

CHAPTER ONE  
PHONOLOGY

110. CONSONANTAL SYSTEM

The consonantal system of Southern Sierra Miwok is as follows:

	Labial	Dental	Alveolar	Velar	Glottal	Variable
Stops and affricate	p	t	t̚ c	k	ʔ	
Spirants		s	(s) š		h	
Nasals	m		n	ŋ		
Lateral			l			
Semivowels	w		j			

**Length**

The following consonantal phonemes occur only in loan words, principally those of English origin: /b, d, g, f, ʃ, r/. Their phonetic form is essentially the same as in the local dialect of English, and no allophony has been observed.

Except as may otherwise be noted, phonetic symbolism in the following discussion refers to Bernard Bloch and George L. Trager, Outline of Linguistic Analysis (Linguistic Society of America, Baltimore, 1942).

111. Apart from recent borrowings, Southern Sierra has one phonemic series of stops and one affricate, which share certain features of allophony and therefore can be treated as a class of phonemes. This class will be referred to as STOPS, since all but one of its members are phonetically stops. They are as follows: /p/, a bilabial stop; /t/, a dental or immediately post-dental stop; and /t̚/, an alveolar or slightly post-alveolar stop. /c/ is an alveolar affricate [t̚<sup>š</sup>], except in the speech of certain individuals from the extreme southern portion of Southern Sierra territory, where it is [t̚<sup>š</sup>] <sup>f</sup> [š]. /k/ varies in point of articulation, depending on the surrounding vowels. If /a, a', ·a, o, o', ·o/ immediately follows or precedes, /k/ is slightly post-velar, and may be

represented phonetically as [k̠], except in the sequences /...ika..., ...ik'a..., ...iko..., ...ik'o.../, where backing is less noticeable. Otherwise this phoneme is mediovelar, [k]. This variation occurs in all positions, initial, medial, final, and in clusters. /ʔ/ is glottal in point of articulation.

In utterance-initial position, the stops are voiceless and unaspirated. They are fortis to the extent that they rarely sound voiced to the English-speaker's ear. They have this form in most consonant clusters. When followed by length /·/, the occlusion is maintained for about twice as long as for a single stop. This statement includes /c·/, which is phonetically [t̠<sup>h</sup>]. In final position, the stops are given an aspirated release, although on occasion they may be unreleased.

Intervocally and as second member in clusters in which the first member is voiced, the allophony is somewhat more complex, and involves much free variation. Generally speaking, there is a tendency for the sound to be more lenis, to the point of spirantization, and/or for it to be voiced. In detail, however, the allophony of each stop phoneme is a little different in this position, and they are best treated individually. /p/ is [p̠] ~ [b] ~ [β]; the variation appears to be free (/sy[p̠]e/ <sup>f</sup> /sy[b]e/ 'mountain mahogany'), although in certain forms only the voiced version has been heard (/cyn·e[b]ecyʔ/ 'little') and in others only the voiceless one (/ca[p̠]yʔ/ 'sweathouse'), while the voiced spirant occurs only rarely. For /t/, no particular variation has been noted. /t/ is [t̠] <sup>f</sup> [d] <sup>f</sup> [r̠], the last representing a flap r. /c/ occurs as [ç̠] <sup>f</sup> [ʃ]. /k/, in addition to the positional variation mentioned above, may also be spirantized and/or voiced in this position, so that the following variants occur: ([k̠] <sup>f</sup> [γ] <sup>f</sup> [g]) ~ ([k̠] <sup>f</sup> [ɣ] <sup>f</sup> [g]). Furthermore, in the sequence /...oka.../, /k/ occurs as [k̠<sup>w</sup>], the labialization being slight but noticeable. /ʔ/ shows no variation.

112. The spirants of Southern Sierra do not form a series which can be discussed as a whole, as is the case with the stops. They will therefore be treated individually.

/s/ is an apico-alveolar groove spirant. In initial and final positions, and in clusters, it is unvoiced. In intervocalic position, the unvoiced form, [s], is in free variation with a voiced form, [z]. In respect of this variation, it is like the stops discussed above.

/ʃ/ is placed in parentheses in the table of consonants because its phonemic status is in doubt. It is a spirant of variable position: [h], a voiceless glottal spirant, freely varying with [ʃ], a spirant in which the apex of the tongue appears to be slightly raised to form a rather wide aperture with the alveolar ridge, while the upper and lower teeth over-

lap slightly, in a loose overbite position. The stream of air is forced up over the lower incisors and then down under the upper incisors, giving the sound an š-like quality which is not present in [h], where the teeth do not overlap.

The phone [ɣ] occurred only in the speech of Chief Leeme. The alveolar variant appeared only in forms said to represent the Yosemite dialect, or when the informant was slightly inebriated. Castro Johnson, who lived in Yosemite for several years as a young man, accepted such forms as characteristic of Yosemite speech. Other informants, however, said that they did not represent Yosemite or any other Southern dialect, saying that the alveolar spirant was a Central Sierra feature. Only Chief Leeme claimed to speak the Yosemite dialect; other informants referred to their memory of the speech of undisputed Yosemite individuals, now deceased. If this variable phone was present in Southern Sierra, then, it occurred only in the Yosemite dialect, and its presence there is disputed by the informants currently available. In other dialects, it is regularly replaced by /h/.

Its status is rendered even more difficult to determine by the elusive nature of its occurrence. Since /h/ is clearly phonemic in all dialects, the existence of /ɣ/ could only be determined when the alveolar variant occurred. The only possible conditioning factor was extralinguistic: the relative sobriety of the informant. Moreover, it is impossible at present to determine whether the variation in Chief Leeme's idiolect was due to dialect mixture—that is, he sometimes said the Yosemite form and sometimes that used in the vicinity of Bootjack—or whether such variation was actually characteristic of this phoneme in Yosemite speech, or if indeed it was merely an occasional affectation on his part. In view of the disputable status of this phoneme, it seems best merely to list the forms in which it has been found. These are:

/haka·ɣaʔ/	'golden cup oak'
/hu·ɣuʔ/	'buzzard'
/ke·ɣyʔ/	'worm'
/lo·ɣoʔ/	'lazy'
/maɣ·iʔ/	'we'
/pe·ɣunaʔ/	'buckskin'
/poɣkal/	'lungs'
/poɣkoʔ/	'ball'
/to·koɣuʔ/	'ear'
/tyɣyɣ·aʔ/	'acorn top'
/tyɣ·iɣyʔ/	'heel'
/wat·akɣaʔ/	'mountain lupine'

/wɣskiʔ/	'heart'
/ʔaʃe·liʔ/	'coyote'
/ʔoʃ·aʔ/	'woman, wife'
/ʃalaʔ/	'feather'
/ʃil·oʔ/	'handgame counting bones'
/ʃokoʃ·aʔ/	'cocoon rattle'
/ʃoʃo·lojuʔ/	'nettle'
/-s·y-/	'past tense'
/ʃut·eʔ/	'dance skirt'
/ʃu·legyʔ/	'corpse'
/ʃuʃ·umiʔ/	'owl'
/ʃys·yʔ/	'wood'

Hereafter, these forms will be written with /h/, as they occur in the speech of non-Yosemite individuals.

/ʃ/ is a voiceless apico-alveolar spirant, of rare occurrence; /h/ is a voiceless glottal spirant. No allophony has been noted for these two phonemes.

113. The remainder of the consonantal phonemes of Southern Sierra may be grouped together as voiced continuants. They exhibit no noticeable allophony, except for /·/. They may be characterized as follows: /m/, voiced bilabial nasal; /n/, voiced alveolar nasal; /ŋ/, voiced velar nasal; and /l/, voiced alveolar lateral. /w/ and /j/ represent the semi-vowels of Southern Sierra, back rounded and front unrounded respectively. Length /·/ is simply a continuation of the preceding vowel or consonant, whatever its allophonic quality. As noted previously (section 111), in the case of stops the continuation is effected by maintaining the occlusion for about twice as long as usual. It is here treated as a consonantal phoneme because this procedure makes it possible to simplify many statements, especially those concerning canonical forms and rules of stress. It is included among the voiced continuants because, when it occurs in clusters of the form /·K/ (where K represents any stop phoneme), the stops exhibit the same allophony as they do after voiced continuants. However, /·/ is by its nature of more restricted distribution than any other consonant. It does not occur initially or intervocalically; it is found only in final position and in clusters. Consonantal allophony is summarized in Table 1.



## 120. VOCALIC SYSTEM

The vowel system of Southern Sierra is as follows:

	Front	Central	Back
High	i	y	u
Low	e	a	o

These vowels vary considerably in quality, depending on the following consonant: before /·/, /k/, /ʔ/, /h/, /w/, and /j/, vowel allophones occur which are not found elsewhere. For all except /a/, the highest allophone in each case is that before /·/, that is, when the vowel is phonetically long. On the whole, however, the vocalic allophony is sufficiently complex that it is best to treat each vowel separately.

There is a striking similarity of allophonic pattern between /i/ and /u/. Both are highest before /·/, [i] and [u] respectively. /i/ is lowest, approximately [I], before /ʔ/ and /k/; /u/ is lowest before /ʔ/, approximately [U]. Elsewhere, both are intermediate, [i^] and [u~] respectively. Likewise, /e/ and /o/ show similarity of patterning. Both are highest before /·/, [E] and [o] respectively; /o/ is also high before /w/ and /j/, while /e/ is a little lower before /j/: [E~]. Both are lower before /ʔ/, /k/, and /h/, [ε] and [ω] respectively. Elsewhere both are at their lowest, [ε~] and [ø]. /y/ falls more or less into the pattern of /i/ and /u/: highest [ɥ] before /·/, lowest [ə~] before /k/, /ʔ/, and /h/; it differs in being slightly backed before /w/, approximately [ɥ>]. It is intermediate [ɥ~] elsewhere. /a/ is like no other vowel in its allophonic pattern. It is farthest back before /·/, approximately [α] (here used in preference to Bloch and Trager's [á]); it is slightly fronted before /w/ and /j/, [α<]; slightly fronted and raised before /ʔ/ and /k/, [a^]; and fronted elsewhere, [a>].

Vocalic allophony is summarized in table 2.

## 130. DISTRIBUTION

The distribution of the phonemes is as follows: consonants occur singly in initial and final positions; in medial position, they occur singly and in two-member clusters. There are no initial or final clusters, and no clusters of more than two members. Vowels do not occur in initial or final positions, and there are no vowel clusters.

All consonants except /ŋ/ and /ʰ/ occur in initial position. All except /ʰ/ occur intervocally in medial position. All except /š/, the rarest of the consonants, have been found in final position. Every consonant can occur in either first or second position in medial clusters, although not all possible combinations have been found (see table 3). /t/ and /š/ are particularly rare in clusters, but they are in any case relatively rare phonemes. Some gaps in the table—for instance, /tʃ/—may be significant, since such clusters are likely to have been removed by assimilation, although no clear instances of assimilation have been found and /tʃ/ does occur. On the whole, the gaps appear to be fortuitous.

Within one syllable, any consonant except /š/ can occur before or after any vowel (see tables 4 and 5). /š/ has not been found before /i/, /u/, or /y/, or after /a/, /e/, or /y/. In view of the rarity of this consonant, the gaps in its distribution seem to be fortuitous.

It should be noted that the above remarks do not apply to unassimilated English loans, which Southern Sierra speakers use quite freely. Such words may have initial clusters (/krismas/, 'Christmas'), triconsonantal medial clusters (/korsgol/ 'Coarsegold'), and, rarely, final consonant clusters (/kolʔojl/ 'kerosene').

#### 140. SYLLABIC CANON AND STRESS

The syllabic canon of this language is notably rigid. When length is treated as a consonant, as is done here, only two syllable types are found: CV and CVC. These will be referred to as SHORT SYLLABLES and LONG SYLLABLES respectively. Note that syllabic length has nothing necessarily to do with phonemic length. The final consonant of a long syllable can be any consonant, including length, and except in initial syllables, length can take the place of any of the consonants in the above formulae.

One of the first two syllables of any form is always a long syllable; all syllables occurring immediately before any type of juncture (see section 150) are long. The net result of these two rules is that every Miwok word contains at least one long syllable. Stress, which is not phonemic, can be predicted from the pattern of long and short syllables within the word.

Southern Sierra has three levels of stress. In isolated forms, primary stress falls on the first long syllable. Primary stress is marked by the following factors: (1) the syllable bearing it is louder than surrounding syllables; (2) the syllable-final consonant is a little longer than usual (if

this consonant is /·/, this means that phonetic vowel length is maintained for longer than usual); and (3) if a short syllable (weakly stressed) immediately precedes, the long syllable is higher in pitch than the short one.

Secondary stress falls on succeeding long syllables. In a long sequence of long syllables, the even-numbered ones tend to be less heavily stressed than the odd-numbered ones, counting from the beginning of the long-syllable sequence. Short syllables carry weak stress.

In the above analysis, syllable division has been made between the members of medial consonant clusters. In view of this, it is interesting to note that this is exactly where informants made syllable divisions. When I was being excessively dense as to the proper pronunciation of a particular form, the informant would say it very slowly, separating the syllables and enunciating each one with great care. When he did so, he separated the members of consonant clusters. Clusters of consonant plus length were then expressed as two homophonous, separately articulated sounds.

Except that at least one of the first two syllables of a word is always long, the occurrence of long and short syllables has not been found to fall into any particular patterns. Sequences of up to five long syllables have been found, including forms containing no short syllables (/tyn-tyn·rəʔny·lek/ 'your thinking, then'). Long sequences of short syllables are rarer. Long syllables are much more frequent in connected discourse than are short syllables; in a ten-line sample of text in which they were counted, there were almost exactly twice as many long as short syllables.

#### 150. INTONATION AND JUNCTURE

In normal speech, there are three nonphonemic pitch levels, whose occurrence is connected with juncture. In forms given in isolation—that is, before final juncture—the syllable bearing primary stress is on level 2; any preceding short syllable is on level 1, the lowest pitch; pitch rises to level 3 on a late long syllable, and drops to 1 on the final syllable. Sometimes the final syllable itself bears the rise to 3, followed by a fall to 1. In my early attempts to record the language, I found it very easy to confuse this late high pitch with primary stress; further examination, however, showed that primary stress was marked by other characteristics, as noted above. This factor, together with secondary stress (which is present on final syllables, since they are always long) may help explain some of Freeland's comments on secondary stress on final syllables (Freeland, 1951, p. 7, sec. 7.2).

In connected discourse, the intonation pattern becomes much more complicated. A sentence starts on a moderately high pitch, rises gradually higher, and then falls gradually to a rather low pitch at the end. Final juncture (/./) is marked by this drop in overall pitch, followed by a pause. The next sentence starts on a noticeably higher pitch.

Besides final juncture, Southern Sierra has word juncture, here indicated by a space, and two types of phrase juncture, symbolized by /;/ and /,/. Word juncture is defined largely on the basis of stress and syllable structure: it occurs between the last long syllable preceding a primary stress and the next following syllable, whether short or long. At least in slow speech, a brief pause occurs at this point. The two types of phrase juncture are marked by pauses longer than word juncture and by intonational features; /;/ is preceded by a drop in pitch, more abrupt than the gradual lowering of overall pitch that indicates final juncture, while /,/ is marked by a rising pitch on the preceding syllable.

#### 160. PHONOLOGICAL DEFINITION OF THE WORD

In view of the two preceding sections, it is now possible to define the Southern Sierra word in terms of phonology. A word is a speech-segment occurring between any two successive junctures, of any type.

The end of the word is much easier to define than the beginning, but since the end of one word establishes the beginning of the next only one of the two ends needs precise definition. A word ends with the last long syllable before a primary stress, all word-final syllables being long and each word having one, and only one, primary stress. A short syllable intervening between the last long syllable and the next primary stress belongs to the next word; no more than one short syllable ever occurs in this position. There are thus two ways in which words begin: (1) with a long syllable bearing primary stress, and (2) with a short, weakly stressed syllable followed by a long syllable bearing primary stress. All long syllables after the first bear secondary stress, including the last syllable of the word.

#### 170. MORPHOPHONEMICS

For present purposes, the following is the definition of morphophonemics: a morphophonemic rule is a rule of phonologically conditioned variation

which applies to all morphemes, or allomorphs, of suitable morphophonemic shape. This definition makes it possible to formulate a set of rules to cover certain patterns of alternation which are observable throughout the language, and which can be described conveniently in one place. These rules are of signal importance to the understanding of Southern Sierra structure, since they operate with great frequency.

171. When identical consonants are juxtaposed, the cluster is phonemically /C/. For instance, ||neH-|| 'demonstrative stem, "here"' (see section 173) followed by ||-ʔ|| 'nominative case' followed by ||-ʔok|| 'postfix (see section 280), meaning unknown' (||neH-ʔ-ʔok||) is phonemically /neʔok/ 'this one.'

172. The morphophonemic sequence ||ij|| is phonemically /i/. For instance, ||hal-ki-|| 'to hunt' followed by ||-j-|| 'future' followed by ||-te-|| 'first person singular Series 2 pronominal suffix' followed by ||-ʔ|| 'nominative case' (||hal-ki-j-te-ʔ||) is phonemically /halki'teʔ/ 'I shall hunt.'

173. The morphophoneme ||H|| is phonemically /·/ ~ /ø/. It is zero under the following circumstances: (1) when followed by one consonant followed by any type of juncture; or (2) when followed or preceded by a consonant cluster, except when a morpheme ending ||VH|| is followed by one beginning ||CH||, in which case /V·C/ is found. Otherwise, it is /·/. For example, ||hikaHh-/ 'deer' followed by ||-ø|| 'nominative case' is phonemically /hikah/ 'deer, nominative case'; ||hikaHh-|| followed by ||-Hs-|| 'instrumental case' followed by ||Y|| (see section 176) followed by ||-ʔ|| 'nominative case' is /hikahsyʔ/ 'by means of deer'; ||hikaHh-|| followed by ||Y|| followed by ||-j|| 'accusative case' is /hika'hyj/ 'deer, accusative case'; ||joh-|| 'to kill, Stem 2' followed by ||-tHuH-|| 'reventive' followed by ||-ʔ|| 'nominative case' is /johtuʔ/ 'he came back from killing it'; ||ʔam-|| 'to give, Stem 1' followed by ||-eH-|| 'imperative' followed by ||-tY-c'i-|| 'you pl.-me, Series 4' is /ʔam·e'tyc'i/ 'you pl. give it to me!'

174. The morphophoneme ||X||, like ||H||, is phonemically /·/ ~ /ø/. It is, however, different from ||H||. It is /·/ if a single consonant follows and none precedes, but its position, as length, is after the following consonant. Thus, ||VXCV|| is phonemically /VC·V/. The sequence ||VXHC|| is likewise /VC·V/. Otherwise, ||X|| is zero. This morphophoneme occurs only in certain allomorphs of the imperative morpheme (see section 431) and the nominal suffix ||-ʔaX-|| (see section 751). After these morphemes, pronominal suffixes which elsewhere have forms commencing ||CV|| commence with the sequence ||C·V||. The morphophoneme ||X|| is a means of analyzing the variation in the pronominal

suffixes as a function of the preceding morpheme, which is simpler than setting up allomorphs for each of the pronominal suffixes. For example, ||<sup>?</sup>enpu- 'to chase' followed by ||-koX-|| 'imperative' followed by ||-mah·i·|| 'first person plural exclusive. Series 4' is /<sup>?</sup>enpukom·ah·i/ 'let's chase him!'; and ||micyk-|| 'to do what?' followed by ||-na-|| 'benefactive' followed by ||-<sup>?</sup>aX-|| 'infinitive' followed by ||-te.·hY·|| 'third person singular to first person singular double pronominal suffix. Series 1' (see section 310) and ||-j|| 'accusative case' is /mickyna<sup>?</sup>at·ejhy/ 'what he does to me.'

175. The morphophoneme ||Y|| is phonemically /y/ ~ /u/ ~ /o/, in accordance with the quality of the preceding vowel, as follows: (1) when the preceding syllable contains /u/, ||Y|| is /u/; (2) where /o/ is the vowel of the preceding syllable, ||Y|| is /u/  $\frac{1}{2}$  /o/, while ||Y·|| is /u·/; (3) elsewhere, ||Y|| appears as /y/. For example, ||cukuH-|| 'dog' followed by ||-<sup>?</sup>|| 'nominative case' followed by ||-hY·|| 'third person singular Series 1 pronominal suffix' (||cukuH-<sup>?</sup>-hY·||) is phonemically /cuku<sup>?</sup>hu 'his dog'; ||hu·ki-|| 'tail' followed by ||-<sup>?</sup>|| followed by ||-hY·|| (||hu·ki-<sup>?</sup>-hY·||) is /hu·ki<sup>?</sup>hy/ 'his tail'; ||ho·con-|| 'leg' followed by ||Y|| (see section 176) followed by ||-<sup>?</sup>|| followed by ||-hY·|| (||ho·con-<sup>?</sup>-hY·||) is /ho·conu<sup>?</sup>hu/  $\frac{1}{2}$  /ho·cono<sup>?</sup>hu/ 'his leg.'

176. The morphophoneme ||Y|| (see section 175) occurs at the morpheme boundary—i.e., between two morphemes—when: (1) a morpheme ending in one or more consonants is followed either by a morpheme consisting of one consonant followed by juncture, or by a morpheme beginning with two consonants (except for the cluster ||CH||); (2) a morpheme ending in two consonants (except for the cluster ||HC||) is followed by one beginning with a consonant. In other words, this morphophoneme intervenes between morphemes whenever their juxtaposition could be expected to give rise to either a cluster of more than two members or to a final cluster, unless the cluster can be avoided by ||H|| occurring as zero. For example, ||hikaHh-|| 'deer' followed by ||-j|| 'accusative case' is phonemically /hika·hyj/ 'deer, accusative case'; ||hoŋ·o·j-|| 'knees' followed by ||-ksY-|| 'verbal suffix' followed by ||-·|| 'third person singular Series 3 pronominal suffix' is /hoŋ·o·joksu/ 'his bare knees show'; ||he·l-|| 'to fight' followed by ||-ma·|| 'first person singular Series 3 pronominal suffix' is /he·lyma·/ 'I am fighting.'

#### 180. CONSONANTAL ALTERNATION

A rare but interesting feature of Southern Sierra Miwok is the occurrence of consonantal alternation with, in most cases, diminutive—augmentative

significance. This alternation involves /s/ and /c/: /s/ is found in the augmentative or "normal-size" form, and /c/ in the diminutive form. Very few cases of this alternation have been found, but one pair of alternates is of common occurrence, and another involves a loan-word from English. Where the alternation does not carry diminutive-augmentative significance, no difference in meaning can be detected between the alternate forms. For example, compare ||ʔesel·y-|| 'child' and ||ʔecel·y-|| 'baby'; ||pu·si-|| 'cat' and ||pu·ci-|| 'kitty' (English "pussy"); and the alternates ||mus·a-|| ~ ||muc·a-|| 'to be ashamed.'

Table 1. Consonantal Allophony

Phonemic Environments					
	/V...V/	/...#/	/#.../	/...·/	elsewhere
/p/	p <sup>h</sup> f b	p <sup>h</sup> f p'	p <sup>h</sup>	p <sup>h</sup>	p <sup>h</sup>
/t/	t <sup>h</sup>	t <sup>h</sup> f t'	t <sup>h</sup>	t <sup>h</sup>	t <sup>h</sup>
/ṭ/	ṭ <sup>h</sup> f d	ṭ <sup>h</sup> f t'	ṭ <sup>h</sup>	ṭ <sup>h</sup>	ṭ <sup>h</sup>
/ʔ/	ʔ <sup>h</sup>	ʔ <sup>h</sup> f ʔ'	ʔ <sup>h</sup>	ʔ <sup>h</sup>	ʔ <sup>h</sup>
/c/	č <sup>h</sup> f j	č <sup>h</sup> f č'	č <sup>h</sup>	ṭ <sup>h</sup> š <sup>h</sup>	č <sup>h</sup>
/s/	s <sup>h</sup> f z	s <sup>h</sup>	s <sup>h</sup>	s <sup>h</sup>	s <sup>h</sup>
/š/	š <sup>h</sup>	š <sup>h</sup>	š <sup>h</sup>	š <sup>h</sup>	š <sup>h</sup>
/h/	h	h	h	h	h
/m/	m	m	m	m	m
/n/	n	n	n	n	n
/ŋ/	ŋ	ŋ	no occurrence	ŋ	ŋ
/l/	l	l	l	l	l
/·/	no occurrence	·	no occurrence	no occurrence	·
/w/	w	w	w	w	w
/j/	y	y	y	y	y
/k/	Environments				Allophones
	/V <sup>-i</sup> ...a, V <sup>-i</sup> ...o, a...V, o...V				k <sup>h</sup> f γ f g
	/#...a, #...o, C <sup>-</sup> ...a, C <sup>-</sup> ...o, a...C, o...C, V <sup>-i</sup> ...a, V <sup>-i</sup> ...o, V <sup>-i</sup> ...a, V <sup>-i</sup> ...o/				k <sup>h</sup>
	/a...#, o...#/				k <sup>h</sup> f k'
	/o...a/				k <sup>w</sup>
	V <sup>-a,o</sup> ...V <sup>-a,o</sup> , i...a, i...o, i'...a, i'...o/				k <sup>h</sup> f γ f g
	V <sup>-a,o</sup> ...#				k <sup>h</sup> f k'
elsewhere				k <sup>h</sup>	



Table 2. Vocalic Allophony

Environments	/i/	/u/	/y/	/e/	/o/	/a/
/...ʔ/	i	u	ɨ	ɛ	ɔ	ɑ
/...k/	I	ụ	ə̣	ɛ	ω	ạ
/...ʔ/	I	U	ə̣	ɛ	ω	ạ
/...h/	Iˆ	ụ	ɨˆ	ɛ	ω	aˆ
/...w/	Iˆ	ụ	ɨˆ	ɛˆ	ɔ	ɑˆ
/...j/	Iˆ	ụ	ɨˆ	ɛˆ	ɔ	ɑˆ
elsewhere	Iˆ	ụ	ɨˆ	ɛˆ	ɔ	aˆ

Table 3. Distribution of Consonants  
(see list of examples)

	Initial	Inter-Vocalic	Final	In clusters: Second members														
				p	t	t̥	k	ʔ	c	s	ʃ	h	m	n	ŋ	l	·	w
p	1	15	30	--	60	75	84	98	121	134	135	148	163	178	192	206	221	234
t	2	16	31	45	--	85	99	122										
t̥	3	17	32	46	61	--	86	100										
k	4	18	33	47	62	76	--	101	113	123	138	151	166	181	195	209	224	237
ʔ	5	19	34	48	63	77	87	--	114	124	139	152	167	182	196	210	225	238
c	6	20	35	49	64		88	102	--	125	153	168	183	197	211	226	239	
ʃ	7	21	36	50	65		89	103	--		140	154	169	184	198	212	227	240
h	8	22		51	66		104		--		155	170			213			
m	9	23	37	52	67	78	90	105	115	126	--	156	171	185	199	214	228	241
n	10	24	38	53	68		91	106	116	127	141	--	172	186	200	215		242
ŋ	11	25	39	54	69	79	92	107	117	128	142	157	--	187	201	216	229	243
l	--	26	40	55	70	80	93	108		129	143	158	173	--	202	217	230	244
·	12	27	41	56	71	81	94	109	130		144	159	174	188	--	218	231	245
w	--		42	57	72	82	95	110	118	131	145	160	175	189	203	--	232	246
j	13	28	43	58	73		96	111	119	132	146	161	176	190	204	219	--	247
	14	29	44	59	74	83	97	112	120	133	147	162	177	191	205	220	233	--

Table 3: Examples

- |                                      |   |
|--------------------------------------|---|
| 1. pice·ma? 'meat'                   | 39. has·yn 'abalone shell'                        |
| 2. tal·yl 'strong'                   | 40. kan·yŋ 'my'                                   |
| 3. ʔoʔku· 'to braid hair'            | 41. ci·wel 'tears'                                |
| 4. kan·i? 'I'                        | 42. wyksy· 'to go'                                |
| 5. ʔo·pa? 'cloud'                    | 43. hiciw 'poker'                                 |
| 6. cakac 'donkey'                    | 44. hoŋ·oj 'knee'                                 |
| 7. syʔ·yl 'wild'                     | 45. sutpa· 'to shrivel up'                        |
| 8. ʃolka· 'to flow'                  | 46. ʔipuʔpuʔ·u· 'to keep on doing<br>it that way' |
| 9. hikah 'deer'                      | 47. ʔakpy· 'to be thirsty'                        |
| 10. mamla? 'blackberry'              | 48. cuʔpam 'middle'                               |
| 11. naŋ·a? 'man'                     | 49. micpa· 'to camp'                              |
| 12. law·a·ti? 'rattlesnake'          | 50. hispa· 'to decorate'                          |
| 13. wyhki? 'heart'                   | 51. toʃpu· 'to get stiff'                         |
| 14. jaw·e? 'bow'                     | 52. ʔytyhpa· 'to make one late'                   |
| 15. capa·ha? 'white fir'             | 53. sympy· 'to close one's eyes'                  |
| 16. cyty? 'good'                     | 54. ponpu· 'to get dusk'                          |
| 17. haʔ·aʔa? 'round'                 | 55. kaweŋpa· 'to shout at someone'                |
| 18. cakac 'donkey'                   | 56. halpa· 'to find'                              |
| 19. hiʔ·e·ma? 'day'                  | 57. ʔo·pa? 'cloud'                                |
| 20. pice·ma? 'meat'                  | 58. kojowpe? 'news-teller'                        |
| 21. hasu·lu· 'to ask'                | 59. najpa· 'to partly cover'                      |
| 22. hiʃeŋ·a? 'ugly'                  | 60. jupti? 'rabbitskin blanket'                   |
| 23. hoho·loj 'nettle'                | 61. wyʔiʔtu? 'he came back from<br>peeking'       |
| 24. humuʔ·li? 'garter snake'         | 62. pakty· 'to explode'                           |
| 25. hino·wu· 'to play handgame'      | 63. woʔta· 'to throw a rider'                     |
| 26. heŋilŋe· 'to get lost'           | 64. juctu? 'he came back from<br>pulling hair'    |
| 27. cala·tu? 'star'                  | 65. ʔeste·ci? 'stagecoach'                        |
| 28. hewe·mu? 'dry'                   | 66. huʃta· 'to make tight'                        |
| 29. haja·pu? 'chief'                 | 67. kuhta· 'to hit'                               |
| 30. hol·op 'hole'                    | 68. ʔymty· 'to sing'                              |
| 31. bokhokot 'California sweetshrub' | 69. cukunti? 'my dog'                             |
| 32. sapaʔ 'a boil'                   | 70. coŋtita? 'crooked'                            |
| 33. cikcik 'brown towhee'            | 71. taita? 'shallow'                              |
| 34. cak·a? 'acorn cache'             | 72. cala·tu? 'star'                               |
| 35. cakac 'donkey'                   | 73. nawty· 'to take away'                         |
| 36. patkas 'raccoon'                 |   |
| 37. hikah 'deer'                     |   |
| 38. cuʔpam 'middle'                  |   |

74. ʔajtuʔ 'all'  
 75. loptotʔaʔ 'lumpy'  
 76. ʔi-ʔoktaʔ 'that's the one'  
 77. hoʔujnuʔ 'he wants to jump off'  
 78. ʔohtaʔaʔ 'women'  
 79. tynʔynʔyʔ 'to think'  
 80. naŋtaʔaʔ 'men'  
 81. wylʔyʔeʔ 'it is hot'  
 82. luʔtuʔ 'to skin'  
 83. ʔol-uthoʔtaʔ 'digging'  
 84. hupkuʔ 'to moult'  
 85. patkas 'raccoon'  
 86. toʔkuʔ 'to braid hair'  
 87. cukuʔkoʔ 'their dog'  
 88. cickaʔ 'bird'  
 89. kaskasʔyʔ 'headache'  
 90. pohkoʔ 'ball'  
 91. momkoʔ 'moccasins'  
 92. tynkynʔaʔ 'to maim'  
 93. ciŋkuʔ 'seed basket'  
 94. halkiʔ 'to hunt'  
 95. ceʔkeʔ 'pine needles'  
 96. tiwkaʔ 'dance plume'  
 97. kajkaʔjaʔ 'bluejay'  
 98. tepʔyjnyʔ 'he wants to cut it'  
 99. putʔajʔaʔ 'prostitutes'  
 100. koʔajnyʔ 'he wants to break it'  
 101. kikʔymʔeʔ 'juicy'  
 102. ʔicʔyjnyʔ 'he wants to do that'  
 103. ʔysʔyjyʔ 'to go wrong'  
 104. kanwišʔiʔ 'suspenders'  
 105. wohʔajnyʔ 'he wants to bark'  
 106. ʔinimʔok 'that way'  
 107. honʔejnyʔ 'he wants to vomit'  
 108. ʔiʔhyŋʔok 'his'  
 109. salʔipaʔ 'son-in-law'  
 110. ʔiʔok 'that one'  
 111. ʔywʔyʔ 'food'  
 112. hyjʔajnyʔ 'he wants to arrive'  
 113. cikcik 'brown towhee'  
 114. hiʔcuʔ 'coyote'  
 115. cihciʔ 'village name'  
 116. homcupaʔ 'barber'  
 117. palancaʔ 'flatiron'  
 118. ʔuʔcuʔ 'house'  
 119. cikiwciʔ 'Mariposa lily'  
 120. hojcipaʔ 'tough, hardy (of a person)'  
 121. ʔypsaʔ 'nephew'  
 122. matsaʔ 'to slap'  
 123. wykcyʔ 'to go'  
 124. hyʔseʔ 'to hiccough'  
 125. jocsiʔ 'to turn red'  
 126. lakyhsikoʔ 'come out now!'  
 127. kumsul 'Olivella shell bead'  
 128. hensiʔ 'to rest'  
 129. saŋsaʔnaʔ 'pine cone'  
 130. kalseʔtaʔ 'socks'  
 131. hiʔsok 'hair'  
 132. kiwsaʔ 'crane'  
 133. ʔojsipaʔ 'Thursday'  
 134. hakypšaʔ 'nostrils'  
 135. ʔyphyʔ 'to bathe, to swim'  
 136. lithyʔ 'to rise (of the sun)'  
 137. haʔhaʔtaʔ 'duck'  
 138. hokhokot 'California sweet-shrub'  
 139. waʔhiʔmeʔ 'left over'  
 140. luʔtishoʔ 'with another one'  
 141. camhyʔ 'to die'  
 142. ʔenhyʔ 'to make'  
 143. peʔaŋhiʔmeʔ 'trash'  
 144. mulhuʔ 'to stop'  
 145. capaʔhaʔ 'white fir'  
 146. tawhanʔyʔ 'to work'  
 147. kojhah 'reeds'  
 148. ʔilypmeʔ 'limp'  
 149. ʔetmyjnyʔ 'he wants to climb up'  
 150. wyʔiʔmehnyʔ 'to stop and see'

