and often idiomatically. The postposition *-k'ee* can be used with pronominal prefixes just as with the postposition *-niinaa* (e.g. the reciprocal *alk'ee*, ‘because of one another’, and the reflexive *ádik'ee*, ‘because of myself’).

5. Morphological / Derivational causatives

A second type of causative in Navajo is indicated by the derivational morpheme *ʔ* prefixed immediately to the left of the verb stem. The Navajo verb is a composite construction consisting of a stem and prefixes that can occupy a series of 16 positional slots. The verb is expressed in seven modes. In Navajo, morphological causation is accomplished by the positioning of the causative prefix *ʔ* directly before the verb stem. According to Axelrod (1998: 48) “The classifier, or voice, prefix of . . . Athabaskan languages, occupies the position to the immediate left of the root. The prefix that occupies the classifier position in any given verb is assigned thematically (i.e., lexically). That classifier may also be altered by means of a derivational process associated with transitivity and/or voice.”

Morphological causation derives new verbs and requires an agent as a cause, as shown in the examples that display the *ʔ*. According to Comrie (1985: 323), “Here, the basic verb forms a sentence that describes some situation; the derived verb has a different subject, and the new subject brings about [... ..]the situation described by the sentence containing the basic verb.” This derived construction is the causative, and the causative uses participants and actants to describe the situation, so that and the prefix *ʔ*- added to verbs indicates the addition of a causer.

The derivational meaning of *ʔ* varies according to the verb. Axelrod (1998: 51) states the *ʔ*-classifier in the Northern Athabaskan language Koyukon, works in a similar way: “In causative derivations, in which an argument is added to a verb, there is also a change in the classifier: causatives always have an *ʔ*-classifier.” Causatives in Navajo take the form: OBJECT-*y-ʔ*-verb stem, although the verbs that perform in this way are irregular (Hale and Platero 1996: 6).

5.1 Active causatives: the *t* classifier

Causative verb constructions follow a pattern in which the causative is made by the introduction of a new argument. The subject function goes to object function in the causative situation. Young and Morgan state (1972: 118). “*t* is added to many zero class and I class verbs as a causative and transitivizing agent.” Navajo examples 16 and 17 show the positioning of *t* after the pronoun and before the intransitive verb stem. The causative verb is created from the intransitive verb in these two sets of examples.

17. a. *nezd'a*
‘she sat down’
- b. *binelt'a*
‘I made her sit down (I caused her to sit down)’
18. a. *á shá*
‘I eat’
- b. *shi'iils'*
‘She’s causing me to eat’

While a transitive clause has a subject and an object, the causative introduces a new argument in the agent, the causer. The example in F, from Reichard and Bittany (1940: 16), shows the plain transitive progressive verb in F a, the causative of the passive progressive in F b, and the causative transitive with both direct object (the causee) and postpositional object (the patient) in F c.

- H. a. *yi-dis* (modern spelling *yisdis*)
‘he is spinning it’
- b. *yo-t-dis* (modern spelling: *yootdis*)
‘he is causing twisting (of) it’
- c. *yiyo-t-dis* (modern spelling: *yiyooldis*)
‘he is causing her (it) to twist it’

The verb, *nabiishlá*, seems to be the causative form of the verb ‘walk’ and is used only in the cases in which a person is training a baby to walk, or helping a baby to walk around, and it may imply a spinning or wobbly motion. It might also be used in play, in which persons were handling small stuffed animal toys. Example 22 shows how the expression is constructed when the baby walks around on its own. Example 23 shows the causative.

19. *'awéé' naaghá*
Baby 3 p slowly walk around or in a round trip
‘The baby is walking around’

20. *'awéé' nabiishlá*
 baby 1 s to walk around as a baby or a drunk
 'I am causing the walking the baby to around'

5.2 Stative causative constructions

Two morphological causatives in Navajo are of special interest in that they do not signal causation in the usual 'making something happen' way, but rather signal intentionality, in the maintenance of a particular state. Kibrik (1993) terms this "possessivization." He explains that: "Across Athabaskan languages a typologically somewhat unusual variety of causative is spread—that is, so-called 'possessives' that are derived perhaps exclusively from states indicating motionless location or existence and designate possessing the object in a certain state...It is very likely that the possessive meaning of the forms in question is rather a side effect, typically but not obligatorily accompanying the inherent meaning that can be expressed as causing an existential/locative state to be maintained, controlling a goal in a position" (Kibrik.1993: 55-6). He cites examples G through J from Young and Morgan:

- I. *dini-O-niih*
 Aff:2sg/A-TI-hurt
 'you are in pain'
- J. *ni-O-di-t-niih*
 2/G=3/A-Aff-Ti-hurt
 'it makes you ache'
- K. *kéz-O-d—d*
 Aff:3/A-Ti-sraighten
 'It straightened up, stood erect'
- L. *shi-O-s-4-l-d—d*
 Aff-3/G-Aff-1sg/A-Ti-sraighten
 'I straightened it out'

Our consultants provided us with examples 18 and 19. Here the plain stative verb is shown in the a forms, and the derived causatives with *t-* classifier in the b forms:

21. a. *si'ka*
 'it's there'
- b. *selka*
 'I have it for a purpose'
22. a. *siá*

‘it (a solid, round object) is on the table without my doing anything’

- b. *séł’á*
‘I kept it from rolling around on the table’

The stative stems may describe a person or object being in a sitting, reclining or standing position. When a person changes position, it is the subject that performs the action involved. Causatives of these verbs express that the change in position was done to the person by a causer.

These examples come from Young (2000: 239), and were verified by our consultants:

- M. a. *neezdá* ‘he /she/ it sat down’
b. *binéldá* ‘I caused him/her/it to sit down’
- N. a. *neezhtéézh* ‘they two lay down’
b. *binéltéézh* ‘I made them two lie down’ (‘They are the possessor of my actions’, according to consultants.)
- O. a. *yiizí* ‘he/she/it stood up’
b. *biitzí* ‘I stood him/her/it up’
c. *bisésí* ‘I have or hold him/her/it standing (standing position)’

Other examples from native speakers, show that the speaker is not only stating fact, but is stating that he or she has caused and is in control of the situation:

23. *shichidí hooghan bine' jí bisésí*
‘I keep a car behind the Hogan’ (car is animate)
24. *tsésq' gi tsidiiltsooí biséldá*
‘I keep a canary in my window’ (I cause a canary to be in the window)

6. Metaphorical or idiomatic uses of causative constructions

Navajo has metaphoric or idiomatic causative expressions within both the morphological and the analytic causative constructions. Jalon Begay described an instance of the causative construction in which a person is infected by another person who has a cold. Because the infected person is said to have swallowed the cold, it then resides in them. This is shown in example 24. Example 25 shows the way to say ‘I yawned’ in Navajo, where ‘yawn’ is expressed idiomatically as opening one’s mouth because of sleepiness.

25. *sha'deezha dak'os shiidiilna*
my little sister because of her cough I swallowed it
‘I caught a cold from my little sister’

26. *bił* *bik'ee* *diishch'ééh*
 sleep because of it I opened my mouth
 'I yawned'

Example O comes from Reichard and Bittany (1940:11) and shows 'dawn' expressed metaphorically as a force causing the passing of the night:

- P. *yilka* (modern spelling: *yilká*)
 some unknown force causes the passing of night
 'the day is dawning'

Young (2000: 388) cites several examples in which causative constructions are actually extensions of metaphoric ideas. As an example of this, *zhóód*, is a heavy bulky object such as a boulder.

27. a. *shizhóód* 'a large heavy object sits'
 b. *shéshóód* 'I have or cause a large heavy object to be sitting' (not
 actually a heavy bolder, but something I claim is big and
 heavy)

Hóyéé' is a word used to express 'fear', 'terror', or fright'. With the postposition *bik'ee* (on account of, because of) it means fear, 'because of terrible condition'.

Other metaphoric constructions include these examples reported by Young and Morgan (2000: individual entries)

- Q. *bik'ee* *haa* *shij* *nishté*
 because of it how mine to be (in condition)
 'I feel "sort of funny" about it'

- R. *bikée shiyah hodeesyiz*
 because of it, things turned under me
 'it startled me'

- S. *'ádik'ee yícha*
 because of myself, I kicked it
 'I wept on account of myself'

6. Conclusion

In this paper we explored how causation is used in the Navajo (Diné) language and developed a typology based on consultation with native speakers and the scholarly literature. We identified three general types of causatives; analytic causative constructions, morphological / derivational constructions, and metaphorical phrases that have a literal meaning of causation.

Analytic causatives in Navajo use the typical analytic devices and form sentences that express causality. This type of causative has four subclasses:

- Analytic juxtaposition in which the causative relationship is inferred from the ordering of the clauses, where the cause clause precedes the result clause. In this case the clause construction expresses the idea of two events, one preceding and causing the other.
- Temporally marked analytic constructions use an enclitic to subordinate the clause and set up a condition showing causality.
- Postpositional causative constructions usually use postpositions such as *-niinaa*, with pronominal prefixes to express ‘because of P’.
- Lexical causative constructions are words that are approximations to the English ‘because’.

Morphological or derivational causatives employ derivational *ʔ*- classifier prefixed. There are two subclasses of this causative type:

- The active causative construction, *ʔ*- classifier, is added to class verbs as a causative and transitivizing agent.
- Stative causative constructions describe a person or object that is caused to be sitting, reclining or standing position.

Metaphorical or idiomatic uses of causative constructions have meaning that cannot be derived from a word-by-word translation of the utterance. Causation is expressed in Navajo, but the causative relationship has been bleached with use.

We conclude that morphological causatives (section 5) express more direct causation than analytic causatives (section 4). This is in agreement with Comrie (1985: 333-334) who says, “Where one has a causative situation, involving a causer (person, thing, force) and a situation brought about, then one relevant semantic parameter is the degree of closeness between the cause (i.e. the causer’s action) and the effect (result situation)...Although an absolute distinction between mediated and immediate causation is difficult to draw, one often finds that, when a language has both analytic and morphological or lexical constructions, the former implies less direct causation than the latter.” The morphological causatives require an agent as a cause. As an example, the *ʔ*-type morphological causatives take on a strong meaning of intentionality, as in example 17 a, in which the person was made to sit down. Compare this to examples 2 and 4, in which causation is brought about more by circumstances than forces.

The lexical constructions (section 4.4) imply a greater closeness between cause and effect, and are sometimes used when the causative is used more specifically.

The causatives using analytic juxtaposition (section 4.1) have the weakest connection between the causer and the situation. In some cases, it is implied that the cause of the events was out of control of the speaker. Causative constructions, such as example 1 show that an internal force such as hunger is the cause, and utilize analytic juxtaposition to express the cause and result relationship.

Of the analytic types, postposition causative constructions (section 4.3) displayed the strongest relationship between the referent and the event. The postposition analytic causative marks the initial cause clause by *-niinaa*, or its derivations to express ‘because’. The *-niinaa* constructions are used for a clear causal relationship, as in example 14, which shows that ‘because of me he left’ (*shi’niinaa dah dee yah*).

Stative causative constructions (section 5.2) imply that the speaker is actually in physical control of the described event, and thus there is a stronger relationship between cause and the event.

The *I*-type morphological causatives (section 5.1) also take on a strong meaning of intentionality and the subject is taken as strongly agentive, as seen in example 22b, 'I kept it from rolling around on the table', (*séł'q̄*).

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Vowel Length and Phonation Contrasts in Chuxnabán Mixe

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1. Introduction

Chuxnabán Mixe is a previously undocumented Mixe-Zoque language spoken by about a thousand people in one village in the Mexican southern state of Oaxaca. The Mixe region is composed of two hundred and ninety communities divided into nineteen municipalities (Torres Cisneros 1997). Chuxnabán belongs to the municipality of Quetzaltepec. Each village speaks a different variety of Mixe, some of which are mutually unintelligible. The varieties differ mostly in their vowel systems (Suslak 2003). For instance, while Totontepec Mixe has nine phonemic vowels (Schoenhals 1982), only six are reported for Coatlán Mixe (Hoogshagen 1959, 1997).

It is unclear at this point to what extent the different Mixe varieties constitute distinct languages or dialects, due to insufficient sources of information. While some linguists divide Mixe into four main varieties: Lowland Mixe, Midland Mixe, South Highland Mixe, and North Highland Mixe, the *Ethnologue* lists ten different Mixe languages divided into three larger branches: Eastern Mixe with six languages and Veracruz Mixe and Western Mixe with two languages each (Gordon 2005). Chuxnabán Mixe has been identified by its speakers as Midland Mixe, and is assumed to correspond to Quetzaltepec Mixe in the *Ethnologue* entry.

Currently, there are only a few published grammars and dictionaries for the many different Mixe languages and dialects spoken (De la Grasserie 1898; Hoogshagen 1997; Ruiz de Bravo Ahuja 1980; Schoenhals 1982; Van Haitsma 1976). The scarce documentation has led to a very small number of studies concerned with the unique and typologically interesting linguistic features of these languages. In particular their rich vowel systems have not been well researched.

The goal of this paper is to describe a previously undocumented variety of Mixe and to lay the ground for future phonetic analyses of the complex vowel systems found in Mixe languages. For this purpose, I will first examine the phonemic phonation contrast between plain, aspirated, and glottalized vowels, which has been reported for other Mixe languages (Hoogshagen 1997; Schoenhals 1982; Van Haitsma 1976). Second, I will measure vowel duration to explore a possible three-way phonemic length distinction. Such a distinction is typologically rare (Ladefoged and Maddieson 1996), and has been attested for Coatlán Mixe (Hoogshagen 1959). The data for this paper stems from weekly two-hour elicitation sessions with a female speaker living in Los Angeles for about four months. It consists of mainly nouns. In addition, published documentation of other Mixe varieties has been consulted.

2. Chuxnabán Mixe Phonemes

Chuxnabán Mixe has seven phonemic vowel qualities. It remains unclear whether schwa is a phoneme or merely an allophone of either the mid front vowel /e/ or the central high vowel /i/. Schwa appears in verbal suffixes and word-finally, but no

minimal pair has been found so far. Another vowel of unclear status is the central rounded [ə]. It has been identified only in *yö'öpy* 'to walk' so far, and may be the result of dialect borrowing. The vowel phonemes are summarized in TABLE 1 and represented in the newly established orthography¹. The corresponding IPA symbols are included to the right in square brackets.

