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FOREWARD

The papers in this volume comprise the proceedings of the first Workshop on American Indigenous Languages (WAIL '98). The conference itself was the outgrowth of a student discussion group on North American Indigenous Languages (NAIL), the changing membership of which have been convening monthly for more than a decade under the guidance (and at the home) of Marianne Mithun and Wallace Chafe. This introduction is our opportunity to thank Wally and Marianne for their support, in myriad forms, of our work on these fascinating languages and for their affirmation of its importance to speaker communities as well as to linguistic research. We hope that this volume of the Working Papers represents the establishment of a tradition of WAIL, as a forum where we may all share our discoveries, both descriptive and theoretical, concerning these increasingly endangered languages.

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Preliminary remarks on tone in Coatlán-Loxicha Zapotecⁱ

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0. Coatlán-Loxicha Zapotec (CLZ) is a Southern Zapotec language spoken in at least four townsⁱⁱ in the ex-districts of Miahuatlán and Pochutla in southern Oaxaca, Mexico. This branch of Zapotec is characterized by a historical non-tonic vowel deletion which produced consonant clusters and heavy syllables, uncommon in more conservative Zapotec languages. Suprasegmental features such as tone and glottalization, once associated with now-deleted vowels, may map onto remaining sonorous segments or may float or delete. In addition to pitch, tone in CLZ is indicated by such features as glottalization, length and amplitude, on both vowels and sonorant consonants. Information about tone in CLZ is of particular interest due to the lack of general knowledge about this branch of Zapotec, and due to the the drastic change in syllable shape in Southern Zapotec resulting from the historical vowel deletion. This paper will give preliminary information on tone in CLZ, both on how it is realized phonetically and on some of its morpho-phonological functions. This is not intended to be a complete description of tone in CLZ, and I do not attempt to solve all the problems which come up, but I do give a preliminary sketch, describing tone in CLZ phonetically and identifying some of the phonological problems for future work. The present study results from three two-month summer field seasons (1996-98). Data presented in this paper come from the variety of CLZ spoken in San Baltazar Loxicha.ⁱⁱⁱ

1. There are four tones in the San Baltazar Loxicha variety of CLZ. These contrast with glottalized syllables which do not bear contrastive pitch patterns:

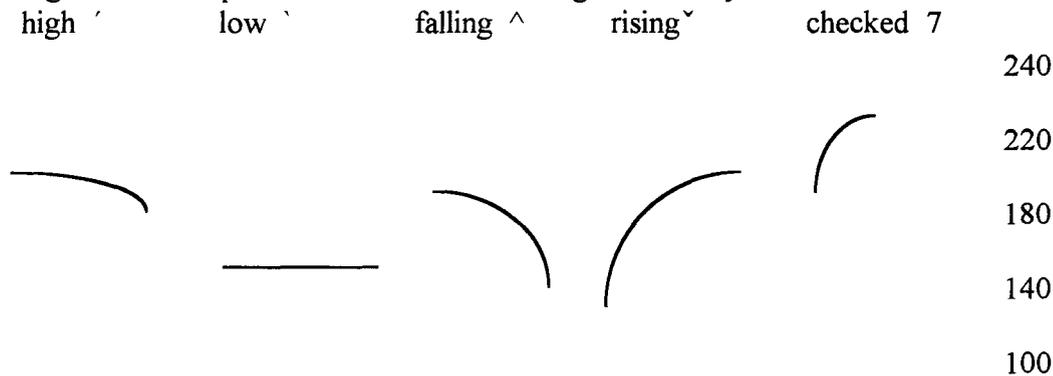
(1)	high	mbé	‘cangrejo’	(crab) ^{iv}
	low	mbè	‘neblina’	(fog)
	falling	mbê	‘araña’	(spider)
	rising	mbě	‘tortuga’	(turtle)
	glottalized	mbe7 ^v	‘luna, mariposa’	(moon, butterfly)

1.1 Pitch is what most people think of as being the main phonetic component of tone. In CLZ pitch is indeed the primary, though not the only, phonetic feature of tone. The direction and degree of movement are as important as the range a certain tone falls in. The high tone moves somewhat more than the low tone but not as much as true contour tones. For the primary consultant this tone typically starts around 210Hz. and falls to around 200Hz. or slightly lower. There is often higher amplitude with the high tone as well. In the Loxicha dialect of CLZ, the low tone is very level, and this lack of change in pitch is perhaps one of the main cues of this tone, as the actual fundamental frequency may vary even in the speech of a single speaker. For the primary consultant this tone is typically around 150Hz. but may be as high as 170Hz. There is very little or no movement

(0-5Hz.). The falling tone typically starts in the range of 200-180Hz., though sometimes lower, and falls 50Hz. or more. The rising tone usually starts around 120 or 130Hz. and rises to anywhere from 170Hz. to over 200Hz. With the rising tone there is an increase in amplitude concomitant with the increase in fundamental frequency.

Checked syllables typically have a high-rising pitch pattern which may begin between 180 and 200Hz. and rise to 220Hz., 250Hz. or higher. The pitch patterns on checked syllables may vary but do not make a contrast with other checked syllables. Phonemic glottalization is a suprasegmental feature which functions in many ways similar to tone in CLZ. Under a broad definition, one might even consider checked syllables to have a fifth tone. Glottalization does contrast with the four other tones. Both phonemic glottalization and tone in CLZ use both pitch patterns and phonetic glottalization as important cues. The difference between phonemic glottalization and what we would consider tone under a narrow definition, is that for one glottalization is a primary cue and pitch a secondary one, and for the other the reverse is true. Here I will treat phonemic glottalization as a separate category from tone.

Figure I. Pitch patterns for CLZ tones and glottalized syllables.



1.2 Besides pitch, the next most important features of tone in CLZ are duration and glottalization. Glottalization has many functions in CLZ, so let us look at it first. It is important to distinguish phonetic glottalization from phonemic glottalization. Phonemic glottalization is more robust and will not disappear except as a result of certain morpho-phonological rules. Non-phonemic glottalization is not as robust and generally only appears in pre-pausal position. Non-phonemic glottalization occurs word-finally and is a cue for certain tones as well as for lenis obstruents.

1.2.1 Word-finally and in pre-pausal position, fortis obstruents are heavily aspirated, often to the point of affrication, while lenis obstruents in the same position will have a short glottal stop following them:

- | | | | | |
|-----|------|----------------------|------------|--------|
| (2) | ngip | [ŋgip ^h] | ‘cicatriz’ | (scar) |
| | yib | [ɣyiβʔ] | ‘vena’ | (vein) |

The main phonetic component of the fortis/lenis contrast in CLZ is voicing, but when a phonemic glottal stop precedes a word-final lenis obstruent, that obstruent becomes sandwiched between glottal stops phonetically and devoiced. When a lenis obstruent loses voice, the phonetic glottal stop which follows it may be the main feature left to mark it as lenis:

(3) di7zh [ðiʔʂʔ] ‘palabra’ (word)

1.2.2 Because phonetic glottalization is part of the fortis/lenis contrast in obstruents, it could not serve to mark tone or any other phonological contrast in words ending in obstruents. In words ending in vowels or sonorant consonants however, glottalization is part of the tonal contrast. Words with low or rising tone, and which end in vowels or sonorants, have a final glottal stop in pre-pausal position, whereas words of the same shape but with high or falling tone do not. This can be seen in the following examples.

(4)							
mbé	[mbé:]	‘cangrejo’	(crab)	mbè	[mbè::ʔ]	‘neblina’	(fog)
wlá	[wlá:]	‘amargo’	(sour)	dà	[ðà::ʔ]	‘petate’	(mat)
mzhîn	[m(ə)ʒ̣ î̃n]	‘venado’	(deer)	mzhìn	[mʒ̣in:ʔ]	‘miel’	(honey)
kwân	[kwân]	‘espeso’	(thick)	măn	[màn:ʔ]	‘animal’	(animal)
lô	[lô:]	‘hígado’	(liver)	lò	[lò::ʔ]	‘troja’	(trough)
yî	[yî:]	‘piedra’	(stone)	yĩ	[yĩ:ʔ]	‘cal’	(lime)
mbě^l	[mbě^l]	‘estrella’	(star)	mbĩl	[mbil:ʔ]	‘lagartija’	(lizard)

1.3 As seen above, word-final sonorants, both vowels and consonants, are lengthened when in words with low or rising tones, but not when in words with high or falling tones. Duration is also an important cue for tone in CLZ. Vowels and sonorants in syllables with low and rising tones are 100 ms. or more longer than their counterparts in syllables with high and falling tones. In the data below, the final segment, be it vowel, nasal, or lateral^{vi}, is measured for duration marked in milliseconds:

(5)					
xîn	‘dañoso’ (harmful)	/n/ 120 ms.	kwàl	‘frío’ (cold)	/l/ 240 ms.
mbě^l	‘estrella’ (star)	/l/ 125 ms.	mbĩl	‘lagartija’ (lizard)	/l/ 200 ms.
bě^l	‘llama’ (flame)	/l/ 132 ms.	yè^l	‘hondura’ (dip in ground)	/l/ 258 ms.
wxên	‘va a cortar’ ^{vii} (P-cut) ^{viii}	/n/ 153 ms.	xě̃n	‘se va a anchar’ (P-widen)	/n/ 248 ms.
yû	‘tierra’ (earth)	/u/ 173ms.	dà	‘petate’ (mat)	/a/ 400ms.
gô	‘camote’ (tuber)	/o/ 230ms.	mbi	‘aire’ (wind)	/i/ 355ms.
nhó	‘nosotros’ (1p.i. pronoun)	/o/ 220ms.	lă	‘Oaxaca de Juárez’ (Oaxaca)	/a/ 325ms.
gó	‘Ud.’ (2r. pronoun)	/o/ 180ms.	bě	‘peine’ (comb)	/e/ 300ms.

The lengthening of vowels and sonorants in words with low and rising tones also helps to distinguish them from words with phonemic glottalization. Phonemically glottalized vowels and sonorants are usually around 100ms and sometimes shorter.

1.3.1 Some other Zapotec languages have been described as having a phonemic contrast between fortis and lenis sonorants, (Córdoba, 1886 [1578]; Pickett, 1959; Butler, 1980; Nellis and Nellis, 1983; Stubblefield and Stubblefield, 1991), and in many or most of these languages the primary phonetic difference between fortis and lenis sonorants is length. However, to my knowledge no other Zapotec language has been described as having increased sonorant duration concomitant with certain tones and not others. In CLZ, whether a sonorant is short or long is completely determined by a word's tone. Furthermore, comparison with cognates from Zapotec languages with fortis and lenis sonorants reveals that the origin of CLZ short and long sonorants does not lie in the earlier fortis/lenis contrast. Consider the following Proto-Zapotec reconstructions by Kaufman (1995) and the corresponding CLZ reflexes.

- | | | |
|-----|-------------------------------------|--------------------------------------|
| (6) | Now short sonorant: | Now long sonorant: |
| | *pella (+jV) > bēˀl 'llama' (flame) | *kella7 > yēˀl 'mamey' (mammy apple) |
| | *p+ella > mbēˀl 'pescado' (fish) | *alV+ja > -äl 'nacer' (be born) |
| | *pe+tzina7 > mzhîn 'venado' (deer) | *(pe+)tzina7 > mzhin 'miel' (honey) |
| | *tyi7la > til 'comal' (griddle) | *p+e7ya > mbëy 'hongo' (mushroom) |
| | | *yonna > chõn 'tres' (three) |

1.3.2 The phonological rules which lengthen vowels and sonorants and which place glottal stops at the ends of words with rising and low tones, do not affect encliticized forms. Person markers in CLZ typically follow verbs and nouns. There are both short forms and long forms of all person markers. The long forms are usually of the shape CV and the short forms are enclitics usually of the shape -C. These short forms are employed when the verbs or nouns they are modifying end in vowels, either checked or unchecked. A root ending in a vowel with a low or rising tone will have that vowel lengthened and glottalized when in prepausal position, but not when followed by enclitics or when in phrase-medial position. Furthermore, although the rules which produce glottalization and lengthening concomitant with the low and rising tones, apply to VS sequences, they do not apply to V-S sequences, i.e. they do not apply across clitic boundaries. Consider the following minimal pair:

- (7) xěn [šɛnˀːʔ] 'se va a anchar' (P-widen) xě-n [šɛn] 'mi nariz' (nose-1s.)

2. Phonetically, words ending in VS (not V-S) sequences and bearing a rising tone, have the rise in fundamental frequency and amplitude taking place mostly or entirely on the sonorant consonant segment. One could either conclude that in these cases the sonorants

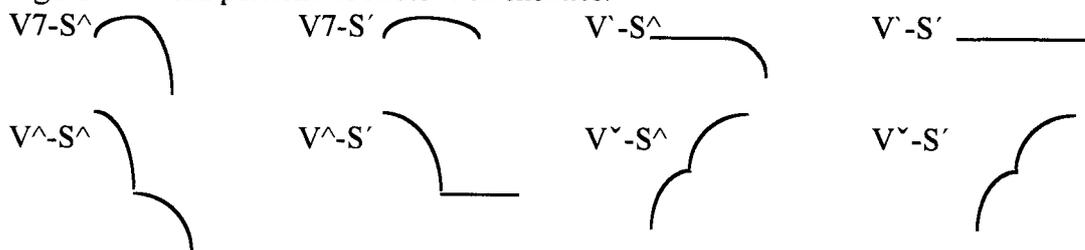
can bear tone phonologically, independently from the rest of the syllable, or that tone is a feature of the entire syllable which phonetically plays out over the rime, with the rise in pitch taking place over the last segment, be it vowel or sonorant consonant. The latter solution is analogous to the way phonemic glottalization works in CLZ. In phonemically glottalized syllables, the right-most sonorant segment (without crossing morpheme boundaries) bears the glottalization. Thus in CVC glottalized syllables, the vowel is glottalized and in CVS syllables the sonorant consonant is glottalized. Yet in glottalized CVS morphemes, the sonorant is post-glottalized when in coda position and especially when pre-pausal, but when certain enclitics or words are placed after it in a syntactic construction, the sonorant is pre-glottalized and the glottalization plays out phonetically over the last portion of the vowel and the first portion of the sonorant consonant. Likewise, while a rise in pitch and amplitude in CVS words with rising tone, usually takes place on the S segment, when the sonorant is not in pre-pausal position, it may not be as long as when in isolation and the rise in pitch and amplitude may then begin on the vowel itself. These facts suggest that tone is a feature of the syllable in words like those seen thus far. However, there are more clear-cut cases of phonological tone on sonorant consonants in CLZ, as we shall see below.

2.1 As mentioned above, CV pronouns have short enclitic forms of the shape -C. When the C is in fact a sonorant, it bears tone. However, these sonorant enclitics are limited in that they cannot bear the rising tone and there are no examples with the low tone. Thus they do not exhibit the concomitant glottalization and lengthening which occur with those tones. The following are the enclitics which can bear tone and the long form pronouns they are derived from:

(8)	nâ > -n [^]	lô > -l [^]	mě > -m [']	nhó > -nh [']
	1s.	2f.	3h.r.	1p.i.

The rising tone cannot occur on a single sonorant consonant and is simplified to high. When attached to roots with the different possible tones, there are some further simplifications. When attached to roots which are glottalized or which have high, low, or falling tones, the falling tone on the 1s. and 2f. enclitics will begin wherever the pitch pattern of the root tone ends, and fall lower. When attached to the same roots, the high tone of the 3h.r. and 1p.i. enclitics will cause the pitch to remain close to the endpoint of the root tone, neither falling nor rising more than a few Hz. When attached to the rising tone however, the rise in pitch continues on the sonorant and there is no difference in pitch pattern on the four enclitics. These patterns are illustrated below:

Figure II. Pitch patterns of roots with enclitics.



2.2 These patterns bring up more questions, especially regarding rules of contour simplification^{ix}, which will not be answered here. However, in the case of enclitics it appears that sonorants can bear tone on their own in CLZ. One might infer from this enclitic evidence that root sonorants also bear tone separately and that tone is not a feature of the whole syllable as suggested previously. The tones on enclitic sonorants were associated with vowels deleted in synchronic, morpho-phonological rules. If root sonorants bear tone, such tones likely mapped onto them after a historical vowel deletion. Compare these cognates between CLZ and a more conservative Zapotec language:

(9)	IZ (Pickett, 1959)	CLZ		
	chònná	chǒn	‘tres’	(three)
	màní 7	mǎn	‘animal’	(animal)
	ràlé	ndǎl	‘nace’	(H-be born)
	binnĩ	měn	‘gente’	(person) ^x

Examples like those in (9) show that there are at least some transparent examples of tone from deleted vowels mapping onto the remaining syllables. The synchronic derivation of short form person markers from long form pronouns, in some ways echoes the diachronic non-tonic vowel deletion. Some of the same possibilities exist, for tone from deleted vowels to map onto preceding sonorants and/or syllables, for example. However, there are also differences. The two processes of vowel deletion, one synchronic and one diachronic, have different results. An enclitic sonorant with a high tone, when attached to a root vowel with a low tone, does not produce a rising tone, the way that a similar process did diachronically as seen in (9). Kaufman (1989) has shown that there are rules of vowel cluster simplification in Zapotec languages which take place across clitic boundaries but not within roots. There may be an analog in the yet undescribed rules of tonal contour simplification in CLZ.

3. Tone sandhi in CLZ is involved in person-marking on both nouns and verbs, and aspect-marking on verbs. These processes have still not been fully analyzed for this language. However, a few preliminary observations can be made. The most common tone sandhi in

CLZ is likely caused by a floating high tone, which occurs with the first person singular and also with the potential aspect, in this and many other Zapotec languages.

CLZ has the following TAM categories: potential, habitual, completive, imperative, intensive, progressive, contrafactual, inchoative, andative, venitive, and causitive. According to Kaufman (1989) the three principal parts of most Zapotec verbs are found by eliciting the potential (P), habitual (H), and completive (C) forms. Because of space limitations, and because most of the variation which occurs can be seen in these three forms, I will give only these forms for verbs in the following discussion of tone sandhi.

3.1 Many verbs show no alternation in tone between the P, H, C (and other) forms. There are examples of this with each of the different tones. For example:

(10)	‘reventar’ viC ^{xi} (explode)	‘agujerearse’ viC (prick)	‘ojear; picar’ vC (give the evil eye; sting; prick)
P	gâch	găd	ga7z
H	ndâch	ndăd	nda7z
C	ngôch	ngôd	ngwa7z

The next most common pattern, seen below in (11) is rising, low, low (P, H, C are always listed in this order). The rising tone in the potential is presumably the product of a floating high docking onto a syllable with underlying low tone.

(11)	‘moler’ vC (grind)	‘matar’ vtA (kill)	‘picarlo’ vtD (sting, poke)	‘comer’ vD (eat)
P	gěj	gũth	kwĩb	wă
H	ndòj	ndùth	nbib	ndà
C	ngùj	mbìth	ngwtib	ngwdà

Typically a low-toned verb whose subject is first person, or a low-toned noun whose possessor is first person, will show the same perturbation seen above in the potential:

(12)	xè nariz (nose)	mbìth C-matar (C-kill)	xìn hijo (son; daughter)
1s.	xě-n	mbĩth nâ	xĩn nâ
2f.	xè-l	mbìth lô	xìn lô
3h.r.	xè-m	mbìth mẽ	xin mẽ

The perturbation which occurs with first person singular marking occurs on verbs whether the person marker itself is postposed or preposed. On nouns the perturbation does not occur with alienable possession because the particle *tě* is required and the first person marker can only affect that particle, not the noun. Likewise when possessing noun phrases or compounds there are no non-local effects. Each of these cases involving NP's is illustrated in (13).

(13)	<i>ni</i>	<i>wit gǒx</i>
	<i>casa</i>	<i>hermano mayor</i>
	(house)	(older brother)
1s.	<i>ni té-n`</i>	<i>wit gǒx nâ</i>
2f.	<i>ni tễ-l</i>	<i>wit gǒx lô</i>
3h.r.	<i>ni tễ-m</i>	<i>wit gǒx mễ</i>

The 1s. person marker and the potential aspect marker can also cause perturbation in roots with other underlying tones. There are examples of rising and falling tones becoming high when marked with either of these two morphemes:

(14)	<i>wǎ</i> 'va a comer' (P-eat) > <i>nâ wá</i> 'voy a comer' (1s. P-eat)
	<i>-b-ê</i> 'jalar' (pull) > <i>kwé</i> 'va a jalar' (P-pull)

There are other examples of tone sandhi including what appears to be a lowering with the completive aspect, but the above are the most common. Some other patterns also include glottalization, for example there are a few verbs with high tone in the potential, low tone in the habitual, and a checked syllable in the completive. Also some verbs and nouns with underlyingly checked syllables lose glottalization when marked by the 1s. marker. This deletion of glottal stops with first person marking has been described in at least one other branch of Zapotec (Sicoli, 1998). In (15) I list all the patterns of aspectual tone sandhi found so far, with tones (and glottalization) listed in P, H, C order.

(15)	Very common	Fairly common	Rare
	˘ ˘ ˘	˘ ˘ ˘	˘ ˘ 7
	^ ^ ^	˘ ˘ ˘	˘ ˘ 7
	˘ ˘ ˘	˘ ˘ ^	˘ ˘ ˘
	˘ ^ ^	˘ ˘ ˘	^ ^ ˘
	7 7 7		˘ ˘ ˘

3.2 The analysis of CLZ tone sandhi is just begun and not much can be said about the rules at work. Future work will have to look more closely at the less common patterns of

sandhi in verb paradigms, and will have to address the problem of why some nouns and verbs appear to be immune to perturbation. There are many roots which exhibit the described perturbation with potential and first person marking, but there are also many which do not, although they appear to have the same underlying tone. I do not, at present, have an analysis to account for these different patterns. Some other Zapotec languages, such as Isthmus (Mock, 1981), have aspect proclitics which cause tone perturbation on verb roots marked for the potential and completive. In Sierra Juárez Zapotec (Nellis & Nellis, 1983) one of the habitual aspect markers has a high tone, while the habitual proclitics for the other classes have a mid tone or are unmarked. Thus one possible reason for the presence or lack of sandhi in particular CLZ verbs, would involve verb classes.

Nearly every facet of CLZ phonology has been affected by the historical vowel deletion in Southern Zapotec. Most Zapotec roots were disyllabic with initial stress, and in these the post tonic syllables were lost. In addition, pretonic syllables of proclitics such as aspect and animacy markers, also lost their vowels. It may be that segmentally identical aspect markers in CLZ have differences such as the presence or absence of underlying floating tones which cause root tone perturbation. Because the vowels of aspect marker proclitics have been deleted, we no longer see the segmental differences which did exist between some of them and different tonal effects may now be all that remain to distinguish these. If this is the case, further investigation and analysis of CLZ tone sandhi could reveal more about verb subclasses. It is also possible that the reason some roots seem immune to perturbation and others not, could have to do with the deleted post-tonic vowel and its tone.

Possible explanations for the variation we see in CLZ aspectual and person-marking tone sandhi are 1) differences in the way aspect is marked across verb classes, including floating tones seen even in conservative languages; 2) the deletion of the pre-tonic vowel in the aspect-marker prefixes and the possible floating tones created; and 3) the deletion of the post-tonic syllable of the root, which may or may not affect the surface tone of the root and interaction with the rules of aspect and person-marking. Other Zapotec languages have also been analyzed as having a difference between underlying mid tone and underlying underspecified tone (Bickmore & Broadwell, 1998). This possibility also must be considered for CLZ.

Maximally, there may have been six tones historically for what can now be said in only one or two syllables, if we consider that there may be floating tones for both aspect and person, and that historically each vowel may have had its own underlying tone:

T T T T T T	T T T T T T
CV - CVCV CV	C-CV(C) C(V)
x	

non-tonic vowel deletion -->

Some tones may have been deleted along with the vowels with which they were associated. Some tones may have mapped onto the remaining sonorous segments in the tonic syllable. Some tones may have become floating tones when their vowels were deleted. All of these possibilities must be considered when looking at tone in Zapotec languages with historical (or synchronic) vowel deletion.

4. Like other Southern Zapotec languages, CLZ has undergone a historical non-tonic vowel deletion. Some of the phonetic facts of tone in CLZ are different than what has been described in more conservative Zapotec languages. Many phonetic, phonological, and morphological differences between Southern Zapotec and the rest of Zapotec, can be traced back to the loss of the vowels in non-tonic syllables. With the loss of these vowels, tone became more important in distinguishing lexical contrasts. Concomitants of tone not described in other Zapotec languages came to help differentiate the several different tones from each other. Tones which were associated with non-tonic vowels, may have sometimes been deleted along with those vowels, and other times mapped onto the remaining tonic syllable. Some post-tonic tones may have mapped onto their syllable's onset, now a coda sonorant in the tonic syllable, all that was left of the second mora of a word.

Matisoff (1973) has written about the idea that for a tonal system to develop the fullest complexity "a language must have a basically *monosyllabic* structure." This may be because "there is something about the tightly structured nature of the syllable in monosyllabic languages which favors the shift in contrastive function from one phonological feature of the syllable to another." Indeed, most of the complexities and differences we see in the tonal system of CLZ, certainly are the result of the historical vowel deletion which made it a monosyllabic language.

Notes

ⁱ Earlier versions of this paper were presented at the national meeting of the Society for the Study of the Indigenous Languages of the Americas, during the LSA meeting in New York, in January of 1998 and at the Workshop on American Indigenous Languages in Santa Barbara in May of 1998. Thanks go to conference and workshop participants for helpful comments. Thanks are also due to Terrence Kaufman and John Justeson, on whose project I collected the CLZ data over three summers, 1996-1998, to Leanne Hinton for much help and advice, and to my consultants, especially Lázaro Díaz Pacheco whose patience, knowledge and enthusiasm are invaluable to me. As usual, all errors are my own.

ⁱⁱ According to the the two primary consultants for this language, Lázaro Díaz Pacheco and José Santos Velasquez, these towns are San Baltazar Loxicha, Santa Catarina Loxicha, Santa María Coatlán, and San Miguel Coatlán. In as many other towns, the language died out recently or is down to one or two elderly speakers.

ⁱⁱⁱ This variety is essentially the same as that of Santa Catarina Loxicha, but is somewhat different from that of Santa María Coatlán. My tone analysis of the latter dialect is as yet incomplete. All data presented here come from Lázaro Díaz Pacheco of San Baltazar Loxicha, to whom I am truly indebted.

^{iv} All fieldwork was conducted in Spanish and Spanish glosses provided by the consultant are given in single quotes. For the benefit of the non-Spanish speaking reader I give English translations in parentheses, but it should be remembered that these are not glosses given by a native speaker of Zapotec.

^v The CLZ practical orthography: ʔ = ʔ, zh = ž, x = š, tz = ʧ, j = x, th = θ, ch = č, nh = ŋ, ě = æ, ö = ɔ. b, d, g are voiced spirants, but stops after homorganic nasals. <ng> = ŋg, but <n-g> = n(ə)ɣ. There are also lots of devoicing, lengthening, and glottal stops that aren't written.

^{vi} Most examples of lengthened word-final sonorants seen here are n or l. /m, ŋ, ɾ/ only occur word-finally in enclitics, where they are not lengthened, or in loanwords, where they are lengthened if they bear low or rising tone. /w, y/ also occur word finally, and as part of the rime they can be lengthened with low or rising tone, but they are rare.

^{vii} Abbreviations used: P=potential, H=habitual, C=completive, 1p.i.=1st person plural inclusive, 1p.e.=1st person plural exclusive, 2r.=2nd person respectful, 2f.=2nd person familiar, 3h.r.=3rd person higher animate respectful, IZ=Isthmus Zapotec, vt= transitive verb, vi=intransitive verb.

^{viii} In consideration of space limitations, for multimorphemic words with grammatical clitics attached, I will give a free Spanish translation and a morpheme by morpheme gloss in English.

^{ix} For an account of similar rules at work in another Zapotec language cf. Bickmore and Broadwell (1998).

^x This word has undergone even more deletion: *bènně > mĕn > mĕ > -m' From Proto-Zapotec to CLZ with post-tonic vowel deletion and probable tonal contour simplification; from full noun 'person' to 3h.r. pronoun with deletion of final nasal; from long form pronoun to short form enclitic with vowel deletion and tonal contour simplification.

^{xi} I follow Kaufman's (1989) classification of Zapotec verbs into four main classes: A, B, C, and D. Subclasses exist but are not the focus of this paper.

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Eliding the Obvious: Zero Subjects in Lushootseed*

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One of the more notable characteristics of the Salishan language Lushootseed is the apparent absence of morphosyntactically transitive clauses—that is, clauses with two non-oblique NP or pronominal actants—with third-person agents. As it turns out, transitive clauses with two overt actants are possible only for clauses with first- or second-person agents, as shown in (1) (agents are underlined):¹

- (1) (a) $\text{ʔu-g}^w\text{əč}^{\dot{\text{c}}}\text{-əd}$ čəd ti $\text{sq}^w\text{əbay?}$ (c) $\text{ʔug}^w\text{əč}^{\dot{\text{c}}}\text{əd}$ ti $\text{sq}^w\text{əbay?}$
 PNT-search-ICS 1S D dog 'he/she/they looked for the dog'
 'I looked for the dog' but, *'the dog looked for him/her'
- (b) $\text{ʔug}^w\text{əč}^{\dot{\text{c}}}\text{əd}$ čəx^w ti $\text{sq}^w\text{əbay?}$ (d) $*\text{ʔu-g}^w\text{əč}^{\dot{\text{c}}}\text{-əd}$ tj stubs ti $\text{sq}^w\text{əbay?}$
 'you looked for the dog' PNT-search-ICS D man D dog

Expression of two overt third-persons in a clause requires the use of the middle (2a) or the passive voice (2b), both of which result in intransitive clauses where either the agent or the patient is realized as an oblique actant expressed by a prepositional phrase:

- (2) (a) $\text{ʔu-g}^w\text{əč}^{\dot{\text{c}}}\text{-əb}$ ti $\text{čac}^{\dot{\text{c}}}\text{as}$ ʔə ti $\text{sq}^w\text{əbay?}$
 PNT-search-MD D boy P D dog
 'the boy looked for the dog'
- (b) $\text{ʔu-g}^w\text{əč}^{\dot{\text{c}}}\text{-t-əb}$ ʔə ti $\text{čac}^{\dot{\text{c}}}\text{as}$ ti $\text{sq}^w\text{əbay?}$
 PNT-search-ICS-MD P D boy D dog
 'the boy looked for the dog'
 (lit. 'the dog was looked for by the boy')

Facts such as these have led writers such as Jelinek and Demers (1983) to posit that Lushootseed, like some other Salish languages, has a split ergative system in which third-person NPs such as $\text{ti sq}^w\text{əbay?}$ 'the dog' in (1c) and $\text{ti čac}^{\dot{\text{c}}}\text{as}$ 'the boy' in (2a) are absolutive subjects and that PPs such as $\text{ʔə ti čac}^{\dot{\text{c}}}\text{as}$ 'of the boy' in (2b) would be ergatively-marked agents. While the primary researcher on Lushootseed, Thom Hess, does not accept the ergative analysis, he does feel that Lushootseed has a split system in the sense that sentences with third-person agents such as (1c) allow for only a single non-oblique actant, the "direct complement" ($\text{sq}^w\text{əbay?}$ in (1) and (2b)), the absence of an overt agent-pronominal in the sentence in (1c) indicating that it is, in fact, intransitive. According to Hess (personal communication), this analysis renders the notion of "syntactic subject" largely extraneous to the treatment of Lushootseed grammar, a claim which seems to be upheld by his accurate and insightful descriptive work on the language.

Outside the immediate domain of Lushootseed, however, such a stand is highly problematic in that the syntactic role of "subject" (or its reflex in a particular theory) is widely

held among linguists to be universal and, in fact, is a cornerstone of analysis in a wide range of frameworks such as Functional Grammar (Dik 1978), Lexical-Functional Grammar (Bresnan 1982), Cognitive Grammar (Langacker 1991), and virtually all dependency-based theories (*e.g.* Mel'čuk 1988; Hudson 1990). For these—and other theories which posit or derive the universality of subjects or subject-like syntactic roles—the lack of a syntactic subject in the Lushootseed clause would represent a major challenge. While issues such as this do not touch on the criterion of descriptive adequacy—which has certainly been met in the works of Hess and others to date—they are crucial in the context of cross-linguistic comparison and in the search for widely applicable or universal principles for syntactic theory: thus, the claim that there is no syntactic subject in Lushootseed is an important one, and should be carefully scrutinized. In the paper that follows, I will examine the Lushootseed data and, in particular, sentences like those in (1) and argue that there is indeed an event-participant in such expressions that can usefully be referred to as the “syntactic subject”. As we shall see, while the surface patterns of Lushootseed syntax are quite remarkable and unique, they are the result of the convergence of a number of properties of subjects and principles of discourse which are, cross-linguistically, by no means unusual or extraordinary.

1 Subject properties

Despite the fact that the terms “subject” and “object” are expressly avoided in the principle grammatical works on Lushootseed, many linguists feel that these categories—in particular that of “subject”—are universals or near universals of natural language (Keenan 1976; Perlmutter 1980; Mel'čuk 1988; Hudson 1990; Langacker 1991), and subject and object are widely held to play an essential part in the analysis of phenomena such as passivization, voice, and ergativity. Unfortunately, even among those who advocate the universality of “subject”, there is no agreement as to a universal definition: while the category may be active in all languages, the particular manner in which it manifests itself and the specific properties that it has in a given language can only be defined in terms of that language itself (Keenan 1976; Mel'čuk 1988). The extent of the consensus seems to be that the subject is, at the very least, “syntactically privileged” (Mel'čuk 1988: 161) in the sense of possessing some set of syntactic properties which (a) pertain (as a set) to no other clausal elements (Keenan 1976), (b) accord the subject the highest degree of clausal “salience” (Langacker 1991), and (c) make the subject “the argument to which the predication is attributed—that is, the primary syntactic argument of a sentence” (Bavin 1980: 2).² In the context of a specific language, however, it remains to the linguist to determine which particular properties are diagnostic of the subject and to what extent subjects play a role in that language.

To this end, a number of attempts have been made at setting out methodological procedures for identifying subjects, two of the best and most comprehensive being those of Keenan (1976) and Mel'čuk (1988). The first step in identifying the subject in a language, according to both researchers, is to identify a “basic sentence type” (Keenan 1976) and to enumerate the syntactic properties of the actants (participants) in such a clause in order to determine which of them has the greatest number of those properties typical of subjects

cross-linguistically. More complex sentence types may then be examined with an eye towards identifying which of the actants in these structures share the greatest number of properties with the subject of the basic sentence. For Mel'čuk, the basic sentence type is formed on monovalent (intransitive) verbs, whose single actant is thus syntactic subject. In Lushootseed, actants of intransitives are represented by NPs, \emptyset 's, or pronominal clitics:

- | | | | | | |
|---------|--------------------|----------------|-----|------------------|-------------------|
| (3) (a) | ʔu-ʔəʔ | čəd | (d) | ʔu-ʔəʔ | čəʔ |
| | PNT-come | 1s | | PNT-come | 1p |
| | 'I come' | | | 'we come' | |
| (b) | ʔu-ʔəʔ | čəx^w | (e) | ʔu-ʔəʔ | čələp |
| | PNT-come | 2p | | PNT-come | 2s |
| | 'you come' | | | 'you folks come' | |
| (c) | ʔu-ʔəʔ | \emptyset | (f) | ʔu-ʔəʔ | ti čačas |
| | PNT-come | 3S/P | | PNT-come | D boy |
| | 'he/she/they come' | | | 'the boy comes' | |

The “ \emptyset ” symbol here represents a gap left by elision in the surface syntax, making the Lushootseed third person, in effect, a paradigmatic zero.³ In sentences such as that in (3e), the *absence* of a subject-clitic seems to signal the third-person (plural or singular) identity of the subject, which is identified with the discourse topic and is—in context—unambiguous. Under the approaches proposed by Keenan and Mel'čuk, participants represented by this pronominal paradigm—along with the “ \emptyset ” or elided element—can be put forward as candidates for subjecthood and their syntactic properties can then be compared to those typical of subjects cross-linguistically, as can the syntactic properties of the full NPs with which they can be interchanged. In Lushootseed, subject pronominals and \emptyset third-persons share a number of properties singled out in the literature which identify them as potential subjects and which set them apart from the “direct complements” in bivalent clauses. These properties will be enumerated and discussed in the sections below.

1.1 Agentivity (Keenan 1976; Langacker 1991)

Very typically across languages, subjects, particularly in transitive constructions, tend to be agents or, at the very least, initiators of events and actions (*e.g.* Hopper and Thompson 1980; Kemmer 1993). This tendency is also an essential element of Dik's (1978) Functional Grammar, which works on the principle of “alignment” between pragmatic, syntactic, and semantic roles and takes the basic, unmarked mapping between semantics and syntax to be agent \rightarrow subject. In Lushootseed there is a very strong correlation between the semantic role of agent and the syntactic role of subject—so much so that previous treatments have substituted the terms “agent” and “patient” for “subject” and “object” with a great deal of success. One place where this practice falls down, however, is with verbs of perception, where the single actant of an intransitive clause (4a)—as well as the the pronominal clitic in a transitive clause (4b)—takes the semantic “experiencer” role:

- (4) (a) $\text{ʔəs-ləq} \quad \emptyset$
 STAT-listen 3
 'he/she was listening'
- (b) $\text{ʔəs-luu-d} \quad \text{čəd} \quad \emptyset$
 STAT-hear 1S 3
 'I hear it'
- (c) $\text{ʔəs-suu-c} \quad \text{čəd} \quad \text{tə} \quad \text{haʔ} \quad \text{stubs}$
 STAT-see-APPL 1S D good man
 'I am looking at the good man'

Note also that in such sentences the semantic role of "patient" is not precisely the role that the observed actants are said to take, nor is the role of the subject in (4c) exactly the same as that in (4a) and (b). In (4a) and (b), the subject is profiled as a passive observer, whereas in (c)—given the applicative morphology—the subject is given a more active role in directing its attention towards the observed.

One way around this difficulty would be to posit the conflation of the role of agent and experiencer for syntactic purposes, or to even define a new role which encompasses agents, experiencers, and observers of the type illustrated in (c) above, much as Davis and Saunders (1989) have done for Bella Coola (*cf.* also Foley and van Valin's 1984 notion of the "macrorole"); however, this solution runs into an additional, more serious, difficulty in sentences formed on bare radicals denoting actions that are high on Hopper and Thompson's (1980) scale of semantic transitivity. In these cases, typically the *object* or patient of the corresponding transitive clause is realized by the pronominal or NP (Beck 1996):

- (5) (a) $\text{ʔu-pus} \quad \text{čəd}$
 PNT-hit-by-projectile 1S
 'I was struck (by flying object)'
- (b) $\text{ʔu-pusu-d} \quad \text{čəd} \quad \emptyset$
 PNT-hit-by-projectile-ICS 1S 3
 'I pelted him/her/them'
- (c) $\text{ʔu-čax}^w \quad \text{čəd}$
 PNT-struck-by-stick 1S
 'I got hit'
- (d) $\text{ʔu-čax}^w\text{-a-d} \quad \text{čəd} \quad \emptyset$
 PNT-struck-by-stick-ICS 1s 3
 'I struck him/her/them'
- (e) $\text{ʔu-čax}^w \quad \text{ti} \quad \text{stubs}$
 PNT-struck-by-stick D man
 'the man got hit'
- (f) $\text{ʔu-čax}^w\text{-a-d} \quad \emptyset \quad \text{ti} \quad \text{stubs}$
 PNT-struck-by-stick-ICS 3 D man
 'he/she/it/they struck the man'

In (5a) and (c) the pronominal seems to represent the semantic role of goal or patient, while in the transitive clauses in (5b) and (d), the same pronominals correspond to the agent. The contrast between (5e) and (f), however, which have direct complements, shows a shift in the semantic role taken by *ti sq^wəbay?*, and also shows the inclusion of an agent in the profile of the event in (5f) whose identity would normally be recoverable from discourse.

The function of the pronominal elements is thus not tied absolutely to a given semantic role at all, but instead to a particular syntactic function. One solution to this problem is to define the pronominals as a special set of lexical items—or, in the terminology of Hess (1993), "čəd-words"—and then to define the syntactic behaviour of the set in essentially the manner shown above, based on the association between these items and the semantic

roles they play in with given verbs and in certain voices. Such an approach is, of course, adequate from a descriptive point of view: however, it misses not only the syntactic parallels between sentences with agents expressed as *čəd*-words and those with elided third-person agents, but it also begs the question of the nature of the *čəd*-words in the lexicon and whether or not they have a syntactic status comparable to similar elements in other languages and/or recognizable cross-linguistic functional parallels. In addition, the importance of making a separation between semantic and syntactic aspects of a sentence and of distinguishing clearly the basic units of the two “modules” or “levels” of the grammar is widely recognized—*cf.* in particular Dik (1978), Givón (1984), Mel’čuk (1988), Hudson (1990), Pollard and Sag (1994) (see also Mel’čuk 1988 and Bavin 1980 against using semantic roles to establish syntactic categories)—and from a theoretical point of view it seems preferable to try to account for the behaviour of an element definable on morphosyntactic, rather than semantic, grounds in terms of a syntactic role—that of subject.