151. potokme? 'gray hair'  
 152. hy?my? 'to suit; it would be good if . . .'  
 153. lacmyni? 'chop it!'  
 154. tykysme? 'pockmark'  
 155. wišmi? 'washout'  
 156. ?ypphme? 'baptized'  
 157. sikenme? 'invalid'  
 158. ?eleŋme? 'widower'  
 159. ?ypelme? 'grown'  
 160. cy?my? 'to ride'  
 161. hol?awmeti? 'caves'  
 162. liwaksyjme? 'we shall talk'  
 163. henepna? 'to bake'  
 164. tytni? 'to patch'  
 165. hakyŋna? 'Equisetum, Western scouring-brush'  
 166. ?olokna? 'to tame'  
 167. lo?ni? 'to join together'  
 168. lacny? 'to chop'  
 169. kiwisnu? 'to boil'  
 170. sarušnu? 'to saw'  
 171. lutihna? 'to disguise'  
 172. kumnu? 'to repay'  
 173. cituŋnu? 'to wink'  
 174. pylilna? 'to smooth out'  
 175. ci?ni? 'strawberry'  
 176. pyliwni? 'Polona'  
 177. hajnak 'evening'  
 178. lapŋa? 'tree fungus'  
 179. ?utŋe? 'to aim'  
 180. cyŋe? 'to like'  
 181. ?sykŋe? 'to mistreat'  
 182. ?yli?ŋe? 'to have a party'  
 183. jocicŋe? 'to get red'  
 184. nisŋe? 'to miss'  
 185. kuhŋe? 'to regret'  
 186. hamŋe? 'to obey'  
 187. tyŋyjnyn? 'he wants to re-member'  
 188. melŋaj 'yellow-jacket'  
 189. kala?ŋy? 'to dance'  
 190. hejawŋe? 'to want'  
 191. hakajŋe? 'to be hungry'  
 192. tapla? 'board'  
 193. sitli? 'to sprinkle'  
 194. koŋla? 'to break it up'  
 195. hokli? 'a round'  
 196. humu?li? 'garter snake'  
 197. masly? 'to form a stye'  
 198. haslujnu? 'he wants to ask'  
 199. puhlejny? 'he wants to blow'  
 200. mamla? 'blackberry'  
 201. cunlejny? 'it's about to shrink up'  
 202. laŋlaŋ 'goose'  
 203. co?lak 'waterfall'  
 204. wawle? 'trunk'  
 205. ?awlawjny? 'he wants to chew it'  
 206. hulep?a? 'whistle'  
 207. catat?a? 'dice'  
 208. haŋe? 'foot'  
 209. cak?a? 'acorn cache'  
 210. ha?at?a? 'round'  
 211. ?uc?u? 'to stay'  
 212. has?yn 'abalone shell'  
 213. hiš?aša? 'rigid'  
 214. hyh?y? 'wood'  
 215. cym?ec 'south'  
 216. kan?i? 'I'  
 217. naŋ?a? 'man'  
 218. cyl?a? 'awl'  
 219. caw?ena? 'brush'  
 220. koj?o? 'salt'  
 221. sipwe?la? 'spurs'  
 222. tytwaj?a? 'speckled'  
 223. waŋwaŋ 'duck'  
 224. wikwi? 'bug'  
 225. mi?wajy? 'to squirm'  
 226. hicwe?ta? 'village name'  
 227. ?yswi? 'bad'  
 228. cahwej?a? 'small bushes'

229. hinwojnu· 'he wants to play handgame'	238. cikaʔjaʔ 'index finger'
230. siŋwy· 'to curl hair'	239. tacji·puʔ 'half-brother'
231. hulwu· 'to be hungry'	240. pusjaje·naʔ 'small hills'
232. ci·wel 'tears'	241. tehja· 'to bloat'
233. pajwajak 'Vernal Falls'	242. kamjaʔ 'yarrow'
234. cyt·ypjaʔ 'darkness'	243. panjoʔ 'handkerchief'
235. tetje·puʔ 'half-sister'	244. ho·toŋjaʔ 'king-snake'
236. peŋja· 'to drop several things'	245. jolje· 'to splash'
237. takjajny· 'it's about to form a ring around the sun'	246. ho·jol 'wild tea'
	247. ʔewjy· 'to be weak from hunger'

Table 4. Occurrence of Consonants before Vowels  
(see list of examples)

	a	e	i	o	u	y
p	1	17	33	48	64	79
t	2	18	34	49	65	80
t̚	3	19	35	50	66	81
k	4	20	36	51	67	82
ʔ	5	21	37	52	68	83
c	6	22	38	53	69	84
s	7	23	39	54	70	85
š	8	24		55		
h	9	25	40	56	71	86
m	10	26	41	57	72	87
n	11	27	42	58	73	88
ŋ	12	28	43	59	74	89
l	13	29	44	60	75	90
·	14	30	45	61	76	91
w	15	31	46	62	77	92
j	16	32	47	63	78	93

Table 4. Examples

- |                             |   |
|-----------------------------|---|
| 1. ʔo·paʔ 'cloud'           | 39. hensi· 'to rest'                      |
| 2. tal·yl 'strong'          | 40. hikah 'deer'                          |
| 3. haʔ·aʔaʔ 'round'         | 41. micpa· 'to camp'                      |
| 4. kan·iʔ 'I'               | 42. lacmyniʔ 'chop it!'                   |
| 5. ʔajtuʔ 'all'             | 43. tu·ŋiʔ 'wild potatoes'                |
| 6. cakac 'donkey'           | 44. humuʔliʔ 'garter snake'               |
| 7. sapaʔ 'a boil'           | 45. kan·iʔ 'I'                            |
| 8. hiš·aša· 'rigid'         | 46. wišmiʔ 'washout'                      |
| 9. capa·haʔ 'white fir'     | 47. tacji·puʔ 'half-brother'              |
| 10. pice·maʔ 'meat'         | 48. ponpu· 'to get dusk'                  |
| 11. naŋ·aʔ 'man'            | 49. tošpu· 'to get stiff'                 |
| 12. lapŋaʔ 'tree fungus'    | 50. ʔoʔku· 'to braid hair'                |
| 13. mamlaʔ 'blackberry'     | 51. hokhokot 'California sweet-<br>shrub' |
| 14. law·a·tiʔ 'rattlesnake' | 52. ʔo·paʔ 'cloud'                        |
| 15. wal·aj 'duck'           | 53. coŋtitaʔ 'crooked'                    |
| 16. jaw·eʔ 'bow'            | 54. sos·e· 'to grind acorns'              |
| 17. petŋe· 'to hide'        | 55. šolka· 'to flow'                      |
| 18. ʔeste·ciʔ 'stagecoach'  | 56. hoho·loj 'nettle'                     |
| 19. co·luʔŋeʔ 'cricket'     | 57. momkoʔ 'moccasins'                    |
| 20. ce·keʔ 'pineneedles'    | 58. hino·wu· 'to play handgame'           |
| 21. hiʔe·maʔ 'day'          | 59. keŋo·tu· 'to gather up'               |
| 22. pice·maʔ 'meat'         | 60. hoho·loj 'nettle'                     |
| 23. sepam 'edge'            | 61. hoi·op 'hole'                         |
| 24. hišeŋ·aʔ 'ugly'         | 62. woʔta· 'to throw a rider'             |
| 25. hewe·muʔ 'dry'          | 63. jociŋe· 'to get red'                  |
| 26. melŋaj 'yellow-jacket'  | 64. haja·puʔ 'chief'                      |
| 27. neʔ·ok 'this one'       | 65. cala·tuʔ 'star'                       |
| 28. petŋe· 'to hide'        | 66. lu·tu· 'to skin'                      |
| 29. hulep·aʔ 'whistle'      | 67. ʔoʔku· 'to braid hair'                |
| 30. jaw·eʔ 'bow'            | 68. ʔu·cuʔ 'house'                        |
| 31. hewe·muʔ 'dry'          | 69. cuʔpam 'middle'                       |
| 32. tetje·puʔ 'half-sister' | 70. hasu·lu· 'to ask'                     |
| 33. pice·maʔ 'meat'         | 71. humuʔliʔ 'garter snake'               |
| 34. law·a·tiʔ 'rattlesnake' | 72. muckul 'arrow'                        |
| 35. ʔoʔi·koʔ 'two'          | 73. sarušnu· 'to saw'                     |
| 36. wyhkiʔ 'heart'          | 74. hoŋu·ju· 'to lay eggs'                |
| 37. ʔi·ʔok 'that one'       | 75. hasu·lu· 'to ask'                     |
| 38. cikcik 'brown towhee'   |   |

- |                                 |                                    |
|---------------------------------|------------------------------------|
| 76. ?uc'u· 'to stay'            | 85. sy?·yl 'wild'                  |
| 77. hino·wu· 'to play handgame' | 86. hyj?ajny· 'he wants to arrive' |
| 78. juk·ul 'meadowlark'         | 87. myl·i· 'to sing'               |
| 79. py?ca? 'cottontail'         | 88. nykys 'poison oak'             |
| 80. cyty? 'good'                | 89. kala·jy· 'to dance'            |
| 81. haŋy?·a? 'stirrups'         | 90. lyt·a? 'belt'                  |
| 82. tynkyn·a· 'to maim'         | 91. sy?·yl 'wild'                  |
| 83. ?yswi? 'bad'                | 92. wyhki? 'heart'                 |
| 84. cyty? 'good'                | 93. jyŋ·e· 'to get drunk'          |

Table 5. Occurrence of Consonants after Vowels  
(see list of examples)

	a	e	i	o	u	y
p	1	16	31	46	62	78
t	2	17	32	47	63	79
ʈ	3	18	33	48	64	80
k	4	19	34	49	65	81
ʔ	5	20	35	50	66	82
c	6	21	36	51	67	83
s	7	22	37	52	68	84
š			38	53	69	
h	8	23	39	54	70	85
m	9	24	40	55	71	86
n	10	25	41	56	72	87
ŋ	11	26	42	57	73	88
l	12	27	43	58	74	89
·	13	28	44	59	75	90
w	14	29	45	60	76	91
j	15	30		61	77	92



Table 5. Examples

- |                              |   |
|------------------------------|---|
| 1. lapŋa? 'tree fungus'      | 39. lutihna? 'to disguise'                |
| 2. patkas 'raccoon'          | 40. tim·il 'mole'                         |
| 3. sapaŋ 'a boil'            | 41. tintikla? 'mistletoe'                 |
| 4. pakty? 'to explode'       | 42. ciŋku? 'seed basket'                  |
| 5. pice·ma? 'meat'           | 43. pylilna? 'to make smooth'             |
| 6. cakac 'donkey'            | 44. ci·wel 'tears'                        |
| 7. patkas 'raccoon'          | 45. hiciw 'poker'                         |
| 8. hikah 'deer'              | 46. hol·op 'hole'                         |
| 9. mamla? 'blackberry'       | 47. hokhokot 'California sweet-<br>shrub' |
| 10. kan·i? 'I'               | 48. toŋku? 'to braid hair'                |
| 11. naŋ·a? 'man'             | 49. hokhokot 'California sweet-<br>shrub' |
| 12. halpa? 'to find'         | 50. wo?ta? 'to throw a rider'             |
| 13. ŝolka? 'to flow'         | 51. jococi? 'red'                         |
| 14. law·a·ti? 'rattlesnake'  | 52. tos·uj 'skinny'                       |
| 15. najpa? 'to partly cover' | 53. toŝpu? 'to get stiff'                 |
| 16. henepna? 'to bake'       | 54. pohko? 'ball'                         |
| 17. petŋe? 'to hide'         | 55. momko? 'moccasins'                    |
| 18. peŋ·aŋ·a? 'garbage dump' | 56. ponpu? 'to get dusk'                  |
| 19. wekwek 'raptorial bird'  | 57. hoŋ·oj 'knee'                         |
| 20. jaw·e? 'bow'             | 58. ŝolka? 'to flow fast'                 |
| 21. jec·a? 'nit'             | 59. ?o·pa? 'cloud'                        |
| 22. ?este·ci? 'stagecoach'   | 60. jow·ok 'mud'                          |
| 23. tehja? 'to bloat'        | 61. hoho·loj 'nettle'                     |
| 24. ?empe·ro? 'bareback'     | 62. jupti? 'blanket'                      |
| 25. hensi? 'to rest'         | 63. sutpa? 'to shrivel up'                |
| 26. hiŝeŋ·a? 'ugly'          | 64. huŋ·a? 'to gather up'                 |
| 27. ci·wel 'tears'           | 65. tuk·e? 'dust'                         |
| 28. pice·ma? 'meat'          | 66. humu?li? 'garter snake'               |
| 29. kutew 'messenger'        | 67. salucnu? 'to saw'                     |
| 30. cahwej·a? 'bushes'       | 68. pus·i?na? 'mouse'                     |
| 31. sipwe·la? 'spurs'        | 69. huŝta? 'to make tight'                |
| 32. litha? 'to rise'         | 70. kuhta? 'to hit'                       |
| 33. tiŋ·aw·a? 'seven'        | 71. kumsul ' <u>Olivella</u> shell bead'  |
| 34. cikcik 'brown towhee'    | 72. cukunti? 'my dog'                     |
| 35. kan·i? 'I'               | 73. cituŋnu? 'to wink'                    |
| 36. micpa? 'to camp'         | 74. kumsul ' <u>Olivella</u> shell bead'  |
| 37. hispa? 'to decorate'     |   |
| 38. kanwiŝ·i? 'suspenders'   |   |

- |  |                                    |
|--|------------------------------------|
| 75. 'to braid hair'  | 84. ?yswi? 'bad'                   |
| 76. huwje? 'downstream'                                      | 85. wyhki? 'heart'                 |
| 77. tos'uj 'skinny'  | 86. sympy? 'to close the<br>eyes'  |
| 78. hakypša? 'nostrils'                                      | 87. has'yn 'abalone shell'         |
| 79. tytni? 'to patch'  | 88. kan'yg 'my'                    |
| 80. hakytna? ' <u>Equisetum</u> , Western<br>scouring-brush' | 89. sy?·yl 'wild'                  |
| 81. wykisy? 'to go'  | 90. pakty? 'to explode'            |
| 82. sy?·yl 'wild'  | 91. ?yw?y? 'food'                  |
| 83. pa?·yc·e? 'generous'                                     | 92. hjj?ajny? 'he wants to arrive' |

## CHAPTER TWO

### INTRODUCTION TO MORPHEMICS

#### 210. MORPHEMIC DEFINITION OF THE WORD

In Southern Sierra Miwok, the **WORD** is a useful unit for purposes of morphemic and syntactic analysis, since it exhibits definite features of internal structure, with which the present chapter will be concerned, and also features of external relationships, which will be discussed in Chapter 9. Word boundaries are relatively easy to define in this language. As has been seen (section 160), they can be described in phonological terms. Independently of the phonological definition, the word can also be defined morphemically. The boundaries of the phonological and the morphemic word coincide perfectly in all instances.

The morphemic definition rests on the two basic morpheme classes, **ROOTS** and **SUFFIXES**, whose features will be discussed in the next section. Each word contains, as its first morpheme, one member of the class of roots, and only one. Except in the case of particles (see section 290), the root is always followed by one or more suffixes. All words except particles end with a member of the class of final suffixes (see section 240), or with a final suffix followed by one or more postfixes (see section 280). The next morpheme is then another root, commencing a new word. Each root therefore defines the beginning of a word, and thereby the end of the preceding one. The latter is also marked by the occurrence of final suffixes and postfixes.

#### 220. ROOT AND SUFFIX

**Roots** and **suffixes**, the two distribution classes of Southern Sierra morphemes, are distinguished by their positions of occurrence. A root is the first morpheme of a word, and occurs in no other position; a suffix is always preceded by a root, and may also be preceded by other suffixes. No morpheme is a member of both classes.

Owing to their position, roots are subject to certain limitations of canonical form in accordance with rules discussed earlier (see sections

130, 140, 160). In the absence of vowels and consonant clusters in word-initial position, a root always begins with a consonant followed by a vowel; thereafter, more variety is to be found. No roots have been found which consist of less than the aforementioned two phonemes, but many are monosyllabic, and the majority consist of no more than two syllables. Since one of the first two syllables of a word is always a long syllable bearing primary stress, this is usually part of the root. The following canons have been observed: CV, CVC, CVCC, CVCV, CVCVC, CVCCV, CVCVCC, CVCCVC, CVCVCCV, CVCVCCVC, CVCCVCV, and CVCCVCCV.

Suffixes are less subject to canonical restrictions, since (1) they do not occur in first morphemic position and (2) morpheme boundaries within the word do not necessarily correspond to syllabic divisions. They consist of any phoneme or sequence of phonemes that conforms to the rules of canonical form. Some are single phonemes, and few contain more than two syllables. Statistically, they are low in number but high in frequency compared to roots, collectively if not always individually. They can be divided into order classes, to be discussed in detail later (see section 270).

In morphophonemic writing, the two morpheme classes will be distinguished by the use of hyphens, after roots and before suffixes. Suffixes which are never found in word-final position are followed as well as preceded by a hyphen.

### 230. ROOT, STEM, BASE, AND THEME

Although all morphemes can be assigned to one or another of the above classes, analysis of the Southern Sierra word is facilitated by the recognition of certain other units, which are not necessarily monomorphemic. These are, in order of increasing complexity, ROOT, STEM, BASE, and THEME. In terms of levels of analysis, they are arrived at in the reverse order.

The root, in conformity with its definition above, is always monomorphemic, consisting of the initial morpheme of the word and nothing more. It may exhibit allomorphy: the occurrence of root allomorphs is determined by the phonological and morphemic environment provided by the first following suffix.

Stems are either mono- or bi-morphemic. That is, some consist of a root alone, while others contain a root plus one suffix. For instance, ||wel·-|| 'to fetch' is a root, and also a stem; ||wel·ki-|| 'to fetch' is a stem, consisting of an allomorph of the above root plus a suffix, ||-ki-||

'verbal suffix, meaning obscure.' Stems occur in variant forms (see section 260); the occurrence of stem variants, like that of root allomorphs, is determined by the nature of the first following suffix.

Bases (or verbal bases) are mono-, bi-, or polymorphemic. They consist of a morpheme or a sequence of morphemes occurring before one of the three modal suffixes (see section 250). A verbal base plus a modal suffix constitutes a verbal theme (see below, and section 250). A monomorphemic base is also a root, and if they conform to certain canonical limitations, mono- and bi-morphemic bases are also stems; in these cases, bases are subject to the same transformations of shape as roots and stems, but not otherwise. The two stems cited above are also bases, as is  $\parallel$ wel-ki-jik'- $\parallel$  'to go to fetch,' consisting of  $\parallel$ wel-ki- $\parallel$  followed by an allomorph of the verbal suffix {-jik'-} 'andative.' Any of the three can be followed by the modal suffixes, but while  $\parallel$ wel-ki-jik'- $\parallel$  shows variation in the form of its last suffix, this is in no way parallel to the variant forms exhibited by  $\parallel$ wel'- $\parallel$  and  $\parallel$ wel-ki- $\parallel$ .

Themes are also mono-, bi-, or polymorphemic. They differ from bases in that they are found immediately followed by members of the class of final suffixes (see section 240), while one of the modal suffixes always intervenes between a base and a final suffix. A theme plus one or more final suffixes constitutes a complete word. Themes can be divided into two classes, nominal and verbal, depending on the presence or absence of modal suffixes and the type of final suffix(es) which follow them. These two classes parallel the two most numerous morphological word-classes of Southern Sierra, NOUNS and VERBS, which consist respectively of nominal or verbal themes followed by final suffixes of the appropriate type.

Themes have any of the following types of composition: (1) a suitable allomorph of a root; (2) a suitable stem-type; (3) a base plus a modal suffix; or (4) a base or a previously-formed theme plus one or more nominal suffixes. In long words, it is possible to distinguish several levels of basal and thematic development, since the addition of each non-final suffix provides a base or a theme. For example, the verbal base cited above,  $\parallel$ wel-ki-jik'- $\parallel$ , can be converted into a verbal theme by the addition of the present imperfect modal suffix, which is zero; or it can become a nominal theme by the addition of the past nominal suffix {-keH-}. This in turn can be followed by the nominal suffix {-h-Y-} 'past, more remote,' providing the nominal theme  $\parallel$ wel-ki-jik'-keH-h-Y- $\parallel$ . This last ordinarily takes final suffixes, to provide a complete word (in this case, a noun) such as /welkijik.ykeh'yte/ 'I went to fetch it.'

## 240. FINAL SUFFIXES

In the definition of words and themes, reference has been made to the class of final suffixes. These are morphemes which are found, singly or in combination, in word-final position following themes. Verbal and nominal themes are segments which never occur in isolation; they are always followed by one or more final suffixes. This class therefore forms an obligatory category with respect to nouns and verbs.

The members of this class are certain case suffixes and the personal pronominal suffixes, of which four series exist, here numbered Series 1, 2, 3, and 4. Each series includes, besides forms referring (in verbal or verb-like usage) to the subject, others which refer to both subject and object. Series 1 and 2 are always found in combination with case suffixes; Series 3 and 4 are usually not. The morphology of the pronominal and case suffixes is discussed in chapter 3.

The final suffixes are so named to distinguish them from (1) medial and prefinal suffixes (see section 270), which are theme- or base-formative and are never found in word-final position; and (2) postfixes (see section 280), which are not obligatory morphemes, and which follow words (i.e., forms which otherwise occur in isolation) rather than themes. However, while final suffixes are found at least sometimes in absolutely word-final position, they are not always so located. When two final suffixes occur in combination, it is obvious that the first is not word-final, although the second may be. Moreover, when postfixes are present they follow the final suffixes.

## 250. NOMINAL AND VERBAL THEMES

The distribution of the final suffixes provides a basis for distinguishing nominal from verbal themes, and likewise nouns from verbs. Case and Series 1 and 2 pronominal suffixes follow nominal themes, resulting in nouns; Series 3 and 4 follow verbal themes, forming verbs.

Series 3 and 4 follow different types of verbal themes. There are three such types, corresponding to the three modal suffixes. These are: (1) present imperfect indicative, (2) present perfect indicative, and (3) present imperative. The suffix of the present imperfect is zero. Verbal themes of this type therefore consist of a base only; this is followed directly by Series 3 pronominal suffixes. Words of this structure are present imperfect verbs, and usually translate present-tense verbs in English (e.g., ||hywa·-t- $\phi$ -ma·|| /hywa·tyma/ 'I am running').

Verbal themes of the second type consist of a verbal base, or a variant of a base, followed by an allomorph of the present perfect suffix {-ak-}. Such themes are followed by Series 3 pronominal suffixes, except that following the present perfect suffix the first person singular is represented by a zero allomorph. These forms have the meaning of present perfect verbs; that is, they indicate actions which have just been completed. They are usually translated by an immediate past tense in English (e.g., ||hywa·t-ak-Ø|| /hywa·tak/ 'I ran just now').

Verbal themes of the third type consist of a base, or a variant of a base, followed by an allomorph of the imperative suffix {-eH-}. Such themes are followed by Series 4 pronominal suffixes, and have imperative meanings (e.g., ||hywa·t-eH-ʔ|| /hywa·teʔ/ 'run!').

Nominal themes are followed either by case alone, or by pronominal suffixes of Series 1 or Series 2 plus case. Some types of nominal theme are always followed by Series 1 suffixes; others always take Series 2; some occur with either series, with differences of meaning. Nominal themes may translate English nouns, or they may represent English verbs other than the types mentioned in connection with verbal themes; for example, ||haja·puH-|| 'chief' and ||wyks-keH-|| 'went' are both nominal themes. It must be emphasized (see section 230) that, at each level of basal or thematic development, it is the last suffix in the segment under consideration that determines its status. For example, compare ||haja·puH-j-|| '. . . will be a chief; future chief' and ||hal-ki-j-|| '. . . will hunt.' Both end with the nominal suffix {-j-} 'future,' and both are nominal themes. However, ||haja·puH-|| 'chief' is a nominal theme, while ||hal-ki-|| 'to hunt' is a base.

## 260. STEM FORMS

The feature which distinguishes stems from structural units of other types is their occurrence in variant forms, having the same meaning and composed of the same segmental phonemes in differing but predictable arrangements, whose usage is determined by the nature of the first following suffix. This situation can also be looked at in another way: part of the form of each suffix is the canonical shape of the stem which it follows.

Bases of certain types of canonical form are also stems, as noted previously (section 230). The forms in question are as follows: ||CV·-||, ||CVCC-||, ||CVCVH-||, ||CVCCV-||, and ||CVCV·C-||. A base having any of these shapes is here referred to as a Stem 1. Where such a stem

exists, it provides the most convenient basic form, since the rules of stem variation can be stated in such a way that other variants can be predicted from Stem 1, while the reverse is not true. This follows from the fact that Stem 1, which has five possible canons, exhibits the greatest diversity of shape; other stem types have no more than two.

The relationships between Stem 1 and other stem types can be described in terms of a count of consonants and vowels and their arrangements. However, these statements can be greatly simplified if /·/ in Stem 1 is not counted as a consonant, except for placing the form in one of the canons listed above. If Stem 1 has insufficient vowels to fill the canon of the stem type under consideration, the gap is filled by ||Y||. If, not counting length, Stem 1 has insufficient consonants, the canon of the stem type under consideration is filled out with /ʔ/, /h/, or /·/.

Besides Stem 1, three stem types are of sufficient importance to merit special discussion, since each occurs with several different suffixes. These are here referred to as Stems 2, 3, and 4. They exhibit the following relationships with the corresponding Stem 1: Stem 2 has the form ||C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>-|| if Stem 1 is either ||C<sub>1</sub>V<sub>1</sub>-|| or ||C<sub>1</sub>V<sub>1</sub>·C<sub>2</sub>-||; in these cases, where Stem 1 has no C<sub>2</sub>, Stem 2 has /ʔ/. Otherwise, Stem 2 has the form ||C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>-||; Stem 3, ||C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>·V<sub>2</sub>C<sub>3</sub>-||; Stem 4, ||C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>C<sub>3</sub>V<sub>2</sub>-||, and the following rules apply: (1) if, ignoring length as a consonant, Stem 1 has no C<sub>3</sub>, Stem 2 has /h/ ∞ /·/ ∞ /ʔ/, and Stems 3 and 4 have /ʔ/; and (2) if Stem 1 has no V<sub>2</sub>, Stems 2, 3, and 4 have ||Y||. These relationships may be exemplified as follows:

English	Stem 1	Stem 2	Stem 3	Stem 4
to go	wy·-	wyʔ-		
to catch	lo·t-	lot-	lot·uʔ-	lotʔu-
to come	ʔyn·-	ʔynyh-	ʔynʔʔ-	ʔynʔy-
to appear	lak·h-	lakyh-	lak·yh-	lakyh-
to be ashamed	mus·a-	musah-	mus·aʔ-	musʔa-
to bump into	kowta-	kawat-	kow·at-	kowta-
to arrive	hy·ja-	hyjah-	hyj·aʔ-	hyjʔa-
to cry	nocuH-	nocuh-	noc·uʔ-	nocʔu-
to ask	hasu·l-	hasul-	has·ul-	haslu-

In the case of the first of these examples, the form cited is the only Stem 1 of this shape known to exist; it is an irregular and defective base (see section 440). Informants deny the existence of any Stems 3 or 4 corresponding to it, and say that the Stem 2 given above was used only by individuals from Yosemite and El Portal. The more usual form meaning 'to go' is ||wyks-||, a Stem 1 of the type represented in the above



table by  $\|\text{lak-h-}\|$  'to appear.' Apart from  $\|\text{wy'-}\|$ , numerous examples have been recorded for most other types of Stem 1, all of which show the same structural patterns in Stems 2, 3, and 4.

Examples of the occurrence of these stem types with suffixes are as follows:

Stem 2 (in the variant with /h/ where Stem 1 lacks a  $C_3$ ) can be followed by  $\|\text{-e-}\|$  (an allomorph of the nominal suffix  $\{-\text{keH-}\}$  'past'), resulting in a nominal theme with the meaning of a non-immediate past tense verb (for example,  $\|\text{?ynyh-e-}\phi\text{-?}\|$  / $\text{?ynyh'e?}$ / 'he came').

Stem 3 may be followed by the nominal suffix  $\{-\text{iH-}\}$  'habitual' resulting in a nominal theme with a habitative meaning ( $\|\text{?yn'y?-iH-}\phi\text{-?}\|$  / $\text{?yn'y?i?}$ / 'he always comes').

Stem 4 can take the verbal suffix combination  $\{-\text{j-nY-}\}$ , resulting in a base with the meaning of a volitional or immediate-future verb ( $\|\text{?yn'y-j-nY-}\phi\text{-}\cdot\|$  / $\text{?yn'yjn'y}$ / 'he wants to come' or 'he is about to come').

## 270. SUFFIX CLASSES

Suffixes in Southern Sierra can be classified in two ways. First, they can be grouped into order classes: final, prefinal, and medial. The final suffixes, which have already been discussed (see section 240), are inflectional suffixes, in a generic sense; they are obligatory, and control syntactic relations by reference to and agreement in case, person, and number. Prefinal suffixes are so termed because they are always immediately followed by final suffixes. Most of them refer to matters of tense and aspect, but certain diminutive suffixes also appear to fall into this class, as do those case suffixes which are not final suffixes. The three modal suffixes are prefinal, and (within their theme-class) are obligatory morphemes; no other prefinal suffixes are obligatory. No medial suffixes are obligatory. Most have derivational meanings, but some refer to tense.

The second classification, which in part cross-cuts the first, is according to whether a segment ending in the suffix in question is a word, a verbal theme, a verbal base, or a nominal theme. Word-formative suffixes include only the final suffixes, and only the modal suffixes form verbal themes. The last two classes are here referred to as VERBAL and NOMINAL suffixes respectively. All verbal suffixes are medial; nominal suffixes are either medial or prefinal.

Verbal suffixes usually have derivational meanings. Some have several allomorphs, whose use varies in accordance with the following suffix. One

definable characteristic of each verbal suffix is the type of stem after which it is found. Two or more verbal suffixes sometimes occur in a single verbal theme, in which case their order is a matter of immediate constituents: each verbal suffix is in immediate constituency with the sum of what precedes it. For example, ||ʔetal-|| 'to return, Stem 2' followed by {-nHuk·u-} 'causative' followed by ||-lVmh-|| 'ready' followed by ||-Ø-|| 'present imperfect' followed by ||-·-|| 'third person singular Series 3 pronominal suffix' is /ʔetalnuk·ulumhu/ 'he is ready to take him (i.e., make him go) home,' while ||ʔetla-lVmh-nHuk·u-Ø-·-|| is /ʔetlalamhynuk·u/ 'he is making him ready to go home.'

Nominal suffixes have derivational meanings or refer to non-present tenses. Like the verbal suffixes, each is found following a specific type of stem, but the nominal suffixes themselves exhibit less allomorphy than do the verbal suffixes. Medial nominal suffixes far outnumber prefinal ones; most of the latter refer to tense.

## 280. POSTFIXES

Postfixes form a separate class of suffixes. They are found at the ends of words, but are distinguished from final suffixes by the fact that they are not obligatory. Their position is after the final suffixes; they are therefore attached to nouns and verbs rather than to themes, bases, or stems. They are also found following particles. Some occur with members of one word-class only; others follow words of any class. Two or more postfixes sometimes occur in sequence, in which case order classes are observable. Their meanings are diverse. Some have an interjectional character, and appear comparable to such English forms as 'then' (as in "he did come back, then"), 'well,' 'though,' and 'isn't it?'; others appear to indicate different kinds of questions. Some are extremely difficult to translate precisely. One, ||-ʔek||, has a temporal meaning, 'past'; it follows verbs, which normally refer only to present tenses. The use of particles appears to be largely a matter of style, and certain of them are much more frequent in conversation than in narrative texts.

## 290. PARTICLES

The preceding sections of this chapter have been concerned with the structure of members of the two largest morphological word-classes of Southern Sierra, nouns and verbs. One other class of words remains to be discussed: that of particles.

Particles are monomorphemic words. As morphemes, they have the following characteristics: they are roots rather than suffixes, since they sometimes occur in utterance-initial position; the only suffixes which ever follow them are postfixes; and with one exception ( $\|ho^{\cdot}aj\|$   $\int$   $\|ho^{\cdot}aj\cdot y\|$  'and') they exhibit no allomorphy. As words, their distinguishing features are as follows. They meet the phonological criteria for words (see section 160), each having a primary stress on the first long syllable. They also meet the morphological criteria (see section 200), since in utterance-medial position they are found between the final suffixes of the preceding word and the root of the following one. Moreover, they are found in the same form at the beginnings and ends of utterances. Not all can be elicited in isolation, but at least three ( $/hy^{\cdot}y/$  'yes,'  $/ken/$  'no,' and  $/jej/$  'hey!') sometimes occur as complete utterances. Particles differ from nouns and verbs in that they contain no medial, prefinal, or final suffixes.

Particles frequently follow the word they modify; they are short, and many have meanings which are hard to define. These facts, together with their rare occurrence in isolation, renders them somewhat difficult to distinguish from postfixes. The distinction can always be made, however, by careful attention to the phonological characteristics which mark them as words, and by the fact that even those which cannot be elicited in isolation are sometimes found at the beginnings of utterances.

The following particles have been identified:

- $\|hane\|$  'maybe'
- $\|ho^{\cdot}aj\|$   $\int$   $\|ho^{\cdot}aj\cdot y\|$  'and'
- $\|hunta^{\cdot}\|$  'wait'
- $\|hy^{\cdot}y\|$  'yes'
- $\|jej\|$  'hey!'
- $\|jo^{\cdot}un\|$  'obviously, you can see that . . .'
- $\|ken\|$  'no; not'
- $\|manik\|$  'more'
- $\|pa^{\cdot}is\|$  (meaning unknown)
- $\|sikej\|$  'very'
- $\|tine^{\cdot}\|$  'almost'
- $\|tyhan\|$  'really (?)'
- $\|waca^{\cdot}\|$  'tell me if . . . (?)'
- $\|?aj\cdot a\|$  'maybe so'
- $\|?a\|$  'interrogative (calling for a yes-no answer)'
- $\|?enat\|$  'soon; just now'
- $\|?o\|$  'oh'
- $\|?yh\|$  'grunt (exclamation of minor discomfort)'
- $\|?ytyj\|$  'look out!'

## CHAPTER THREE

### FINAL SUFFIXES

#### 300. INTRODUCTION

The final suffixes, as noted earlier, form an obligatory class with respect to nominal and verbal themes. Verbs and nouns are formed by the addition of members of this class to suitable themes to provide complete words. The morphology of these suffixes will be discussed in the following sections. The class consists of four series of pronominal suffixes and the autonomous case suffixes. For the sake of convenience, the subordinate case suffixes will also be discussed in this chapter, although strictly speaking they are prefinal nominal suffixes rather than final suffixes.

#### 310. PERSONAL PRONOMINAL SUFFIXES

There are four series of personal pronominal suffixes. Their forms are shown in table 6.