TABLE 1: Chuxnabán Mixe Vowel Phonemes

i [i]	ï [i̥]	u [u]
e [e]		o [o]
ä [æ]	a [a]	

The following examples illustrate the phonemic contrasts:

- (1) i ~ ï *tsip* 'war' *tsip* 'plant name'
(2) a ~ u *kam* 'field' *kum* 'sweet fruit'
(3) ä ~ u *tsäk* 'dull' *tsuk* 'mouse'
(4) o ~ u ~ ï *joon* 'bird' *juun* 'hard' *jün* 'fire'

Vowel length is phonemic. This is illustrated in examples (5) to (7).

- (5) o ~ oo *mox* 'stomach' *moox* 'knot'
(6) a ~ aa *kam* 'field' *kaan* 'salt'
(7) e ~ ee *kepy* 'tree' *keepy* 'bream'

A possible three-way length distinction will be examined in 5. In addition to vowel length, Chuxnabán Mixe shows a phonemic contrast between modal, aspirated, and glottalized vowels. Overall, the following types of syllable nuclei are found²: V, VV, Vh, VVh, V', V'V. These will be described in detail in 3.

Chuxnabán Mixe has fifteen consonantal phonemes, although the rhotic and lateral occur only in loans. The consonants are summarized in TABLE 2.

TABLE 2: Chuxnabán Mixe Consonants

	Bilabial	Alveolar	Postalveolar	Palatal	Velar	Glottal
Plosives	p [p]	t [t]			k [k]	' [ʔ]
Nasals	m [m]	n [n]				
Fricatives		s [s]	x [ʃ]			j [h]
Affricates		ts [ts]	ch [tʃ]			
Rhotic		r [r]				
Lateral		l [l]				
Glides	w [w]			y [y]		

Except for the rhotic, lateral, and the two glides, all consonants can be palatalized³. Palatalization functions as a suprasegmental phoneme affecting adjacent vowels. Its

phonetic realization is described in 4. The glottal stop has only been identified as a phoneme when it forms part of a syllable nucleus, hence in V[?] and V[?]V.

Allophonic variations similar to those found in other Mesoamerican languages (Campbell et al. 1986) have also been observed. Obstruents, i.e. plosives, fricatives, and affricates, are voiced following a nasal in word-medial position and in intervocalic position, but are always voiceless in word-final position. Nasals are devoiced after voiceless obstruents word-finally. The alveolar nasal /n/ is velarized before a velar plosive /k/. These allophonic variations are illustrated in the following examples⁴.

- | | | | | | | |
|------|---------|-------------|---------|--------------|-------------------|-------|
| (8) | /atääm/ | -> [a'dæ:m] | 'lip' | /ja'anchuks/ | -> ['haʔan,dzuks] | 'ant' |
| (9) | /pätn/ | -> [pætŋ] | 'broom' | | | |
| (10) | /maank/ | -> [ma:ŋk] | 'son' | | | |

3. Phonation contrasts

Chuxnabán Mixe shows a phonemic phonation contrast between plain, aspirated or breathy, and glottalized or creaky vowels. Phonation contrasts have been associated with various phonetic properties, such as differences in periodicity, intensity, spectral tilt, fundamental frequency, formant frequencies, duration, and airflow (Gordon and Ladefoged 2001). Non-modal vowels generally correlate with increased duration when compared to their modal counterparts (Gordon 1998). Furthermore, breathiness and creakiness are often confined to a portion of the vowel (Gordon and Ladefoged 2001). The phonetic correlates and timing of the non-modal phonation in Chuxnabán Mixe will be examined by looking at waveforms and spectrograms. The duration effects are analyzed in 5.

The phonemic contrast between plain and aspirated vowels is illustrated in the following examples.

- | | | | | | |
|------|------------|-------------|-------------|--------------|----------|
| (11) | a/aa ~ aaj | <i>taak</i> | 'mother' | <i>taajk</i> | 'police' |
| | | <i>pak</i> | 'pigeon' | <i>paajk</i> | 'bone' |
| (12) | ī/īī ~ īij | <i>mīit</i> | 'they went' | <i>mīijk</i> | 'year' |
| | | <i>mik</i> | 'strong' | <i>xīijk</i> | 'bean' |

Phonetically, the aspirated vowels are characterized by a decay in intensity, especially during the second half of the vowel, and by post-vocalic aspiration, as can be observed by comparing Figures 1 and 2. Similar characteristics have been described for the so-called ballistic syllables: a) a fortis release of the onset consonant, b) a gradual surge and rapid decay in intensity, and c) post-vocalic aspiration. However, Chuxnabán Mixe aspirated vowels show no gradual surge in energy, rather a gradual decay throughout, as in Figures 2 and 3. Unlike in Jalapa Mazatec where non-modal phonation is most prominent in the first portion of the vowel (Silverman 1995, 1997), aspiration in Mixe is confined to the last part of the vowel. Contrary to Mixe languages, though, Jalapa Mazatec has contrastive tone. It has been argued (Silverman 1997) that non-modal phonation in Jalapa Mazatec is realized in the first portion of the vowel for tonal contrasts to be retrieved from the second portion.

Figure 1: Plain VV *taak* 'mother'

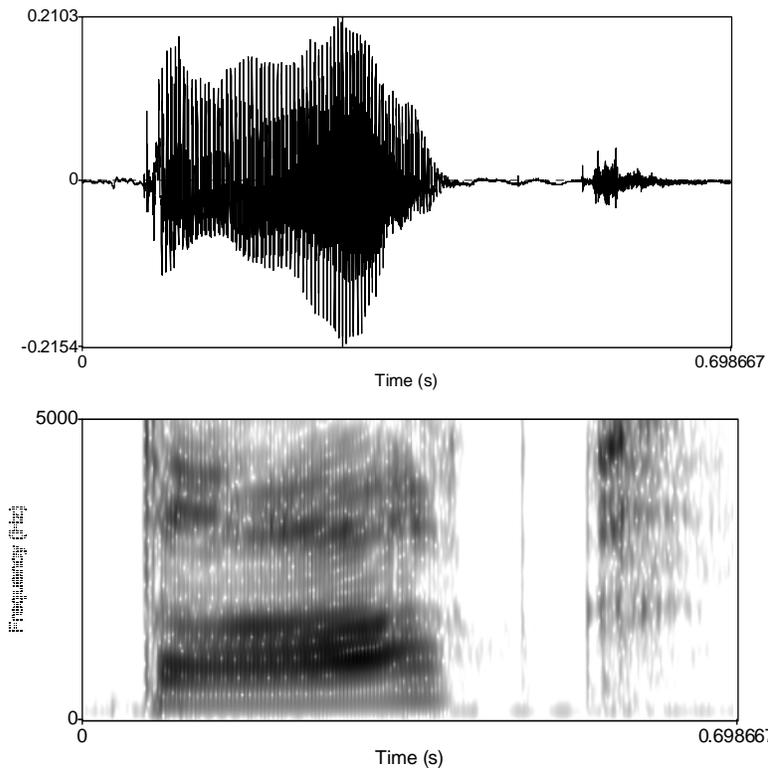


Figure 2: Aspirated VVh *paajk* 'bone'

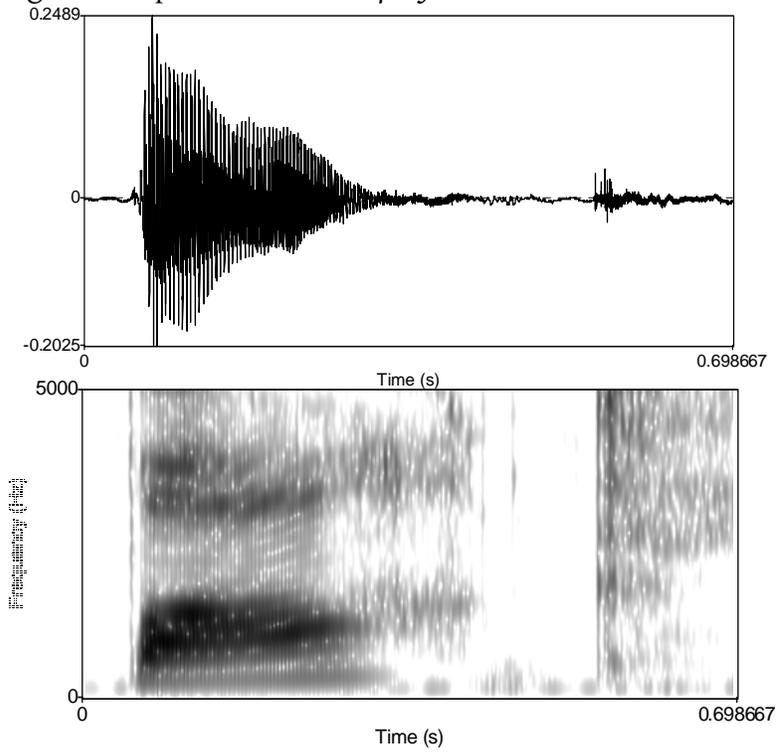


Figure 3: /h/ as onset *jüjp* 'nose'

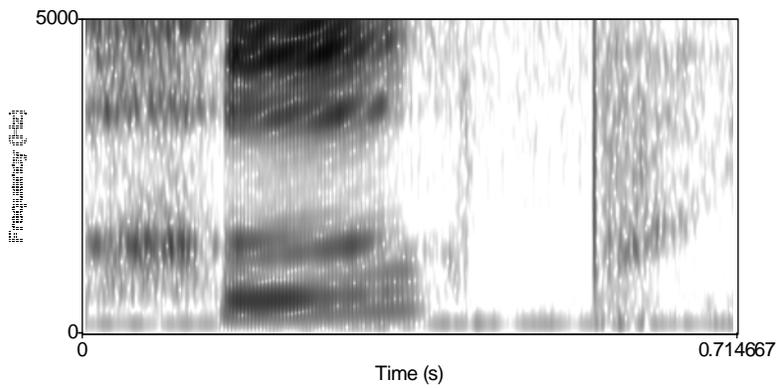
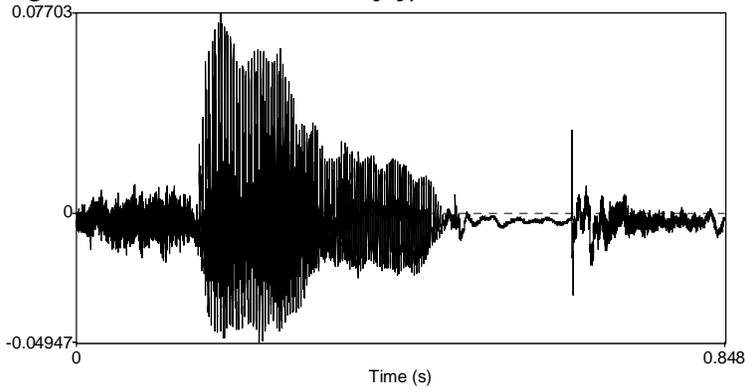
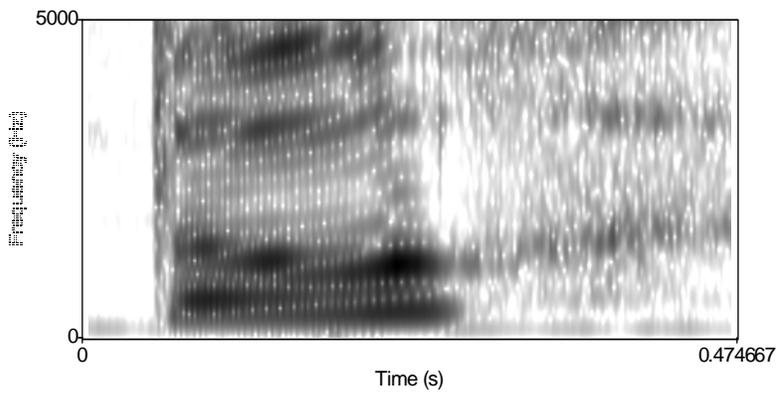
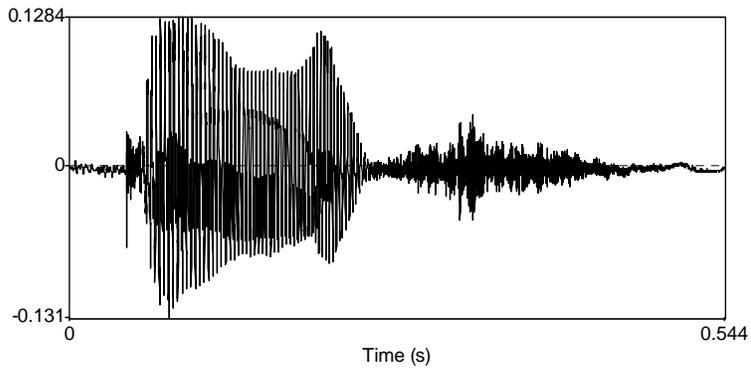


Figure 4: /h/ as coda *tuj* 'shoot!'



In addition to being a part of the nucleus, [h] can also function as an onset or a coda. Its phonetic realization, nevertheless, is different. The turbulence in airflow is clearly stronger if [h] belongs to the onset or coda; it is also longer in duration. This is shown in Figures 3 and 4. Furthermore, in syllables where [h] functions as a coda, the preceding vowel does not exhibit a steady decay in intensity as in aspirated nuclei.

While non-modal phonation in the form of aspiration occurs only in the last portion of the vowel, glottalization or creakiness can be found in 1) the last, 2) the middle, or 3) the first portion of a vowel. The timing differences are related to differences in function. The first two involve a phonemic contrast between plain, glottalized, and interrupted vowels. This is illustrated in the following examples.