1.2 Relativizability (Keenan 1976; Keenan and Comrie 1977; Mel’čuk 1988)

Across languages, syntactic subjects are a legitimate target for the formation of relative clauses, direct questions, negatives, etc., and are, in fact, the first target of these processes in most, if not all, languages in that they occupy the top of the Accessibility Hierarchy (Keenan and Comrie 1977) which states that if only one syntactic role is accessible to relativization, it will be the subject. In Lushootseed sentences with first- or second-person subjects and third-person objects, relative clauses (RCs) can be formed on objects, but in sentences with third-person subjects and objects, only subjects are relativizable:

- (6) (a) ?u-šud-dx^w čəł ti čačas ?u-təs-əd čəd
 PNT-see-LC 1p D boy pnt-be-hit-ICS 1s
 ‘we saw the boy that I hit’
- (b) ?u-šud-dx^w čəł ti čačas ?u-təs-əd ti?ił stubš
 PNT-see-LC 1p D boy PNT-be-hit-ICS D man
 ‘we saw the boy that hit the man’
*but, *‘we saw the man that the boy hit’*

Lushootseed uses a passive construction in RCs to avoid object-centred forms:

- (7) ?u-šu-dx^w čəd ti sq^wəbay? ?u-čax^wa-t-əb ?ə ti?ił čačas
 PNT-see-LC 1S D dog PNT-clubbed-ICS-md P D boy
 ‘I see the dog that the boy hit with a club’
 (lit. ‘I see the dog that was hit with a club by the boy’)

The passivization of the lower clause allows the formation of a subject-centred—rather than an object-centred—RC. This is most likely a pragmatic constraint on the language, as there is no direct means other than the passive for allowing both of two third-person actants in a clause and so, if object-centred forms were allowed, they would be identical to subject-

centred RCs in which the roles of the actants were reversed (that is, *ti sq^wəbay? ʔu^čax^wad tiʔi^t čačas* could mean either ‘the dog that the boy hit’ or ‘the dog that hit the boy’—cf. (6b) above). What this means in terms of the analysis here is that in clauses such as the embedded RC in (6b) above, the elided third-person participant that surfaces in the matrix clause as the head of the RC—*ti čačas* ‘the boy’—should be analyzed as coreferential with the (elided) subject of the subordinate clause. To do otherwise—that is, to posit that the overt NP in the embedded clause, *tiʔi^t stubš* ‘this man’, is the subject and the “extracted” NP is coreferential with the object (or some other lower rung on the hierarchy)—would be to occasion a violation of the Accessibility Hierarchy in that objects would be relativizable while subjects would not be. Given the robustness of the Accessibility Hierarchy, it seems preferable to opt for the analysis of the head of the RC in (6b) as being coreferential with a subject elided from the embedded clause, much as subjects are in English subject-centred RCs (e.g. *we saw the boy that \emptyset hit the man*).

1.3 Possessors of participles (Langacker 1991)

When a clause undergoes nominalization to form a gerund or participle, in many languages the actant which corresponds to the subject of the finite clause is realized in the role of possessor. Lushootseed uses participles to realize oblique-centred relative clauses and to form complex NPs from finite clauses (Beck 1995); in each case the participant realized as a pronominal in a non-nominalized clause is realized as a possessor, as in (8):

- (8) (a) *ʔu-ʔabyid čəd ti čačas ʔə ti sq^wəbay?*
 PNT-give 1S D boy P D dog
 ‘I gave the dog to the boy’
- (b) *x^wul pa^lla^l tiʔə? d-s-ʔabyid*
 only worthless D 1PO-NP-give
 ‘what I give to him is only junk’
 (lit. ‘my given to him is only junk’)
- (c) *ʔu-ʔabyid \emptyset ti čačas ʔə ti sq^wəbay?*
 PNT-give 3 D boy P D dog
 ‘he/she gave the dog to the boy’
- (d) *x^wul pa^lla^l tiʔi^t s-ʔabyid-s tiʔi^t č^la[?]*
 only worthless D NP-give-3PO D stone
 ‘what he gives to Stone is only junk’
 (lit. ‘his given to Stone is only junk’)

In the sentence in (8b) the possessor of the participle *s[?]abyid* ‘giving’ is represented by a first-person possessive affix (*d-*) and corresponds to the participant represented by the pronominal in (a); similarly, the third-person possessor in (8d) corresponds to the elided (\emptyset) actant in (c), indicating that it is likely this elided actant rather than the overt NP *ti čačas*

‘the boy’ that is the subject of the clause. When the subject of a participle is an overt third-person NP, it also surfaces as a possessor, as in (9):

- (9) ?u-šu-dx^w ti?iʔ s-əs-q^wu? ?ə ti?iʔ ?iišəd-s ?al ti?ə? hik^w čʔa?
 PNT-see^{LC} D NP-STAT-gather P D relatives-3PO P D big stone
 ‘he saw the gathering of his relatives by the big stone’

Here, the subject of the clause nominalized as the participial *səsq^wu?* ‘gathering’ is *ti?iʔ ?iišəds* ‘his relatives’ which is realized as a possessor, marked by the preposition ?ə. Compare this to the corresponding finite clause,

- (10) ?əs-q^wu? ti?iʔ ?iišəd-s
 STAT-gather D relatives-3PO
 ‘his relatives are gathered’

in which the subject is not set off by a preposition. Whichever participant in the finite clause corresponds to the pronominal will be realized in participles as a possessor—and so is an excellent candidate for subjecthood.

1.4 Control of reflexivization (Mel’čuk 1988)

Mel’čuk (1988) observes that the subject is the actor with a reflexive verb. This is true in Lushootseed for the participant-role represented by the pronominals, as in (11):

- | | |
|------------------------------|--|
| (11) (a) ?u-?əʔ-tu-bš ø | (c) ?u-q ^w ulu-t-s ø |
| PNT-eat-ECS-1S·OBJ 3 | PNT-hug-CAUS-1S·OBJ 3 |
| ‘he/she feeds me’ | ‘he/she hugged me’ |
| (b) ?u-?əʔ-tu-but čəd | (d) ?u-q ^w ulu-t-sut ø |
| PNT-eat-ECS-REFL 1s | PNT-hug-ICS-REFL 3 |
| ‘I feed myself’ | ‘he/she hugged him/herself’ |

In (11b) and (d), the pronominal/elided third-person participants correspond to the actor/agent in the (a) and (c) sentences and, given that they are the only actant of a syntactically intransitive clause, can be considered syntactic subjects.⁴

1.5 Pronominals and conjoinability (Keenan 1976)

Across languages, subjects are generally realizable as morphologically independent pronouns and, according to Keenan (1976), if a language has a single set of such elements particular to a given syntactic role, this role will be that of subject. The Lushootseed pronominals or *čəd*-words fit into this category quite nicely, being morphologically independent wordforms (clitics) which are not bound to a particular lexical element in the clause but appear obligatorily in sentence-second position:

- (12) (a) ʔəs-laqil čəd
STAT-late 1s
'I am late'
- (b) day-əx^w čəd cick^w ʔəs-laqil
indeed-now 1S very STAT-late
'indeed, I am very late'

In the sentence in (12a), the pronominal appears in its “normal” position following (and phonologically cliticized to) the VP; in (12b), however, the appearance of an adverbial particle in the clause triggers the “fronting” of the pronominal to immediately follow that particle. Note that the pronominal follows only the first adverbial and will precede any additional particles, occupying sentence-second (Wackernagel’s) position.

Another property of subject pronominals that Keenan points to is their ability to be conjoined with full NPs, as in (13):

- (13) lə-ʔibəš čəł ʔi tsə mali
PROG-walk 1P and Df Mary
'Mary and I are walking'

Object pronominals, on the other hand, are suffixes and may not be conjoined with full NPs, conjunction of objects requiring the use of full nominals.

1.6 Passivization (Keenan 1976; Mel’čuk 1988)

The syntactic subject is widely recognized to be the syntactic actant that is “demoted” to an oblique role via passivization, the “promoted” actant becoming the subject of the new sentence. In Lushootseed the passive is formed by the combination of an applicative or any causative with the middle suffix *-b*, as in:

- (14) (a) ʔu-ʔəy[˙]-dx^w čəd tsi čačas
PNT-find-LC 1s Df child
'I found the girl'
- (b) ʔu-ʔəy[˙]-du-b čəd ʔə ti čačas
PNT-find-LC-MD 1S P D child
'the boy found me'⁵
(lit. 'I was found by the boy')

In (14a) the subject pronominal *čəd* corresponds to the semantic role of agent, yet in (b) the pronominal represents the goal of the action, the agent/subject of (a) having been demoted to a peripheral role in the sentence. However, Hess (personal communication) does not agree that such sentences are passives, particularly in the third person, as in (15):

- (15) (a) ʔu-ʔəy[˙]-dx^w ti sq^wəbay?
PNT-find-LC D dog
'he/she found the dog'
- (b) ʔu-ʔəy[˙]-du-b ʔə ti čačas ti stubš
PNT-find-LC-MD P D child D man
'the boy found the man
(lit. 'the man was found by the boy')

For Hess, the sentence in (15a) has only one actant, the direct complement, which also surfaces in the non-oblique position in (b) and, hence, undergoes no change in syntactic role. Under our analysis, however, the subject of the sentence in (15a) is taken to be a \emptyset third-person '[he/she]' corresponding to the pronominal in (14a), whereas the subject of the sen-

tence in (15b) is taken to be the single (and only possible) non-oblique NP, *ti sq^wəbay?* ‘the dog’.⁶ This conforms to the definition of the passive voice of Mel’čuk (1988) as an inflectional category which involves the permutation of the grammatical role of subject with that of one other participant in the clause (usually the direct object).

Hess’s objections to the analysis of the sentence in (15b) as a passive come largely from the absence of an overt element in (15a) that can be analyzed as having undergone demotion. While some evidence for the “presence” of an elided subject in the syntax has already been offered in other portions of this paper, specific support for the term “passive” (and the consequent existence of an elided subject) can be found by contrasting passives with the corresponding middle and intransitive forms as in (16a) and (b):

- (16) (a) (i) ʔu-g^wəč^č-əb ti čačas ʔə ti sqəlalitut
 PNT-search-MD D boy P D guardian-spirit
 ‘the boy looked for a guardian spirit’
- (ii) ʔu-g^wəč^č-t-əb ʔə ti čačas ti sq^wəbay?
 PNT-search-ICS-MD P D boy D dog
 ‘the boy looked for the dog’
 (lit. ‘the dog was looked for by the boy’)
- (b) (i) ʔu-ʔuləx̃ ti lu^λ ʔə ti bəsq^w
 PNT-forage D old P D crab
 ‘the old man foraged for crab’
- (ii) ʔu-ʔuləx̃-t-əb ʔə ti lu^λ ti hud
 PNT-forage-ICS-MD P D old D firewood
 ‘the old man kept the wood that he had found’
 (lit. ‘the wood that he had found was kept by the old man’)

In the middle voice clause (a-i) *ti čačas* ‘the boy’ is subject and agent and is realized as a syntactically non-oblique actant, while in (a-ii) passivization makes another participant non-oblique and demotes *ti čačas* ‘the boy’ to a prepositional phrase. Likewise, in the intransitive clause in (b-i) it is *ti lu^λ* ‘the old man’ (the semantic agent) that is the subject of the sentence, whereas when the sentence is passivized, as in (a), the semantic goal becomes the subject and *ti lu^λ* ‘old man’ becomes oblique. Like the shift in semantic role of the subject pronominals in (14), the shift of the third person subjects in (16a) and (b) to a peripheral syntactic position is diagnostic of the passive voice, which in turn argues for the status of the non-oblique actants in passivized sentences as syntactic subjects.

1.7 Non-deletability, topicality, and switch reference

Another property of the syntactic subject is that, in semantic terms, its referent can never be removed from the event’s “profile”—*i.e.* the construal or mental model of the event as it is presented by the speaker (Langacker 1991)—in the sense that the event which

one that receives the least overt expression, a pattern not unlike that found in more familiar null-subject languages like Chinese (Li and Thompson 1979), where the topical subject is often left unrealized, to be filled in by context.

Because of the importance of the requirement that the syntactic subject be coreferential with the discourse topic for the recovery of the identity of elided actants, Lushootseed has (or had) a special morphological marker in clauses that violate the subject = topic constraint. This marker seems closely related to one of Keenan's (1976) diagnostics for subjecthood, that of switch reference, wherein changes of subject in discourse often trigger the use of grammatical "switch reference" markers. In conservative Lushootseed style, the non-topical subject marker (NTS) *-ag^wid* is added to a verb whose subject is not the discourse topic (Kinkade 1990; Hess 1993). Consider the text in (18):

- (18) (a) ?u-k^wəda-d ti?ə? pəčəb=ulica?-s
 PNT-take-ICS D bobcat=blanket-3PO
 'he (Bobcat) took his bobcat-blanket'
- (b) g^wəl ?al-d k^wədi? ?ad^zalus
 and be-located-ICS there beautiful
 'and he put it in a beautiful place'
- (c) g^wəl lə-g^wəd-il ?əx^w-čəg^w-us
 and CONT-be-seated-TRM STAT-LOCATIVE-towards-sea-face
 'and he sat facing the water'
- (d) di?ił k^wi s-šu-d-əg^wid ?ə ti?ə? čačas
 sudden D NP-see-ICS-NTS P D child
 'all of a sudden the child saw him'
 (lit. 'the seeing him of the child was sudden')
- (e) 'dił-əx^w bayə?
 this-one-now daddy
 'that's Daddy,'
- (f) 'dił-əx^w bayə?
 this-one-now daddy
 'that's Daddy''
- (g) dił ti pəčəb ti ?u-cut-t-əb ?ə ti?ə? sqaqag^wəł
 this-one D bobcat D PNT-speak-ICS-MD P D noble-child
 'it was Bobcat whom the noble child spoke of'
 (lit. 'the one spoken of by the noble child was this one, Bobcat')

This text occurs in a discourse episode where the topic is Bobcat. Bobcat corresponds to the \emptyset third-person grammatical subject in every sentence in which he is a participant except

in (d), which is marked with the non-topical subject marker. Note, however, that since the *-ag^{wid}* suffix does not mark a lasting shift in syntactic subject, but instead marks the subject of a single sentence as being non-topical, Kinkade (Hess, personal communication) has argued that it is not in a strict sense a switch-reference marker, which usually serves to indicate a more permanent change of subject. Nevertheless, it seems close enough in function to switch-reference that the substance of Keenan's criterion (that changes of syntactic subject are often marked overtly in the grammar) can be extended to include this morpheme as well, making it a diagnostic for subjecthood and the relation between subject and topic.

1.8 Summary: Transitivity, voice, and valency

In the final analysis, the majority of subject-properties that we have found to be applicable to Lushootseed point to the *čəd*-words and \emptyset third-persons as syntactic subjects; in intransitive clauses, these properties are also shared by the single non-oblique NP, the direct complement, which therefore also qualifies as subject. This coincidence of the role of syntactic subject and Hess' "direct complement", in fact, holds for all of the voice and valency alternations of the Lushootseed verb except the active-transitive ("patient-oriented") clauses, as shown in (19), which lists the types semantic role taken by *čəd*-words, \emptyset third-persons, and direct complements in the various types of Lushootseed clauses (initiator \approx agent/experiencer; endpoint \approx patient/theme/goal).

(19) Comparative semantic roles of actant-types

<i>clause type</i>	<i>e.g.</i>	<i>čəd</i> -words	\emptyset third-person	direct complement
bare radical	(5)	endpoint	endpoint	endpoint
transmutative	(18c)	endpoint	endpoint	endpoint
middle	(2a)	initiator	initiator	initiator
passive	(2b)	endpoint	endpoint	endpoint
active-transitive	(1)	initiator	initiator	<i>endpoint</i>

Here we see that in intransitive clauses, the sole non-oblique actant represents the same event participant and so corresponds to the same syntactic role—that of subject. In the active-transitive clause, however, the direct complement represents a distinct event-participant from that represented by a pronominal or an \emptyset third person. This discrepancy is borne out by the differences in syntactic behaviour enumerated above: in most cases, the diagnostics for subjecthood apply to the pronominal clitics and \emptyset third-persons rather than the NP direct complements. These results are summarized in (20). As the table shows, *čəd*-words and \emptyset third-persons share a large number of subject-properties, and they also share more of these with each other than they do with the direct complements, which in fact show very few of the syntactic characteristics that we would expect of them were they subjects. The fact that they do not behave as subjects (*contra* the ergative analysis of Jelinek and Demers 1983) but are not marked as oblique seems to indicate that they are best analyzed as direct objects in syntactically transitive clauses. These constructions are governed in Lushootseed by an unusual constraint that no more than a single non-oblique NP appear in the clause—a

(20) Subject properties in transitive clauses

subject property	čəd-word	∅ third-person	direct complement
agentivity	✓	✓	
relativizability	✓	✓	✓*
possessor of participles	✓	✓	
control of reflexives	✓	✓	✓
pronouns	✓		
conjoinability	✓		✓
passivization	✓	✓	
non-deletability	✓	✓	✓
topicality	✓	✓	
switch reference	✓	✓	

*if agent is not third-person

constraint that appears to be shared (but less strictly applied) by a number of other Salishan languages. Interestingly, this constraint seems to be purely a constraint on surface syntax which “counts” overt NPs; thus, transitive clauses where objects are realized as suffixes allow overt NP subjects:

- (21) ?u-g^wəč-t-s tsi čačas
 PNT-search-ICS-1S Df girl
 ‘the girl looked for me’

In (23), the direct object of the clause is realized as a pronominal suffix and the absence of an overt NP object allows for an overt subject. This contrast with the pattern shown in (1), wherein transitive clauses with third-person subjects and third-person objects undergo obligatory subject-elision, the recovery of the subject’s identity depending on discourse. The fact that this participant is obligatorily elided seems at first paradoxical: why should it be that the expression of the principal figure in the clause be dispreferred and, very often, prohibited? On the other hand, given that fact that syntactic subjects are so central to discourse and that their identity in well-constructed dialogue and narrative is well-known to all participants in the speech act, it could just as easily be said that the syntactic subject/discourse topic is that participant which is most easily elided without loss of information to the listener. This sort of observation has been made before for so-called *pro*-drop languages, where participant-elision has been closely linked to topicality (*e.g.* Li & Thompson 1979); in the case of Lushootseed, where subjects are strongly identified with topics, this linkage has become grammaticalized to the point where there is a strict prohibition against third-person NP subjects in transitive clauses and the third-person subject pronoun has become a paradigmatic zero. The fact that the subject is a zero, however, does not mean that it is syntactically or semantically “inert”: as we have seen in the discussion above, subjects—zero or no—play an important role in Lushootseed grammar

Notes

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¹ The abbreviations used here are as follows: 1 = first person; 2 = second person; 3 = third person; APPL = applicative; CONT = continuous; D = deictic; ECS = event-external causative; *f* = feminine; ICS = event-internal causative; INTJ = interjection; IRR = irrealis; LC = lack of control; MD = middle; NP = nominalizing prefix; NTS = non-topical subject; P = preposition; P = plural; PNT = punctual; PO = possessive; PROG = progressive; RDP = reduplication; REFL = reflexive; S = singular; STAT = stative; TRM = transmutative. Where necessary, these terms are defined in the text.

² Cf. Foley and van Valin (1984), who challenge the universality of subject and posit instead the notion of “pivot”, which seems closely related, if not identical, to the characterizations of “subject” given here.

³ When a pronoun-like element is absolutely required for some purpose in discourse, the role of the third-person pronoun is filled by a deictic or determiner, which behaves syntactically as an NP.

⁴ Direct complements also control reflexivization, as in:

- (i) *tiləb tu+čədək^w+t+sut tiʔəʔ pastəd dx^wal tiʔəʔ əg^wsbid*
 suddenly PAST+squeeze+ICS+REFL D whites P D clearing
 ‘the white people squeezed themselves into the middle of the clearing’

However, given that reflexive clauses have only a single syntactic actant—making them, in effect, intransitive (or, if we opt for a gradual scale of transitivity à la Hopper & Thompson 1980, “less transitive”)—it seems non-problematical to treat the non-oblique NP in (i) as the subject, like the non-oblique NP in middle forms (2) and with bare radicals (5e).

⁵ Note that the pragmatic uses and thematic structure of the Lushootseed passive are completely different from those of its English counterpart (hence the active glosses); in discourse terms, the Lushootseed passive may fall into the functional category of “inverse” (Thompson 1989; Givón 1994). Jacobs (1994) offers such an analysis for the corresponding voice in Squamish based on statistical studies of topicality properties; it remains to be seen what the results of applying this method to Lushootseed would be.

⁶ Note also that the presence of this non-oblique NP in the clause excludes the presence of a pronominal (that is, **ʔuʔəy^dub čəd ti sq^wəbayʔ* ‘I found the dog’), ruling out its interpretation as an object as in the active sentence

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Language Reacquisition in a Cherokee Semi-Speaker: Evidence from Clause Construction¹

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Introduction

Many Native American languages still spoken today are in near or immediate danger of death, and in many cases, few of the remaining speakers are actually fluent in the native language. Linguists, language preservationists, and language learners rely increasingly on semi-speakers for linguistic information. It therefore becomes important to understand not only the level of fluency of the semi-speakers or the potential kinds of language loss the semi-speakers have suffered, but also the kinds of intuition that they have about their language, the kinds of changes that the native language undergoes, and the kinds of linguistic knowledge that are likely to be reacquired through either memory or practice. The characteristics associated with language death are well described (cf. Dorian, 1989, Seliger and Vago, 1991, and others), and include morphological, syntactic, and semantic simplification and a reduction in stylistic options. These are also the kinds of mechanisms that language learners make use of (cf. Selinker, 1992, and Foerch, 1983, *inter alia*), and in situations where the semi-speakers are called upon to make habitual use of their language, there is likely to be some reacquisition through continued exposure. It can be easy to overlook signs of language-learning when studying language loss, and semi-speakers have rarely been seen as potential language learners.

In what started as a study of language obsolescence in a semi-speaker of Cherokee, I observed a substantial amount of native language reacquisition as a result of regular consulting sessions over a period of seven months. I became interested in seeing to what extent his redeveloping linguistic ability in Cherokee compared with standard Cherokee. There are many signs of the speaker's reacquisition; in this paper, I will focus on the emergence of a clearly preferred word order based on pragmatic factors which seem to reflect Cherokee rather than English linguistic patterns. In this paper, after briefly presenting the consultant's background, I first discuss ways in which the speaker's language loss has adversely affected his choices of word order. In this case, the speaker is constrained by the need to express himself with an overly poor syntactic system. I then discuss evidence for the development of a range of choices in clausal word order. Although the speaker has lost essential syntactic strategies for clause construction, he makes use of native strategies for structuring information flow.

The question is then how to understand the conflict between perhaps irretrievable loss in some aspects of grammar and retrieved knowledge in other aspects of the grammar. Further, we must begin to understand the degree to which native language intuition is accessible to semi-speakers. The ultimate goal of this paper is to present some data that may begin to address this issue, and to suggest the importance of studying semi-speakers as potential language learners rather than harbingers of language death.

The Consultant

The consultant, whom I will refer to as M., is a semi-speaker of the dialect of Cherokee now spoken in Oklahoma; he was bilingual in Oklahoma Cherokee and English from a very young age. Until he was 12 years old, he lived in Oklahoma in a Cherokee-speaking household and attended a tribal primary school with English instruction. He was then sent to an English-speaking boarding school, and from this point on, his exposure to Cherokee was essentially stopped, and M., now in his fifties, has not had

many opportunities to speak Cherokee since then. Under the circumstances, it is truly amazing that he remembers as much as he does; however it is also not surprising that he shows definite signs of language loss. It is difficult to say to what degree M. attained fluency in Cherokee as a child, especially as he was introduced to English early on through the public school system. However, he continued to use Cherokee daily in the family setting until an age when most children can be expected to have some familiarity with the more complex expressive aspects of a language. It is, therefore, reasonable to expect that he had at one point at least passive adult knowledge of Cherokee. Currently, M. has a restricted knowledge of Cherokee, and his speech has many features characteristic of language death, including the loss of vocabulary, phonological, morphological, syntactic, and lexical simplification, regularization and overgeneralization (e.g. the use of 3rd sg for all persons in verb declension) reduction in pragmatic and stylistic variants of speech (e.g. ability to form questions but not narratives), inability to carry on an un-prompted conversation, and so forth.²

From the outset, M. was unable to provide data without the help of a Cherokee-English dictionary; while working as a consultant, he obtained and used several dictionaries. That, together with regular elicitation sessions up to several days per week over a prolonged period of time, seems to have led to substantial reacquisition of knowledge he once possessed, presumably at a fairly complex linguistic level.

Differences Between Standard Cherokee and M.'s Word Order

In discussing word order, I am primarily concerned with the order of verbal arguments with respect to each other and to the verb. There are other important observations to be made about M.'s knowledge of Cherokee word order, such as his obvious retention of native postpositions rather than replacement with prepositions on the model of English; these I do not dismiss, but leave for another discussion.

Cherokee has fairly free word order, which I discuss more at length below. M.'s word order preferences are, among other things, necessarily affected by morphological and syntactic losses in his grammar. For example, Cherokee has a system of pronominal affixation on verbs to mark subjects in intransitive clauses and both subjects and objects in transitive clauses, and coreference between clauses (e.g. the man saw the boy and waved to him), among other things. Thus, a fluent Cherokee speaker can very often be (referentially) inexplicit, since the information is carried on the verb (i.e. the Cherokee speaker would have a way of disambiguating, for example a sentence such as 'he saw him and he waved to him'). M. has lost the use of object pronominal marking and coreference marking. Because he now marks only subject on the verb, only one argument, generally the subject, can normally be inexplicit. As a result, for example, M. requires the overt expression of verbal arguments, particularly the object, where standard Cherokee does not (e.g. 'he saw the man and he waved' or 'he saw the man and he waved to the man', but not 'he saw the man and he waved to him'). He therefore also requires, under certain conditions such as clause combination, a particular order of subjects and objects with respect to each other where both are expressed. To illustrate this, I compare examples that Scancarrelli provides from Standard Oklahoma Cherokee with examples that M. provided. In example 1, an intransitive clause from Standard Cherokee, the subject of the second clause can be interpreted as either referring to the subject or object of the preceding clause, depending on context:

of significant grammatical loss. In terms of pragmatic expressiveness, however, it will become clear that he regains native knowledge and intuition concerning Cherokee.

Word Order and Focus

Cherokee has fairly free word order, as I stated above, and there has been some disagreement as to preferred word order in Cherokee clauses. Pulte and Feeling (1975:353) claim that Cherokee is an SOV language with other word orders possible, particularly OVS. Cook (1979), on the other hand, suggests underlying VSO order. In comparing constructions with fixed order in Cherokee (e.g. determiners - nouns) with proposed typological universals, Scancarelli (1987:169-198) finds that Cherokee is not consistent with either OV or VO orders. She finds variable order in the order of adjectives and nouns, relative clauses and nouns, verbs and subjects, and verbs and objects (among other constructions). Following work by Payne and Mithun, she ultimately finds that pragmatic relations seem to determine clause-level word order in Cherokee: 'newsworthy information', by which is meant significant new information, a new topic, and so forth, is placed first in the clause, and the old information is placed second. (This is contrary to the expected theme-rheme organization of discourse accepted by most current theoretical discussions of the organization of information in clauses³, but it seems to support the recent work of other American Indianists, such as Tomlin and Rhodes, and seems to suggest that there are different typological patterns of information structuring in clauses.) It is also fully consistent with M.'s organization of information in consecutive clauses. Scancarelli refers to the pragmatic determiner of clause order as 'newsworthiness'; in this presentation, however, the term 'focus' is used instead, in part because that is the term used by Pulte and Feeling in describing the function of some of the prefixes, and is therefore used in the transcription of the data, and in part because 'focus' rather than 'newsworthiness' is the concept M. tried to describe in distinguishing between similar constructions. In this paper, focus implies emphasis of the newsworthy information rather than the generative sense of dislocation.

Over the period of time during which I worked with M., he appears to have undergone three distinct phases with respect to word order preference. Initially, he accepts virtually any word order, a characteristic feature of speakers in cases of language death. In data from the first month of elicitation, any order is acceptable, including VS, SV, VO with modifier, OV, OV with modifier, and so forth. Most elicited structures from this time are fairly simple in nature, and M. is comfortable with the vocabulary and the structures (single overt arguments and first and 3rd singular present tense verb forms). In example 5, 'dog' can be placed before or after the verb with no change in semantics, including emphasis of any kind:

- 5a na gitli ʒigōti gatlih̃
 na gihli ʒi-gowhti g-atlih-a
 that dog 1sgA-see- 3sgA-sleep-prog
 'I see that dog sleeping'
- 5b ʒigōtih̃ gitli gatlih̃
 ʒi-gowhtih-a gihli g-atli-ha
 1sgA-see-prog dog 3sgA-sleep-prog
 'I see that dog sleeping'

M. seems to have a slight preference for OV and VS structures in general:

6 gitli ʒigōti
 gihli ʒi-gowhti
 dog 1sgA-see-
 I see the dog

7 galāska gitli
 gahlasga gihli
 sleepy dog
 the dog is sleepy

In the second stage, he shows definite word order preferences; in fact he is overly restrictive in the structures he will accept, much as second language learners are at certain stages of acquisition, and he tends to follow English clause structure preferences, imposing rules of the language he is most comfortable with on the language he is reacquiring, including in cases where before he gave OV or VS comfortably (e.g. now he gives ʒigōti gitli'). The requested structures from the second and third months often involve two overt arguments in a clause, modifying phrases, and compound arguments, and M. prefers SVO word order when first using unfamiliar vocabulary or syntactic structures. Changes in word order involving two overt arguments signal semantic changes, as they do in English, but not as they do in Cherokee:

8 askaya atsisonūnū⁺ na gīti
 a-sgaya a-sonus-g-a na gihli
 hum-man 3sgA-wound-prog-pres that dog
 'the man wounded the dog'

9 gitli atsisonūnū na askaya
 gihli a-sonus-g-a na a-sgaya
 dog 3sgA-wound-prog-pres that hum-man
 'the dog wounded the man'

With focus constructions, however, he gives the focused argument first (e.g. OV structure). The OVS structure in 10 was elicited following a list of similar structures, in which a human agent did something to a patient, and as such, it might better be seen as a special construction and translated as "it was the door that the man opened":

10 astūdi astuʔiʔā askaya
 sdudi a-sduʔiʔ-a a-sgaya
 door 3sgA-open-pres hum-man
 'The man opened the door'

Finally, in the third stage, he once again accepts a variety of word orders; this time, however, what he accepts is constrained by specific pragmatic factors and his preferences show native Cherokee understanding of sentence structure; this is evident from the sequence of clauses with predictable order. By the fifth and 6th months, M. has become comfortable with a wider range of lexical items and sentence structures, and he has a wide range of acceptable word orders, including SV, VS, OV, VO, VO with

modifiers, OV with modifiers following V, and OV with modifiers following O and focus suffix attached to O. Unlike examples elicited during the first and second months, where any order is given regardless of context (in fact, there tended not to be any context), during this stage, context is clearly the determining factor in all clauses, whether with one or two overt noun phrases.

In intransitive clauses or clauses with only one overt noun phrase, VS and OV structure are preferred, just as they were in the first months. The following examples are consecutive clauses from an extract of the data taken from one consulting session in the 5th month:

M.'s preference for VS or OV structure:

- 11 agisgi na saloli
 a-gi?-g-i⁵ na saloli
 3sgA-eat-prog-fut that squirrel
 'The squirrel is eating'
- 12 gado usti agisgi saloli?
 gado usdi a-gi?-g-i saloli
 what 3sgA-eat-prog-fut squirrel
 'What is the squirrel eating?'
- 13 gule agisgi
 gule a-gi?-g-i
 acorn 3sgA-eat-prog-fut
 'He's eating an acorn'

M. prefers the first position in a clause for the introduction of new information, and SVO structure where all information is new. M. tended to contextualize sentences, so that initial elicitions were treated as new information and non-initial elicitions were treated as continuations of the initial ones. In the next examples, 14 was given when all information was new; 15 was given after a sequence in which 'the man is hunting X' (e.g. 'with a gun') was collected. 16 was the clause collected immediately following 15:

VSO (new predicate)/SVO word order and context:

- 14 askaya ganohalidō jistū
 a-sgaya ga-nohalido- jistu
 hum-man 3sgA-hunt- rabbit
 'The man is hunting rabbit'
- 15 ganohalidō jistū askaya
 ga-nohalido- jistu a-sgaya
 3sgA-hunt- rabbit hum-man
 'the man is hunting rabbit'

- 16 uwoyēni gāti agisgi (jistū)
 u-woyeni gahdi a-gi?-g-i (jisdu)
 3sg.pos-hand with(inst) 3sgA-eat-prog-fut (rabbit)
 'He is eating the (rabbit) with his hands' (where the sentence requested did not include 'rabbit'; note the singular form 'hand')

In 17, however, the clause is unrelated to previous elicited clauses:

- 17 askaya ganohalidō galogwe gāti
 a-sgaya ga-nohalido- galogwe gahdi
 hum-man 3sgA-hunt- gun with
 'The man is hunting with a gun'

M. is clearly also following a pattern of 'newsworthy information' (or focus) first, old information last. This is particularly evident in the following group of clauses from one consulting session:

Focus and word order (data collected at 5 months):

- 18 higōtike saloli?
 hi-gowhti-ke⁶ saloli
 2sgA-see-or squirrel
 'Do you see the squirrel?'
- 19 agi?a saloli
 a-gi?-a saloli
 3sgA-eat-pres squirrel
 'The squirrel is eating'
- 20 gadu agi?a saloli
 gadu a-gi?-a saloli
 bread 3sgA-eat-pres squirrel
 'The squirrel is eating an acorn' (where *gadu* was given instead of *gule* for 'acorn')
- 21 gadu agi?a
 gadu a-gi?-a
 bread 3sgA-eat-pres
 'he's eating an acorn'
- 22 awojeli gītli agōti saloli
 agwajeli?i gihli a-gowhti- saloli
 my dog 3sgA-see- squirrel
 'My dog sees the squirrel'

- 23 *higōtike awoḷeli gītli*
 hi-gowhti-ke agwajeli?i gihli
 2sgA-see-or my dog
 'Do you see my dog?'
- 24 *saloli agisgi*
 saloli a-gi?g-i
 squirrel 3sgA-eat-prog-fut
 'He's eating that squirrel'

Finally, SVO word order is used exclusively where the clause involves a compound subject, regardless of information status, and, as at all other times during the period of elicitation M. reverts to using English word order and structure for complex sentences with which he is not yet comfortable at this stage of the elicitation.

To summarize, M. initially allows free word order, with a slight preference for OV or VS, something that is not unexpected of a native Cherokee speaker, but his constructions appear randomly. Due to language attrition, M. is uncomfortable and uncertain with more complex clause structures, and he deals with this in several different ways. Initially, he tends to impose English word order and clause structure on new and complex clauses. His initial acceptance of free word order is gradually restricted to a greater degree than it would be in native Cherokee, but the restrictions are in keeping with a Cherokee pattern of information flow, where new information precedes the old.

Discussion

M. is clearly developing a linguistic system which cannot be considered standard Cherokee; yet it is just as clearly Cherokee in many essential ways⁷. His word order preferences reflect Cherokee, not English, information structuring patterns. M.'s grammar is influenced by English; yet it cannot be said to be English: M. could easily, for example, have used a 3rd person independent pronoun in the examples above, rather than repeating the full nouns; such a strategy would have been more correct in English, and indeed the requests in English made use of independent pronouns (e.g. 'she saw him' rather than 'she saw the man'). What is to be done with this mixture?

M. seems to be reacquiring native Cherokee linguistic knowledge, which is possible because he actually knew standard Cherokee at one point. This is an important point. A semi-speaker who has only known bits and pieces of the language will not relearn what he or she has never learnt to begin with (see Sasse, 1991). Further, even as he reacquires some Cherokee knowledge, his language is still not, nor is it likely to become, standard, without reimmersion in the Cherokee-speaking community. There are, however, several points to be made:

- 1) As he is forced to use the language more, he remembers more linguistic characteristics of Cherokee and incorporates them in his grammar;
- 2) he expands his linguistic expressive ability so that he can approach functional ability;

and 3) whatever he ends up speaking is essentially Cherokee-like.

This has interesting and important implications for revitalization efforts, most especially in cases where only semi-speakers are left. Semi-speakers have tended to be studied as evidence of language death or obsolescence; and in language preservation efforts, they are seen as less than ideal linguistic consultants. Yet it is through semi-speakers that, in many cases today, a new generation of speakers may have to be taught. Understanding

not only what role semi-speaker play in language death but in language reacquisition and revitalization is essential.

M. is a speaker of a language for which there are still fluent speakers and for which there are not only linguistic descriptions but also various kinds of texts available. M. was able to make use of dictionaries, grammars, linguists, and almost daily practice over an extended period of time. It is also interesting to note that M. does not relearn information flow from the dictionaries at his disposal: they rarely contain full sentences as examples, and when they do, they are decontextualized. In this case, we are able to compare his language with standard Cherokee. The same level of description is obviously not available for many other semi-speakers, and we may not know with any certainty what was at one point standard and what is in fact compensation and a reflection of language loss in these cases. It is therefore all the more important to understand not only language loss but also language reacquisition in semi-speakers.

The point is here that there are active processes by which semi-speakers can tap into former knowledge, and we, as scholars of language change, language revitalization, and language acquisition, must begin to have a clearer idea of what these are and how they work.

Notes

¹I wish to thank my consultant M. for his time and generosity in providing me with the data which was used in this paper. I also wish to thank Professor Richard Rhodes and my colleagues at the University of California at Berkeley who worked with M. and whose comments in our weekly discussions of Cherokee proved invaluable to my understanding both of standard Cherokee and M.'s usages and development of Cherokee structures.

²My data is presented in the original notation, but I parse the data morphologically according to the Pulte and Feeling grammatical outline (1975) and the Feeling dictionary (1975); I do not indicate tone. Spelling differences between my data (first line of given examples) and Pulte and Feeling (1975) may or may not actually reflect pronunciation differences. In all examples presented here which are based on my own data, the translation is based on the original request. Abbreviations used in this paper include: hum = human, inv = inverse, inst = instrumental, foc = focus, sg = singular, pl = plural, pres = present, fut = future, habit = habitual, perf = perfect, imper = imperative, caus = causative, prog = progressive, neg = negative, dist = distant position.

³Theme-rheme clausal organization was developed primarily by the Prague School linguists in the first half of the 20th century, but it has come to be generally accepted as the pattern of information flow in sentences. Early influential writers included Firbas (1964) and Halliday (1967-8). I include a detailed discussion of topic and theme-rheme structure in my recent dissertation (Berge 1997); see also Chafe 1994 for a recent discussion of information flow and word order in another Native American language.

⁴M. uses the passive form *ajisonΛhne* here.

⁵*-i-* is a future marker; although the phrase requested was 'the squirrel is eating', the elicited phrase seems to require the translation 'the squirrel will be eating'. The verb stem *-gi?* is modified with the addition of the progressive morpheme.

⁶*-ke* is a final suffix which "is attached to the second verb in disjunctive questions" (Pulte and Feeling 1975b:293); it is attached after the modal suffix (e.g. *-a* in the present tense). The simple interrogative suffix is *-sgo*, which M. did not use during the fieldwork.

⁷It may be argued that the evidence presented here does not necessarily show reacquisition of Cherokee *per se*, but merely reflects strategies in language learning. In fact, there is substantial evidence from other aspects of M.'s grammar that he is reacquiring Cherokee structures, such as the use of the inverse as a tense indicator or a marker of animacy, the prefix marking negation, and others.

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Verbal Artistry in a Seneca Folktale

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Until not long ago, telling stories during long winter evenings was a common source of amusement for people everywhere. Stories resonated in the minds of their listeners, and linguists whose goal is to understand all they can about the functioning of language should see it as part of their task to understand the properties of these oral creations that make them interesting and aesthetically valuable. As a small step in that direction, I am going to discuss here a story in the Seneca language that was recorded in June of 1957 by a woman named Lena (usually called "Sibbie") Snow. Mrs. Snow spent virtually her entire life on the Allegany Reservation in western New York. When she recorded this story she was 79 years old, having been born in 1878. She must have first heard the story when she was a girl during the 1880s. She died in 1970, at the age of 92.



Mrs. Snow in 1958

There are many things that could be said about this story, and I will have to be selective. I have divided it into nineteen sections, each with a number and an informal label, such as **(1) Opening Frame**, followed by a transcription of the Seneca and an English translation.

At the outset it is useful to think in terms of *levels of displacement* that were involved in the telling (Chafe 1994). Before Mrs. Snow began the story, she and I had been talking with each other in a normal sort of way. We were then in our *immediate* world, face-to-face, where we recognized each other's

existence with the pronouns 'I' and 'you'. It was a world both of us were experiencing directly. This immediacy can be summarized as:

(0) Preceding Conversation

Located in the immediate world
 Speaker and listener recognized: 'I' and 'you'
 Experienced directly

In the **Opening Frame**, however, when I began recording, Mrs. Snow shifted into an *intermediate* world where she was no longer talking to me, but to a less clearly defined, *displaced* audience. In this intermediate world she referred to me, no longer as *you*, but with a third person noun phrase translated 'this white man'. But she herself was still a part of that world, as shown by her use of first person to refer to herself, as well as by her use of the particle *nɔ:* at the end of (1a), a particle translated 'I guess', expressing a first person point of view. The Seneca transcription is segmented into intonation units, identified as (a), (b), etc.