It will be noted that Series 3 and 4 contain more distinctions of person and number than do Series 1 and 2. Series 3 and 4 distinguish first person dual inclusive, first person plural inclusive, and first person plural exclusive; the meaning of all of these is covered in Series 1 and 2 by a first person plural. This can be treated as a difference in pattern between Series 1 and 2 on the one hand and Series 3 and 4 on the other. In Series 3 and 4, the first person plural has exclusive-inclusive distinction; the first person dual has no exclusive form. However, the first person dual inclusive may be grouped with the singulars, and regarded as an inclusive counterpart to the first person singular. If this is done, singular and plural in Series 3 and 4 have four personal distinctions: (1) first person exclusive (speaker[s]); (2) first person inclusive (speaker[s] plus person[s] spoken to); (3) second person (person[s] spoken to); and (4) third person (person[s] spoken of). In Series 2 and 3, singular and plural each have only three personal distinctions: first, second, and third persons.

Table 6. Personal Pronominal Suffixes

Subj.	Obj.	Series 1	Series 2	Series 3	Series 4
1S		-nti- <sup>d</sup> -kan	-te-	-ma' ∞ -∅	(-m <sup>d</sup> -ma') ∞ (-∅ ∞ -ma')
2S		-nY'	-ni-	sY'	-? ∞ -∅ ∞ -' ∞ -h-
3S		-hY'	-∅-	-'	-nih
1D inc.				-ti'	-ti'
1P		-t'i- <sup>d</sup> -mah'i'	-me-		
1P inc.				-tic'i'	-tic'i'
1P excel.				-mah'i'	-mah'i'
2P		-mYko'	-tokni-	-toksu'	-ci'i' ∞ -tok'o-
3P		-ko'	-koH- ∞ -ko- ∞ -k'o-	-p'u'	-nihko'
1S	2S	-ni' . kan	-ni'te-	-mus'u'	-ni'
1S	2P	-tokni' . kan	-tokni'te-	-mutoksu'	-tokni'
2S	1S	-te' . nY'	-te'ni-	-mu'	-' <sup>f</sup> -tY'
2S	1P	-me' . nY'	-me'ni-	-muhme'	-muhme'
3S	1S	-te' . hY'	-te'	-te?	-nihte?
3S	2S	-ni' . hY'	-ni'	-ni?	-nihni?
3S	1P	-me' . hY'	-me'	-me?	-nihme?
3S	2P	-tokni' . hY'	-tokni'	-tokni?	-nihtokni?
1P	2S	-ni' . mah'i'	-ni'me-	-ni'mah'i'	-ni'mah'i'
1P	2P	-tokni' . mah'i'	-tokni'me-	-tokni'mah'i'	-tokni'mah'i'
2P	1S	-te' . mYko'	-te'tokni-	-muc'i'	-tYc'i'
2P	1P	-me' . mYko'	-me'tokni-	-tokmuhme'	-tokmuhme'
3P	1S	-te' . ko'	-te'ko'	-p'ute?	-nihteko'
3P	2S	-ni' . ko'	-ni'ko'	-p'uni?	-nihniko'
3P	1P	-me' . ko'	-me'ko'	-p'ume?	-nihmeko'
3P	2P	-tokni' . ko'	-tokni'ko'	-p'utokni?	-nihtokniko'

The first six (or eight) suffixes in each series, used alone, refer to the subject only, in verbal or verb-like usage. The remainder contain references to both subject and object. The first group will be referred to as SINGLE pronominal suffixes, the second group as DOUBLE pronominal suffixes. Their relationships are somewhat complex, and will be discussed below.

In the double pronominal suffixes, the subject is never included in the object, or vice versa. "I am doing it for you" would require the use of a double suffix, but "I am doing it for us" is handled differently. For this reason, in Series 3 and 4, no distinction is made between dual, plural, inclusive, or exclusive in the first person, as might otherwise be expected. "First person plural" in the double pronominal suffixes is always exclusive in meaning, where the second person, singular or plural, is also involved. Where the third person is the subject, first person plural in Series 3 and 4 has the meaning (and, in fact, the form) that it has in the single suffixes of Series 2. Third person objects, singular or plural, are expressed as zero in all cases. Hence, the single pronominal suffixes can mean either, for example, "I am doing it," with no object, or "I am doing it to him (or them)."

311. Many of the pronominal suffixes listed above are analyzable into two or more morphemic units. The array of suffixes in table 6 can be reduced to a limited number of morphemes, many of which appear in several places in the system. These morphemes are as follows:

- || -nti- || d || -kan || 'first person singular'
- || -nY· || 'second person singular'
- || -hY· || 'third person singular'
- || -t·i- || 'first person plural'
- || -mah·i· || 'first person plural'
- || -koH- || ∞ || -ko- || ∞ || -k·o- || 'third person plural; plural'
- || -te- || ∞ || -te·- || ∞ || -te? || 'first person singular'
- || -ni- || ∞ || -ni·- || ∞ || -ni? || 'second person singular'
- || -∅- || 'third person singular'
- || -me- || ∞ || -me·- || ∞ || -me? || 'first person plural'
- || -ma· || ∞ || -∅ || 'first person singular'
- || -sY· || 'second person singular'
- || -· || 'third person singular'
- || -tiH- || 'first person dual, plural'
- || -c·i· || 'second person plural'
- || -p·u· || 'third person plural'
- || -m || 'first person singular'
- || -? || ∞ || -· || ∞ || -∅ || ∞ || -h- || 'second person singular'

- ||-nih-|| 'third person'  
 ||-tY-|| 'first person singular object'  
 ||-mY-|| 'second person'  
 ||-tok-|| 'plural (second person only)'  
 ||-mu-|| ∞ ||-mu'-|| ∞ ||-muh-|| 'first and second persons involved'

Table 7. Pronominal Suffix Morphemes

	1S	2S	3S	1P	2P	3P
1a	-nti-			-t'i-		
1b	-kan	-nY'	-hY'	-mah'i'		
2a	-te-	-ni-	-∅	-me-		
2b	-te'-	-ni'-		-me'-		
2c	-te?	-ni?		-me?		
3a	-ma'	-sY'	-'	-tiH-		-p'u'
3b	-∅					
4a	-m	-?	-nih-		-c'i'	
4b		-∅				
4c		-'				
4d		-h-				

## Other:

- ||-mY-|| 'second person'  
 ||-tY-|| 'first person singular object'  
 ||-koH-|| ∞ ||-ko-|| ∞ ||-k'o-|| 'third person plural; plural'  
 ||-tok-|| 'plural (second person only)'  
 ||-mu-|| ∞ ||-mu'-|| ∞ ||-muh-|| 'first and second persons involved'

312. Morphology of the single suffixes—Most of the single pronominal suffixes are unanalyzable, but some are clearly bimorphemic. In all but Series 4, the second person plural is bimorphemic; in Series 1, it consists of the element ||-mY-|| 'second person' followed by ||-koH-|| 'plural.' In Series 2 and 3, it consists of ||-tok-|| 'plural' followed by the second person singular morpheme from the series in question (in Series 2, variant 2a in table 7). The first person plural inclusive of Series 3 and 4 consists of the Series 3 and 4 first person dual followed by the Series 4 second person plural (1P3a followed by 2P4a in table 7). The Series 4 third person plural consists of the Series 4 third person

singular morpheme followed by  $\| -koH - \|$  'plural.'

Rules describing the distribution of single pronominal suffixes having multiple allomorphs can be stated as follows. The Series 2 third person plural is  $\| -ko - \|$  after the second person singular pronominal stem  $\| mi - \|$  (see section 645); after the demonstrative stems  $\| ?i - \|$  'that,'  $\| ?i - niH - \|$  'that one,' and  $\| neH - \|$  'this,' it is  $\| -k'o - \|$ ; elsewhere, it is  $\| -koH - \|$ . Following this last allomorph, the nominative case is zero. The Series 4 first person singular is  $\| -\emptyset \infty \| -ma \cdot \|$  after the allomorphs  $\| -n - \|$  ~  $\| -X - \|$  of the imperative modal suffix  $\{ -eH - \}$  (these two allomorphs of the imperative are in free variation before the Series 4 first person singular, but their occurrence is restricted under certain other circumstances; see section 431): it is  $\| -ma \cdot \|$  after  $\| -X - \|$ , as a member of the aforementioned allomorphic set only, and except when preceded by the allomorph  $\| -j - \|$  of the verbal suffix  $\{ -jik' - \}$ ; (see section 505); after  $\| -j - X - \|$  and after  $\| -n - \|$ , this pronominal suffix is zero. Elsewhere, it is  $\| -m \|$  <sup>d</sup>  $\| -ma \cdot \|$ . The Series 4 second person singular is  $\| - \cdot \|$  after the allomorph  $\| -ni - \|$  of the imperative modal suffix when the latter follows the allomorphs  $\| -a' - \|$  ~  $\| -ja' - \|$  of the verbal suffix  $\{ -jik' - \}$ ; it is zero following the zero allomorph of the imperative suffix preceded by the allomorph  $\| -ak - \|$  of the verbal suffix  $\{ -\eta He - \}$  (see section 532); before the genitive case, it is  $\| -h - \|$  (see section 325); elsewhere, it is  $\| -? \|$ . The second person plural of this series has two allomorphs; the second in table 6, consisting of  $\| -tok - \|$  followed by  $\| -koH - \|$ , occurs only before the genitive case, and has been recorded from one informant only (CJ); the allomorph  $\| -c'i \cdot \|$  is found elsewhere.

313. The double pronominal suffixes are almost all analyzable. In Series 1, the object is expressed by a Series 2 single suffix, whether mono- or bimorphemic, using the 2a variants for the personal elements. This is followed by a case suffix, followed by the appropriate Series 1 suffix (1b variants) to express the subject. In Series 2, the object appears as a Series 2 single suffix, with a 2b variant for the personal element, preceding a Series 2 single suffix (2a variant) to indicate the subject. This statement includes the Series 2 double suffixes with a third person singular subject, since the third person singular in this series is zero; however, it is to be noted that in these the usual case suffix is omitted.

In Series 3, the situation is more complicated. Where the subject is in the third person, singular or plural, the double suffixes consist of a Series 3 suffix representing the subject, followed by a Series 2 suffix (2c variants). Where the subject is in the first person plural, the double suffixes consist of a Series 2 suffix (2c variant) for the object, followed



by the Series 3 first person plural exclusive (1P1b). Otherwise, where a first person and a second person, singular or plural, are involved as subject or object,  $\| -\text{mu} - \| \infty \| -\text{mu} \cdot \| \infty \| -\text{muh} - \|$  occurs. Where the subject is first person singular and the object second person singular or plural, the form consists of  $\| -\text{mu} - \|$  followed by a Series 3 suffix representing the object. Where the subject is in the second person singular and the object first person singular, the form is merely  $\| -\text{mu} \cdot \|$ . Where the subject is second person plural and the object first person singular, the form consists of  $\| -\text{mu} - \|$  followed by the Series 4 second person plural. Where the object is first person plural, the allomorph  $\| -\text{muh} - \|$  occurs: with a second person singular subject, the form is  $\| -\text{muh} - \|$  followed by a Series 2 (variant 2b) suffix for the object; with a second person plural subject, the form is the same, except that the morpheme  $\| -\text{tok} - \|$  precedes the complex.

Series 4, in many respects, is similar to Series 3. Where the subject is in the third person, the structure is the same as in Series 3, except that the subject is represented by Series 4 rather than Series 3, and with a plural subject, the Series 2 element representing the object occurs between the two morphemes of the Series 4 suffix (see section 312), instead of following it. With a first person plural subject or object, the forms in Series 4 are the same as in Series 3, unless the subject is in the third person. Where the subject is in the first person singular and the object in the second person, singular or plural, the form consists of a Series 2 suffix (variant 2b) representing the object; the subject is zero (1S3b). Where the subject is in the second person singular and the object in the first person singular, the object is represented by the morpheme  $\| -\text{tY} - \|$  or by zero; it is followed by  $\| - \cdot \|$ , representing the subject (2S4c). The two variants appear to be in free variation, except that forms in which the object is zero are sometimes said to carry a greater sense of immediacy than those containing  $\| -\text{tY} - \|$ . Where the subject is in the second person plural and the object in the first person singular, the form is  $\| -\text{tY} - \|$  followed by the Series 4 second person plural.

314. Series 1 and 2 are always used in conjunction with case suffixes. In Series 1, the 1a variants in table 7 are always immediately followed by a case suffix; all other Series 1 single suffixes are always immediately preceded by a case suffix. This statement includes their occurrence in the double suffixes, since the Series 2 elements indicating the object precede the case suffix. The Series 2 suffixes are always immediately followed by a case suffix. The Series 3 and 4 suffixes are never followed by the nominative case, but are occasionally followed by

other case suffixes, such as the genitive, with special meanings with reference to time.

Examples of the occurrence of pronominal suffixes:<sup>1</sup>

Series 1:

cukuH-nti-ʔ /cukuntiʔ/ 'my dog,' cf. cukuH- 'dog'

han·a-ʔ-koH /han·aʔko/ 'their heads,' cf. han·a- 'head'

wyks-ʔaX-j-hY: /wyksyʔajhy:/ 'his going,' cf. wyks-ʔaX- 'going'

ʔenpu-ni-ni-ʔ-kan /ʔenpuniniʔkan/ 'I can chase you,' cf. ʔenpu-ni-  
'can chase'

Series 2:

haja·puH-ni-ʔ /haja·pu·niʔ/ 'you are a chief,' cf. haja·puH- 'chief'

wyks-j-ni-ʔ /wyksyjniʔ/ 'you will go,' cf. wyks-j- 'to go (future)'

cilen·e-koH-ŋ /cilen·e·koŋ/ 'after they ate lunch (genitive case)'  
cf. cilen·e- 'to eat lunch (past)'

ʔenup·e-ni-te-ʔ /ʔenup·eni·teʔ/ 'I chased you,' cf. ʔenup·e- 'to  
chase (past)'

Series 3:

cyly·l-∅-sY· /cyly·lysy·/ 'you're weaving,' cf. cyly·l- 'to weave'

wy·n-∅-· /wy·ny·/ 'he's walking,' cf. wy·n- 'to walk'

te·p-a-· /te·pa·/ 'he cut it,' cf. te·p-a- 'to cut (present perfect)'

ʔyw·y-∅-·meʔ /ʔyw·y·meʔ/ 'he'll eat us,' cf. ʔyw·y- 'to eat'

Series 4:

ʔenh-eH-ʔ /ʔenheʔ/ 'make it!,' cf. ʔenh-eH- 'to make (imperative)'  
wel-h-eH-tic·i· /welhe·tic·i·/ 'let's look for it,' cf. wel-h-eH-  
'to look for (imperative)'

ʔenpu-koX-niʔmah·i· /ʔenpukon·iʔmah·i·/ 'let's chase you!,' cf.  
ʔenpu-koX- 'to chase (imperative)'

ʔenpu-koX-m /ʔenpukom/ 'let me chase him!'

wel-h-eH-m <sup>d</sup> /wel-h-eH-ma· /welhem/ <sup>d</sup> /welhe·ma·/ 'let me look  
for it!,' cf. wel-h-eH- 'to seek (imperative)'

hal-pa-j-X-∅ /halpaj/ 'let me go and find it!,' cf. hal-pa-j-X-  
'to go to find (imperative),' hal-pa-jik- 'to go to find'

ʔetal-kHu-n-∅ <sup>f</sup> /ʔetal-kHu-X-ma· /ʔetalkun/ <sup>f</sup> /ʔetalkum·a·/  
'let me take him back!,' cf. ʔetal-kHu-n- <sup>f</sup> /ʔetal-kHu-X-  
'to take back (imperative),' ʔetal-nHuk·u- 'to cause to return'

<sup>1</sup>Miwok forms cited as examples of particular types of structure are written morphophonemically. Hyphens indicate morphemic divisions; all forms containing hyphens are in morphophonemic writing. For the reader's convenience, a phonemic transcription (in phonemic brackets) is also given where this differs to any considerable degree from the morphophonemic version.

## 320. CASE SUFFIXES

Southern Sierra Miwok has nine case suffixes. Of these, four are, strictly speaking, final suffixes, in that they occur in absolutely final position. These will be referred to as the AUTONOMOUS case suffixes. Four case suffixes are always followed by an allomorph of one of the autonomous case suffixes; these will be described as SUBORDINATE case suffixes. One case suffix, the possessive, can function either as a subordinate case suffix or as an autonomous one.

The names here given to these cases are, primarily, simply convenient tags referring to one usage, and do not reflect the complete range of application of the cases. From the point of view of Latin grammar, some surprising meanings occur in connection with the accusative case, for example. While it is true that the direct object of the verb in Miwok (although not necessarily in the English translation) is in the accusative case, other forms which can hardly be interpreted as direct objects are found to bear this case suffix.

321. Nominative—The nominative case is autonomous, and has the form  $\| -\text{?} \|$  ~  $\| -\emptyset \|$ . It is zero when the preceding morpheme ends in any consonant except  $\| H \|$  and juncture follows (i.e., in the environment  $\| C \dots \# \|$  the nominative case is zero, unless C is  $\| H \|$ ). It is also zero after the allomorph  $\| -\text{koH} \|$  of the Series 2 third person plural pronominal suffix. Elsewhere, the nominative case is  $\| -\text{?} \|$ .

The nominative case is found on the subjects of verbs, and on forms which modify subjects of verbs; on nouns in isolation; and in predicative or coordinate constructions involving nouns. It also occurs widely as the autonomous case where a subordinate case is present. Examples:

$\text{na}\eta\text{aH-?} / \text{na}\eta\text{a?} /$  'the man'

$\text{na}\eta\text{aH-?} \text{cytyH-?} / \text{na}\eta\text{a?} \text{cyty?} /$  'the good man; the man is good'

$\text{his}\cdot\text{ik-}\emptyset / \text{his}\cdot\text{ik} /$  'the skunk'

$\text{hikaHh-}\emptyset / \text{hikah} /$  'the deer'

$\text{lakyh}\cdot\text{-e-}\emptyset\text{-?} / \text{lakyh}\cdot\text{e?} /$  'he came out,' cf.  $\text{lakyh}\cdot\text{-e-}$  'to come out (past)'

322. Accusative—The accusative case has the form  $\| -j \|$ , and is autonomous. Following a theme ending in any consonant except  $\| H \|$ , it is preceded by  $\| Y \|$  (see section 14b).

This case is to be found on the direct objects of verbs, and in some instances on the indirect objects also. However, when in English there is both a direct object and an indirect object, the accusative case often appears on what in English is the indirect object, while the "direct" object appears in the instrumental case (see section 329). On certain types of nominal theme, this case has a temporal meaning, 'after'; in other instances, it has the meaning of 'while' or 'during.' Examples:

huk·uH-j-hY· /huk·ujhu·/ 'his head (accusative)'

hul·u·wi-j /hul·u·wi·/ 'dove (accusative)'

hikaHh-j /hika·hyj/ 'deer (accusative)'

kawly-pa-j /kawlypaj/ 'all morning'

hi?e·ma-j /hi?e·maj/ 'all day'

henis·e-me-j /henis·emej/ 'after we rested,' cf. henis·e- 'to rest (past)'

?ywyh·e-me-j /?ywyh·emej/ 'after we ate,' cf. ?ywyh·e- 'to eat (past)'

323. Temporal—The temporal case has the form  $\parallel -n \parallel$ , and is autonomous. It frequently follows the nominal suffix  $\parallel -no \parallel$  'time, season.' It is often found on forms which translate English adverbs, especially those of time, but also on others, such as 'higher' and 'slowly.' Its meaning is somewhat obscure, but it seems to have reference to location in time or space. Probably owing to its meaning, its distribution is far more limited than is that of other autonomous case suffixes. Examples:

hojeH-no-n /hoje·non/ 'tomorrow,' cf. hojeH- 'next'

?i-wi-n /?iw·in/ 'now; today'

mi-taH-n /mitan/ 'when'

mi-taH-no-n /mita·non/ 'when; ever'

kot-taH-n /kot·an/ 'far off'

324. Vocative—The vocative case has the form  $\parallel -\cdot \parallel \sim \parallel \emptyset \parallel$ . It is zero when the preceding morpheme ends in any consonant; otherwise, it is  $\parallel -\cdot \parallel$ . It is used only as a vocative, and is therefore limited in its occurrence to forms which are used as terms of address. Examples:

?ypyH· /?ypy·/ 'Father!'

?ypsa· /?ypsa·/ 'Nephew!'

?yta· /?yta·/ 'Mother!'

his·ik- $\emptyset$  /his·ik/ 'Skunk!'

325. Genitive—The genitive case, which can function either as an autonomous or as a subordinate case, has the form  $\parallel -\eta \parallel \infty \parallel -\eta' \parallel$ . As an autonomous case, it has the form  $\parallel -\eta \parallel$ . As a subordinate case, it is  $\parallel -\eta' \parallel$ , and can be followed by either the nominative or the accusative case.

The commonest meaning carried by the genitive case is possessive. However, it also serves to indicate the agent for a form containing the passive verbal suffix  $\{-\eta\text{He}-\}$  (see section 532), and under certain circumstances it has temporal implications, especially with regard to the sequence in which events take place. When it follows Series 2 pronominal suffixes on a secondary verbal (see section 912), it means 'after'; i.e., it indicates that the action referred to by the form containing it precedes in time that referred to by an adjacent form bearing the nominative case. When the genitive case occurs after Series 4 pronominal suffixes (which

follow imperative verbal themes), it means 'later; not yet'; that is, the action of the imperative is to be delayed. Before this suffix, the second person Series 4 pronominal suffixes appear in the following allomorphs: ||-h-||, singular; and ||-tok·o-||, plural (recorded only from CJ). Examples:

hikaHh-ŋ /hika·hyŋ/ 'the deer's'

cukuH-ŋ /cukuŋ/ 'the dog's'

naŋ·aH-ŋ /naŋ·aŋ/ 'the man's'

manaX-ŋ·-? /manaŋ·y?/ 'whose is it?' cf. manaX- 'who?'

ʔis·ak-ŋ·-? /ʔis·akyŋ·y?/ 'it is his,' cf. ʔis·ak- 'he'

ʔajtuH-me-ŋ·-j /ʔajtu·men·y/ 'of all of us (accusative case),' cf.

ʔajtuH- 'all'; ʔajtuH-me- 'all of us'

henis·e-me-ŋ /henis·eməŋ/ 'after we rest,' cf. henis·e- 'to rest (past)'

sipet-na-keH-Ø-ŋ /sipetnakeŋ/ 'after she makes it narrow,' cf.

sipet-na-keH- 'to make narrow (past)'

kosen-ka-n-h-ŋ /kosenkanhyŋ/ 'cook it for him later!,' cf.

kosen-ka-n- 'to cook for (imperative)'

kosen-ka-X-tok·o-ŋ /kosenkat·ok·oŋ/ 'all cook it for him later!,'

cf. kosen-ka-X- 'to cook for (imperative)'

tyk·eH-tyH-ŋ /tyk·e·tyŋ/ 'shoot me—but not yet!,' cf. tyk·eH-

'to shoot (imperative)! This utterance is said to be the cry of the California quail.

326. Ablative—The ablative case has the form ||-m·-|| ~ ||-m-||, and is a subordinate case. When the preceding morpheme ends with a vowel or ||VH||, the allomorph ||-m·-|| is found. When the preceding morpheme ends with any consonant except ||H||, the ablative has the form ||-m-||. It cannot be stated that this suffix has the form ||-mH-||, since according to the rules set forth in section 174, the sequence ||VHmH|| would occur phonemically as /V·m/, while in fact /Vm·/ is found under these conditions. It is to be noted that following a morpheme ending with any consonant except ||H||, the ablative suffix is homophonous with the locative (see section 328).

The ablative case is usually followed by the nominative case, but it can also be followed by the accusative or by the prefinal nominal suffix ||-t·Y-||. When first-person Series 1 pronominal suffixes occur with the ablative case, the pronominal suffix is preceded by the ablative and followed by the nominative; other Series 1 pronominal suffixes are preceded by both the ablative and the nominative. The meaning of the ablative case is 'from; away from.' Examples:

piliwni-m·-? /piliwnim·y?/ 'from Polona'

ʔu·cuH-m·-? /ʔu·cum·u?/ 'from the house'

?u·cuH-m·-nti-? /?u·cum·unti?/ 'from my house'  
 ?u·cuH-m·-?-hY· /?u·cum·u?hu/ 'from his house'  
 cym·e-m·-? /cym·em·y?/ 'south of'  
 neH-m·-?-?ok /nem·o?·ok/ 'from here'  
 hol·op-m-? /hol·opmu?/ 'from the hole'  
 wakaHl-m-t·i-? /wakalmyt·i?/ 'from our creek'  
 hikaHh-m-?-hY· /hikahmy?hy/ 'from his deer'  
 ?al·a-m·-t·Y-j /?al·am·yt·yj/ 'under (accusative case)'  
 haj·e-m·-j /haj·em·em·yj/ 'for a little while,' cf. haj·e- 'close by'

327. Allative—The allative case, which is a subordinate case, has the form ||-t-|| - ||-tHo-||. It is ||-t-|| when the preceding theme ends in a vowel or ||VH|| and only the nominative case (here represented by its zero allomorph) or the postfix ||-?ok|| follows. Elsewhere, it is ||-tHo-||. A few themes ending in vowels can be followed by either allomorph, provided that the allative in turn is followed by nothing but the nominative case. In some such instances, informants report a slight difference of meaning (||?oka-t-∅|| /?okat/ '(remaining) in the same place'; ||?oka-tHo-?|| /?okat·o?/ '(returning) to the same place'), while other pairs appear to have identical meanings (||mi·n·i-t-∅||, ||mi·n·i-tHo?|| 'where to?'; ||?i·ni-t-∅||, ||?i·ni-tHo-?|| 'there').

The meaning of this case, in most instances, is 'to, towards; at, in, near, on.' Following a present imperfect verbal theme, it has a past-tense meaning; after an imperative verbal theme, it means 'if I . . . , if he . . . , etc.' or 'when I . . . , when you . . . , etc.' Following verbal themes, the allomorph ||-t-|| is always found, and no pronominal suffixes occur. The allative is also found after the nominal suffix ||-?aX-|| 'infinitive'; here, it means 'until.' The allative is usually followed by the nominative case, but it may be followed by the accusative. Examples:

?awa·ja-t-∅ /?awa·jat/ 'to the lake; in the lake'  
 la·ma-t-∅ /la·mat/ 'at the tree' (\*la·ma-tHo-? does not exist)  
 ?u·cuH-t-∅ /?u·cut/ 'to the house; in the house; at the house'  
 ?u·cuH-tHo-?-nY· /?u·cu·to?nu/ 'to your house'  
 ?i·ni-t-∅-?ok /?init?ok/ 'there' (\*?i·ni-tHo-?-?ok does not exist)  
 hol·op-tHo-? /hol·opto?/ 'in the hole'  
 wakaHl-tHo-? /wakalto?/ 'to the creek'  
 ni?oH-tHo-?-hY· /ni?o·to?hu/ 'in his nose'  
 hu·ki-tHo-?-hY· /hu·kit·o?hu/ 'on his tail' (\*hu·ki-t-∅-hY· does not exist)  
 kac·-∅-t-∅ /kac·yt/ 'he said,' cf. kac·- 'to say'  
 ?yny·-pa-∅ /?yny·pat/ 'he came to him,' cf. ?yny·-pa- 'to come to'  
 men·a·koX-t-∅ /men·akot/ 'If I (you, he, etc.) try,' cf. men·a- 'to try'

kawyHl-ŋHe-ʔaX-tHo-ʔ-hY· /kawylŋeʔat'oʔhu/ 'until it got dark,'  
 cf. kawyHl-ŋHe-ʔaX- 'getting dark'  
 hy'ja-ʔaX-nti-t /hy'jaʔantit/ 'until I get there,' cf. hy'ja-ʔaX-  
 'arriving'

328. Locative—The locative case suffix has the form  $\| -m - \|$ , and is a subordinate case. When the morpheme preceding  $\| -m - \|$  ends in a vowel, the nominative case is zero; when  $\| -m - \|$  follows a morpheme ending in a consonant, the nominative case is  $\| -ʔ \|$ , and  $\| Y \|$  intervenes between the two (see section 176). Besides the nominative case, this suffix can be followed by the nominal suffix  $\| -to - \|$ , by postfixes, and rarely by  $\| -c \cdot Y - \|$ , the diminutive suffix. Pronominal suffixes have not been found with the locative case. The meaning of this suffix is 'in, on, at'

Examples:

hol'op-m-ʔ /hol'opmuʔ/ 'in the hole'  
 lemeH-m-∅ /lemem/ 'on the mountain'  
 la'ma-m-∅ /la'mam/ 'at the tree'  
 cuʔpaH-m-∅ /cuʔpam/ 'in the middle'  
 han'a-m-∅ /han'am/ 'in the head'  
 neH-m-∅-ʔok /nemʔok/ 'this way'  
 wakaHl-m-ʔ /wakalmyʔ/ 'at the creek'

329. Instrumental—The instrumental case is subordinate, and has the form  $\| -Hs - \|$ . When the preceding theme ends in a vowel and only the nominative case follows, the zero allomorph of the nominative occurs; the resulting sequence  $\| V - Hs - \emptyset \|$  is phonemically /Vs/. The nominative is the only primary case which has been found following the instrumental, and it appears to be always present. When the preceding theme ends with a consonant and the first person singular Series 1 pronominal suffix also occurs, the pronominal suffix is preceded by the instrumental and followed by the nominative, thus:  $\| ca \cdot maj - Hs - nti - ʔ \|$  /ca'majsyntiʔ/ 'by means of my seed-gathering basket.'

This case suffix functions as an instrumental, meaning 'with, by means of.' However, this use is sometimes rather curious from the point of view of the English translation. Frequently, where the English has a direct and an indirect object, the Southern Sierra form corresponding to the English verb contains the benefactive suffix  $\| -na - \|$  'to (do something) for (someone)'. Where this suffix occurs, the direct object in English has, in Southern Sierra, the instrumental case, while the "indirect" object has the accusative case. Thus, instead of saying "I am making a bow, for him," in Miwok one says "I am making-for him, with a bow." Similar usage also applies to the forms meaning 'to give,' 'to ask,' and 'to name,' which do not contain the benefactive suffix. Examples:

jaw·e-Hs-∅ /jaw'es/ 'with a bow'

jaw·e-Hs-ʔ-hY· /jaw'e·syʔhy·/ 'with his bow'

jaw·e-nti-Hs-∅ /jaw·entis/ 'with my bow'

hikaHh-Hs-ʔ /hikahsyʔ/ 'with a deer'

hiciw-Hs-ʔ /hiciwsyʔ/ 'with a poker'

ʔuc·u-ʔaX-Hs-ʔ-hY· /ʔuc·uʔas·yʔhy·/ 'where he lives,' cf. ʔuc·u-ʔaX·  
 'living, dwelling' (see section 174)

/hasul·eteʔ ʔuc·uʔas·yʔhy·/ 'I asked where he lives'

/ʔenyhnama· jaw'es haja·puj/ 'I am making a bow for the chief'

/ʔam·e·ty· jaw'e·syʔny·/ 'Give me your bow!'



## CHAPTER FOUR

### VERBAL THEMES

#### 400. INTRODUCTION

Verbal themes, as defined previously (see section 250), are morpheme sequences which are followed immediately by Series 3 or Series 4 pronominal suffixes. A verbal theme consists of a base (see section 230) followed by one of the three modal suffixes, which permit the classification of verbal themes into three types or modes (imperfect indicative, perfect indicative, and imperative). All of these refer to a present tense; non-present tenses are expressed by nominal forms.

Bases of verbal themes have a variety of types of structure. A base may be a Stem 1 (see section 260), in which case it normally appears in the same shape before all three modal suffixes. Or it may be a polymorphemic form too long to fall within the canonical limitations of Stem 1. Bases of this type often show variations in shape when followed by different modal suffixes, since certain base-formative verbal suffixes exhibit allomorphy in this situation. This allomorphy most commonly affects only the form of the last such suffix, but sometimes there are also differences in the shape of the stem preceding it. When a verbal suffix with multiple allomorphs occurs in a base that falls within the canons of Stem 1, variant verbal themes are frequently possible: both those which would normally be expected of a Stem 1 of that particular shape, and those which would be expected of a base containing the suffix in question (see, for example, section 532). The situation is further complicated by the fact that the modal suffixes also exhibit allomorphy, determined by the last suffix of the base.

#### 410. PRESENT IMPERFECT VERBAL THEMES

The suffix of the present imperfect indicative mode is zero. Verbal themes of this mode, then, consist of a base only. This is usually followed directly by Series 3 pronominal suffixes, providing a form which can be translated by a present-tense English verb. In addition to this

most frequent use of present imperfect verbal themes, they also participate in two other types of construction. They are sometimes followed by the allative case, without pronominal suffixes; such forms have past-tense meanings. They also occur followed by the nominative case and Series 1 pronominal suffixes, to provide forms with gerundial meanings. Examples:

hune·m- $\emptyset$ -ma· /hune·myma·/ 'I am fishing,' cf. hune·m- 'to fish'

hyle·-t- $\emptyset$ -· /hyle·ty·/ 'he is flying,' cf. hyle·-t- 'to fly'

mula·k-poksu- $\emptyset$ -sY· /mula·kypoksusu·/ 'you are washing your face,'

cf. mula·k-poksu- 'to wash one's face'

?e·tal-e·-nY-lVmh- $\emptyset$ -· /?e·tale·nylymhy·/ 'he is ready to go back and forth,' cf. ?e·tal-e·-nY-lVmh- 'to be ready to go back and forth'

kac·- $\emptyset$ -t- $\emptyset$  /kac·yt/ 'he said,' cf. kac·- 'to say'

myl·i-poksu- $\emptyset$ -t- $\emptyset$  /myl·ipoksut/ 'he sang to himself,' cf.

myl·i-poksu- 'to sing to oneself'

kel·a- $\emptyset$ -?·hY· /kel·a?hy·/ 'snowing,' cf. kel·a- 'to snow'

nocuH- $\emptyset$ -?-nY· /nocu?nu·/ 'your crying,' cf. nocuH- 'to cry'

peHt- $\eta$ He- $\emptyset$ -?-ko· /pet $\eta$ e?ko·/ 'their hiding,' cf. peHt- $\eta$ He- 'to hide'

#### 420. PRESENT PERFECT VERBAL THEMES

The suffix of the present perfect indicative mode is {-ak-}. This suffix follows the appropriate variant of the base (see section 500), and is followed by Series 3 pronominal suffixes. The first person singular pronominal suffix is zero after the present perfect indicative modal suffix (see section 314). The meaning of this suffix, as its name implies, is perfective; it refers to actions just now completed. Being perfective, present perfect indicative verbal themes must usually be translated by a past tense in English, but the "pastness" is so immediate that informants will sometimes use this mode to translate an English present tense if the meaning is appropriate (for instance, "it's dry" may be translated by a form that means, in effect, "it just now got dry").