Plain V versus glottalized Vʔ

- | | | | | | |
|------|---------|------|------------|------|--------------------------------|
| (13) | a ~ aʔ | täp | ‘you have’ | käʔp | ‘scorpion’ |
| (14) | u ~ uʔ | tsuk | ‘mouse’ | juʔk | ‘owl’ |
| (15) | ī ~ iʔ | mik | ‘strong’ | miʔt | ‘mother-in-law, father-in-law’ |

Plain V or VV versus interrupted VʔV

- | | | | | | |
|------|-------------|-------|--------------|---------|--------------------------|
| (16) | ii ~ iʔi | kiix | ‘woman’ | piʔix | ‘tail’ |
| (17) | uu ~ uʔu | puuy | ‘seat’ | puʔuy | ‘table’ |
| (18) | īī ~ iʔī | tsīp | ‘plant name’ | tsiʔīp | ‘plant when getting cut’ |

Glottalized Vʔ versus interrupted VʔV

- | | | | | | |
|------|----------|-------|----------|--------|-------------|
| (19) | uʔ ~ uʔu | puʔts | ‘yellow’ | puʔuts | ‘infection’ |
|------|----------|-------|----------|--------|-------------|

Aspirated Vh versus interrupted VʔV

- | | | | | | |
|------|-----------|-------|--------|-------|---------|
| (20) | aaj ~ aʔa | paajk | ‘bone’ | paʔak | ‘sweet’ |
|------|-----------|-------|--------|-------|---------|

In glottalized vowels, the glottal stop is a part of the nucleus, and it is realized phonetically as creakiness during the last portion of the vowel. This can be observed by comparing Figures 5 and 6. The creakiness correlates with a decay in intensity. Interrupted vowels, as in Figure 8, are characterized by creakiness, as well as a decay in intensity, during the middle portion of the vowel, followed by a re-articulation of the vowel. Glottalized and interrupted vowels have also been reported for Copala Trique, a Mixtecan language. Interestingly, Copala Trique also exhibits interrupted vowels of the form VhV (Silverman 1997:236), not found in Chuxnabán Mixe.

Vowel-initial words insert a glottal stop at the beginning to function as an onset. The glottal stop is phonetically realized as creakiness during the first portion of the vowel. It seems that syllable onsets are obligatory in Chuxnabán Mixe, the same as in other Mixe languages (Crawford 1963, Schoenhals 1982, Van Haitsma 1976). However, whether this is a general rule in Chuxnabán Mixe, still needs to be examined. Glottal stops in coda position have not been found. Hence, a contrast between a vowel-final glottal stop that forms part of the nucleus and one that represents a coda has not been observed, such as for the aspirated vowels where coda [h] is different from nucleus [h].

Figure 5: Plain V *täp* 'you have'

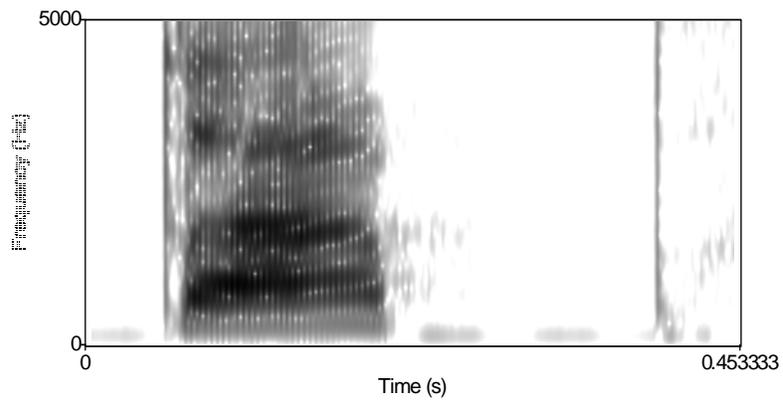
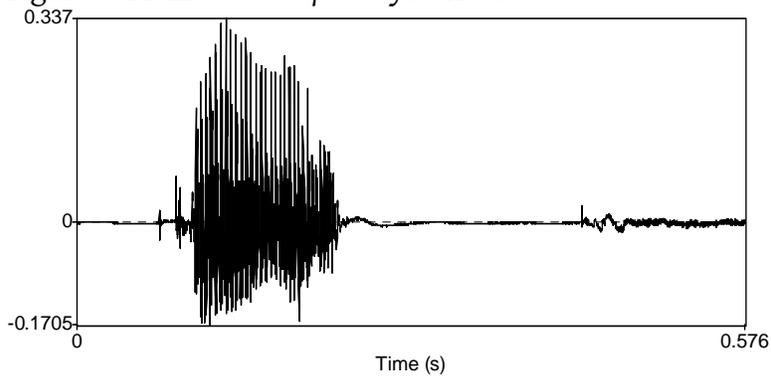


Figure 6: Glottalized V? *käp* 'scorpion'

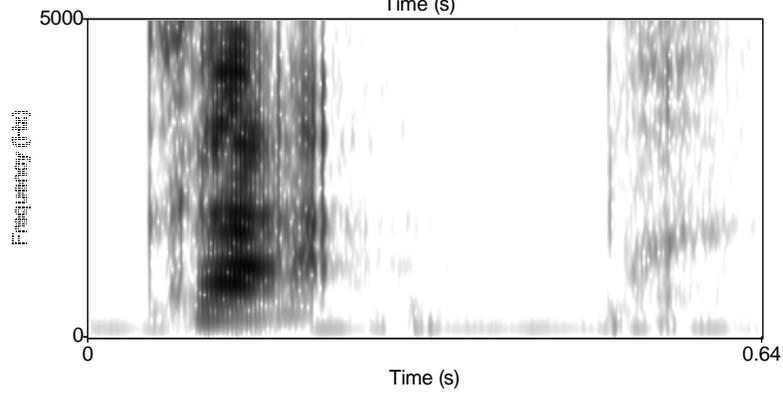
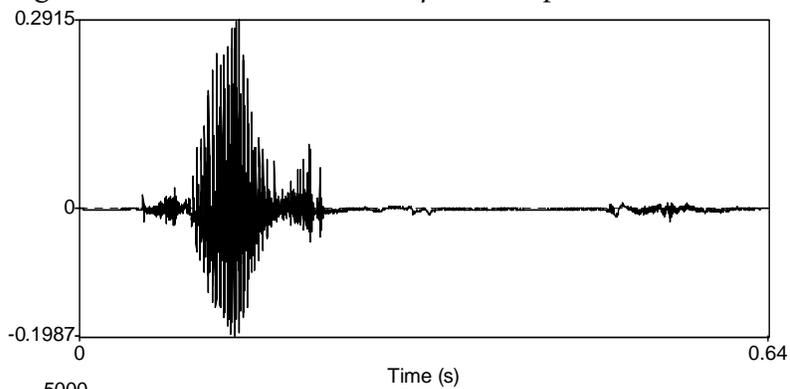


Figure 7: Plain VV *puuy* 'seat'

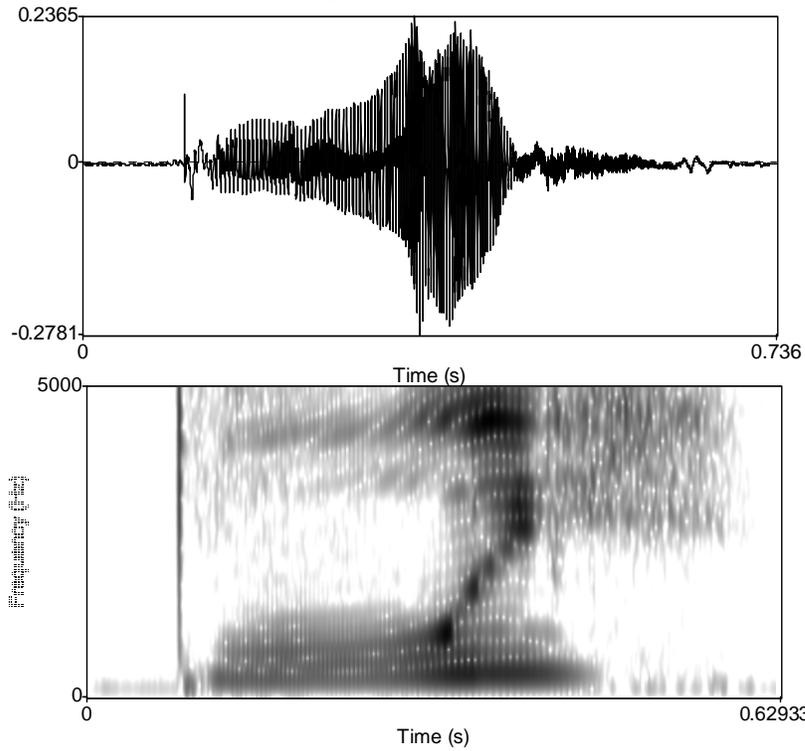
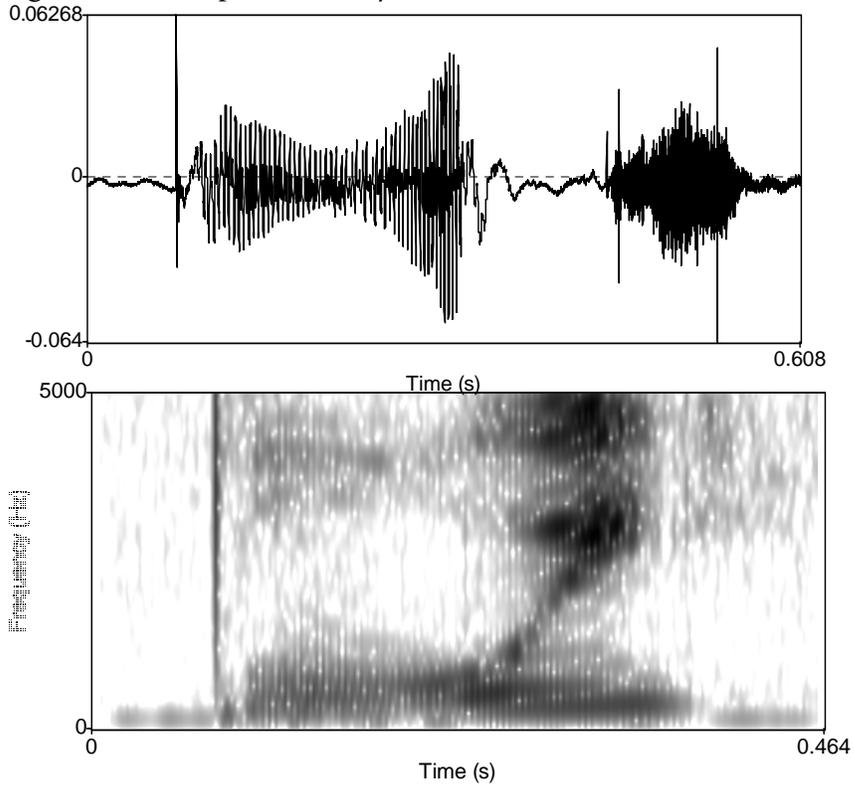


Figure 8: Interrupted V²V *pu'uts* 'infection'



4. Palatalization

Palatalization in Chuxnabán Mixe, as in other Mixe languages (Hoogshagen 1997; Schoenhals 1982; Van Haitsma 1976), is a suprasegmental phoneme affecting not only the palatalized consonant, but adjacent vowels as well. This is manifested by an onglide and an offglide, if the palatalized consonant occurs word-medially. Phonetically, these changes in vowel quality can be characterized by a lowering of the first formant and a raising of the second formant before a palatalized consonant. Raising of the second formant can be seen in Figure 10. Fronting and raising are characteristic of high front vowels. The following examples illustrate the effects of palatalization.

- | | | | |
|------|------------|-----------------|------------|
| (21) | kachy | [kajtʃ] | ‘rip’ |
| | paajk | [pa:hk] | ‘bone’ |
| | kachypaajk | [ˈkajtʃˈpja:hk] | ‘rip bone’ |

In addition to a change in vowel quality, the release burst in a palatalized consonant is different. While it shows an even distribution of turbulence in a non-palatalized consonant, the distribution of the release burst of a palatalized consonant stays in the higher frequencies. This can be observed by comparing Figures 9 and 10.

Figure 9: Non-palatalized coda consonant tsuk ‘mouse’

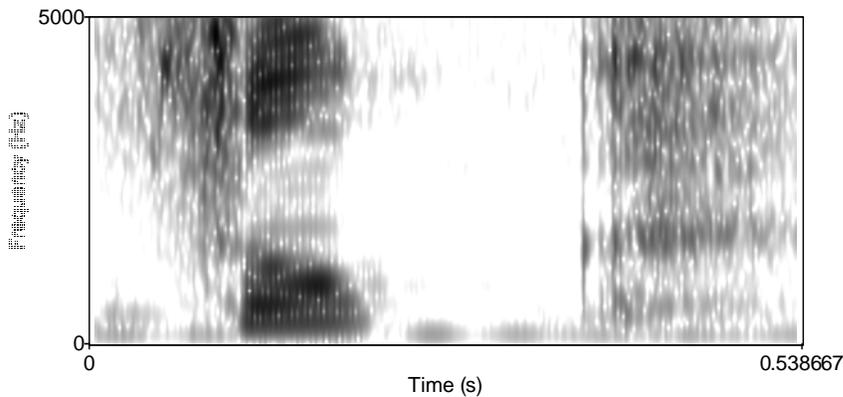
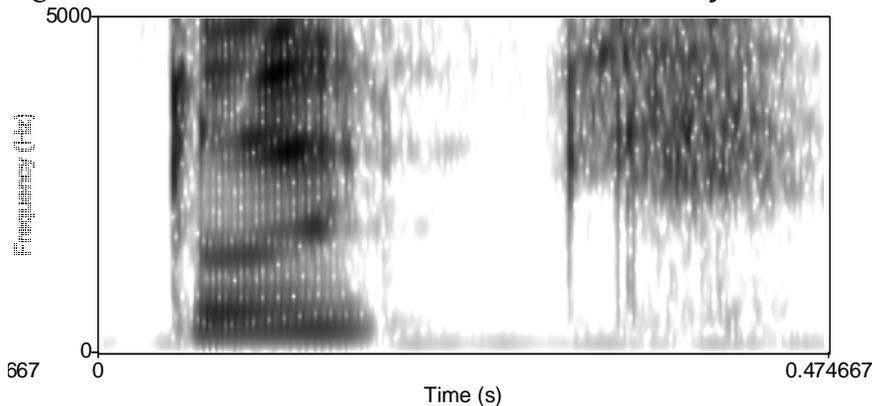


Figure 10: Palatalized coda consonant tuky ‘to cut’



5. Vowel length

Coatlán Mixe and San José El Paraíso Mixe, both closely related to Chuxnabán Mixe, have been described as having a three-way phonemic vowel length distinction (Hoogshagen 1959; Van Haitisma 1976), which is typologically rare. Such a phonemic distinction has also been reported for Estonian (Lehiste 1970) and Yavapai (Tomas and Shaterian 1990). In Estonian, however, the third degree of vowel length is dependent on syllable structure and word patterning (Lehiste 1970). Thomas and Shaterian (1990) conclude that in Yavapai vowel length is not predictable from other phenomena present in the language, such as pitch factors or syntactic category.