(1) Opening Frame

Located in an intermediate world
 Listener no longer recognized: 'this white man'
 Speaker still recognized: 'I'
 Still experienced directly

(a) Sóʔt ɛgegeodéʔ gwá: nɔ:, (b) há:nyɔʔɔ negɛʔ
 well I'll tell a story maybe I guess white man specifically

dó:dɔɛdzo:ní:, (c) éóthɔ:dé:k, (d) nigagéóʔdés
 he wants he will hear how the stories are

nónɛhji:kha:ʔ.
 pertaining to old times

Well I guess maybe I'll tell a story, this white man wants to hear what the old-time stories were like.

But after that Mrs. Snow moved completely into the story world, where neither she nor I were any longer recognized, and where her knowledge of

that world came, not from her own experience, but from oral tradition. That move was signaled by her introduction of the particle *gyɔʔɔ*, the hearsay particle, the second word in (2a). The same particle was repeated as many as sixty-two times before she finished the story.

(2) Setting

Located in a story world

Neither speaker nor listener recognized

Experienced through oral tradition: *gyɔʔɔ* 'it is said'

(a) Né:ʔ gyɔʔɔ nónehji wáónohgwáge:eyáʔs. (b) Da onɛ
it's it is said long ago his wife died so then

ó:yaʔ sa:ónya:k, (c) hoksáʔdayéʔ gyɔʔɔ gwaʔhoh.
another he married again he has a child it is said from before

Long ago his wife died. So then he married another, having a child from before.

(2) is unusual from an English point of view because it does not explicitly identify any of the participants. In English one might have said *there was a man whose wife died*, introducing the man first. Seneca packages an entire event in a single word, a word that not only characterizes the event itself but also includes the core participants in it. English distributes the event and its participants among several words. Seneca treats an event like his wife dying as an indivisible whole, and does not need to focus on the man separately.

It is also of interest that in (2) the idea of the man is consistently put in the role of a patient. He was a person to whom things happened or was in some kind of state. The masculine singular patient prefix is *ho-* (the *h* is lost between vowels). I have shown the location of this prefix in (2) by double-underlining it in the words translated 'his wife died', 'he married again', and 'he has a child'. So far the man has not *done* anything.

(3) Man's Activity

(a) Da onɛ ná: gyɔʔɔ gahadagó: wa:ne:ʔ.
so then emphasis it is said in the woods they two went

- (b) Da onę ná: gyɔʔɔ gé:s hadówæthéʔs,
so then emphasis it is said repeatedly he goes hunting
- (c) negeʔ né haphwoʔ.
specifically the he himself

So then they two went into the woods. So then he kept going hunting, this man.

Things change in (3), where the man has become an agent. He is now expressed with an agent prefix with the form *ha-* rather than *ho-*, as can be seen in the last words of (3b) and (3c). The last word of (3c) finally devotes a separate noun phrase to the man, singling him out for the first time. Whereas (2) introduced the general situation by presenting three background events or states that simply affected this man, (3) zeroed in on him as an identified individual who did things.

(4) First Question and Answer

- (a) Da onę ná: gyɔʔoh, (b) wáé? (c) Gyɔʔɔ né
so then emphasis it is said he said it is said the
- sa:ayóʔ. (d) Higeʔ né shagóawák, (e) “Gawe
he came back that specifically the his daughter where?
- ná: heyagawe:nó:h.” (f) “Asde nó: gotgá:nyé:ʔ”
emphasis she has gone there outside I guess she's playing
- (g) gyɔʔó waʔa:geʔ.
it is said she said

*So then he said. The one who came back. “Where has my daughter gone?”
“I guess she's playing outside,” she said.*

As we have seen, Seneca verbs express entire events including their participants, but sometimes a verb is used to refer to a participant alone and not to an event as such. This usage is apparent in (4c), where a literal but non-English translation of the words *né sa:ayóʔ* would be ‘the he came back’. Here *sa:ayóʔ* does not express the idea of the coming back itself, but rather of the person who did it. Thus a more idiomatic translation is ‘the one who

came back'. Expressing ideas of referents (people and things) with verbs is a common Seneca device.

Another feature of (4) is the fact that *shagóawak* in (4d), translated 'his daughter', is from the point of view of an outsider, not of the man, who would have said *khe:awak* 'my daughter'. But then in (4e) there is a shift to direct speech with the man's own words: 'where has she gone?'

In (5), (a) and (b) constitute a false start, and then we see the man going out to look for his daughter:

(5) **Father's Search**

(a) Da onę ná: gyɔʔóh, (b) wáé?
so then emphasis it is said he said

(c) Oʔshagoyáʔdihsa:khá? wa:yageʔt.
he went looking for her he went out

So then he said. He went out to look for her.

In (6) Mrs. Snow shifted to the girl and her stepmother, but particularly to what the stepmother was doing:

(6) **Stepmother's Activity**

(a) Da onę ná: gyɔʔɔ daʔáshago:gé? gatgaʔhoh,
so then emphasis it is said he didn't see her anywhere

(b) ne:ʔ gyɔʔɔ gé:s negé? ne yeksaʔá:h,
it's it is said repeatedly specifically the girl

(c) gonɔdéó? gyɔʔɔ negé? néh,
she was cooking hominy it is said specifically the

(d) onóʔis.
her stepmother

So then he didn't see her anywhere, the girl; she was cooking hominy, her stepmother.

When we come to (7), we can notice first of all that it begins with a repetition of the verb *gonodeo?* ‘she was cooking hominy’ that occurred in (6c). It is an example of what Longacre (1990) has called *backreference*, a way of linking clauses by repeating in the second clause something from the end of the first:

(7) Girl’s First Attempt

- (a) Gonodeó? gyo’o dá: dodaye:yó?,
she was cooking hominy it is said and so she came back
- (b) gyo’o gé:s ne yeksá’á: wa’a:gé? gyo’oh,
it is said repeatedly the girl she said it is said
- (c) “Gwé ?onę ?owi:h,” (d) gyo’o gé:s wa’a:gé?.
hey now it is done it is said repeatedly she said
- (e) “Hé?eh. (f) Jigús shó:,” (g) gyo’oh gé:s wa’a:gé?
no soon quite it is said repeatedly she said
- nege? ne yegéhjih. (h) Da onę náé gyo’o
specifically the old woman so then emphasis it is said
- hodaye:ge?t sayótgá:nye’ha?
she went back out she went back to play

She was cooking hominy and so she came back; the girl kept saying, “Hey is it done now?” she kept saying. “No. Pretty soon,” she kept saying, the old woman. So then she went back out to play.

(7) is the first of four coherently related episodes. The first three have parallel content, and each contains the onomatopoeic phrase around which the entire story comes to be built. This repeated schema can be summarized as (1) girl arrives, (2) she asks if food is ready, (3) the stepmother says no, and (4) the girl goes back out.

(8) is a truncated expression of this schema in its second occurrence, with only the first two of its components. The stepmother’s negative answer and the girl’s departure are understood:

(8) Girl's Second Attempt

(a) Daʔjǐú gyɔʔɔ shɔ gé:s náé:
 in a little while it is said quite repeatedly emphasis

dzeda:kheʔ. (b) “Gwé ʔonɛ ʔowi:h.” (c) Gyɔʔɔ gé:s
 she ran back hey now it is done it is said repeatedly

waʔa:gɛʔ.
 she said

In a little while she ran back. “Hey is it done now?” she kept saying.

The girl's third attempt in (9) is more fully presented, and there is explicit mention of the fact that this is the third time. There is even some added information, not present in the earlier manifestations of the schema: the fact that the stepmother is stirring the hominy. All of this added detail creates suspense as we wait for the fourth time, when we know there is going to be a surprise:

(9) Girl's Third Attempt

(a) Dzok onɛ náé: gyɔʔɔh, (b) onɛ gyɔʔɔ né:ʔ
 well then emphasis it is said then it is said it's

sɛ wadɔ:tháʔ onɛ né:ʔ. (c) Dɔsaye:daʔt neʔho,
 three it makes then it's she stood there again there

(d) “Gwé ʔonɛ ʔowi:h.” (e) “Héʔɛ” gyɔʔɔ waʔa:gɛʔ ne
 hey now it is done no it is said she said the

yegéhjih. (f) “Jigús shɔ:” gyɔʔɔ áéʔ waʔa:gɛʔ.
 old woman soon quite it is said again she said

(g) Dɔsayɔwɛ:nyé:ʔ gyɔʔɔ gé:s negéʔ ne
 she stirred it again it is said repeatedly specifically the

gonɔdeoʔ. (h) Onɛ náé: gyɔʔɔ
 she was cooking hominy then emphasis it is said

hɔsayeya:gé?t áé? ne yeksa?á:h.
she went back out again the girl

Well then, then it was a third time. She stood there again. "Hey is it done now?" "No," said the old woman. "Pretty soon," she said again. She stirred it again, the one who was cooking hominy. Then she went back out, the girl.

From the very beginning of (10) we know something special is about to happen. There is the initial word meaning 'suddenly', and then the image of the girl standing at the door. The climax then follows immediately:

(10) Girl's Transformation

(a) Jɔgwa nǎé gyɔ?ɔ shɔ: dɔsaye:da?t.
suddenly emphasis it is said quite she stood there again

(b) Gahógaén, (c) onɛ nǎé gyɔ?ɔ ji?dé?ɔ:,
at the door then emphasis it is said bird

(d) odó?ɔ ne gyɔ?ɔ wa?a:gɛ?. (e) "Gwé ?oné
it has become the it is said she said hey now

?owí:," (f) gyɔ?ɔ wa?a:gɛ?. (g) "E:," (h) gyɔ?ɔ wa?a:gɛ?,
it is done it is said she said yes it is said she said

(i) "onɛ nǎé: ?o:wi:," (j) gyɔ?ɔ wa?a:gɛ?.
now emphasis it is done it is said she said

(k) "Egɔ:nó:n nǎé: jigús shɔ:h ga:o?,
I will feed you emphasis soon quite come

(l) dɔdáhshagét, (m) gyɔ?ɔ wa?a:gɛ?. (n) "Hɛ?ɛ" gyɔ?ɔ
come backsaid it is said she said no it is said

wa?a:gɛ? ne yeksa?á:h. (o) Onɛ ní:? ɛgáhde:di?,
she said the girl now I I will go

(p) awédetgæ:dé? ní:? héowé hɛ:gé?," (q) gyɔ?ɔ wa?a:gɛ?.
pleasant I where I will go there it is said she said

Suddenly she just stood there again. At the door, now she had become a bird, the one who said it. "Hey is it done now?" she said. "Yes," she said, "now it is done," she said. "I will feed you pretty soon, come, come back," she said. "No," said the girl. "Now I will go, it will be pleasant where I go," she said.

The respective roles of the girl and the stepmother are now reversed: the girl is now in control and the stepmother is pleading with her. Noteworthy is the change of the girl's onomatopoeic question *gwé ?onę ?owi:*, 'is it done now?' to the stepmother's emphatic affirmation answer *onę nă: ?o:wi:*, 'now it is done.'

(11) emphasizes the stepmother's distress, with a repetition of the affirmative onomatopoeic answer:

(11) Stepmother's Distress

- | | | | | | | | | |
|-----|--------------|----------|-----------|------------|----------|--------------|---------------|------------|
| (a) | Da | onę | nă: | gyo?oh, | (b) | o?dyohsęthó? | gyo?o | |
| | so | then | emphasis | it is said | | she cried | it is said | |
| | negé? | ne | yegéhji, | (c) | wa?a:gé? | gyo?o | dodáhsahgé:t, | |
| | specifically | the | old woman | | she said | it is said | come back | |
| (d) | gyo?ó | wa?a:gę? | (e) | "Onę | nă: | ?o:wi:," | (f) | gyo?o |
| | it is said | she said | | now | emphasis | it is done | | it is said |
| | gę:s | wa?a:gę? | | | | | | |
| | repeatedly | she said | | | | | | |

So then she cried, the old woman, she said, "Come back," she said. "Now it is done," she kept saying.

(12) serves to establish the girl as now a bird, a creature that flies and perches. There is a shortened version of the onomatopoeic phrase: *onę ?o:wi:h*, *onę ?o:wi:h*.

(12) Establishment as a Bird

- | | | | | | | | |
|-----|----|------|----------|------------|-----|-----------|----------|
| (a) | Da | onę | nă: | gyo?oh, | (b) | o?tga:dę? | nă |
| | so | then | emphasis | it is said | | it flew | emphasis |

gyoʔo, (c) jiʔdɛʔo: ná gyoʔo, (d) né waʔo:dóʔ,
it is said bird emphasis it is said the she became

(e) negéʔ ne yeksaʔá:h. (f) Oʔtgádéʔ ná gyóʔó
specifically the girl it flew emphasis it is said

dósgé né waʔodædeʔ, (g) da onɛ ná gyóʔo
nearby the it perched so then emphasis it is said

dyago:thá:ʔ. (h) “Oné ʔo:wi:h, oné ʔo:wi:h,”
she is talking there now it is done now it is done

(i) gyóʔo dyo:doh.
it is said she is saying there

So then it flew, a bird she became, the girl. It flew and perched nearby. So then she was talking there. “Now it is done, now it is done,” she is saying there.

All this creates suspense as we wait for the father’s reaction in (13):

(13) Father’s Return

(a) Da onɛ ná gyóʔo hi:gé:h, (b) sa:ayóʔ
so then emphasis it is said that one he came back

negéʔ né hoʔni, (c) negéʔ né hodówætho:h.
specifically the her father specifically the he has gone hunting

(d) Neʔ oʔshagodá:odɔ:ʔ. (e) Da onɛ ná gyóʔó
it's he asked for her so then emphasis it is said

waʔa:gɛʔ, (f) “Ní:ʔ daʔagenóhdóʔ,” (g) gyóʔó waʔa:gɛʔ,
she said I I don't know it is said she said

(h) waʔéiwáhsét gyóʔó waʔwóiwahséhdeʔ.
she hid the matter it is said she hid the matter from him

So then that one, he came back, her father, the one who had gone hunting. He asked for her. So then she said, “I don't know,” she said. She hid the

matter, she hid the matter from him.

Noteworthy here is the use of the verb in (13c), which might otherwise mean ‘he has gone hunting’, but which here expresses the idea of ‘the one who had gone hunting’. There is a couplet in (13h). The first verb, translated ‘she hid the matter’, is extended the second time with an applicative suffix, adding an argument: ‘she hid the matter *from him*’.

(14) creates more suspense by taking us back for a moment to the perching bird. Will the stepmother confess?

(14) Back to the Bird

(a) Daʔjúú nǎe gyɔʔɔ shó: neʔhó
 in a little while emphasis it is said quite there

oʔwadædeʔ, (b) negéʔ né jíʔdeʔɔ:, (c) negéʔ
 it perched specifically the bird specifically

ne ɔ:gwéh, (d) odóʔɔh.
 the person it has become

In a little while it just perched there, this bird, this person has become.

Finally the stepmother confesses in (15):

(15) Stepmother’s Confession

(a) Da onę waʔóthyonyá:nó:ʔ, (b) gyɔʔɔ waʔa:geʔ.
 so then she told about things it is said she said

(c) Neʔhó nɔʔɔ:wéh.
 that how it happened

She told about it; she said it. How it happened.

In (16) the father first pleads for the girl to come back, and then he scolds the stepmother:

(16) Father's Reaction

- (a) Da onę náé gyɔʔɔ wáɛʔ, (b) “Dɔdáhshahgét,
so then emphasis it is said he said come back
- (c) náé daʔáɔ nɔ:saya:wę no:yáʔ
emphasis it's impossible it would happen again another
- kho,” (d) gyɔʔɔ wáɛʔ. (e) Da onę náé gyɔʔɔ
also it is said he said so then emphasis it is said
- oʔshágoʔdáswáésyó:ʔ negéʔ néh, (f) gonɔdéóʔ
he scolded her specifically the she was cooking hominy
- negéʔ, (g) soʔjí daʔagáíh, (h) soʔjí
specifically too late it didn't get done too late
- daʔayagonɔdæ:nó:n negéʔ néh, (i) go:awák
she didn't feed her hominy specifically the her daughter
- a:wet. (j) Negeʔ ne shagóawak né:yo:ʔ.
she pretends specifically the his daughter her husband

So then he said, “Come back, it can't happen another time,” he said. So then he scolded her repeatedly, the one cooking hominy, it didn't get done soon enough, she didn't feed her hominy on time, her pretended daughter. Her husband's daughter.

(17) repeats the exchange, with more pleading, and another refusal by the bird:

(17) Last Exchange

- (a) Da onę náé gyɔʔɔ neʔhó wá:eʔ,
so then emphasis it is said there he went there
- (b) negeʔ náé hagéhji wáɛʔ gyɔʔɔ “Dɔdáhshahgét,
specifically emphasis old man he said it is said come back

(c) thọ:saya:wẹ no:yá? khoh,” (d) gyọ?ọ waẹ?.
it won't happen again another also it is said he said

(e) Onẹ náé gyọ?ọ wa?a:ge? (f) “Hẹ?ẹ” gyọ?ọ
then emphasis it is said she said no it is said

wa?a:ge? (g) “Ne?ho ní:? neyó?de:ok, (h) ne?ho ní:?
she said there me the way it will be there me

niyawédetgæ:de? (i) Hẹowé ẹtgé?sé:k, (j) da?áo
how pleasant it is where I will be there it's impossible

sawagadóswé?dẹ? wẹ:dó” gyọ?ọ wa?a:ge?.
I get hungry again ever it is said she said

So then he went there, the old man said, “Come back. It won't happen another time,” he said. Then she said. “No,” she said. “The way it will be for me there, it is pleasant for me there. Where I will be, I'll never get hungry again,” she said.

With (18) Mrs. Snow stepped back from the story world as she would have if she had been telling this story to a normal Seneca audience, not just to a tape recorder:

(18) Closing Frame

(a) Da né:? gyọ?ọ gáíọ:ni ne:ge: né:wa?, (b) né
so it's it is said it is the reason this this time the

gahadagó: hẹhsé:?, (c) da?jíú shọ: né:? neh,
in the woods you will go there in a little while just it's the

(d) ji?dẹ?ọ: onẹ náé kho dọ:sathwadasé:
bird then emphasis also they are circling around you

hodi:thá:?, (e) hẹowé gæ:ido?. (f) O:gwé ne?ho gyọ?ọ
they are talking where trees person that it is said

né:ʔ néh ónehji negéʔ néh, (g) jiʔdéʔo:h.
 it's the long ago specifically the bird

So it is the reason these days, when you go into the woods, in just a little while birds are circling around you, talking among the trees. It was a person long ago, the bird.

We can suppose that (18) still belonged to the story as Mrs. Snow originally heard it. But now she recognized an explicit audience with second person references: 'you will go there' in (18b) and 'they are circling around you' in (18d). And the temporal reference point was now the generic present, not the ancient past of the story. On the other hand the epistemological domain was still imaginary, as shown explicitly by the continued use of *gyoʔo*.

The story was concluded in (19) with two closing formulas. (19a) was directly related to this narrative, and (19b) is a formula that closes virtually all Seneca discourse:

(19) Closing Formulas

(a) Da neʔho gyoʔo niyáweʔo áéʔ nónehjih.
 so that it is said how it happened again long ago

(b) Dá neʔhoh.
 so that

So that is how it happened again long ago. So that's it.

I have pointed out a few details that made the telling and the hearing of this story a memorable experience for Seneca people of earlier generations. Stepping back from these details, we can ask what was interesting about the story as a whole.

Traditions stay alive because they do what might seem to be two opposite things. First, they validate entrenched cultural norms. In older Seneca culture men's and women's roles were very different. When it came to providing food, men were expected to go off and hunt, women to stay home and cook. It is interesting that several of the verbs referring to activities of the man contain the andative suffix, as in English *go hunting* or *go fishing*. In (3c), for example, there is *hadówætheʔs* 'he goes hunting', and in (5c) there is *oʔshagoyáʔdihsa:khaʔ* 'he goes looking for her'. There are several occurrences of *sa:ayoʔ* 'he came back'. But the stepmother stays home.

And whereas the man does what was expected of him, the stepmother does not, with unfortunate consequences. So the story functions to reaffirm the values of these complementary duties of men and women.

But stories always contain something *unexpected*: in this case the transformation of a girl into a bird, not an everyday occurrence. There was a traditional belief that animals were a lot like people in certain respects, and even that transformations like this were a possibility. This unexpected event was thus not unusual in the world of oral tradition. But people never actually experienced such transformations in everyday life, and it was always stimulating to the imagination to hear about them.

Finally, it is common for Native American stories to end with the remark that the story has explained some observable fact of nature, in this case the sounds made by birds in the trees, who sound as if they are talking. The onomatopoeic nature of *oné ?o:wi:* and its several variants, sounding like a bird call, provides the backbone of the entire story, while making it impossible to translate the story into English without losing its main point.

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Some Outcomes of the Grammaticalization of the Verb *ɔ* 'do' in Apinajé

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0. Introduction¹

One puzzling feature in the grammar of Apinajé, a language of the Jê family spoken in the Brazilian high plateau, is the variety of functions performed by the morpheme *ɔ*.² This morpheme may appear in constructions as straightforward as (1), where it is the predicator of a simple clause, and (2), where it is the higher predicator of a periphrastic causative construction; or it may occur as a causative marker (3), as the instrumental postposition (4), as part of serial constructions that encode aspectual distinctions (5), and in the third person form of a set of verbs undergoing phonological truncation (6).³

(1) *əbri pa tɛ ɔ anẽ ...*
then 1 PRT **do** thus
'So I did the following...'

(2) *na ka ri ic-tɔ anẽ pa rɔp kura*
RLS 2 PRT **1-do** thus 1 dog hit
'You made me hit the dog.'

(3) *na ka ic-tɔ tujaro*
RLS 2 **1-CAUS** be.pregnant
'You got me pregnant.'

(4) *na pa kučẽ=ɔ karə pĩ*
RLS 1 rifle=INSTR deer kill
'I killed the deer with a rifle.'

(5) *na pa ic-tĩ ɔ mō*
RLS 1 1-die PRT go
'I'm dying.'

(6) a. *na pa ic-puduj*
RLS 1 1-be.bad/ugly
'I'm bad/ugly.'

- b. *na* *ø* *ɔ=mduj*
 RLS 3 PRT=be.bad/ugly
 ‘S/he is bad/ugly.’

The distributional, morphosyntactic and phonological properties of *ɔ* consistently indicate its status as a non-bound morpheme;⁴ and despite the distinct functions of *ɔ* in each context, the constructions in (3–6) display a common syntactic configuration – (NP) *ɔ*(NP) V – which is presumably indicative of a common diachronic origin.

The focus of the present paper will be restricted to a discussion of the historical development of *ɔ* into the morphological causative, on the one hand, and the instrumental postposition, on the other.⁵ I intend to show that these two functional domains have evolved from the periphrastic causative construction. The hypothesis is grounded on the fact that all three constructions are, in one way or another, strategies for the expression of causation, and this gives us the semantic clue for the relationship. The point of divergence is that each construction expresses the causal chain from the perspective of one specific participant. It is this functional specialization that has led to the reanalysis of each context as a domain of its own, which was first reflected as syntactic constraints and finally resulted in the emergence of *ɔ* as a member of distinct categories in the synchronic grammar.

Before proceeding to the treatment of the problem, however, some general observations about the structure of Apinajé are in order.

0.1. General characteristics of Apinajé

Apinajé has a fairly rigid SOV word order and is predominantly isolating. Postpositional phrases most often precede the direct object. Tense/aspect/modality particles occur in the initial portion of the clause, and agreement marking seems to be the only inflectional category occurring on the verb. The agreement system of Apinajé follows an ergative-absolutive pattern in that agreement markers may refer to O and S arguments but never to A. Nonetheless, while some S arguments are indicated morphologically by verb agreement, others are not marked on the verb – similarly to A arguments – due to a semantic split among Apinajé intransitives.⁶ Clause-initial modality markers (*na/kɔ*) encode realis/irrealis distinctions; they also indicate the initial boundary of a clause, as well as its status as a full sentence. Chained clauses fall under the scope of the same modality marker, and are linked to one another by the particle *ne*. Manner adverbs, whose scope comprises the verb, tend to occur postposed to it.

1. A compound pro-form

In order to function as a predicator in simple clauses, *ɔ* must obligatorily cooccur with the morpheme *anẽ* ‘thus’.

Like other manner adverbs, *anẽ* occupies clause final position (cf. (7.a, b)); and because of its semantic content, it is in complementary distribution with the question word *tajmã* ‘how’ (7.c).

- (7) a. *mebɔj anigrɔ ã na pa pre ri a-mã ic-kapẽr anẽ*
 thing/Q day DEM RLS 1 PST ? 2-DAT 1-talk *thus*
 ‘When have I ever spoken to you in such a manner?’
- b. *čẽgãne meʔõ na ve a-tɔ mduj rat=ne*
 EXCL who RLS HRS 2-CAUS be.bad *INTS*
 ‘By God! Who could have hurt you so much?’
- c. *dɔ tajmã na ka pre ja ɔ ø jum ø-krɔr beč=rɛ*
 but *how* RLS 2 PST 3 *do ø* CNS 3-be.dotted be.pretty
 ‘But how did you do for her to look so nicely dotted?’

The core function of the expression *ɔ anẽ* is that of a pro-form with either anaphoric or cataphoric reference. For instance, (8.a), taken from a traditional narrative, is the response of one character, the Moon, to the inquiry of another, the Sun, as to why the Moon has destroyed all Fire Stones that were working on the plantation. In this context, *me ɔ anẽ* ‘(I) did them this way’ stands for the predicate ‘break the fire stones’ mentioned in the question. Note that the meaning of the verb *ɔ* ‘do’ is not as specific or “concrete” as that of its counterpart *ipeč* ‘make’, shown in (8.b): like in English, while *ipeč* ‘make, manufacture’ encodes a direct/physical interaction between agent and patient, *ɔ* ‘do’ refers rather to the behavior of one participant towards another in a given situation.

- (8) a. *əw na pa me ø-ɔ anẽ dɔ=mã*
 yes RLS 1 PL 3-*do thus* because
- ke pa kra jaja katɔ*
 PURP 1 child DET.PL come.out
- ne tãm jaja ickra ɔ ape*
 PRT DEM.EMPH DET.PL hand INSTR work
 ‘Well, I did them (Fire Stones) this way so that our descendants work with their own hands when they come to life.’
- b. *na pa prĩgɣ=ti ɣĩ nipeč*
 rls 1 bacuri sweet *make*
 ‘I made some bacuri jam.’

2. Periphrastic causative constructions

Apinajé periphrastic causative constructions encode mediated causation in a way similar to what DeLancey (1984: 182-3, based on the discussion in Maran and Clifton 1976) has described for Jinghpaw, a Tibeto-Burman language:

“...the ultimate effect is not a direct result of the action of the NP marked as agent/causer, but some other force (...) which in its turn is occasioned or facilitated by the action or inaction of the ultimate agent.”

In the case at hand, the pro-form *ɔ anē* expresses the cause by referring to a situation understood from the context: in (9) this would be the fact that the addressee stood behind the dog during the fight, which led the speaker to hit the dog.

- (9) *na ka ri ic-tɔ anē pa rɔp kura*
 RLS 2 ? *I-do thus* 1 dog hit
 ‘You caused me to hit the dog (i.e. I was going to hit you with a stick, you stood behind the dog and I hit the dog instead of hitting you).’

Unlike languages like English where the causative predicator behaves as a complement-taking verb, in the periphrastic causative of Apinajé the clause encoding the resulting situation is not a complement; rather, it is more similar to a purpose clause subordinated to *ɔ anē*. Compare (9, 10) with (11).

- (10)a. *(na) ka ri ic-tɔ anē pa mrō ne amji gɔ pa*
 RLS 2 ? *I-do thus* 1 sink PRT RFLX be.wet CNCL
 ‘You caused me to fall into the water and get all wet (i.e. you pushed me into the creek).’

- b. *tɣ dɔ me kuc̣war m̃ ic-tɔ anē pa ic-krɔr beč=rɛ*
 EXCL but PL 3.on.behalf ? *I-do thus* 1 1-be.dotted be.pretty
 ‘Why, then make me dotted just like her! (i.e. burn me with hot stones)’

- (11) *mebɔj arē pa ku-ba*
 thing say/tell 1 3-listen
 ‘Say something (e.g. in your language) for me to listen!’

In (9, 10), just as in purpose constructions such as (11), the occurrence of a single modality morpheme at the beginning of the utterance; the absence of intervening morphemes between the two clauses involved; and the intonation pattern constitute structural evidence for the boundedness of the two clauses into a single sentence. (The

absence of a modality marker in (10.b) and in (11) is due to the imperative speech act.) In addition, in the case of the periphrastic causatives in (9, 10) the two clauses are also linked by the fact that they share an argument: the patient of *ɔ* is coreferential with the lower subject, which is expressed by the independent pronoun placed at the beginning of the subordinated clause. Now consider the example in (12).

- (12) *na rɔp ri ic-tɔ anẽ ne pa amji pe iŋ-õ gvra kago kapi*
 RLS dog ? 1-do thus PRT 1 RFLX DTR 1-PSSRburiti juice spill
 ‘The dog caused me to spill my juice (i. e. it ran across my way, I tripped on it and dropped the bowl with the juice).’

Here we note the occurrence of the particle *ne* between the two clauses; the pattern is not the same as that of the purpose sentence in (11). The presence of *ne* suggests that in (12) the clauses expressing cause and result are not as formally bound to each other as those in (9, 10) proved to be. But on the other hand, both clauses fall under the scope of the same modality marker, which is confirmation that they still constitute a single sentence.

The structural differences observed in (9, 10) and (12) correlate with slight semantic distinctions. In all examples (9, 10) and (12) the causers are animate beings, except that in the former the causation may be understood as intentional whereas in the latter the causer is unaware of its acts. This nuance is motivated by the fact that the causers in (9, 10) hold a higher degree of volition for they are human (or human-like) beings.

Finally, a third syntactic pattern may be noted in (13).

- (13) ? *ij-apen ja na ri ic-tɔ anẽ na pa ra ic-kenkrɔ*
 1-work DET RLS ? 1-do thus RLS 1 ASP 1-be.tired
 ? ‘My work is already making me tired.’

Here, a new token of the modality marker *na* in the second clause suggests that cause and result are expressed by two independent sentences. It should be pointed out, however, that my consultant considered the example in (13) somewhat odd; such a construction could only be found in an elicitation situation. The reason for the oddity is probably the fact that the higher agent here is an event, and not a participant. A more natural way for expressing a meaning similar to that of (13) would be with a different structure, involving the postposition *kure*. This is illustrated in (14, 15) below. (The meaning of this morpheme, glossed here as RSN ‘reason’, is not totally clear yet; but it does behave as a postposition).

- (14) *ij-apen ja na ic-pe uti ne əbri pa ra ø-kure ic-kenkrɔ*
 1-work DET RLS 1-DTR heavy PRT then 1 ASP 3-RSN 1-be.tired
 ‘This job of mine it too heavy on me; I’m already tired of working on this.’

- (15) *pa na pa va ra ij-āpen kure ic-kenkrɔ*
 1 RLS 1 DU ASP 1-work RSN 1-be.tired
 ‘The two of us are already tired of working.’

In sum, the Apinajé periphrastic causative is characterized by the occurrence of *ɔ anē* as the causative predicator plus a subsequent clause encoding the result. The result clause is not a complement of *ɔ anē* but rather a purpose clause subordinated to it (literally: “you did me this way so that I [V]”); in addition, the patient/DO of *ɔ* must be coreferential with the subject of the lower clause. Differences in the sentence structure of a periphrastic causative correlate with the human-ness/volitionality of the higher agent: if that argument is not an inherently volitional being, the purpose-clause pattern does not hold; rather, the lower clause is linked to the higher one by the particle *ne* typical of clause-chaining constructions (with the possible literal translation: “the dog did me this way and I [V]”).

3. Morphological causative

The morphological causative construction of Apinajé is structurally characterized by the occurrence of *ɔ* preposed to the lexical verb of a clause. Even though stress patterns indicate that *ɔ* is not bound to the verb, the *ɔ V* complex may be regarded as a unit, since no intervening elements are allowed between the two morphemes. Object agreement is attached to *ɔ*, whereas the lexical verb appears in a non-finite form. The examples of morphological causativization by means of *ɔ* found in my corpus apply only to intransitive verbs, as in:

- (16)a. *na kavə dɔ*
 RLS basket *be.full*
 ‘The basket is full.’
- b. *na ka kavə ɔ dɔ*
 RLS 2 basket CAUS *be.full*
 ‘You filled the basket.’
- (17)a. *na ra apec̃*
 RLS ASP *end*
 ‘It’s over.’
- b. *na pa ra ij-āpec̃*
 RLS 1 ASP 1-*end*
 ‘I’m fading, perishing (e.g. due to a deadly disease).’

- c. *kɔt kaj ic-tɔ apec*
 IRLS 2 1-CAUS *end*
 ‘You will destroy/finish with me.’
- (18)a. *pa ra ma tẽ*
 1 ASP MOV *go*
 ‘I’m leaving.’
- b. *na pa a-tɔ tẽ*
 RLS 1 2-CAUS *go*
 ‘I’m taking you.’

We have seen in the previous section that, in the periphrastic causative, *ɔ* is the causative verb which ultimately precedes the predicator encoding the result and each of these verbs has their own valence frame. Moreover, in that context the same degree of relevance is attributed to both cause and result, and the focus is on the intentions of the causer.

In its turn, the morphological causative encodes direct manipulation and consists of a single predicator whose valence has been increased in one position by the morpheme *ɔ* preposed to the lexical verb. Functionally, the morphological causative is really about the result of a causal chain, and therefore it focuses on the effect on the lower subject.

This functional distinction is the motivation for the clause union process that has yielded the *ɔV* causative construction in Apinajé: what is in focus here is the fact that the lower subject is affected by the agent of the higher clause. Thus, this argument is expressed simply as the patient argument of the higher predicator *ɔ*, which in its turn is reinterpreted as belonging to a distinct category – a derivational morpheme, in the case at hand. The new function of *ɔ* as a morphological causative is ultimately established by the generalization in the usage of the *ɔV* construction, as illustrated in examples (19, 20). Here, inanimate participants occupy the position of the erstwhile higher agent.

- (19) a. *na ra aɲ-õrkwĩ a-pe čẽt pa*
 RLS ASP 2-home 2-DTR *burn* CNCL
 ‘Your house burned down on you (i.e. for your detriment).’
- b. *na kupim kagrɔ iɲ-nikre ɔ čẽt*
 RLS mat hot 1-shoulder CAUS *burn*
 ‘The hot mat burned my shoulder.’

- (20) *kvər ja pit jaja na me ra kavə ɔ dət pa*
 manioc DET only DET.PL RLS PL ASP basket CAUS **be.full** CNCL
 ‘The mandioca, just them (the roots) have already filled up the basket.’

The question that remains unanswered now is, If the morphological causative has evolved from the periphrastic causative, why does it apply only to intransitive verbs when the periphrastic causative allows for any type of verb to express the result of a causal chain? I will provide an answer to this question in the next section, which is devoted to a discussion of the Apinajé instrumental phrase.

4. Instrumental phrase

The instrumental phrase of Apinajé consists of the morpheme *ɔ* postposed to a noun phrase. Because third persons are zero-marked and the instrumental postposition requires an inanimate participant – therefore disallowing for speech-act-participant arguments – the argument of the instrumental postposition in Apinajé is never expressed by pronominal prefixes.

- (21) a. *na pa kučě ɔ karə pĩ*
 RLS 1 rifle INSTR deer kill
 ‘I killed the deer with a rifle.’
- b. *kət kaj ic-kura, pa pĩ ja ɔ a-tɔ čět*
 IRLS 2 1-hit 1 stick DET INSTR 2-CAUS burn
 ‘If you attack me I’ll burn you with this (blazing) stick.’

As far as the semantic properties of its argument, the postposition *ɔ* contrasts with the associative marker *me*, which requires an animate object.

- (22) a. *na pa iŋ-bzen me pa grɛ*
 RLS 1 I-husband ASSC 1 dance
 ‘I’m dancing with my husband.’
- b. *na irɛ apɔ=ti me ma va famajs vər va mō*
 RLS N. N. ASSC MOV DU h.c. ALLT DU go
 ‘Iré went to the health center with Aporo.’

The usage of the morpheme *ɔ* in contexts such as (22.a, b) results in a totally different reading, in which the particle *ɔ* is interpreted as a morphological causative. This analysis is further confirmed by structural facts. Consider (23).

(23) a. *na pa ip-bzen ɔ grɛ*
 RLS 1 I-husband INSTR/CAUS dance
 'I'm dancing with my husband (who's totally drunk).'

b. *na ire apɔr=ti famajs vɔr ɔ mɔ̃*
 RLS N. N. h.c. ALLT CAUS go
 'Iré took Aporo to the health center.'

Sentence (23.a) is an elicited example. The context given to the consultant here was a situation in which one of the participants (the husband) is drunk and the other (the speaker) is not; thus, the sober participant has to do all the dancing on behalf of the couple. On the one hand, the husband could be characterized as "not particularly animate" in this context, which points to the semantic requirement of the instrumental construction. But on the other, the situation at hand implies direct manipulation of one participant over another. Moreover, in (22.a) the subject of the verb *grɛ* is expressed by the first person pronoun *pa* occurring both at the beginning of the clause and adjacent to the verb (note that most movement verbs do not take agreement prefixes and that the double occurrence of the first person pronoun in this context carries the information 'dual inclusive') whereas in (23.a) *pa* does not appear between the verb and the particle *ɔ*; this suggests that in (23.a) *ɔ grɛ* constitutes a syntactic unit like the pattern observed in the morphological causative construction.

Further structural evidence for this analysis comes from a comparison between (22.b, 23.b). In the first example, the associative postposition is adjacent to the noun phrase it modifies, whereas in the second, the postpositional phrase *famajs vɔr* intervenes between the morpheme *ɔ* and the noun phrase *aporti*. Thus, *aporti* and *ɔ* do not constitute a syntactic unit in (23.a) since Apinajé does not allow for discontinuous phrases.

Given this characterization let us now consider the question as to why the morphological causative imposes constraints on the valence of the verbs to which it may apply, and how this relates to the instrumental postposition.

A generally accepted characterization of the semantic role "instrument" is that it refers to an inanimate participant used by an agent as a means to inflict an action on a patient, and for this reason some degree of agency may also be attributed to the instrument participant.⁷ Two assumptions implied in this definition are: (a) that an instrumental phrase will necessarily occur in a transitive clause, and (b) that the functional domain of an instrumental phrase has to do with direct manipulation, or ultimately, causation. The hypothesis that I would like to suggest, then, is that the instrumental construction is a structural counterpart of the morphological causative in Apinajé; cf. figure (24):

(24)	a.	PC:	SBJ _A	OBJ _B - ϱ	<i>anẽ</i>	SBJ _B	(OBJ _C) V _{TR/INTR}
	b.	MC:	SBJ _A	OBJ _B - ϱ	\emptyset	\emptyset_B	— V _{INTR}
	c.	IP:	SBJ _A	OBJ _B - ϱ	\emptyset	\emptyset_B	OBJ _C V _{TR}

My argument is grounded on the fact that all three constructions – periphrastic causative, morphological causative and instrumental – are strategies for expressing the manipulation, direct or indirect, of one participant by another. The manipulee may be animate or inanimate, and it may be the means for, or the ultimate goal of an action. That is, all cases refer to a causal chain, but each construction focuses specifically on one of the participants involved.

We have seen that the morphological causative applies solely to stative, unaccusative and movement verbs (cf. (16-18) above), and that it is the periphrastic construction that serves the purpose of expressing a situation in which one participant leads another, volitional participant to affect a third party. Apparently, in the Apinajé culture such a situation can only be conceived of as an instance of mediated causation in which the intention of the causer to turn an inherently volitional participant into an involuntary agent is highlighted, so that all the responsibility for the effect on the patient at the endpoint of the causal chain is held by the causer itself.

On the other hand, no constraints apply to the exercise of direct manipulation over an inanimate being. In this context, as in all others, the initiator of the causal chain is animate, inherently volitional, and ultimately responsible for the effect on the participant at the endpoint; but here there is no problem for this responsibility to be shared with the inanimate participant mediating the action carried upon the patient. Thus, in the schematic representation in (24.c) the instrument may be conceived of as a “causee” (therefore somewhat agentive), at an abstract level. The reanalysis of the structure in (24.c) as a postpositional phrase was presumably motivated by the emphasis this construction places on the “causee”, in addition to the semantic characterization of this participant – inanimate, non volitional, agentive-like; therefore, instrument.

One last point that supports my hypothesis about the evolution of the instrumental postposition of Apinajé is the following. The prediction implied in the characterization of the semantic role “instrument” as mentioned above, that instrumental phrases are supposed to appear only in transitive clauses, is not universally valid (maybe not even accurate). An illustrative example is (25.b) from Baré, an Arawakan language of Brazil, in which the instrumental morpheme *ahau* appears with the verb ‘die’.

- (25) a. *nu-muduka-na kasisi kameni ahau*
 1S-kill-PFV ant *fire INSTR*
 ‘I killed the ants with fire.’
- b. *naya ahau i-dawika-na*
what INSTR 3-die-PFV
 ‘What did he die of?’