421. {-ak-} occurs as (||-ak-||  $\infty$  ||-a-||) ~ (||-nak-||  $\infty$  ||-na-|| ~ (||-hak-||  $\infty$  ||-ha-||). The phonologically conditioned allomorphy in the above sets refers to the form of the base which the suffix follows. When the base ends in any consonant except for the sequence ||-V·-||, this suffix is ||-ak-||  $\infty$  ||-a-||; when the base ends in a vowel, it is ||-nak-||  $\infty$  ||-na-||; and when the base ends in the sequence ||-V·-||, it is ||-hak-||  $\infty$  ||-ha-||. The morphologically conditioned allomorphy refers to the personal pronominal suffixes which follow the modal suffix. The second

member of each pair of allomorphs occurs when the subject element of the pronominal suffix is either third person singular or third person plural; the other form occurs before all other pronominal suffixes.

Examples:

lo't-a- 'he caught it,' cf. lo't- 'to catch'  
 ?u:k-ak- $\emptyset$  'I went in,' cf. ?u:k- 'to enter'  
 ?yn'-ak-mah'i- 'we came,' cf. ?yn'- 'to come'  
 hasu'l-ak-mus'u- 'I asked you,' cf. hasu'l- 'to ask'  
 ?yw'y'-hak-mah'i- 'we ate,' cf. ?yw'y'- 'to eat'  
 nocu'-ha- 'he cried,' cf. nocu'- 'to cry'  
 wy'-ha- /wy'ha/ 'he went,' cf. wy'- 'to go'  
 myl-ja-na- /myl'jana/ 'he beat him up,' cf. myl-ja- 'to beat up'  
 ?enpu-nak-muhme- 'you chased us,' cf. ?enpu- 'to chase'  
 tyj'e-nak- $\emptyset$  /tyj'enak/ 'I fell asleep,' cf. tyj'e- 'to sleep'

#### 430. PRESENT IMPERATIVE VERBAL THEMES

Present imperative verbal themes consist of an appropriate variant of a base followed by an allomorph of the suffix {-eH-}. Such themes are most commonly followed by Series 4 pronominal suffixes, which occur only after allomorphs of {-eH-}. Words of this structure are present-tense imperatives. Since Series 4 is complete in all persons and numbers, Southern Sierra has imperative forms for all of them. When the genitive case follows the Series 4 suffix, the action of the imperative is delayed (see section 325). Imperative verbal themes also occur followed by the allative case, without pronominal suffixes; such forms are translated 'if I . . . , if he . . . ' or 'when I . . . , when he . . . ' Another type of construction consists of an imperative verbal theme followed by the nominative case and Series 1 pronominal suffixes; the meaning is similar to the preceding, but the presence of pronominal suffixes makes the subject reference specific rather than indefinite.

431. The allomorphy of the imperative suffix is as follows: [||-ni-||  $\infty$  (||-n-|| ~ ||-X-||)]  $\infty$  ||-X-||  $\infty$  ||- $\emptyset$ -||  $\infty$  (||-eH-|| ~ ||-koX-||).

(1) The allomorphs ||-ni-||  $\infty$  (||-n-|| ~ ||-X-||) occur after the following verbal suffixes: {-jik'-}, andative (in the allomorphs ||-j-||  $\infty$  (||-a'-|| ~ ||-ja'-||); see section 505); {-na<sub>1</sub>-}, benefactive (in the allomorph ||-ka-||; see section 519); {-na<sub>2</sub>-}, causative (in the allomorph ||-pa-||; see section 520); {-nY-}, transitive, iterative, causative, etc. (in the allomorph ||-mY-||; see section 521); and {-nHuk'u-}, causative (in the allomorph ||-kHu-||; see section 529). After these suffixes, the allomorph

||-ni-|| is found when the following pronominal suffix is in the second person, singular or plural (when the last verbal suffix is {-jik·-} in the allomorphs ||-a·-|| ~ ||-ja·-||, the second person singular Series 4 pronominal suffix occurs in the allomorph ||-·-||). The allomorph ||-X-|| is found after the allomorph ||-j-|| of the andative verbal suffix (following which the first person singular Series 4 pronominal suffix is zero), and before the allomorph ||-·-|| of the 2S-1S Series 4 pronominal suffix. The allomorph ||-n-|| is usually found before the first person singular Series 4 pronominal suffix (which is zero following ||-n-||), and before Series 4 suffixes commencing with /m/, although ||-X-|| is occasionally found before the first person singular (in the allomorph ||-ma·-||) and before the first person plural exclusive (||-mah·i·-||). Before Series 4 suffixes commencing with /n/, ||-n-|| and ||-X-|| are indistinguishable, since ||n-n|| and ||X-n|| are both /n'/ (see sections 171 and 174). The remainder of the Series 4 pronominal suffixes all commence with /t/, and before these ||-n-|| and ||-X-|| are in virtually free variation. Imperative verbs containing ||-X-|| are sometimes said to carry a greater sense of immediacy than their equivalents containing ||-n-||, but the difference of meaning is not consistently reported. Examples:

hal-pa-j-X-∅ /halpaj/ 'let me go find him!,' cf. hal-pa-jik·- 'to go to find'

hal-pa-j-X-tic·i· /halpajtic·i·/ 'let's (inclusive) go find him!'

hal-pa-ja·-ni-ci·i· /halpaja·nic·i·/ 'go and find it (2P)!'

he·l-a·-ni·- /he·la·ni·/ 'go and fight (2S)!,' cf. he·l-jik·- 'to go to fight'

kosen-ka-ni? /kosenkani?/ 'cook it for him (2S)!,' cf. kosen-na<sub>1</sub>- 'to cook for'

kosen-ka-X-tic·i· /kosenkat·ic·i·/ 'let's (inc.) cook it for him!'

kojow-ka-n-ti· /kojowkanti·/ 'let's (1D inc.) tell it for him!,' cf. kojow-na<sub>1</sub>- 'to tell for'

ʔome·-pa-ni·-? /ʔome·pani·-?/ 'warm it up (2S)!,' cf. ʔome·-na<sub>2</sub>- 'to warm up; to cause to become warm'

ʔunu-kHu-ni·-? /ʔunuk·uni·-?/ 'bring it (2S)!,' cf. ʔunu-nHuk·u- 'to bring; to cause to come'

wi·-kHu-n-ti· /wi·kunti·/ 'let's take him!,' cf. wi·-nHuk·u- 'to take; to cause to go'

wi·-kHu-n-nih /wi·kun·ih/ 'let him take it!'

wi·-kHu-n-∅ /wi·kun/ 'let me take it!'

liwa·-mY-ni·-? /liwa·myni·-?/ 'talk to him (2S)!,' cf. liwa·-nY- 'to talk to'

liwa·-mY-X-· f liwa·-mY-n-tYH f liwa·-mY-X-tYH /liwa·my·-/ f

/liwa·mynty/  $\overset{f}{}$  /liwa·myt·y/ 'talk to me (2S-1S)!'  
 liwa·mY-n-muhme· /liwa·mynmuhme·/ 'talk to us (2S-1P)!'  
 liwa·mY-n-nihni? /liwa·myn·ihni?/ 'let him talk to you (3S-2S)!'  
 haja·puH-mY-ni-t- $\emptyset$  /haja·pu·munit/ 'when you become a chief,' cf.  
 haja·puH-nY- 'to become a chief'

(2) The allomorph  $\parallel$ -X- $\parallel$  occurs under the following circumstances: after the allomorph  $\parallel$ -hi- $\parallel$  of the verbal suffix {-c-}, static, except before the 1S-2P Series 4 pronominal suffix  $\parallel$ -muhme· $\parallel$  (see section 501); after the allomorph  $\parallel$ -jo- $\parallel$  of the iterative verbal suffix {-ja-} (see section 504); after the allomorph  $\parallel$ -lo- $\parallel$  of the verbal suffix {-la-} (see section 514); after the allomorph  $\parallel$ -po- $\parallel$  of the directional verbal suffix {-pa-} (see section 533); after the reflexive verbal suffix {-poksu-} (in the allomorph  $\parallel$ -ehi- $\parallel$ ; see section 534); and after the allomorph  $\parallel$ -wo- $\parallel$  of the verbal suffix {-wa-}, iterative (see section 541). Examples:

hyj·y·hi-X-? /hyj·y·hi?/ 'watch it (2S)!,' cf. hyj·y·c- 'to watch'  
 hyj·y·hi-X-nih /hyj·y·hin·ih/ 'let him watch it!'  
 hyj·y·hi-X-nihtokniko· /hyj·y·hin·ihtokniko·/ 'let them watch us!'  
 jel·y·hi-X-t- $\emptyset$  /jel·y·hit/ 'if you are quiet,' cf. jel·y·c- 'to stop talking'

kal·jo-X-? /kaljo?/ 'kick him!,' cf. kal·ja- 'to kick all over'  
 hok·lo-X-? /hoklo?/ 'take it apart!,' cf. hok·la- 'to take apart'  
 kaweŋ·po-X-? /kaweŋpo?/ 'yell at him!,' cf. kaweŋ·pa- 'to yell at'  
 kaweŋ·po-X-mah·i· /kaweŋpom·ah·i·/ 'let's (1P excl.) yell at him!'  
 mula·k·ehi-X-m /mula·kehim/ 'let me wash myself!,' cf.

mula·k·poksu- 'to wash oneself'  
 mula·k·ehi-X-ti· /mula·kehit·i·/ 'let's (1D inc.) wash ourselves!'  
 juc·wo-X-? /jucwo?/ 'pull his hair!,' cf. juc·wa- 'to pull hair repeatedly'

(3) The allomorph  $\parallel$ - $\emptyset$ - $\parallel$  is found under the following circumstances: between the allomorph  $\parallel$ -hi- $\parallel$  of the static verbal suffix {-c-} and the Series 4 1S-2P pronominal suffix  $\parallel$ -muhme· $\parallel$  (see section 501); after {-ŋHe-}, passive and mediopassive verbal suffix (in the allomorphs  $\parallel$ -kaH- $\parallel$  or  $\parallel$ -ak- $\parallel$   $\infty$   $\parallel$ -ak·a- $\parallel$ ; see section 532); after  $\parallel$ -tkuH- $\parallel$ , reflexive (see section 540), and after the irregular verbal bases  $\parallel$ ?uh·uH- $\parallel$  'to drink,'  $\parallel$ ?y·w·yH- $\parallel$  'to eat,'  $\parallel$ ?uc·uH- $\parallel$  'to stay,'  $\parallel$ wyH- $\parallel$  'to go,'  $\parallel$ kot·oH- $\parallel$  'to go on ahead,' and  $\parallel$ tal·iH- $\parallel$  'to arise' (see section 440). Following the allomorph  $\parallel$ -ak- $\parallel$  of the passive verbal suffix, the Series 4 second person singular pronominal suffix is zero. Examples:

kaHw·ak- $\emptyset$ - $\emptyset$  /ka·wak/ 'shout (2S)!,' cf. kaHw·ŋHe- 'to shout'  
 kaHw·ak·a- $\emptyset$ -nih /ka·wak·anih/ 'let him shout!'  
 kaHw·ak·a- $\emptyset$ -m /ka·wak·am/ 'let me shout!'

ʔam·u-kaH-Ø-m /ʔam·ukam/ 'let me get hurt!,' cf. ʔam·u-ŋHe-  
'to get hurt'

ʔam·u-kaH-Ø-tic·i· /ʔam·uka·tic·i·/ 'let's (1P inc.) get hurt!'

siHl-ak·a-Ø-ʔ-hY· /si·lak·aʔhy·/ 'if it would stop raining; when it  
stops raining,' cf. siHl-ŋHe- 'to stop raining'

hejaHw-ak·a-Ø-t-Ø /heja·wak·at/ 'if you want,' cf. hejaHw-ŋHe-  
'to want'

wyH-Ø-ti· /wy·ti·/ 'let's (1D inc.) go!'

wyH-Ø-tic·i· /wy·tic·i·/ 'let's (1P inc.) go!'

wyH-Ø-ʔ-hY· /wyʔhy·/ 'if he goes; if he would go'

ʔyw·yH-Ø-ʔ /ʔyw·yʔ/ 'eat!'

ʔuh·uH-Ø-ti· /ʔuh·u·ti·/ 'let's (1D inc.) drink!'

ʔuc·uH-Ø-t-Ø /ʔuc·ut/ 'if we would stay'

(4) The allomorphs ||-eH-|| ~ ||-koX-|| occur after bases other than those mentioned above. The allomorph ||-koX-|| follows bases ending in a vowel; it also follows the allomorph ||-k-|| of the verbal suffix {-ksY-} (see section 509). The allomorph ||-eH-|| occurs elsewhere. Examples:

ʔeca·-t-eH-ʔ /ʔeca·teʔ/ 'go with him!,' cf. ʔeca·-t- 'to accompany'

ʔeca·-t-eH-nih /ʔeca·te·nih/ 'let him go with him!'

ʔu·k-eH-ʔ /ʔu·keʔ/ 'go in!,' cf. ʔu·k- 'to enter'

ʔu·k-eH-c·i· /ʔu·keci·/ 'all of you go in!'

ʔu·k-eH-ti· /ʔu·ke·ti·/ 'let's (1D inc.) go in!'

ʔyn·-eH-ʔ-hY· /ʔyn·eʔhy·/ 'if he comes,' cf. ʔyn·- 'to come'

ʔyn·-eH-t-Ø /ʔyn·et/ 'if he would come'

hywa·-t-eH-t-Ø /hywa·tet/ 'when he can run,' cf. hywa·-t- 'to run'

mitokho-j na·k-eH-ʔ-hY· /mitokhoj na·keʔhy·/ 'what time?' (lit.,  
'when it reaches how many?'), cf. na·k- 'to reach (a time; a  
place)'

peʔ·a-koX-ʔ /peʔ·akoʔ/ 'drop it!,' cf. peʔ·a- 'to drop (trans.)'

peʔ·a-koX-mah·i· /peʔ·akom·ahi·/ 'let's (1P excl.) drop it!'

hy·ja-koX-ʔ /hy·jakoʔ/ 'hello; welcome' (lit., 'arrive!'; used as  
greeting), cf. hy·ja- 'to arrive'

hy·ja-koX-c·i· /hy·jakoci·/ 'hello all!' (lit., 'arrive, all of you!')

hy·ja-koX-t-Ø /hy·jakot/ 'when he arrives'

myl·i-koX-ʔ-hY· /myl·ikoʔhu·/ 'if he would sing,' cf. myl·i- 'to  
sing'

paʔy·k-koX-t-Ø /paʔy·kot/ 'if I had,' cf. paʔy·ksY- 'to possess'

432. In addition to the above types of construction involving impera-  
tive themes, used by all informants, one informant (CB) occasionally  
used forms consisting of an imperative verbal theme followed by  
||-ŋkoʔ|| to translate such English phrases as 'should I . . .?,' 'I'll . . .

while (he's dancing),' and 'so that I can . . . .' Recorded examples of this structure all have a first person singular reference. Since this informant also used first person singular imperative verbs identical with those elicited from other informants, it is unlikely that  $\| -\eta k o ? \|$  is a dialect variant of the first person singular Series 4 pronominal suffix. The available data is not sufficient to allocate this suffix to any class, such as modal, pronominal, or nominal, or to fully elucidate its meaning. Examples:

- wyH- $\emptyset$ - $\eta k o ?$  /wy $\eta k o ?$ / '(what time) should I go?,' cf. wy'- 'to go'  
 ?yn'-eH- $\eta k o ?$  /?yn'e $\eta k o ?$ / 'I'll come while (he's dancing)'  
 ?u·k-eH- $\eta k o ?$  /?u·k'e $\eta k o ?$ / '(open the door) so that I can come in.'  
 cf. ?u·k- 'to enter'  
 haja-k-koX- $\eta k o ?$  /hajak'o $\eta k o ?$ / 'I'll wait while (he's dancing),' cf.  
 haja-ksY- 'to wait'  
 hy·ja-koX- $\eta k o ?$  /hy·jak'o $\eta k o ?$ / '(what time) should I arrive?,' cf.  
 hy·ja- 'to arrive'

## 440. IRREGULAR VERBAL BASES

A few apparently monomorphemic bases are irregular in that they exhibit allomorphy when followed by the various modal suffixes, and some are defective. Their allomorphs are listed below.

<u>Present</u> <u>Imperfect</u>	<u>Present</u> <u>Perfect</u>	<u>Imperative</u>	<u>English</u>
nocuH-	noc·- <sup>f</sup> noc·u·-	noc·- (imper., $\  -eH- \ $ )	'to cry'
?uhuH-	?uh·u·-	?uh·uH- (imper., $\  -\emptyset- \ $ )	'to drink'
?yw·y-	?yw·y·-	?yw·yH- (imper., $\  -\emptyset- \ $ )	'to eat'
?uc·u-	?uc·u·-	?uc·uH- (imper., $\  -\emptyset- \ $ )	'to stay'
wy'-	wy·-	wyH- (imper., $\  -\emptyset- \ $ )	'to go'
kot·o-	kot·o·-	kot·oH- (imper., $\  -\emptyset- \ $ )	'to go on ahead'
(none)	tal·i·-	tal·iH- (imper., $\  -\emptyset- \ $ )	'to arise'
(none)	hyj·- <sup>f</sup> hyj·y·-	hyj·- (imper., $\  -eH- \ $ )	'to see'

<u>Present</u> <u>Imperfect</u>	<u>Present</u> <u>Perfect</u>	<u>Imperative</u>	<u>English</u>
(none)	ʔel-	ʔel- (imper.,   -eH-	'to leave'

Of the above stems, the first three show no irregularity other than the allomorphy here stated. Stems 2, 3, and 4 of normal shape are found to correspond to them, and complete paradigms exist in all modes, including double pronouns where the meaning is appropriate (e.g., ||ken ʔyw·yH- $\phi$ -tY·|| /ken ʔyw·y·ty/ 'don't eat me!'). When verbal suffixes requiring a Stem 1 follow these roots, the present imperfect allomorph is usually found (e.g., ||nocuH-jYk·-|| 'to go to cry'). Similarly, ||ʔuc·u-|| 'to stay' shows no further structural irregularities, but besides its expected meaning the present imperfect verb ||ʔuc·u- $\phi$ -·|| 'it is staying' also functions as a present-tense necessitative, 'it is necessary that . . .'. In this usage, the third person singular form is always found. The nominal form ||ʔuc·u-haHk- $\phi$ || 'staying,' containing the gerundial suffix ||-haHk-|| (see section 711), provides a past-tense necessitative (cf. /ʔuc·u· myl·iʔaʔhy/ 'he's got to sing' and /ʔuc·uhak myl·iʔaʔhy/ 'he had to sing').

The last five stems in the above table are defective. For the first two, ||wy·-|| 'to go' and ||kot·o-|| 'to go on ahead,' present imperfect allomorphs have been found, but only with first-person pronominal suffixes following; informants deny the existence of forms with other pronominal suffixes. Informants also state that no present imperfect forms exist for ||tal·i-|| 'to arise, get up,' ||hyj·-|| 'to see,' and ||ʔel·-|| 'to leave (trans.), let go, abandon.' When attempts were made to elicit these nonexistent forms, they were rejected as meaningless and other apparently synonymous bases substituted for the stems in question. In the present perfect and imperative, full paradigms can be elicited for all of the above stems.

Two of these stems are also defective in other respects. No stems 3 or 4 have been found for ||wy·-|| 'to go' (see section 260). Informants refuse to accept forms containing appropriate Stems 2 and 4 corresponding to ||hyj·-|| 'to see'; no attempt has been made to elicit a corresponding Stem 3, and none has been recorded.

#### 450. TRANSITIVE VERBAL THEMES

An interesting feature of certain verbal themes, especially those referring to weather conditions, is that they are often used transitively.



Present imperfect and present perfect verbal themes of this type are commonly followed by the 3S-1P Series 3 pronominal suffix  $\| \cdot \text{me}^? \|$ , and might be translated 'it is . . . ing on us' or 'it . . . ed on us.' This usage was normal in the speech of the oldest informant (JL); others reported that it was "the way the old-timers used to talk," but more frequently used non-transitive forms. Examples:

$^?opa \cdot \text{-t-}\emptyset \cdot \text{-me}^? / ^?opa \cdot \text{ty} \cdot \text{me}^? /$  'it's clouding up on us' (JL), cf.

$^?opa \cdot \text{-t-}$  'to cloud up'

$^?umu \cdot \text{c-}\emptyset \cdot \text{-me}^? / ^?umu \cdot \text{cu} \cdot \text{me}^? /$  'it's raining on us' (JL), cf.  $^?umu \cdot \text{c-}$  'to rain' (JL)

$kel \cdot \text{a-na} \cdot \text{-me}^? / kel \cdot \text{ana} \cdot \text{me}^? /$  'it snowed on us' (JL), cf.  $kel \cdot \text{a-}$  'to snow'

$wile \cdot \text{p-a} \cdot \text{-me}^? / wile \cdot \text{pa} \cdot \text{me}^? /$  'it flashed at us (old-timers used to say)' (CJ), cf.  $wile \cdot \text{p-}$  'to flash (of lightning)'

$lit \cdot \text{h-a} \cdot \text{-me}^? / litha \cdot \text{me}^? /$  'it's risen on us' (RW), cf.  $lit \cdot \text{h-}$  'to rise (of the sun)'

$haHc \cdot \eta He \cdot \emptyset \cdot \text{-me}^? / hac\eta e \cdot \text{me}^? /$  'it has stopped on us (of a car)' (RW), cf.  $haHc \cdot \eta He \cdot \text{-}$  'to stop, halt'

## CHAPTER FIVE

### VERBAL SUFFIXES

#### 500. INTRODUCTION

The class of verbal suffixes, as its name suggests, consists of those suffixes which form verbal bases, which can be converted to verbal themes by the addition of one of the modal suffixes discussed in the previous chapter. Verbal suffixes are medial in position and have meanings of a derivational nature. They are quite numerous; it is probable that not all of them have been identified. Many are fully productive, and can be applied to any stem of appropriate class, shape, and meaning. Others appear not to be productive; although they are found in many existing bases, new bases containing the suffix in question are not acceptable to the informants.

Each verbal suffix has its own specific requirements as to the shape of the stem which precedes it. These requirements, as stated previously (see section 260), may be regarded as part of the form of the suffix, and must be stated as part of its description. Some verbal suffixes follow a variety of stem-types. Those which occur after a Stem 2, 3, or 4 are frequently also found following bases which do not fit the canonical requirements of Stem 1 and therefore lack corresponding Stems 2, 3, and 4. On the other hand, certain verbal suffixes are sometimes found following stems of the shape of a Stem 2, 3, or 4 for which informants deny the existence of all possible corresponding Stem 1's. Most verbal suffixes of the latter type appear to be nonproductive.

The relationship between stem forms can be stated in terms of a count of consonants (excepting length) and vowels, as stated earlier (see section 260). Where the stem form appropriate to a particular suffix calls for a  $V_2$ , but the stem in other environments has no second vowel, this position in the formula is filled by  $\|Y\|$ . Where the stem form calls for a  $C_3$  not found in other environments,  $/ʔ/$  or  $/\cdot/$  occur. There are cases where the choice between  $/ʔ/$  and  $/\cdot/$  in this situation serves to distinguish meaning. It is therefore necessary to state, as part of each stem form, which phoneme is found in this position. For the sake of

brevity, this statement will be worded as follows: "Where necessary, the C<sub>3</sub> position is filled by . . . ."

Another factor which must be discussed, where pertinent, for each verbal suffix is the allomorphy which some of them exhibit before the various modal suffixes. This is usually a matter of the shape of the suffix itself, but in some cases the shape of the preceding stem is also involved, providing a further reason for regarding the shape of the stem as part of the suffix.

When a suffix shows allomorphy of this nature, the form that occurs before the present imperfect modal suffix ( $\|-\emptyset-\|$ ) is treated as basic, since it is in this form that it occurs before non-modal suffixes. The allomorphs found before the perfect indicative and imperative modes, where they differ from the basic form, do not occur anywhere else. The reason for selecting the form used in the present imperfect as basic is therefore the fact that it is found in the widest variety of environments.

If a form resulting from the addition of a verbal suffix to an appropriate stem is of suitable shape, it is often (but not always) treated as a Stem 1. A bimorphemic Stem 1 frequently has alternate forms when followed by one of the modal suffixes (see section 400). Such a Stem 1 is subject to transformations into Stems 2, 3, 4 and others, according to the requirements of following suffixes, exactly as if it were monomorphemic. Under these circumstances, the suffix may be said to exhibit allomorphy, since its appearance in the various stem forms may be different. However, it seems to be unsatisfactory to treat this variation as allomorphy of the suffix. It seems better to regard it as variation of the bimorphemic stem, since it is strictly comparable to patterns observable in monomorphemic stems.

Two or more verbal suffixes often occur in the same verbal base; their order is a matter of immediate constituency, as noted earlier (see section 270). As can be seen from the preceding paragraph, the shape of the root and suffixes in a sequence of this nature depends partly on the stem-shape requirements of the last suffix in the sequence, and partly on the shape of the sequence before the addition of the last suffix. Certain combinations of verbal suffixes, however, have special requirements as to the shape of the preceding stem, often differing from those of the members of the combination if they occur separately. Many such suffixal combinations consist of one member which is also found under other circumstances, and another which has only been found in association with the first. In the following sections, each suffix and suffixal combination will be described separately.

501. {-c-}, static. This suffix follows a stem which is related (1) to a verbal base or to one of the demonstrative stems, or (2) to a root which does not occur as a base or theme without a following suffix. The stem has the following characteristics of shape: length follows the last consonant, if there is more than one, but occurs nowhere else; other consonants and vowels occur in alternating order. Since all allomorphs of this suffix commence with two consonants, the stem must end in a vowel to provide an acceptable canon. The vowel is usually ||Y||, but in some cases it is another vowel which is not present in other environments: usually, this is /i/, but in at least one case (||jaŋ'a-c-|| 'to be lying down') it is the vowel of the stem. The suffix {-c-}, then, follows a stem of one of these forms:  $C_1V_1-$ ,  $C_1V_1C_2\cdot V_2-$ , or  $C_1V_1C_2V_2C_3\cdot V_3-$ . If the stem in other environments has a  $C_3$  but no  $V_2$ , the third stem type is found before {-c-}, and the  $V_2$  and  $V_3$  positions are filled by ||Y||.

Where this suffix follows one of the demonstrative stems, the resulting stem is of suitable shape to be treated as a Stem 1, and in fact it shows all the characteristics of a member of this class. Other stems containing this suffix are too long to be so treated.

Present imperfect, present perfect, and imperative themes have been recorded containing {-c-}. When the form falls within the canonical limits of Stem 1 (see above), it is followed directly by the modal suffixes, and {-c-} is always ||-c-||. Where the form is longer, this suffix has the following allomorphs: it is ||-h-|| before the present perfect (in the allomorphs ||-a-||  $\infty$  ||-ak-||), ||-hi-|| before the imperative (in the allomorph ||- $\emptyset$ -|| before the 2S-1P double pronominal suffix, and ||-X-|| elsewhere), and ||-c-|| elsewhere.

Stems containing this suffix frequently refer to static bodily positions and emotional or physiological conditions. When the stem contains one of the demonstrative roots, the meaning 'to do (this, that, what?)' occurs. Other stems refer to performing an action in a stationary position ('to watch,' 'to stay hidden'). The suffix appears to be productive; newly formed bases mean 'to be about to . . . , to be all set to . . . , to look as if one were going to . . . , to be in a position to . . . .' Examples:

hac'i-c- 'to be standing,' cf. ha:c- 'to stop; to stand up (trans.)'

pet'i-c- 'to stay hidden,' cf. peHt-ŋHe- 'to hide (intrans.)'

cytyn'y-c- 'to be well,' cf. cyty'-nY- 'to do well'

?i-c- 'to do that, to choose that one, to mean,' cf. ?i- 'that'

hylet'y-c- 'to be all ready to jump,' cf. hyle'-t- 'to jump'

hyj'y-c- 'to see,' cf. hyHj-ŋHe- 'to see'

hyj'y-h-ak- $\emptyset$  /hyj'y'hak/ 'I saw'

hyj'y-hi-? /hyj'y'hi?/ 'watch it!'

502. ||-h-||, transitional. This suffix follows a stem of the form  $C_1V_1C_2-$ , which is related to a Stem 1 or has not been recorded in any other environment. The resulting form is a Stem 1. The suffix does not appear to be productive. In meaning, it appears to refer to a state of transition from a condition of solidity, containment, or control to its opposite; a state of bursting out of bounds or losing compactness and strength. Examples:

- puṭ-h- 'to leak or bulge out (from a split container),' cf. puṭ-  
'to split and clean a carcass'
- lak-h- 'to emerge'
- lip-h- 'to come all the way out (of something protruding)'
- lit-h- 'to rise (of the sun)'
- luk-h- 'to come off'
- cun-h- 'to slide off (e.g., dirt from a bank),' cf. cu'n- 'to settle  
to the bottom'
- ham-h- 'to cave in,' cf. ham'e- 'to bury under dirt'
- tam-h- 'to go down (of a swelling)'
- typ-h- 'to wear out'
- mul-h- 'to quit'
- cam-h- 'to die'
- ʔyp-h- 'to swim; to bathe'

This suffix has also been found following a few stems of the form  $C_1V_1C_2V_2C_3-$  (where necessary, the  $C_3$  position is filled by /ʔ/) which are related to verbal bases containing the suffix ||-t-||, and very similar in meaning to them. Examples:

- ʔecaʔ-h- 'to go with someone,' cf. ʔeca-t- 'to accompany'
- paṭyʔ-h- 'to have something with one,' cf. paṭy-t- 'to carry, to  
take'
- ʔoṭoʔ-h- 'to carry in one's arms,' cf. ʔoṭo-t- 'to carry in one's  
arms'

A third type of stem after which ||-h-|| is found has the form  $C_1V_1C_2V_2-$ , and is related to a nominal theme, to a Stem 1, or to a stem which has not been found as a base or theme without a following suffix. Verbal bases of this structure fall within the canonical limits of Stem 1. Their meanings are somewhat varied. Examples:

- laju-h- 'to sprain or twist one's ankle or wrist,' cf. laj'u-ŋHe-  
'to dislocate'
- lile-h- 'to raise,' cf. li'leH- 'high, up'
- tiwa-h- 'to pay,' cf. tiw'a- 'to buy'

503. ||-j-||, verbalizer. This suffix follows a stem of the form  $C_1V_1C_2V_2-$ , which is related to a nominal theme in those cases where

a related stem is identifiable in other environments. The resulting form is a Stem 1. The suffix is probably productive. Its meaning is 'to make a . . .,' except where the stem refers to persons, where it means 'to marry a . . .'. Examples:

- naja'-j- 'to marry a man,' cf. naj'aH- 'man'  
 ?oha'-j- 'to marry a woman,' cf. ?oh'a- 'woman'  
 ?ucu'-j- 'to build a house,' cf. ?u'cuH- 'house'  
 haṭe'-j- 'to make tracks,' cf. haṭ'e- 'foot; footprint'  
 muku'-j- 'to make a road,' cf. muk'u- 'trail, road'  
 toli'-j- 'to quilt,' cf. toliH- 'blanket'  
 kote'-j- 'to put on a Big Time,' cf. kote- 'Big Time'

504. {-ja-}, iterative. This suffix follows a stem of the form  $C_1V_1C_2$ -, which is related to a verbal base. The resulting form falls within the canonical limits of Stem 1; however, before the imperative modal suffix two allomorphs occur, ||-ja-||  $\overset{f}{\sim}$  ||-jo-||. After the first allomorph, the imperative is ||-koH-||; after the second, it is ||-X-||. This suffix does not appear to be productive. Its meaning is iterative; forms containing it refer, for the most part, to violent treatment of a repetitious nature. Examples:

- ce?-ja- 'to stone (trans.),' cf. ce?- 'to hit with a rock'  
 kal-ja- 'to kick all over,' cf. ka'l- 'to kick with the heel'  
 kal-ja-koX-?  $\overset{f}{\sim}$  kal-jo-X-? 'kick him!'  
 myl-ja- 'to beat up,' cf. my'l- 'to hit with a stick'  
 ṭul-ja- 'to polish'

505. {-jik-}, andative. This suffix has the following allomorphs. Before the present perfect modal suffix, it is ||-j'-||. Before the imperative modal suffix, it is ||-j-||  $\infty$  (||-a'-|| ~ ||-ja'-||); ||-a'-|| ~ ||-ja'-|| is found with second person single pronominal suffixes, both singular and plural, ||-a'-|| following stems ending in a consonant and ||-ja'-|| following stems ending in a vowel; ||-j-|| occurs before other Series 4 pronominal suffixes. Before the past nominal suffix {-keH-}, it is ||-jik'-||  $\overset{f}{\sim}$  ||-jYk'-||  $\overset{f}{\sim}$  ||-ji-||. Elsewhere, it is ||-jik'-||  $\overset{f}{\sim}$  ||-jYk'-||  $\overset{f}{\sim}$  ||-jk-||. Following this suffix, the present perfect modal suffix appears in the form ||-a-||  $\infty$  ||-ak-||, and the imperative in the allomorphs ||-ni-||  $\infty$  ||-X-|| (see section 431). Following imperative themes containing allomorphs of {-jik-}, the first person singular Series 4 pronominal suffix is zero, and the second person singular appears in the allomorph ||-·-||.

This suffix can follow any form which otherwise occurs as a base, no matter how many morphemes it contains. Some of the irregular verb stems occur in several allomorphs before {-jik-}. ||?uhuH-|| 'to drink' is ||?uh'-||  $\overset{f}{\sim}$  ||?uh-|| ~ ||?uhur'-|| before the allomorphs ||-a'-|| ~ ||-ja'-||,

and ||ʔuhu·-|| before other allomorphs; ||ʔuc·u-|| 'to stay' is ||ʔuc·-|| ~ ||ʔuc·u-|| before ||-a·-|| ~ ||-ja·-||, and ||ʔuc·u-|| elsewhere; ||nocuH-|| 'to cry' is ||noc-||  $\frac{f}{f}$  ||noc·-|| ~ ||noc·u-|| before ||-a·-|| ~ ||-ja·-||, and ||nocuH-||  $\frac{f}{f}$  ||noc·u-|| elsewhere; and ||ʔyw·y-|| 'to eat' is ||ʔyw·-|| ~ ||ʔyw·y-|| before ||-a·-|| ~ ||-ja·-||, and ||ʔyw·y-|| elsewhere. In the case of the variants occurring in second person imperative forms, the allomorphs ending in consonants (which occur with ||-a·-|| following) are said to carry more sense of immediacy than those ending in vowels, which are followed by ||-ja·-||.