Vowel duration can be influenced by a number of factors, such as vowel position and the number of syllables in a word, vowel quality, and the following consonant, among others. Hoogshagen (1959) examined possible effects on vowel length for Coatlán Mixe and found that the three-way distinction does not depend on syllable structure, vowel quality, preceding or following consonants, stress, or intonation. However, the three-way contrast is hard to hear for speakers, according to Hoogshagen (1997), and is, therefore, not represented in the orthography. A phonemic distinction between short and long vowels has been attested for all Mixe varieties, and is represented in their orthographies.

For the purpose of examining a possible three-way phonemic length contrast in Chuxnabán Mixe first the minimal triplets cited in Hoogshagen (1959) for Coatlán Mixe were elicited. Second, a pilot study has been conducted with data from one female speaker. For this study a list of a hundred and ninety-five words has been assembled with all possible syllable nuclei, i.e. all vowel qualities in all phonation contrasts, and codas, i.e. all consonants in simple and palatalized form, as well as combinations thereof, where examples were available. Each target word was recorded three times in a carrier phrase. To avoid any influencing factors, such as syllable structure, vowel quality, or coda consonant, these are kept constant in the comparisons. Thus, only monosyllabic words were recorded, length ratios were examined rather than duration across vowel qualities, and codas were split into groups considering voicing and palatalization, i.e. voiced or voiceless and palatalized or not. While low vowels may be longer than other vowels, it is expected that length ratios for all vowel qualities are equal. Given that voiced codas may trigger vowel lengthening and that palatalization affects surrounding vowels, hence might also affect vowel length, only data sets with codas in the same group were compared.

The elicitation results for the possible triplets are summarized in TABLE 3.

TABLE 3: Minimal triplets from Coatlán Mixe in Chuxnabán Mixe

	V		VV		VVV	
Coatlán	<i>pox</i>	'guava'	<i>poox</i>	'spider'	<i>pooux</i>	'knot'
Chuxnabán	<i>pox</i> 0.239 s	'guava'	<i>poxm</i> 0.202 s	'spider'	<i>mooux</i> 0.365 s	'knot'
Coatlán	<i>pet</i>	'climb'	<i>peet</i>	'broom'	<i>peeet</i>	'Peter'
Chuxnabán	<i>pät</i> 0.139 s	'climb'	<i>pätñ</i> 0.132 s	'broom'	<i>päät</i> 0.281 s	'Peter'

Only two of the triplets found in Hoogshagen (1959) have yielded comparable results in Chuxnabán Mixe. From TABLE 3 it is apparent that they do not show a three-way length distinction. While there is a clear difference between short and long vowels, in accord with short and extra-long vowels in Coatlán, the words with long vowels in Coatlán *poox* ‘spider’ and *peet* ‘broom’ correspond to words with complex codas in Chuxnabán, *poxm* and *pätñ* respectively, having the shortest vowels of the three, i.e. with a duration of 0.202 and 0.132 seconds accordingly. Overall, the elicitation of possible triplets has not provided any proof for a three-way length contrast in Chuxnabán Mixe.

Even though no triplets with a phonemic three-way contrast could have been identified, duration measurements might give some insights into vowel length. The pilot study with a hundred and ninety-five different words has revealed that contrary to expectations coda voicing and palatalization do not have any effects on vowel length. Rather, vowel-initial words and words having a postalveolar fricative /x/ as coda have longer vowels. This is illustrated in the graphs in Figures 11 and 12.

Figure 11: Measurement results for /u/ by syllable structure VC versus CVC

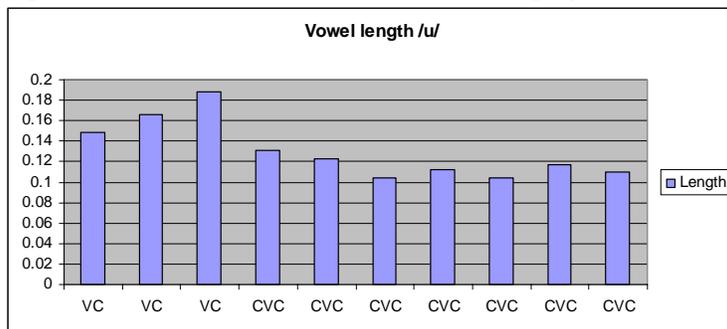
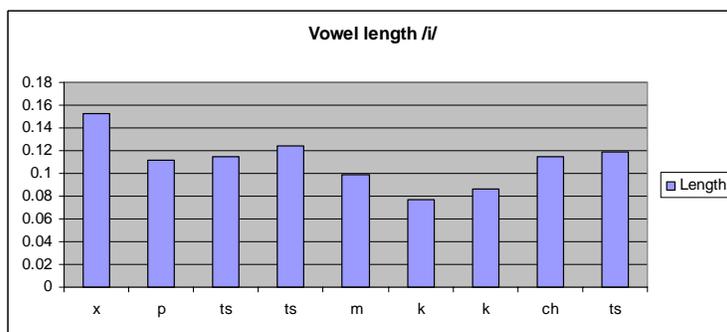
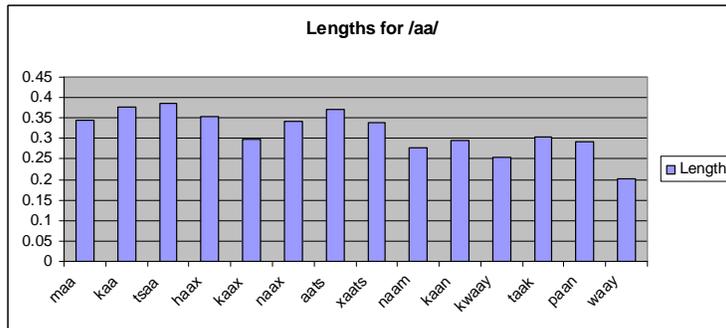


Figure 12: Measurement results for /i/ by coda



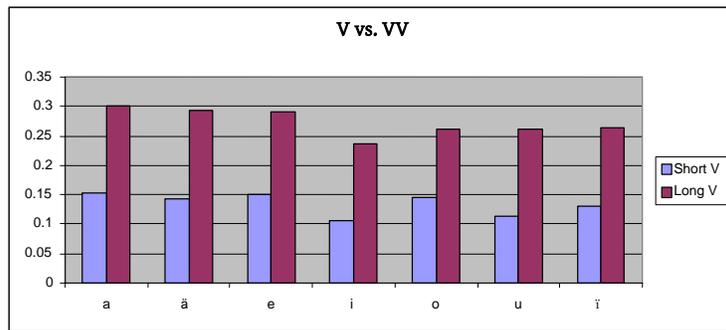
The long vowels show more variation than the short vowels. In addition to lacking onsets or having a coda /x/, the absence of a coda seems to affect vowel length. If words with any of these three confounding factors are excluded, there is still some variation for the long vowel /aa/, as in Figure 13. Whether this stems from a three-way length contrast remains to be examined. It has to be noted that some words have glides as onsets or codas, making it difficult to find the boundaries for the measurements.

Figure 13: Measurement results for /aa/



Overall, the length ratios for each vowel quality remain constant when all confounding factors are excluded. This is illustrated in Figure 14.

Figure 14: Length ratios V / VV for all vowels



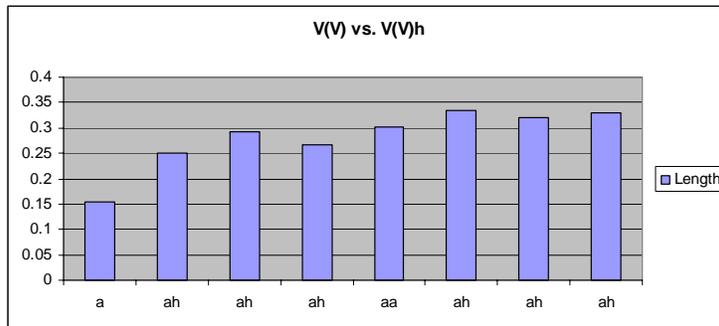
The duration effects of non-modal phonation have only been examined to a limited degree, as there are not enough examples for a detailed study. In general, the glottalized vowels are longer than their short modal counterparts, but the interrupted vowels are shorter than their long modal counterparts. Hence, non-modal phonation does not always correlate with increased duration as in other languages (Gordon and Ladefoged 2001). Nevertheless, these results are not confirmed across vowel qualities and the duration effects of glottalization need further investigation.

The results for the aspirated vowels are equally inconclusive. While there seems to be a distinction between short and long aspirated vowels, no examples have been found where this proves to be phonemic. The duration of aspirated vowels circles around long modal vowels rather than the short ones, as is summarized in Figure 15.

To sum up, a three-way phonemic length contrast has not been found for Chuxnabán Mixe. Vowel lengthening is triggered by either lack of onset, lack of coda, or by having a coda /x/, rather than by palatalization or voiced codas. The modal long vowels show some variation even after determined influencing factors have been excluded. The duration results for modal versus non-modal phonation can be

summarized as follows. Short modal vowels are always shorter than long vowels and any corresponding non-modal vowels, i.e. short glottalized, interrupted, and aspirated counterparts. Interrupted vowels are longer than short modal vowels, but shorter than long modal vowels. A phonemic difference between short and long glottalized vowels $V^?$ and $VV^?$ and short and long aspirated vowels Vh and VVh , both attested in other Mixe languages, still needs to be examined.

Figure 15: Duration of aspirated vowels compared to modal vowels for /a/



6. Conclusions

In this paper I have shown that phonation contrasts in Chuxnabán Mixe, the same as in other Mixe varieties, are phonemic resulting in at least the following syllable nuclei: V , VV , Vh , $V^?$, and $V^?V$. In non-modal vowels, non-modal phonation is realized at the end or in the middle portion of the vowel if it forms part of the nucleus. Laryngeal timing for creakiness is dependent on the function of the glottal stop.

No evidence has been found for a three-way phonemic vowel length contrast. While the duration of long vowels shows at least some variation, it seems unlikely to result from a three-way length contrast. The duration measurements have revealed certain factors, such as syllable structure and coda type, that can trigger vowel lengthening. Further investigation is needed to determine whether short and long glottalized and short and long aspirated vowels are in phonemic contrast.

By describing and examining Chuxnabán Mixe vowels, this work intends to lay the ground for future phonetic analyses of the complex and typologically interesting vowel system found in this and other Mixe languages.

Notes

¹ A practical orthography has been established in collaboration with the speaker, based on local literacy efforts (INEA 1994 and 1997), descriptions of other Mixe varieties, and Spanish.

² Evidence for a phonemic distinction between Vh and VVh still needs to be found.

³ Palatalization is represented in the orthography by a palatal glide /y/ following the palatalized consonant.

⁴ The voiced plosives [b, d, g] are represented in the orthography.

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Some Notes on Possessive Constructions in Palikur (Arawak, Brazil)¹

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1. Introduction

This study presents a preliminary survey and an analysis of possessive constructions in the Palikur language. “Possession” is taken as a universal concept due to the fact that languages usually show conventionalized ways to express it (Heine 1997). The category of possession can be manifested in languages in different ways, reflecting a wide variety of construction types. It also shows a range of senses that are not restricted solely to possession or ownership. This study presents a semantic and morphosyntactic analysis of some possessive constructions observed in Palikur (Arawák), focusing in particular on: (i) the semantic distinction between alienable and inalienable possession, expressed morphologically with the presence or absence of suffixes relating to alienability; (ii) possessive constructions with certain type of verbs, with the attached prefixes *ka-* and *ma-*, respectively, ‘positive’ and ‘negative’ attributive; and (iii) constructions with the postpositions *-daban* ‘to’ and *-kak* ‘with’, showing types of relationships such as ‘benefactive’, ‘means’, and ‘comitative’. The data for this presentation is drawn mainly from my fieldwork² undertaken among the Palikur communities living in the Urucawá river, in the Oiapoque Basin, in the Uaçá Indigenous Land, Oiapoque, Amapá State, Brazil. Other sources consulted were Launey (2003), Aikhenvald and Green (1998), Green and Green (1972). The language is spoken by approximately 1,000 people in Brazil. This language is also spoken in French Guyana.

The aim of this paper is threefold. First, it aims to describe the range of constructions that encode the relationship of possession in the Palikur language, that is, constructions having possession as a generic or umbrella label (cf. Heine 1997). Secondly, this study highlight, in a preliminary fashion, how these constructions can help to elucidate the conceptualization or semantic structure that is relevant to the description of these encoded relationships, the morphosyntactic and semantic mechanisms used to express these relationships, and how these mechanisms can also contribute to our understanding of the typology of possessive expression. Thirdly, the analysis involves the application of some assumptions of the theoretical framework and methodology of Cognitive Linguistics, *i.e.*, applying the notions of schemas, construal and conceptualization to possessive constructions in Palikur grammar and to the way these constructions express relationships between entities. It is understood that a description does not mean only a list of terms and rules assigned to them, but rather, description involves searching for semantic relations among senses. The results of this search can be revealing about how the basic conceptual system of a language can be understood in relation to the experiences of speakers and their use of the language.

What follows here is organized in two parts. Section 2 introduces the theoretical approach underlying the proposed analysis. Sections 3 and 4 outline the methods of the

empirical analysis and the findings of the study. The terminology used throughout the paper reflects an analysis of the language within a cognitive framework.