In Apinajé, however, the instrumental phrase cannot occur in intransitive clauses. In (26.a) the morpheme *ɔ* cooccurs with the question word ‘what’, which refers to the instrument in the event encoded by the transitive version of ‘burn’; but in (26.b) the pattern with the question word *tajm̃ɔ̃* and the morpheme *ɔ* is the same already noted in the interrogative version of the periphrastic causative in (7.c), repeated below. This suggests that an instrumental phrase is not likely to occur in the positive version of (26.b).

- (26) a. *mebɔ̃* *tɔ* *na* *ka* *amɟi* *tɔ* *čɛt*
thing/Q *INSTR* *RLS* *2* *RFLX* *CAUS* *burn*
‘What did you burn yourself with?’
- b. *tajm̃ɔ̃* *na* *ɔ̃* *tɔ* *ne* *tɪ*
how *RLS* *DEM* *do* *PRT* *die*
‘What did he die of?’
- (7) c. *dɔ* *tajm̃ã* *na* *ka* *prɛ* *ja* *ɔ* *ø* *ɟum* *ø-krɔr* *bɛd=rɛ*
but *how* *RLS* *2* *PST* *3* *do* *ø* *CNS* *3-be.dotted* *be.pretty*
‘But how did you do for her to look so nicely dotted?’

We note from the examples just examined that even though the various functions of the morpheme *ɔ* are already well established, some residues from the historical development of each construction where it appears are still noticeable and constitute syntactic restrictions in the synchronic grammar of Apinajé.

5. Final remarks

Throughout this paper I have argued that the periphrastic causative construction was the source for the development of *ɔ* into the morphological causative and also the instrumental postposition of Apinajé. An argument for their common source is the semantic notion of causality, and the key factor determining the divergence of the three constructions, which ultimately led the verb *ɔ* ‘do’ to evolve into morphemes belonging to distinct categories, was the functional specificity of the periphrastic causative, morphological causative, and instrumental phrase regarding the argument they focused on in the causal chain.

Major structural evidence supporting the analysis is the complementary distribution of the morphological causative and the instrumental marker according to the transitivity of the clause in which they appear. These constraints found in the synchronic grammar of the language are structural residues reflecting the course of events that led to the rise of the causative marker and the instrumental postposition, namely, the usage of a clause-union structure with an intransitive and with a transitive lexical verb, respectively.

Notes

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² Whose allomorphs are *ɔ* and *tɔ*.

³ In the transcription of the Apinajé data the symbols *p*, *t*, *ç*, *k* represent plain obstruents which consist of voiced and voiceless allophones (i.e. the property [voice] is not distinctive for this set). The symbols *b*, *d*, *ʒ*, *g* represent prenasalized obstruents, which are voiced in all contexts. The symbol *ɾ* represents the unrounded counterpart of the vowel *ɔ*. Abbreviations used in the text are: 1–first person; 1S–first person singular; 2–second person; 3–third person; ALLT–allative; ASP–aspect; ASSC–associative; CAUS–causativizer; CNCL–conclusive; CNS–consequential; DAT–dative; DEM–demonstrative; DET–determiner; DTR–detrimentary; DU–dual; EMPH–emphatic; EXCL–exclamation; HRS–hearsay; INSTR–instrumental; INTS–intensifier; MOV–movement; N.–proper noun; PFV–perfective; PL–plural; PRT–particle; PSSR–possessor; PST–remote past; PURP–purpose; RFLX–reflexive; RLS–realis; RSN–reason; Q–question word. All data presented in this paper, both from Apinajé and Baré, are from my own field work, except for examples (7.c) and (10.b), taken from Apinayé et al. 1992.

⁴ I.e. either a full word (1, 2) or a clitic (3-6) – not an affix.

⁵ The theoretical background for the analysis presented here comes from Cole 1983; DeLancey 1984, 1985a, 1985b, [to appear]; Givón 1984, 1990; Heine 1992; Heine, Claudi and Hunnemeyer 1991a, 1991b; Hopper and Traugott 1992; Hopper 1987; and Kuryłowicz 1965.

⁶ For further details about active/agentive characteristics in the Apinajé agreement system, see Oliveira 1998.

⁷ See e.g. Croft 1991.

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The Double Life of Halkomelem Reflexive Suffixes

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1. Introduction¹

This paper discusses reflexives in Halkomelem, a Salishan language spoken in southwestern British Columbia. Halkomelem has two reflexive suffixes: *-θət* ‘reflexive’ (1), and *-namət* ‘limited control reflexive’ (2).²

- | | | |
|-----|------------------------|-----------------------------------|
| (1) | q̣ayθət | ‘kill self’ |
| | čəỵxʷθət | ‘dry self’ |
| | ləx̣ʷəθət | ‘cover self’ |
| | laləmθət | ‘look after self’ |
| | xiq̣əθət | ‘scratch self’ |
| (2) | q̣aynámət ³ | ‘kill self accidentally’ |
| | q̣ʷəq̣ʷnámət | ‘hit self accidentally’ |
| | q̣ańámət | ‘manage to get self in with them’ |
| | yəx̣ʷnámət | ‘manage to set self free’ |
| | ʔəḳʷnámət | ‘hook self accidentally’ |

The above examples illustrate what I refer to as **core** reflexives, which are discussed in section 2. They are used in constructions in which the patient (or other suitable argument) is semantically coreferent with the subject of the clause. In such cases, the reflexive transparently means ‘self’.

In section 3, I discuss examples with reflexive suffixes appearing in environments where transitive objects cannot. In these cases, the meaning deviates from the standard ‘self’ meaning of core reflexives. In this use of reflexives, which I refer to as **grammaticized**, the suffixes do not affect argument structure, but rather have an aspect-like meaning. The reflexive is used as an inchoative (4a) and the limited control reflexive means ‘manage to’ (4b).

- | | | |
|-----|-------------|----------------|
| (4) | a. ʔayəmθət | ‘get slow’ |
| | b. neńnámət | ‘manage to go’ |

I show that core and grammaticized forms are distributionally distinct. Core reflexives appear only on process unaccusatives, while grammaticized reflexives appear on other

verb classes, including unergative verbs and states.

In section 4, I turn to a discussion of examples like (5), which involve a reflexive causative marked by the suffix *-stənamət*.

- (5) ʔiməšstənamət ‘manage to make self walk’/‘pretend to walk’

These reflexive causatives can have both a core meaning of ‘manage to make self’ and a grammaticized meaning of ‘pretend’. The second meaning of the causative suffix shows a much wider range of occurrence than the first and, furthermore, appears on bases that do not normally form causatives.

We see then that Halkomelem reflexive suffixes lead a double life. As core suffixes, they have referential meanings and occur in the same contexts where pronominal object suffixes are found. As grammaticized suffixes, they take on aspectual meaning and occur in situations where objects cannot occur.

2. Core Reflexives

In Halkomelem reflexive constructions, the patient (or other suitable argument) is semantically coreferent to a clausemate subject antecedent:

- | | | | | |
|-----|-----|------|------------|---------------------------------|
| (6) | niʔ | cən | ləxʷə-θət. | ‘I covered myself.’ |
| | niʔ | č | ləxʷə-θət. | ‘You (sg.) covered yourself.’ |
| | niʔ | ct | ləxʷə-θət. | ‘We covered ourselves.’ |
| | niʔ | ce:p | ləxʷə-θət. | ‘You (pl.) covered yourselves.’ |
| | niʔ | | ləxʷə-θət. | ‘He/she/it/they covered self.’ |
-
- | | | | | |
|-----|-----|------|---------------|---|
| (7) | niʔ | cən | kʷələš-námət. | ‘I accidentally shot myself.’ |
| | niʔ | č | kʷələš-námət. | ‘You (sg.) accidentally shot yourself.’ |
| | niʔ | ct | kʷələš-námət. | ‘We accidentally shot ourselves.’ |
| | niʔ | ce:p | kʷələš-námət. | ‘You (pl.) accidentally shot yourselves.’ |
| | niʔ | | kʷələš-námət. | ‘He/she/it/they accidentally shot self.’ |

The reflexive suffixes, which are undifferentiated for person or number, appear in the same place in the verb morphology as transitive object suffixes. Nevertheless, reflexive constructions are surface intransitive, as evidenced, for example, by the lack of third person ergative agreement (Gerds 1988a).^{4,5}

- (8) niʔ kʷələš-θət kʷθə swəyʔqeʔ.
 aux shoot-tr+ref det man
 ‘The man shot himself.’

- (9) ni? kʷələš-námət kʷθə swəýqe?
 aux shoot-l.c.tr+ref det man
 'The man accidentally shot himself.'

Throughout this paper I refer to these suffixes as *-θət*, and *-namət*, as these are the forms most often seen in the data. However, the morphophonological evidence shows that these are forms composed of at least two parts (Gerds to appear). The first part is a transitive suffix, *-t* or *-n*, and the second part is a reflexive pronominal form. Transitivity is overtly marked on verbs by one of three suffixes: the general transitive suffix *-t*, the limited control suffix *-n*, or the causative suffix *-st*, which is discussed in section 4.7.⁶ The first two suffixes are illustrated in (10) and (11):

- (10) a. ni? qʷaqʷ-ət-əs lə sleni? ʔə kʷθə sqəməl.
 aux club-tr-3erg det woman obl det paddle
 'He clubbed the woman with the paddle (on purpose).'
- b. ni? qʷəqʷ-nəxʷ-əs lə sleni? ʔə kʷθə sqəməl.
 aux club-l.c.tr+3obj-3erg det woman obl det paddle
 'He accidentally clubbed the woman with the paddle.'
- (11) a. ni? cən lem-ət θə sleni?
 aux 1sub see-tr det woman
 'I looked at the woman.'
- b. ni? cən ləm-nəxʷ θə sleni?
 aux 1sub see-l.c.tr+3obj det woman
 'I saw the woman.'

The general transitive is illustrated in the (a) examples. The limited control transitive, which is used to express an action that is performed unintentionally, accidentally, or with difficulty, is illustrated in the (b) examples.

The majority of verb roots in Halkomelem are patient-oriented unaccusatives (Gerds 1991, Hukari 1976, Gerds and Hukari 1998), for example, *qʷəl* 'to bake' (as in 'the bread bakes') and *ləkʷ* 'to break' (as in 'the branch breaks'). There are about one thousand verb roots of this type in Halkomelem, and they consistently form transitives with *-t* and *-n*. These verb roots also always form reflexives whenever the semantics is plausible. The examples in (12)–(14) are illustrative of the Halkomelem verbal paradigm.

- (12) *kʷes* ‘burn’, *kʷesət* ‘burn it’, *kʷasnəxʷ* ‘burn it accidentally’, *kʷasəθət* ‘burn self’, *kʷasnámət* ‘burn self accidentally’
- (13) *qʷaqʷ* ‘get clubbed’, *qʷaqʷət* ‘club it’, *qʷəqʷnəxʷ* ‘club it accidentally’, *qʷaqʷəθət* ‘club self’, *qʷəqʷnámət* ‘club self accidentally’
- (14) *ʔakʷ* ‘get hooked, snagged, hung up’, *ʔakʷət* ‘hook it’, *ʔakʷnəxʷ* ‘manage to hook it’, *ʔakʷəθət* ‘hook self’, *ʔəkʷnámət* ‘hook self accidentally’

3. Grammaticized Reflexive

All of the examples of reflexives discussed so far have transitive counterparts in which the subject and object are distinct. In this section, I discuss examples of reflexive suffixes appearing in environments in which transitive suffixes cannot appear. This might at first seem paradoxical, since I have claimed above that the first element of the reflexive suffixes is a transitive marker. However, based on the examples brought up in this section, I claim that the combination of transitive suffix and reflexive suffix has been reanalyzed into a single suffix. This suffix has a grammaticized meaning that aspectual rather than referential in nature.

3.1 The Reflexive as Inchoative

As stated above, the majority of verb roots in Halkomelem are process unaccusatives, for example, *qʷəl* ‘to bake’ (as in ‘the bread bakes’) and *kʷes* ‘to burn’ (as in ‘the house burns’), and these always have transitive counterparts, for example, *qʷəl-ət* ‘to bake it’, and *kʷes-t* ‘to burn it’. In addition, we find that the reflexive suffix can sporadically appear on another type of unaccusative verb, namely statives, and in this case, as in many languages of the world, the reflexive suffix takes on the meaning of inchoative, that is, change of state.⁷

- | | | | | |
|------|----------------|-----------------|-------------------|-------------------------------------|
| (15) | <i>ʔayəm</i> | ‘slow’ | <i>ʔayəmθət</i> | ‘get slow’ |
| | <i>θi</i> | ‘big’ | <i>θiθát</i> | ‘get big’ |
| | <i>q̄i:ləm</i> | ‘old’ | <i>q̄i:ləmθət</i> | ‘get old’ |
| | <i>scəwét</i> | ‘adept, clever’ | <i>scəwátθət</i> | ‘become clever’ |
| | <i>xeʃ</i> | ‘stormy’ | <i>xeʃθət</i> | ‘get stormy’ |
| | <i>ʃəxʷ</i> | ‘hard’ | <i>ʃəxʷθát</i> | ‘get hard’ |
| | <i>slelp̄</i> | ‘floppy’ | <i>lelp̄θət</i> | ‘go flat (a tire)’ |
| | <i>ʃam</i> | ‘be enough’ | <i>ʃaməθət</i> | ‘ease up a little (e.g. widthwise)’ |
| | <i>ʔəyáʔθ</i> | ‘sharp’ | <i>ʔəyáʔθθət</i> | ‘get sharp’ |
| | <i>ʔiyəs</i> | ‘happy’ | <i>ʔiyəsθət</i> | ‘get happy’ |
| | <i>qəx̄</i> | ‘be lots’ | <i>qəx̄θát</i> | ‘get to be lots’, ‘be too many’ |

The use of the reflexive here is unexpected from a structural point of view, since there are no corresponding transitive forms that could serve as a basis for the reflexives. The forms in the first column cannot appear with the transitive suffix *-t*; examples like *ʔayəmət ‘slow it’, *θit ‘big it’, *q̄i:ləmət ‘old it’, etc. are all ill-formed. However, if we propose that the combination of transitive plus reflexive in these examples has undergone reanalysis to form a single suffix meaning ‘inchoative’ in cases like (15), then the lack of a transitive counterpart is not an issue. In other words, a form like ʔayəməθat does not have the structure in (16a), but rather the structure in (16c), which derives from the reanalysis of the structure in (16b).

- | | | |
|------|----------------------|---------------------------------|
| (16) | a. [[[ʔayəm] t] sat] | [[[slow] transitive] reflexive] |
| | b. [ʔayəm [t + sat]] | [slow [transitive + reflexive]] |
| | c. [ʔayəm [θat]] | [slow [inchoative]] |

Since the reanalyzed form has the grammaticized meaning of ‘inchoative’, it should only occur on states, as in (15), and not in transitive contexts. Thus, the reflexive and inchoative uses of *-θat* occur on distinct verb classes.

We have seen that the reflexive suffix is used in two ways, as a core reflexive meaning ‘self’ and as an inchoative. The question arises, which is the original use of the suffix and which is the innovative or secondary use? Based on the fact that the reflexive morphology patterns with the transitive objective morphology, I claimed above that the core use was original. Furthermore, it is easy to see how this usage could extend to a more aspectual use such as the inchoative. The transitive element of the suffix is obscured by morphophonological fusion. In addition, although reflexive constructions involve two argument structure positions, they are syntactically intransitive and thus have no additional inflectional requirements beyond those of statives or other verbs that have a single argument structure position. Positing the opposite history, that the inchoative became a reflexive, is more problematical, and contrary to other cases in the grammaticization literature.

A second argument that the core reflexive is the primary use of the suffix is based on productivity. As mentioned above, the majority of verb roots in Halkomelem are process unaccusatives that allow transitive counterparts formed with the transitive suffix *-t*. In addition, whenever the semantics is plausible, a core reflexive counterpart is possible. In contrast, the inchoative use of reflexive is fairly rare. Although probably not exhaustive, the list in (15) includes most of the forms in my data. Inchoative forms are more normally represented by the prefix *xʔə-*, as in the following examples taken from Hukari and Peter (1995):

- (17)
- | | | |
|----|--|-------------------------------|
| a. | x ^w əqáqíʔ | ‘get sick’ |
| | x ^w əʔəx ^w íń | ‘become small’ |
| | x ^w əx ^w ətəs | ‘get heavy’ |
| | x ^w ək ^w ámk ^w am | ‘get strong’ |
| | x ^w əsíʔem | ‘become important, respected’ |
| | x ^w əstətés | ‘get near’ |
| | x ^w əx ^w θíqən | ‘get loud’ |
| b. | x ^w əx ^w ánčənəm | ‘start running’ |
| | x ^w əʔíməš | ‘start walking’ |
| | x ^w əq ^w áq ^w əí | ‘start talking’ |
| c. | x ^w ənéʔənt | ‘become evening’ |
| | x ^w əšnéʔəm | ‘become a shaman’ |
| | x ^w əsłíʔłqəł | ‘turned into a child’ |

The inchoative prefix is used on a variety of categories, including stative verbs (17a), unergative verbs (17b), and nouns (17c). Further research is needed to determine the distinction between the two Halkomelem inchoatives. Relevant to this paper is the point that the inchoative use of the reflexive suffix is a relatively limited phenomenon.

3.2 The ‘Manage to’ Use of the Limited Control Reflexive

We have seen above that the limited control reflexive *-namət* can carry the meaning of performing an action on oneself unintentionally, accidentally, or with difficulty. This suffix also productively occurs on unergative verbs, that is, intransitive verbs whose single argument is prototypically an animate agent that is in control of the action. Unergative verbs in Halkomelem include verbs of activity and motion (Gerdts 1991). When *-namət* appears on an unergative verb, it carries the meaning ‘manage to’, that is, to succeed in performing an action despite difficulty. Here are just some of the many examples of this use of *-namət*:

- (18)
- | | |
|---------------------------|------------------------|
| ʔəłtənnámət | ‘manage to eat’ |
| ya:ysnámət | ‘manage to work’ |
| łak ^w namət | ‘manage to come home’ |
| nəqəmnamət | ‘manage to dive’ |
| šaq ^w əlnámət | ‘manage to get across’ |
| x ^w čənəmnámət | ‘manage to run’ |
| te:mnamət | ‘manage to call’ |
| łiləmnámət | ‘manage to sing’ |
| łiwiʔəłnamət | ‘manage to pray’ |

łxiləšnámət	‘manage to stand’
ca:m námət	‘manage to go up into the mountains’
łax ^w námət	‘manage to go down to the beach’
ʔənəx ^w námət	‘manage to stop’

In Halkomelem, unergative verbs generally do not form transitives or reflexives:

(19)	ʔəłtən	‘eat’	*ʔəłtənt	‘eat it’ ⁸	*ʔəłtənθət	‘eat self’
	ya:ys	‘work’	*ya:yst	‘work it’	*ya:ysθət	‘work self’
	q ^w əyələš	‘dance’	*q ^w əyələšt	‘dance it’	*q ^w əyələšθət	‘dance self’

Thus, we see that there are no corresponding transitive or reflexive forms for the examples in (18). As in the case of the grammaticized use of the reflexive discussed in the previous section, this is not a puzzle if we assume that the limited control transitive suffix and the reflexive suffix have undergone reanalysis into a single morpheme *-namət* with the grammaticized meaning of ‘manage to’.

4. The Reflexive Causative

We have seen examples above of the general transitive and the limited control transitive suffixes in Halkomelem. A third type of transitive suffix is the causative *-st*, illustrated in the following example:

(20)	ni ^ʔ	cən	ʔiməš-stəx ^w	t ^θ ə swiwləs.
	aux	1sub	walk-cs+tr+3obj	det boy
	‘I made the boy walk.’			

So far, I have been unable to find an example in which the causative is followed by the plain reflexive:⁹

(21)	*ni ^ʔ	cən	łxiləš-s-θət.
	aux	1sub	stand-cs-tr+ref
	‘I made myself stand up.’		

When queried about data like (21), several speakers said it was illogical to make yourself do something. Rather one would use examples like (22) and (23), with a limited control reflexive taking the meaning of ‘manage’.

- (22) ni? cən ɪ̯xiləš-námət.
 aux 1sub stand-l.c.tr+ref
 'I managed to stand up.'
- (23) ni? cən ʔəɪtən-əstənámət.
 aux 1sub eat-cs+l.c.tr+ref
 'I managed to feed myself.'/'I managed to make myself eat.'

However, the suffix combination *-stənámət* is most frequently glossed 'pretend'. So one interpretation of (23) is 'I pretended to eat', i.e. 'I just shoved the food around on my plate.' Other examples include:

- (24) ʔiməš-stənámət 'manage to make self walk'/'pretend to walk'
 ʔitət-stənámət 'pretend to sleep'
 səwq̄-stənámət 'pretend to look for something'
 x^wiyané:m̄-stənámət 'pretend to listen'
 ɪ̯ak^w-stənámət 'manage to get self to go home'/'pretend to go home'

I claim then that the causative + reflexive has grammaticized into a single suffix with the meaning 'pretend.'¹⁰

Previously, I have made claims about Halkomelem causatives (Gerds 1988a, 1995) that can be summarized as follows:

- (25) Restrictions on causatives:
- a. Intransitive Base Condition: Causatives are only formed on intransitive bases.
 - b. Causative Passive Ban: Causatives cannot be formed on passive bases.
 - c. Double Causative Ban: Double causatives do not exist.

The purpose of the restrictions in (25) was to allow for the grammatical examples of causatives in Halkomelem while ruling out some bad combinations of causatives with certain other morphology. The Intransitive Base Condition was designed to allow causatives formed on intransitive bases (20), while ruling out those formed on transitives (26).¹¹

- (26) *ni? cən q̄^wəl-ət-stəx^w ɪ̯ə sléni? (ʔə) k^wθə səplíl.
 aux 1sub bake-tr-cs+tr+3obj det woman obl det bread
 'I had the woman bake the bread.'

The Causative Passive Ban captures the generalization that derived intransitives such as antipassives (27) and reflexives (28) can serve as bases for causatives, while passives (29) cannot.

- (27) ni? cən q̣ʷəl-əm-stəxʷ θə sléni? ʔə tʰə səplíl.
 aux 1sub bake-intr-cs+3obj det woman obl det bread
 'I made the woman bake the bread.'
- (28) ni? cən ḳʷələš-θət-stəxʷ lə Mary.
 aux 1sub shoot-tr+ref-cs+3obj det M.
 'I made Mary shoot herself.'
- (29) *ni? cən q̣ʷəl-ət-əm-stəxʷ tʰə səplíl ʔə θə sléni?
 aux 1sub bake-tr-intr-cs+tr+3obj det bread obl det woman
 'I made the bread be baked by the woman.'

The Double Causative Ban prohibits double causatives, that is, forms that would contain two causative markers, such as:

- (30) *ni? cən nəʔém-st(əxʷ)-stəxʷ lə Mary (ʔə) kʷθə púkʷ-s.
 aux 1sub go-cs+tr-cs+(3obj)+tr+3obj det M. obl det book-3pos
 'I had Mary take her book.'

Causatives like (30) are also ruled out by the Intransitive Base Condition since the causative base on which the second causative is formed is transitive.

Returning now to the reflexive causative suffix, we see that it can be used on a wider range of bases than the plain causative, as has been pointed out by Leslie (1979:38-40). In violation of the Intransitive Base Condition, a transitive can serve as the base:

- (31) pas-ət-stənámət (Leslie 1979, 39: 110a)
 hit-tr-cs+l.c.tr+ref
 'pretend to hit him'
- (32) ni? cən kʷən-ət-stənámət.
 aux 1sub take-tr-cs+l.c.tr+ref
 'I pretended to take it.'

- (33) *m̥iʔ* *č* *p̥eʔ* *te mə-θam̥š-stənam̥ət*.
 aux 2sub certain call-tr+1obj-cs+l.c.tr+ref
 ‘Come just pretend that you are telephoning me.’

Leslie also points out that a passive can serve as a base:

- (34) *tʰiqʷ-əs-θeləm-stənam̥ət*. (Leslie 1979, 38:106)
 punch-face-tr+1obj-intr-cs+l.c.tr+ref
 ‘He pretended to hit me in the face.’
- (35) *niʔ* *kʷən-ət-əm-stənam̥ət* *ʔə-ʔ̥* John.
 aux take-tr-intr-cs+l.c.tr+ref obl-det John
 ‘John pretended to take it.’
- (36) *niʔ* *ʔə* *čəwə-θa:m-stənam̥ət* *ʔə-ʔ̥* John.
 aux quest help-tr+2obj-cs+l.c.tr+ref obl-det John
 ‘Did John just pretend to help you?’

These data violate the Causative Passive Ban. They also show that the causative + reflexive is different from the non-reflexive causative, since the latter does not allow passive bases. Furthermore, one can find examples where a causative suffix appears inside *-stənam̥ət*:

- (37) *niʔ* *cən* *ʔəltən-stəxʷ-əstənam̥ət* *tə* *sqʷəméy̆*.
 aux 1sub eat-cs-cs+l.c.tr+ref det dog
 ‘I pretended to feed the dog.’

So we see that data with *-stənam̥ət* also violate the Double Causative Ban.

The above data are problematical for the conditions on causatives, since in each case a reflexive form of a causative is allowed where the plain causative is ungrammatical. In Gerds (1995), I proposed abandoning the conditions on causatives in favor of a valence counting view of causatives that would allow the subsequent cancellation of an argument via a reflexive rule to “save” an otherwise prohibited causative. However, the view of a grammaticized suffix allows for a more elegant account. The restrictions on causatives hold, but only on core cases. In the relevant cases—those that mean ‘pretend’—I propose that *-stənam̥ət* has grammaticized into a single suffix that has does have any effect on argument structure. Rather, the semantic role associated with ‘pretend’, i.e. the ‘pretender’, is linked to the main clause agent role

of the base. We see that agent, not subject, is relevant to the rule because of the meanings of the examples involving passive in (34)-(36). Furthermore, the examples with *-stənamət* following a causative in (37) show that the main clause agent (the causer), not the agent associated with the verb base (the causee), is the 'pretender'.¹²

5. Conclusion

We have seen that Halkomelem reflexive suffixes are composed of two elements, a transitive suffix and a referential suffix. We see the function of each of these elements when we study their use in core constructions, that is, in cases where they appear in reflexive constructions with a transparent meaning of 'self'. The transitive suffix indicates that the predicate has (at least) two semantic arguments. The general transitive suffix *-t* indicates transitivity with the implication of control by an animate agent, the suffix *-n* signals lack of control, that is, that the action was done unintentionally, accidentally, or with great difficulty, and the suffix *-st* indicates causation. The referential suffixes provide the meaning of 'reflexive'. Also, the reflexive suffixes reduce the transitivity of the clause. The morphosyntactic evidence shows that reflexive constructions are syntactically intransitive.

Given that the first element of each reflexive suffix is a transitive marker, we might expect that reflexive suffixes would never appear on forms that do not have transitive counterparts. This is true for the core use of the suffixes. The reflexive suffixes productively appear on verb forms that can take transitive suffixes, namely the process unaccusatives, and always straightforwardly mean 'self'. However, the grammaticized suffixes appear on verb forms where the *-t* transitive suffix is impossible, such as unergatives and statives. The two elements of a reflexive suffix, I claim, undergo reanalysis into a unit which takes on a grammaticized meaning that is aspectual rather than referential in nature. The reflexive *-θət* means 'inchoative', the limited control reflexive *-namət* means 'manage to', and the limited control reflexive causative *-stənamət* means 'pretend'. The chart in (38) summarizes the differences between the core (A) and the grammaticized (B) uses of the reflexive suffixes with respect to meanings and verb classes.

(38) Form/Meaning	Base Verb Class
Reflexive <i>-θət</i>	
A: action on self	process unaccusatives
B: inchoative	states
Limited control reflexive <i>-namət</i>	
A: accidental action on self	process unaccusatives
B: 'manage to'	unergatives
Reflexive Causative <i>-stənamət</i>	
A: manage to make self do action	unergatives
B: 'pretend'	any

We see then that Halkomelem reflexive suffixes lead a double life. As core suffixes, they have referential meanings and occur in the same contexts where pronominal object suffixes are found. As grammaticized suffixes, they take on aspectual meaning and occur in situations where objects cannot occur. Double uses of affixes might appear to be a serious complication to the grammar. However, the two uses mostly have different distributions since they apply to different verb classes.

Moreover, the core and grammaticized uses of a suffix have contrasting properties. Core suffixes usually play an argument structure role and thus can effect the transitivity of the clause. Many are complex suffixes; they have internal morphological composition with corresponding intermediate forms. Any restrictions on the base and the first suffix will also apply to the complex form. The suffix is productive, applying to all bases with the appropriate lexical semantics. In contrast, grammaticized suffixes play an aspectual rather than an argument structure role and thus they have no effect on transitivity. The pieces of the suffix are restructured into a single suffix with no internal bracketing. The corresponding intermediate forms are often illegal, and restrictions on the base do not apply to the complex form. Sometimes the suffix is not productive. For example, the reflexive *-θət*, occurs with the meaning inchoative on only a small number of stative bases.

In fact, a double life is characteristic of morphology in polysynthetic languages. I have found that almost all morphology in Halkomelem shows this type of bifurcation where an affix has both a core and a grammaticized use. For example, the desiderative suffix is also used as an inceptive (Gerdts 1988b), the causative is also used as a resultative (Gerdts 1991), and the reciprocal is also used as a collective (Gerdts to appear). A suffix is often composed of two or more suffixes that have fused together. This fusion encourages the grammaticization of the suffix, which takes on an aspectual meaning and extends into new contexts.

Notes

¹I am deeply indebted to all the speakers of the Island dialect of Halkomelem (Həlqəmínəm) who have supplied data and judgments. The majority of the data here come from the late Wilfred Aleck, the late Arnold Guerin, Margaret James, Dora Sampson, Steve Sampson, Sr., Bill Seward, and Theresa Thorne. I hope to have reported their opinions accurately. My research on Halkomelem has been supported by grants from the Jacobs Research Fund, the Phillips Fund, the Social Sciences and Humanities Research Council of Canada, and the President's Research Fund, Simon Fraser University. Many thanks to Charles Ulrich for editorial assistance. Thanks to the participants of WAIL for their comments and questions.

²The presented paper also discussed reciprocals, but I exclude them here due to space limitations.

³I do not mark primary stress when it falls on the first syllable, the most common location of stress in Halkomelem. Otherwise it indicated by an acute accent.

⁴The following abbreviations are used in glossing the Halkomelem examples: 1 = first person, 2 = second person, 3 = third person, aux = auxiliary, ben = benefactive, cs = causative, det = determiner, erg = ergative, int = interrogative, l. c. = limited control, obj = object, obl = oblique, pos = possessive, sg = singular, sub = subject, ref = reflexive, tr = transitive.

⁵Gerdtz (1989) gives a Relational Grammar analysis of Halkomelem reflexives involving multiattachment and cancellation.

⁶The causative suffix *-st* probably consists of a causative suffix *-s* and the transitive suffix *-t*. [no footnote number]

⁷The reflexive suffix can also appear on nouns and in this case takes on the meaning of 'acting like', as in *ʔiʔʔqətθət* 'acting childish', *xʷəlməxʷθət* 'acting like a First Nations person', *spəpəʔəθθət* 'acting like a bear.' Van Eijk (1988) discusses this use of the equivalent form in Lillooet, an Interior Salish language.

⁸There are two verbs 'eat' in Halkomelem: intransitive *ʔəttən* and transitive *təyʔ-t*.

⁹Compare the Lillooet data in van Eijk (1988).

¹⁰Melissa Axelrod (personal communication) informs me that Koyukon also shows the extension of a reflexive to mean pretend. The *ho-* and *de-* reflexive prefixes, plus a *k'e-* indefinite prefix yields the 'imitative' construction. For example, see the contrast *ebaa hodeedletseenh* 's/he made her/himself sick' and *ebaa hok'edeedletseenh* 's/he pretended to be sick'.

Also, in a recent presentation at University of British Columbia, Michael Krause mentioned in passing that Eyak reflexive causatives mean 'pretend'.

¹¹Gerdts (1988a, 1991) details further restrictions on causatives. Not all intransitives form causatives.

¹²Halkomelem desideratives and motion auxiliaries also show semantic linking of this type (Gerdts 1988b).

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Location and direction in Mocoví¹

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1. Introduction

Mocoví is a Waikurúan language with somewhere between 4,000 and 7,000 speakers who live in communities scattered in the northern part of Santa Fé and the southern part of Chaco provinces in Argentina. It belongs to the Southern branch of the Waikurúan language family².

Mocoví places considerable emphasis on spatial orientation: motion, location and direction of the various participants in a speech event. This spatial orientation is primarily expressed in the demonstrative system and in a set of verbal morphemes (loc/dir morphemes).

The demonstrative system consists of a set of deictic roots that encode presence or absence in the visual field as well as the position and motion of the noun they modify (i.e. standing, sitting, or lying down, coming or going). There are six demonstratives in Mocoví and one of them normally precedes a noun in a definite noun phrase. These demonstratives can occur with an optional suffix marking proximity of the noun to the speaker.

There is a set of verbal morphemes, the locative/directional (loc/dir) verbal enclitics, which indicate motion, location and direction of the action expressed by the verb. I have identified fifteen loc/dir morphemes in Mocoví. When a loc/dir morpheme is added to the verb form, it increases the valency of the verb, adding a loc/dir argument to the argument structure of the verb. These loc/dir morphemes affect the grammatical relation of the noun phrases to the verb within the verb phrase. When they are added to a verb form, the verb agrees with the locative/directional noun phrase ($NP_{[loc]}$) in the sentence, and when they attach to a transitive verb we can find, not only a $NP_{[loc]}$ in the sentence, but also a direct object noun phrase ($NP_{[DO]}$). This $NP_{[DO]}$ occurs farther from the verb form than the $NP_{[loc]}$, and the verb agrees with the $NP_{[loc]}$ rather than with the $NP_{[DO]}$.

This paper is organized as follows. In Section 2 I present some general characteristics of Mocoví, and I briefly outline the structure of the verb form. In Section 3 I discuss the demonstrative system, I show the set of deictic roots that are the basis of this system, and provide examples of their usage. In Section 4 I provide an account of the locative/directional enclitics. I discuss some of their main features, and I show how they

affect the grammatical relation of the noun phrases to the verb within the verb phrase. In Section 5 I lay out the conclusions.

2. Some general characteristics of Mocoví

Mocoví is an SVO language. In most cases, subjects and objects are encoded by pronominal clitics and affixes on the verb. It has an Active/Inactive agreement system on verbs in which agents are marked by one set of markers, the Active person markers, and non-agents and objects are marked by another set of markers, the Inactive person markers. The set of possessive markers on nouns very closely resembles the Inactive person markers. Person is marked mainly by a set of proclitics which immediately precede the verb stem (or the prefix *n-* ‘hither’ in a verb that takes this prefix), and person number is marked as a suffix immediately following the stem. There is also a suffix *-i* for the second person singular familiar, or an enclitic *+ir* for the second person singular respectful form, which immediately follows the stem. None of the person prefixes can co-occur. There is a hierarchy that will determine which person marker will occur in the verb form: 1>2>3. Only the suffix *-ag* ‘first person plural agent’ can co-occur with the other person suffixes in the verb form, or with the second person singular respectful enclitic. None of the other person suffixes can co-occur. Mocoví lacks prepositions, but it has an oblique marker *ke*.

The structure of the verb form in Mocoví is quite complex, and includes the following categories: negation, indefinite agent, active and inactive person markers, hither, aspect, locatives/directionals, object number, and evidential. The structure of the verb form in Mocoví is shown in (1). (The locative/directional enclitics are in **boldface**.)

- (1) Structure of the Verb form
 Neg+Indef+Pers+hither-STEM-1PIAg -Pers +Asp+**Loc/Dir** +On^o +EV
 (+2SGR)

3. The Demonstrative System

Mocoví has a fairly complex demonstrative system. It is made up of a set of deictic roots which precede the noun in noun phrases and mark the absence/presence of the noun they modify, as well as motion (coming/going) and position (standing/sitting/lying). These deictic roots can also function as pronominals and as locative adverbs.

The demonstratives are independent words that can be marked for gender and number. Gender is optional in the singular and not marked in the plural. The gender markers are *e+* ‘masculine’ and *a+* ‘femenine’. Number is optional if it is marked on

other elements in the NP. The plural suffix of the demonstratives is *-awa*. The demonstrative system of Mocoví is given in Table 1.

Table 1
The Demonstrative System of Mocoví

Sg.M	<i>absent</i>	(e+)ka	
	<i>present movement:</i>	<i>coming</i>	(e+)na
		<i>going</i>	(e+)so
	<i>position:</i>	<i>standing (vertically extended)</i>	(e+)da
		<i>sitting (non-extended)</i>	(e+)ñi
<i>lying (horizontally extended)</i>		(e+)ji	
<hr/>			
Sg.F	<i>absent</i>	(a+)ka	
	<i>present movement:</i>	<i>coming</i>	(a+)na
		<i>going</i>	(a+)so
	<i>position:</i>	<i>standing (vertically extended)</i>	(a+)da
		<i>sitting (non-extended)</i>	(a+)ñi
<i>lying (horizontally extended)</i>		(a+)ji	
<hr/>			
Pcl/Pl	<i>absent</i>	ka-awa	
	<i>present movement:</i>	<i>coming</i>	na-awa
		<i>going</i>	so-awa
	<i>position:</i>	<i>standing (vertically extended)</i>	da-awa
		<i>sitting (non-extended)</i>	ñi-awa
<i>lying (horizontally extended)</i>		ji-awa	

Some examples of the deictic roots as demonstratives with the noun *?alo* ‘woman’ are shown in (2)³.

- (2) a. /a+ka ?alo/ ‘that woman(absent)’
F+DEIC(absnt) woman
 b. /a+na ?alo/ ‘that woman(coming)’
F+DEIC(cmng) woman
 c. /a+so ?alo/ ‘that woman(going)’
F+DEIC(gng) woman
 d. /a+da ?alo/ ‘that woman(vertically extended)’
F+DEIC(vert) woman
 e. /a+ñi ?alo/ ‘that woman(non-extended)’
F+DEIC(nonext) woman
 f. /a+ji ?alo/ ‘that woman(horizontally extended)’
F+DEIC(hor) woman

Example (3) was taken from a text in which a man is walking on the land looking for food, and he encounters a creature that tells him that there is going to be a flood, so he should go back and warn his family. This is the second sentence in the text, and it shows different demonstratives being used with the various nouns in the sentence. The man, *so qom* ‘the man’, is walking on the land, so the demonstrative *so* ‘deictic (going)’ is used; he is looking for food, *ka lepetaganagat* ‘the food’, which is not present, so the demonstrative *ka* ‘deictic (absent)’ is used; and he is walking on the land *ji no?we:naga* ‘the land’, an extended surface, so the demonstrative *ji* ‘deictic (horizontally extended)’ is used.

- (3) /so qom nakitetako?/
 so qom Ø+n-akite+tak+o?
 DEIC(gng) person 3AC+HITH-look.for+PROG+EV
- /ka lepetaganagat yowo:tako?/
 ka l+epetaganagat y+owo: +tak+o?
 DEIC(absnt) ABS+food 3AC+walk+PROG+EV
- /ke ji no?we:naga/.
 ke ji n+o?we:naga
 OBL DEIC(hor) ABS+land
 ‘That man was looking for food, (he) was walking on the land.’

The deictic root *ka* ‘absent’ is very common in texts, regardless of the motion or position of the noun it modifies. The sentence in (4) was taken from a narrative text in which a woman goes to the well to get water and encounters a man who tells her he is interested in her. In this sentence the demonstrative *ka* ‘deictic (absent)’ is used with the nouns *naga?a* ‘day’, *?alo* ‘woman’ and *le?ya* ‘her well’, regardless of their motion or position. This is the first sentence in the story.

- (4) /?weo? ka naga?a aka ?alo/
 ?we+o? ka naga?a a+ka ?alo
 exist+EV DEIC(absnt) day F+DEIC(absnt) woman
- /ri?liwi ke aka le?ya/
 r+i?liwi ke a+ka l+e?ya
 3AC+look.for.water OBL F+DEIC(absnt) 3POSS+well
 ‘Once there was a woman who went to her well to look for water.’

The demonstratives can occur with additional morphology marking distance relative to the speaker. In such cases the suffixes *-ho* ‘very proximate’, *-ta*

‘proximate’ (not as close as *-ho*), *-kerawk* ‘far’, *-keram* ‘farther’, and *-keram:* ‘very far’ are used. In the examples in (5), the deictic root *da* ‘deictic (vertically extended)’ precedes the same noun, *yale* ‘man’ in the noun phrase. In (5)a it occurs without any additional morphology marking proximity to the speaker. In (5)b it occurs with the suffix *-kerawk* ‘far’, in (5)c it occurs with the suffix *-keram* ‘farther’, and in (5)d it occurs with the suffix *-keram:* ‘very far’. In all the examples the proclitic *e+* ‘masculine’ precedes the deictic root.

- (5) a. /eda yale/ ‘that man (vert)’
 e+da yale
 M+DEIC(vert) man
- b. /edakerawk yale/ ‘that man far’
 e+da-kerawk yale
 M+DEIC(vert)-DIST man
- c. /edakeram yale/ ‘that man farther’
 e+da-keram yale
 M+DEIC(vert)-DIST man
- d. /edakeram: yale/ ‘that man, very far’
 e+da-keram-m yale
 M+DEIC(vert)-DIST-INTENS man

Mocoví lacks pronominal forms for the third person singular and third person plural. The deictic roots can function as third person independent pronouns. In such cases the form *magare* ~ *ma:re* ‘pronoun’ immediately follows the deictic root.