Forms containing this suffix have an andative meaning, 'to go to . . . , to go and . . . !' The suffix is fully productive. Examples:

halki-jik·- 'to go hunting,' cf. hal-ki- 'to hunt'

ʔenyh·ene·-jYk·- 'to go and ask someone to fix it,' cf. ʔenyh·ene·-  
'to ask someone to fix it'

hune·m-j-ti· /hune·myjti·/ 'let's go fishing!,' cf. hune·m- 'to fish'

halpa-ja·-ni·- 'go find it!,' cf. hal-pa- 'to find'

he·l-a·-ni·- 'go and fight!,' cf. he·l- 'to fight'

ʔyw·-a·-ni·- 'go and eat now!,' cf. ʔyw·y- 'to eat'

ʔyw·y-ja·-ni·- 'go and eat (whenever you want)!'

wynt-j·-a·- /wyntyj·a·-/ 'he went to pick them,' cf. wyn-t- 'to pick'

ʔenh-jik·-keH- $\emptyset$ -?  $\frac{f}{f}$  ʔenh-ji-keH- $\emptyset$ -? /ʔenhyjik·yke?/  $\frac{f}{f}$  /ʔenhyjike?/  
'he went to fix it,' cf. ʔenh- 'to make, to fix'

506. ||-j·-||, iterative. This suffix follows a stem of the form of Stem 4 (C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>C<sub>3</sub>V<sub>2</sub>-; where necessary, the C<sub>3</sub> position is filled by /ʔ/), which is related to a Stem 1, to a nominal theme, or to a stem which does not occur as a base or theme without a following suffix. It is found in the same form, ||-j·-||, before all three modal suffixes; after it, the present perfect modal suffix is ||-a-||  $\infty$  ||-ak-||, and the imperative is ||-eH-||. The precise meaning of this suffix is not clear; some verbal bases containing it have an iterative or distributive reference, but in other instances it seems to serve merely as a verbalizer. It does not appear to be productive. Examples:

hajʔa-j·- 'to stop and wait now and then along the way,' cf.

haja-ksY- 'to wait'

miʔwa-j·- 'to squirm, to wiggle,' cf. miʔ-wa- 'to wriggle through,'

mi·ʔ- 'to jostle with the elbows'

henʔi-j·-mhi- 'to take turns playing,' cf. hen·i- 'to relieve one on duty'

cuʔpa-j·- 'to come to the halfway mark; to be midnight,' cf.

cuʔpaH- 'middle'

helka-j·- 'to be summer,' cf. hela·k- 'to be clear, sunny'

?ys?y-j- 'to turn out badly, to be not very good,' cf. ?yswi- 'bad!'

?ysyHk-ŋHe- 'to spoil, go bad, not go right'

This suffix has also been found following a stem of the form  $C_1V_1C_2V_2^-$ , which is related to a Stem 1 or which has not been recorded as a base or theme without a following suffix. In such stems,  $V_2$  is sometimes the same as  $V_1$ , and sometimes a vowel not found in other allomorphs of the stem. In this usage, which does not appear to be productive, the meaning appears to be iterative. Examples:

kaw'a-j- 'to shout several times,' cf. kaHw-ŋHe- 'to shout'

kal'i-j- 'to kick repeatedly,' cf. ka'l- 'to kick with the heel'

mo?i-j- 'to face towards someone,' cf. mo?ta- 'to meet'

?ap'o-j- 'to overflow'

507.  $\parallel -wV-j- \parallel$ . This suffixal combination follows a stem which consists of the first two syllables of a nominal theme of related meaning. In most cases, V in the above formula is /i/, but in one instance it is the same as the second vowel of the stem. Themes containing this combination, which does not appear to be productive, have been found in all three verbal modes; the combination usually appears in the form  $\parallel -wV-j- \parallel$  before all three modal suffixes, but in one instance a terminal sequence  $\parallel -wV-j-\emptyset \parallel$  has been found in a second person singular imperative verb. The meaning of this combination is obscure. Examples:

nem'yt-wi-j- 'to turn this way,' cf. neH<sub>1</sub>-m-t-t 'this way'

?im'yt-wi-j- 'to turn the other way,' cf. ?i-m-t-t 'that way'

?oŋik-wi-j- 'to cut or break in two,' cf. ?oŋiH-koH- 'two'

wes'a?-wa-j- 'to hurry,' cf. wes'a- 'fast'

wes'a?-wa-j- $\emptyset$  'hurry up!'

508.  $\parallel -ki- \parallel$ . This suffix follows a stem of the form  $C_1V_1C_2^-$ , which is related to a verbal base. The resulting form is a Stem 1. The meaning of this suffix is obscure. It does not appear to be productive. Examples:

hal-ki- 'to hunt,' cf. hal-pa- 'to find'

jyt-ki- 'to hang up,' cf. jyty-t- 'to lift'

wel-ki- 'to fetch,' cf. we'l- 'to fetch'

509. {-ksY-}. This suffix is found following several different types of stem, and has a variety of meanings, some rather difficult to define. In all situations, it is found in the following allomorphs: before the imperative modal suffix, it is  $\parallel -k- \parallel$ ; before the present perfect, it is  $\parallel -k\cdot oc- \parallel$ ; elsewhere, it is  $\parallel -ksY- \parallel$ . Following {-ksY-}, the imperative has the form  $\parallel -koX- \parallel$ , and the perfect is  $\parallel -a- \parallel \infty \parallel -ak- \parallel$ .

Following a stem of the form  $C_1V_1C_2V_2^-$ ,  $C_1V_1C_2V_2C_3^-$ , or  $C_1V_1C_2V_2C_3^-$ , it has a continuative meaning, 'to keep on . . .'; or it



refers to what might be called a "follow-through" or "hold-the-pose" type of action, where the actor performs an action and then maintains a resulting position. It is thus different in meaning from {-c-} 'static,' where the maintained position is a preparation for an action. These stems are related to bases, to nominal themes, or to stems which do not occur as bases or themes without a following suffix. If, not counting length, the stem in other environments has two consonants, it has here the form  $C_1V_1C_2V_2-$ . If it has three, it is here  $C_1V_1C_2V_2C_3?$ - or  $C_1V_1C_2\cdot V_2C_3-$ ; in some cases, both of these stem forms have been recorded, with no discernible difference in meaning.

When this suffix follows a stem of the form  $C_1V_1C_2\cdot V_2C_3-$  which is related to a nominal theme referring to a body part, the resulting form means 'bare. . . showing.' Where, in other environments, the stem has /h/ in the  $C_3$  position,  $C_3$  in the above formula is /?/.

In a few cases, this suffix has been found following a stem, related to a base, of the form  $C_1V_1C_2\cdot V_2C_3?$ -. The meanings are more or less similar to other types where the stem is related to a verbal base.

Following nominal themes referring to articles of apparel, this suffix means 'to wear a . . . .' Examples:

lotu-ksY- 'to hold someone down,' cf. lo't- 'to catch'

lotu-k'oc-a- 'he held him down'

micy-ksY- 'to be how?', cf. mi-c- 'to do what?'

tekym?-ksY- /tekym?yksy-/ } 'to be ready to kick,' cf. tek-m- 'to kick'

tek'ym-ksY- /tek'ymyksy-/ }

na'was?-ksY- /na'was?yksy-/ 'to wear a dress,' cf. na'was- 'dress'

haṭ'e?-ksY- /haṭ'e'yksy-/ 'bare feet showing,' cf. haṭ'e- 'foot'

kan'ym?-ksY- /kan'ym?yksy-/ 'fixing to blow,' cf. kan-m- 'to blow  
(of wind)'

hakaj?-ksY- /hakaj?yksy-/ 'to look hungry,' cf. hakaHj-ŋHe- 'to  
be hungry'

hulYw?-ksY- /huluw?uksu-/ 'to look hungry,' cf. hulw- 'to be  
hungry, to starve'

hulYw?-k-koX-? /huluw?uk'o?/ 'look hungry!'

510. {-mY-ksY-}. This combination of suffixes follows a stem which otherwise occurs as a base. Present imperfect, perfect, and imperative verbal themes containing these suffixes have been recorded; {-ksY-} shows the same allomorphy in this combination as it does by itself, while ||-mY-|| shows no variation.

Forms containing this combination appear to refer to a conscious, deliberate, or attentive use of the senses, as opposed to a passive or casual use. The combination does not appear to be productive. Examples:

- ʔal·-mY-ksY- /ʔal·ymyksy-/ 'to listen,' cf. ʔal·- 'to hear'  
 ʔal·-mY-k-koX-ʔ /ʔal·ymyk·oʔ/ 'listen!'  
 wyʔi·t̄-mY-ksY- /wyʔi·t̄ymyksy-/ 'to peek,' cf. wyʔi·t̄ 'to peer,  
 to peep'  
 welh-my-ksY- /welhymyksy-/ 'to be ready to seek,' cf. wel-h-  
 'to seek'

511. {-pa-ksY-}, involuntary passive. This combination of suffixes has been found following several stem types; the commonest is of the form  $C_1V_1C_2·V_2-$ , but others include  $C_1V_1C_2V_2·C_3-$  and  $C_1V_1C_2·V_2C_3-$ . Some are identical with Stem 1's of related meaning; others have not been found elsewhere, or not without a following suffix. Only present imperfect verbal themes containing this combination have been found; its productivity has not been investigated. All bases containing this combination refer either to having something happen to one against one's wishes or to disagreeable physiological conditions. Examples:

- ʔelne-pa-ksY- 'to be left; to be unable to go, although one would like to,' cf. ʔeHl-ŋHe- 'to leave behind'  
 ʔele·ŋ-pa-ksY- 'to be left behind involuntarily, although one could go'  
 sik·e-pa-ksY- 'to hurt (intr.),' cf. sike·-nY- 'to be sick'  
 can·a-pa-ksY- 'to have pins-and-needles; to have a limb fall asleep'  
 pol·o-pa-ksY- 'to have a nightmare,' cf. pol·o- 'to contact the super-natural'

512. {-pu-ksY-}. This combination of suffixes follows demonstrative stems and a few others. The meanings are somewhat diverse. Present imperfect verbal themes only have been recorded. The combination does not appear to be productive. Examples:

- ʔi-pu-ksY· /ʔipuksu/ 'that's the way it is,' cf. ʔi- 'that'  
 ne-pu-ksY· /nepuksu/ 'this is the way it is,' cf. neH- 'this'  
 ʔokah-pu-ksY- /ʔokahpuksu/ 'to do it again,' cf. ʔokaHh- 'the same'  
 ʔu-pu-ksY· /ʔupuksu/ 'it's not in its usual place,' cf. ʔuc·u-  
 'to stay' (< ʔu·c·-ʔ)

513. ||-ku||. This suffix follows a stem of the form  $C_1V_1C_2-$ , which is related to a Stem 1 or which has not been recorded as a base or theme without a following suffix. The resulting form is a Stem 1. The meaning of this suffix is obscure; forms containing it refer to action of a damaging nature. It does not appear to be productive. Examples:

- ʔa·t̄-ku- 'to break open,' cf. ʔa·t̄- 'to split'  
 ʔam-ku- 'to hurt, to wound,' cf. ʔam·u- 'to hurt'  
 tes-ku- 'to break off a piece'

514. {-la-}. This suffix follows a stem of the form  $C_1V_1C_2-$ , which is related to a Stem 1. The resulting form is a Stem 1; however, this suffix has two allomorphs,  $\| -la- \|$   $\int$   $\| -lo- \|$ , when it is followed by the imperative modal suffix, which is  $\| -koX- \|$  after the first and  $\| -X- \|$  after the second variant. Elsewhere, this suffix is always  $\| -la- \|$ . Its meaning is 'to . . . (it) to fragments, to destroy by . . . ing.' It does not appear to be productive. Examples:

koṭ-la- 'to break to pieces (trans.),' cf. koṭ- 'to break'

teṭ-la- 'to cut up,' cf. teṭ- 'to cut'

ʔaṭ-la- 'to split wood,' cf. ʔaṭ- 'to split open (trans.)'

hok-la- 'to take apart; to take off,' cf. hok- 'to undo'

hok-la-koX-?  $\int$  hok-lo-X-? /hoklako?/  $\int$  /hoklo?/ 'take it apart!'

515.  $\| -lVmh- \|$ , 'to be ready to . . . .' This suffix follows either a stem 4 or a base which does not fall within the canonical limits of Stem 1. In the above formula, V represents the vowel of the preceding syllable. This suffix has been recorded before all three modal suffixes; it occurs only in the allomorph  $\| -lVmh- \|$ . The imperative mode has the form  $\| -eH- \|$  following this suffix, and the perfect is  $\| -a- \|$   $\infty$   $\| -ak- \|$ . It appears to be fully productive. Examples:

cymʔy-lVmh- 'to be ready to climb,' cf. cy-m- 'to climb'

ʔetla-lVmh- 'to be ready to return,' cf. ʔeta-l- 'to return'

ʔetla-lVmh- $\emptyset$ - /ʔetlalamhy/ 'he is ready to return'

ʔetla-lVmh-a- /ʔetlalamha/ 'he was ready to return'

ʔetla-lVmh-eH-? /ʔetlalamhe?/ 'be ready to return!'

ʔetla-lVmh-nHuk-u- 'to make someone ready to return'

ʔetal-nHuk-u-lVmh- 'to be ready to take someone home,' cf.

ʔetal-nHuk-u- 'to take someone home'

516.  $\| -met- \|$ , mediopassive. This suffix follows a Stem 1. It has usually been recorded in the present perfect mode, but although imperative themes containing this suffix also exist informants are hesitant to accept comparable imperfect forms. In the imperfect mode, themes containing the suffixal combination {-meh-nY-} (see section 526) are usually substituted for those containing  $\| -met- \|$ , and this combination is also preferred before the past nominal suffix {-keH-}.

Following  $\| -met- \|$ , the present perfect modal suffix has the form  $\| -a- \|$   $\infty$   $\| -ak- \|$ , and the imperative is  $\| -eH- \|$ . Forms containing this suffix are passive or mediopassive in meaning, and often refer to actions of a destructive nature. It is frequently translatable in English as 'to be all . . . .' Examples:

lep'a-met- 'to be all gone,' cf. lep'a- 'to finish'

koṭla-met- 'to be in smithereens,' cf. koṭ-la- 'to break to pieces (trans.)'

- ʔo'ja-met'- 'to be all piled up,' cf. ʔo'ja- 'to pile up'  
 ʔelŋe-met'- 'to be left behind,' cf. ʔeHl-ŋHe- 'to leave, abandon'  
 ken ʔelŋe-met'-eH-ʔ /ken ʔelŋemet'eʔ/ 'don't get left behind!'  
 ʔelŋe-met'-a- /ʔelŋemet'a-/ 'he got left behind'

517. ||-mh-|| 'absent.' This suffix follows a Stem 4 or a base that does not fall within the canonical limits of Stem 1. It has been recorded in themes in all three verbal modes; only the form ||-mh-|| has been found. The imperative modal suffix has the form ||-eH-|| after this suffix, and the perfect is ||-a-|| ∞ ||-ak-||.

Forms containing this suffix mean 'to be away (doing something),' 'to . . . out of sight.' It appears to be productive. Note that in the imperative this suffix is homophonous with the reciprocal, ||-mhi-|| ∞ ||-mh-||, which follows bases. In some cases, Stem 1 (a possible base) and Stem 4 are identical, and both suffixes can follow longer bases. Some whole forms are therefore homophonous in the imperative. Examples:

- ʔywny-mh- 'to be away feeding (trans.),' cf. ʔywy-n- 'to feed (trans.)'  
 hywta-mh-eH-ti- /hywtamhe'ti-/ 'let's run away!' cf. hywa-t- 'to run'  
 le'le'ny-mh- /le'le'nymh-/ 'to be away at school,' cf. le'le'-ny-  
 'to read'  
 welhy-mh- 'to be away seeking,' cf. wel-h- 'to seek'  
 welhy-mh-ak-∅ /welhymhak/ 'I was away seeking'  
 welhy-mh-eH-tYH /welhymhe'ty-/ 'be off looking for me!'

518. {-mhi-}, reciprocal. This suffix follows any stem which otherwise occurs as a base, no matter what its structure. It has the following allomorphs: before the present perfect and imperative modal suffixes it is ||-mh-||; it is ||-mhi-|| elsewhere. Following this suffix, the present perfect modal suffix is ||-a-|| ~ ||-ak-|| and the imperative is ||-eH-||. The suffix appears to be fully productive. Its meaning is reciprocal: 'to . . . each other.' Examples:

- ʔam'-mhi- /ʔam'y mhi-/ 'to exchange gifts,' cf. ʔam'- 'to give'  
 hywat-nHuk'u-mhi- 'to elope,' cf. hywat-nHuk'u- 'to cause to run'  
 hywa-t-mh-eH-ti- /hywa'tymhe'ti-/ 'let's run a race!,' cf. hywa-t-  
 'to run'  
 ʔelŋe-mh-a-p'u- /ʔelŋemhap'u-/ 'they have left each other,' cf.  
 ʔeHl-ŋHe- 'to leave (trans.)'

519. {-na<sub>1</sub>-}, benefactive. This suffix follows a Stem 2; where necessary, the C<sub>3</sub> position is filled by /·/. It can also follow bases that do not fit the canonical requirements of Stem 1. This suffix has the following allomorphs: before the present perfect and imperative modal suffixes,

it is  $\parallel$ -ka- $\parallel$ ; elsewhere, it is  $\parallel$ -na- $\parallel$ . Following this suffix, the present perfect has the form  $\parallel$ -na- $\parallel \infty \parallel$ -nak- $\parallel$ , and the imperative is  $\parallel$ -ni- $\parallel \infty (\parallel$ -n- $\parallel - \parallel$ -X- $\parallel)$ .

The meaning of this suffix is benefactive: 'to . . . for (someone)'. It appears to be productive. Its similarity of form to  $\{-na_2\}$  'causative' is noteworthy. In many cases, these two suffixes can be distinguished only in the present perfect and imperative modes. Examples:

?enyh-na- 'to make for (someone),' cf. ?enh- 'to make'

?enyh-ka-na-: 'he made it for him'

?enyh-ka-ni-? 'make it for him!'

kosen-na- 'to cook for (someone),' cf. kose-nY- 'to cook'

myli-na- 'to sing for (someone),' cf. myl-i- 'to sing'

tawhan-e-na- 'to work for,' cf. tawhan-e- 'to work'

520.  $\{-na_2\}$ , causative. This suffix follows a stem of the form of Stem 4; where necessary, the  $C_3$  position is filled by /·/. Some such stems, however, are related to nominal themes or to stems which do not occur as bases or themes without a following suffix rather than to Stem 1's. This suffix has the following allomorphs: before the present imperfect and imperative modal suffixes, it is  $\parallel$ -pa- $\parallel$ ; elsewhere, it is  $\parallel$ -na- $\parallel$ . Following this suffix, the present imperfect has the form  $\parallel$ -na- $\parallel \infty \parallel$ -nak- $\parallel$ , and the imperative is  $\parallel$ -ni- $\parallel \infty (\parallel$ -n- $\parallel - \parallel$ -X- $\parallel)$ . When  $\{-na_2\}$  follows a stem of the form  $C_1V_1C_2V_2\cdot$ , the resulting verbal base is sometimes treated as a Stem 1 of the form  $C_1V_1C_2V_2\cdot n$ - in that there are Stems 2, 3, and 4 which correspond to it.

This suffix has a causative meaning, 'to cause (someone, something) to become . . .'. Its similarity of form to the benefactive has already been noted; in the present imperfect the two suffixes are frequently indistinguishable. In the present perfect and imperative,  $\{-na_2\}$  is frequently indistinguishable from  $\{-pa\}$  'directional'. It is not clear whether or not the suffix is productive. Examples:

natyh-na- 'to teach,' cf. natyh- 'clever'

natyh-pa-na-· 'he taught him'

natyh-pa-ni-? 'teach him!'

ʔakyp-na- 'to make one thirsty,' cf. ʔakp- 'to thirst'

huliw-na- 'to make it short,' cf. hul-iwi- 'short'

cyte-na- 'to make someone like it,' cf. cytʔyʔ-e- 'to like it'

cyten-e- $\emptyset$ -? /cyten-e?/ 'he made him like it' (past nominal)

521.  $\{-nY\}$ . This suffix is extremely versatile. It is found following several different types of stem, with different meanings. It is also a member of several suffixal combinations. In all its environments, it is found in the following allomorphs: before the present perfect and impera-

tive modal suffixes, it is  $\parallel\text{-mY-}\parallel$  (when this allomorph follows a stem ending in  $\parallel\text{n}\parallel$ , the nasal of the stem is sometimes assimilated to that of the suffix, resulting in the sequence  $/\text{m}'/$ ); elsewhere, it is  $\parallel\text{-nY-}\parallel$ . Following this suffix, the present perfect has the form  $\parallel\text{-na-}\parallel \infty \parallel\text{-nak-}\parallel$ , while the imperative is  $\parallel\text{-ni-}\parallel \infty (\parallel\text{-n-}\parallel \sim \parallel\text{-X-}\parallel)$ . When  $\{-\text{nY-}\}$  follows a stem of the form  $\text{C}_1\text{V}_1\text{C}_2\text{-}$ , the resulting verbal base falls within the canonical limits of Stem 1, and corresponding Stems 2, 3, and 4 also exist. In some cases, Stems 2, 3, and 4 have been found which correspond to verbal bases of the structure  $\text{C}_1\text{V}_1\text{C}_2\text{V}_2\text{-nY-}$ , functioning as a Stem 1 of the form  $\text{C}_1\text{V}_1\text{C}_2\text{V}_2\text{-n-}$  (cf.  $\{-\text{na}_2\text{-}\}$ , section 520).

Following a stem related to a nominal theme or one derived from a Spanish or English loan word, this suffix is simply a verbalizer. Where the stem refers to an instrument, the form usually means 'to use a . . .'. Other forms with nominal stems mean 'to become a . . .', 'to turn into a . . .'. The stem appears in its usual nominal form; if it ends in a vowel, it is followed by stem-formative length ( $\parallel\text{--}\parallel$ ) before  $\{-\text{nY-}\}$ . A few Spanish loans ending in  $/\text{a}/$  appear in abbreviated form in this environment. Examples:

- $\text{kampa}\cdot\text{na}\text{-nY-}$  'to ring,' cf.  $\text{kampa}\cdot\text{na-}$  'bell,' Sp. campana  
 $\text{noc}^?\text{u}\text{-c}\cdot\text{e}\text{-nY-}$  'to cry a lot,' cf.  $\text{noc}^?\text{u}\text{-c}\cdot\text{e-}$  'habitual crier'  
 $\text{piknik}\text{-nY-}$  'to picnic'  
 $\text{lac}\text{-nY-}$  'to chop,' cf.  $\text{la}\cdot\text{ca-}$  'axe,' Sp. la hacha  
 $\text{lac}\text{-mY}\text{-na}\cdot$  'he chopped it' (present perfect)  
 $\text{lac}\text{-mY}\text{-ni}\text{-?}$  'chop it!' (imperative)  
 $\text{na}\eta\cdot\text{a}\text{-nY-}$  'to become a man,' cf.  $\text{na}\eta\cdot\text{aH-}$  'man'  
 $\text{la}\cdot\text{ma}\text{-nY-}$  'to turn into a tree,' cf.  $\text{la}\cdot\text{ma-}$  'tree'

Following a Stem 2 (where necessary, the  $\text{C}_3$  position is filled by  $/\text{?}/$ ), this suffix has a transitive, causative, or benefactive meaning. It appears to be productive in this environment. Examples:

- $^?\text{ywy}\text{-nY-}$  'to feed,' cf.  $^?\text{ywy}\text{-}$  'to eat'  
 $\text{kala}\eta\text{-nY-}$  'to dance for,' cf.  $\text{kala}\cdot\eta\text{-}$  'to dance'  
 $\text{liwa}\text{-nY-}$  'to talk to,' cf.  $\text{liw}\cdot\text{a-}$  'to talk'  
 $\text{wasyn}\text{-nY-}$   $/\text{wasyn}\cdot\text{y-}/$  'to tell a story to,' cf.  $\text{was}\text{-nY-}$  'to tell a story'

Following a Stem 2 (where necessary, the  $\text{C}_3$  position is filled by  $/\text{?}/$ ), this suffix has the meaning 'to . . . secretly or inadvertently, while doing something else.' If Stem 2 would usually be of the form  $\text{CVC-}$ , two stem types occur, with no apparent difference in meaning:  $\text{C}_1\text{V}_1\text{C}_2\text{-}$  or  $\text{C}_1\text{V}_1\text{C}_2\text{Y}\text{?}\text{-}$ . Note the similarity of structure between these forms and those where  $\{-\text{nY-}\}$  has a transitive or causative meaning. The two usages can only be distinguished in cases where the  $\text{C}_3$  position must be filled.

The suffix appears to be productive in this environment. Examples:

lot-nY- ~ lotu?-nY- 'to pass something secretly, while shaking hands,' cf. lo-t- 'to grasp'

sopu?-nY- 'to hit accidentally, while throwing; to pass by throwing; to throw (it) with (it),' cf. so-p- 'to throw'

?ywy?-nY- 'to eat something (e.g., an insect) inadvertently, in one's food,' cf. ?yw-y- 'to eat'

holuk-nY- 'to fell one tree inadvertently, while felling another on purpose,' cf. holk- 'to fell a tree'

Following a stem of the form  $C_1V_1\cdot C_2V_2C_3-$ , related to a Stem 1, this suffix has an iterative meaning. The iteration appears to refer to plurality of the object. Where necessary, the  $C_3$  position is filled by /?/. Examples:

?e-leŋ-nY- 'to leave several things behind,' cf. ?el-ŋe- 'to leave behind, abandon'

so-pu?-nY- 'to hit several people,' cf. so-p- 'to throw and hit'

?o-ja?-nY- 'to call (him) names,' cf. ?o-j-a- 'to name'

co-ju?-nY- 'to pile dirt in small mounds at intervals' (as a mole does), cf. co-j- 'to pile up dirt'

je-hin-nY- 'to think; to meditate; to be surprised'

je-him-mY-na- /je-him-yna-/ 'he thought'

Following a stem of the form  $C_1V_1C_2C_3V_2-$ , related to a Stem 1, {-nY-} has an iterative meaning. The iteration here appears to refer to repeated action upon a single object. Where necessary, the  $C_3$  position is filled by /?/. The suffix appears to be productive in this environment.

Examples:

tekmy?-nY- 'to kick repeatedly,' cf. tek-m- 'to kick'

?omhu?-nY- 'to miss several times,' cf. ?omh- 'to miss one's aim'

pakty?-nY- 'to clap (of a rattle),' cf. pakt- 'to explode'

tyk-y?-nY- 'to shoot all over,' cf. tyk- 'to shoot'

A third iterative meaning for this suffix refers to a multiplicity of locations for the action. With this meaning, {-nY-} follows two different types of stem:  $C_1V_1C_2C_1V_1C_2-$  and  $C_1V_1C_2C_3V_2C_3-$ . These stems are related to Stem 1's or to stems which do not occur as bases or themes without a following suffix. The stem is of the form  $C_1V_1C_2C_1V_1C_2-$  if it does not occur as a base or theme; it is  $C_1V_1C_2C_3V_2C_3-$  if Stem 1 has a  $C_3$ . Otherwise (where Stem 1 has no  $C_3$ , not counting length), either stem form may occur, but only one of the two for each Stem 1. No rules have been formulated to predict which of the two will occur for any particular Stem 1. In the case of the stem form  $C_1V_1C_2C_3V_2C_3-$ , the  $C_3$  position is filled by /?/ where necessary. In this environment,

the suffix does not appear to be productive. Examples:

ʔukʔuk-nY- 'to go in and out the rooms,' cf. ʔu-k- 'to enter'  
 ʔolʔol-nY- 'to dig around here and there,' cf. ʔol- 'to dig'  
 petpet-nY- 'to hide around, to sneak,' cf. peHt-ŋHe- 'to hide  
 (intrans.)'

ʔynʔyʔ-nY- 'to come often,' cf. ʔyn- 'to come'  
 johʔuʔ-nY- 'to kill here and there,' cf. jo'h- 'to kill'  
 welhyh-nY- 'to seek here and there,' cf. wel-h- 'to seek'  
 hukjaj-nY- 'to sniff around,' cf. huka-j- 'to smell (trans.)'  
 ʔyntyn-nY- 'to think; to consider,' cf. tyny-ŋ- 'to remember'  
 ʔyntyn-mY-na- /ʔyntym·yna/ 'he thought'  
 ʔyntyn-mY-ni-ʔ /ʔyntym·yniʔ/ 'think!'

522. {-e--nY-}, discontinuous iterative. This combination of suffixes follows a stem of the form  $C_1V_1\cdot C_2V_2C_3$ -, related to a verbal base, or to a nominal theme referring to a body part. Where necessary, the  $C_3$  position is filled by /ʔ/. If the stem elsewhere has /h/ as  $C_3$ , it is here replaced by /j/. The suffix {-nY-} shows the same allomorphy in this combination as it does by itself, while ||-e--|| occurs only in this form. The combination has been found in present imperfect, present perfect, and imperative verbal themes.

When this suffixal combination follows a stem related to a verbal base, the form refers to actions which are repeated frequently, at more or less regular, short intervals. When the suffix follows a stem referring to a body part, it means 'bare' or 'showing' (as through a hole in a garment). The combination appears to be productive. Examples:

ʔy·nyʔ-e--nY- 'to come back often, to come back and forth,' cf.  
 ʔyn- 'to come'  
 ʔomaj-e--nY- 'to warm up again every few minutes,' cf. ʔom-ja-  
 'to warm up (trans.)'  
 ty·ŋij-e--nY- 'heel showing (as through a hole in a sock),' cf.  
 tyŋih- 'heel'  
 hu·kuʔ-e--nY- 'bareheaded,' cf. huk·uH- 'head'

523. {-j-nY-}, volitional. This suffixal combination can follow any Stem 4 or any form which otherwise occurs as a base but which does not fit the canonical requirements of Stem 1. In this combination, {-nY-} shows the same allomorphy as it does by itself, while {-j-} has the following allomorphs: after a Stem 4, it is ||-j-||; elsewhere, it is ||-h·aj-||.

In verbal themes in the present imperfect mode, this combination of suffixes refers to the immediate future, with volitional overtones. Such themes mean 'to want to . . . , to be about to . . . .' In the present perfect, the meaning is somewhat different from what might be expected:



instead of 'he was about to . . . just now,' such themes mean 'to want to . . . very much' or 'to be ready to . . . .' When followed by  $\parallel$ -keH $\parallel$ , the past nominal suffix, themes containing this combination of suffixes have another unusual meaning: instead of 'he was about to . . . ,' they mean 'he was supposed to . . . , but did not.' The combination is fully productive. Examples:

?yw?y-j-nY- 'to want to eat, to be about to eat,' cf. ?yw'y- 'to eat'  
hinwo-j-nY- 'to want to play handgame,' cf. hino'w- 'to play hand-  
game'

le'le'-nY-h'aj-mY-na- 'he wants to read very much' cf. le'le'-nY-  
'to read'

?yphy-j-nY-keH-? /?yphyjnyke?/ 'he was supposed to swim, but  
didn't,' cf. ?yp-h- 'to swim'

524. {-je'-nY-}, discontinuous iterative (cf. {-e'-nY-}, section 522). This combination of suffixes follows a Stem 4; no other stem type has been observed. The suffix {-nY-} shows the same allomorphy in this combination as it does by itself;  $\parallel$ -je'- $\parallel$  occurs only in this form.

Stems containing this combination of suffixes refer primarily to repetitive actions. A possible distinction from {-e'-nY-} is indicated by the following examples:

hyle-je'-nY- 'to skip,' cf. hyle'-t- 'to jump, to fly'

hy'let-e'-nY- 'to jump up and down'

It seems likely that {-e'-nY-} refers to discontinuity in time, while {-je'-nY-} indicates discontinuity in space. Examples:

lakhy-je'-nY- 'to bob up and down, in and out of sight (e.g., an  
otter swimming),' cf. lak-h- 'to appear'

lopoʔo-je'-nY- 'to have goose pimples,' cf. lopoʔ- 'to form a lump'

ʔyj'e-je'-nY- 'to doze,' cf. ʔyj'e- 'to sleep'

525. {-le'-nY-}, discontinuous iterative? (cf. {-e'-nY-}, sections 522, and {-je'-nY-}, section 524). This suffix follows a Stem 4; no other stem form has been observed. Present imperfect verbal themes only have been recorded. Its meaning is a little obscure, since it has been recorded very rarely. However, it appears to have an iterative reference.

Examples:

topju-le'-nY- 'rapids,' cf. topu'-j- 'to bubble'

ʔotju-le'-nY- 'to bubble up,' cf. ʔotju'-j- 'to foam'

526. {-meh-nY-}, mediopassive. This combination of suffixes is found following a Stem 1, or a Stem 4 corresponding to a Stem 1 of the form  $C_1V_1C_2V_2\cdot C_3-$ . The resulting form has a mediopassive meaning, and the structure is productive. In this combination,  $\parallel$ -meh $\parallel$  has no other allomorph, while {-nY-} shows the same allomorphy as it does by itself.

## Examples:

- ʔo·ja-meh-nY- 'to pile up (intrans.),' cf. ʔo·ja- 'to pile up (trans.)'  
 ʔenh-meh-nY- 'to form itself; to turn into something else; to solidify,' cf. ʔenh- 'to make, fix, prepare'  
 peṭja-meh-nY- 'to get lost,' cf. peṭa·-ŋ- 'to lose'

{-meh-nY-} is also found following a Stem 2 (where necessary, the  $C_3$  position is filled by /·/), or a base too long to fit the canonical limits of Stem 1. Forms of this structure, which is productive, mean 'to . . . on one's way.' If Stem 2 usually has the form  $C_1V_1C_2-$ , this combination can follow either this form of the stem or one of the form  $C_1V_1C_2Y'-$ , with a slight difference of meaning: if the stem is  $C_1V_1C_2-$ , the object is indefinite; if the stem is  $C_1V_1C_2Y'-$ , the object is a known, specific item. Examples:

- halik-meh-nY- 'to hunt on one's way,' cf. hal-ki- 'to hunt'  
 joh-meh-nY- 'to kill on one's way (indefinite object),' cf. jo'h- 'to kill'  
 johu·-meh-nY- 'to kill on one's way (definite object)'

527. {-te·-nY-}, linear distributive. This combination follows a stem of the form  $C_1V_1·C_2V_2C_3-$  (where necessary, the  $C_3$  position is filled by /·/) which is related to a Stem 1; or a base too long to fit the canonical limits of Stem 1. In the latter case, the first member of this combination appears in the allomorph  $\|·ʔte·\|$ ; elsewhere, it is  $\|·te·\|$ . The combination appears to be productive, but only present imperfect verbal themes containing it have been found. Its meaning appears to be 'to . . . in a line, along the trail, or bit by bit.' Examples:

- peṭaj-te·-nY- 'to string out (trans.),' cf. peṭ-ja- 'to drop several things'  
 ʔe·nup-te·-nY- 'to chase along behind,' cf. ʔenpu- 'to chase'  
 ha·lik-te·-nY- 'to hunt along the trail,' cf. hal-ki- 'to hunt'  
 wy·nyʔ-te·-nY- 'to walk along the trail,' cf. wy·n- 'to walk'  
 ṭyk·y·-nY-ʔte·-nY- 'to shoot all over along the trail,' cf. ṭyk·y·-nY-  
 'to shoot all over'  
 hok·-ŋHe-ʔte·-nY- 'to come loose gradually,' cf. hok·-ŋHe- 'to come apart'

528. {-tuh-nY-}. This combination of suffixes has been found after very few stems, primarily Class III nominal themes. The first member has been recorded both as  $\|·tuh·\|$  and as  $\|·t·uh·\|$ ; it is not known whether some are misrecordings or if such variation actually exists. The second member exhibits the same allomorphy in this combination as it does alone. Bases containing this combination, which does not ap-

pear to be productive, sometimes have mediopassive meanings, but others also occur. Examples:

ha'je-tuh-nY- 'to get light,' cf. ha'ja- 'bright; daylight'

ha'ja-tuh-nY- 'to become plain, clear (of sound as well as sight)'

hal'e-tuh-nY- 'to come out, get out of something,' cf. hal'e- 'the wilds, the open'

cal-tuh-nY- <sup>d</sup> ca'l-tuh-nY- 'to become early morning'

529. {-nHuk·u-}, 'causative.' This suffix follows a Stem 4 or a base too long to fit the canonical requirements of Stem 1. Where necessary, the C<sub>3</sub> position is filled by /·/. Three stems appear in unusual forms in this environment: ||wyH-|| 'to go' is ||wi·-||, ||ʔyn·-|| 'to come' is ||ʔunu-||, and ||hy'ja-|| 'to arrive' is ||hyja-||.