The semantic relations between the two arguments can vary including, among other relationships, kinship, body parts, and ownership (Heine 1997a, 1997b; Croft 2003). In the analysis of Palikur possessive constructions in section 3, one of the arguments in each construction is assigned the semantic role of possessor, i.e. denoting the element (entity) that establishes relationship, and is the head; the other that of possessee, *i.e.*, denoting the element (entity) that establishes relationships and is the modifier. The head of the construction realizing the possessor (hereafter **X**) is referred to as “possessor,” and the head of the phrase realizing the possessee (hereafter **Y**) “possessee” (Heine 1997a). For the purpose of this study, terms such as “possessive construction”, “possessor” and “possessee” were adopted for all constructions that are surveyed, and the constructions—the form and meaning pairing—cover different structures that we can characterize as possessive constructions, *i.e.*, predicative possessive, nominal attributive possessive, pronominal attributive possessive and many others, regardless of what semantic relations are involved.

In Section 3, I also briefly review the ways in which possession is treated in Arawák languages. Section 4 provides a summary of the semantics of possessive constructions in Palikur, and Section 5 presents the concluding remarks.

2. The Theoretical Foundation of this Study

Possession can be manifested in a language with different types of constructions according to the devices available to speakers when using their languages to encode such concepts. The focus on possession in linguistic studies is based on the assumption that possession is a universal phenomenon, as stated by Heine (1997 a:1), “any human language can be expected to have conventionalized expressions for it.”

It is not easy to establish a domain within which a description of possession can be undertaken. Heine (1997) presents a review of the various definitions of possession that appear in the literature. For example, one of the concepts related to possession is ‘control,’ implying that there is some type of control of the possessor over the possessee. Another concept is related to ‘sphere of influence,’ which appears in Langacker (1987, cited by Heine 1997) and also ‘schema of interest of involvement’ in Brugman (1988, cited by Heine 1997). Note that the domain of possession was discussed at some length by Chappel and McGregor (1996).

For all the definitions presented for possession, some questions have been raised by Heine (1997): how can we account for the variety of manifestation of the notions associated with possession in languages? Should our definition be in linguistic or extralinguistic terms? For some authors any definition strictly linguistically-based would not account appropriately for the definition (Seiler 1983, Taylor 1989, as cited by Heine 1997).

Typological studies of possession include that by Croft (2002) who proposes a typology of the possessive that exemplifies the range of morphosyntactic strategies used cross-linguistically. Nichols (1988) presented a typological account of possessive

constructions by examining different North American languages and proposing implicational parameters, according to whether alienable and inalienable nouns belong to open or closed classes of nouns, respectively. Nichols states, for example, that if a language has nouns other than kin and body parts terms as its inalienable nouns, usually it will have kin and body parts terms as well. She uses inalienable possession more in terms of morphosyntactic mechanisms than primarily a distinction that is semantically-based. She conceives of possessive affixes as related to head-marked possession. Specifically focusing on the grammar of inalienability, Chappel and McGregor (1996) emphasized domains such as kinship, body parts and spatial relations and how they are treated differently among languages and also that languages show “many complexities in the formal means of expressing inalienability, in the different nuances of its expression and in the semantic domains encompassed by the various languages under investigation” (p. 26).

The theoretical assumptions underlying the study presented in this paper come specifically from cognitive approaches in current cognitive and functional linguistic theories. Specifically, a definition and some explanations of these assumptions are in order. Construal is defined as a conceptual organization of events (Langacker 2001; Heine 1997; Croft and Cruse 2004). This notion within cognitive grammar refers to the human being’s “ability to conceive and portray the same situation in alternative ways” (Langacker 2001:3). Schemas are seen as stereotypical descriptions of basic human beings’ experiences, related mainly to action, location, accompaniment and, existence (Heine 1997a, 1997b). Finally, conceptualization can be taken as the residence of meaning, where conceptual content is tied to the particular way of construing it. It refers “to any facet of mental experience, including apprehension of the physical, linguistic, social, and cultural context” (Langacker 2001:3).

Heine (1997a) uses a grammaticalization-paradigm-base to explain his concerns about possession having the following assumptions: (1) grammatical categories structures are predictable once we know the range of possible cognitive structures from which they can be derived; (2) grammatical categories can be traced back to semantically concrete source concepts; (3) a small pool of possible source concepts will be mapping each grammatical category; (4) while the choice of sources is determined primarily by universal ways of conceptualization, it is also influenced by other factors—especially by areal forces.

Heine (1997a) not only relies on an explanation in accordance with grammaticalization and typological traditions, but also claims that “language structure is derivative of the cognitive forces that gave rise to it.” (p.7). In addition, he proposes primarily extralinguistic explanations to the linguistic structures. In fact, his main explanatory parameters bring together cognition and diachrony. For him, cognition relates to acquisition, storage, retrieval, and use of knowledge. He explores the notion of conceptual transfer, conceived as a cognitive process, in which different concepts and the way they are linguistically shaped can also be extended to refer to other concepts (p.7). He does this specifically in the context of possessive constructions. In his own words, “our task will be to identify and describe salient processes of conceptual transfer relating to the domain of possession and, by doing so, to understand why possessive constructions are formed the way they are” (p. 7).

3. Alienability and Inalienability in Arawák Languages

The relevance of alienable and inalienable distinction for categories and subcategories in Arawak (Maipuran) languages has been recognized by previous comparative studies (Payne 1991, 1987, Aikhenvald 1999). In Payne's study (1987) of the morphological elements of Maipuran Arawak—specifically in the agreement affixes and the genitive construction—a characterization of the affixes common in Arawak languages is presented. Similarly, the difference between alienable and inalienable in nouns in Arawák languages is recognized as relevant.

Payne (*ibid*) also proposed affixal cognates for Maipuran languages to argue for the probable Proto-Maipuran forms for the agreement affixes and the affixes of the genitive construction. He concludes that “agreement prefixes which normally agree with the subject of the verb or denote the possessor in the genitive construction are posited as *nu- 1SG, *pi- 2SG, *ri- 3SG MASC, *tu-3SG FEM, *wa-1PL, *xi-2PL, and *na- 3PL. Verbal agreement suffixes are of the same shapes and normally agree with the object or stative subject” (p.57). Similarly, he states that the documentation from a wide range of Maipuran languages substantiates a suppletive suffix with the probable proto-allomorphs *-ni, *-te, *-re, *i > -e and -∅ as Maipuran possessive markers which delineate noun classes. He also posits *-tsi as the form of an “absolute” suffix, *i.e.*, one which indicates the abnormal unpossessed or detached form of inalienably possessed nouns.

Aikhenvald (1999), like Payne (1987), also emphasizes that Arawák languages make the distinction between alienable and inalienable possession, and also that body part and kinship possessions are crucial parameters to the understanding of possession in these languages.

Traditionally, studies of Arawak languages use the terms “inalienable nouns” vs. “unpossessed nouns” and “alienable nouns vs. possessed nouns” interchangeably, as in Facundes' analysis of Apurinã unpossessed and possessed nouns (Facundes 1995). Studies of aspects of possession in Palikur in particular appear in Launey (2003), and in more general terms, in Aikhenvald and Green (1998) and Green & Green (1972).

My analysis of possessive constructions in Palikur includes seven types of constructions that encode relationship between entities taken as **X** and **Y**, following the proposed event schemas by Heine (1997). Each type of constructions investigated here will be presented in the next sections. A summary of the constructions to be analyzed in each of the following sections can be seen in Table 1:

Possessive Constructions in Palikur	Proposed Schemas (Preliminary account)
Possessive pronominal prefix (with inalienably possessed nouns)	X 's Y exist – <i>Genitive Schema</i>
Possessive suffix –a, –ni/–n, –pe, –ra, –i, and forms presenting irregular suffixes and/or suppletive forms (with alienably possessed nouns)	Y is X 's property – <i>Equation Schema</i> X, Y exists – <i>Genitive Schema</i> Y exists for X – <i>Existence (goal) Schema</i>
<i>ka-/ma-</i> ‘positive’/‘negative’ to have/attributive	Y exists for X – <i>Existence (Goal) Schema</i>
– <i>daba</i> plus – <i>ni</i>	Y exists for X – <i>Existence (Goal) Schema</i>
<i>ka-</i> plus – <i>daba</i> plus – <i>ni</i>	Y exists for X – <i>Existence (Goal) Schema</i>
Postposition – <i>kak</i>	X is with Y – <i>Companion Schema</i> X is located at Y – <i>Companion Schema</i>
Possessive classifier (<i>Pref-N N</i>) with obligatorily non-possessed noun	(As for) X, X 's Y – <i>Topic Schema</i>

Table 1: Palikur Possessive Constructions and Mapping of Schemas based on Heine (1997)

3.1 Possessive pronominal prefix (with inalienably possessed nouns)

The possessive pronominal prefix construction uses the mechanism of concatenation of affixes. In these constructions we have a pronominal prefix that is obligatory before an inalienably possessed noun, *i.e.*, body parts and kinship terms. The pronominal prefixes can be seen in Table 2. The constructions are of the type X 's Y , which implies a Genitive Schema. Let us observe examples (1) and (2), where body part nouns and kinship terms, respectively appear. These kinds of nouns never occur alone, as single uttered root forms. They obligatorily take the unpossessed forms such as in the examples, with the discontinuous morpheme: *i-.....-ti/-t* (prefix *i-* ‘INDEF’ and the suffix *-ti*-allomorphs: *-ti* and *-t*) or they can take the possessed forms. The examples in (1a) and (2a) show the unpossessed forms for body parts and kinship terms, respectively: an overview of the set of forms for the person markings in Palikur can be seen in Table 2, (where \sim = in variation with):

(1) Body parts terms

Unpossessed Forms

a₁.

piwokna iwakti
 pi-wok-na i-wak-ti
 two-NUM.CL-two INDEF-hand-NON.POSS
 ‘Two hands’

Possessed Forms

a₂.

ig pidik giwak
 ig pidik gi-wak
 3SGm shake 3SGm-hand
 ‘He shook his hands’

b₁.

iyaknit
 i-yakni-t
 INDEF-heart-NON.POSS
 ‘Heart’

b₂.

punahmna giyakni
 punahmna gi-yakni
 alligator 3SGm-heart
 ‘Alligator’s heart’

(2) Kinship terms
Unpossessed Forms

a₁.
igit
i-ig-it
INDEF-dad-NON. POSS
'Father'

b₁.
ikamkayhti
i-kamkayh-ti
INDEF-daughter-NON.POSS
'Daughter'

Possessed Forms

a₂.
ig awayg gig
ig awayg gi-ig
3SGm man 3SGm-dad
'The man is my father'

b₂.
eg nukamkayh
eg nu-kaamkayh
3SGf 1SG-daughter
'She is my daughter'

Person	Number		Gender	Set of Forms for Person Markings			
				Set 1: Prefixes	Set 2: Suffixes	Set 3: Independent Forms	
1	SG			nu- ~ n- ~ nu...-uh ~ n- ... -uh	-un	nah	
2	SG			pi- ~ p-	-pi ~ - ep	pis	
3	SG		m	gi- ~ g-	-gi ~ -ig	ig	
			f	gu- ~ g-	-gu ~ ig	eg	
			n	DEF	ga- ~ g-	-ni ~ -in	in
				IND	a- ~ ar- ~ Ø-		
		ANA	-ni ~ n-				
1	PL	1 2 (X)		u- ~ u- ~ w-	-u ~ -wi	wis	
		1 2 (3)		u- ...-wiy ~ u- ...-wiy ~ w- ... -wiy			
		1 3		u- (...-uh) ~ u- (...-uh) ~ w- (...-uh)			
2	PL	2 2 /3		yi- ~ y-	-yi ~ -ey	yis	
3	PL	3 3	m	-gi ... -kis ~ -g ... kis	-gi...kis ~ -ig ...kis	igkis	
		3 3	f	-gu ... -kis -g ... -kis	-gi ...kis ~ -ig ...kis	egkis	

Table 2: Palikur Person Markings—based on Launey (2003) and Aikhenvald & Green (1998)

3.2. Possessive suffixes -a, -ni/-n, -pe, -ra, -i, and forms presenting irregular suffixes and/or suppletive forms (with alienably possessed nouns)

Possessive suffix constructions appear with alienably possessed nouns. They contrast with the previous type of construction because the root of the nouns in these constructions can occur without any kind of affix when the noun is not possessed. In addition, the forms that are possessed cannot take the pronominal prefix and the possessive suffixes *-a, -ni/-n, -pe,*

-ra, -i. The pronominal suffixes that appear with these forms are the same of the previous constructions. (See Table 2).

The meaning of each one of these suffixes is still under investigation. Green & Green (1972) present the forms of these suffixes and their distribution with no semantic description of them as can be seen in the examples (2) through (7) below. There are not any other analyses correlating these suffixes to their semantic characterizations. According to Green (p.c), these suffixes no longer carry meanings. My ongoing fieldwork with Palikur speakers includes investigation of all of these suffixes and I hope that further investigation will tell us more about the meaning and use of these suffixes.