- (6) /da **magare** koba?e aka inaqaype ke ĵi ?o:či/
 da **magare** Ø+koba?e a+ka i+n-acaqpe ke ĵi ?o:či
 DEIC(vert) PRON 3AC+forget F+DEIC(absnt) 1POSS+axe OBL DEIC(hor) brush
 ‘He forgot my axe in the brush.’
- (7) /awerñi dawa **magare**/
 Ø+aw-er+ñi da-wa **magare**
 3AC+fall-3PL+DWN DEIC(vert)-PL PRON
 ‘They fell down (from something).’

The deictic roots can function as locative adverbs, and in that case they usually occur with one of the suffixes marking proximity to the speaker, as in (8) also taken from a text.

- (8) /sašilaʔiʔ kopatiroʔoʔ **na**ho sentangi laqalači/
 s+ašila+ir Ø+kopat+ir+oʔ+oʔ **na-ho**
 1AC+ask+2SGR 2AC+ignite+2SGR+EV+EV **DEIC(cmng)- PROX**
- s+enta+ngi I+aqalači
 1AC+exist?+? ABS+open.field
 ‘... you start a fire here, where I am on the open field.’

In Grondona (1998) I referred to the demonstratives in Mocoví (and in other Waikurúan languages) as deictic classifiers. However, further research on Mocoví has shown that they are not deictic classifiers but deictic roots which can function as demonstrative adjectives and demonstrative pronouns, as locative adverbs, and can also be part of other morphologically complex forms. As demonstratives, the choice of the deictic root depends on the absence/presence, motion and/or position of the noun they modify, and they can occur with additional morphemes marking proximity to the participants in the speech event.

3. Locative/directional clitics

There is a set of verbal morphemes in Mocoví, the locative/directional (loc/dir) enclitics, which indicate motion, location and direction of the action expressed by the verb. They follow the aspect clitic and precede object number markers in the verb form. I have identified fifteen loc/dir enclitics in Mocoví. The loc/dir enclitics are listed in Table 2, listed first in terms of opposite relations--down/up, under/on, in/out, towards.here/towards.there--and then other spatial relations for which opposites do not occur in Mocoví.

Table 2
Locative/directional enclitics

Down/Up	
+ñi	'down, downwards'
+šigim	'up, upwards'
Under/On	
+ot	'under'
+leg	'on, over'
In/Out	
+eg ~ +weg	'out, outwards'
+wgi	'in, inwards, into'
+ñigi	'inside'
+o ~ +wo	'inwards, hither'
Towards.here/Towards.there	
+kena	'towards here'
+igi	'towards (there?)'
Other spatial relations:	
+aʔta	'on/to other side of, across'
+eʔe	'with'
+igit	'behind'
+pegeʔ ~ +peʔ	'up to'

Loc/dir enclitics follow the progressive aspect marker and precede object number enclitics in the verb form (See the structure of the verb form in (1). In example (9) the loc/dir enclitic *+igi* 'towards there (TDS)' is added to the verb *owagan* 'to hit', where it occurs between the progressive enclitic *+tak* and the enclitic *+lo* 'paucal object'.

- (9) /qamir waganirtak **igi**/lo nawa lečil so lwis/
 qamir Ø+owagan+ir+tak+**igi**+lo
 2SGPRON 2AC+hit+2SGR+PROG+ON+PCL
 na-wa 1+eči-l so lwis
 DEIC(cmng)-PL 3POSS+leg-PCL DEIC(gng) Luis
 'You are hitting Luis on the legs.'

When a loc/dir morpheme is added to the verb form, it increases the valency of the verb, adding a loc/dir argument to the argument structure of the verb. This argument is not always overtly expressed by an NP, but when it is, it expresses the location and/or direction of the action expressed by the verb. It will be referred to as NP_[loc], i.e. a locative

noun phrase not preceded by the oblique marker *ke*. The sentences in (10)-(13) provide examples of some locative/directional enclitics added to the same verb root, *añogot* ‘to hide’. In each sentence there is an NP_[loc] expressing the location where Luis is hiding. (The loc/dir enclitics are in **boldface**, and the NP_[loc] is in *italics*.)

- (10) /lwis nañogot**igit** *da qoʔpaq*/
 lwis Ø+n-añogot+**igit** *a+da* *qoʔpaq*
 Luis 3AC+HITH-hide+**BEHIND** *F+DEIC(vert)* *tree*
 ‘Luis hides **behind** *the tree*.’
- (11) / lwis nañogot**owgi** *ñi ʔimek* /
 lwis Ø+n-añogot+**owgi** *ñi* *ʔimek*
 Luis 3AC+HITH-hide+**IN** *DEIC(sitting)* *house*
 ‘Luis hides **inside** *the house*.’
- (12) /lwis nañogoti**ʔñot** *ʃi nkiʔyagala* /
 lwis Ø+n+añogot+**iʔñot** *ʃi* *n+kiʔyagala*
 Luis 3AC+HITH-hide+**UNDER** *DEIC(hor)* *ABS+table*
 ‘Luis hides **under** *the table*.’
- (13) /lwis nañogot**leg** *ñi ʔimek lelaq* /
 lwis Ø+n-añogot**leg** *ñi* *ʔimek* *H+elaq*
 Luis 3AC+HITH-hide+**ON** *DEIC(sitting)* *house* *3POSS+roof*
 ‘Luis hides **on** *the roof of the house*.’

The loc/dir enclitics cannot co-occur; only one loc/dir is possible within a verb form in Mocoví. Example (14) shows that a sentence with two loc/dir enclitics, *+leg* ‘on’ and *+ñi* ‘down, downwards (DWN)’ added to the verb root *at* ‘to fall’ cannot co-occur within the same verb form.

- (14) */sat**legñi** so waloq/
 s+at+**leg+ñi** so waloq
 1AC+fall+**ON+DWN** *DEIC(gng)* *cotton*
 ‘I fall **down on** *the cotton*.’

In many cases, a sentence containing a verb+loc/dir and a NP_[loc] is equivalent to a sentence containing a verb (without any loc/dir enclitic) and an oblique noun phrase. The sentence in (15) is a simple sentence in which the verb *ilew* ‘to die’ has only the Inactive third person subject proclitic *i+*.

- (15) /lwis iilew /
 lwis i+ilew
 Luis 3IN+die
 ‘Luis dies/died.’

Example (16) shows the same verb *ilew* ‘to die’ with the Inactive third person subject proclitic *i+* and the loc/dir enclitic +*wgi* ‘in, inside, inwards’, as well as an NP_[loc] *ñi natarenataganagaki* ‘in the hospital’ which expresses the location of the action expressed by the verb, i.e. where Luis died.

- (16) /iilew**wgi** ñi natarenataganagaki/
 i+ilew+**wgi** ñi n+atarenataganagaki
 3IN+die+**INSIDE** DEIC(nonext) ABS+hospital
 ‘He died in the hospital.’

Example (17) again shows the same verb *ilew* ‘to die’ with only the third person Inactive subject clitic *i+*, no loc/dir enclitic on the verb form, and the oblique noun phrase *ke ñi natarenataganagaki* ‘in the hospital’, introduced by the oblique marker *ke* followed by the noun phrase *ñi natarenataganagaki* ‘the hospital’. The meaning of the sentences in (16) and (17) is the same: Luis died in the hospital.

- (17) /iilew ke ñi natarenataganagaki/
 i+ilew ke ñi n+atarenataganagaki
 3IN+die **OBL** DEIC(non-ext) ABS+hospital
 ‘He died in the hospital.’

Example (18) shows that it is not possible to have both the loc/dir enclitic on the verb and an oblique noun phrase introduced by the oblique marker *ke*.

- (18) */iilew**wgi** ke ñi natarenataganagaki/
 i+ilew+**wgi** ke ñi n+atarenataganagaki
 3IN+die+**INSIDE** **OBL** DEIC(nonext) ABS+hospital
 ‘He died in the hospital.’

Examples (19) and (20) show the same pattern. The sentence in (19) contains a verb form with the enclitic +*wgi* ‘inwards’ added to the verb root *enogon* ‘enter’ and an

NP_[loc] *iaʔa* ‘my house’, while in (20) a sentence containing the same verb form with the enclitic +*wgi* and an oblique noun phrase *ke iaʔa* ‘in my house’, rather than an NP_[loc] is ungrammatical.

- (19) /yim senogon**wgi** iaʔa/
 iim s+enogon+**wgi** i+aʔa
 1SGPRON 1AC+enter+INWDS 1SGPOSS+house
 ‘I enter my house.’
- (20) */yim senoxon**wgi** *ke* iaʔa/
 yim s+enoxon+**wgi** *ke* i+aʔa
 1SGPRON 1AC+enter+INWDS OBL 1SGPOSS+house
 ‘I enter my house.’

Another interesting example was taken from a text in which a man is walking in a field and encounters a creature who tells him there is going to be a flood. Both sentences express the same meaning: the man is walking on the land, or in the field. The sentence in (21) contains the verb form *ke: talkoʔ* (/Ø+ek+tak+leg+oʔ/) ‘he is going on (= is walking on)’ with, among other morphemes, the loc/dir +*leg* ‘on’, and the NP_[loc] *ʃi noʔwe:naga* ‘the field’.

- (21) /naʎa:qoʔ weoʔ so qomʔ eke:taklegoʔ ʃi noʔwe:naga ...//
 naʎa:q+oʔ we+oʔ so qom
 before+EV exist+EV DEIC(gng) person
- Ø+ek+tak+leg+oʔ ʃi n+oʔwe:naga
 3AC+go+PROG+ON+EV DEIC(hor) ABS+field

‘Once upon a time (= in the old times) there was a person walking on the land ...’

In (22), the sentence contains the verb form *iowo:takoʔ* (/i+owo:+tak+oʔ/) ‘he was walking’ without any loc/dir enclitic, and not an NP_[loc], but an oblique noun phrase *ke ʃi noʔwe:naga* ‘in the field’.

- (22) /... iowo:takoʔ **ke** ʃi noʔwe:naga/
 i+owo:+tak+oʔ **ke** ʃi n+oʔwe:naga
 3AC+walk+PROG+EV OBL DEIC(hor) ABS+field
 ‘... [the man] he was walking on the land.’

The verb forms, *eke:taklego?* ‘he is going on (= is walking on)’ in (21) and *iowo:tako?* ‘he is walking’ in (22), have different verb roots, *ek* ‘to go’ and *owo*: ‘to walk’ respectively. Not all verb roots can take any loc/dir enclitic: some verb roots can occur with most (or all) loc/dir enclitics, while other verb roots can occur with only a few, and still others with none.

When these loc/dir enclitics are added to an intransitive verb, they introduce a noun phrase, an NP_[loc], into the sentence, as shown in examples (15) and (17) above, and the verb agrees with the NP_[loc]. When they are added to a transitive verb we can find not only a NP_[loc] in the sentence, but also a direct object noun phrase (NP_[DO]). This NP_[DO] occurs farther from the verb form than the NP_[loc], and the verb agrees with the NP_[loc] rather than with the NP_[DO], affecting the grammatical relation of the noun phrases to the verb within the verb phrase.

(23) /samag so lwis/
 s+amag so lwis
 1AC+push DEIC(gng) Luis
 ‘I push Luis.’

(24) /samagleg so waloq so lwis/
 s+amag+leg so waloq so lwis
 1AC+push+ON DEIC(gng) cotton DEIC(gng) Luis
 ‘I push Luis onto the cotton.’

(25) */samagleg ke so waloq so lwis /
 s+amag+leg ke so waloq so lwis
 1AC+push+ON ke DEIC(gng) cotton DEIC(gng) Luis
 ‘I push Luis onto the cotton.’

This evidence supports the idea that when these loc/dir enclitics are added to a verb form, they increase the valency of the verb, adding a loc/dir argument to the argument structure of the verb.

To summarize, then, loc/dir verbal enclitics indicate motion, location and direction of the action expressed by the verb. There are fifteen loc/dir enclitics in Mocoví which can be added to a verb form and they increase the valency of the verb, adding a loc/dir argument to the argument structure of the verb. These loc/dir morphemes affect the grammatical relation of the noun phrases to the verb within the verb phrase. When they are added to a verb form, the verb agrees with the locative/directional noun phrase (NP_[loc]) in the sentence, and when they attach to a transitive verb we can find not only a

NP_[loc] in the sentence, but also a direct object noun phrase (NP_[DO]). This NP_[DO] occurs farther from the verb form than the NP_[loc], and the verb agrees with the NP_[loc] rather than with the NP_[DO].

4. Conclusion

In this paper I have shown that Mocoví places considerable emphasis on the motion, location and direction of the participants in a speech event. This spatial orientation is expressed by a complex demonstrative system which contains a set of deictic roots, and by a set of locative/directional enclitics within the verb form.

Notes

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² The Waikurúan language family comprises two branches: Waikurú and Southern Waikurúan. The Waikurú branch includes Mbayá, and its only descendant Kadiwéu. The Southern Branch includes Mocoví, Pilagá, Toba, and †Abipón.

³ **Abbreviations:** ABS = Absolutive; absnt = absent; AC = active; asp = aspect; cmng = coming; DEIC = deictic; DIR = directional; DIST = distant; DWN = down; EV = evidential; f = familiar; F = feminine; HITH = hither; hor = horizontally extended; IN = inactive; INDEF = indefinite agent; INTENS = intensifier; LOC = locative; M = masculine; n° = number; NEG = negative; nonext = non-extended; nthg = nothing; O = object; OBL = oblique; PCL = paucal; pers = person; PL = plural; PROG = progressive; PRON = pronoun; PROX = proximate; R = respectful; SG = singular; TDS = towards; vert = vertically extended; 1 = first person; 2 = second person; 3 = third person; **Symbols:** † = extinct language; XX+ = proclitic; +XX = enclitic; XX- = prefix; -XX = suffix.

Mocoví phonemic inventory: **Consonants:** stops and affricates: p, t, d, č, ʃ [ž, ʒ], k, q, ʔ; fricatives: (φ), s [s, h], š, g [ɣ], ɣ; nasals: m, n, ñ; approximants: l, r, λ, h; vocoids: w [w, β], y. **Vowels:** i, i:, e, e:, a, a:, o, o:. **Stress:** Mocoví stress always falls on the last vowel of the word.

(The phones provided in parenthesis represent sounds that occur only in borrowings from Spanish.)

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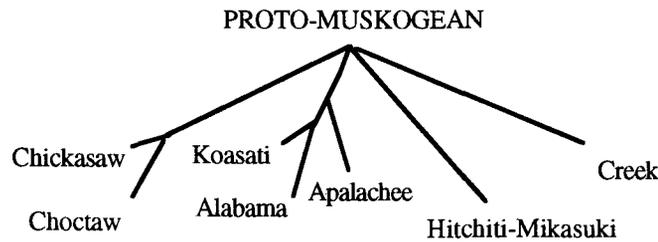
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Notes on Switch-Reference in Creek

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1. The goal of this paper is to give a brief description of switch-reference (SR) in Creek and to explore specific issues arising in the description of the phenomenon. Some of these issues appear to receive a simple structural solution while others resist understanding in such terms.¹ Like many other phenomena in grammar, a full description of SR appears to require reference both to linguistic structure and to discourse.

Creek is a member of the Muskogean family of languages of the southeastern U.S.:



The basic word order in Creek is Subject-Object-Verb. Verbs may occur in several grades affecting the length and pitch of key syllables. Verbs agree with first and second person arguments in person and number, generally using one series of agreement markers for arguments that act deliberately (Type I) and another series (Type II) in most other instances:

- (1) a. *latêyk-ey-s*
fall:SG:Hgr-1sI-IND
'I fell (deliberately).'
- b. *ca-latêyk-is*
1sII-fall:SG:Hgr-IND
'I fell (accidentally).'

A third series (Dative) is usually confined to a wide range of 'indirect' arguments.

Types I and II agreement markers serve to identify the agent and patient in first and second person forms. There is no agreement in the third person. When a noun phrase appears in a clause, however, it may be marked with *-t* or *-n*:

- (2) a. *pó-si lást-i-t á:ssi c-ís*
cat black-DUR-T chase:Lgr-IND
'A black cat is chasing him/her/it.'
- b. *pó-si lást-i-n á:ssi c-ís*
cat black-DUR-N chase:Lgr-IND
'She/He/It is chasing a black cat.'

As these examples suggest, *-t* is found on subjects and *-n* is found on objects. The suffix *-n* is also found on 'oblique' noun phrases, however, including those expressing location, time, or manner:

- (3) *ifá-t fitta-n hōyt-is*
 dog-T outside-N stand:SG:Fgr-IND
 'A dog is standing outside.'

It thus appears that *-t* is only used for subjects while *-n* may be used for any nominal constituent of a clause other than the subject.

The suffixes *-t* and *-n* also appear at the ends of chained and subordinate clauses:

- (4) a. *ifá-t wo·hki-t pó·si-n á·ssi·c-ís*
 dog-T bark:Lgr-T cat-N chase:Lgr-IND
 'The dog is barking and chasing the cat.'
- b. *ifá-t wo·hki-n pó·si-t á·ssi·c-ís*
 dog-T bark:Lgr-N cat-T chase:Lgr-IND
 'The dog is barking and the cat is chasing him.'

As these examples suggest (and as Nathan 1977 has noted), *-t* is used when the subject of the clause it attaches to extends to the next higher clause, while *-n* is used when the next higher clause has a different subject. In their use at the ends of clauses, then, *-t* and *-n* can be described as a form of SWITCH-REFERENCE marking (see, among others, Haiman and Munro 1983, Stirling 1993). I will henceforth refer to *-t* as a SAME-SUBJECT MARKER (SS) and to *-n* as a DIFFERENT-SUBJECT MARKER (DS). Clause-final suffixes like the indicative that do not determine same- or different-subject will be said to be OPEN. This yields the following classification of clause-final markers in Creek:

Creek clause-final markers	SS	DS	Open
'and', 'and then'	<i>-t</i>	<i>-n</i>	
'when'	<i>-o·fa-t</i>	<i>-o·fa-n</i>	<i>-o·f²</i>
'the one who/time when/place where'	<i>-a·ti-t</i>	<i>-a·ti-n, -a·n</i>	<i>-a·t</i>
'if'			<i>-n o·m-a·t</i>
'though'			<i>-eys(in)</i>
'because'			<i>-(i)ka</i>
indicative			<i>-(i)s</i>
imperative			<i>-as</i>
interrogative			<i>-a, -a', -ha·ks</i>

Note that *-t* appears on all the SS forms and *-n* appears on all the DS forms. In general, SS and DS markers are associated with clause-final markers that are likely to be close in time to the following clause. As the two clauses become more independent in tense, the clause-final suffixes tend to become open. Thus, the indicative, imperative, and interrogative suffixes are all sentence-final markers and are always open with regard to the subject of the next clause.

The chart above also shows that open forms are sometimes contracted from SS or DS forms. The forms *-o·fa-t*, *-o·fa-n*, *-a·ti-t*, and *-a·ti-n* are rare in modern texts, generally being replaced by the shorter forms *-o·f*, *-a·t*, and *-a·n*.

2. A preliminary description. Creek *-t* is used when a narrator is interested in the closely linked activities of a single agent:³

“*ístomi cakâ n á la:tkêysa: ^*
 how do you do it it fell?”

keycín
 (Rab.) says (Rabbit) asks DS...
 (1939:31)

Because of its SS orientation, SS marking in Creek is reminiscent of reduced participial clauses in English (e.g., *Walking into the room I noticed some flowers.*). The Creek construction differs in that overt subjects are possible in SS clauses:

(5) *ńi:sihó ka pá li hokkô:la t óhńi*
 score ten two reached The score reached
 twenty DS,

ísti omá lkat a fackakí hń nńi
 people all were happy very all the people were
 very happy SS,

ísti awa hń
 people scattered and the people
 scattered DS
 (1939:41-43)

In (5), SS marking is used between the last two clauses because *ísti omá lkat* ‘all the people’ and *ísti* ‘people’ are construed as being the same in reference. What counts as ‘same’ for SR thus depends on the reference of subjects and thus to a specific discourse model.

SR usually appears to be based on the grammatical category of subjects. The subjects in (6) are counted as the same even though the subject is referenced with a dative agreement marker in the first clause and a Type I (agentive) agreement marker in the second clause:

(6) *an-hń nńi síko*
 1sD-good without not feeling well SS,

lêyk-ey-t o:méys
 sit:Fgr-1sI-T I am I am sitting down,”
 (1939:9)

Similarly, impersonal clauses (clauses with weather verbs, etc. that do not allow referential noun phrases as subjects) are treated grammatically in Creek as having subjects:

(7) *acń nwi hâ ki*
 long (in time) had become After a LONG time
 DS,

lá kcat ’toháwki ó fan lêykatit
 acorn hollow tree in sat an acorn sitting inside
 the hollow tree SS

ni kńi
 burning was burning SS
 (1939:37)

In (7), the subject of the first clause is treated as different from the subject of the second clause even though the subject of the first clause is not referential.

SR also makes reference to the structure of sentences. SR does not make reference to a following clause if that clause is structurally lower:

(6) *ho:spafó:pkín apéyci:céy* I’ll go along the wall

near the wall I go along

SS

hōyǎ́cka t *'hóká ti to k*
 where you stand because I will reach

and get to where you
 are standing (1939:57)

In (6), SS marking is used at the end of the first clause because the complement clause ('where you are standing') is lower and thus irrelevant to the determination of SR.

There are occasionally a few challenges to a description of SR in terms of same- and different-subject, however. Consider the following example:

(7) *sata-kákkon* *nǎhsit*
 big persimmon he bought

(a man) bought an
 apple SS,

sata-kákkon *homêypit*
 big persimmon he ate

ate the apple SS,

'noti-kákkot *ínhi-ckatí g*
 big tooth appeared to him

and found a big tooth
 OPEN. (1992)

The last clause in (7) is an idiom: to express the idea that a man found a big tooth, Creek uses an expression meaning 'a big tooth appeared to him'. For the purposes of SR marking, however, the animate nominal counts as a subject for this speaker. In this instance, SR reflects the greater topicality of the experiencer than the grammatical subject.

In the following section I examine a few further issues arising in the description of SR in Creek.

3. Descriptive problems.

3.1 SR in 'if' clauses. One difficulty in the description of Creek SR involves examples in which a main verb occurs with the verb *om-* 'be':

Verb-SR *om-*

In this configuration, SS *-t* is usual (8), though DS *-n* is also found (9):

(8) *α kít* *σ mâ t*
 going about being

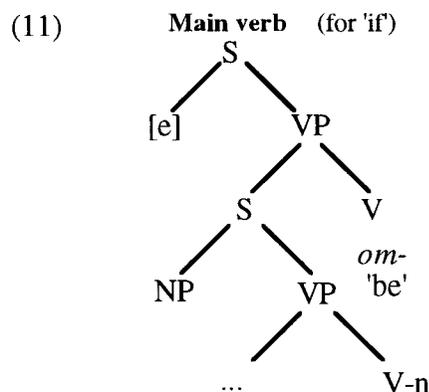
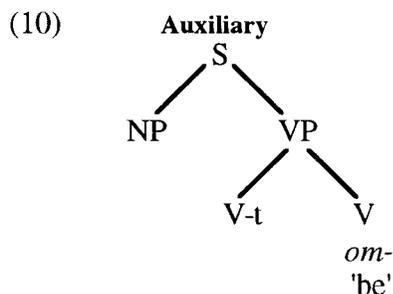
as he is going around
 (1939:3)

(9) *α kún* *σ mâ t*
 going about being

if he is going about
 (1939:87)

In (8), the subject of 'going about' is taken to be the same as the subject of the auxiliary verb. In (9), DS marking implies that the subjects of the two verbs are different. This second use of *-n* with *om-* is limited to a specific construction translating as 'if', however.

I believe the best account of SR in (8-9) is to posit the different structures in (10-11), respectively:



In (10) (=8), *om-* is an auxiliary verb and so shares a subject with the main verb. In (11) (=9), *om-* is a main verb without a referential subject. A literal translation in English of (9) would then be ‘it being that he is going about’.

In fact, there is independent evidence for the distinction posited in (10-11): in auxiliary uses of *om-*, agreement may be found on just the auxiliary (12) or on both the auxiliary and the main verb (13):

(12) *hì n̄t̄in ahicéycit om-íck-at-i-s* “You will watch him
 well watching be-2sI-will-DUR-IND WELL... (1939:15)

(13) *l̄eyk-ey-t om-éy-s* I am sitting
 sit-1sI-T be-1sI-IND (1939:9)

In ‘if’ clauses, *om-* never agrees with the subject of the preceding clause:

(14) *hì c-éy-n om-mâ-t* if I see
 see-1sI-N being (1939:49)

The distinction observed between (13) and (14) is consistent with the claim that ‘if’ clauses have a nonreferential third-person subject.

3.2 SR in overlapping contexts. While the appearance of DS marking in ‘if’ clauses appears to have a structural explanation, there are other phenomena that appear to elude such simple treatments. What counts as ‘same’ and ‘different’ for SR is not always obvious, for example. I will consider two cases of OVERLAP between clauses in this section: the first is where one subject is a part of another subject; the second is where one subject is a subset of another subject.

In Creek, subjects in a part/whole relationship are considered to be different with respect to SR:

(15) *íjki hámka:t isnâ:fka:n* When (Rabbit) hit it
 his hand other when he hit it with with his other paw
 DS,

íjki:t istahá:kin alokpíhp̄in
 his hand figure it got stuck to
 that paw stuck to the
 doll DS... (1939:5)

In (15), DS marking is used at the end of the first clause even though the subject of the second clause is a part of the subject of the first clause.

Subjects in a set/subset relationship are given more freedom with respect to SR. In some instances SS marking is used:

- (16) $a \neq b = ab$
- | | | | |
|-------------------------------|------------------------------|---------------|------------------------|
| <i>coha·wí·ska</i> | <i>ways ways</i> | <i>ma·kín</i> | the towhee says 'ways |
| towhee | ways ways | says | ways' DS |
| <i>tásit</i> | <i>tasiká·ya teyns teyns</i> | <i>ma·kít</i> | the bluejay says |
| bluejay | tasiká·ya teyns teyns | says | 'tasikaya teyns teyns' |
| | | | SS |
| <i>wila·kô·f</i> | | | when they (2) were |
| when they (2) are going about | | | going about... |
| | | | (1939:35) |

In (16), the singular subject of the second clause is counted as the same as the plural subject of the third clause. The following passage is similar in this regard:

- (17) $a = ab = abc$
- | | | | |
|--------------------------|----------------------|---------------------|----------------------|
| <i>hompí·ko·k,</i> | <i>ma·kít</i> | since we haven't | |
| because we haven't eaten | he says | eaten," he says SS | |
| <i>hokkô·la·t</i> | <i>'timakasáhmit</i> | and the two of them | |
| the two | agreed together | agreed SS | |
| <i>ma cáto</i> | <i>tímpin</i> | <i>apô·kít</i> | and they all (3) sat |
| that rock | near | they (3) sat | close SS (1939:19) |

In (17), the subject of the first clause merges with the subject of the second clause, and these merge with the third.

In other instances, DS marking is used in set/subset relationships:

- (18) $a \neq ab \neq b$
- | | | | |
|--------------------|---------------|------------------------|----------------------|
| <i>haláhteyn</i> | | I grabbed him DS, | |
| I grabbed him | | | |
| <i>hì·nfi</i> | <i>mâ·hin</i> | <i>tinciyalhóhyi·n</i> | and we struggled |
| good | very | we struggled together | together hard DS, |
| <i>yi·cîhyika</i> | | | he went in there, so |
| because he entered | | | (1939:17-19) |

In (18), DS marking is used between the first clause and the second clause and again between the second clause and the third clause even though 'we' here includes 'I' and 'he'.

The following examples are similar in this regard:

- (19) $a \neq abc$
- | | | | | |
|--------------|----------------|------------------|--------------|----------------------|
| <i>ahili</i> | <i>mâ·nhin</i> | <i>fiksômkit</i> | <i>a·kín</i> | he got really scared |
| good | very | got scared | goes about | there DS, |

- | | | |
|--|------------------------|--|
| <i>follatí:s</i>
they went about | | and they went about.
(1939:51) |
| (20) <i>abc≠a</i> | | |
| <i>ma cáton oponayí ca:kít</i>
that rock they talking about | <i>o:mín</i>
were | (three men) were
talking about that rock
DS... |
| <i>hámkit</i>
one | <i>okâ:t</i>
saying | One said,
(1939:47) |

The context of (19) makes it clear that the subject of the second clause includes the subject of the first clause, though DS marking is used. DS marking is also used in (20) even though there is clear overlap between the subjects.

Data of this sort suggest that the use of DS or SS marking in set/subset contexts is determined not by grammatical rule but by subtle judgments on the part of speakers regarding the separateness of entities and the activities they perform. More specifically, SS marking appears to be used when subjects blend together (as in (16-17)), while DS marking appears to be used when actions or responses serve to distinguish individuals from their groups (as in (18-20)).

This type of phenomenon requires more research, but the data presented above make it clear that a simple structural account of SR in overlapping contexts is lacking.

3.3. SR with impersonal plurals. Creek has what I call an ‘impersonal plural’ that is often used to translate the English passive. The basic grammatical properties of the construction are:

- a. A transitive or intransitive clause becomes impersonal (i.e., cannot have a overt, referential nominal in subject position);
- b. The verb or auxiliary has an infix *-ho-* (which has plural uses in some other contexts, but may have singular reference in impersonal uses);
- c. The subject is given less prominence and an object (if present) given greater prominence;
- d. There is no syntactic ‘promotion’: objects continue to be marked with *-n*.

Because the object receives greater prominence and because impersonal clauses appear to lack subjects, a question arises as to how impersonal plural clauses might be treated with respect to SR.

In fact, impersonal plurals are treated as though they have a subject for SR:

- | | | | |
|----------------------------------|--|---------------------------------------|--|
| (21) <i>istahá:kin</i>
figure | <i>kolówan</i>
tar | <i>isháhyit</i>
having made with | having made a doll
out of tar SS, |
| <i>inninín</i>
its trail | <i>imohhoyleyhó:cín</i>
they stood it up on | | they (impers.) stood it
on his path DS, |
| <i>noksitá</i>
to sneak in | <i>kó:mi</i>
trying | <i>a:yí a:kâ:t</i>
going was about | when he was going
about trying to sneak
in... (1939:3) |

In (21), the second clause is an impersonal plural: in the context of the story, the subject of this clause is singular (referring to a specific farmer). Note that SS marking is used between the first and second clauses, suggesting that the impersonal plural subject is counted for SR. Because this subject differs from the subject of the third clause, DS marking appears on the impersonal clause.

Different impersonal plural clauses can pick out different referents within the discourse, however:

(25)	<i>ísti</i>	<i>hámkin</i>	<i>ahákan</i>	<i>'safashotálanín</i>	they (impers.) will
	person	one	law	they will apply	apply the law to one
					person DS

<i>ma hókít</i>	<i>ôṛka</i>	they (impers.) said,
they say	because is	so... (1939:55)

In (25), DS is used between these two impersonal plural clauses because two different non-specific subjects are intended. If the same reference were intended, SS marking would be used at the end of the first clause and *-ho-* would only appear on the second clause.

Examination of the impersonal plural data confirms that knowledge of both grammar and discourse are necessary to understand specific uses of SR marking: the fact that the backgrounded subjects 'count' for SR marking shows that the phenomenon is tied to a grammatical notion of subject; the fact that the reference of entities must be known to determine use of SR shows that SR is not determined by grammar alone.

3.4 Recapitulation clauses. Stirling (1993:17) observes that many languages with SR have a special device for connecting a sentence to a preceding discourse once a full stop has been made:

[S]witch-reference does not appear to cross sentence boundaries. Rather, the widespread device of the **recapitulation clause** allows the switch-reference marking to be carried over from one sentence to the next.

The recapitulation clause in Creek is usually *mo·mín* or *mo·mít*, from *má* 'that' + *om-* 'be, be like' + SR. When the same subject is resumed in a new sentence, *mo·mít* is used:

(26)	<i>hica·kít</i>	<i>follatís</i>	They saw them
	they saw them	they were about	and were going
			about OPEN.
	<i>mo·mít</i>		Being like that SS,
	being like that		
	<i>akíḥeycít</i>		they thought about it
	thinking about it		SS,
	<i>oponayí·ca·kít</i>	<i>follatís</i>	talked about it SS, and
	they talked about it	they were about	were going about.
			(1939:79)

The first sentence in (26) is in the indicative (an open marker) and represents a full stop. In beginning the next sentence, a recapitulation clause (*mo·mít*) is added to inform the audience that the same subject is continuing.

When the next sentence has a different subject, *mo·mín* is used:

(27) <i>ma ísti a·látí·s</i> that person went about	That person went about OPEN.
<i>mo·mín</i> being like that	Being like that DS,
<i>aha·kaká·ca 'toká·fa·natí</i> law breaker to be whipped	they have still not done it to the
<i>momí·hocíkon ismó·íkati·t ô·mí·s.</i> they didn't do it still it is	lawbreaker who was to be whipped. (1939:61)

Of course, this strategy only works because the subject of the recapitulation clause is conventionally taken to be the subject of the preceding clause. With this convention, the recapitulation clause serves to help identify the subject of a new sentence.

3.5 Variation in SR. My description of SR in the preceding sections was intentionally restricted to a limited corpus (a single volume of texts transcribed by Mary R. Haas in 1939). In my own recordings of modern, mostly bilingual speakers, I find a number of examples that appear to follow different principles:

(29) <i>nokó·sit kátó yǎⁿ·cit ónt o·wâ·tín</i> bear fish wanting was being	The bear really wanted fish DS
<i>í·fán ínhoyhkín kô·tín</i> dog he called to he reached	and calling the dog DS reached him DS:
<i>istô·ⁿwi·n kátó sǝⁿ·ki·t cinhî·ckit o·wá·`</i> how fish many appeared to you	“How did you get so many fish?”
<i>kéyhc[in]</i> he said	he (the bear) asked DS... (1992)

In (29), we find DS marking in the first three instances where I would have expected SS marking. It is difficult to know what to make of these examples: a) my understanding of SR may be wrong; b) modern speakers may have a different system of SR than older speakers; or, c) being tape recorded may have caused the modern speaker to be nervous and to lead to errors. My current impression is that (b) is correct and that some speakers employ *-n* as an open marker. The situation cannot be resolved without further research, but I have attempted to show that there is variation within the Creek speaking community on the use of SR. The import is that studies of SR must survey a range of individuals before definitive statements can be made.

4. Conclusion. I began researching this paper convinced that a standard account of Creek SR marking in terms of SS and DS would fail. This judgment was based on my

own experience recording modern speakers where I had observed numerous problems for statements of this kind.

In examining older texts, I find that an account of SR in terms of SS and DS works remarkably well, even in describing recapitulation clauses. My revised view is that SR in these older texts refers to grammatical features of language like 'subject' and 'higher clause.' Grammar alone is insufficient to understand specific uses, however, as in overlapping contexts where reference must be made to the particular scene the speaker has in mind. What is now needed is a more detailed study with a broader range of materials.

Texts cited

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 1992. *Stories told by Robert Washington*, Norman, Oklahoma.

Notes

1. I am grateful to Margaret Mauldin, George Bunny, and the late Helen Bunny for their help with the Creek data and to the organizers of WAIL at UCSB. Mary R. Haas kindly made copies of her texts available. The phonemes of Creek are /i i: a a: o o: c f h k l ɬ m n p s t w y/. /c/ is an alveo-palatal affricate. /e/ is an allophone of /a/. The following abbreviations are used: 1s, 2s, etc.=first person singular, second person plural, etc.; I=type I agreement marking; II=type II agreement marking; DUR=durative; Fgr=falling grade; Hgr=h-grade; IND=indicative; Lgr=level grade; N=DS or oblique (non-nominative); SG=singular; T=SS or nominative.
2. I have placed *-of* in the open category because it does not include a SR marker. Out of 17 instances examined, however, all 17 were DS. I suspect this is not a grammatical feature, however.
3. Creek morphology is so complex that full glossing of examples can sometimes impede understanding on the part of readers. I will therefore resort to word-by-word glosses unless more detail is needed.

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Translation and Interpretation of Ella C. Deloria's "A Sioux Captive Rescued by his Wife"

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In general, Native American communities provide a tradition of education for children based on oral narrative and storytelling. Oral narrative is indispensable in the understanding and maintenance of cultural traditions (Egan, 1987; Goody, 1995; Havelock, 1986) and displays cultural differences through language (Hymes, 1981) as well as providing the means for the continuation of community beliefs and traditions. Nora and Richard Dauenhauer (1990) note, Tlingit stories connect people and are "like a gaff hook reaching out across a distance and becoming hooked with another person who is hooked" (p. ix). Jerome Bruner (1986) identifies narrative as a way to put "timeless miracles into the particulars of experience, and to locate the experience in time and place" (p.13). Narratives and stories engage others in multi-layered experience and provide the opportunity to bridge differences between peoples.

The transcription, translation and interpretation of Native oral literatures has not always provided fair and accurate representations of the multiple meanings and teachings present in the texts. "The apparent lack of literary value in many past translations is not a reflection but a distortion of the originals, caused by the diction process, an emphasis on content, [and] a pervasive deafness to oral qualities" (Tedlock, 1983b, p. 74). Substantial contributions to the field can be found, however, in the work of Dennis and Barbara Tedlock, (1983), Brian Swann (1992), Dell Hymes (1981), and recently, Julian Rice (1994). For the most part, however, the translation and interpretation of traditional narratives has not been pursued or utilized as a form of literature (Swann, 1992; Rice, 1994). In addition, the direct implications of stories and narratives with regard to traditional ideals and values have been, only in a few instances, based on sociolinguistic and cultural perspectives.

This paper presents a free translation, analysis, and interpretation of "A Sioux Captive Rescued by his Wife" (Rice, 1994), a Lakota narrative transcribed and translated into English by Ella C. Deloria in 1937. Multiple methods of verse and narrative analyses were used in order to arrive at an interpretation based on multiple perspectives. Through the use of various methods, it was possible to arrive at an interpretation that reflects Lakota traditions and culture. The methods clarified the cultural constructions and social relationships present in the narrative, and elucidated traditional beliefs and ideals.

Preliminary Remarks

Ella Cara Deloria

Ella Deloria (*Anpetu Waste Win* 'Good Day Woman') was born in 1889 on the eastern South Dakota Sioux reservation of Yankton, and was known throughout the Sioux reservations as having an interest in storytelling. Many times relatives would come and tell her a traditional story so that she might write it down. She believed it was important to record the language and stories, and in a letter to H. E. Beebe in 1952 said, "I actually feel that I have a mission: To make the Dakota people understandable, as human beings, to the white people".

Until recently, only small portions of her work have been published: a Dakota Grammar, written with Boas (1941) and reprinted in 1982, Dakota Texts 1932/1978, and a fictional story published posthumously, Waterlily (1988). Julian Rice has edited three volumes based on her work, Ella Deloria's The Buffalo People (1994), Deer Women and

Elk Men (1992), and Ella Deloria's Iron Hawk (1993). These texts present a glimpse at Deloria's life time work which includes hundreds of pages of transcription and translation completed during her association with Franz Boas, Ruth Benedict, Alexander Lesser, and Margaret Mead. The singularity of her work, and the excellence with which she pursued it, characterizes her efforts as a significant achievement in the preservation of a North American Indian language. In an afterword to Waterlily (1990), Raymond DeMallie notes, "a written record of such magnitude and diversity does not exist for any other Plains Indian language" (p. 236). Deloria's work is exceptional due to her precise documentation and literary skills, knowledge of the language, and most importantly her dedication to Lakota people.

Ella Deloria completed the original transcription and translation of "A Sioux Captive Rescued by his Wife" in 1937. It was told to her by a relative, and published as one of the stories in Ella Deloria's The Buffalo People (Rice, 1994). It is the story of a Lakota woman who loves her husband deeply and is willing to risk her life to save him. She is an independent person, capable of achieving great things in the service of those she loves, therefore, an exemplary role model of a traditional Lakota woman deserving respect.

Personal Context

I began this project as a graduate student at the University of California, Santa Barbara in the Graduate School of Education and Religious Studies Department. I was completing advanced degrees in the study of Native American traditions, and began work on a North American Indian language. As a beginning language student, I believed a translation project would help me to learn the grammar, vocabulary and the structure of Lakota language.

This project became more than a vocabulary and grammar exercise aimed at learning Lakota language. I became fascinated with the language, the process of storytelling and performance, and the use of oral narrative within Lakota culture. This paper is the result of much study, and I am satisfied with the outcome. However, I know that when I reread it in the future, I will see some things differently and some will be glaringly obvious. Since I am not Lakota, I am certain that there are aspects which I have not defined or identified. As with many beginning translation projects, I didn't understand some things as well in the beginning as I did at the end of the project. Even now, I am sure errors remain, and I apologize for any misrepresentations.