This suffix shows the following allomorphy: before the present perfect and imperative modal suffixes it is ||-kHu-||; before ||-keH-||, past nominal suffix, it is ||-nHu-|| <sup>f</sup> ||-nHuk·u-||; before {-na<sub>1</sub>-} 'benefactive' it is ||-nHuk-||; elsewhere, it is ||-nHuk·u-||. After this suffix, the present perfect appears in the allomorphs ||-na-|| ∞ ||-nak-||, while the imperative is ||-ni-|| ∞ (||-n-|| - ||-X-||).

Forms containing this suffix have causative meanings, 'to cause (someone) to . . .'; the verbal base to which the stem is related is usually active rather than passive. The suffix is fully productive. Examples:

jeʔap-nHuk·u- 'to persuade,' cf. jeʔpa- 'to believe'

hywat-nHuk·u- 'to make (him) run,' cf. hywa-t- 'to run'

ʔetal-nHuk·u- 'to take (him) back,' cf. ʔeta-l- 'to return'

ʔetal-kHu-na-· /ʔetalkuna/ 'he took him back' (present perfect)

ʔetal-kHu-niʔ /ʔetalkuniʔ/ 'take him back!'

ʔetal-nHu-keH-ʔ /ʔetalnukeʔ/ 'he took him back' (nominal past)

ʔunu-nHuk·u- 'to bring,' cf. ʔyn·- 'to come'

wi·-nHuk·u- 'to take,' cf. wy·- 'to go'

wi·-nHuk-na<sub>1</sub>- 'to take for someone'

530. ||-ŋ-||. This suffix follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>'-, which is related to a base or to a stem which does not occur as a base or theme without a following suffix. If the stem in other environments has no V<sub>2</sub>, this position is filled by repeating V<sub>1</sub>. The resulting form is a Stem 1.

The meaning of this suffix is obscure; it may have some reference to deliberate or purposeful action. It is not common, and does not appear to be productive. Examples:

kala-ŋ- 'to dance,' cf. ka-l- 'to kick with the heel'

peṭa-ŋ- 'to lose; to throw away,' cf. peṭ-a- 'to drop'

ṭyny-ŋ- 'to remember, recall (an event),' cf. ṭynṭyn-nY- 'to think'

531.  $\{-\eta k-\}$ , verbalizer. This suffix follows nominal themes of various structures. Only present imperfect verbal themes containing this suffix have been recorded. Its meaning is 'to be . . . , to be a . . .'; it is frequently followed by nominal suffixes, especially those which are always preceded by a verbal base. Its main function appears to be to provide a base for these suffixes to follow. It is productive. Examples:

manaX- $\eta k-$  'to be who?' cf. manaX- 'who?'

manaX- $\eta k$ -keH- $\eta$  /mana $\eta$ kyke $\eta$ / 'who was he?'

manaX- $\eta k$ - $\eta$ aX- $\eta$ -hY $\cdot$  /mana $\eta$ ky $\eta$ a $\eta$ hy $\cdot$ / 'who is he?' lit. 'his being who?'

$\eta$ e $\cdot$ tut-a- $\eta k-$  'to be sunny,' cf.  $\eta$ e $\cdot$ tut-a- 'sunshine'

kuteHw- $\eta k$ -tho-j /kute $\cdot$ wy $\eta$ kythoj/ 'as a messenger,' cf. kuteHw- 'messenger'

$\eta$ esely- $\eta k$ -tho-j 'when I was a child,' cf.  $\eta$ esely- 'child'

ha $\cdot$ ja- $\eta k$ - $\emptyset$ - $\eta$  /ha $\cdot$ ja $\eta$ ky $\cdot$ / 'it is daylight,' cf. ha $\cdot$ ja- 'daylight'

532.  $\{-\eta He-\}$ , passive and mediopassive. This suffix follows two different types of stem, with differences of meaning. After a base, it provides a passive form. In this environment, it has the following allomorphs: it is  $\{-k-\}$  when followed by the present perfect modal suffix (in the allomorphs  $\{-a-\}$   $\infty$   $\{-ak-\}$ ) or the past nominal suffix  $\{-keH-\}$  (in the allomorph  $\{-a-\}$ ); it is  $\{-kaH-\}$  when followed by the imperative modal suffix (in the allomorph  $\{-\emptyset-\}$ ); elsewhere, it is  $\{-\eta e-\}$ . This structure is productive. If the agent is mentioned in connection with a passive verb of this structure, it appears in the genitive case. Examples:

$\eta$ am $\cdot$ u- $\eta He-$  'to get hurt,' cf.  $\eta$ am $\cdot$ u- 'to hurt, wound'

$\eta$ am $\cdot$ u-kaH- $\emptyset$ - $\eta$  / $\eta$ am $\cdot$ uka $\eta$ / 'get hurt!'

$\eta$ am $\cdot$ u-kaH- $\emptyset$ -nih / $\eta$ am $\cdot$ uka $\cdot$ nih/ 'let him get hurt!'

$\eta$ am $\cdot$ u-k-a- $\cdot$  / $\eta$ am $\cdot$ uka $\cdot$ / 'he got hurt just now'

jo $\cdot$ h- $\eta He-$  'to get killed,' cf. jo $\cdot$ h- 'to kill'

jo $\cdot$ h-k-a- $\cdot$  /jo $\cdot$ huka $\cdot$ / 'he got killed' (present perfect)

jo $\cdot$ h-k- $\cdot$ a-ko $\cdot$  jow $\cdot$ e- $\eta$  /jo $\cdot$ huk $\cdot$ ako $\cdot$  jow $\cdot$ e $\eta$ / 'they were killed (past nominal) by the flood (genitive case)'

ham $\cdot$ e- $\eta He-$  'to be buried,' cf. ham $\cdot$ e- 'to bury'

The suffix  $\{-\eta He-\}$  can also follow a stem of the form  $C_1V_1HC_2-$  or  $C_1V_1C_2V_2HC_3-$ , related to a stem which occurs elsewhere as a base, as a nominal theme, or which does not occur as a base or theme without a following suffix. Such structures have mediopassive meanings. They are of quite frequent occurrence, but the formula is not productive.

In this environment,  $\{-\eta He-\}$  has the following allomorphs: it is  $\{-ak-\}$  when followed by the present perfect mode (in the allomorphs

||-a-|| ∞ ||-ak-||); it is ||-ak-|| ∞ ||-ak'a-|| when followed by the imperative modal suffix (in the allomorph ||-ø-||), the first allomorph before the second person singular (in the allomorph ||-ø-||), the second elsewhere; it is ||-i-|| when the past nominal suffix {-keH-} follows; it is /-ŋe-/ elsewhere.

Since these stems contain ||H||, they are of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>- or C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>- when the allomorphs /-ŋe-/ or ||-i-|| follow (see section 173), while they are C<sub>1</sub>V<sub>1</sub>·C<sub>2</sub>- or C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>·C<sub>3</sub>- before ||-ak'-|| and ||-ak-||. Stems of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>-ŋe-, which provide bases for present imperfect verbal themes, fall within the canonical limits of Stem 1, and are sometimes, but not always, so treated. Such stems frequently have alternate forms in the present perfect and imperative modes or when followed by the past nominal suffix. Examples:

jyHŋ-ŋHe- 'to get dizzy, drunk'

jyHŋ-ŋHe-ø-ma- /jyŋ'ema/ 'I am drunk' (present imperfect)

jyHŋ-ak-ø ‡ jyHŋ-ŋHe-koX-? /jy'ŋak/ ‡ /jyŋ'eko?/ 'get drunk!'

jyHŋ-ak'-a-· ‡ jyHŋ-ŋHe-na-· /jy'ŋak'a·/ ‡ /jyŋ'ena·/ 'he got drunk just now' (present perfect)

jyHŋ-·i-keH-? ‡ jyŋeh-·e-? /jyŋ'ike?/ ‡ /jyŋeh'e?/ 'he got drunk' (past nominal)

toH?-ŋHe- 'to sit down, to be seated,' cf. to?- 'to seat (trans.)'

talyHl-ŋHe- 'to become strong,' cf. tal·yl- 'strong'

maHk-ŋHe- 'to get sour,' cf. makmak-·e- 'to be sour'

helaHj-ŋHe- 'to be afraid,' cf. hela·j- 'to scare'

533. {-pa-}, directional. This suffix follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>- or C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>-, which is related to a Stem 1, to a nominal theme, or to a stem which does not occur as a base or theme without a following suffix. This stem is of the structure of Stem 2, but in some cases a corresponding Stem 1 does not exist. Where a Stem 1 does exist, the stem in this environment has the usual Stem 2 form, except that where necessary the C<sub>3</sub> position is filled by /·/.

When a form containing this suffix has the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>-pa-, it falls within the canonical limits of Stem 1, and is usually so treated. When it has the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>-pa-, it is sometimes treated as a Stem 1 of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>·p- in that corresponding Stems 2, 3, and 4 occur. Otherwise, this suffix has the following allomorphy: when followed by the imperative modal suffix, it is ||-pa-|| ‡ ||-po-|| (after the first allomorph, the imperative is ||-koX-||; after the second, it is ||-X-||); elsewhere it is ||-pa-||. After this suffix, the present perfect occurs in the allomorphs ||-na-|| ∞ ||-nak-||.

This suffix refers to the location or direction of movement: it means

'up to' or 'on,' and forms containing it are transitive. Within the limitations of meaning, it appears to be productive. Examples:

?yny-pa- 'to come to (him),' cf. ?yn- 'to come'

?yny-pa-h'aj-nY-Ø-· ʃ ?ynpy-j-nY-Ø-· /?yny-pah'ajny/ ʃ /?ynpyjny/  
'he wants to come to him'

?uk-pa- 'to go in to (him),' cf. ?u'k- 'to enter'

ʔo?-pa- 'to sit on (it),' cf. ʔo?- 'to seat (trans.)'

hal-pa- 'to find,' cf. hal-ki- 'to hunt'

hal-po-X-? ʃ hal-pa-koX-? /halpo?/ ʃ /halpako?/ 'find it!'

534. {-poksu-}, reflexive. This suffix follows a verbal base. Its meaning is reflexive: 'to . . . oneself!' It is fully productive. It has the following allomorphs: before the present perfect modal suffix, it is ||-h-|| - ||-eh-||, ||-h-|| when the stem ends in a vowel, and ||-eh-|| when it ends in a consonant; before the imperative modal suffix, it has been recorded only as ||-ehi-||, following stems ending in consonants. The imperative has the form ||-X-|| after this suffix. Elsewhere, {-poksu-} is ||-poksu-|| ɟ ||-puksu-||; the second variant was used consistently by one informant (CJ), the first by all others. Historically, this suffix probably derives from a combination of the nominal suffix ||-poH-|| (see section 739) and the verbal suffix {-ksY-} (see section 509). At the synchronic level it is not convenient to describe it as a suffixal combination, since ||-poksu-|| as a whole alternates with other allomorphs, which moreover do not appear to be related to allomorphs of the putative member suffixes. Examples:

komta-poksu- 'to hit oneself,' cf. komta- 'to hit with the fist'

komta-h-a-· 'he hit himself'

mula'k-poksu- /mula'kypoksu-/ 'to wash oneself,' cf. mula'k- 'to wash (someone)'

mula'k-eh-a-· /mula'keha/ 'he washed himself'

mula'k-ehi? /mula'kehi?/ 'wash yourself!'

?ywy-nY-poksu- /?ywynypoksu-/ 'to feed oneself,' cf. ?ywy-nY-  
'to feed (trans.)'

liwa-nY-poksu- /liwanypoksu-/ 'to talk to oneself,' cf. liwa-nY-  
'to talk to'

hyHj-ŋHe-poksu- 'to see oneself,' cf. hyHj-ŋHe- 'to see'

535. ||-puʔ-||, continuative. This suffix follows a Stem 3. It has been recorded before all the modal suffixes, and before all of them it appears in the form ||-puʔ-||. It appears to be fully productive. Its meaning is continuative, 'to keep on . . . .' Examples:

liw'a?-puʔ- 'to keep on talking,' cf. liw'a- 'to talk'

liw'a?-puʔ-a-· 'he kept on talking'

liw'a?-puṭ'-eH-? /liw'a?puṭ'e?/ 'keep on talking!'

puṭ'uh-puṭ'- 'to keep on leaking out,' cf. puṭ'h- 'to leak, bulge out (of split container)'

kel'a?-puṭ'- 'to be still snowing,' cf. kel'a- 'to snow'

536. ||-puHṭ-||. This suffix has only been found following two demonstrative stems and ||ʔokaHh-|| 'same,' a nominal theme. It is undoubtedly related to the preceding suffix, ||-puṭ'-||, but since both the form and the meaning are slightly different it seems best to treat it as a separate morpheme. It has the same form, ||-puHṭ-||, before all three modal suffixes. Its meaning is 'to do, say (it) . . . way.' Examples:

ʔi-puHṭ- 'to do, say it that way,' cf. ʔi- 'that one'

ne-puHṭ- 'to do, say it this way,' cf. neH- 'this one'

ʔokaHh-puHṭ-nY- 'to do, say the same thing,' cf. ʔokaHh- 'same'

537. ||-si-||, 'immediately.' This suffix follows a Stem 2; where necessary, the C<sub>3</sub> position is filled by /ʔ/. It has been found before all the modal suffixes, where it always has the form ||-si-||. Its meaning is 'to . . . right now, immediately, too soon!'; owing to this meaning, it occurs most commonly in the imperative mode. It appears to be productive, within the limits of meaning. Examples:

hylet-si- 'to jump first,' cf. hyle--t- 'to jump'

hylet-si-koX-ʔ /hyletsikoʔ/ 'go ahead and jump!'

wyn-si-na-ʔ /wynsinaʔ/ 'he just now came,' cf. wy'n- 'to walk'

lepaʔ-si- 'to use (it) up too soon,' cf. lep'a- 'to finish'

hywat-si-koX-ʔ /hywatsikoʔ/ 'hurry up and run!,' cf. hywa--t- 'to run'

lakyh-si-koX-ʔ /lakyhsikoʔ/ 'come out now!,' cf. lak-h- 'to emerge'

538. ||-si-||. This suffix follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>-, which may be related to a nominal theme or a base. The resulting form is a Stem 1. The suffix does not appear to be productive. Its meaning is obscure; it appears to be different from the preceding (section 537). In some cases, stems containing it mean 'to turn (a color).' Examples:

hen-si- 'to breathe; to rest,' cf. hena- 'breath, air'

huk-si- 'to smell (trans.),' cf. huk'a- 'to trail by scent'

jej-si- 'to make a speech,' cf. jej'a- 'to call out'

joc-si- 'to turn red,' cf. jococ-'i- 'red'

539. ||-t-||. This suffix follows a Stem 2 or a stem of similar shape related to a nominal theme or to a stem which does not occur as a base or theme without a following suffix. Where necessary, the C<sub>3</sub> position is filled by /ʔ/. The resulting form is a Stem 1. The suffix does not appear to be productive, and its meaning is obscure. In some cases, it seems to mean 'to do what is characteristic of . . . .' Examples:

moli'-t- 'to get dusk, to get late, to become evening,' cf. mol'i-  
'shade'

?opa'-t- 'to cloud up, to get cloudy,' cf. ?o'pa- 'cloud'

cyty'-t- 'to improve,' cf. cytyH- 'good'

pijy'-t- 'to pick up between finger and thumb,' cf. pij- 'to pinch'

wyn-t- 'to pick fruit,' cf. wy'n- 'to walk?'

hyle'-t- 'to fly'

hywa'-t- 'to run'

tyjy'-t- 'to carry'

540. ||-tkuH-||, reflexive. This suffix follows a verbal base, and has the same form before all three modal suffixes. The present perfect modal suffix appears in the form ||-ha-||  $\infty$  ||-hak-||, and the imperative is ||- $\emptyset$ -|| following this suffix. It is probably productive. Its meaning is reflexive, 'to oneself'; it appears to be synonymous with {-poksu-} (see section 534). Examples:

ʔome'-na-tkuH- 'to warm oneself,' cf. ʔome'-na- 'to warm (trans.)'

hek'a-tkuH- 'to wash oneself,' cf. hek'a- 'to clean'

hek'a-tkuH- $\emptyset$ -? /hek'atku?/ 'wash yourself!'

je?pa-tkuH- 'to decide,' cf. je?pa- 'to believe'

je?pa-tkuH-ha- /je?patku'ha/ 'he decided'

cinip-na-tkuH- 'to make oneself small, to crouch,' cf. cinip-na-  
'to make small'

541. {-wa-}, iterative. This suffix follows a stem of the form  $C_1V_1C_2-$ , which is related to a verbal base or to an otherwise unrecorded stem. The resulting form falls within the canonical limitations of Stem 1; however, before the imperative modal suffix this suffix has two allomorphs, ||-wa-||  $\stackrel{f}{\sim}$  ||-wo-|| (after the first, the imperative is ||-koX-||; after the second, it is ||-X-||). Elsewhere, this suffix is ||-wa-||. It does not appear to be productive. Its meaning is iterative; stems containing it frequently seem to carry a connotation of naughty or mischievous behavior. Examples:

juc-wa- 'to pull hair repeatedly,' cf. ju'c- 'to pull hair'

juc-woX-?  $\stackrel{f}{\sim}$  juc-wa-koX-? /jucwo?/  $\stackrel{f}{\sim}$  /jucwako?/ 'pull his hair!'

syk-wa- 'to mark up, to write all over,' cf. sy'k- 'to mark, to  
write'

wet-wa- 'to scratch,' cf. we't- 'to scratch'

hiʔ-wa- 'to tease, to tickle'

ʔaʔ-wa- 'to be careless'

542. ||-e-||, 'to be (hot, salty, etc.).' This suffix follows a reduplicated stem which is related to one which occurs otherwise as a nominal theme or as a base, or which does not occur as a base or theme with-



out a following suffix. If, not counting length, the stem in other environments has two consonants, the reduplicated form that is found here is  $C_1V_1C_2C_1V_1C_2-$ ; if the stem in other environments has three consonants, the reduplicated form is  $C_1V_1C_2C_3V_2C_3-$ . Verbal themes containing this suffix have been recorded in all three modes (after it, the present perfect is  $\parallel$ -na- $\parallel \infty \parallel$ -nak- $\parallel$ , and the imperative is  $\parallel$ -koX- $\parallel$ ). They have meanings such as 'it is cold (of weather),' 'it tastes bitter, salty, sour, greasy, etc.' The suffix appears to be productive within the limits of meaning. Examples:

kojkoj·e- 'to taste salty,' cf. koj·o- 'salt'

kywyw·e- 'to be cold (e.g., of water),' cf. kyHw-ŋHe- 'to get cold'

hitpyp·e- 'to be cold (of weather),' cf. hitp- 'to be, to get cold'

symtiit·e- 'to taste greasy,' cf. sym·it- 'grease, fat'

cilcil·e- 'to taste hot, picante,' cf. ci·le- 'red pepper' (Sp. chile)

543. {-ene-}, 'to ask (someone to do something).' This suffix follows a Stem 2. It is not known what fills the  $C_3$  position, where necessary, since no pertinent cases have been recorded. It has the following allomorphs: before the imperative modal suffix (in the allomorph  $\parallel$ -koX- $\parallel$ ) it is  $\parallel$ -·enik- $\parallel$ ; elsewhere, it is  $\parallel$ -·ene- $\parallel$ . Efforts to elicit present perfect verbal themes containing this suffix have yielded no results. The suffix appears to be fully productive, within the limits of meaning. Examples:

hik·ene- 'to ask someone to shear it,' cf. hi·k- 'to cut hair, to shear sheep'

ʔenyh·ene- 'to ask someone to fix it,' cf. ʔenh- 'to fix, to make'  
ʔenyh·enik-koX-ti / ʔenyh·enik·ot·i / 'let's (1D inc.) ask him to fix it!'

wolen·ene- 'to display' (i.e., 'to ask someone to watch it'), cf. woHl-ŋHe- 'to watch'

544.  $\parallel$ -·pa- $\parallel$  'times.' This suffix follows a stem of the form  $C_1V_1C_2C_3V_2-$  which is related to a nominal theme referring to a numeral. It has been found in the same form in present imperfect and present perfect verbal themes; following it, the present perfect appears in the allomorphs  $\parallel$ -na- $\parallel \infty \parallel$ -nak- $\parallel$ . Bases containing this suffix, which appears to be productive, mean 'to (do something) . . . times' or refer to ordinal numerals. Examples:

ʔotki·pa- 'to (do something) twice; to be second,' cf. ʔotih-ko- 'two'

tolko·pa- 'to (do something) three times,' cf. tolo·koʔ- 'three'

ʔojis·pa- 'to (do something) four times,' cf. ʔojis·a- 'four'

545.  $\| \cdot \text{po} \cdot \|$ . This suffix follows a stem of the form  $C_1 V_1 C_2 C_3 V_2 \cdot$ , which is related to a nominal theme (where necessary, the  $C_3$  position is filled by /ʔ/). Bases containing this suffix mean 'to put on . . . , to apply . . . , to fasten with . . . .' Its productivity and allomorphy before the modal suffixes have not been determined. Examples:

symti·po- 'to apply grease,' cf. sym·it- 'grease'

locʔi·po- 'to fasten with snap fasteners,' cf. lo·ci- 'snap fastener'

watno·po- 'to button (tr.); to sew on buttons,' cf. wato·na- 'button'

hansi·po- 'to harness,' cf. ha·nis- 'harness'

546.  $\| C_1 V_1 C_2 V_2 C_3 \cdot V_2 C_3 \cdot \|$ , iterative. A stem of this shape provides a verbal base without any following suffix. Some such stems are related to bases or to nominal themes; others have not been recorded in any other form. Where necessary, the  $V_2$  and  $C_3$  positions in the above formula are filled by  $V_1$  and  $C_2$  respectively. Verbal themes with this stem-form have been recorded in all three modes; the present perfect modal suffix appears in the allomorphs  $\| \cdot \text{a} \cdot \| \infty \| \cdot \text{ak} \cdot \|$ , and the imperative is  $\| \cdot \text{eH} \cdot \|$ . Stems of this shape refer to motions of an oscillatory or librational nature, involving frequent, more or less rhythmic repetition, usually of living things. Examples:

hylet·et·- 'to flop about (of fish),' cf. hyle·-t- 'to jump; to fly'

kytyt·yṭ·- 'to have one's teeth chatter'

tacak·ak·- 'to have fits (of a dog)'

hutul·ul·-a· /hutul·ul·a·/ 'it rolled just now,' cf. hutu·l- 'to roll (trans.)'

547.  $\| C_1 V_1 C_2 \cdot V_2 C_3 \cdot \|$ , intransitive. Stems of this form, with no following suffix, serve as verbal bases. Some are related to Stem 1's; others have not been recorded elsewhere. Where a related Stem 1 has no  $V_2$  or  $C_3$ , its position in the above formula is filled by repeating  $V_1$  and  $C_2$ . These bases have the same form before all three modal suffixes. They usually have an intransitive or reflexive meaning, while related Stem 1's are transitive. The productivity of this formula is unknown. Examples:

kot·ah·- 'to move over,' cf. kota·-h- 'to move (it) over (trans.)'

lut·ak·- 'to straighten up (intrans.),' cf. luta·k- 'to make straight'

meʔ·eṭ·- 'to open one's mouth,' cf. meʔ·eṭ·- 'to open (his) mouth'

ʔaṭ·ih·- 'to avoid someone,' cf. ʔaṭi·-h- 'to move (it) away'

hoṭ·et·- 'to kneel'

nom·oṭ·- 'to bow one's head'

## CHAPTER SIX NOMINAL THEMES

### 600. INTRODUCTION

Nominal themes have been defined (see section 250) as forms which are followed by case and Series 1 or Series 2 pronominal suffixes. Such themes do not necessarily translate English nouns. Many of them correspond in meaning to past or future tense English verbs or to verbal phrases. However, most forms which correspond most closely to English nouns are members of this class, as are those which translate adjectives and adverbs.

601. There are many cases where a nominal theme is related to a Stem 1. Such nominal themes are diverse in form, as are the Stem 1's to which they correspond. No simple statement will cover the relationships, as the following examples show:

calka- 'to purge,' cf. cal'ak- 'diarrhea'

colka- 'to flow,' cf. col'ak- 'waterfall, rapids'

ciwe'l- 'to weep,' cf. ci'wel- 'tears'

In these examples, similar canonical forms in the verbal stems correspond to diverse nominal forms, and vice versa. In some cases, the nominal form is identical to the Stem 1. In others, it corresponds in form to the appropriate Stem 2, 3, or 4. In cases where Stems 1 and 4 are not identical, Stem 4 occurs as a nominal theme; where Stems 1 and 4 both have the form  $C_1V_1C_2C_3V_2-$ , a stem of the form  $C_1V_1C_2V_2\cdot C_3-$  (a possible Stem 1 canon) is sometimes found as a nominal theme. Where the nominal theme has the form  $C_1V_1C_2V_2-$ , the corresponding verbal theme has the form  $C_1V_1C_2\cdot V_2-$ . Another nominal stem form corresponding to verbal stems is  $C_1V_1\cdot C_2V_2(C_3)-$ . However, the stem form of the corresponding nominal theme cannot be predicted from that of any particular verbal theme; nor, in most cases, can the shape of the verbal theme be predicted from that of the nominal theme. Examples:

haj'e- 'close,' cf. haj'e- 'to touch'

hew'e- 'jerky,' cf. hew'e- 'to dry'

kuteHw- 'messenger,' cf. kutwe- 'to send'

natyh- 'clever,' cf. nath- 'to learn'

hol'op- 'a hole,' cf. holo·p- 'to hollow out'  
 kic'aw- 'blood,' cf. kica·w- 'to bleed'  
 hokli- 'a round,' cf. hoki·l- 'to go around'  
 hynty- 'eye,' cf. hyny·t- 'to open the eyes'  
 tyk'y- 'a stitch,' cf. ty·k- 'to thread a needle'  
 ?uc'u- 'always,' cf. ?uc·u- 'to stay'  
 ?u·cuH- 'house,' cf. ?uc·u- 'to stay'  
 huki's- 'a smell,' cf. huk-si- 'to smell (intrans.)'  
 hulu·w- 'hunger,' cf. hulw- 'to be hungry'  
 cata- 'rattle (of rattlesnake),' cf. cat·a- 'to rattle'  
 kata- 'door; gate,' cf. kat·a- 'to close'  
 my·li- 'song,' cf. myl·i- 'to sing'  
 ke·la- 'snow,' cf. kel·a- 'to snow'  
 ?y·wy- 'groceries,' cf. ?yw·y- 'to eat'  
 ?yw?y- 'food,' cf. ?yw·y- 'to eat'

#### 610. CLASSES OF NOMINAL THEMES

The distribution of the two series of pronominal suffixes associated with nominal themes provides a basis for dividing the themes into three subclasses. These are as follows:

Class I. Those which are always followed by Series 1 pronominal suffixes.

Class II. Those which are always followed by Series 2 pronominal suffixes.

Class III. Those which are followed by either Series 1 or Series 2 (with differences of meaning), or by case alone.

The class to which a nominal theme belongs depends on the last suffix it contains. All monomorphemic nominal themes are members of Class III. Such themes ordinarily translate English nouns, adjectives, or adverbs. Polymorphemic nominal themes are distributed among the three classes, and translate English nouns, adjectives, or verbal forms.

Class III is by far the largest of the three. When members of this class are followed by Series 1 pronominal suffixes, the meaning is possessive: 'my (dog, cow, house etc.)' When they are followed by Series 2 pronominal suffixes, the meaning corresponds to an English subject-predicate construction: 'I am a (chief, singer, etc.)' Where both a possessive pronominal suffix and a "subject" form are called for, as in 'you are my brother,' the Series 1 double pronominal suffixes occur. In this case, the portion before the case suffix, which corresponds in form

to a Series 2 single suffix, refers to the "subject" ('you'), while the portion after the case suffix (which has the form of a Series 1 single suffix) refers to the possessor ('my'). The form, then, is ||ta'ciH-ni-?-kan|| /ta'ci'ni?kan/ 'you are my brother.'

In view of the English translations, the use of Series 1 double pronominal suffixes after Class I nominal themes is somewhat confusing in comparison with their use after Class III themes. Class I themes usually correspond in meaning to English verbal expressions, such as 'can chase.' In Southern Sierra, this is ||?enpu-ni-||, which is always followed by a Series 1 suffix. In an expression such as 'you can chase me,' requiring a double suffix, the portion before the case suffix refers to the English object, while the subject of the English sentence is, in Miwok, the portion following the case suffix, corresponding in form to a Series 1 single suffix. If another noun in the sentence refers to this "subject," it is in the genitive case. 'You can chase,' ||?enpu-ni?-nY·|| /?enpuni?ny·/, might be better translated 'your possible chasing,' while 'you can chase me,' ||?enpu-ni-te-?-nY·|| /?enpunitē?ny·/, is literally 'I am your possible chasing.'

The Series 2 double pronominal suffixes do not occur after Class III nominal themes. They are found after Class II themes, which usually translate English verbal expressions.

## 620. MONOMORPHEMIC NOMINAL THEMES

Monomorphemic nominal themes are quite numerous. Such themes are roots, by previous definition (see section 220). They show much greater diversity of form than do monomorphemic verbal bases, which all fall within the canonical limitations of Stem 1. Recorded canonical forms include the following:

CV-	mi-   'you, singular'
CVH-	neH-   'this'
CVCV-	capy-   'sweathouse'
CVCVC-	hiciw-   'poker'
CVCVHC-	hikaHh-   'deer'
CVCVCCV-	cela'tu-   'star'
CVCVCCVC-	hawak'ac-   'sucker fish'
CVCCV-	cicka-   'bird'
CVCCVC-	hakham-   'sour clover'
CVCCVCV-	kukuju-   'Kuku cult dancer'
CVCCVCCV-	jol'o?co-   'mimulus'

It is, of course, possible that some of the forms which have been classified here as monomorphemic are bimorphemic. Suffixes of rare occurrence may not have been recognized, and relationships between stems may have been ignored where the similarity of meaning is not apparent to one who is not a member of the culture or a speaker of the language. One might wonder what was the connection of meaning between ||haʔ-haʔa-|| 'duck' and ||haʔ·e-|| 'foot' were it not for the fact that a myth has been recorded which recounts, among other things, how Duck's feet were made flat. However, I am reasonably certain that, for the purposes of the present analysis, the forms cited in the list above are monomorphemic.

### 630. POLYMORPHEMIC NOMINAL THEMES

Polymorphemic nominal themes consist of a stem followed by one or more suffixes. The stem may be a root or may itself be polymorphemic. The structure of polymorphemic nominal themes involves consideration of the nominal suffixes and their stem requirements, which will be discussed in the next chapter.

### 640. INDEPENDENT PERSONAL PRONOUNS

The independent personal pronouns are Class III nominal themes, and are found followed by a variety of case suffixes. Some of them have several allomorphs, whose occurrence depends on the following case suffix. Other pronominal forms show interesting structural features, which merit special discussion.

Southern Sierra syntax does not require the use of the independent pronouns in conjunction with verbs or nouns. Subjects and objects are expressed by the personal pronominal suffixes, which are obligatory morphemes. In the nominative and accusative cases, therefore, the independent pronouns are needed only for emphasis or clarification, and they are so used. They are not particularly common in ordinary speech.

The demonstrative stems, {ʔi-} 'that' and {neh-} 'this,' are frequently found in pronominal uses, with either personal or non-personal references. They are therefore to be distinguished from the true personal pronouns, which refer only to persons. In non-personal use, the demonstratives are sometimes followed by the instrumental case, which never occurs after the personal pronoun stems. The allomorphy of these two demonstrative stems is discussed in sections 651 and 652.

641. The first person singular independent pronoun has the form  $\|kan'i-\| \infty \|kan'-\|$ . It is  $\|kan'-\|$  when followed by the genitive case,  $\|-ŋ\| \infty \|-ŋ'-\|$ ; elsewhere, it is  $\|kan'i-\|$ .

642. The second person singular independent pronoun has the form  $\|mi-\| \infty \|mi'n-\| \infty \|mi'ni-\|$ . It is  $\|mi-\|$  when followed by the nominative case,  $\|mi'n-\|$  when followed by the genitive case, and  $\|mi'ni-\|$  when other case suffixes follow. Note that the allomorph  $\|mi-\|$  is part of the second person plural independent pronoun (see section 645).

643. The third person singular independent pronoun has the form  $\|ʔis'ak-\|$ . Note that this morpheme is part of the third person plural independent pronoun (see section 646). In addition to this form, two others serve as third person singular pronouns. These are the demonstrative stems,  $\{ʔi-\}$  and  $\{neH-\}$ , followed by case suffixes and the postfix  $\|-ʔok\|$ ;  $\{neH-\}$  sometimes occurs as a pronoun without this postfix, but it is always present if the stem is  $\{ʔi-\}$ . These demonstrative stems can be used with either personal or non-personal references.

644. The first person dual and plural exclusive independent pronoun has the form  $\|mah'i-\|$ . It will be noted that this form is almost identical with the Series 3 and Series 4 first person plural exclusive pronominal suffixes. In addition to this pronoun, there are two other forms which have a pronominal use, both of which contain stems related to the numeral stem  $\|ʔoʔiH-\|$  'two.' One of these,  $\|ʔoʔiH-me-\|$  'first person dual inclusive,' consists of  $\|ʔoʔiH-\|$  followed by the Series 2 first person plural suffix. The other,  $\|ʔoʔiʔi-i-\|$  <sup>d</sup>  $\|ʔoʔic'i-i-\|$  'first person plural inclusive,' is not readily analyzable but appears to contain the same stem.

645. The second person plural independent pronoun is  $\|mi-ko-\|$ . It consists of an allomorph of the first person plural, followed by an allomorph of the pronominal suffix  $\{-koH-\}$  (see section 312).