- | | |
|--|---|
| <p>(2) gubukun
gu-buku-n
3SGf-skirt-POSS
'Her skirt'</p> | <p>(3) pisekewpe
pis-sekew-pe
3SGf-skirt-POSS
'Your cook'</p> |
| <p>(4) yiunra
yi-un-ra
2PL-water-POSS
'Your water'</p> | <p>(5) gikakwa
gi-kakw-a
3SGm-money-POSS
'His money'</p> |
| <p>(5) gepwi
gi-epw-i
3SGm-bench-POSS
'His bench'</p> | <p>(7) gikukir
gi-kuki-r
3SGm-flour-POSS
'His flour'</p> |

3.3. *ka-/ma-* 'positive/negative to have/attributive' and verbalizing prefix

The prefixes *ka-* 'Positive Attributive' and *ma-* 'Negative Attributive' appear before noun stems to form constructions that can function as predicates, with adjectival phrase function, encoding 'possessive' relationship. Examples of these possessive constructions are shown in (8) through (10), where the pronominal set 3 is used (see Table 2):

- (8)
- | | |
|--|---|
| <p>a₁. <i>ka-</i> 'positive to have/attributive'
nah kahayo
nah ka-hayo
1SG PosATT-wife
'I am not single or I have wife'</p> | <p>a₂. <i>ma-</i> 'negative to have/attributive'
nah mahayo
nah ma-hayo
1SG NegATT-wife
'I am single or I do not have wife'</p> |
| <p>b₁. <i>ka-</i> 'positive to have/attributive'
nah kabiha
nah ka-biha
1SG PosATT-quantity
'I am full or I do not have hunger'</p> | <p>b₂. <i>ma-</i> 'negative to have/attributive'
nah mabiha
nah ma-biha
1SG NegATT-quantity
'I am not full or I have hunger'</p> |

c₁. *ka-* ‘positive to have/attributive’
 nah kabivwiye
 nah ka-bivwi-ye
 1SG PosATT-willigness-CONT:m
 ‘I am not lazy or I have willingness
 to do things’

c₂. *ma-* ‘negative to have/attributive’
 nah mabivwiye
 nah ma-bivwi-ye
 1SG NegATT-willigness-CONT:m
 ‘I am lazy or I do have willingness
 to do things’

The preceding examples show that these constructions function as stative verbal phrases and it also as adjective phrases, attributing some kind of quality to the subject (predicative). They must be considered verbs as they receive the set of person marking and other suffixes that verbs take, as in example (10), where the aspect ‘continuative–masculine form’ appears.

3.4. *-daba plus -ni*

Constructions with *-daba plus -ni* are formed with the same pronominal prefix of the set 1 (See Table 2) as the constructions of section 3.1 and 3.1 plus a noun that can be subject to ellipsis when it has already been mentioned in the discourse. Let us examine example (11), where the elements *X (nudahani)* and *Y (im)* in the construction can change their orders. It is even possible for *Y* to be elliptical, which is the case of (11c). The set 1 of the pronominal forms appears with this construction (see Table 2):

(11)

(a)
 nudahani im
 nu-daha-ni im
 1SG-for-POSS fish
 ‘My fish’

(b)
 im nudahani
 im nu-daha-ni
 fish 1SG-for-POSS
 ‘The fish is mine, my fish’

(c)
 nudahani
 nu-daha-ni
 1SG-for-POSS
 ‘It’s mine’ (my fish)

(d)
 nima
 nu-im-a
 1SG-fish-POSS
 ‘My fish’

This construction implies a Goal Schema. This fish would be a fish someone had bought or got from somebody else. The construal made through construction (11b) differs from one in which the prefix is used, such as *nima* ‘my fish’. This is the fish that someone got in the river. Also, the form *daba* can appear in constructions like the following, in example (12), showing a benefactive semantic role:

(12) eg awna ataknamu hapis nudahan kwekwe
 eg awna atak-na-mu hapis nu-daha-n kwekwe
 3SGf speak go-IMP-FAM shoot 1SG-for-POSS parrot
 ‘She said: ‘go, my dear, [and] shoot the parrot for me (or my parrot)’

3.5. *ka-* plus *-daba* plus *-ni*

The *ka-* plus *-daba* plus *-ni* construction seems to be similar to the ones already mentioned. Although both take the noun *daba*, they differ formally in person marking. The construction *-daban* seem to be *daba* plus *-ni*—where the structure has a Pref + N (*thing*+POSS) and it has to take the specific set 1 of person marking, whereas the construction “*ka-* plus *daba* plus *-ni*” takes the set of 3 of person marking. The set of forms for the person markings in Palikur can be seen in Table 2.

Recall the *ka-/ma-* ‘positive/negative attributive morphemes that relates to have possessive construction in Section 3.3. We can observe this *ka-* is similar to the one that occurs in the construction presented in example (13), however, *kadaban* ~ *kadahani*, as a construction it is already a result of the concatenated elements that function as a verb that means ‘have’ and ‘exist’. The distribution of the nouns in relation to this form will give the following readings: if *kadaban* comes before a nominal (noun or personal pronoun) it will be coded as an existential meaning verb (as in example 17) and if it comes after the nominal it will be read as possessive meaning. Similarly, the morpheme *ka-* seems to have the positive attributive meaning only and the negative morpheme *ka-* ‘Neg’ can co-occur to negate the predicate, as can be seen in (14):

(13)
ka+daba+ni (*Pos.ATT+N:thing+POSS*)

(14)
 na kakadahan bugut ay
 na ka-ka-daha-n bugut ay
 1SG Neg- PosATT -N:thing-POSS bread here
 ‘I do not have bread here’

Some of the crucial properties of this construction include the specific type of prefixes it takes—which are the ones of set 3 of the independent forms of person for marking from Table 2. On the other hand, this construction can only appear with the noun *daba* ‘thing’. Observe the examples (15) and (16) where we can see the construction functioning to establish relationships among entities of the possessive type.

(15)
 ig kadahani pahat ah
 ig ka-daha-ni paha-t ah
 3m PosATT-thing-POSS one-NUM.CL:VERTICAL stick
 ‘He had a stick’
 (Aikhenvald & Green 1998:444)

(16)
 nah kadahani pahakti pilatno
 nah ka-daha-ni pahak-ti pilatno
 1SG PosATT-thing-POSS one-NUM.CL:PLANT banana
 ‘I have a banana’

(17)
 kadahan hiyeg ay
 ka-daha-ni hiyeg ay
 PosATT-for-POSS hiyeg people
 ‘There are people here’

3.6. Postposition *-kak*

The construction with the presence of *-kak* ‘comitative’ embodies possessive relationship as the example (18) can show. In this example represents *X* and *Y*, where *Y* (*atit* ‘peper’) is with *X* (*giwtrik* [literally ‘inside his eyes’]) and then have *X* implying that *X* is with *Y*, and it represents the Companion Schema. This construction also implies the Location Schema: *Y* (*atit* ‘peper’) is located at *X* (*giwtrik*):

(18)
 giwtrik akak atit
 gi-ut-riku a-kak atit
 3SGm-eye-POSP:inside 3n-POSP:with pepper
 ‘His eyes have hot pepper (inside)’

This postposition can also be observed in examples in (19), and (20), taking also the sense of ‘means’ and ‘comitative,’ respectively, without any sense of possession:

(19)
 nah ay ig aymuhun akak parasu
 nah ay ig aymu-nu a-kak parasu
 1SG here 3SG nurture-? 3n-Adp:with yam
 ‘[When] I [was] there, he raised me with/by means of yam’

(20)
 Ig tipik gikaka ig danuh atere gut gihayo
 Ig tipik gi-kak-a ig danuh ay-ta-re gu-t gi-hayo
 3SGm leave 3SGm-Adp:with-? 3SGm arrive here-DIR-AN 3SGf-DIR 3SGm wife
 ‘He left with him and arrived there to his wife’

3.7. Possessive Classifier

Nouns that cannot be used in the type of construction with a pronominal possessive prefix enter into another other type of construction, such as the following (21):

(21) Pref–N₁ N₂

In this construction N₁ functions as a classifier and N₂ as a noun that cannot be possessed by possessive prefix. An analysis of possessive classifier in Palikur appears in Aikhenvald & Green (1998), and it also was reported in Green & Green (1972) using the tagmemic approach to grammar. In Launey (2003) there is a discussion related to these forms that appear with some nouns. Here it is considered that these forms of nouns—here called N₁ takes the pronominal possessive prefix and this form relates to the second one—here called N₂. This second noun N₂ cannot appear in constructions of the type that take the pronominal possessive prefix. This is illustrated in examples (22a) and (22b); Table 3 brings the overview of the forms of possessive classifiers in the language:

(22)

a.

numutra

nu-amutr-a banana

1SG-plant banana

‘my banana’ ‘that I planted and took care of’

b.

numana pilatno

nu-mana pilatno

1SG-food banana

‘My banana’ ‘that I can eat’

Forms of the Possessive Classifiers in Palikur			
-pig	‘pet’; used with domesticated animals	a. gipig pewru gi-pig pewru 3SGm-pet dog ‘his dog’	b. gipig mutom gi-pig mutom 3SGm-pet sheep ‘his sheep’
-mana	‘food’; used with fruit and vegetables	a. pimana uwas pi-mana uwas 2SG-food orange ‘your orange’	b. pimana pilatno pi-mana pilatno 2SG-food banana ‘your banana’
-mutra	‘plant’	numutra pilatno nu-mutra pilatno 1SG-plant banana ‘My banana’ (i.e. the one I planted)	
-win	‘catch, animal caught to be eaten’	nuwin arudiki nu-win arudiki 1SG-catch tapir ‘The tapir I caught’	
-kamkayh	‘child’	pikamkayh awayg pi-kamkayh awayg 1SG-child boy ‘my son’	

Table 3: Possessive Classifiers in Palikur (from Aikhenvald and Green [1998])

4. Senses, Construal and Conceptualization

The relationship among entities and events requires us to observe the meanings that are brought through the selection of specific constructions, which will be invoking the correspondence of relationships between entities.

Constructions can show relationships that will lead us to infer other meanings that can only be understood in generating other propositional forms which were not uttered all but that relate with the way the speaker can build up the meaning, as part of the cognitive construal of the that particular meaning. So, the schemas and the construal that are involved may reveal to us the nature of these relationships and show us that these relationships are, already a part of the language's conventionalized meaning.

Some constructions showing the construal made by the speaker about the relationship among entities differ significantly. Let us see some examples, first, with *im* 'fish' in (22); second, with *pilatno* 'banana' in (24); and, third with *payt* 'house' in (25).

im

(23)

a.

nudahan im

nu-daha-n im

1SG-thing-POSS fish

'My fish'

b.

nima

nu-im-a

1SG-fish-POSS

'My fish'

Observing these two examples in (23), we can say that the difference I have found, after confirming with native speaker consultants that example (23a) implies that someone got the fish from somebody else. It could be the case of buying the fish belonging originally to someone else and that fish became the person's fish. In this case, the construction used was the one with *-daha plus -n*. On the other hand, the example in (23b) was the case of someone's who got the fish in the river: it was her/his fish that she/he has gotten herself/himself.

In the examples (24a) and (24b), it can be seen that different constructions are serving different construal. In this case, the way the conceptualization of *pilatno* 'banana' can be realized: I have the banana as it is in my possession (23a); the banana that is the banana from my plantation (23b); or I have a banana, which implies that I have a single banana' (24c).

pilatno

(24)

a.

nudahan pilatno

nu-daha-ni pilatno

1SG-thing-POSS banana

'My banana'

b.

numutra pilatno

nu-mutri-a banana

1SG-plant-POSS banana

'My banana'

c.
na kadahan pilatno
na ka-daha-n pilatno
1SG PosATT-thing-POSS banana
‘I have banana’

In the examples below, (25a) implies that the person has a house that is already built and belongs to him. On the other hand, (25b) can read that the house belongs to him but it is a case of a house that he will be building in a specific place, i.e. it has not been built, yet. The house is destined for the person. In Palikur culture, when a couple marries, they are given a place to have their house built. Note that *payt* ‘house’ is the unpossessed form and the possessed form appears in (25a):

payt
(25)

a.
pivinu
pi-vinu
2SG-house
‘Your house’

b.
pidahan payt
pi-daha-n payt
2SG-thing-POSS house
‘Your house’

5. Concluding Remarks

In conclusion, I have shown that, concerning the constructions presented in this study—specifically in relation to the noun categories and its subcategories, the grammar of possession in Palikur resembles that of the other Arawak languages (Payne 1987, Aikhenvald 1999, Facundes 1995). The study presented here differs from the previous ones because it is based on assumptions of cognitive linguistics including notions such as construal, schemas and conceptualization. This study reveals how complex possessive constructions in Palikur are, taking possession as an umbrella, following Heine (1997a). Similarly, the use of the assumptions of cognitive linguistics enabled me to present a description about a part of Palikur language grounded on a substantial body of culture-specific knowledge, *i.e.*, in a system of conceptualization and interactions among speakers and their world. Such an analysis presumes social, cultural and historical complexities that involve human beings and their language use. Departing from an analysis on how the scenes could be portrayed differently reflecting language convention; I presented a description of the constructions’ types and their senses in Palikur. It was observed that a very important distinction between alienability and inalienability can be of great relevance in languages, such as the studies on typological perspective of Nichols’ (1988) for North American languages, Payne’s (1987) and Aikhenvald’s (1999) for the Arawak languages—a linguistic family that Palikur language belongs to. In this way, one can make explicit to what extent applying assumptions of Cognitive Linguistics can highlight in-depth understanding of the similarities and differences among the possessive constructions in Palikur, presented in section 3.

Moreover, the analysis developed here revealed not only the nature of what I call language-specific characteristics, *i.e.*, the Palikur language's own characteristics—grounded in Palikur people's own experience in their world and reflecting their knowledge, society and culture, but also the cognitively based characteristics, which are claimed to be universal properties of the expression of possession. The findings in this study shed light on Palikur possessive constructions as they relate to: (i) different relationships between entities; (ii) different senses that the constructions may show, and (iii) how these senses reflect different construals of the same scene in the conceptualization of different situations of communication and use of language.

Notes

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Abbreviations

ANA = Anaphoric

ATT = Attributive

CL = Classifier

CONT = Continuative

DEF = Definite

DIR = Directional

INDEF = Indefinite

N = Noun

Neg = Negative

NUM = Numeral

Pos = Positive

POSS = Possessive marking

POSP = Postposition

SG = Singular

PL = Plural

m = Masculine

f = Feminine

n = Neuter

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**Ownership through knowledge:
Introducing a hands-on literacy method to indigenous people of Mexico**

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To begin with, I'd like to present some voices – what I am hearing about bilingual education for the indigenous people of Mexico, who represent nearly 10% of Mexico's population – voices from the highest levels of Mexican government to the very homes in which these languages are spoken in rural Mexico.¹ May these voices help us understand more clearly the situation today for Mexico regarding bilingual education in a land so rich in diversity of culture and languages. After listening to these voices, it will be obvious how the literacy method I will describe below can be a significant part of a solution for the desperate need for increasing community level involvement in indigenous education.²

1. About bilingual educational issues, local and non-local voices

Some voices at the Local level:

Voice of a Tepehua³ bilingual schoolteacher assigned to translate textbooks for his people:

When I gave them all the work I'd written in Tepehua, it didn't have the mistakes that I now see in the book they returned to me. Whoever typed up my writing in Mexico City must have made those mistakes.