The study of any text in another language is always difficult and during the course of this project, I struggled many times with my own urge to retreat to Deloria's English translation. However, I hope you the reader find as I did that the multiple dimensions that are present in "A Sioux Captive Rescued by his Wife" can only truly be appreciated by using both the original Lakota transcription and the English translation. I believe, as Dell Hymes (1981) notes, that we cannot simply analyze speech, or interpret author's voice, or seek surface cultural images; we must strive to attain many different styles and forms before we can reach any depth of understanding.

Method

The interpretation of the narrative was based on three levels of analyses: 1) a literal translation of the Deloria Lakota transcription; 2) a textual analysis of Deloria's Lakota transcription and English translation; and 3) Lakota traditional concepts and values implicit in the text.

Literal Translation

The literal translation utilized three primary sources: Boas and Deloria (1941), Dakota Grammar; Buechel (1970) Dictionary of the Teton Sioux; and Rice (1994) Ella Deloria's

the Buffalo People. A table of three lines was prepared: first, the Deloria Lakota transcription (Rice, 1994); second, a phonemic and morphemic breakdown of the words; and finally, a literal translation of the word fragments. The following is representative of this level of analysis:

<i>Tank̄si,</i> kinship term younger sister		<i>wo ya</i> I tell	<i>woyak̄api</i> ka state of being	<i>pi</i> they	<i>iyagnin</i> iya gni to speak, go to one's own
<i>s'a</i> always	<i>keyapi</i> ke ya that say	<i>pi</i> they	<i>cank̄e</i> and so, and then	<i>le</i> this, that	<i>lecala</i> le cela little while ago
<i>Blo-ok'eta</i> Potato Creek	<i>wai</i> I	<i>k'un</i> his, hers	<i>el̄</i> at	<i>heca</i> such like	<i>anugoptan</i> give ear to, listen
<i>waun</i> 1st person	<i>yunkan</i> also, then	<i>le</i> this	<i>oya</i> to relate a story, stick to,	<i>oyak̄api</i> ka state of being	<i>pi</i> they
<i>nawah̄un</i> na wa and I	<i>ca</i> tell you	<i>eya</i> that	<i>tanyan</i> some, any	<i>well</i> I	<i>nah̄tak̄ya</i> nah tak ya something say
<i>mic'ila</i> mi my, mine	<i>c'ila</i> desire, want	<i>le</i> this	<i>wagli</i> wa gli I arrive at home	<i>yelo</i> emphasis, stress	
<i>He</i> he that	<i>le</i> this, that	<i>lecētu</i> ce tu right, correct	<i>ke</i> this	<i>keyapi':</i> ya to say	<i>pi</i> they
<i>Wicaśa</i> wica a man/Lakota man	<i>sa</i> a certain one	<i>wan</i> a certain one	<i>Kangi-wicaśa</i> Kangi Crow	<i>wica sa</i> man	<i>wayaka</i> wa ya ka one tie up state of being
<i>yuzapi</i> yu by pulling	<i>za</i> caught hold of	<i>pi</i> they	<i>'ske'</i> it is said.		

My younger sister, they tell me you are one the lookout for stories right along, so this time I was at Potato Creek I kept my ears open and heard this legend which I think I have done a good job of stamping (engraving, printing) on my mind, and I have returned. It was like this they say: A man was captured by the Crow (Deloria, in Rice, 1994, p. 30).

Textual Analysis

The theoretical perspectives that guided the analysis were based on: 1) William Labov (1972) and Michael Toolan (1988), narrative structural analysis; 2) Dell Hymes (1994), poetic organization and structure; and 3) Dennis Tedlock (1983), oral expression.

Oral narrative structure

This level of analysis presents structural and temporal representations in the narrative.

William Labov's "fully-formed oral narrative analysis" method (Toolan, 1988, p. 152) was used with the Deloria English translation and the free translation to identify the components of the narrative. Labov (1972) describes the components of a "fully-formed oral narrative" as abstract, orientation, complicating action, evaluation, result or resolution, and coda (in Toolan, 1988, p. 152). The abstract introduces the story, the orientation indicates who, what, where, and when, and the complicating action is described as the "obligatory nucleus" of the story in which most of the fixed narrative clauses appear (Toolan, 1988, p. 153). The storyteller evaluation statements are "all the means used to establish and sustain the 'point', the contextual significance and tellability, or reportability of the story" (p. 156). These statements indicate the storyteller's perspectives or feelings about the story, and can occur anywhere in the text, but primarily in the orientation. Finally, the result or resolution is the conclusion of the story, and in the coda statement the storyteller signals that he is finished speaking.

Poetic organization and expressive analysis

The Deloria Lakota transcription was used for this level of analyses since it is through features in the Lakota language text that many structural and cultural characteristics are evidenced (Hymes, 1981, 1994). "By structure, I mean here particularly the form of repetition and variation, of constants and contrasts, in verbal organization" (Hymes, 1994., p. 42). In addition, the Lakota transcription has a natural meter within the text, "and the elements that appeal to the esthetic sense of the hearer [could] not be appreciated" (Hymes, 1981, p. 7) without it. This approach to verse analysis is important for expressing the poetic language of Lakota stories, and the relationship between language function and form (Hymes, 1981). "When we analyze a narrative in terms of poetic organization, we gain insight into the story told; at the same time it is the story itself which provides the overall organization of the narrative" (Hornberger, 1992, p. 441). Further, "the treatment of oral narrative as dramatic poetry has a number of analytical advantages" (Tedlock 1983b, p. 71) such as an understanding of the use of repetition, alliteration, and content analysis.

The verse analysis of the narrative was based on several guiding principles that provided a framework for structuring the narrative: 1) the lines of the narrative were organized in terms of the relationship between the lines; 2) the identification of words that indicate the end of a phrase or the beginning of additional information; 3) an examination of the poetic units that emerged in two to four unit sets; and 4) commentaries made by the original storyteller. After the text was organized in a poetic structure, it was analyzed based on the work of Dennis Tedlock (1983a), which illuminated the affective and expressive dimensions of the narrative. According to Tedlock (1983b), "what oral narrative usually does with emotions is evoke them rather than describe them directly" (p. 71). This is evidenced through the use of linguistic features and the repetition of phrases in Deloria's Lakota transcription.

Lakota Exegesis

Finally, the narrative was reviewed in terms of Lakota exegesis, which elucidated cultural traditions, values, and beliefs. This level of analysis illuminated aspects of the narrative from two perspectives: first, the use of specific words in the Lakota text that refer to Lakota traditions and beliefs; and second, a discussion of their cultural significance. This provided a broader interpretation of the text as a traditionally-based narrative, and "an approach to the sociolinguistics of language in which the use of language in general is related to social and cultural values (Fasold, 1990, p. 39). For in order "to understand a narrative, of course, one must grasp the intentions and expectations of protagonists, the engine of the narrative usually being the thwarting of those intentions by circumstances and their rectification in the denouement" (Bruner, 1996, p. 177). This could not be

accomplished without language, various methods of interpretation, and an understanding of cultural values. As Hymes (1981) notes:

Interpretation which excludes speech falls short, as would a treatment of painting that excluded paint. Interpretation which seeks only an individual voice, the author's or the interpreter's, falls short as well. Interpretation that attends only to what is culturally defined, excluding both the mode of existence of the work and the personal voice...yields only a surface image (p. 9-10).

A discussion of the findings are presented as follows: 1) a free translation, 2) the oral narrative structure, 3) the poetic and organizational structure, and 4) a discussion of the findings based on Lakota exegesis.

Translation and Discussion

Free Translation

"A Sioux Captive Rescued by his Wife"

1. My younger sister, I was at Potato Creek a little while ago and I heard a story that I want to share with you. I tried to listen and pay close attention so that I could tell it to you accurately when I arrived back home.
2. This is the way it was told to me and has been told for many years. A Lakota man was captured by the Crow people, and they took him to their camp and held him prisoner.
3. They took him to a camp where the Crow were living, and, as if in a bad dream, they treated this man very badly as was done long ago. They tied his arms down as they say, with "arms outstretched", so the story is told.
4. And this is something important to talk about. I believe this was the way it was back then, but I have never seen such a thing with my own eyes. It was said long ago and has been often repeated. So it seems that it really did happen this way.
5. Not just the arms, but both arms and legs are pulled and tied apart! It was done purposely in such a way so that the toes barely touched the ground, and gradually the person sinks closer and closer to the ground.
6. This was done where everyone could see the captive and dance around him. They could inflict pain on him and everyone could praise the captors, so the story goes.
7. Now this torture had been going on for many days and nights, and the dancers must have been very tired and exhausted from their arrogant and vain celebration. So, everyone was sleeping except for six old men who were watching the captive. They were old Crow warriors and guarding the captive reminded them of their youth and their victories when they went on war parties.
8. Now the captive had a wife he was living with who loved him so very much—so much so that she cried and cried for him.
9. Finally, as the story goes, she decided to go and bring him home. She took two very fast and swift horses, one that she rode and one that she led behind her. Then, as the story is told, she started off to get him back.
10. Now when she arrived at the enemy Crow camp, her husband was in a very weakened state. She tied the horses within a hollow so they could not be seen. Then, I suppose, she figured out a plan of how to save her husband. That is the way it has been told. She decided she would go to the middle of the tent area within the camp. I believe this would be very hard to do without being noticed.
11. Now it was near sunset and this woman had to go slowly, using cover, and walking carefully so as not to be noticed. I do not know how this Indian woman was able to

- do this! She took a shawl and put it tightly around her shoulders, and picked up a rotting piece of wood about the size of a baby. In her arms, it looked like she was walking with a baby and the shawl was covering the baby's head.
12. She went right into their camp as if she were any other woman with a sick child that was crying. She was rocking the child and singing a lullaby – holding this rough piece of rotting wood and trying to get it to go to sleep – holding it just so and singing as she walked along!
 13. She was as brave as any soldier. From a distance, these people didn't notice that she was not a Crow woman putting her child to sleep. Anyway, she was very thankful to have managed to convince them so well that not one of them noticed her.
 14. So in this way, she went around the outside of the camp circle very confidently. Not one of them thought of her as someone other than a mother who was very concerned and affectionate with her child and singing it to sleep.
 15. In this way, she walked all around the camp and returned to her starting point. By then she knew where her husband was being kept. In the center of camp there was a lot of excitement around one tipi and so, in the darkness, she went to take a look, supposing the greatest excitement would have been around her husband. She knew she could mingle with the people and not be noticed.
 16. The people were all crowding to see the captive and she stood with them trying to see something of what they were looking at.
 17. She had an idea that it was her husband and she was anxious to see him. Then, she saw her husband hanging there in the midst of the tent with his arms tied – weak and abused – unable to see or perceive anything.
 18. Now, he must have been like this for many days with the rope pulling at his feet for his face was very thin and drawn and he looked very bad. It had been a very great ordeal, that could be seen in his face and he was shaking and trembling like a tree in the wind.
 19. He wore a loin-cloth around his hips and, otherwise, he was naked. His stomach was so sunken that his ribs seemed to stand way out.
 20. When she saw him, so pitiful, she wanted to cry out and to go to him, but she stood back, only moving slowly among the crowd.
 21. How in the world did she keep her presence a secret! She continued to walk around until she understood how he was tied; and after awhile, she quietly left that place and went back to her horses.
 22. Now she prepared everything so that she was ready to leave in a hurry. She put a knife in a leather cord around her waist so that she could cut her husband's ropes and then she returned to the center of the camp.
 23. By now, it was night and since this had been going on for many days already, most of the dancers had gone home early. She continued to walk around as if she had no particular place to go, carrying the rotting piece of wood for a baby.
 24. Even if someone did notice her, they would not perceive any purposefulness in her movements. They would only see a woman outside walking and rocking her baby.
 25. I think, if these two lived, it would be through her bravery and strong heart that these two would be able to survive. At least that is the way it has been told.
 26. Anyone might have been afraid in that place and thought, "If any of these Crow people find out or think I am not one of them, I do not know what will happen."
 27. Ho! But perhaps, while this woman was there she tried not to think of this.
 28. And, also at that time—I think I can say this—she had a lot of patience and was not in a hurry no matter how sad she was. She only wished to be able to make small movements, little by little, with great detail and without giving anyone cause to notice or see her.

29. Ho! Because of the long time she had been there, she was tired, but she continued to walk and caress her rotting wood until, slowly she was able to get closer to the place where her husband was staked and stretched.
30. Now then, the old men who were guarding him were without a doubt very tired as well from all the long days of activities and they were all sleeping.
31. Her husband was the only one awake and still standing – so from a distance she motioned him and said endearingly; “Old man, it’s me – I have traveled a long way and come for you. Stay awake and don’t let anyone hear us.”
32. Then, for those that were guarding him, she took a sword that was sticking in the ground in the center of that tipi and repeatedly struck all the old men in the head with it. I speak the truth!
33. Then, as the story goes, she took the hair from all six of them right then and there.
34. Shaking and trembling – she cut the straps that they had tied her husband with and they left. She took back her husband from his captivity and started off for home.
35. Somewhere in the darkness, they found their way to the place where she had the horses. She sat her husband on one of them and sent him off for home.
36. And then, she went all the way around the camp circle again for the very last time with the rotting wood. But everything was quiet and so she started for home. This is the way it has been told.
37. Younger sister, one thing I forgot to say. When she cut off the old men’s heads it wasn’t until the second time going around the circle and after sending her dear old man home that she scalped them. I got the story a little mixed up.
38. Ho! That woman makes me laugh – to have a husband that she loved so dearly and valued so highly that she would do what only a man can usually do, is something! And that’s the way the story has always been told.

Oral Narrative Structure

The narrative contains all of the components described by William Labov (1972) and Michael Toolan (1988) as the components and features of a narrative, and are discussed based on Lines 1 through 38 of the free translation. In Line 1, the storyteller begins with an introductory statement and an appropriate greeting for his audience. In this way, he requests an extended period of talk, signals his intent, and expresses his concern over his ability to retell the story with precision. Ella Deloria is the only member of the audience, she listens attentively, and then transcribes the text of the story at a later time. In reality, there are two storytellers and two audiences to this story: first, the original storyteller with Deloria as the audience; and second, Deloria as storyteller and we the readers as the audience. This is not readily apparent since Deloria transcribed the text as she heard it with the original storyteller's evaluation statements as part of the story. It is not possible to know precisely which emphasis was added by Deloria and which was included in the original version. However, Deloria was sensitive to Lakota traditional ethics of listening and respected as a careful ethnographer. Her transcriptions include gender specific endings in statements made by the male storyteller, and she added terminal glottal stops to the Lakota transcription to indicate pauses and timing present in the oral presentation.

The storyteller’s opening statement signals the beginning of a story, and in Line 2, he presents the abstract: the story of a man captured and tortured by the Crow. The storyteller comments on the truth of the story and his position regarding that truth. Lines 3 through 13 orient the audience to what is happening to the captured Sioux man, where it is happening, who will help him, and what happens when his wife arrives at the enemy camp. During this orientation phase of the story, the storyteller’s evaluation statements occur more frequently than during the complicating action phase and are used to build anticipation. The evaluation statements signal a change from narrative time to current time and reveal the

storyteller's feelings about the woman, the story, and what is happening. Few evaluation statements occur within Lines 14 through 34, the complicating action phase of the story, yet, statements describing the wife's actions leading up to the event are greatly increased.

From the title, the audience assumes the resolution or conclusion of the story will be how a woman rescued her husband from the Crow. The actual resolution, however, is different from the direction indicated in the title, abstract, and narrative clauses within the complicating action. Lines 35 through 37 of the story reveal an unanticipated result and describe the wife's actions after she frees her husband. The culminating action, which is the killing and scalping of the old men guarding her husband, is an action normally attributed to a man, and yet in the story it is completed by a woman. The actual premise of the story is the bravery of a woman and how her actions are out of the ordinary for a woman. The coda statement in Line 38 reveals the storyteller's belief that this is an important aspect of the story. He comments on the irony of the situation and how it makes him laugh (with pride) to think of a woman being able to perform these actions.

Poetic Structure and Expressive Analyses

The poetic organization and structure in the Deloria Lakota transcription based on the verse analysis (Hymes, 1982, 1994) and vocalized and expressive analysis (Tedlock, 1983a) illuminated certain features in the text. The story is structured in even meters of twenty quadruplets and one sextuplet, with the exception of paired lines containing the storyteller's comments. The beginning of the stanzas are generally marked by words such as, now, and, also then, thus, and then, which tells the listener (or reader) that this is a new section of information in the story or something different. The Lakota words that mark the beginning of each quadruplet are: *hecun* or *heyin* 'then', *yunkan* 'also then', *wana* 'now', *na* 'and', *hecel* 'thus and so', *canke* 'and so', and *ho* untranslatable but closest to 'oh my gosh'. The following is a portion of the transcription structured into quadruplets:

Wicaśa wan Kangi-wicaśa wayaka yuzapi 'ske'.
Tukte ekta heca tipi wan el akipi ihanblapsice s'e kuwapi
na ehanni ikce-wicaśa kin "Yukagal Okatanpi"
eyapi kin hecaki-cunpi 'ske'.

Yunkan he taku kapi owakahniġe kin leceġu'; ecin tunweni miye ista un
heca wanzi wanblakeśni eyas oyakapi eciyatadhan leceġu'.

Isto nupin yukagal iyakaskapi na ceca nupin nakun;
na eya maka yela eyas sipa ecela tokecela maka
icahitakya he oġna eglepi'.
Hecunpi na ohomni iwakcipi na yukakizapi 'ske'.

A man was captured by the Crow, and held prisoner.
 They took him to whatever place the Crow were living,
 and there they treated him as in a nightmare,
 and they did to him what was known in the old days
 as being tied outstretched.

According to my understanding of it, that means this; of course you must understand I have never seen such a thing, but this is judging by descriptions of it.

Both arms are pulled to an outstretched position and also the legs and the toes barely touch the ground and in that way they are set up (Rice, 1994, p. 30).

Stanzas of four and six lines coincide with Lakota cosmology. The numbers four and six have particular significance in Lakota traditions: for instance, the four directions, four primary colors, four divisions of the sacred, and in many other cultural expressions. The number six signifies similar aspects and, in the case of the four directions, includes above and below.

Another feature of the quadruplet is the use of 'ske' or ke' to end phrases within the narrative. In the opening lines, the storyteller begins with a description of the action and ends with 'ske' which signals the type of traditional story to be told. The use of 'ske' emphasizes the dramatic and special quality of the story being told and heightens the excitement at the introduction. The storyteller uses the word *yelo*, which mildly emphasizes his belief that the story is an important one to tell, and that he will be able to tell it well. He concludes this opening, however, with a statement ending in 'ske', reinforcing his personal opinion that this was a most unusual woman.

Through the first four quadruplets, the storyteller uses 'ske' to end the quadruplet, and this is the exposition or orientation to the events of the narrative. The storyteller is gaining the audience's attention by emphasizing the importance of the story. In the complicating action portion of the narrative, the storyteller switches to the less emphatic endings of ke', ye', *hecinkte'*, and *tka'*. During this portion of the narrative, the wife's actions are recounted and the storyline is presented to the audience. The wife's actions are of less importance to the meaning of the narrative and the resolution of the story, therefore, the use of less emphatic endings is appropriate in a Lakota story. The storyteller returns to the use of 'ske' to end the quadruplets toward the end of the story, again emphasizing the unusual qualities of the woman and the dramatic aspects of the story.

Another feature of the quadruplets is the use of a terminal glottal stop to signal the end of a phrase. The stops provide emphasis, narrative pace, and sense of timing (Tedlock, 1983b) for the listener (or reader). The terminal glottal stops highlight each quadruplet, and accentuate "the narrative pause with a physical cessation of breath" (Rice, 1992, p. 285). As the story continues, the use of glottal stops varies between one and two per quadruplet until the storyteller reaches the twelfth stanza, and the only sextuplet in the poetic organization of the narrative. In this stanza, the emotional and physical intensity of the husband and wife are the highest and the last word of every line, with the exception of the fifth line, is marked with a glottal stop.

Mnihuha wan nitiyapehan cegnak-ya un na paiyuxsa hacocola'.
Nige oh'ap iyayin na tucuhu kin yugwezap s'e tanin'.
Wanyakin na unšikila un ceya iyaya tka ca tokecela oigluspe'.
Inahima s'e tokeške yuwipi kin ko ables nazin';
Ina eya watohanl heyap iyayin
na maninl šunkakan wicakigle un heciya ki' (Rice, 1994, p. 28).

He wore a breech cloth and binding around his hips, and from there
 upward he was bare; his stomach was caved-in
 and his ribs stood out like ridges.
 She almost cried out for pity on seeing him, but she restrained herself.
 Unnoticed she stood observing just how he was tied on;
 and when satisfied she left and went back to the horses (Rice, 1994, p. 31).

In this stanza, the storyteller is sharing the most emotionally charged sequence of events for the characters. He describes the intense suffering of the husband and the wife's horrified response when she sees the man she loves so dearly abused and tortured. After the last line of this stanza, the storyteller returns to the use of one or two glottal stops per quadruplet for

the remainder of the narrative.

Essential for a thorough examination of the narrative according to Hymes, Tedlock and others is an oral performance. "The inflections of song, the rhythms of drum and dance, the delicate and insubstantial gestures of the teller, are impossible to replicate" (Huntsman, 1992, p. 90) and their absence is certainly missed. Therefore, a limitation of this level of analysis is the lack of an oral performance that would illuminate the verbal artistry of the storyteller, and the audience response.

Lakota Exegesis

The Lakota text was examined for the use of traditional words and phrases and is discussed in the following areas: The story introduction; the use of 'ske'; naming; and traditional perspectives.

Story introduction

The narrative begins with one of the most basic Lakota concepts, that of kinship. The storyteller addresses Ella Deloria as *Tank̄si* 'younger sister'. *Tank̄si* is used by a man for a female relative who is younger than himself. Although the term in English refers to a sibling within an immediate family, in Lakota this kinship term is part of a group of terms describing relationships, and are gender and relationship specific. The notion of relative carries more connotations in Lakota than in English usage. Relative can connote association by marriage, respect for an individual, or relative through friendship, as well as blood relative (U. C., Boulder, 1976; Powers, 1986). Deloria addresses the storyteller as *tiblo* 'elder brother', and indicates that he was "the husband of the widow of a certain man who called Vine [Deloria] younger brother" (Rice, 1994, p. 33). In the nineteenth century, it would not have been proper for Ella Deloria and the storyteller to speak (Deloria, 1988; Rice, 1994), however, when she recorded the story this prohibition had been relaxed.

Traditionally, storytellers are held in high esteem and listening to them without interrupting is important so that the audience remembers the story accurately. The storyteller alludes to his concentration on listening to the story when he heard it. By telling Deloria this, he is saying that he specifically listened very well so that he could faithfully retell it to her. The term, *yelo* at the end of this sentence is a male gender ending signifying his belief that this is so, an assertion of which he is fairly certain but not emphatically so, emphasizing his belief that he will do his best.

Use of 'ske' 'it is said'

The storyteller begins with a declarative sentence, and says this is the story of a man, a particular man who is unnamed, and is from a long time ago. He uses 'ske' to end the introduction and to emphasize the story's importance as a traditional story. Deloria indicates that 'ske' is used particularly with myths (Rice, 1992, p. 285), and the storyteller refers to this as a *ehanni* about an *ikce-wicaša* 'common man'. In Lakota oral tradition, *ehanni* refers to stories of a long time ago, generally creation stories in which the "principle characters are spirits" (One Feather, 1974, p. 2). Humans were not created at this time and were not characters in the stories. This narrative is most likely from a category of stories known as *ehanni wicowoyake*, which are stories from the more recent Lakota past. They are based in historical fact, actual lives, and are documented in the *wan̄iyetu yawa* 'winter counts' or 'oral history of the people.' Therefore, by telling the audience that this is *ehanni* and ending the sentence with 'ske', the storyteller is saying this is important to listen to because it tells of Lakota history and classifies the type of story to be told.

The continued use of 'ske' through the exposition segment of the story marks the significance of listening to this historical and traditional story. When the storyteller returns to the use of 'ske' at the end of the story, he emphasizes the traditional aspects of the narrative as well as the unique characteristics and unusual qualities of the woman. This

added emphasis does not change the importance of the middle of the story. It may indicate, however, the lesser importance of the woman's actions that lead to her husband's rescue as opposed to the significance of the story itself, the woman's bravery and her adherence to the Lakota virtues. "Labov's assumption that what is said (by yourself or others) will not be the core of the story; that rather, what is done (by you or others) will be" (Toolan, 1988, p. 157) may not be accurate for this narrative. Although the wife actions were important, the theme of the story is the qualities of her character as a Lakota woman that are exemplary and make this an important story to retell.

Naming

The storyteller reinforces the significance of the woman by using specific terms such as *Lakota winyan* 'Lakota woman' to emphasize her importance. *Lakota winyan* is a specific term of address, signifying the importance of this character to the narrative. Later in the story, the storyteller again emphasizing her importance by indicating his personal belief that she is a very brave woman, *Lila ohitika nacece*. Bravery is a culturally defined virtue which is important to be found in both men and women. The storyteller reemphasizes the woman's bravery through the use of the term *canie t'inze* 'to have a strong heart'.

Terms of address or naming in other stanzas of the narrative continue to be a significant dimension for identifying traditional aspects. Several terms of address are used for the husband throughout the narrative depending on who is speaking. The storyteller uses *wicaśa wan* or *ikce-wicaśa* 'common man' when discussing the husband. This term has historical significance and refers to certain creation stories (see One Feather, 1974), and is used by Lakota people today in reference to themselves. However, when the wife's actions or feelings are involved the storyteller uses the term *hingnaku* 'husband'. A wife would use this term when speaking to someone else about her husband. In the narrative, when the wife speaks directly to her husband, the storyteller uses the term *wicañca* 'old man', indicating their special relationship and her feelings of deep affection for him. Deloria (1988) says this is a term of endearment and the traditional way married couples speak to each other.

Traditional perspectives

In the story, the storyteller describes how the woman walks around the camp circle to avoid detection. The use of *howokawinh* 'outside of the camp circle or circle of tipis' and *wicoti kin* 'inside the camp circle' may refer, indirectly, to the intelligence and wisdom of the woman, and a Lakota virtue. *Howokowinh* is the area that the wife's presence would be the least likely to be detected for several reasons. First, there would be the fewest people on the outside of the camp circle, and second, in many plains Indian traditions the interior of the tent circle has specific ways to be entered and an outsider is recognized immediately for violating the custom. The woman uses her intelligence to follow these traditional guidelines in order to avoid discovery. Additionally, for the Lakota, the *wicoti kin* represents the safety of family and community and the greater symbolism in Lakota tradition of *cangleska wakan* 'the sacred hoop'. When the woman makes her final pass around the camp circle, she goes inside the circle, indicating bravery and daring, and by using the term *wicoti kin*, the storyteller may also be referring to the wife and her husband returning to the safety of their own camp.

The storyteller addresses the importance of patience and the wife's ability to wait patiently for a chance to help her husband. He says, *Ito inahni kes takunl čiscila eśa iyukcan'sni ecun kinhan oyuspanukte tka'*, meaning she did not let sadness or pain at his suffering overwhelm her actions, but continued with patience to do small things that wouldn't be noticed. More generally, she was stoic and in control of her emotions so that

she might be of the greatest help to her husband in this dire predicament. She continued in a small way, controlling her actions, moving carefully, and remaining patient. In order to do this, she assumed an appropriate Lakota woman's role by providing comfort and nurturance to a child.

Other references to Lakota cultural beliefs, perspectives and values are embedded within the narrative. The most significant reference is to the four Lakota virtues: respect, generosity, wisdom, and bravery or fortitude. The woman exemplifies all of these virtues and demonstrates the qualities all Lakota women should strive to achieve. She shows respect for her husband by the way she treats him and honors his place in her life. She respects herself and does not succumb to needless crying over what she has lost, but instead, takes two horses and goes out to find her husband. She generously gives of herself through her efforts and desire to save him. She develops a plan that requires wisdom, patience and restraint so that she is not discovered. If she fails, both will be lost, but as the storyteller says, she "must not have dwelt on this" issue. Instead, she pursued her goal slowly, cautiously and with patience. Finally, she exemplifies a brave Lakota woman with a strong heart who is able to endure suffering and to see a loved one suffer without dwelling on herself or her emotions. It is through her respect, bravery, generosity, and wisdom that they both are saved.

Conclusion

This paper presents the interpretation of a Lakota story using multiple methods of analyses and description. The methods are only a means "to the understanding of human purposes and needs, and their satisfaction; ... an indispensable means, but only a means, and not that understanding itself" (Hymes, 1986, p. 70). We must consider why we do it and who will be affected by it. This paper attempts to view a traditional narrative from many perspectives and, like stories and narratives themselves, cannot hope to provide all perspectives. The ultimate purpose of stories is to share between teller and audience a unique and personal experience, which can never be conveyed in one interpretation. In our efforts to save, recall, transcribe or possess American Indian literature, we must remember that our interpretations are not definitive, and only through conscientious dedication and reflection can we hope to be of service to the Indian communities who provide the narratives. As Brian Swann (1992) reminds us, for Western civilization "the fact that we can no longer 'possess' is what affords value" (p. xvii).

It has only been within the past forty years that Indian philosophy, literature, music, and educational values are regarded as intelligent and insightful. "The fact that their languages had value ... that Indians had a literature of great significance took longest to be acknowledged" (Swann, 1992, p. xiii). The difficulties of translation and interpretation have been compounded by Eurocentrism, and moral and political agendas. Early translations of Indian songs and stories generally did not include accurate transcriptions, and meanings were derived from interpreters. Multiple agendas, literary interpretation, and missionary zeal infused the narratives with elements that are difficult, if not impossible, to extract from the texts. Supported by Franz Boas, many early translations omitted strong emotions and an emphasis on feelings. Ella Deloria's Lakota transcriptions, however, maintain the strength of character, affect, and distinctive nuances that are present in the language. In "A Sioux Rescued by his Wife" the affective responses and emotions of the main character are emphasized. Her actions are a response to her strong feelings for her husband, and true to Lakota philosophy, the importance was not in how she was able to accomplish the rescue, the importance was in the completion of an unselfish act based on her love and generosity. These are significant aspects of Lakota culture, which are present in the narrative and add meaning and depth to an interpretation of the text.

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**Implication and Assertion
in Attributive Possession**

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A basic distinction drawn in discussions of the grammar of possession is that between attributive and predicative constructions. Attributive constructions typically presuppose possession and involve modifiers in nouns or noun phrases: *my dog*. Predicative constructions typically assert possession and involve verb phrases or clauses: *The dog belongs to me* or *I have a dog*. Yet certain languages appear to express attributive possession in verbs. Such structures can be seen, for example, in languages of the Siouan family centered on the Northern Plains in North America, the Chinookan family spoken along the Columbia River on the Northwest Coast, and the Iroquoian family centered in the Northeast.*

- (1) LAKHOTA (SIOUAN): Stan Redbird, speaker

<i>p^heh_i</i>	<i>wéčášla</i>	
<i>p^heh_i</i>	<i>wa-ki-ka-šla</i>	
hair	1SG.AGENT- <u>POSSESSIVE</u> -cause.with.instrument-be.bald	
hair	I cut <u>his</u>	
	'I cut <u>his</u> hair'	

- (2) KATHLAMET (CHINOOK): George Cultee, speaker, to Boas 1901:10.14

<i>kuałqé:</i>	<i>amiuxúlɣama</i>	<i>imí-latɣn</i>
<i>kuałqé</i>	<i>a-m-i-ɣ-u-lɣam-a</i>	<i>i-mi-latɣn</i>
thus	FUTURE-2ERG-MASC.ABS- <u>POSSESSIVE</u> -DIR-speak-FUTURE	MASC-2POSS-nephew
thus	you will speak to <u>yours</u>	your nephew
	'How can you tell <u>your own</u> nephew such a thing?'	

- (3) MOHAWK (IROQUOIAN): Leatrice Beauvais, speaker

<i>Wahinonhsóhare'se'</i>	
<i>wa-hi-nonhs-ohare-'s-</i>	
	FACTUAL-1SG.AGENT/MASCULINE.PATIENT-house-wash- <u>POSSESSIVE</u> -PRF
	'I cleaned <u>his</u> house.'

A closer look at their structures shows that they are not quite what they seem.

It has long been recognized that many languages exhibit a distinction in their nominal possessive constructions, one used for such expressions as 'my head' or 'my father', the other for 'my hat' or 'my firewood'. The first type is generally known as 'inalienable', 'inseparable', or 'indivisible' possession, and the second as 'alienable', 'separable', or 'divisible' possession. The entities classified grammatically as inalienable vary from language to language, but they typically include body parts

and/or kinsmen, spatial relations (the top of an object), and often other intimately associated objects, such as one's home, certain personal tools, footprints, or thoughts. Extensive discussion of inalienability can be found in Chappell and McGregor 1996.

As early as 1926 Charles Bally noted that a similar distinction is signaled in Indo-European languages by other means, such as the French clausal dative of involvement seen in (4)a, in place of a possessive determiner in the noun phrase (4)b.

(4) FRENCH INALIENABILITY IN THE CLAUSE: Bally 1926

- a. *On lui tranche la tête*
 one 3.DATIVE slice the head
 'They're cutting his head off.' (clausal construction)
- b. *On déchire [ses habits].*
 one rips [3.GENITIVE.PL clothes]
 'They're ripping [his clothes].' (nominal construction)

Bally linked the notion of inseparability to the *sphère personnelle* which 'can include objects and beings associated with a person in an habitual, intimate or organic way' (1996 [1926]:33).

Taking Bally's observations as a point of departure, Chappell and McGregor 1996a show that the expression of inalienability is not limited cross-linguistically to word or phrase-level constructions (the noun or noun phrase), but may also be carried by clause-level constructions, such as Bally's dative of involvement in (4)a, body-part locatives (*The dog bit Cliff on the ankle*), and noun incorporation as in (3). In all of these constructions the possessor (*lui*, *Cliff*, *-hi-* 'I/him') appears as a core argument of the clause. These constructions have sometimes been described as the products of 'possessor ascension', 'possessor raising', or 'possessor promotion', based on an assumption that the possessor nominal has been removed from its basic position as a modifier within the noun phrase. As Blake (1993) and others have pointed out, however, the appropriateness of such analyses is called into question by the fact that the clausal constructions differ in meaning from their putative sources. Not only are they limited to inalienable possession; one can say *The dog bit Cliff on the ankle* but not **The dog bit Cliff on the hat*. They also represent the victim as more intimately affected than their nominal counterparts: *The dog bit Cliff's ankle*.

In the Siouan, Iroquoian, and Chinookan languages, core arguments of the clause are represented within the verb by pronominal prefixes. Thus verbs can and often do constitute complete, grammatical sentences in themselves, specifying both predicate and arguments within a single word. The affixes translated as markers of possession in examples (1) - (3) are part of the verbal morphology, but they are elements of clause-level constructions. The clausal status of the constructions suggests that they might be of the type discussed by Bally and by Chappell and McGregor as markers of inalienable possession.

1. Nominal versus clausal constructions

In addition to the clausal constructions seen in (1) - (3), Lakhota, Kathlamet, and Mohawk also contain nominal possessive constructions, as in (5) - (7).

(5) LAKHOTA POSSESSION ON NOUNS: Stan Redbird, speaker

<i>ni^háhayápi</i>	<i>k_i</i>	<i>blužáža</i>
<i>ni^ha-hayapi</i>	<i>k_i</i>	<i>wa-yu-žaža</i>
<u>your</u> -clothing	the.PAST	1SG.AGENT-by.pulling-wash
'I washed <u>your</u> clothes'		

(6) KATHLAMET POSSESSION ON NOUNS: Boas 1901:115.9

<i>Icktúkuipck</i>	<i>kánaui</i>	<i>táxi</i>	<i>t' <u>stamqu</u></i>
<i>i-ck-tu-kui-pck</i>	<i>kánaui</i>	<i>táxi</i>	<i>t-<u>sta</u>-mqu</i>
IMM-MASC.PL.ERG-PL.ABS-carry-water.to.shore	all	those	PL-DU.POSS-wood
'They carried up all <u>their</u> wood.'			

(7) MOHAWK POSSESSION ON NOUNS: Warisose Kaierithon, speaker

<i>iakonnià:tha'</i>	<i>ne</i>	<i><u>raon</u>ahsire'shòn:'a</i>
<i>iak-onni-a't-ha'</i>	<i>ne</i>	<i><u>raon</u>-ahsire'-shòn:'a</i>
FEM.AGENT-make-INSTRUMENTAL-IMPRF	the	<u>MASC.PL.POSS</u> -blanket-DISTRIBUTIVE
'She makes <u>their</u> blankets with it'		

The fact that the nominal and clausal constructions coexist so robustly in each language suggests that they are functionally distinct. The examples seen so far indicate that the clausal constructions might indeed mark inalienability (hair, nephew, house), and the nominal constructions alienability (clothing, wood, blankets). This pattern is typical in natural speech, but it is not exceptionless. In all three languages both inalienable and alienable possession can be conveyed by either construction.

The use of Lakhota nominal constructions for apparent inalienable possession can be seen in (8), and clausal constructions for apparent alienable possession in (9).

(8) LAKHOTA NOMINAL CONSTRUCTIONS WITH INALIENABLES: D 1932:12.4, Stan Redbird, speaker

a.	<i>hé</i>	<i>mič^hyksi</i>	<i>yúzikta</i>	<i>č^hi</i>
	<i>hé</i>	<i>mi-č^hyksi</i>	<i>yuzi-kta</i>	<i>č^hi</i>
	that	<u>1SG.POSS</u> SIVE-daughter	catch-IRREALIS	desire
	that one	<u>my</u> daughter	he will marry her	he wishes
	'He wishes to marry <u>my</u> daughter.'			

b.	<i>mič^hksi</i>	<i>k_i</i>	<i>k^húžac^ha</i>
	<i>mi-č^hksi</i>	<i>k_i</i>	<i>k^huža = č^ha</i>
	<u>3POSS</u> SIVE-SON	the.PAST	ill=since
	'since <u>my</u> son was sick . . .'		

(9) LAKHOTA CLAUSAL CONSTRUCTIONS WITH ALIENABLES: Stan Redbird, speaker, D 1932:13.3

- a. *hayápi* *waglúžaža*
ha-yá-pi *wa-ki-yu-žaža*
 skin-cover-NOMINALIZER 1AGENT-POSSESSIVE-pulling-wash
 clothing I washed mine
 ‘I washed my clothes’.
- b. *ĩš wasé glubléblel hináži*
ĩš wasé ki-yu-bleblel hi-náži
 3EMPH red.earth POSSESSIVE-pulling-break.RDP arrive-stand
 she warpaint untying hers she came and stood
 ‘... she advanced with her bag of face paints open ...’

Kathlamet shows similar exceptions, as in (10) and (11).

(10) KATHLAMET NOMINAL CONSTRUCTIONS: Boas 1901:9.7, 208.2

- a. *Aqa ikhúquat* *łkáxan*
aqa i-k-t-u-quat *t-ka-xan*
 then IMM-FEM.ERG-NEUTER.ABS-DIR-bathe NEUTER-FEM.POSSESSIVE-child
 then she washed it her child
 ‘Then she washed her child.’
- b. *icłúqumst* *łáqauwulqt* ...
i-c-t-u-qumst *t-qa-uwulqt*
 IMM-MASC.ERG-NEUTER.ABS-DIR-drink NEUTER-INDEF.POSSESSIVE-blood
 he drank it their blood
 ‘He drank their blood.’

(11) KATHLAMET CLAUSAL CONSTRUCTIONS: Boas 1901:206.3, 133.15, cited in Hymes 1955:236

- a. *iskixílakua* *istáxanim*
i-s-ki-x-l-akua *i-sta-xanim*
 IMM-3DUAL.ERG-MASC.ABS-POSSESSIVE-move-around MASC-3DUAL.POSS-canoe
 they two turned theirs around their canoe
 ‘They turned their canoe around.’
- b. *anixútkama* *icxial*
a-n-i-x-ú-xtk-am-a *i-c-xial*
 FUT-1ERG-3MASC.ABS-POSSESSIVE-DIR-steal-PURP-FUT MASC-1SG.POSS-workman
 I will rob mine my workman
 ‘I am going to rob my workman.’

Similar exceptions appear in Mohawk, as in (12) and (13).

Often the rationale behind the choice of construction is not obvious without an understanding of the context. One might think that drinking blood would have a more significant effect on the victim than on his blood, and thus be expressed with a clause. Yet a nominal construction was used in the Kathlamet ‘He drank their blood’ in (10)b. The line comes from a tale about a man who loved blood. If he could not find enough, he would kill his wives and drink theirs. After he had bought one wife, her brothers worked diligently to supply him with blood, in order to protect their sister. They gave him five sea lions, and he drank their blood (as in (10)b). The sea lions were already dead at this point and played no other role in the story. The effect of the action on them was thus not portrayed as significant.

One might think that if my workman is robbed, he is more seriously affected than I. Yet a clausal construction was chosen in the Kathlamet (11)b ‘I am going to rob my workman’. It comes from a tale about Owl and Panther, who lived together. A young woman was sent by her father to marry Panther, but she encountered Owl first. Owl, pretending to be Panther, made her his wife and took her home. The house was full of meat and grease, but the grease on Owl’s side was ugly and green, taken from intestines, while that on Panther’s side was lovely and white. Owl went to Panther’s end of the house to find some nice grease for his new wife, saying he would just get some from his workman. He used the clausal construction to indicate that by taking fat from the workman’s area he was really taking it from himself.