646. The third person plural independent pronoun has the form  $\|ʔis'ak-koH-\|$ . It consists of the third person singular independent pronoun followed by the pronominal plural suffix,  $\|-koH-\|$  (following this allomorph, the nominative case is zero; see section 312). In addition, there are two forms containing the demonstrative stems  $\{ʔi-\}$  and  $\{neH-\}$  which can serve as independent pronouns. These consist of the demonstrative stems, followed by  $\|-k'o-\|$  (an allomorph of the pronominal plural suffix; see section 312), followed by case, followed by the postfix  $\|-ʔok\|$  (cf. section 643). Further, another form involving  $\{ʔi-\}$  occurs; it is similar to the above, except that allomorphs of the nominal suffix  $\{-ni-\}$  (see section 764) intervene between the demonstrative stem and the pronominal plural suffix.

## 650. DEMONSTRATIVE ROOTS

Southern Sierra Miwok has three demonstrative roots which are of considerable importance and interest: {neH-} 'this,' {ʔi-} 'that,' and ||mi-|| 'what?' They are somewhat unusual in shape, being among the shortest roots in the language. They are followed by a variety of suffixes, and after these roots suffixes often show curious divergences of meaning. Stems containing these roots are of very frequent occurrence in normal speech. They are class III nominal themes.

651. {neH-} 'this; here' refers to a location near the speaker. Unlike the other two demonstrative stems, it is sometimes found followed by a case suffix only, although more commonly the postfix ||-ʔok|| is found after the case suffix. When followed by case alone, or by case and the postfix ||-ʔok||, it can substitute for the third person singular independent pronoun. However, it has non-personal as well as personal references, and can be followed by the instrumental case, which the purely personal pronoun ||ʔis·ak-|| cannot. Moreover, when followed by the ablative, allative, or locative cases, it is more likely to mean '(from, to, or at) this place, here' than '(from, to or at) him.'

This root has the following allomorphs: before the genitive case, ||-ŋ|| ∞ ||-ŋ'-||, it is ||ne·h-||; before the verbal suffixes ||-pu·ʔ-|| and ||-pu-ksY-||, it is ||ne-||; elsewhere, it is ||neH-||. It occurs in the following combinations:

neH-(case)	}	'this one; he, she, it; here'
neH-(case)-ʔok		
neH-k·o-(case)-ʔok		'these; they'
neH-wi-n		'uphill'
ne-pu·ʔ-		'to do this; to do it this way'
ne-pu-ksY-		'this is the way it is'

652. {ʔi-} 'that; there' refers to a location distant from the speaker. As is the case with the preceding demonstrative root, themes containing {ʔi-} can substitute for third person pronouns. Like {neH-}, it has non-personal as well as personal references, and when followed by the allative, ablative, or locative cases it usually means '(to, from, or at) that place, there.' When {ʔi-} is followed immediately by case, the postfix ||-ʔok|| is always present.

This root has the following allomorphs: before the genitive case, it is ||ʔi·h-||; before the nominative case, it is ||ʔi'-||; elsewhere, it is ||ʔi-||. After this stem, the nominative case is zero. As a result of this, and because the sequence ||ij|| is phonemically /i:/ (see section 172), identical forms result when this stem is followed by the nominative and



accusative cases: ||ʔi·-Ø-ʔok|| and ||ʔi-j-ʔok|| are both phonemically /ʔi·ʔok/. The root occurs in the following combinations:

- ʔi-(case)-ʔok 'that one; he, she, it; there'
- ʔi-k'o-(case)-ʔok 'those; they'
- ʔi-ni-(case) 'that one'
- ʔi-ni-k'o-(case)-ʔok 'those; they'
- ʔi-taH-n 'then'
- ʔi-pu·t- 'to do that; to do it that way'
- ʔi-pu-ksY- 'that's the way it is'
- ʔi-c·- 'to do that; to choose that one; to mean'
- ʔi-wi-n 'now'

653. ||mi-|| 'what?' occurs in themes with an "information, please" meaning. Only two such themes do not contain this root: ||tiny-|| 'something; what?' and ||manaX-|| 'someone; who?'

||mi-|| has the same form in all environments. It occurs in the following combinations:

- |             |   |               |
|-------------|---|---------------|
| mi-taH-n    | } | 'when?'       |
| mi-taH-no-n |   |               |
| mi-n'i-     |   | 'where?'      |
| mi-tokho-   |   | 'how many?'   |
| mi-c·-      |   | 'to do what?' |

The last form, a Stem 1, is found in further combinations:

- mi-c·-tho-j 'why?'
- micy-ksY- 'to be how? (e.g., how are you?)'

The last appears to be present, in abbreviated form, in another verbal base:

- micyk-na- 'to do how? to say what?'
- micyk-na-tho-j 'how?'

## CHAPTER SEVEN

### NOMINAL SUFFIXES

#### 700. INTRODUCTION

The class of nominal suffixes consists of those morphemes which follow suitable stem-types to provide nominal themes, which is to say that at least sometimes they are immediately followed by Series 1 or 2 pronominal suffixes and/or case suffixes. Like the verbal suffixes (see section 500), some are productive, while others are not, and each has its own requirements as to the character of the preceding stem. However, this is not necessarily a matter of actual canonical form. Many nominal suffixes follow Class III nominal themes, which are quite variable in shape. Nominal suffixes therefore tend to impress one as occurring after a wider variety of stem-types than do verbal suffixes. However, many nominal suffixes always follow a stem of a particular canonical form, and in fact are found in a more limited range of environments than are many of the verbal suffixes.

As with the verbal suffixes, the stem-form sometimes calls for a second vowel or a third consonant which is not present in related stems in other environments. Where this is the case, the position of the second vowel is filled by  $\|Y\|$ ; the third consonant position is usually filled by  $/ʔ/$ , but in some instances length is found.

Nominal suffixes generally have fewer allomorphs than do verbal suffixes. Verbal suffixes frequently exhibit polymorphism before the three modal suffixes, which are not found following nominal suffixes. Where nominal suffixes have several allomorphs, their occurrence is usually determined by the shape of the preceding stem.

Order classes—whether the suffixes occur in medial or prefinal position—are difficult to determine for nominal suffixes. The diminutive suffixes  $\|c\cdot Y\|$  and  $\|tki\|$  are almost certainly prefinal, as are the future,  $\{-j-\}$ ;  $\|ni\|$  'can, might, ought to'; and  $\{-ʔ\cdot Yni-\}$  'having.' The suffixes  $\|no\|$ ,  $\|to\|$ , and  $\|t\cdot Y\|$ , which are in some ways similar to subordinate case suffixes, also appear to be prefinal. However, certain suffixes which have only been recorded followed by final suffixes are probably not restricted to the prefinal position, since their meanings sug-

gest the likelihood that they might sometimes be followed by such suffixes as the diminutives, the future, or the past-tense suffix {-h·Y-}.

The last nominal suffix in a nominal theme determines whether that theme is a member of Class I, II, or III (see section 610). It is sometimes difficult to determine whether themes ending in a particular suffix are members of Class II or Class III. Members of Class II are always followed by Series 2 pronominal suffixes, followed by case; members of Class III are followed by case alone, or by Series 1 and case, or by Series 2 and case. However, the third person singular Series 2 pronominal suffix is zero, and if the suffix has always been recorded with case suffixes only following it, it is often difficult to decide whether to analyze the form as containing the zero third person suffix or to treat it as followed by case alone. Class I, members of which are always followed by Series 1 pronominal suffixes and case, causes no such difficulty, since no Series 1 suffix has a zero form.

701. {-a-}, simultaneous gerundial. This suffix follows a verbal base. It has the following allomorphs: after stems ending in a consonant, it is ||-a-||; after stems ending in /a/, it is ||-H-||; after stems ending in /u/, it is ||-wa-||; after stems ending in other vowels, it is ||-ja-||.

Themes ending in this suffix are members of Class I. The suffix {-h·Y-} 'past' has been recorded following this suffix, which is therefore not prefinal. Forms containing it frequently translate English gerunds or secondary verbs and refer to action simultaneous with that of the main verb: 'while he is . . . ing,' 'when he . . . .' It is productive. Examples:

kala·ŋ-a-?-hY· 'while he danced,' cf. kala·ŋ- 'to dance'

hal-pa-H-me-?-koH /halpa'me?ko/ 'when they found us,' cf. hal-pa-  
'to find'

hy·ja-H-?-koH /hy·ja?ko/ 'when they arrived,' cf. hy·ja- 'to arrive'

?ol·u-wa-?-hY· /?ol·uwa?hy/ '(it is necessary that) he dig,' cf.  
?ol·u- 'to dig'

heŋiHl-ŋHe-ja-?-nY· /heŋilgeja?ny/ 'you might get lost,' cf.

heŋiHl-ŋHe- 'to get lost'

702. ||-aj-||: a number of Class III nominal themes end with this sequence, which appears to be a nonproductive suffix. It follows stems of various shapes: CVC·-; CVCVC·-; CVC·VC·-; CVCV·C·-; CVCV·CVC·-. Few bear any close relationship to stems occurring in other environments. Themes ending in this sequence (which has been found followed by the past-tense suffix {-h·Y-}) translate English nouns, for the most part the names of birds, plants, and fresh-water animals. Examples:

hajih·-aj- 'maple,' cf. ha·ji- 'maple'

tiw·-aj- 'yellowhammer'

- ʔowin'-aj- 'mockingbird'  
 walak'-aj- 'tule'  
 walaŋyɥh-aj- 'Echinodontium tinctorum paint'  
 ʔelem'-aj- 'red tree-fungus'  
 hil-iw-aj- 'whitefish'  
 hopon'-aj- 'mussel; clam'  
 lapi's-aj- 'trout; fish'  
 ʔojeʔ-aj- 'white man'

703. {-ajaHk-}, plural agentive. This suffix follows a stem of the form  $C_1V_1C_2V_2C_3-$ , which is related to a Stem 1; or it may follow a verbal base too long to fit the canonical limits of Stem 1. Where necessary, the  $C_3$  position is filled by /ʔ/. This suffix has two allomorphs: following a stem of the canon quoted above, it is ||-ajaHk-||; following a longer base, it is ||-ʔajaHk-||. Themes of this structure are members of Class III; the past-tense suffix {-h·Y-} has been found following them. The pattern is productive. Examples:

- mola·p-ajaHk- 'mush-makers,' cf. mola·p- 'to make acorn mush'  
 ʔoluʔ-ajaHk- 'root-diggers,' cf. ʔol- 'to dig roots'  
 soseʔ-ajaHk- 'grinders,' cf. sos·e- 'to grind acorns'  
 ʔonoʔ-ajaHk- 'miners,' cf. ʔon·o- 'to mine' (< Sp. oro 'gold')  
 ʔonoʔ-ajaHk-h·Y-me-ʔ /ʔonoʔaja·kyh·ymeʔ/ 'we were miners,  
 long ago'  
 tolti·ja·nY-ʔajaHk- 'tortilla makers,' cf. tolti·ja·nY- 'to make  
 tortillas'

This suffix has also been found following a stem of the form  $C_1V_1C_2V_2C_3-$ , which is related to a verbal base (where necessary, the  $C_3$  position is filled by /ʔ/). In this usage, which appears to be productive, an agentive or gerundial meaning is found, without plural implications. Resulting themes appear to be members of Class I. Since all recordings of this type of theme were made at an early stage of fieldwork, the stem form quoted above is not reliably established. Examples:

- kal·aŋ-ajaHk- 'dancing,' cf. kala·ŋ- 'to dance'  
 wyn·yʔ-ajaHk- 'walking,' cf. wy·n- 'to walk'  
 hyw·at-ajaHk- 'running,' cf. hywa·t- 'to run'  
 ʔyn·-j-tokni-ʔ hyw·at-ajaHk-tokni-ʔ 'you (pl.) will come running'

704. {-ak-}, directional. This suffix follows a stem of the form  $C_1V_1C_2V_2C_3-$  which is related to a nominal theme (where necessary, the  $C_3$  position is filled by /w/). It can also follow a verbal base. It has the following allomorphs: after a base, it is ||-jak-||; elsewhere, it is ||-ak-||. Themes ending in this suffix are members of Class III;

only final suffixes have been found following them. The meaning of this suffix is apparently 'from the direction of.' Examples:

- cyme·c-ak- 'from the south,' cf. cym·e-c- 'south'  
 koto·w-ak- 'across from,' cf. kot-to- 'far; long ago'  
 ?yn·-jak-te-? /?yn·yjakte?/ 'I'm from . . .,' cf. ?yn·- 'to come'  
 ?uc·u-jak-~~ø~~-~~ø~~ /?uc·ujak/ 'he's from . . .,' cf. ?uc·u- 'to dwell'

705. ||-aH-|| follows several stem types. All themes ending in this suffix are members of Class III. The past-tense suffix {-h·Y-} has been found following them, which indicates that ||-aH-|| is not prefinal.

One stem form for this suffix is  $C_1V_1C_2V_2\cdot C_3-$ , related to a Stem 1 or to a Class III nominal theme. Where necessary, the  $C_3$  position is filled by /?/. Themes of this structure have such meanings as 'it is (bitter, warm, dead, wild, etc.).' The pattern is productive. Examples:

- kywe·ŋ-aH- 'it is cold,' cf. kyHw·ŋHe- 'to become cold'  
 cuje·ŋ-aH- 'it is sweet,' cf. cuHj·ŋHe- 'to become sweet'  
 hiso·k-aH- 'it is fuzzy,' cf. hi·sok- 'hair'  
 hale·?-aH- 'wild animal' ('it is wild'), cf. hal·e- 'the wilds; the open'  
 lewe·t-aH-te-? /lewe·ta·te?/ 'I am heavy,' cf. leweHt·ŋHe- 'to become heavy'

This suffix is also found following a Stem 3; no cases have been recorded where  $C_3$  is not present in other environments. The pattern appears not to be productive. Themes of this structure have the meaning of nouns that appear to refer to a product or aspect of an activity that can be perceived by the senses. Examples:

- huk·is-aH-?-hY· /huk·isa?hy/ 'his smell,' cf. huk·si- 'to smell (intr.)'  
 hak·is-aH- 'smoke,' cf. hak·si- 'to smoke (of a fire)'  
 kal·aŋ-aH- 'a dance,' cf. kala·-ŋ- 'to dance'  
 saw·en-aH- 'a hailstone,' cf. sawne- 'to hail'

A third stem form for this suffix is of the form  $C_1V_1\cdot C_2V_2C_3-$  and is related to a Stem 1 or to a Class III nominal theme. The pattern does not appear to be productive, and is similar in meaning to the preceding. Examples:

- he·nis-aH- 'breath,' cf. hen·si- 'to breathe; to rest'  
 pe·hun-aH- 'buckskin,' cf. pehu·n- 'to make buckskin'  
 ?e·tut-aH- 'sunshine,' cf. ?etu·t- 'to be sunny'  
 jo·wok-aH- 'bog,' cf. jow·ok- 'mud'

706. ||-c-||, static. This is apparently the nominal form of the verbal suffix {-c·-} 'static' (see section 501). It follows the same type of stem form as that suffix, except that it has been recorded following a nominal

theme, which is not true of the verbal suffix. Themes ending in  $\parallel\text{-c}\parallel$  are members of Class III. The suffix  $\{-ak\}$  has been recorded after this suffix, which is therefore not a pre-final suffix. Its meaning appears to be similar to that of  $\{-c\}$ . Examples:

jyh'y-c- 'sailing along,' cf. jyh'y-c'- 'to move smoothly and quietly'  
 na'y-c- 'together,' cf. na'y'-j- 'to accompany'  
 cym'e-c- 'in the south,' cf. cym'e- 'south'

707.  $\parallel\text{-ci}\parallel$ : a number of Class III nominal themes end with this sequence. Its suffixal nature is proved by one instance where it follows a stem which is related to one that occurs elsewhere as a nominal theme. It follows stems of various forms: CVCVC-, CVC·V·-, CVC·V·-, CVCV·-. Its meaning is obscure. It does not appear to be productive. Examples:

kawa'-ci- 'pestle,' cf. kaw'an- 'acorn meal'  
 kom'a-ci- 'pygmy owl'  
 cikiw-ci- 'Mariposa lily'  
 hiqa'-ci- 'sugar pine'

708.  $\parallel\text{-c}\cdot\text{e}\parallel$ , habitual. This suffixal combination follows a Stem 4 or a base too long to fit the canonical limits of Stem 1. The nominal suffix  $\parallel\text{-h}\cdot\text{Y}\parallel$  and the verbal suffix  $\{-nY\}$  have been found following  $\parallel\text{-c}\cdot\text{e}\parallel$ , which is therefore not prefinal. Themes ending in this combination of suffixes are members of Class II. They mean 'one who habitually . . .,' and frequently seem to carry a connotation of mild annoyance at the repetitious behaviour. The combination is productive. The first member of the combination appears to be the static verbal suffix,  $\{-c\}$ ; the combination, however, follows a stem form different from that followed by the verbal suffix. Examples:

mamtu-c'-e- 'one who always puts things in his mouth (of a child);  
 cf. mamu'-t- 'to put in one's mouth'  
 noc'u-c'-e- 'one who always cries,' cf. nocu- 'to cry'  
 noc'u-c'-e-koH- $\emptyset$  'they always cry'  
 hejIHl- $\eta$ He-c'-e- 'one who always gets lost,' cf. hejIHl- $\eta$ He- 'to get lost'  
 ?am'u- $\eta$ He-c'-e- 'one who always gets hurt,' cf. ?am'u- $\eta$ He- 'to get hurt'  
 ?eHl- $\eta$ He-c'-e-h'Y-? 'he used to leave things,' cf. ?eHl- $\eta$ He- 'to leave behind; to abandon'

709.  $\parallel\text{-c}\cdot\text{Y}\parallel$ , diminutive. This suffix follows a Class III nominal theme, and themes ending in this suffix are likewise members of Class III. Only final suffixes have been found following it. It is fully productive. Its meaning is diminutive; it means 'young' or 'small.' Examples:  
 na $\eta$ aH-c·Y- 'boy,' cf. na $\eta$ aH- 'man'

- wo·la·c·Y- 'shotgun pellet,' cf. wo·la- 'bullet'  
 cukuH·c·Y- 'small dog; puppy,' cf. cukuH- 'dog'  
 cukuH·h·Y·c·Y-? /cukuh·uc·u?/ 'little old dog'  
 lil·e·ka·c·Y·n 'a little higher up,' cf. lil·e·ka·n 'higher'

710. ||-ha-||: a number of Class III nominal themes referring to plants end with this sequence. In most cases, it follows a stem of the form CV·- or CVCVC-. Such stems have not been recorded elsewhere. The suffix, if such it is, is not productive. Examples:

- watak·ha- 'mountain lupine'  
 cumuk·ha- 'wild currant'  
 capa·-ha- 'fir'  
 haka·-ha- 'golden-cup oak'  
 le·-ha- 'syringa'

711. ||-haHk-||, gerundial. This suffix follows a verbal base. Themes ending in this suffix are members of Class III, and function primarily as gerunds; when followed by Series 2 pronominal suffixes, they have an implication of a continuative past tense. The suffix is fully productive; only final suffixes have been found following it. Examples:

- helaHj·ŋHe·haHk-ϕ /helajŋehak/ 'being afraid,' cf. helaHj·ŋHe-  
 'to be afraid'  
 mul·h·haHk-ϕ /mulhuhak/ 'stopping,' cf. mul·h- 'to quit'  
 cam·h·haHk·j /camhyha·kyj/ 'dying (accusative case),' cf. cam·h-  
 'to die'  
 ?yw·y·ŋHe·haHk·to·? /?yw·yŋ·ehakto?/ 'to the feast (allative case),'  
 cf. ?yw·y·ŋHe- 'to be eaten'  
 ?yhyt·meH·nY·h·aj·nY·haHk-ϕ /?yhytme·nyh·ajnyhak/ 'getting angry,'  
 cf. ?yhyt·meH·nY·h·aj·nY- 'to be about to get angry'  
 halik·meh·nY·haHk·te·? /halikmehnyhakte?/ 'I was hunting on my  
 way,' cf. halik·meh·nY- 'to hunt on one's way'

712. ||-hi·-me-||, predicative. This combination of suffixes follows stems of the following types: (1) a Stem 2; (2) a Stem 3; (3) a base too long to fit the canonical requirements of Stem 1; or (4) a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>·V<sub>2</sub>C<sub>3</sub>- which is related to a Class III nominal theme (where necessary, the C<sub>3</sub> position is filled by /?/). Themes ending in this suffixal combination appear to be members of Class II. The past-tense suffix {-h·Y-} has been recorded following them. They have a predicative or participial meaning: 'it is (stirred, marked up, painted, etc.).' The combination is productive. The second member is apparently related to ||-meH-||, a predicative suffix in its own right. Examples:

- juw·hi·-me- 'it is stirred,' cf. ju·w- 'to stir'  
 syk·aw·hi·-me- 'it is all marked up,' cf. syk·wa- 'to mark up'

kul'al-hi-me- 'it is fenced,' cf. kul'al- 'fence' (< Sp. corral)

tel'a?-hi-me- 'it is painted, dyed,' cf. tela- 'paint, dye'

tel'a?-hi-me-koH- $\emptyset$  /tel'a?hi'meko/ 'they are painted'

tel'a?-hi-me-h'Y-? /tel'a?hi'meh'y?/ 'it used to be painted'

713. {-h'Y-}, 'past.' This suffix occurs after nominal themes of all classes and after bases. It has the following allomorphs: after a base, it is ||-?Yh'Y-||, and the resulting form is a member of Class II; after a nominal theme, it is ||-h'Y-||, and the form is a member of the same class as the nominal theme preceding the suffix. The diminutive suffixes ||-c'Y-|| and ||-tki-|| have been found following this suffix, which is fully productive. Its meaning is 'past; former.' When it follows a nominal theme which already has a past-tense meaning, it implies greater remoteness; following allomorphs of {-keH-}, it means 'a year or more ago.' Examples:

hegiHl-i-keH-h'Y- $\emptyset$ -? /hegiHl-ikeh'y?/ 'he got lost,' cf. hegiHl-i-keH-  
'got lost,' hegiHl- $\eta$ He- 'to get lost'

?enup-e-h'Y-me-? 'we chased them, long ago,' cf. ?enup-e- 'chased'  
hal'ik-iH-h'Y- $\emptyset$ -? /hal'ikih'y?/ 'he used to hunt,' cf. hal'ik-iH-  
'hunts habitually'

haja'puH-h'Y-ni-? 'you were a chief,' cf. haja'puH- 'chief'

le'cy-h'Y-nti-? 'it used to be my cow,' cf. le'cy- 'cow'

cukuH-h'Y-c'Y-? } 'little old dog,' cf.ukuH- 'dog'  
cukuH-h'Y-tki-? }

wyks-?Yh'Y-te-? 'I was going,' cf. wyks- 'to go'

wyks-j-nY-?Yh'Y-te-? /wyksyjny'yh'yte?/ 'I wanted to go,' cf.  
wyks-j-nY- 'to want to go'

714. ||-hHi-||, intensifier. This suffix follows a Stem 3 or a stem of similar form (C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>-) related to a Class III nominal theme. Where necessary, the C<sub>3</sub> position is filled by /?/. Themes ending in this suffix are members of Class III. The past nominal suffixes {-keH-} and {-h'Y-} have been found following this suffix, which appears to be productive. Themes of this structure mean 'it is very . . . ; (he) always . . . .' Examples:

mak'e $\eta$ -hHi- 'it's very sour,' cf. maHk- $\eta$ He- 'to get sour'

cyt'e $\eta$ -hHi- 'it tastes very good,' cf. cyH $\eta$ - $\eta$ He- 'to taste good'

cyt'e $\eta$ -hHi-koH- $\emptyset$  /cyt'e $\eta$ hiko/ 'they taste good'

cyt'e $\eta$ -hHi-h'Y-? /cyt'e $\eta$ hih'y?/ 'it tasted good'

cyt'y?-hHi- 'it looks very good,' cf. cytyH- 'good'

liw'a?-hHi- '(he) talks all the time,' cf. liw'a- 'to talk'

?yt'y?-hHi-koH- $\emptyset$  /?yt'y?hiko/ 'lots of them,' cf. ?yt'yH- 'many,  
much'



tal'yl-hHi-?·hY· 'his power,' cf. tal'yl- 'strong'

ʔoj'an-hHi-ni-? /ʔoj'anhiniʔ/ 'you are a very big one,' cf. ʔoja-ni-  
'big'

The suffix  $\| -hHi - \|$  is also found following a Stem 4. Themes of this structure are likewise members of Class III, and mean 'it's . . . able; one can . . . it; it makes one want to . . . .' This structure is productive, within the limits of meaning. Examples:

wyksy-hHi- 'it's passable,' cf. wyks- 'to go'

hyjŋe-hHi- 'it's visible,' cf. hyHj-ŋHe- 'to see'

hyjŋe-hHi-koH-∅ /hyjŋeh'iko·/ 'you can see them'

cymʔy-hHi- 'one can ride it,' cf. cy'm- 'to ride'

kalŋa-hHi- 'it makes one want to dance,' cf. kala'-ŋ- 'to dance'

ʔywʔy-hHi- 'it looks good to eat,' cf. ʔyw'y- 'to eat'

715. {-iH-}, habitual. This suffix follows a Stem 3 or a verbal base too long to fit the canonical limits of Stem 1. It has the following allomorphs: after bases too long for Stem 1, it is  $\| -ʔiH - \|$  <sup>f</sup>  $\| -meH - \|$ ; elsewhere, it is  $\| -iH - \|$ . Themes ending in this suffix are members of Class II. The past tense suffix  $\| -h'Y - \|$ , as well as final suffixes, has been found following {-iH-}, which is therefore not a pre-final suffix. It is fully productive. Its meaning is habitual: '(he) always . . . .' Examples:

hul'uw-iH-te-? /hul'uwi-teʔ/ 'I'm always hungry,' cf. hulw- 'to be hungry'

kal'aŋ-iH-h'y-? /kal'aŋih'yʔ/ 'he used to be a dancer,' cf. kala'-ŋ- 'to dance'

hal'ik-iH- 'habitual hunter,' cf. hal-ki- 'to hunt'

lotu-ksY-ʔiH- 'habitual holder,' cf. lotu-ksY- 'to hold'

wi'-nHuk-meH-ko· /wi'nuk·ume·ko·/ 'they take it,' cf. wi'-nHuk- 'to take'

hac'i-c'-meH- 'ground squirrel; habitual stander,' cf. hac'i-c'- 'to be standing'

716. {-j-}, future. This suffix follows a verbal base or a Class III nominal theme. It has the following allomorphs: when followed by the third person singular,  $\| -\emptyset - \|$ , it is  $\| -ji - \|$ ; elsewhere, it is  $\| -j - \|$ . When this suffix follows a base, the resulting nominal theme is a member of Class II; otherwise, it is a member of Class III. Only final suffixes have been found after this suffix, which is fully productive. Its meaning is 'future time.' Examples:

hy'ja-j-te-? 'I shall arrive,' cf. hy'ja- 'to arrive'

kala'-ŋ-ji-∅-? /kala'ŋjiʔ/ 'he will dance,' cf. kala'-ŋ- 'to dance'

liwa-ksY-j-ni-? /liwaksyjniʔ/ 'you will talk,' cf. liwa-ksY- 'to talk'

jaw'e-ji-? 'it will be a bow,' cf. jaw'e- 'bow'

jaw'e-j-nti-? /jaw'ejynti?/ 'it will be my bow'

haja·puH-j-ni-? /haja·pujni?/ 'you will be a chief,' cf. haja·puH-  
'chief'

717. {-jak-}, 'times ten.' This suffix follows a stem which is related to a Class III nominal theme referring to a numeral. Where the number referred to is one, two, three, five, or six, this stem is of the form  $C_1V_1C_2V_2-$ , and the suffix appears in the allomorph ||-jak-||; for four, seven, nine, and ten, the stem is  $C_1V_1C_2V_2\cdot C_3-$ , while for eight it is  $C_1V_1C_2V_2\cdot C_4-$ , and in both cases the suffix is ||-ijak-||. Themes ending in this suffix (which is not productive) are members of Class III, and refer to multiples of ten, except where the stem means 'one.' Examples:

keŋe'-jak- 'another kind,' cf. keŋ'eH- 'one'

ʔoŋi'-jak- 'twenty,' cf. ʔoŋiH- 'two'

maho'-jak- 'fifty,' cf. mah·oka- 'five'

ʔoji's-ijak- 'forty,' cf. ʔojis'a- 'four'

kawi't-ijak- 'eighty,' cf. kaw·inta- 'eight'

naʔa'c-ijak- 'one hundred,' cf. naʔa'ca- 'ten'

718. ||-jaH-|| follows a Stem 3, or a stem of similar form (CVC·VC-) for which no corresponding Stem 1 has been recorded; where necessary, the  $C_3$  position is filled by /ʔ/. Themes ending in this suffix are members of Class III. The future suffix {-j-} has been found following this suffix, which appears to be productive. Its meaning is somewhat obscure: themes containing it translate English nouns, and seem to have some reference to characteristic behaviour. Examples:

kol'eʔ-jaH- 'tuberculosis,' cf. kol'e- 'to cough'

ʔuŋ'aʔ-jaH- 'a rash,' cf. ʔuŋ'a- 'to itch'

cik'aʔ-jaH- 'index finger,' cf. ci'ka- 'to point'

cyt'yp-jaH- 'darkness,' cf. cytp- 'to get dark'

cyt'yp-jaH-ji-ʔ-? /cyt'ypja·ji?/ 'it will be dark'

hik'aʔ-jaH- 'gopher snake'

ʔol·oʔ-jaH- 'frog'

719. ||-j'a-||, plural. This suffix follows a stem of the form of Stem 4 ( $C_1V_1C_2C_3V_2-$ ) which is, however, related to a Class III nominal theme rather than to a Stem 1. Where necessary, the  $C_3$  position is filled by /ʔ/. If the related nominal theme has three or more syllables, only the first two are represented in this stem. Three stems have unusual forms before this suffix: ||naŋ'aH-|| 'man' is ||naŋʔa-||, ||ʔoh'a-|| 'woman' is ||ʔohʔa-||, and ||miw'yH-|| 'person, Indian' is ||miwty-||.

Themes ending in this suffix are members of Class III. The diminutive suffix ||-t'i-|| and the past-tense suffix {-h'Y-} have been found after

this suffix, which is therefore not prefinal. It is fully productive. Its meaning is plural: 'several, a few, three or four.' It is to be noted that plural suffixes are not obligatory morphemes in Miwok; there are several (cf. sections 735 and 766), but they are used sparingly. Examples:

- naŋa-j·a- 'men,' cf. naŋaH- 'man'  
 ?ohʔa-j·a- 'women,' cf. ?oh·a- 'woman'  
 miwty-j·a- 'people; Indians,' cf. miw·yH- 'person; Indian'  
 ?ajtuH-me-? miwty-j·a-me-? 'we're all Indians'  
 ?esle-j·a- 'children,' cf. ?esel·y- 'child'  
 kawja-j·a- 'horses,' cf. kawa·ju- 'horse'  
 ?yhy-j·a- 'bears; the Bear moiety,' cf. ?yhy·maʔi- 'bear'  
 ?atʔe-j·a-nti-? /ʔatʔej·anti?/ 'my younger brothers,' cf. ?ate-  
 'younger brother'

720. ||-ka-||, past. This suffix follows a verbal base. Themes ending in this suffix are members of Class I. The suffix {-h·Y-} 'past' has been found following this suffix. Its meaning is apparently 'past time,' but in what way it differs from other past-tense nominal suffixes is not known. It is not common, but it appears to be productive. Examples:

- ?enyh-na-ka-nti-? /ʔenyhna-kanti?/ 'I made it for them,' cf. ?enyh-na-  
 'to make for'  
 ?enyh-na-ka-h·Y-nti-? 'I fixed it for them, long ago'  
 halpa-ka-nti-j /halpakanti·j/ 'I found it (accusative case),' cf. hal-pa-  
 'to find'  
 ju·w-ka-?-h·Y· /ju·wukaʔhy·/ 'he stirred it yesterday,' cf. ju·w- 'to  
 stir'  
 wyks-ka-?-h·Y· /wyksykaʔhy·/ 'the way he went,' cf. wyks- 'to go'  
 juc-wa-ka-te-?-h·Y· /jucwakateʔhy·/ 'where she pulled all my hair,'  
 cf. juc-wa- 'to pull hair repeatedly'

721. ||-ka-|| follows a few stems of the form  $C_1V_1C_2V_2-$ , which are related to Class III nominal themes. Themes ending in this suffix are members of Class III, and refer to direction or source. The diminutive suffix ||-c·Y-|| and the augmentative suffix ||-ni-|| have been found following this suffix, which is therefore not pre-final. It does not appear to be productive. Examples:

- lil·e-ka-c·Y-n /lil·ekac·yn/ 'a little higher up,' cf. li·leH- 'up; high'  
 kot·a-ka-ni-? /kot·aka·ni?/ 'from far off,' cf. kot-taH- 'far'  
 wal·i-ka-n /wal·ikan/ 'low (in pitch),' cf. wal·i- 'down'

722. ||-kene-||: several Class III nominal themes referring to plant species end with this sequence. Stem forms are somewhat diverse, but if prefixed reduplication is admitted (see section 771) all have basic stems of the shape CV·- or CVCVC·-. None of these stems bear any

resemblance to any other recorded stem. The diminutive suffix  $\| -tki - \|$  and the past suffix  $\{-h'Y-\}$  have been found following this sequence. Examples:

cimcimih-kene- 'spruce' (cim-cimih-kene- ?)

heme'-kene- 'Sierra currant'

pihak-kene- /pihak'ene-/ 'wild cherry'

se'se'-kene- 'lodgepole pine' (se'-se'-kene- ?)

723.  $\{-keH-\}$ , past. This suffix follows a Stem 2 (where necessary, the  $C_3$  position is filled by /h/) or a base which does not fit the canonical requirements of Stem 1. It has the following allomorphs: after a Stem 2, it is  $\| -\cdot e - \|$ ; after the allomorph  $\| -k - \|$  of the passive verbal suffix  $\{-\eta He-\}$ , it is  $\| -\cdot a - \|$ ; after other bases, it is  $\| -keH - \|$   $\frac{f}{\text{f}}$   $\| -k - \|$  before first and second person single pronominal suffixes and all double pronominal suffixes ( $\| -keH - \|$  is by far the more frequent form, but several informants occasionally used  $\| -k - \|$ ); elsewhere, it is  $\| -keH - \|$ .

In the case of two Stem 1's ( $\| hy'ja - \|$  'to arrive' and  $\| ha'je - \|$  'to reach up to'), the usual form with this suffix consists of the Stem 1 in question followed by the allomorph  $\| -keH - \|$  instead of a Stem 2 and the allomorph  $\| -\cdot e - \|$ . Some informants state that  $\| hyjah-\cdot e - \emptyset - ? \|$  /hyjah'e?/ 'he arrived' is a meaningful form; others deny its existence, and substitute  $\| hy'ja-keH-\emptyset-? \|$  /hy'jake?/. The latter is certainly of much commoner occurrence. Stem 1's of this shape (CV·CV-) are relatively rare; it is possible that this feature is characteristic of all of them, but it has been established in only these two instances.