Voice of local speakers of the same language:

These textbooks have lots of mistakes in them. They are beautiful books and the pictures are nice, but the words are full of errors.

Voice of a bilingual educator in another Tepehua language:

Yes, we received the Tepehua textbooks, here they are on our shelves. We cannot use them. They are written in the way people over there in Tlachichilco speak. For us they are useless. We asked for books in our language but were told, 'The textbooks for the Tepehuas are already made. Use them. There are no more resources allocated for the Tepehuas.'

Voice of a parent who speaks Tepehua:

We are thinking we should petition for a change of teachers in our village. The three teachers we have all speak Nahuatl, not Tepehua. Our kids are not getting good scores in their Tepehua tests because the teachers can't teach them.

Voice of a bilingual kindergarten teacher, in Tepehua (in the hearing of the mothers who were doing school yard cleanup):

Children, think about how lucky you are. Your parents did not have teachers who spoke Tepehua. They were punished if they spoke Tepehua in school. But here you have no fear of punishment. With love and kindness we teach you and you can speak Tepehua and Spanish.

A mother responded:

Yes that is true. We suffered because the teacher struck us if we spoke Tepehua.

Some Non-local voices

Voice of a indigenous person in a high office in indigenous education in Mexico City, upon seeing materials created via SIL work:

It would be really nice to have the freedom and time to create materials in my own language, according to any way I wished.

Voice of a top official in indigenous education in Mexico City:

What is important is that people on the local levels get together to decide how to write their languages. This should not be a top-down decision. And meanwhile, until the final decisions are made on how to write these languages, people should go ahead and keep writing, making materials in their languages.

Voice of a indigenous person in a high office in indigenous education in Mexico City:

We know there are more than 56 languages in Mexico, but we do not have the resources to prepare textbooks in more languages, so we are working with these.

Voice of the government of Mexico, in the General Law of Linguistic Rights of the Indigenous People:⁴

***ARTÍCULO 4.** Las lenguas indígenas que se reconozcan en los términos de la presente Ley y el español son lenguas nacionales por su origen histórico, y tienen la misma validez en su territorio, localización y contexto en que se hablen.*

This new law states in article four that the indigenous languages and Spanish are all national languages and are of equal worth where they are spoken.

***ARTÍCULO 9.** Es derecho de todo mexicano comunicarse en la lengua de la que sea hablante, sin restricciones en el ámbito público o privado, en forma oral o escrita, en todas sus actividades sociales, económicas, políticas, culturales, religiosas y cualesquiera otras.*

Article nine declares the right of every Mexican to communicate in the language they speak, without restriction, in public or private domain, in oral or written form, in all activities, whether social, economic, political, cultural, religious or anything else.

Voice of a Zapotec teenager:

If I'd known about this Law of Linguistic Rights, I'd have shown it to that teacher I had last year who punished us for speaking Zapotec in class.

2. About adequate training needed for bilingual teachers

Voice of a school director involved in innovative redesigning of the bilingual school program in his town:

I long for the freedom to create curriculum that is relevant to us as Purepecha, course material to teach our children from this world right here in which we live, and how we know it. Instead we have to work with a structure imposed on us from Mexico City. And many of our own teachers, at least 80%, don't even want to speak (our language). This program is a start, but it is being carried out so far in only three of our schools, out of 850 in our region.

Voice of a bilingual school teacher, and director of a bilingual school in northern Veracruz, speaking to me in Tepehua:

We are still trying to figure out the best way to write our language. The linguist sent to us (from the state capital) wants us to write (a certain sound) like thus. But when we try to write that way, we get confused. Truly, we would like to get some help on this. Your way of writing makes a lot of sense. The books your team has made are easy to read. We have never had the training we need to help us understand our language. We would like to learn.

Voice of a graduate from the masters in linguistics program in CIESAS in Mexico City:

How is it, that at our National Pedagogical University, which trains our bilingual teachers, there is still no program of linguistics, no preparation of future teachers to study or understand their own languages. Yet they are expected to know how to teach in their languages and about their languages, simply because they speak it.

Voice of an indigenous person, a Ph.D. student currently studying in the US:

The reason the bilingual schoolteachers do not know how to write their language is they have not studied linguistics like I have. I understand much more how my language works and how it should be written because of the linguistic training I have had.

Question asked of a speaker, at the conference celebrating the International Day of the Mother Tongue in Mexico City:

'What methods are being used for literacy for the indigenous peoples?' Answer: 'We don't really have a method, we just practice reading and writing.'⁵

Voice of Andres Hasler – Mexican linguist, in an open letter to the Asociación Mexicana de Lingüística Aplicada:

Existe un lamentable divorcio entre la ciencia lingüística (como teoría) y la así llamada educación indígena (como práctica). ...hay, entre el nombre de la "educación indígena" y su contenido, abismos insalvables. There exists a regrettable divorce between the science of linguistics (as theory) and the so-called 'indigenous education' (as practice) ...there are, between the name of 'indigenous education' and its content, unsolvable abysses.⁶

Summary of above issues:

Mexico has been a leader in the Americas when it comes to indigenous education. However, bilingual teachers in Mexico still face overwhelming challenges. Training is given them in Spanish, but they are expected to teach in their own languages. Children may laugh at them if they try using their own language, because Spanish is the expected language of schools. Parents may insist on their children being taught only in Spanish even in "bilingual schools" because they see no economic benefit from education in their own language. Bilingual teachers are often sent to a village where a different language than their own is spoken.⁷ They are mandated to teach in their language, but don't have materials, or the materials they have were prepared in a related dialect they cannot understand.

The materials may actually be in their own language, but their production is supervised and edited by a person who doesn't know their language, so the final product is full of errors. Textbooks, though colorful and sometimes containing local area photos, are translated from Spanish texts. Sometimes the bilingual teachers are instructed to make their own materials, but have no preparation for reading, much less writing, their own languages. A written form of their language may not yet exist. They are often away from their family all week long, and have to travel a day or more to get home. Actual class time suffers as the teacher may leave on Thursday afternoon or Friday morning to go home, and not return until Monday. Finally, the few indigenous groups who do have representation in the academic world, for example, through establishment of the *Academia mixteca*, may have a difficult time relating orthography decisions made by an elite few outside of the language area to the various community groups where the language is actually used (cf. Lewis:1996). This is the current reality of rural bilingual education in Mexico as I and my colleagues have observed firsthand.

3. SIL and literacy work in indigenous languages of Mexico

A. History

While much literacy work in indigenous languages has been done by the Summer Institute of Linguistics (SIL) in Mexico, the materials produced are usually used in non-school educational contexts, because formal education in Mexico is government controlled, and SIL is an international non-governmental organization.

Over the years SIL, working with indigenous speakers and writers, has produced literacy materials for over 150 language communities of Mexico, from alphabet leaflets to entire bilingual dictionaries, from news sheets and calendars to volumes of folk stories. In the late 1970s, SIL branch policy encouraged development of transitional reading materials, instead of basic primer materials, to avoid any sense of competition with the reading and writing materials produced through governmental bilingual educational groups. The personal spiritual motivation of SIL members combined with their mostly foreign status have at times created unfortunate and unnecessary tensions between Mexican bilingual educators and SIL field workers.⁸ However, respect for SIL publications both in Spanish and the indigenous languages and the obvious rapport of SIL fieldworkers with indigenous people because of long-term commitment to relationships and language

projects has not gone unnoticed. New opportunities to cooperate with bilingual educators are now emerging.

B. My voice

For well over twenty-five years I have been involved in various literacy projects among indigenous language groups of Mexico. I have helped prepare materials for teaching reading and writing in several languages. One of the biggest challenges in working with the indigenous speakers to prepare teaching materials in their languages is bridging the gap between literacy theories and lesson designs. Few of the indigenous people I know have been to college, most only finished elementary school or maybe did the equivalent of a year or two of high school. All their education was in Spanish.⁹

I observed that SIL fieldworkers working with indigenous speakers on production of literacy materials ended up being in charge of the project, not necessarily from choice but because the theoretical content of primer production was not easy to transfer to the world of indigenous speakers with less formal education. So the indigenous speakers would help by writing stories as requested, often with limited alphabet options depending on the place of the lesson in the primer. The 'outsider' actually designed and put the primer together. The whole process could take months or more often, years. Then the indigenous people had to be trained how to use the materials.

4. A new literacy method, and where does it fit?

A. CÓMELE – a balanced literacy method

Returning to the analogy of an abyss so eloquently described above by Andres Hasler, the unsolvable abyss between theory and practice in indigenous education, I offer a narrow, but significant bridge, a literacy method I and my colleagues have named CÓMELE (Combinación de Métodos de Lectoescritura). This is the Spanish version we adapted from what is known as M-SEM (Multi-Strategy Economy Method.)¹⁰ The theory behind the method is straightforward – it is a combination of both whole language and analytical approaches to literacy.

Glenys Waters points out that there is more than one way to teach people to read, from a continuum with phonics on one side, to syllable, to word, to sentence, to whole language on the far end:

I think that... educators have helped put things in proper perspective. It should not be phonics versus whole language, or phonics versus word, or syllable versus whole language, but a recognition that each way of teaching reading has something important to contribute. The different reading skills need to be taught in a balanced way, i.e., skills linked with reading for meaning. (Waters:1988)

The four basic elements to a strong literacy method address not only reading skills but also writing skills. They include both the whole language and the analytical approaches, which are also known as the Top-Down and Bottom-Up approaches, as in the diagram below (Rempel:1994):

Top Down

Bottom Up

Reading	Whole Stories- language natural	Word Attack - how to read words at first sight
Writing	Creative Writing	Forming Letters Spelling

B. Components of a CÓMELE lesson

Each lesson contains a story track and either a pre-primer track or a primer track.

Nuntaj̃yi lesson (Sierra Popoluca) preprimer lesson draft:

The right side is the pre-primer track which teaches visual distinction of letters, syllables and words; and aural distinction of the sounds of their language. Pre-primer lessons do not teach the alphabet. They consist of 15-18 lessons and take about 5 weeks to teach. Persons with preliminary reading skills do not need to be taught from the pre-primer lessons but can start directly with primer lessons.

Lección 14 "JÉM cunqui"



Tum jama yip cunqui° tsam
icutiidic jem sojtim. Pero iquiday
jem ites jeeyucm, siip dam iculpa
jem soj itim, nomas jem galleta y chocolate.

1. ¿Ti ñasca jem cunqui° ?
2. ¿Jué moŋpa jem cunqui° ?

jepe	meme jepe ciapa
meme	tsotso xapun meme
jama	oyo meme jama
pepe	pepe ciapa wayi°
j̃j̃j̃	nits j̃j̃j̃ xapun
ciapa	ciapa tsotso meme
utsu	wayi° ñicu utsu
tsuc	éaca tsuc ñicu

Yuhu (Eastern Otomí) primer lesson:

Again we see the story track, along with a primer track.

The story track takes about an hour to teach. The teaching includes focus on the whole language story, an experience as a class having to do with the key word, and group composition, individual creative writing and a free reading session. The two questions are carefully crafted: question 1 is a comprehension question, question 2 is an open question about the topic of the story, with many possible answers that require critical thinking on the part of the students.

Ran xōdi ná 'dato

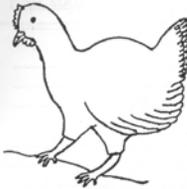


ra ɔni

Nu'a ra ɔni di ho da za yɔ zu'wē 'by xɔn dini; 'ne ge'y yó xō ní 'ye'ma hōi ɥ zí ɔni 'by i honyɔ zu'wē nge da za.
Nu'y yɔ ɔni i ja yó hwa pege hingi tsō da zōhmagāts'i.

1. 'Be'a di ho da za ɥ yɔ ɔni.

2. 'Bepɥ ní zehju ɥ yɔ ɔni.



o O

ɔni

ɔni	o
ɔ-ni	ɔ-ni
o	ɔni

o	z	i	n
a	f	o	i
z	n	a	f

zɔ	fa	na
zi	ni	fɔ

o	n	i
ɔ-ni		
ɔni		
ra ɔni		

f	o	n	i
fɔ-ni			
fɔni			
di fɔni			

z	o	n	i
zɔ-ni			
zɔni			
bi zɔni			

Nu rá fani ra Ana bi za ra ɔni, bi zani.

Me'Phaa Smajiin (Tlapaneco de Zilacayotitlan) primer lesson draft:

Again, below the double lines, the students read where the teacher indicates – but without the teacher reading first. There are various steps in this part, focusing on individual sounds, syllables, construction of new words and in later lessons (as this one is), reading a controlled text written with only the new sound and previously taught sounds. There is also a dictation exercise.

Lección 21



X̣ida'

Mbáa x̣ida' diápú
kue'tséén. Mbekha' dí
nakhí'náa, nagí'dy na'dúun ixi
asndõ naruvan'. Xígí skájma
x̣ida' dí nakhí'náa dú'khuín
nanguá guváá itáán ñy'lyun
goyáá, dá'ni mұvan' idúún
ithan.

1. Xá'ni skájma x̣ida' dí nakhí'náa rá.
2. Diájun khiná i'khu x̣ida' rá.



d D

x̣ida'

x̣ida'	d
xi-ḍa'	ḍa'
ḍa'	xi-ḍa'
d	x̣ida'

d	i	d	xi	xa	ḍa
a	d	'	'	xí	lí
d	i	d	lá	ḍa	x

x-i-d-a' x-í-l-í
xi-ḍa' xí-lí
x̣ida' xílí

Mbáa x̣ida na'duun xtóo mbá ixi.