Speakers have choices in their portrayal of affectedness. In (14)a and (15)a the speaker focused on the property and the horse with nominal possession. In (14)b and (15b), the focus was put on me (the speaker), with clausal constructions.

(14) LAKHOTA CHOICES: Boas & Deloria 1941

- | | | |
|----|--|----------------------------|
| a. | <i>mit^háwoyuha</i> | <i>manú’</i> |
| | <i>mit^ha-wa-yuha</i> | <i>manú</i> |
| | 1SG.POSSESSIVE-things-possess | steal |
| | <u>my</u> property | he stole it |
| | ‘He stole <u>something</u> belonging to me (among other stolen property).’ | |
| b. | <i>wóyuha</i> | <i>mamákinú’</i> |
| | <i>wa-yuha</i> | <i>ma-ma-ki-nú</i> |
| | things-possess | steal-1SG.POSSESSIVE-steal |
| | property | he stole <u>from me</u> |
| | ‘He stole property from <u>me</u> .’ | |

(15) LAKHOTA CHOICES: Boas & Deloria 1941

- | | | | |
|----|------------------------------|-----------|--------------------------|
| a. | <i>mit^hášyke</i> | <i>kí</i> | <i>nap^hé’</i> |
| | <i>mit^ha-šyka</i> | <i>kí</i> | <i>na-p^he</i> |
| | 1SG.POSSESSIVE-dog | the.PAST | by.foot-flee |
| | <u>my</u> horse | the | it fled |
| | ‘My horse has run away.’ | | |

(17) KATHLAMET CHOICES: Boas 1901:11.4, 119.9-10

- a. [...] *tqup* *amiuxua* *icátuk*
tqup *a-m-i-x-u-a* *i-ká-tuk*
 cut FUTURE-2ERG-MASC.ABS-DIR-DO-FUTURE MASC-FEM.POSS-neck
 cut you will (cut) it her neck
 ‘[If you want to kill her], cut her throat.’

- b. *Qušt*, *tqup* *ikiáxux*
Qušt, *tqup* *i-k-i-á-x-ux*
 behold cut IMM-FEM.ERG-MASC.ABS-FEM.DAT-POSS-DIR-DO
 behold cut she_i cut hers_j
 ‘Behold, she had cut

icátuk *wuxi* *akámtxix*
i-ka-tuk *wuxi* *a-ka-mtxix*
 MASC-FEM.POSS-neck that FEM-FEM.POSS-younger.sister
 her_j neck that her younger sister_j
 the throat of her younger sister.’

2. Diachronic sources

The functions of the clausal constructions are easily understood once their structural sources are considered. The constructions in the three languages show fundamental similarities.

2.1 Lakhota

Verbs in Lakhota, as in all Siouan languages, contain pronominal prefixes for first, second, and inclusive persons, but none for third. The prefixes reflect a semantic agent/patient distinction, though the choice is now lexicalized with each stem. Participants instigating events and states are categorized as grammatical agents (below left), while those affected but not in control are categorized as grammatical patients (below right) (Mithun 1991).

(18) LAKHOTA PRONOMINAL PREFIXES: Stan Redbird, speaker

<i>wa-híʔ</i>	‘I came’	<i>ma-híʔxpaya</i>	‘I fell’
<i>ya-híʔ</i>	‘you came’	<i>ni-híʔxpaya</i>	‘you fell’
<i>u-híʔ</i>	‘you and I came’	<i>u-híʔxpaya</i>	‘you and I fell’
<i>hiʔ</i>	‘(he/she/it) came’	<i>híʔpáya</i>	‘(he/she/it) fell’
<i>wa-ktékte</i>	‘I’ll kill (him/her/it)’	<i>ma-ktékte</i>	‘(he/she/it) will kill <u>me</u> ’
<i>ya-ktékte</i>	‘You’ll kill (him/her/it)’	<i>ni-ktékte</i>	‘(he/she/it) will kill <u>you</u> ’
	<i>ma-yá-ktékte</i>		‘you’ll kill <u>me</u> ’

If the effect is indirect, a dative prefix *ki-* marks the indirectness.

- (19) LAKHOTA INDIRECTNESS OR DATIVE: Stan Redbird, speaker
- | | | |
|-------------------------------------|--|---|
| <i>oyá-yaka</i> | | <i>omáyakiyaka</i> |
| <i>o-yaka</i> | | <i>o-ma-ya-ki-yaka</i> |
| about-2AGT-talk | | about-1PAT-2AGT-DATIVE-talk |
| ‘You talked about it, told a story’ | | ‘You talked about it <u>to</u> me, told me’ |

A possessive relationship is often inferrable from the specification of indirect effect. If the death of a horse affected someone indirectly, a likely explanation is that the horse was his.

- (20) LAKHOTA DATIVE INTERPRETED AS POSSESSIVE: Boas & Deloria 1941:128
- | | | |
|--|-----------|-----------------------|
| <i>šy^hak^hq</i> | <i>wq</i> | <i>kié’</i> |
| <i>šy^hka-wak^hq</i> | <i>wq</i> | <i>ki-é’</i> |
| dog-great | a | DATIVE-die |
| horse | a | it died <u>on</u> him |
| ‘A horse died on him’ -> ‘His horse died.’ | | |

2.2 Kathlamet

In Kathlamet, as in other Chinookan languages, pronominal prefixes on verbs distinguish first, second, and third persons, as well as inclusive and exclusive first persons, and masculine, feminine, and neuter third persons. Ergative, absolutive, and dative pronouns appear in that order within the verbal morphology.

- (21) KATHLAMET CORE ARGUMENTS: ERGATIVE-ABSOLUTIVE-DATIVE: Boas 1901:139.16
- | |
|--|
| <i>actnlúta</i> |
| <i>a-c-t-n-l-u-t-a</i> |
| FUTURE-MASCULINE.ERGATIVE-3PL.ABSOLUTIVE-1SG.DATIVE-to-DIR-give-FUTURE |
| ‘ <u>he</u> shall give <u>them</u> to <u>me</u> .’ |

Coreference among core arguments is indicated by a reflexive prefix *-x-*.

- (22) KATHLAMET REFLEXIVE: Boas 1901:14.5
- | | |
|-----------------------------------|--|
| <i>Aqa</i> | <i>ikixquat</i> |
| <i>aq</i> | <i>ik-i-x-quat</i> |
| then | IMMEDIATE-3MASCULINE.ABSOLUTIVE-REFLEXIVE-WASH |
| ‘Then he washed <u>himself</u> .’ | |

As in most languages, the dative argument represents an individual indirectly affected by the situation. If an agent carries out an action that affects himself or herself indirectly, the dative is coreferential with the agent. The coreference is marked by the reflexive prefix.

- (23) KATHLAMET REFLEXIVE EFFECT: Boas 1901:104.16, cited in Hymes 1955:236
an̄xkáya
a-n-t-x-ká-ya
 FUTURE-1ERGATIVE-NEUTER.ABSOLUTIVE-REFLEXIVE-haul.ashore-FUTURE
 ‘I will haul her ashore for myself.’

The verb in (23) was uttered by the character Mink, who set a dish in the water near the shore in hopes of attracting a woman. He announced, ‘If somebody should come to take that dish, I will haul her ashore; I will lie down with her all day.’ Mink apparently saw himself as the most important beneficiary of his act, a fact indicated by the reflexive dative.

This reflexive prefix has sometimes been interpreted as a marker of possession within the verb. One may indeed be indirectly affected by action on one’s possessions. But the specification of indirect affectedness and possession are distinct in Kathlamet: affectedness is specified in the verb, and possession is specified in the noun. The verbal marking of affectedness and the nominal marking of possession often cooccur within sentences, because action on a possession often indirectly affects the possessor, but either can occur without the other. We saw affectedness without possession in (23) ‘I will haul her ashore for myself’, and possession without affectedness in (10)a ‘Then she washed her child.’ Affectedness with and without possession can be compared in the sentences in (24) below. The arrows in (24)a belonged to the boy, but the sinew in (24)b had been borrowed. (The noun for ‘sinew’ is feminine in gender, but the noun contains no possessive prefix.)

- (24) KATHLAMET AFFECTEDNESS WITH AND WITHOUT POSSESSION: Boas 1901:12.1, 190:2
- a.
- | | | |
|--|--|---------------------|
| <i>Aqa itxátquam</i> | | <i>tiáqamacx</i> |
| <i>aqa i-t-xa-t-qu-am</i> | | <i>t-ia-qamacx</i> |
| then MASC.ERG-3PL.ABS-REFLEXIVE-take-completely-CMPL | | 3PL-MASC.POSS-ARROW |
| then he finished them <u>on himself</u> | | <u>his</u> arrows |
| ‘He used up all <u>his</u> arrows.’ | | |
- b.
- | | | |
|---|-------------|-----------------|
| <i>ikax̄xum</i> | <i>wúxi</i> | <i>aqítata</i> |
| <i>i-k-a-x-t̄u-m</i> | <i>wúxi</i> | <i>a-qítata</i> |
| IMM-FEM.ERG-FEM.ABS-REFLEXIVE-finish-COMPLETIVE | that | FEM-sinew |
| she had finished it <u>on herself</u> | that | sinew |
| ‘She had used up all <u>the</u> sinew.’ | | |

The Kathlamet reflexive construction has been extended in an interesting way. If the person indirectly affected is other than the agent, this affected person is identified by a dative pronominal prefix. The reflexive suffix *-x-* can still appear to link the absolutive argument (the object directly affected) with the dative argument (the person indirectly affected). This time the relationship is not perfect coreference, a fact already marked by the distinct absolutive and dative pronouns. They share the

effect: the dative is affected indirectly through the absolutive, a situation that can arise, for example, when possessors are affected by actions on their possessions. This is the structure seen in (2) and (16)b.

2.3 Mohawk

The pronominal prefixes on verbs in Iroquoian languages, as in Siouan languages, show an agent/patient pattern.

(25) MOHAWK PRONOMINAL PREFIXES

GRAMMATICAL AGENTS		GRAMMATICAL PATIENTS	
<i>k-tákhe'</i>	' <u>I</u> run'	<i>wak-í:ta's</i>	' <u>I</u> sleep'
<i>s-tákhe'</i>	' <u>you</u> run'	<i>sén-ta's</i>	' <u>you</u> sleep'
<i>ra-tákhe'</i>	' <u>he</u> runs'	<i>ró:-ta's</i>	' <u>he</u> sleeps'
<i>ie-tákhe'</i>	' <u>she</u> runs'	<i>iakó:-ta's</i>	' <u>she</u> sleeps'
<i>s-k-arewáhtha'</i> 'you're hurting <u>me</u> '			

Indirect effect is indicated by a dative applicative suffix on the verb. In constructions containing the applicative, the grammatical patient, specified within the pronominal prefix complex, is marked as indirectly affected. It usually refers to a semantic goal or beneficiary.

(26) MOHAWK BENEFACTIVE: Rokwaho Dan Thompson, speaker

<i>skwatá:ko</i>	<i>shekwatákwa's</i>
<i>s-kwatakw</i>	<i>she-kwatakw-a's</i>
2SG.AGENT-FIX	2SG.AGENT/FEM.PATIENT-FIX-DATIVE
'Get it ready, fix it up!'	'Fix it <u>for her</u> !'

Mohawk shows extensive noun incorporation, whereby a noun stem usually evoking a semantic patient is compounded with a verb root to yield a compound verb stem. These stems, like others, may occur with dative applicatives, as in (27). Such structures have sometimes been identified as possessive constructions (Baker 1997).

(27) MOHAWK CLAUSAL CONSTRUCTION: Rokwaho Dan Thompson, speaker

<i>she'serehtakwatákwa's</i>
<i>she-'sereht-a-kwatak-a's</i>
2SG.AGENT/FEMININE.PATIENT-vehicle-EPENTHETIC-FIX-DATIVE
'Fix the car for her!'

The notion of possession is actually not part of the grammatical structure. If an event or state involving an object indirectly affects someone, one likely explanation is that the person is the owner. If you are fixing a car for her, a possible inference is that the car is hers. Dative arguments are thus often interpreted as possessors of objects evoked by incorporated nouns. But possession is not specified by the structure.

The sentence in (28) below has the same structure as that in (27) above, but the beneficiary 'him' is not interpreted as the possessor of the incorporated door. Inferences of possession are based on context and real-world knowledge, not this grammatical structure. The possessor of the door in (28) was actually the woman opening it rather than the boy outside, just as we might expect from our general experience with visit protocol.

- (28) MOHAWK INCORPORATION WITHOUT POSSESSION: Niioronhia'a Montour, speaker
Wahonwanhotónkwahse'
wa-honwa-nh-oton-kw-hs-'
 FACTUAL-FEMININE.AGENT/MASCULINE.PATIENT-DOOR-CLOSE-REVERSIVE-DATIVE-PRF
 'She opened the door for him.'

3. Intimacy of affectedness: directness of effect

A feature that has been associated with inalienability is 'intimacy of effect'. As pointed out by Blake (1990:102) and by Chappell and McGregor (1996a:7) in the introduction to their inalienability volume, the clausal construction *The dog bit Cliff on the ankle* represents the bite as more intimately affecting Cliff than does the nominal in *The dog bit Cliff's ankle*. Inalienability and intimacy of affectedness are indeed closely related, but grammatical structures in Lakhota, Kathlamet, and Mohawk show that they are ultimately distinct.

Two of the languages distinguish inalienability overtly in their nominal possessive constructions. Both Lakhota and Mohawk contain two paradigms of possessive prefixes for nouns. In Lakhota, inalienable possession is indicated on nouns by the same pronominal prefixes as those marking patients on verbs: *ma-* or *mi-* 'my', *ni-* 'your', *yki-* 'our'. (There is no third person prefix.) Alienable possession is shown by the marker *t^hq-* preceded by the same pronominal prefixes: *mit^hq-* 'my', *nit^hq-* 'your', *t^ha-* 'his/her/its', *ykit^hq-* 'our'. One thus says *ma-sí* 'my foot' and *ma-úe* 'my face', but *mit^hq-šyka* 'my horse' and *mit^hq-hayapi* 'my clothing'. In Mohawk, inalienable possession is indicated on nouns by forms similar to the agent pronominal prefixes on verbs, while alienable possession is indicated on nouns by forms similar to the patient pronominal prefixes on verbs. One thus says *k-ahsi'tà:ke* 'my foot' and *k-konhsà:ke* 'my face' but *ak-itshé:nen* 'my domestic animal' and *akw-atià:tawi* 'my coat/shirt/dress'.

In addition to their clausal constructions marking indirect affectedness, Lakhota, Kathlamet, and Mohawk all contain another clausal construction that is often interpreted as attributive possession. In this type, the participant identified as a possessor is cast as a core argument, as in the clausal constructions described above, but there is no marker of indirectness. In Lakhota the participant is expressed as a grammatical patient, but the verb does not contain the indirect prefix *ki-*.

(29) LAKHOTA: Stan Redbird, speaker, Boas & Deloria 1941:129

<i>p^há</i>	<i>mayázq</i>	<i>sí</i>	<i>makáhy'</i>
<i>p^há</i>	<i>ma-yazq</i>	<i>sí</i>	<i>ma-kahy</i>
head	1SG.PATIENT-ache	foot	1SG.PATIENT-cut
head	I am in pain	foot	(he) slashed <u>me</u>
'I have a headache'		'He foot slashed <u>me</u> '	
= 'My head aches'		= 'He slashed my foot'	

In Kathlamet the participant identified as the possessor appears in the absolutive rather than the dative case, and there is no reflexive prefix.

(30) KATHLAMET: Boas 1901:234.5

<i>qatkiuquíl̥mx</i>	<i>ia'qaqstaqpa</i>
<i>qa-tk-i-quil̥-m-x</i>	<i>i-ia-qaqstaq-pa</i>
NON.IMM-NEUTER.ERG-MASC.ABS--strike-CONT-REP	MASC-MASC.POSSESSIVE-head-LOC
she struck <u>it</u> repeatedly	on its head

<i>yáxi</i>	<i>imúlak</i>
<i>yáxi</i>	<i>i-mulak</i>
that	MASC-elk

'She struck the elk on the head.' = 'She struck the elk's head.'

In Mohawk the participant identified as the possessor (as in Baker 1997) is cast as the grammatical patient of the clause, but there is no dative suffix to mark indirectness.

(31) MOHAWK DIRECT EFFECT: Kaia'titahkhe' Jacobs, speaker

<i>wahikonhsóhare'</i>
<i>wa-hi-konhs-ohare-'</i>
FACTUAL-1SG.AGENT/MASCULINE.PATIENT.SG-face-wash-PRF
'I face-washed <u>him</u> ' = 'I washed his face.'

Such constructions are used primarily with body parts, just the entities that are normally considered inalienably possessed. The sentence in (31) with incorporated noun *-konhs-* 'face' is fine, but nearly the same sentence, with incorporated noun *-nonhs-* 'house', is not acceptable: **wahinonhsóhare'* ('I house-washed him'). A dative applicative suffix is necessary, as in (3) above.

Though there is a strong correlation between the use of these constructions and inalienability, their primary function is to specify directness of effect. If someone cuts my foot, he cuts me directly. Direct affectedness and inalienability usually go hand in hand: action on an inalienable possession, such as a foot, head, or face, usually affects the possessor more directly than action on an alienable possession such as a house or car. But where the two do not coincide, the choice of clausal structure

reflects the directness of effect rather than inalienability.

In Lakhota, hair is categorized as an inalienable possession by the noun morphology: *ma-p^héhi* ‘my hair’ (not **mit^há-p^héhi*). But if I cut someone’s hair (as in example (1) repeated below), my action is expressed as affecting him indirectly, with a verb containing the indirect prefix *ki-*, despite the grammatical inalienability of the noun.

- (32) LAKHOTA INDIRECT AFFECTEDNESS WITH INALIENABLE POSSESSION: Stan Redbird, speaker
- | | | |
|-------------------------|--|--|
| <i>p^hehí</i> | <i>wéčášla</i> | |
| <i>p^hehí</i> | <i>wa-ki-ka-šla</i> | |
| hair | 1SG.AGENT-INDIRECT-cause.with.instrument-be.bald | |
- ‘I cut his hair’

In Mohawk, one’s car is classified by the nominal morphology as alienable: *akè:sere* ‘my vehicle’. But in (33) no dative appears. The loan was directly to the son.

- (33) MOHAWK DIRECT AFFECTEDNESS WITH ALIENABLE POSSESSION: K. Lazore, speaker
- | | |
|--|--|
| <i>aonsaho’seréhtani’</i> | |
| <i>aon-sa-ho-’sereht-ani-’</i> | |
| OPTATIVE-REPETITIVE-MASCULINE.AGENT/MASCULINE.PATIENT-car-lend-PRF | |
- ‘He (the father) would lend him (the son) the car again.’

Further evidence of the fact that the direct clausal construction does not depend on inalienability can be seen in the appearance of the same noun in both kinds of constructions. The Mohawk noun *ahkwénnia* ‘harness’ is categorized by the nominal morphology as alienable. In (34)a it appears in a nominal with an alienable possessive pronominal prefix. In (34)b it appears incorporated in a direct-effect clausal construction. The difference in structure does not reflect a difference in alienability, but rather a difference in affectedness. Strapping the horses’ harness on the fence has little effect on the horses, but removing their harness, unharnessing them, does.

- (34) MOHAWK: Tekaronhiokon Jacobs, speaker
- | | | | | |
|----|--|----------------------------|-----------------------|----------------------------|
| a. | <i>Aten’enhrà:ke</i> | <i>wahrotárhoke’</i> | <i>ne</i> | <i>aonahkwénnia’</i> |
| | <i>aten’enhr-a’-ke</i> | <i>wa-hra-otarhok-e’</i> | <i>ne</i> | <i>aon-ahkwénnia’</i> |
| | fence-NS-LOC | FACTUAL-MASC.AGT-strap-PRF | the | ZOIC.PL.ALIEN.POSS-harness |
| | on the fence | he strapped it | the | <u>their</u> harness |
| | ‘He strapped their harness on the fence.’ | | | |
| b. | <i>Wahshakohkwénniahrá:ko’</i> | <i>ne</i> | <i>akohsá:tens</i> | |
| | <i>wa-hshako-ahkwénnia-hra-ko-’</i> | <i>ne</i> | <i>ako-hsaten-s</i> | |
| | FACTUAL-MASC.AGT/MASC.PL.PAT-harness-set-REV-PRF | the | INDEF.PAT-CARRY-IMPRF | |
| | <u>he</u> harness-removed <u>them</u> | the | horses | |
| | ‘He removed the horses’ harness.’ | | | |

The direct-effect construction does not actually specify possession anymore than the indirect-effect construction. The sentence ‘she water-gave them in (35) has the same structure as ‘I face-washed him’ in (31), but there is no implication that the water belonged to the guests. The idea that the face belonged to the boy in (31) but that the water did not belong to the guests in (35) is a matter of inference from general knowledge of the world.

- (35) MOHAWK CLAUSAL CONSTRUCTION: Warisose Kaierithon
- | | |
|--|-------------------------------|
| <i>wahonwatihné:kanonte’</i> | <i>ohné:kanos</i> |
| <i>wa-honwati-hnek-nont-’</i> | <i>o-hnek-anos</i> |
| FACTUAL-FEMININE.AGENT/3PL.PATIENT-liquid-feed-PRF | NEUTER-liquid-be.COOL.STATIVE |
| she liquid-gave them | water |
| ‘She gave them a drink of water.’ | |

Inalienability and direct affectedness thus often cooccur for logical reasons, since events affecting inalienable possessions usually affect the owner more directly than those affecting alienable possessions, but the correlation is circumstantial. It is important to note that the selection and interpretation of the direct-effect and indirect-effect clausal constructions depends not only on the way a speaker wishes to present a situation, but also on the lexical inventory of the language. The dative markers, reflexive, and noun incorporation are all word-formation devices, used to create lexical items. Speakers tend most often to select existing lexical items as they speak, though they may of course create neologisms on occasion. Individual lexical items often develop certain associations with circumstances surrounding their usual uses, a fact which colors their interpretation.

As noted by Bally in 1926 and others since, the participants interpreted as possessors in the clausal constructions are typically animate. It will be recalled that French speakers easily say *On lui a coupé la jambe* (‘They cut off her leg’) about a person but not about a table (even though the table is grammatically feminine in French). The same close association can be seen in both kinds of clausal constructions examined here. Those participants interpreted as possessors, actually those portrayed as indirectly or directly affected, are usually animate.

But the animacy is not specified by the construction. It is a consequence of the fact that the effect of events and states on animates, that is, sentient beings, is often portrayed as noteworthy, but their effect on inanimate objects seldom is. An example from Kathlamet shows that inanimates are not categorically excluded from the construction. To say ‘The water began to boil’, the speaker cast the water in the dative case, as the entity most significantly affected by the event. The overlap in identity between the (dative) water and its own (absolute) froth was indicated by reflexive prefix *-x(a)-*.

- (36) KATHLAMET INANIMATE: Boas 1901:239.5 cited in Hymes 1955:237
- | | | | |
|-------------------|--|-------------|----------------|
| <i>it-atmtm</i> | <i>nixatlúxuax</i> | <i>táxi</i> | <i>túcuqua</i> |
| <i>i-la-tmtm</i> | <i>n-i-xa-t-l-ú-xu-ax</i> | <i>táxi</i> | <i>t-cuqua</i> |
| MASC-PL.POSS-foam | NON.IMM-MASC.ABS-RFL-PL.DAT-to-ON-do-IMPRF | that | MASCwater |
| its foam | it (its own foam) was on it (the water) | that | water |
- ‘The water became foamy’ = ‘The water began to boil’

At the same time, animacy is not sufficient to prompt the choice of the clausal construction. The possessor of the footprints in (37) was animate, but the construction was not used. The person was not affected by the discovery of his tracks.

- (37) KATHLAMET ANIMACY WITHOUT AFFECTEDNESS: Boas 1901:162:13
- | | | |
|------------------|---------------------------------|-----------------------------|
| <i>tkuañilx</i> | <i>insktúskam</i> | <i>táxatk</i> |
| <i>t-kuatilx</i> | <i>i-n-sk-t-u-sk-am</i> | <i>t-la-xatk</i> |
| NEUTER-person | IMM-1ERG.PL-3PL.ABS-X-find-CMPL | 3PL-NEUTER.POSSessor-track |
| some person | we found them | <u>someone's</u> footprints |
- ‘We found the footprints of a person.’

Participants interpreted as possessors in clausal constructions are also typically topical. A similar association was noted by Manoliu-Manea (1996) in Romanian. The reason behind the correlation is easy to understand. The primary function of the clausal constructions in all of the languages is to portray significant affectedness. Speakers show more interest in the affectedness of human beings or personified participants who are central to a discussion than of peripheral characters or inanimate objects. Significantly-affected participants are cast as grammatical core arguments, a status generally reserved for topical arguments. Though animacy and humanness are typical of topical participants, they are not sufficient to render the participants topicworthy. In the sentence in (38), those affected by blood-drinking were human beings, but the clausal construction was not used.

- (38) KATHLAMET LACK OF TOPICALITY: Boas 1901:13.6
- | | | |
|----------------|-------------------------|--|
| <i>Tilxam</i> | <i>táqauwulqt</i> | <i>ančkhuqumsta.</i> |
| <i>t-ilxam</i> | <i>t-qa-uwulqt</i> | <i>a-n-c-k-t-u-qumst-a</i> |
| PL-person | NEUTER-INDEF.POSS-blood | FUT-1-PL-ERG-NEUTER.ABS-away-drink-PRF-FUT |
| people | their blood | we shall drink it |
- ‘We shall drink the blood of people’.

The people were not expressed as core arguments because they were not topicworthy in this context. The speakers were fleas, going out to seek sustenance. The people served only to characterize the kind of blood they were after.

4. Extension of grammatical patterns

The characteristics of the clausal constructions seen so far are easily understood in terms of the functions of their source structures. They specify the significant affectedness of participants by casting them as core arguments: as absolutes, patients, or datives. The feature of possession is a secondary inference from contexts in which they are used.

But the origins of grammatical constructions do not necessarily constrain their functions forever. Developments in the Siouan languages show how functions may evolve. It will be recalled that Lakhotá, like other Siouan languages, contains a dative prefix *ki-* that marks indirectness of effect. At a certain point in the development of the family, a benefactive prefix *kiči-* was formed from reduplication of the dative prefix with palatalization of the second *k* to *č* induced by the preceding *i* (Robert Rankin p.c. 1998). The form of the resulting prefix shows extensive phonological alternation across contexts. It specifies that an action was done on behalf of another individual, in his or her place.

- (39) LAKHOTA DATIVE AND BENEFACTIVE MARKERS: Stan Redbird, speaker
- | | | |
|-------------------|--|---------------|
| <i>lowq</i> | 'sing' | |
| <i>ma-kí-lowq</i> | 'sing to me' | (DATIVE) |
| <i>m-íci-lowq</i> | 'sing <u>for me, on my behalf, in my place</u> ' | (BENEFACTIVE) |

- (40) LAKHOTA BENEFACTIVE CLAUSE: Stan Redbird, speaker
- | | |
|------------|------------------------------------|
| <i>ité</i> | <i>wéčiyužáža</i> |
| <i>ité</i> | <i>wa-kiči-yu-žaža</i> |
| face | 1AGENT-BENEFACTIVE-by.pulling-wash |
| face | I washed for (him) |
| | 'I washed his face for him' |

As in Mohawk, a possessive relationship is often inferred between the semantic patient and beneficiary of an action. If I washed a face and the washing benefitted some person, a likely inference is that the face belonged to that person. The dative and the benefactive constructions have now developed distinct, conventionalized meanings, as described by Boas and Deloria:

the form *ki-* [dative] implies action referring to an object belonging to a person different from the subject but without sanction or permission of the owner, for instance, "I take his own without his permission", in other words, an action that reflects in some way upon his interest but performed on the initiative of the subject. The form *kiči-* [benefactive] expresses an action done with permission of the owner of an object, an action done on his initiative or in his place. (Boas & Deloria 1941:86)

The development of another verbal prefix in the Siouan languages shows that original inferences may be reinterpreted as core meaning. A second prefix has

developed from reduplication of the dative *ki-*, a reflexive possessive prefix *kik-* ‘one’s own’ that marks actions directed at one’s own possessions. It has followed a separate course of development from the benefactive, showing no palatalization and distinct morphophonemic behavior.

(41) REFLEXIVE POSSESSIVES: Martha St. John, Stan Redbird, speakers

- a. *napsúkaza* *wakpáhy*
napsukaza *wa-kik-pa-hy*
 finger 1AGENT-OWN-by.drawing-cut
 finger I cut own
 ‘I cut my finger (with a knife).’ (Santee dialect)
- b. *hayápi* *waglúžža*
ha-yá-pi *wa-ki-yu-žža*
 skin-cover-NOMINALIZER 1AGENT-OWN-by.pulling-wash
 clothing I washed own
 ‘I washed my clothes’.

Comparison of (41)a and (41)b shows that the construction does not distinguish alienability.

This construction now specifies possession directly rather than simply implying it, as is confirmed by certain items that are grammatically unpossessable in Lakota. They consist primarily of objects that cannot be considered personal property, such as rocks, trees, and food. Nouns for them never appear with possessive prefixes. They also never appear with verbs containing the reflexive possessive prefix. Instead, the basic reflexive construction is used, which otherwise marks coreference between the agent and patient or dative. The reflexive appears in its primary function in (42)a and with an unpossessible object in (42)b.

(42) LAKHOTA REFLEXIVE *-ič̣-*: Stan Redbird, speaker, Boas & Deloria 1941:103,90

- a. *mič̣ktekte*
m-ič̣-kte = kte
 1SG.PATIENT-REFLEXIVE-kill = IRREALIS
 ‘I’m going to kill myself’
- b. *wamíč̣ž úžu*
wa-m-ič̣-žžu
 by.sawing-1SG.PATIENT-REFLEXIVE-butcher
 ‘I slaughtered buffalo for myself’ for ‘I slaughtered my buffalo’

5. Conclusion

Verbal affixes in three genetically and geographically distinct languages of North America, Lakhota, Kathlamet, and Mohawk, have sometimes been identified as possessive markers, in part because they are often translated as such. The location of the markers in verbs is surprising, since attributive possession is normally marked in nouns or noun phrases.

Though they appear in verbs, the affixes are actually markers of clause-level constructions. In all three of the languages, the core arguments of clauses are represented by pronominal prefixes in verbs, so that every verb can constitute a full grammatical sentence in its own right. The Lakhota, Kathlamet, and Mohawk constructions are akin to clausal structures in other languages that have been identified as markers of inalienability.

A closer examination of the uses of the constructions shows that their primary function is actually not to specify possession or even inalienability, but the significant affectedness of a participant. Possession and inalienability may be inferred from contexts in which the constructions are used, but they are not specified by the constructions themselves.

The functions and distributions of the clausal constructions reflect their structural origins. In each, a participant is cast as a core argument, either a grammatical patient/absolutive or a dative/beneficiary. Status as a grammatical patient or absolutive indicates that the individual is directly affected by the event or state, while status as a dative or beneficiary indicates that the effect is indirect. Affectedness can suggest the possibility of possession, since possessors are often affected by situations involving their possessions. Direct affectedness can suggest inalienable possession, and indirect affectedness alienable possession, since situations involving inalienable possessions usually affect their possessors more directly than those involving alienable possessions. In the end, the forms reflect their functions.

Note

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Abbreviations

ABS	ABSOLUTE	LOC	LOCATIVE
AGT	AGENT	MASC	MASCULINE
CMPL	COMPLETIVE	NEG	NEGATIVE
CONT	CONTINUATIVE	NS	NOUN SUFFIX
DAT	DATIVE	PAT	PATIENT
DIR	DIRECTIVE	PL	PLURAL
DIST	DISTRIBUTIVE	POSS	POSSESSIVE
DU	DUAL	PRF	PERFECTIVE
EMPH	EMPHATIC	PURP	PURPOSIVE
ERG	ERGATIVE	RDP	REDUPLICATION
FEM	FEMININE	REV	REVERSIVE
FUT	FUTURE	RFL	REFLEXIVE
IMM	IMMEDIATE TENSE	REP	REPETITIVE
IMPRF	IMPERFECTIVE	SG	SINGULAR
INDEF	INDEFINITE		
IRR	IRREALIS		
BD	Boas and Deloria 1942	D	Deloria 1939

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Agentive system of Lowland Chontal'
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1. Introduction.

Chontal of Oaxaca, usually classified as Hokan, presents an agentive system of cross-reference marking on the verb. In this language, the single argument of an intransitive predicate is indexed formally on the verb in different ways. In nearly all clauses, the number (singular or plural) of the argument referent is indicated in the aspect morphology; in addition, some verbs carry cross-reference markers that index grammatical person. The goal of this paper is to understand the functional motivations of the formal system by examining occurrences of these differently marked intransitive verbs. I will analyze facets of the semantic relationship of the argument participant to the event or state expressed by the verb and will conclude that the participant's control over the event or state, as determined by lexical semantics or as perceived by the speaker, is the parameter which characterizes the agentive system in Lowland Chontal.

Separate classes of intransitive verbs were identified in descriptions of both Chontal dialects, but the system was not characterized as active/agentive. In her analysis of Lowland Chontal, Waterhouse (1962:46, 57) describes 'intransitive' verbs which occur in 'action syntagmemes,' and 'process' verbs which can be marked for person and occur in 'process syntagmemes.' In later work (ms.), Waterhouse calls these classes 'intransitive' and 'ergative,' respectively. In their grammatical sketch of the highland dialect, Turner & Turner (1971:323-325), separate 'intransitive' verbs with no subject marking from 'semi-transitive' verbs, in which an unidentified subject directs action toward an object (325). Based on these analyses, Smith Stark (1990, and with Tapia García, 1986 & [forthcoming]) identified the system as active-static. In the terminology adopted here, the system is agentive because it is the semantic role of the argument, and not the lexical aspect of the verb root, that determines the pattern of cross-reference marking. The data in this paper are drawn exclusively from Lowland Chontal, but given the list of 'semi-transitives' gleaned from the Turners' dictionary, I predict the explanation will fit the highland dialect as well.

2. Agentive systems.

Agentive systems are a subtype of what in the literature are often referred to as 'split-intransitive systems.' Also called agent-patient, active-stative, active-static, active, and split-S systems, they are attested in languages from diverse families and geographic regions (DeLancey 1985 (Lhasa Tibetan); Durie 1985 (Acehnese); Mithun 1991 (Lakhota, Mohawk, Central Pomo, Caddo); Smith Stark & Tapia García [forthcoming], (Amuzgo); Van Valin 1990 (Georgian and Italian); Wichmann 1996 (Tlapanec), among others). Perhaps first described by Sapir (1917), these grammatical systems treat the single argument of intransitive verbs sometimes like the agent-like argument of transitive verbs and sometimes like the patient-like transitive argument. The morphosyntactic

distinction is indicated in word order, nominal or pronominal morphology, and/or cross-reference marking (Palmer 1994:53, Payne 1997:129).

The motivation for the formal distinction seems to fall into one of two broad categories, and the language is characterized according to the basic motivating parameter. In some languages, the difference is determined by the lexical aspect of the verb as event or state, and the grammatical system is called active-stative or simply 'active.' In other languages, the distinction lies in the agentivity of the participant: the language encodes whether the subject 'performs, effects, instigates, or controls the situation' (Foley & Van Valin 1984:29) or is affected by that action or state. The system is called agent-patient or 'agentive.'

3. Background on Lowland Chontal.

Lowland Chontal is an agentive language, and the morphosyntactic distinction is found only in the verbal cross-reference marking.

3.1. Agentive marking.

In Lowland Chontal, there are two types of morphosyntactic marking. In the first, there are no person markers on the verb. Singular or plural aspect morphology indexes the agent-like argument of a transitive verb or the single argument of an intransitive. Independent pronouns identify first and second persons, as listed in (1). There are no third person pronouns, but demonstratives can be used.

(1) pronouns:	iya' 1s	iyank' 1p
	ima' 2s	imank' 2p

(2) presents an example of a transitive verb inflected for all persons in the perfective. Only the aspect suffix *-pa* or *-pa'* changes to reflect the number of the agentive argument.

(2) <i>pijl-</i> 'to kill'	<i>pijl-pa iya' lantranay'</i>	'I killed the chickens'
	<i>pijl-pa ima' lantranay'</i>	'you killed the chickens'
	<i>pijl-pa lantranay'</i>	'he/she killed the chickens'
	<i>pijl-pa' iyank' lantranay'</i>	'we killed the chickens'
	<i>pijl-pa' imank' lantranay'</i>	'y'all killed the chickens'
	<i>pijl-pa' lantranay'</i>	'they killed the chickens'

Similarly, in (3) an intransitive verb is inflected for all persons in the perfective, and again only the aspect suffix changes.

(3) <i>toj'me-</i> 'to speak'	<i>toj'me-pa iya'</i>	'I spoke'
	<i>toj'me-pa ima'</i>	'you spoke'
	<i>toj'me-pa</i>	'he/she/it spoke'

toj'me-pa' iyank'	'we spoke'
toj'me-pa' imank'	'y'all spoke'
toj'me-pa'	'they spoke'

3.2. Non-agentive marking.

The second type of morphosyntactic marking is a set of verbal affixes which index the patient-like argument of transitives and the single argument of intransitives. Cross-reference markers for second person singular and all plurals are suffixes. First person singular is a prefix, and third person singular is not marked.²

(4) cross-ref markers:	(e)jl-, 1S(PAT)	-onga', -inga' 1P(PAT)
	-o' 2S(PAT)	-olwa', ilwa' 2P(PAT)
	(zero) 3S(PAT)	-ola', ilya' 3P(PAT)

In (5), the non-agentive or patient-like argument of the transitive clause is indexed. Suffixes follow the perfective aspect markers.

(5) <i>mi-</i> 'to tell someone, to say'	jl -mi-pa	'he/she told me'
	mi-p- o'	'he/she told you'
	mi-pa	'he/she said, told him/her'
	mi-p- onga'	'he/she told us'
	mi-p- olwa'	'he/she told y'all'
	mi-p- ola'	'he/she told them'

The cross-reference morphology is identical in the intransitive clause in (6).³

(6) <i>toj-</i> 'to grow'	jl -toj-pa	'I grew (up)'
	toj-p- o'	'you grew (up)'
	tyoj-pa	'he/she/it grew (up)'
	toj-p- onga'	'we grew (up)'
	toj-p- olwa'	'y'all grew (up)'
	tyoj-p- ola'	'they grew (up)'

3.3. Verb classes.

The list below comprises all the non-agentive verbs collected so far and relevant (contrastive) examples of agentive verbs. I classify a stem as 'non-agentive' if it occurs exclusively or usually with the cross-reference morphology described above in §3.2. The list is arranged in semantically defined classes which, cross-linguistically, are sensitive to the participant's control over the situation denoted by the predicate.

Bodily function or process.

- NON-AGENTIVE: *toj-* 'grow,' *ma-* 'die,' *paf-* 'give birth,' *jlikaf-* 'wake up in certain physical or mental state,' *tyes-* 'ache,' *fu-* 'swell' (body part), *maygo-* 'become well,' *kwango-* 'become hurt,' *smixlu-* 'become dislocated' (body part), *funj-* 'become fat,' *nanj-* 'become satiated,' *pang-* 'be born,' *lej-* 'be hungry,' *soj-* 'be tired.'
- AGENTIVE: *k'ojpa-* 'cough,' *ix-* 'sneeze,' *ch'ilyo-* 'defecate,' *chalay-* 'urinate,' *najwa-* 'vomit,' *stas-* 'pass wind,' *maygo-* 'suffer, endure (physical) hardship.'

Processes in nature.

- NON-AGENTIVE: *toj-* 'grow,' *pagay-* 'blossom,' *xnek-* 'endure/survive,' *la-* 'take root,' *majko-* 'ripen,' *wejl-* 'rot,' *naj-* 'become warm' (food), *ts'os-* 'become cold' (food), *pix-* 'become wet,' *jujl-* 'become dry.'
- AGENTIVE: In the data so far, all intransitive verbs in this domain that occur with a plural subject are non-agentively inflecting.

Emotion.

- NON-AGENTIVE: *paychu-* 'fear,' *kof-* *coraje* 'boil' (with anger), *chijko-* 'become calm' (stop crying).
- AGENTIVE: *stule-* 'become angry,' *joo-* 'cry, weep.'

Cognition.

- NON-AGENTIVE: *tos-* 'learn/understand,' *tontoj-* 'be wrong,' *mes-* 'go bad, become wicked.'
- AGENTIVE: *swelme-* 'think,' *tay-* 'comprehend,' *fasku-* 'remember,' *ja'ko-* 'forget,' *smay-* 'dream.'

Motion.

- NON-AGENTIVE: *kwilif-* 'tremble,' *jwix-* 'move in agitation,' *tye-* 'fall down,' *tyamay-* 'fall flat,' *lan-* 'become stuck,' *jluu-* 'get away, escape,' *jak-* 'disappear,' *xux-* 'take (a long) time,' *kontaj-* 'bring (something) heavy.'
- AGENTIVE: *pa-* 'come,' *may-* 'go,' *tsee-* 'go and return,' *kway-* 'arrive.'

4. Analysis of agentive/non-agentive marking.

As noted in §2, active/agentive systems are typically analyzed according to parameters of verbal aspect and agentivity. Mithun (1991) presents a typological overview of the types of semantic distinctions that characterize the morphosyntactic marking patterns in active/agentive languages, and she categorizes languages as sensitive to one or more of four parameters of agency: eventhood, performance/effect/instigation (P/E/I), control, and affectedness. 'Eventhood' distinguishes between dynamic activities, likely to imply a more agentive participant, and atelic states, which typically occur with more patient-like arguments. Separate parameters of 'P/E/I' and 'control' unpack Foley and Van Valin's definition of 'actor' as "the argument of a predicate which expresses the

participant which performs, effects, instigates, or controls the situation denoted by the predicate” (1984:29). The separation is useful and even critical, as Mithun and others have shown that agentive systems may be sensitive precisely to parameters of P/E/I vs. control or volition. ‘Affectedness’ describes the degree to which the participant is affected by the predicated event or state. I found this qualitative difference difficult to evaluate in the data and found no clear evidence of the effects of ‘empathy,’ as Mithun describes in Central Pomo (521). I used the other three parameters in my investigation and added ‘animacy,’ a key parameter in Merlan’s 1985 cross-linguistic analysis of split intransitivity.

In this section, I begin by showing that the eventhood distinction does not motivate cross-reference marking patterns in Lowland Chontal. I then discuss the implications of P/E/I, animacy, and control to support the conclusion that agentive/non-agentive cross-reference marking is sensitive to the participant’s perceived level of control over the action or situation of the verb.

4.1. Eventhood.

Merlan (1985:328-29) has a useful discussion of the difficulties encountered in classifying verbs as states, processes, or events. She points out that categorization of the lexical unit can occasion multiple classification, as in the case of a typically stative verb used to construe an event, as in ‘Suddenly he knew it,’ and indeed can influence glossing, as in Boas and Deloria’s ‘to tremble’ vs. ‘to be a-tremble.’

This approach accords a theoretical priority to individual lexical items which, in my opinion, they cannot have in the treatment of properties which arise from relations among constituents. Instead of treating stativity as an inherent feature of lexemes, I suggest we consider it a feature of constructions, perhaps the clause, consisting in a certain semantic relation between NP(s) and predicate (329).

In this section I present examples of the variety of structural resources Lowland Chontal uses to express events and states, and I demonstrate that there is no correlation between agentive cross-reference marking and events nor between non-agentive marking and states.⁴

4.1.1. AGT and PAT events; states with AGT aspect morphology.

In (7) we see two events; the first with agentive marking, and the second, with non-agentive marking.

- | | | | |
|-----|----|---|---------------------------|
| (7) | a. | pang-pa’ lansanyu’
sit-PFV(PL) people | ‘the people sat down’ |
| | b. | jujl-p-ola’ layñegay’
get.dry-PFV-3P(PAT) cornfields | ‘the cornfields dried up’ |

The clauses in (8) express states using the same verb roots as in (7), here inflected with stative aspect suffixes. These suffixes only index the number of the participant and are therefore considered agentive.

- (8) a. fa'a pang-ojlenna' lansanyu' 'the people live here'
 here sit-STAT1(PL) people
 b. fa'a pang-eda' lansanyu' 'the people are seated together here'
 here sit-STAT2(PL) people
 c. jujl-kuk' lpana' 'the river is dry'
 get.dry-STAT2 river

4.1.2. AGT and PAT events; states as possessed nominals.

The first two clauses in example (9) present cognitive events on a continuum of 'control' that intuitively makes sense. 'Studying,' agentively inflected, is an activity the participant controls, while 'learning' is more elusive. The third clause shows the state expressed as a possessed nominal, a construction used for both temporary and inherent states.

- (9) a. muxek'e-pa ima' 'you studied'
 study-PFV 2S
 b. joypa sa tos-p-o' 'now you (have) learned'
 now DEM learn-PFV-2S(PAT)
 c. joypa o-xiñak' 'now you know'
 now POSS(2S)-knowledge

4.1.3. PAT events; states with PAT marking and as possessed or juxtaposed nominals.

Example (10) shows events or changing states that involve the body as affected participant. All clauses are inflected non-agentively.

- (10) a. kwango-'m-o' 'you are going to get hurt'
 get.hurt-PFV-2S(PAT)
 b. tyoj-p-ola' la'way' 'the children grew'
 grow-PFV-3P(PAT) children
 c. i-ña-p-o' 'you got well'
 be-TERM-PFV-2S(PAT)

In (11), we see states expressed with non-agentive marking, as possessed states, and as a nominal juxtaposed with an adjective.

- (11) a. tyes-'m-ola' lanukwe mane' 'both my arms hurt'
 ache-IMPF-3P(PAT) two hand
 b. ay-kwana 'I am sick, I am in pain'
 POSS(1S)-illness/pain

- c. ijł-tyuki' 'they are tall'
POSS(3P) height
- d. awe' lakajł'no' 'the women are old/ are big'
big women

4.1.4. PAT events with derived stems; PAT states.

The next two examples show how aspectual differences can serve to distinguish eventhood with non-agentively inflecting verbs. In (12), derived stems with the perfective suffix describe events, while in (13) the same (bare) stems with perfect suffixes denote states.

- (12) a. xo-gix-p-ola' la'way' 'the children got tired'
be.tired-DER-PFV-3P(PAT) children
- b. xux-kix-p-ola' la'way' 'the children took a long time'
take.time-DER-PFV-3P(PAT) children
- c. pagay-x-p-ola' lipa' 'the flowers blossomed'
blossom-DER-PFV-3P(PAT) flowers
- (13) a. xoj-t-ola' la'way' 'the children are tired'
be.tired-PFT-3P(PAT) children
- b. xux-t-ola' la'way' 'the children are late'
take.time-PFT-3P(PAT) children
- c. pagay-ty-ola' lipa' 'the flowers are in bloom'
blossom-PFT-3P(PAT) flowers

4.2. P/E/I, animacy, and control.

In this section, I consider these interactive and overlapping parameters as a group in order to compensate for the inevitable grey areas of a binary analysis of individual parameters. For the sake of consistency, in each subsection I list inchoatives as [-P/E/I], or something that happens to the participant, and processes as [+P/E/I], or something that the participant does. Questions such as whether a human or a plant actually 'effects' growth are rendered irrelevant, as are potentially circular choices of glosses.

Of the eight possible value combinations of three parameters, I have eliminated the two that imply an inanimate could demonstrate volition and 'control' the situation denoted by the predicate. The remaining six combinations are exemplified using the verbs in each semantically defined class presented in §3.3.⁵

4.2.1. Bodily functions and processes.

P/E/I	anim	cntrl		English gloss of verb
+	+	+	AGT	<i>cough, sneeze, defecate, urinate, vomit, pass wind, suffer or endure (physical) hardship</i>
+	+	--	PAT	<i>grow, die, wake up in certain physical or mental state, give birth, ache, swell</i>

4.2.1. *Bodily functions and processes (contd.).*

P/E/I	anim	cntrl		English gloss of verb
--	+	--	PAT	<i>become sick/ well/ tired/ hurt/ satiated/ dislocated/ fat; be hungry, be tired</i>

With the verbs in this semantic domain, we begin to see the cultural perspective encoded in the agentive system. Cross-linguistically, the verbs in the AGT group above are often marked as non-agentive; however, one can easily imagine that a participant has relatively more control over sneezing or urinating than over growing or aching.

4.2.2. *Processes in nature.*

P/E/I	anim	cntrl		English gloss
+	--	--	PAT	<i>grow, blossom, ripen, rot, survive, take root</i>
--	--	--	PAT	<i>become cold/ hot/ wet/ dry</i>

All processes in nature, whether construed as something the plant does or as something that happens to it, are inflected non-agentively. On the basis of the data so far, we can state that inanimate participants do not 'control' the predicated event or state.

4.2.3. *Emotion.*

P/E/I	anim	cntrl		English gloss
+	+	+	AGT	<i>cry</i>
--	+	+	AGT	<i>become angry</i>
--	+	--	PAT	<i>fear, boil with anger, become calm (stop crying)</i>

There are very few inflecting verbs of emotional state; most emotions are expressed in juxtapositions or with Spanish adjectives and the verb *i-* 'be, happen' inflected non-agentively. Given my analysis that agentive cross-reference marking implies greater participant control, *stule-* 'become angry' presents an intriguing case, one that we must again attribute to cultural perspective. The contrast with non-agentively inflecting *kof-* *coraje* 'boil with anger' is the one clear instance in the data that could be evaluated for the parameter of affectedness. The verb *chijko-* 'become calm' describes water, whether human tears or a body of water in nature.

4.2.4. *Cognition.*

P/E/I	anim	cntrl		English gloss
--	+	+	AGT	<i>study, comprehend, think, remember, forget, dream</i>
--	+	--	PAT	<i>learn/understand, be wrong, become wicked</i>

The verbs of cognition present the strongest challenge to a correlation between cross-reference marking and 'control,' and at present I lack the cultural understanding to posit a convincing explanation to why *ja'ko-* 'forget' and *smay-* 'dream' are among the AGT verbs, while *tontoj-* 'be wrong' is in the PAT group. The verb *mes-* 'become wicked' was collected and glossed by Waterhouse; my consultants were more familiar with its

usage in the context of machinery that breaks down or ‘goes bad,’⁶ perhaps the non-vegetable counterpart of *wejl-* ‘rot.’

4.2.5. Motion.

P/E/I	anim	cntrl		English gloss
+	+	+	AGT	<i>go, come, go and return, arrive</i>
+	+	--	PAT	<i>tremble, move in agitation, fall down, fall flat, escape, disappear, take time, bring heavy</i>
--	+	--	PAT	<i>become stuck</i>

The PAT group of motion verbs is best divided into subsections for explanation. *Kwilif-* ‘tremble’ and *jwix-* ‘move in agitation’ both denote motion *in situ*. The first is used to describe someone shivering with cold or trembling in fear or with the earth during an earthquake. The second was collected in a conversation about pregnant women; (15) is clearly a case of uncontrolled motion.

- (15) *jwix-*‘m-ola’ *lijl-ku*’u ‘their abdomens were jumping about’
 jump-IMPF-3P(PAT) their-abdomens

The verbs *tye-* ‘fall down,’ *tyamay-* ‘fall flat,’ and *lan-* ‘become stuck’ all describe motion that results in a stationary situation. These verbs occur invariably with non-agentive marking even in contexts in which the participant has just been warned and arguably might be able to control the event, as in (16).

- (16) *ja’ñi ñulye-*’ma’ ‘don’t run’
 NEG run-IMPF
 porque tyamay-t-o’! ‘because you’ll fall!’
 (because) fall.flat-PFT-2S(PAT)

The cross-reference marking of *jluu-* ‘escape,’ *jak-* ‘disappear,’ *xux-* ‘take (a long) time,’ and *kontaj-* ‘bring (something) heavy’ illustrates the question of event perspective. All of them can be construed as volitional activities; their non-agentive marking reflects the observer’s perspective of the resulting state. More evidence for this analysis will be presented in §5.1.

5. Cultural/social perception of control and responsibility.

Apparent inconsistencies of cross-reference marking and verbal semantics have been explained in the preceding discussion as reflections of event perspective and of the culture-specific nature of ‘control.’ In this section I present departures from the expected pattern of cross-reference marking and suggest interpretations based on discourse function and speaker evaluation of the participant’s control.

5.1. First-person singular agentivity.

The following examples were collected in elicitation with Severo López. In each case, the first-person singular form was given with agentive marking while the rest of the paradigm was non-agentively inflected. The alternation suggests that a speaker may be free or perhaps obliged to signal his or her control over a situation but at the same time unqualified or unwilling to assess someone else's control or responsibility. It will be interesting to watch for occurrences of this phenomenon in natural discourse.

The agentive first-person in (17a) addresses issues of event perspective and participant control of a motion verb, as introduced in §4.2.5. The interpretation is that the speaker knows he or she, as participant, controls the resulting situation but does not project this assumption on third parties.

- | | | | |
|------|----|---|----------------------------|
| (17) | a. | jak'-pa iya'
disappear-PFV 1S | 'I disappeared' |
| | b. | jak'-p-ola' la'way'
disappear-PFV-3P(PAT) children | 'the children disappeared' |

The English gloss for *kontaj-* is a literal translation of the contact language Spanish translation, *traer pesado*. More figuratively, this could mean 'I came burdened, I arrived burdened down.' The inflections in (18) suggest the speaker recognizes his or her own control in assuming the burden.

- | | | | |
|------|----|--|-----------------------------------|
| (18) | a. | kontaj-pa iya'
bring.heavy-PFV 1S | 'I brought something heavy' |
| | b. | kontaj-p-ola' lakujlwe'
bring.heavy-PFV-3P(PAT) men | 'the men brought something heavy' |

In (19), neither *they* nor *we* control the weight gain, even when the cause is acknowledged, but *I* have a more agentive role in causing the resulting situation.

- | | | | |
|------|----|--|-------------------------------------|
| (19) | a. | fumf-pa iya'
get.fat-PFV 1S | 'I got fat' |
| | b. | fumf-p-ola' la'way'
get.fat-PFV-3P(PAT) children | 'the children got fat' |
| | c. | saj-may' por eso fun-g-inga'
eat-DUR(PL) (for that) get.fat-DUR-1P(PAT) | 'we eat a lot so we're getting fat' |

5.2. Questions/social agency.

Any field linguist in rural Oaxaca knows the most common greeting called out from every patio, "Where are you going?" or in Huamelula, "*Jaape ima' aypa?*" Once I learned to answer in Chontal, my response prompted the friendly admonition in (20).

- (20) maa xux-t-o'!
 NEG take.time-PFT-2S(PAT) 'don't be late!'

While eliciting the paradigm with the old couple Arturo Pétriz and Petrona García, there was disagreement on the form for second person singular. Petrona gave the agentively inflected form, as in (21a), but Arturo corrected her with the non-agentive form (21b).

- (21) a. xuxkix-pa ima' 'you took a long time'
 take.time-PFV 2S
 b. xuxkix-p-o' 'you took a long time'
 take.time-PFV-2S(PAT)

I suggested that perhaps both forms were correct...? Arturo readily agreed, explaining that one would use the non-agentive form in questions, as in (22). Petrona raised her eyebrows and quietly repeated the agentive form.

- (22) tyiñichi xuxkix-p-o'? 'why did you take a long time?'
 why take.time-PFV-2S(PAT)

This rather homey example hints at the flexibility speakers may have in signaling an assessment of control, based on discourse context and the social roles of the participants.⁷

5.3. Negation.

Here I present another puzzling example from the semantic domain of cognition. *Fasku-* 'remember' is marked agentively when affirmative (23a) and non-agentively in negation (23b). Yet, *ja'ko-* 'forget' is consistently marked as agentive (24).

- (23) a. fasku-pa' lakujlwe' 'the men remembered'
 remember-PFV(PL) men
 b. maa fasku-p-ola' lakujlwe' 'the men didn't remember'
 NEG remember-PFV-3P(PAT) men
- (24) a. ja'ko-pa' lakujlwe' 'the men forgot'
 forget-PFV(PL) men
 b. maa ja'ko-pa' lakujlwe' 'the men didn't forget'
 NEG forget-PFV(PL) men

Negative forms of all non-agentive verb stems were elicited without producing another instance of this alternation. The role of negation in the cross-reference marking system must await discourse analysis for explanation.

6. Conclusions.

In this paper, patterns of verbal cross-reference marking in Lowland Chontal were analyzed by evaluating four parameters in the semantic relationship of participant and predicate. I found that factors of eventhood, performance/effect/instigation, and animacy do not predict the occurrence of agentive or non-agentive marking, and I conclude that the agentive system of Lowland Chontal is sensitive to the control of the participant over the event or state described by the predication – as determined by verbal lexical semantics, event perspective, or as evaluated by the speaker in a particular social or narrative context.

Notes

1 Chontal is an indigenous language of Mexico, spoken by some 4,500 of the perhaps 15,000 ethnic Chontales in the state of Oaxaca. There are two main dialects: Lowland Chontal, spoken along the Pacific coast, and Highland Chontal, of the mountain area. Both of these were described by SIL linguists in the 1960s and 70s. This paper describes the agentive system of verbal cross-reference marking in the lowland dialect, which has about 1,000 speakers, using data collected during field work November 1997 through March 1998 in San Pedro Huamelula, Oaxaca. I am grateful to Alberto Espinoza López, Adelaida Espinoza Raymundo, Eulalia Espinoza Raymundo, Romanita García, Petrona García Sosa, Selso Leyba Sosa, Aurelio López Abad, Pámfila López Molina, Paulino López Sosa, Arturo Pétriz Muñoz, Columba Ramírez, Alberto Rey García, María de Victoria Sosa, Guillermina Trinidad, Inéz Zavaleta Robles, Anatolia, Tomás, and the bilingual education teachers at Alma Chontal elementary school. My field work was partially funded by a grant from the Humanities and Social Sciences Research Council. This paper was improved by comments from colleagues at the First Annual Workshop on American Indigenous Languages (WAIL), University of California, Santa Barbara, May 1998; all errors are of course my own.

2 The unmarked third person singular is the spoiler. Waterhouse (1962:57) realized this late in her analysis, warning the reader that because she had elicited primarily for this person, certain stems classed as 'intransitive' were perhaps 'process,' and vice versa. The distribution of cross-reference markers needs closer analysis to explain why some third person plural patients are not marked on transitive verbs (as in example (2)) and under what circumstances does first person plural non-agentive marking include the first person prefix as well as the suffix.

3 In Lowland Chontal many verb-initial alveolars are palatalized in third-person; some speakers palatalize alveolars in any grammatical or phonological environment.

4 Only data pertinent to the discussion are fully glossed. Spanish borrowings are glossed inside parentheses. Abbreviations used in this paper are:

		SG	EITHER	PL
PFV	perfective	-pa		-pa'
IMPF	imperfective	-ma		-me'
PFT	perfect	-ta, -tya		-ta', -tya'
DUR	durative	-Cuy		-Cay'
STAT	stative 1	-a		-ojlenna'
STAT2	stative 2	-kuk', -ik', -k'		-eda'
TERM	terminative		-na, -ña	
DER	derivational suffix		-gix, -kix, -x	
DEM	demonstrative		sa	

5 'Fluid subject marking' describes a phenomenon in which the same verb occurs with agentive or non-agentive marking, "usually with a clear change of meaning," such as *dine* vs. *be a glutton* or *fall by accident* vs. *fall through one's own carelessness* (Palmer 1994:68, citing Dixon 1979). As seen throughout section, Chontal has separate lexemes for agentive and non-agentive pairs. In the data so far, there are only

two verbs which might be categorized as 'fluid-S': *maygo-* 'suffer' (AGT), 'get well' (PAT); and *sma-* 'drink' (AGT), 'get drunk' (PAT). However, only my oldest consultant, Selso Leyba, age 91, used *sma-* in this way.

6 Unfortunately, I only collected this verb in third person singular so cannot evaluate the cross-reference marking with a plural inanimate participant.

7 My thanks to Susanna Cumming for this observation.

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'Secondary' Verbs in Northern Paiute

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I. Introduction¹

Northern Paiute is currently spoken in communities of western and northern Nevada, northeastern California, southern Idaho, and eastern Oregon. There are approximately 450 speakers (Catherine S. Fowler, personal communication), the majority of whom reside on the Ft. McDermitt Reservation on the Oregon-Nevada border. The data from my own fieldwork was collected from a speaker in Klamath Falls, Oregon, and from speakers living on the Burns Paiute Reservation near Burns, Oregon.²

Northern Paiute is the northernmost member of the extensive Uto-Aztecan language family. Along with the Mono dialects, it makes up the Western Numic branch of the Numic sub-family. There is a major north/south dialectal division within Northern Paiute, and a range of sub-dialects that remain only partly understood.³ All of the data presented in this paper are from the northern dialect group.

This study is largely descriptive, although the principles of grammaticalization theory play a key role in the ensuing description. Its focus is on the development of some basic verb types in directions well documented in the literature on grammaticalization (Heine, et. al. 1991, Hopper and Traugott 1993, Traugott and Heine 1991). It attempts to account for key distributional and semantic differences between the verbal construction addressed here and verb-verb compounds found elsewhere in the language. Previous descriptions of Northern Paiute grammar, as well as studies of other Numic languages, have tended not to make this distinction clear. The study is admittedly preliminary, and I will point out gaps in the data and areas in need of further exploration where they seem most evident.

II. Verb structure and the secondary verb construction

Rather than present a purely position-class description of the morphological structure of the Northern Paiute verb, I have proposed (Thornes 1996) a view of verbal structure in terms of functional categories⁴:

- 1) [Valence [IP/[Root]] Valence] DIR/ASP + SUB/NMR
THEME STEM

The stem portion consists of either a monomorphemic verb root or one derived lexically by means of an instrumental prefix. The theme portion includes one or more of three derivational morphemes--two prefixes (a middle marker and an antipassive) and one suffix (an applicative), all of which operate on the inherent transitivity of the verb stem. The directional suffixes and those coding a range of aspectual distinctions are included here in the same general slot. Neither of these are obligatory categories, and most are the result of recent historical developments that are explored in this paper.

In the context of this description of overall verb structure in Northern Paiute, it is possible to make clear a description of secondary verbs. Distributionally, they follow the THEME, but precede any additional directional or aspectual suffixes, as we shall see. By way of providing a definition of the term "secondary verb" in the context of Uto-Aztecan languages in general, Crapo (1970) defines them as verbs which,

in addition to serving independently as primary verbs, may also be used almost like (optional) suffixes with other primary verbs. . . in which capacity they indicate aspectual-like or adverbial-like meanings. (182)

Examples (2) and (3) illustrate this dual function in the cases of the verbs 'stand' and 'travel' in Northern Paiute, which function as markers of continuous aspect and random motion (i.e. in no particular direction), respectively:

2a) toisi oʔo winni
still DEM stand.SG

'(S/He) is still standing out there.'

b) su=naatsi onoka pida - wini
NOM=boy DEM build fire-CONT.SG

'The boy is building a fire there.'

3a) hanno ii nimmi b) tihoawai-nimi ni
where you travel hunting-RNDM.SG I

'Where have you been?' 'I've been hunting here and there.'

The inventory of forms included in this study under the term "secondary verb" is actually much more inclusive. Some have obvious primary verb counterparts, while for others their counterparts are more tentatively reconstructed internal to the language. Comparative analyses with other Numic, as well as Uto-Aztecan, languages is necessary to place such reconstructions on a more solid footing. Langacker (1976) rightfully points out that "the boundary between compounding and affixation will not always be sharp." (75)

Sapir (1930) noted the "quasi-formal" significance of some otherwise independent verb stems in Southern Paiute. He describes a number of

verb stems [that] may be used as the second elements of compound verbs...[These] seem to fall into two groups, those whose action is to be thought of as contemporaneous or coordinate with that of the first verb..(..particularly verbs of position and movement) and those upon which the first verb stem logically depends as a kind of object. (79)

Although this study is centered largely on those members of the first group, I will also include a couple examples from the second group of complement-taking types in the final section of this paper.

Contrary to Sapir's description (as well as the statement by Langacker), there are important distributional differences between secondary verbs and what I would call true compounds in Northern Paiute. The following examples illustrate the placement of secondary verbs immediately following the verb theme (that is, after the applicative suffix) but before the directional or aspectual affixes. (4) through (6), with the verb 'sit,' are illustrative, since its contribution to the verb complex is not so grammaticalized as in the examples above:

- | | | | |
|-----|------------------------------------|----|---|
| 4a) | su=nana kati
the=man sit | b) | su=nana iwi-kati
the=man sleep-sit |
| | 'The man is sitting.' | | 'The man is asleep sitting up.' |
| 5a) | ni yao yui-kati
I here warm-sit | b) | ni i=giki ?yui-ki-kati
I 1=feet warm-APL-sit |
| | 'I'm sitting here warming up.' | | 'I sit warming my feet.' |
| 6a) | pi-noyoa-ga
IP/butt-move-TRNSL | b) | pi-noyoa-kati-ga
IP/butt-move-sit-TRNSL |
| | 'go backwards' | | 'go backward sitting (e.g. in the dirt)' |

In stereotyped verb-verb compounds, the derivational process is the creation of a new STEM, not an expansion of the THEME. Two typical examples of verb compounds are those in (7a) and b), where each member of the compound is an identifiable verb root, but, as (8) illustrates, the applicative necessarily follows the compound, differentiating it on distributional grounds from the secondary verb construction:

- | | | | |
|-----|--|----|---------------------------|
| 7a) | kai o=naka-supida
NEG 3=hear-like | b) | ni ti?o-yai
I sick-die |
| | '(They) ignored him.' | | 'I'm sick.' |
| 8) | su=natizuabi i=ti?o-yai-ki-ti
NOM=medicine 1=sick-die-APL-TNS | | |
| | 'The medicine makes me sick.' | | |

Some notion of productivity may also be brought to bear on this distinction. Secondary verbs may, at least theoretically, combine freely with any lexical verb. Such is not the case for verb compounds, which tend to be more idiosyncratic--the result of a lexical, not a grammatical, process. The full extent of this productivity, however, needs to be more fully explored.

Among the formal characteristics of secondary verbs in general is their tendency to be from among an inventory of suppletive verbs or those that show some reduplication. Verb suppletion or reduplication patterns with the number of the absolutive argument in a clause in Northern Paiute--that is, with the subject, if the verb is intransitive, and with the object, if the verb is transitive. There are occasional combinations of suppletion and reduplication within a single verb paradigm. As suppletion is most readily maintained in high-frequency verbs, it is not surprising that those in question are basic motion and posture verbs. Northern Paiute is unique in Numic for having a three-way suppletion for the number--singular, dual, and plural--and has as well a form for 'lie' specifically for the construction.⁵ Table 1 is a chart of the basic posture verbs.

Table 1. Suppletion in Northern Paiute posture verbs

	SIT	STAND	LIE
Singular	kati	winni	hapi
Dual	yigwi	wammi	kwapi
Plural	aata'a	kono	pokwa / wakwapi
Secondary form			-tapi

This suppletion is maintained in the secondary verb construction even in the case of 'stand' functioning as a marker of continuative aspect, as the following examples from Liljeblad (1967) show:

- 9a) niga-wini b) niga-wami c) niga-gono
 dance-CONT.SG dance-CONT.DL dance-CONT.PL
- 'S/he is dancing.' 'They (2) are dancing.' 'They are dancing.' (SL:76)

Evidence for grammaticalization is manifest in a degree of phonological reduction--usually the shortening of the medial nasal consonant and final vowel devoicing as a result of the loss of primary stress. Prosodically, secondary verbs fall within the same intonation contour as the main, lexical verb, helping to re-establish the verbal word as a more complex predicate.

I have found, in the course of my fieldwork, examples of further interest to the grammaticalization of the verb 'stand.' At first I noted the apparent anomalies of the examples in (10) as the possible result of language obsolescence. In these, there is a disparity between the number of the subject (plural, dual) and the form of the aspect marker (singular). Indeed (10b) represents actual conflict between suppletive forms of the root meaning 'kill.PL' and the aspectual suffix '(stand)CONT.SG':

- 10a) mi =naana na-do-pakida-wini
 PL=men MM-IP/fist-hit-CONT.SG
- 'Those men are boxing.'
- b) mi=waha?yu na?atsi na-koi-wini
 PL=two boys MM-kill.PL-CONT.SG
- 'Those two boys are fighting.'

I even went so far as to speculate (Thornes 1996) that there could be some interaction between these suppletive anomalies and the fact that these verb roots are augmented by the detransitivizing prefix *na-*. However, since beginning work among speakers who use the language on a more daily basis, I have noted occasional variation between the use of the suppletive forms and in the formal regularization of the singular *-wini* as a kind of default (occasionally, but not always, followed by self-correction). This supports the fact that the grammaticalization process is continuing, giving rise to a one to one relationship between form and function in this context as the connection between the aspect marker and the source lexical verb disintegrates.

III. Semantic features of secondary verbs

In the case of the verb 'stand,' semantic bleaching (a la Givón 1979) is an important factor in its grammaticalization as an aspect marker, whereby lexical meaning has given way to grammatical meaning. It is also an intriguing possibility that with the other posture verbs, broader, more abstract semantic features are exploited in the context of the construction. Note the examples in (11) whereby 'sit,' as a secondary verb in (11a), means something like 'remain,' or, with the instrumental prefix in (11b), 'stay'⁶:

- | | | | |
|------|----------------------------|----|---|
| 11a) | wadzi-kati
hide-sit | b) | tsa-kati
IP/grasp-sit |
| | 'sit-hiding/remain hidden' | | 'catch hold of (e.g. a horse by the bit)' |

Recall that the verb 'lie' has a unique, bound form for the construction, although it typically maintains aspects of its full lexical meaning as a posture verb with either human or non-human participants:

- | | | | |
|------|---|----|--|
| 12a) | su=nana iwi-tapi
the=man sleep-lie.SPL | b) | su=togokwa ɔʔɔ hutua-tapi
NOM=rattlesnake DEM stretched.out-lie.SPL |
| | 'The man is lying (there) asleep.' | | 'The rattlesnake is stretched out over there.' |

Examples like those in (13) are interesting in that they indicate the development of a more abstract, aspectual meaning on the order of 'keep V-ing.' The qualifications of the actions are no longer semantically postural (i.e. they're not about lying down). Still, these examples fall short since the contribution of the adverbs in each case to the interpretation of aspect is unclear and merits further investigation:

- | | | | |
|------|--|----|---|
| 13a) | winawi kaŋa-tapi
long.time make.noise-lie.SPL | b) | uúsopa na-ni-sstihai-tapi
always MM-IP/-pity-lie.SPL |
| | 'keep making noise' | | 'keep on praying' |

What is clear, however, is the role of the secondary verb in qualifying the verb stem by providing an additional layer of complexity to the predicate. It is tempting to assume that it is the nature of the construction itself to exploit certain abstract features underlying these semantically general verbs.

As a verb of motion, we also find 'arrive' developing the semantic characteristics of an aspectual suffix in the secondary verb construction. Liljeblad (1967) refers to it specifically as an inchoative suffix meaning something like 'be about to V.' The semantics of the lexical verb are still apparent in his examples, however. This proposed grammatical development needs to be tested with a range of verb frames, particularly those that suppress any notion of physical arrival:

- | | |
|------|---|
| 14a) | simiu puku-kuba pi-bidi-u
one horse-upon RE-arrive-PNC |
| | 'They (2) arrived on one horse.' (SL:58) |

- b) ti=tibazakanna nobi-kwai tuuna-u ti-bauma-piti-u-ssi
 POSS=laundry house-LOC put.PL-PNC ?-rain-arrive/INCH-PNC-SEQ

'She put her laundry indoors because it's about to rain.' (SL:57)

- c) yo-kyoŋoona hikwa-piti-ʔyakwi
 RE-evening wind/blow-arrive/INCH-REPET

'It begins to blow every evening' (SL:79)

Of comparative interest are the following examples from Norris' (1986) description of an aspectual prefix in Eastern Mono that appears to be cognate with the verb stem meaning 'arrive' in Northern Paiute:

- 15a) koopiʔi pidi-ku-tsibui-ti b) pidi-tika-ku
 coffee having.just-IP/-boil-TNS having.just-eat-TNS

'The coffee has just now begun to boil.' 'He just now ate.'

This is evidence for the recent development of certain V + V combinations, but not of the construction itself. These various syntactic developments of the verb 'arrive' must post-date Western Numic.

Reminiscent of these developments can be found in examples of the distribution of a desiderative morpheme as a suffix in Shoshone (Crum and Dayley 1993),

- 16) ni kai miʔa-suan-na
 I NEG go-DESID-SUB

'I don't want to go.'

but as a prefix of the instrumental prefix class in Northern Paiute:

- 17) osu mi=kutsu su-kwisi-ki-ti
 DEM PL=cattle DESID-lasso-APL-TNS

'He wants to lasso those cattle.' (SA:73)

IV. Development of directional suffixes

Other general motion verbs can be interpreted as the sources for certain directional suffixes in Northern Paiute. The verb 'go' frequently occurs as the second member of a V + V complex:

- 18a) ni mia-kwi b) ni mohi-mia-kwi c) pazi-mia-wini
 I go.SG-FUT I lead-go.SG-FUT sprinkle-go.SG-CONT.SG

'I'll go.'

'I'll lead.'

'It's sprinkling.'

I don't have key examples with the applicative suffix intervening between the two verb stems. Without them, (18b) and (c) look no different from verb compounds in distributional terms. A directional suffix meaning 'to go along V-ing,' however, could

have the independent verb stem 'go' as its source in some older productive secondary verb function:

- 19a) kwi?naa tammi - kuba - kwai yodzi-mina
golden eagle we.INCL-over-LOC fly-go.along⁷

'An eagle is flying over us (soaring back and forth).'

So, too, may the verb 'come' have once played a role as secondary verb and, as such, the potential source of the directional suffix meaning 'toward the speaker' (or cislocative):

- 20a) su=nana ka=puku witsaka - kimma
NOM=man ACC=horse lead - come

'The man comes leading the horse.'

- b) witsaka-ki-na
lead-CISL-SUB

'leading this way'

That they may cooccur illustrates the fully grammaticalized status of this directional suffix:

- 21) (su=)udi?yu naatsi kimma-o-gi-na
(NOM=)tall.NOM boy come-PNC-CISL-SUB

'The tall boy is coming this way.'

The suffix has also extended into the temporal domain. This is, of course, a very common semantic development:

- 22) moasu tabino - gi - na
already midday-CISL-SUB

'It's already getting close to noon.'

V. Syntactic complements and secondary verbs

There are verb roots that participate in the same general pattern of the secondary verb construction I have outlined, but which function like complement-taking verbs. These are verb stems of the type "upon which the first verb logically depends as a kind of object. (Sapir 1930:79)" Note that the verb meaning 'win / defeat' as a suffix takes a same subject verb phrase complement and means 'finish V-ing':⁸

- 23a) nazui-na oo tui mi=makwi-mi-na
MM.have.fun-SUB DEM try PL=win-GO-SUB

'(Wolf) was having fun over there trying to beat them.'

- b) umi o=tika-makwi
they it=eat-FINISH

'They finished eating it.'

The suffix meaning 'tell X to V' behaves like a different-subject complement-taking verb. Its application results in an increase in the valence of the verb by the addition of a syntactic object:

- 24a) a=tinikwi-tiŋi b) osu mogoʔni mi=tuaki nanisstihai-tiŋi
4=sing-TELL DEM woman PL=kids pray-TELL

'Tell him to sing!'

'That woman told the kids to pray.'

The distribution of the suffix mirrors that of other secondary verbs--that is, it follows the applicative, but precedes aspectual suffixes⁹:

- 25a) i=yadua-ki-tiŋ(i) b) ii i=tsi-kyaʔa-tiŋi-u
1=talk-APL-TELL you me=IP/sharp-cut-TELL-PNC

'Tell (X) to talk for me!'

'You told me to cut it.'

VI. Summary

In this preliminary study, I have simply tried to outline some basic features of the secondary verb construction. The construction may perhaps be best described as a subtype of verb serialization, as outlined in Foley and Olson (1985). Secondary verbs clearly fit the semantic and syntactic characteristics of the 'restricted' slot for verbs in a series. In their study, they present the implicational universal that verb serialization will consist minimally of basic motion verbs and often posture verbs, since they contribute no additional arguments to the 'core' slot.

Aspects of the distribution of secondary verbs distinguish them from verbal compounds. We could, in the context of the verb structure description presented at the beginning of the paper, view the directional/aspectual zone as (potentially, historically) a serial verb slot in the language. This slot appears to be an active one in the development of lexical verbs into more highly grammatical functions.

Finally, there is a strong tendency for certain semantic features that characterize these verbs to be highlighted in the context of the secondary verb construction--features that may lend themselves to grammaticalization.

In Table 2, I have listed suffixes together with the secondary verbs explored in this paper, their grammatical function, and the most likely candidate lexical verb to which they are related. Most are quite transparent. The possibility of other verbs which behave the same way syntactically, are equally productive, and serve to qualify the action coded by the verb stem merits further research.

Table 2. Secondary verbs and their lexical counterparts

SUFFIX	GLOSS	RELATED VERB
-ki	motion toward speaker	kimma 'come' (SA)
-gia	motion toward goal	giaʔa 'go to' (SA) ¹⁰
-noo	motion for purpose	noo 'accompany' (SA)
-nimi	random motion.SG	nimi [nimmi] 'travel.SG (SA)'
-moo	random motion.DL/PL	moo / moʔo 'travel.PL' (SA)
-mina	go, random focus	mia / miʔa 'go'
-wini	continuous.SG	winni 'stand.SG'
-[k]wami	continuous.DL	wammi 'stand.DL'
-k/gono	continuous.PL	konno 'stand.PL'
-[k]winai	take/send away	winai 'throw'
-[k]yakwi	habitual/repetitive	[k]yakwi 'carry'
-pidi	inchoative	pidi 'arrive'
-tapi	keep V-ing	<i>suppletive</i> ; 'lie'
-kati	remain	kati 'sit.SG'
-tiŋi	tell to V	tibiŋa 'ask'
-makwi	finish V-ing	makwi 'defeat'

Notes

¹The Jacobs Research Fund, the Philips Fund of the American Philosophical Society, and the Sven and Astrid Liljebld Foundation for Great Basin Studies have played important roles in supporting my research.

²Unless cited, all Northern Paiute data are from my own fieldnotes. Data from other sources is noted following the relevant examples. (SA) indicates Snapp and Anderson 1982, (SL) indicates Liljebld 1966, and (WM) indicates Marsden 1923.

³See Nichols (1974) for the most detailed assessment of Northern Paiute dialect distribution.

⁴Abbreviations used in this paper include: 1, 2, 3, 4 for personhood of proclitic; INCL 'inclusive'; EXCL 'exclusive'; RE 'reduplication'; MM 'middle marker (reflexive/passive)'; APS 'anti-passive'; CAUS 'causative'; DESID 'desiderative'; IP/ 'instrumental prefix' (with simplified characterization); TRNSL 'translocative (i.e. "motion away")'; CISL 'cislocative (i.e. "motion toward")'; APL 'applicative'; PNC 'punctual aspect'; DUR 'durative (usu. intervocalic glottalization or medial consonant fortition/gemination)'; DIR 'directional'; ASP 'aspectual'; RNDM 'random motion'; CISL 'cislocative'; TRNSL 'translocative'; CONT 'continuous'; INCH 'inchoative'; REP 'repetitive'; HAB 'habitual'; STAT 'stative'; FUT 'future'; SUBJ 'subjunctive'; SUB 'subordinate'; SEQ 'sequential'; SIM 'simultaneous'; NMR 'nominalizer'; ABS 'absolute'; NOM 'nominative'; ACC 'accusative/non-nominative'; MOD 'modal'; SG 'singular'; DL 'dual'; PL 'plural'; SPL 'suppletive form'; DEM 'demonstrative. I use a dash '-' to indicate a morpheme boundary and an equals sign '=' to indicate a clitic boundary.

⁵There does appear to be a relationship among the forms for 'lie,' with variation in the initial consonants. Note that in the plural, the options are one of full, or at least partial, suppletion, or a reduplicated form of the dual. Since giving this presentation, I have found some evidence that casts doubt on my initial analysis of there being a truly distinct, secondary form. Rather, it may be an allomorph of the singular, with the alternation of the initial consonant induced by a fortis final feature in the primary verb stem.

⁶This instrumental prefix is perhaps historically related to a verb meaning 'grasp' or 'hold' in Proto-Uto-Aztecan (see Miller, 1967, entry 234).

⁷Most previous descriptions (Liljebld 1967, Snapp and Anderson 1982) have maintained the mono-morphemic status of the directional suffix *-mina*. I feel that a diachronic analysis might necessitate analyzing *-na* as the highly productive (and polysemous) subordinating (non-finite) suffix. One of its

functions is to mark a set of simultaneous actions, as in the following example from a text in Marsden (1923):

yaisi isu kaiba kussi timatai - na
 then this mountain dust rise-SIM

yaisi osu pabi?i . o=punni-na oka kusi-ba
 then DEM elder.brother 3=see-SIM DEM dust-STAT

yaisi pisa o=supidakwatu
 then well 3=understand

'then as the dust rose from this mountain, and the elder brother (Wolf) saw that dust, (he, Wolf) understood it (i.e. what it meant).' (WM:180:1:19)

This example is describing the fact that Wolf has just realized that Coyote has released all of the animals from Malheur Cave. Simultaneously, the dust rose, Wolf saw it, and he understood. Only the main verb, in this case the final verb of the series, is missing the *-na* suffix. It is conceivable that this particular suffix is the fusion of the independent lexical verb meaning 'go' with the non-finite suffix at a stage when it was frequently one verb in a V-V series. The frequent collocation of the cislocative (exx. 16b) and 17)) with this suffix provides independent support for this hypothesis.

⁸Although the examples necessary to establish the distributional requirements are lacking, based on the productivity of the root in this function, I suspect that, as with other secondary verbs, it follows the THEME.

⁹Whether this suffix actually developed from a secondary verb construction is an open question, but there is potential evidence of an independent lexical source in the verb 'ask.' However, as the following examples show, this verb is not in a fixed syntactic position relative to the main verb, nor does it appear to be syntactically transitive. The phonological shape, although reminiscent, is far from conclusive:

ni tibiŋa kati-nimi ~ ni kati-nimi tibiŋa
 I ask sit-RNDM.SG

'I'm sitting around asking (questions).'

¹⁰I have found no evidence for this as an independent verb root. *-ga* as 'motion away from speaker' is conditioned as *-gya* after a high vowel.

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