3

Yet another strength of CÓMELE is that it is economical to produce in terms of time and expense and training. It takes only three weeks to learn the method, produce a complete set of literacy lessons for your language, and even have some initial training in how to use the lessons created.¹¹

C. CÓMELE in Mexico

I have had the privilege of teaching the CÓMELE literacy method in three week courses three times now:

- Mexico in July 2002 - ten participants representing five indigenous languages
- Mexico in July 2004 - 15 participants representing seven indigenous languages
- Mexico in July 2006 - 18 participants representing 12 indigenous languages.¹²

After CÓMELE 2002:

Of the 10 participants who came to this workshop only one was a bilingual teacher, but 5 had leadership positions in their churches. A total of 199 primer lessons were created, and 90 pre-primer lessons.

After CÓMELE 2004:

Of the 15 participants who came to this workshop, 9 were bilingual teachers with a classroom, or supervisors, or in charge of training teachers or preparing indigenous language text books. The potential for the further spreading and application of this literacy method multiplied greatly. The total number of lessons produced, in seven languages: 330 primer lessons, 126 pre-primer lessons.

After CÓMELE 2006:

The 18 participants (ten women and eight men) speaking a total of 12 languages, learned the CÓMELE literacy method, applied it to their languages, created a total of 197 pre-reading-writing lessons and 327 reading-writing lessons, and produced these lessons in 30 preliminary books. Each student practice-taught each of the three modules which comprise the pre-reading-writing and reading-writing lessons. More than 70 additional lessons were completed in the days following the workshop as not all the participants were able to create all the lessons they needed for their language during the three week period.

The CÓMELE method has also been passed on outside of the formal workshop experience. One team consisting of an SIL colleague and 3 native speakers of an indigenous language prepared a set of lessons, with minimal input from me and my CÓMELE team. The 3 native speakers are now team-teaching in three schools in an after school program. They are not bilingual teachers but are respected for their knowledge and the success all are seeing through this method. One of the three who are team-teaching was my teaching assistant at the July 2006 CÓMELE course.

In light of the above history and results (also see Appendix A) it is clear that CÓMELE's unique strengths are especially appropriate for this period in Mexico's indigenous educational history.

- The materials are easy to produce.
- The method is transferable in the LWC to individuals who then can apply it to their own languages.
- The reading-writing lessons are created entirely by the native speakers, so the content reflects their culture and views of life.
- Because they have learned the CÓMELE method, they can revise and edit their lessons as needed, in their own villages.
- They don't have to wait for materials to arrive from Mexico City or deal with errors introduced into the texts by people who don't know their language.
- These lessons are theirs to teach and share.¹³

4. CÓMELE voices

Voice of a husband-wife team of bilingual school teachers who were in the first graduating class of bilingual teachers in 1964, with 40 years experience in the bilingual school system of Mexico, spoken while attending the CÓMELE course:

We have been to many, many workshops and training courses over the years, but we have never taken a course so helpful as this.

Voice of a bilingual teacher taking the CÓMELE course:

All the other training workshops I have attended are about ‘teoría, teoría, teoría’ but they don’t teach us how to apply it.

Voice of a state supervisor for bilingual education, after seeing a demonstration CÓMELE lesson taught by a Nahuatl man who designed the lessons in his language, and co-teaches Náhuatl literacy with two other Nahuatl friends in three bilingual schools:

We must implement this method in all our bilingual education programs in the state!

Voice of a Tepehua mother regarding her second grader who read me a text easily in their language (and who was being taught with CÓMELE lessons in her language):

She can read anything. She can write too.

Voice of a man who taught CÓMELE lessons in his language in five schools, during after school classes, for a year:

All the teachers are happy that I am there, because the kids are really learning to read and write Tének. They all want me to come back next year.

Voice of the principal author of CÓMELE lessons in Tének:

I taught two young women the CÓMELE method and gave them the lessons. They have taught 16 kids. I tested the kids and they can really read and write Tének now.

Voice of a CÓMELE graduate who nine months later taught the CÓMELE method to Mayo and Raramuri speakers in northern Mexico:

They were enthusiastic about the method, because it is so practical. Also they said it was really good to have a teacher come who is an indigenous person like them.

5. The future of CÓMELE...

Three things impress me about the CÓMELE literacy method:

1. It is simple enough to be transferable through a second language.¹⁴
2. Because the format is fixed, lessons can be produced quickly by indigenous authors. The stories are natural and culturally appropriate.
3. Most importantly, CÓMELE places the power of creating the materials directly into the hands of the indigenous speakers at the community level, and the

ownership of these materials is clear. Their pride in producing these draft copies of their very own materials is hard to express adequately.

CÓMELE offers a great deal of flexibility according to the particular cultural models and discourse structures of indigenous people creating the lessons. The lessons can be taught one-on-one, to a small group, or a large group. Lesson content can focus on children or be prepared for adults. Lessons can be prepared according to a theme, such as farming, or cultural values or beliefs.

The method involves both individual and group participation and can be modified according to preference. All the writing and reading is done in the indigenous language, and each lesson's story is written by native authors and is not tied to the structure of the Spanish language. The whole-language aspect of CÓMELE offers incredible freedom of expression for both students and teacher, yet the structure of the analytical side of CÓMELE develops accuracy in reading and writing the indigenous language, and should perhaps appease any obligation or expectation on the part of supervisors or educational leaders for a more western-based model of teaching-learning.

It is important to keep in mind that the primers produced through this method are obviously not the complete answer to the need for literature in a given language. But the prominent focus on creative and accurate writing as well as reading should produce individuals who can begin to develop vernacular literature – a desperate need among indigenous language communities.

Richard Ruiz has explained why effective language development must be connected to the ground level:

Language maintenance and efforts to reverse language shift in non-LWC communities require endoglossic policies. These policies, by themselves, will have little effect on language behavior. The implementation plans that accompany them must work to strengthen both instrumental and sentimental functions for the indigenous language in the community. They also must be comprehensive in scope. Generally, the more formal the contexts in which the language policy is implemented, the less effect it will have in language maintenance. Since languages live in communities, the common life activities of the community must be the targets of language policies. This means that the electronic and print media, social activities, social service providers, and other everyday centers of community life must be included in the implementation strategies by which language policies are promoted. In this way, our language policies have more of a chance to become more closely associated with our language behavior. (Ruiz:1995)

This CÓMELE method has significant potential, not only in meeting governmental mandates for decentralization of education, but also in placing ownership for indigenous language literacy directly into the hands of the mother-tongue speakers at the community level.

Appendix A

Follow up from CÓMELE 2002

Team 1 taught through all the primer lessons (30 lessons) with 9 adults who are now writing and reading their language.

Team 2 used their materials in a bilingual school teaching a second grade class, and taught other grade levels using their CÓMELE materials, until ill health forced him to stop. The second member of team 2 used the lessons intermittently to help the Nahuatl teachers in his town's school teach children reading and writing in Tepehua. A problem with hearing eventually stopped him from teaching all the lessons.

Team 3 though successful in creating the lessons, did not find an adequate place to test teach them, they are not connected to the bilingual schools. These materials were used by some individuals to teach their children to read their language.

Team 4 went on to edit their lessons and publish them for use in a wide area, they shared them with others, and began a class that was closed when it was seen as competition with local teachers. I have no recent news of how they are using their CÓMELE lessons.

Team 5 contained one especially gifted man, L, who although not a bilingual teacher was eager to learn how to help his people become literate in their own language. He taught two young women the method, and they in turn taught about 15 children all the lessons. He personally tested the children and was thrilled to see they had truly learned to read and write their language. He also taught the method to a friend who then got permission to test teach the lessons in five public schools for about 5 months. Students came on their own time, after school hours. The children who studied all the lessons were honored with special certificates and a final party. The teachers asked this man to return again the next year. Meanwhile, L had shared with some colleagues in UNTI (Unión Nacional de Traductores Indígenas) about this wonderful literacy method, and promptly was invited to travel to Chihuahua to teach speakers of two other indigenous languages how to make CÓMELE lessons. He agreed, and using only Spanish (as the LWC) taught them CÓMELE and they prepared their lessons. He made a second trip later to review their work and advise them. It was this same man, L, whom I invited to help me teach the CÓMELE course in 2004.

Follow up from CÓMELE 2004

Team 1 – One person only. He had previous experience teaching reading in his language and planned to use his materials in the several reading classes he held for adults and children. (I have not heard any more from him).

Team 2 – One person only. This man had the incredible challenge of preparing a total of 69 lessons, to cover all the sounds in his language, plus review lessons. He not only drafted all the lessons, he also keyboarded them onto his laptop. And he was the first of all the teams to turn in his complete set of lessons. He later sent me a copy of his revised lessons, all printed out. (I have not heard how he has used his lessons, but he is a bilingual school teacher and was intending to teach the method to fellow teachers and share his materials.)

Team 3 – This was a four person team. They have revised their lessons three times, and done some initial teaching with them. They have not taught through all the lessons yet.

One SIL colleague has visited their area to give further review and help with preparing to teach the lessons. None of the four are bilingual teachers. They have taught the lessons in a Catholic church context, and as a community service open to all.

Team 4 – Two people, neither bilingual teachers. They intended to use their lessons in the church context or to teach community classes. I have had no word from them.

Team 5 – This husband-wife team have 40 years of experience as bilingual teachers. They have taught two three-day sessions to train fellow teachers in their region how to use the CÓMELE method and materials. I have no further data as to whether the materials have been test taught with children in actual classrooms yet.

Team 6 – two bilingual teachers. The most recent word I'd heard was that one of them was going to use the materials this past school year as he was finally out of the office and back teaching in a class. The other was still holding an office job and had not test taught the lessons.

Team 7 – two bilingual teachers and one non-teacher. This team revised their lessons twice and have shared them with others, but I don't know if anyone has actually used them yet. The challenge for the bilingual teachers is how to fit the teaching of literacy lessons around the daily required subject matter. This comes up over and over in conversation. In order to teach CÓMELE during class time, they would be omitting something required by law to teach. The option of after class instruction is appealing only to the highly dedicated few. This team does intend to teach these lessons, but they haven't solved the logistics yet. One member of the team is currently on a scholarship studying in Peru.

Follow-up from CÓMELE 2006:

The results are not yet in.

Endnotes:

¹ Today the indigenous population of Mexico is estimated at 8-12 million people. They live in all 32 states and territories, but primarily in 24 states. (INEGI:2006)

Government statistics show that 75% of indigenous people haven't completed elementary school, twice the national average, and more than 30% are illiterate, three times the national average. (Geri Smith:2006)

²Unless otherwise noted, all these voices were heard by the author personally, in her travels and work in Oaxaca, Veracruz, Michoacan and Mexico City. All conversations with Tepehua speakers were in Tepehua. All the other conversations were in Spanish, except for one in Popoluca. The quotes are not verbatim, because they were not recorded. But they are as true to the original conversations as the author can make them.

³ The Tepehuas referred to here and in subsequent paragraphs come from either the Tlachichilco Tepehua language community or the Pisaflores Tepehua language community. Both regions are located in the north of the state of Veracruz.

⁴ see Ley General de Derechos Lingüísticos de Los Pueblos Indígenas

⁵ As reported to the author by her husband, who was present at said conference.

⁶ Excerpt from email essay by Andrés Hasler to members of AMLA, October 2004.

⁷ A Pisaflores Tepehua bilingual teacher who is a friend of mine does have an assignment in her home town. But her husband, who is a Nahuatl speaker, was assigned to an Otomí area, and had to travel out of the Pisaflores Tepehua area, through the Tlachichilco Tepehua area, finally reaching the Otomí area. This is an all day journey on microbus or truck, including a two hour hike.

⁸ Mexico has a long tradition of separation of church and state. And those trained as bilingual teachers may be uncomfortable working with anyone who professes a belief in God.

⁹ Except for one person I know who is studying in the U.S. in a state university.

¹⁰ "my colleagues" refers to the Spanish Editing department of SIL- Mexico, as well as Jan Johnson and Mary Hopkins, literacy consultants with SIL-Mexico.

The literacy method called CÓMELE in Spanish is derived from the Multi-Strategy Economy Model (M-SEM). M-SEM was developed by SIL literacy specialists working among lesser-known language groups of Papua New Guinea. (It, in turn, was derived from the original Multi-strategy method developed by Stringer and Faraclas.) M-SEM has been successfully used in language areas with little access to formal education. I heard about M-SEM from a colleague, Robin Rempel, who was its primary developer. She first worked in Papua New Guinea and is now working in Kenya. She has found the M-SEM useful in Kenya as well as Papua New Guinea, and other colleagues have used it in Nigeria. All the materials available for this method were prepared in English because both Papua New Guinea and Kenya use English as an official language.

¹¹ For those who have not had the experience of preparing literacy materials in newly written languages, it should be mentioned again that the time involved in preparing a set of lessons for reading and writing in other methods can easily take months and even years. I heard of a set of reading primers that were completed for the Dinee, the Navajo, which had been 12 years in the making.

¹² I led a third CÓMELE workshop in July 2006 after the WAIL presentation of this paper in April 2006.

¹³ This period in Mexico's history is perhaps the most favorable yet for indigenous language communities as far as government policy. Yet the local communities must take more and more ownership of their own education. One of the best comments I have found on the positive and negative aspects of bilingual education follows: 'The argument for bilingual education has been proposed by those who favored the indigenous languages (an early example being Ignacio Ramirez, governor of the state of Mexico in 1857) and those who wished them destroyed (such as Justo Sierra, Minister of Education at the turn of the 19th century). (Heath) This paradox is still observed in our times. "Native languages are under assault in Mexico. Education appears to be the 'villain', and bilingualism its weapon. Paradoxically, if native languages are to thrive in the next millennium, their salvation likewise will be education and bilingualism their hope.' (McCaa and Mills:117)

¹⁴ It should be mentioned that the first two days of a CÓMELE workshop are extremely challenging to the participants, and they all admitted later that they were overwhelmed with all the new concepts and enormity of the task. The CÓMELE 2002 participant who on his own taught a CÓMELE course in northern Mexico, and reported by email to me about teaching this method to Mayo and Rarámuri speakers, said, 'The head of the Rarámuri translation committee told me that towards the beginning of the workshop she was about to leave because she couldn't understand it and it seemed really difficult, but as the workshop continued she began to get it, and she realized that this would be really useful and practical for them to teach their own people.' (My translation from an email written in Spanish.)

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