A Stem 2 (of the form  $C_1V_1C_2V_2C_3-$ ) sometimes corresponds to a verbal base consisting of a stem of the form CVCV- followed by the suffixes  $\{-na_2-\}$ ,  $\{-nY-\}$ , or  $\{-pa-\}$ . In these cases, a form consisting of the Stem 2 in question followed by the allomorph  $\| -\cdot e - \|$  is frequently in free variation with one containing the full base followed by the allomorph  $\| -keH - \|$ .

Themes ending in this suffix are members of Class II. It has been found followed by the past-tense suffix  $\{-h'Y-\}$ , and is fully productive. Its meaning is 'past time,' neither very immediate nor very remote.

Examples:

halik-\cdot e-te? /halik'ete?/ 'I hunted,' cf. hal-ki- 'to hunt'

kala\eta-\cdot e-me-? /kala\eta'eme?/ 'we danced,' cf. kala-\eta- 'to dance'

ʔam'u-k-\cdot a-\emptyset-? /ʔam'uk'a?/ 'he got hurt,' cf. ʔam'u-\eta He- 'to get hurt'

he\eta iHl-\cdot i-keH-te-?  $\frac{f}{\text{f}}$  he\eta iHl-\cdot i-k-te-? /he\eta il'ike'te?/  $\frac{f}{\text{f}}$  /he\eta il'ikte?/ 'I got lost,' cf. he\eta iHl-\eta He- 'to get lost'

hyj-i-c'-keH-te-? /hyj'ic'yke'te?/ 'I watched it,' cf. hyj-i-c'- 'to watch'

cyṭen·e- $\emptyset$ - $\text{?}$   $\int$  cyṭe·na-keH- $\emptyset$ - $\text{?}$  /cyṭen·e $\text{?}$ /  $\int$  /cyṭe·nake $\text{?}$ / 'he made him like it,' cf. cyṭe·na- 'to cause to like'

724. ||-kuH-||, evidential passive predicative. This suffix follows a stem of the form  $C_1V_1C_2V_2C_3-$ , which is related to a base or which has not been recorded in any other environment. Where necessary, the  $C_3$  position is filled by / $\text{?}$ / . Themes ending in this suffix are members of Class III, and are evidential passive predicative or participial in meaning: 'one can see it has been . . . .' The suffix is not common, but it is productive. It is sometimes followed by the past-tense suffix {-h·Y-}.  
Examples:

lacyn-kuH- 'blazed,' cf. lac-nY- 'to chop'  
lotu $\text{?}$ -kuH- 'captive,' cf. lo·t- 'to catch'  
 $\text{?}$ eleṅ-kuH- 'divorced,' cf.  $\text{?}$ eHl-ṅHe- 'to leave'  
 $\text{?}$ amal-kuH- 'crippled,' cf.  $\text{?}$ am-la- 'to wound non-fatally'  
 $\text{?}$ amal-kuH-koH- $\emptyset$  / $\text{?}$ amalku·ko·/ 'they are crippled'  
kuhat-kuH- 'you can see it has been hit,' cf. kuhta- 'to hit'  
wemy $\text{?}$ -kuH- 'there's a hole, you can see it has been dug,' cf.  
wem·- 'to dig a hole'

725. ||-la-||: a number of Class III nominal themes end with this sequence. Stem forms are diverse, and few can be related to stems occurring in other environments. A stem of the form  $C_1V_1C_2C_3V_2\text{?}$ - (where necessary, the  $C_3$  position is filled by / $\text{?}$ /) occurs in a few such themes, which refer to body parts. Other stem shapes include CVCVC-, CVCCV-, and CVCVCCV-. The meaning of this suffix is obscure. It does not appear to be productive; it has been found followed by the diminutive suffix ||-tki-||. Examples:

ṭalṭa $\text{?}$ -la- 'shoulder blade,' cf. ṭalṭa- 'shallow'  
ṭok·o $\text{?}$ -la- 'throat,' cf. ṭok·k- 'to choke (trans.)'  
ṭyp·y $\text{?}$ -la- 'eyelash'  
puk·e-la- 'ash flakes'  
kum·e-la- 'coal'  
ma $\text{?}$ ṭa-la- 'forked'  
pasak·i-la- 'acorn cracker'  
siwak·i-la- 'acorn soup'

726. ||-lVHp-|| follows a stem of the form  $C_1V_1C_2C_3V_2-$  which is related to a numerical nominal theme of Class III; if the latter has no third consonant, its position in the above formula is filled by repeating  $C_1$ . In the suffix, ||V|| is identical with the second vowel of the stem. Themes ending in this suffix are members of Class III, and refer to multiples (single, double, triple, etc.) or to multiple births (twins, triplets, quadruplets). It has been found followed by the diminutive suffix

||-tki-||. Examples:

- keŋke-leHp- 'tine (of a fork); single,' cf. keŋeH- 'one'  
 ʔoŋki-liHp- 'double; twins,' cf. ʔoŋiH-ko- 'two'  
 ʔoŋki-liHp-koH-∅ /ʔoŋkilipko/ 'they are twins'  
 ʔoŋki-liHp-tki-ʔ /ʔoŋkili-pytkiʔ/ 'little twin'  
 ʔojsi-liHp- 'quadruplets,' cf. ʔojis-a- 'four'  
 mahko-loHp- 'quintuplets,' cf. mah-oka- 'five'  
 naʔca-laHp- 'ten of them,' cf. naʔa-ca- 'ten'

727. ||-ma-||, agentive. This suffix follows two types of stem. One, of the form  $C_1V_1C_2V_2-$ , is related to a Stem 1 of the form  $C_1V_1C_2V_2-t-$ ; the other, of the form  $C_1V_1C_2V_2C_3-$ , is related to a Stem 1 of shape other than that cited above. Where necessary, the  $C_3$  position is filled by /ʔ/. Themes ending in this suffix are members of Class II. The verbal suffix {-nY-} and the past-tense suffix {-h-Y-} have been found following this suffix, which is therefore not pre-final; its productivity has not been investigated. Its meaning is agentive, and very similar to that of the English agentive suffix -er. Examples:

- hyhy--ma- 'dragger,' cf. hyhy--t- 'to pull'  
 paŋy--ma- 'bringer,' cf. paŋy--t- 'to take,' paŋyH- 'to carry in one's hands'  
 paŋy--ma-koH-∅ 'they bring it'  
 ʔoŋo--ma- 'one who carries a child,' cf. ʔoŋo--t- 'to carry in one's arms'  
 ʔeca--ma- 'second, medium-textured portion of acorn mush,' cf. ʔeca--t- 'to accompany,' ʔec-a- 'behind'  
 wyn-is-ma- 'visitor,' cf. wyn-si- 'to come to visit'  
 wyn-is-ma-h-Y-∅ʔ- 'he used to visit'  
 jel-ej-ma- 'thief,' cf. jele-j- 'to steal'  
 ʔuc-u?-ma- 'stayer, guest,' cf. ʔuc-u- 'to stay'  
 ʔam-y?-ma-nY-keH-te-ʔ 'I brought it for him,' cf. ʔam-- 'to give'

The suffix ||-ma-|| is also found in a number of Class III nominal themes referring to plants and animals. The stems have the shape CVCCV- or CVCCVCVC-. In one case, the stem occurs without the suffix ||-ma-||, with the same meaning. In this use, the suffix is not productive. Examples:

- loʔje-ma- 'flower,' cf. loʔje- 'flower'  
 le-le-ma- 'small purple flower'  
 pat-akal-ma- 'blowfly'  
 ʔol-oco?-ma- 'toad'

728. ||-meH-|| follows several stem types. It is found following a stem of the form  $C_1V_1C_2V_2C_3-$ , which is related to a Stem 1 or to a

stem which does not occur as a base or theme without a following suffix. Where necessary, the  $C_3$  position is filled by /ʔ/. Themes of this structure are members of Class II. They mean 'a person who is . . . .' The verbal suffix {-nY-} and the past-tense suffix {-h·Y-} have been found following such themes. In this use, ||-meH-|| is productive. Examples:

- lotu?-meH- 'a captive,' cf. lo·t- 'to catch'  
 heŋil-meH- 'one who is lost,' cf. heŋiHl-ŋHe- 'to get lost'  
 pele?-meH- 'blind; a blind man,' cf. pel·e- 'to not see'  
 hakaj-meH- 'a starveling,' cf. hakaHj-ŋHe- 'to be hungry'  
 ?eleg-meH- 'a widower,' cf. ?eHl-ŋHe- 'to leave behind'

This suffix is also found following a Stem 4, a stem of similar form ( $C_1V_1C_2C_3V_2-$ ) which is related to the first two syllables of a Class III nominal theme, or a base too long to fit the canonical limitations of Stem 1. Where necessary, the  $C_3$  position is filled by /ʔ/. Forms of this structure are members of Class III. When followed by case only or case and Series 2 pronominal suffixes, they mean '(he) has big . . . , (he) . . . a lot, (he) has lots of . . .'; when followed by case and Series 1 pronominal suffixes, they mean '(he) is supposed to . . . .' In this usage, the suffix is productive, and has been found followed by the past-tense suffix {-h·Y-} and the diminutive suffix ||-tki-||. Examples:

- ʔolko-meH- 'he has long ears,' cf. ʔolkoh- 'ear'  
 ʔolko-meH-tki-ʔ /ʔolkometki?/ 'a little one with big ears'  
 ʔolko-meH-koH-ʔ /ʔolkome·ko/ 'they have long ears'  
 niʔo-meH- 'he has a long nose,' cf. niʔoH- 'nose'  
 hynty-meH- 'he has big eyes,' cf. hynty- 'eye'  
 liw?a-meH-∅-ʔ 'he talks a lot,' cf. liw·a- 'to talk'  
 liw?a-meH-ʔ-hY· 'he is supposed to talk'  
 tiwha-meH- 'expensive,' cf. tiwa·-h- 'to pay'  
 kawja-meH- 'he has lots of horses,' cf. kawa·jo- 'horse'  
 wynty-meH-ʔ-hY· 'he is supposed to pick them,' cf. wynt- 'to pick'  
 ?enhy-meH-nti-ʔ 'I am supposed to fix it,' cf. ?enh- 'to make; to fix'  
 wel-ki-jik·-meH-ʔ-hY· 'he is supposed to get it,' cf. wel-ki-jik·-  
 'to go to fetch'

729. ||-mhi-||, reciprocal. This suffix, which is identical in form with the reciprocal verbal suffix, is found following Class III nominal themes. Themes ending in this suffix are also members of Class III. It has been found followed by the plural suffix ||-HmetiH-||, and is therefore not prefinal. It is not common, but it is probably productive. Its meaning is reciprocal, 'to each other.' Examples:

pace-mhi-HmetiH-? /pacemhi·meti?/ 'relatives to each other,' cf.  
 pace- 'relative, kinsman'  
 ta·ciH-mhi-ko· /ta·cimhiko·/ 'they are brothers,' cf. ta·ciH- 'older  
 brother'

730. ||-mYh-|| 'only; just.' This suffix follows a Class III nominal theme, and the resulting form is likewise a member of Class III. It has been found followed by final suffixes only (following this suffix, the nominative case is ||-?|| instead of its usual zero form following a consonant). It is probably prefinal and productive; its meaning is 'only, just, nothing but.' Examples:

kik·y-mYh-? 'nothing but water,' cf. kik·y- 'water'  
 kik·y-mYh-tHo-? 'in nothing but water'  
 tol·e-mYh-tHo-? 'on the bare ground,' cf. tol·e- 'ground'  
 kyc·yc-mYh-? 'skinny; nothing but bones,' cf. kyc·yc- 'bone'  
 la·ma-mYh-? 'all trees,' cf. la·ma- 'tree'  
 hak-mYh-? 'just only,' cf. hak- 'only'

731. ||-m'a-|| follows a stem of the form  $C_1V_1C_2·V_2C_3V_2-$ , which is related to a Class III nominal theme or to a base. Where necessary, the  $C_3$  position is filled by /?/. Only the first two syllables of the related theme are represented in this stem. Themes ending in this suffix are members of Class II. The verbal suffix {-nY-} and the past tense suffix {-h·Y-} have been found after this suffix, which is productive. Its meaning appears to be 'one who (has or does something) to excess.' Examples:

hel·aja-m'a- 'one who is easily scared; a coward,' cf. hela·j- 'to  
 scare (trans.)'  
 tek·ymy-m'a- 'a kicker; one who always kicks,' cf. tek·m- 'to kick  
 with the toe'  
 tek·ymy-m'a-koH-∅ 'they always kick'  
 kal·y?y-m'a- 'a kicking horse,' cf. ka·l- 'to kick with the heel'  
 ?is·y?y-m'a- 'one who has big hands,' cf. ?is·y- 'hand'  
 noc·u?u-m'a- 'a cry-baby,' cf. noc·uH- 'to cry'  
 noc·u?u-m'a-·-nY- 'to be a cry-baby'  
 put·aka-m'a- 'a fat man,' cf. put·kal- 'guts'

This suffix is also found following a stem of the form  $C_1V_1C_2·V_2C_3-$  which is related to a Class III nominal theme referring to a numeral (where necessary, the  $C_3$  position is filled by repeating  $C_1$ ). Resulting themes, which have been found followed only by final suffixes, are members of Class III, and mean '. . . times.' The productivity of this usage has not been investigated. Examples:

keŋ·ek-m'a- 'once,' cf. keŋ·eH- 'one'  
 ?o?ik-m'a- 'twice,' cf. ?o?iH-ko- 'two'



tol'ok-m'a- 'three times,' cf. tolo'koṭ- 'three'

ʔojis-m'a- 'four times,' cf. ʔojis'a- 'four'

tiṭ'aw-m'a- 'seven times,' cf. tiṭ'aw'a- 'seven'

732. ||-na-||: a number of Class III nominal themes referring to plants or vegetable products end in this sequence. Stem forms are diverse, and in no case is the stem relatable to one which occurs in another environment. The suffix, if such it is, is not productive. It has been found followed by the past-tense suffix {-h·Y-}. Examples:

caw'e-na- 'bush'

hak'e-na- 'pitchy pine wood (for kindling)'

hakyṭ-na- 'Equisetum, Western scouring-brush'

saṅsaʔ-na- 'pine cone'

wohwoh-na- 'sequoia'

733. ||-ni-||, 'can, might, ought to.' This suffix follows a verbal base of any shape. Themes ending in this suffix are members of Class I. The past-tense suffix {-h·Y-} has been found following this suffix, which is fully productive. Themes containing it mean '(he) can . . . , (he) might . . . , (he) ought to . . . .' Examples:

kala·ṅ-ni-nti-ʔ /kala·ṅynintiʔ/ 'I can dance,' cf. kala·-ṅ- 'to dance'

kala·ṅ-ni-h·Y-nti-ʔ /kala·ṅynih·yntiʔ/ 'I used to be able to dance'

wyks-ni-j-h·Y· /wyksyni·hy·/ 'he ought to go (accus.);' cf. wyks-  
'to go'

liwa-ksY-ni-ʔ-mah·i· /liwaksyniʔmah·i·/ 'we can talk,' cf. liwa-ksY-  
'to talk'

nyt·y-c·-ni-ʔ-h·Y· /nyt·yc·yniʔhy·/ 'he might keep still,' cf. nyt·y-c·-  
'to keep quiet'

734. ||-no-||, 'time of.' This suffix follows a nominal theme. Themes ending in this suffix are members of Class III; they are usually followed by the temporal case, /-n/, but can be followed by other case suffixes. Only final suffixes have been found after this suffix, which does not appear to be productive. Examples:

cit'ak-no- 'Spring,' cf. cit'ak- 'grass'

hel'ak-no- 'Summer,' cf. hel'ak- 'year'

mi-taH-no- 'ever,' cf. mi-taH- 'when?'

koto'-no- 'long ago,' cf. koto'-wak 'across,' kot-to- 'far; a while  
ago'

ʔiwin-nY-meH-no-n 'when he (I, you) was young,' cf. ʔiwin-nY-meH-  
'young'

735. ||-ntih·eH-||, collective pluralizer. This suffix has been found but rarely, following a stem of the form  $C_1V_1C_2V_2$ - which is related to a Class III nominal theme. Themes ending in this suffix are members

of Class III. The past-tense suffix {-h·Y-} has been found after this suffix, which appears to be unproductive. Its meaning appears to be 'a group of . . . .' Examples:

lupu-ntih·eH- 'several girls,' cf. lupu- 'girl'

lupu-ntih·eH-koH- $\emptyset$  /lupuntih·e·ko·/ 'several young girls'

sali-ntih·eH- 'a group of young men,' cf. saliH- 'youth'

736. ||-nHi-paH-||, superlative. This suffixal combination follows a stem of the form  $C_1V_1C_2V_2-$  or  $C_1V_1C_2V_2C_3-$  which is related to a Class III nominal theme. Themes ending in this combination are members of Class III. The diminutive suffix ||-tki-|| has been found following this combination of suffixes, which appears to be productive; its meaning is superlative. The first member of the combination is related to the augmentative suffix {-·ni-}; the second is the agentive suffix ||-paH-||. Examples:

cini-nHi-paH- 'smallest,' cf. cin·ipi- 'small'

cini-nHi-paH-te- $\text{?}$ -koH /cinin·ipa·te $\text{?}$ ko·/ 'I'm the smallest of them'

lile-nHi-paH- 'uppermost,' cf. li·leH- 'up'

wilat-nHi-paH- 'tallest,' cf. wila·toH- 'tall'

$\text{?}$ oJan-nHi-paH- 'biggest,' cf.  $\text{?}$ oja·ni- 'big'

737. ||-paH-||, agentive. This suffix follows a Stem 4 or a stem of similar form related to a nominal theme, or a base too long to fit the canonical requirements of Stem 1. Themes ending in this suffix are members of Class II, and mean '(he) is good at . . . ing, (he) is a good . . . er, (he) is characterized by . . . .' When the stem refers to a numeral, such themes are the names of days of the week. The past-tense suffix {-h·Y-} has been found following this suffix, which is productive. Examples:

hel $\text{?}$ y-paH-te- $\text{?}$  /hel $\text{?}$ ypa·te $\text{?}$ / 'I am a good fighter,' cf. he·l- 'to fight'

molpa-paH- 'a good mush-maker,' cf. mola·p- 'to make mush'

halki-paH- 'a good hunter,' cf. hal·ki- 'to hunt'

sik $\text{?}$ e-paH- 'one who has ashes on him,' cf. sik·e- 'ashes'

$\text{?}$ yhyt·meH-nY-paH- 'one who always gets angry,' cf.  $\text{?}$ yhyt·meH-nY- 'to get angry'

$\text{?}$ ymty-paH-te- $\text{?}$  / $\text{?}$ ymtypa·te $\text{?}$ / 'I am a good singer,' cf.  $\text{?}$ ymt- 'to sing'

$\text{?}$ ymty-paH-h·Y- $\emptyset$ - $\text{?}$  / $\text{?}$ ymtypah·y $\text{?}$ / 'he used to be a good singer'

mahko-paH- 'Friday,' cf. mah·oka- 'five'

tolko-paH- 'Wednesday,' cf. tolo·ko $\text{?}$ - 'three'

738. ||-peH-||, agentive. This suffix follows a stem of the form  $C_1V_1C_2V_2C_3-$ , which is related to a Stem 1. Where necessary, the  $C_3$

position is filled by /ʔ/. Themes ending in this suffix are members of Class III. Such themes are, in effect, professional titles; they mean 'one who is appointed to . . .'. The past-tense suffix {-h·Y-} has been found following this suffix, which is productive. Examples:

- liwa<sup>?</sup>-peH- 'a spokesman; a speechmaker,' cf. liw·a- 'to speak'  
 liwa<sup>?</sup>-peH-te-ʔ-koH /liwa<sup>?</sup>pe·te<sup>?</sup>ko/ 'I am their speechmaker'  
 liwa<sup>?</sup>-peH-h·Y-ϕ-ʔ-koH /liwa<sup>?</sup>peh·y<sup>?</sup>ko/ 'he used to make speeches  
 for them; he was their speechmaker'  
 ʔuma<sup>?</sup>-peH- 'a drummer,' cf. ʔum·a- 'to thump'  
 ʔoko<sup>j</sup>-peH- 'a nurse,' cf. ʔoko<sup>j</sup>- 'to care for; to nurse'  
 ʔaly<sup>?</sup>-peH- 'one appointed to listen,' cf. ʔal·- 'to listen'

739. ||-poH-||, past reflexive. This suffix follows a verbal base; themes ending in it are members of Class II. It has been found followed by the past-tense suffix {-h·Y-}. It is productive; its meaning is that of a past-tense reflexive. It appears to be related, at least historically, to the reflexive verbal suffix {-poksu-} (see section 534). Examples:

- jo·h-poH-ϕ-ʔ 'he killed himself,' cf. jo·h- 'to kill'  
 pyta·l-poH-ϕ-ʔ 'he turned around,' cf. pyta·l- 'to turn around (trans.)'  
 te·p-poH-te-ʔ /te·pypo·te<sup>?</sup>/ 'I cut myself,' cf. te·p- 'to cut'  
 sapa·t-poH-ϕ-ʔ /sapa·typo<sup>?</sup>/ 'he's put his shoes on,' cf. sapa·t- 'to  
 shoe'  
 sapa·t-poH-te-ʔ /sapa·typo·te<sup>?</sup>/ 'I put my shoes on'

740. ||-puH-|| follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>jV<sub>2</sub>-, which is related to a Class III nominal theme referring to a kinsman. Themes ending in this suffix are members of Class III, and mean 'half-, step-, or foster-(kinsman)'. The diminutive suffix ||-c·Y-|| and the past-tense suffix {-h·Y-} have been found following this suffix, the productivity of which is limited by its meaning. Examples:

- tetje-puH- 'older half-sister,' cf. te·te- 'older sister'  
 tetje-puH-mi-ʔ-kan /tetjepu·ni<sup>?</sup>kan/ 'are you my older half-sister?'  
 ʔamji-puH- 'stepmother,' cf. ʔami- 'mother'  
 tunje-puH- 'stepdaughter; foster daughter,' cf. tune- 'daughter'

741. ||-p·a-|| follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>C<sub>3</sub>V<sub>2</sub>- (where necessary, the C<sub>3</sub> position is filled by C<sub>1</sub> or by /ʔ/), which is related to a nominal theme. Themes ending in this suffix are members of Class III, and have been found followed by the diminutive suffix ||-t·i-||. The meaning of this suffix is hard to define; it appears to have a diminutive and/or distributive reference. It has been recorded only rarely, and its productivity is unknown. Examples:

- keŋke-p·a-koH-ϕ /keŋkep·ako<sup>?</sup>/ 'they're going in single file,' cf.  
 keŋ·eH- 'one,' keŋke-leHp- 'single'

cinʔi-p'a-t'i-j 'little bits; nibbles (accusative),' cf. cin'ipi- 'small'  
 hajʔe-p'a-j 'every few days; once in a while (accusative),' cf.  
 haj'e- 'close by; a while'

tiwha-p'a- 'a payment (by installments?),' cf. tiwa'-h- 'to pay'

742. {-pHuʔe-}, 'kind, species.' This suffix follows a demonstrative stem. Themes ending in this suffix are members of Class III, and only final suffixes have been found following them. The meaning of this suffix appears to be something like 'kind' or 'species.' It does not appear to be productive. Examples:

ʔokaHh-pHuʔe- 'the same kind,' cf. ʔokaHh- 'same'

ʔokaHh-pHuʔe-t-∅ /ʔokahpuʔet/ 'the same place (allative case)'

ʔi-pHuʔe-ʔ-ʔok /ʔip'uʔeʔok/ 'that kind,' cf. ʔi- 'that'

743. ||-taH-|| follows a few demonstrative stems. Themes of this structure are members of Class III and refer to time. A similar suffix appears to be present in a few Class III nominal themes, following a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>-; these stems are not related to any known stems occurring in other environments. In this use, its meaning is obscure. The suffix is not productive. Examples:

mi-taH-n 'when?,' cf. mi- 'what?'

ʔi-taH-n-ʔok 'then,' cf. ʔi- 'this'

kot-taH-n 'a long way; a long time,' cf. kot-to- 'far'

ʔap'an-ta- 'salamander'

ʔaw'an-ta- 'turtle'

ʔeʔ'em-ta- 'thumb'

tep'es-ta- 'ramada'

744. ||-tho-||, gerundial. This suffix follows a verbal base. It has only been found followed by the accusative case; pronominal suffixes do not occur after this suffix. It is productive. Themes containing it function as gerunds, and can usually be translated in English as '. . . ing.' Examples:

hywa-t-tho-j /hywa'tythoj/ 'running,' cf. hywa-t- 'to run'

ʔenpu-tho-j 'chasing,' cf. ʔenpu- 'to chase'

ʔamʔy-j-nY-tho-j /ʔamʔyjnythoj/ 'wanting to give,' cf. ʔamʔy-j-nY-  
 'to want to give'

mi'sa-nY-tho-j /mi'sa'nythoj/ 'praying,' cf. mi'sa-nY- 'to go to  
 Mass, to pray' (Sp. misa 'Mass')

mi-c--tho-j /mic'ythoj/ 'why?,' cf. mi-c-- 'to do what?'

sali-t-tho-j /sali'tythoj/ 'when he was young,' cf. sali-t- 'to be  
 a young man'

745. ||-tki-||, diminutive. This suffix follows a Class III nominal theme, and themes ending in this suffix are also members of Class III.

Only final suffixes have been found following this suffix, which is productive. Its meaning is diminutive; informants say that themes containing this suffix and those containing  $\parallel -c\cdot Y - \parallel$  have identical meanings.

Examples:

- ?oh'a-tki- 'girl,' cf. ?oh'a- 'woman'  
 cukuH-tki- 'little dog,' cf. cukuH- 'dog'  
 cukuH-h·Y-tki-? /cukuh·utki?/ 'little old dog'  
 hyh'y-tki- 'stick,' cf. hyh'y- 'wood'  
 cin'ipi-tki- 'tiny,' cf. cin'ipi- 'small'

746.  $\parallel -to - \parallel$ , directional. This suffix follows Class III nominal themes, which sometimes have unusual forms before this suffix. It is very similar in both form and meaning to the allative case suffix. However, it is notably different: its form is  $\parallel -to - \parallel$ , not  $\parallel -tHo - \parallel$ , and it can be followed by the allative case, in the allomorph  $\parallel -t - \parallel$ . Themes ending in this suffix are members of Class III. They refer to directions, to persons identified in terms of directions, or to periods of time. Only final suffixes have been found following this suffix. Examples:

- cym'e-to- 'south; a southerner,' cf. cym'e- 'south'  
 cym'e-to-t /cym'etot/ 'to the south'  
 hi·hy-to- 'east,' cf. hi·hy- 'east'  
 kawly-to- 'night,' cf. kawlyH- 'night'  
 kot-to- 'a while ago; the other side,' cf. kot-taH- 'far off; a long time'

747.  $\parallel -t\cdot i - \parallel$ , diminutive plural. This suffix follows a Class III nominal theme, and themes ending in this suffix are likewise members of Class III. Only final suffixes have been found after this suffix, which is productive. Its meaning is a plural diminutive, 'several little . . .'

Examples:

- cicka-t·i- 'several small birds,' cf. cicka- 'bird'  
 ?ahe·li-t·i- 'several small coyotes,' cf. ?ahe·li- 'coyote'  
 law'a·ti-t·i- 'several small rattlesnakes,' cf. law'a·ti- 'rattlesnake'  
 jococ·i-t·i- 'little red ones,' cf. jococ·i- 'red, a red one'

748.  $\parallel -t\cdot Y - \parallel$ , directional. This suffix follows a stem of the form  $C_1V_1C_2V_2-$ , which is related to a Class III nominal theme; it is also found following the ablative case. Themes ending in this suffix are members of Class III. Only final suffixes have been found following this suffix, which is productive. It means 'in such-and-such a direction; toward.'

Examples:

- wali-t·Y-t 'downward,' cf. wal·i- 'down'  
 lile-t·Y-t 'upward,' cf. lileH- 'up; high'  
 newi-t·y-t 'upstream,' cf. neH-wi-n 'uphill'

?i-m·t·Y-t-?ok 'that way,' cf. ?i-m·-?-?ok 'from there'

?al·a-m·t·Y-j 'under (accusative case),' cf. ?al·a-m·- 'under'

749. ||-tHuH-||, reventive. This suffix follows a Stem 2 or a base too long to fit the canonical requirements of Stem 1. Where necessary, the C<sub>3</sub> position is filled by /·/. Before this suffix, ||?yn·-|| 'to come' appears as /?unu·-/. Themes ending in this suffix are members of Class II. The past tense suffix ||-h·Y-|| has been found following this suffix, which is therefore not prefinal. It is fully productive. Its meaning is reventive, with an implication of past time: '(he) came back from . . .ing.' Examples:

wynyt-tHuH-? /wynyt·u?/ 'he came back from picking them,' cf.

wynt- 'to pick'

wy?iṭ-tHuH-te-? /wy?iṭtu·te?/ 'I've been to peek,' cf. wy?iṭ- 'to

peek, peer'

joh-tHuH-? /johtu?/ 'he came back from killing it,' cf. jo·h- 'to kill'

hakaHj-ṅHe-tHuH-? /hakajnet·u?/ 'he was hungry there, he had been hungry,' cf. hakaHj-ṅHe- 'to be hungry'

sose·tHuH-? /sose·tu?/ 'she came back from pounding,' cf. sos·e- 'to pound acorns'

?unu·tHuH-? /?unu·tu?/ 'he came,' cf. ?yn·- 'to come'

750. ||-ṭaH-||, diminutive. This suffix follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>·V<sub>2</sub>·, which is related to a Class III nominal theme. It has only been found following stems referring to persons. Themes ending in this suffix are members of Class III, and have been found followed by another diminutive suffix, ||-tki-||. This suffix is rare, and does not appear to be productive. Examples:

?oh·a-ṭaH- 'girl,' cf. ?oh·a- 'woman'

?oh·a-ṭaH-te-? /?oh·aṭa·te?/ 'I'm the young girl'

naṅ·a-ṭaH- 'boy,' cf. naṅ·aH- 'man'

751. {-wi-} follows certain demonstrative stems. It has two allomorphs after ||?i-|| 'that' it is ||-wi-||; elsewhere, it is ||-wi-||. This suffix has been found followed by the diminutive suffix ||-tki-||, and is therefore not prefinal; the only case suffix that has been found after it is the temporal, ||-n||. Its meaning is obscure, and it is not productive. Examples:

neH-wi-n 'uphill,' cf. neH- 'this'

?i-wi-n 'now, today,' cf. ?i- 'that'

?i-wi-tki-n 'soon'

752. ||-?aX-||, infinitive. This suffix follows a verbal base, and themes ending in it are members of Class I. It has been found followed by the past-tense suffix {-h·Y-}, and is fully productive. It can usually be trans-

lated by an English infinitive or gerund. Examples:

wy·n-<sup>?</sup>aX-j-hY· /wy·ny<sup>?</sup>ajhy·/ 'his walking; . . .him walk (accusative)' (e.g., 'I don't like his walking there,' 'I made him walk'),  
cf. wy·n- 'to walk'

hyj·i-c·-<sup>?</sup>aX-<sup>?</sup>-hY· /hyj·ic·y<sup>?</sup>a<sup>?</sup>hy·/ 'his seeing,' cf. hyj·i-c·- 'to see'

sike·-nY-<sup>?</sup>aX-nti-j /sike·ny<sup>?</sup>anti·/ 'my being sick; . . .me sick,'  
cf. sike·-nY- 'to be sick'

hyj<sup>?</sup>y-ksY-<sup>?</sup>aX-h·Y-<sup>?</sup>-nY· /hyj<sup>?</sup>yksy<sup>?</sup>ahy<sup>?</sup>ny·/ 'your knowing (past);  
your former knowing,' cf. hyj<sup>?</sup>y-ksY- 'to know'

micyk-na-<sup>?</sup>aX-te-j-hY· /micykna<sup>?</sup>at·ejhy·/ 'what he does to me,'  
cf. micyk-na- 'to do what?' (e.g., 'I don't care what he does to me,' lit. 'I don't care about his doing what? to me')

753. {-<sup>?</sup>ci-}, 'people of (a place)!' This suffix follows Class III nominal themes which refer to localities; themes ending in this suffix are members of Class III. It has the following allomorphs: following a stem ending in a consonant, it is ||-ci-||; before pronominal suffixes of non-zero form it is ||-<sup>?</sup>ci·je-||; elsewhere, it is ||-<sup>?</sup>ci-||. Themes containing this suffix refer to people who inhabit or come from the place referred to; it appears to be productive, within the limitations of meaning, and only final suffixes have been found following it. Examples:

<sup>?</sup>awo·-ni-<sup>?</sup>ci- 'Yosemite people,' cf. <sup>?</sup>awo·-ni- 'Yosemite Valley'

<sup>?</sup>awo·-ni-<sup>?</sup>ci·je·-ni-<sup>?</sup> /<sup>?</sup>awo·ni<sup>?</sup>ci·je·ni<sup>?</sup>/ 'are you from Yosemite?'

piliwni-<sup>?</sup>ci- 'they belong at Polona,' cf. piliwni- 'Polona'

marpo·sa-<sup>?</sup>ci- 'they come from Mariposa,' cf. marpo·sa- 'Mariposa'

marpo·sa-<sup>?</sup>ci·je·-me-<sup>?</sup> /marpo·sa<sup>?</sup>ci·je·me<sup>?</sup>/ 'we're from Mariposa'

palal-ci- 'people from near Palona'

754. ||-<sup>?</sup>ucaH-||, 'belongs; dwells.' This suffix follows a nominal theme ending in a subordinate case. It has been found followed by the verbal suffix {-nY-}. Themes ending in this suffix, which is productive, are members of Class III, and refer to people or things which belong in, dwell in, or are from the indicated location. Examples:

ke·la-t-<sup>?</sup>ucaH- 'belongs in the snow,' cf. ke·la-t- $\emptyset$  'in the snow'

lile-nHi-paH-t-<sup>?</sup>ucaH-te-<sup>?</sup> /lilen·ipat<sup>?</sup>uca·te<sup>?</sup>/ 'I live upstairs,' cf.

lile-nHi-paH-t- $\emptyset$  'upstairs; the uppermost'

<sup>?</sup>oka-t-<sup>?</sup>ucaH- 'belongs right here,' cf. <sup>?</sup>oka-t- $\emptyset$  'in the same place'

<sup>?</sup>oka-t-<sup>?</sup>ucaH-nY- 'to belong here'

755. {-<sup>?</sup>YniH-}, possessive. This suffix follows two types of stem. It occurs after a Stem 2 (where necessary, the C<sub>3</sub> position is filled by /<sup>?</sup>/), in which case this suffix has the form ||-<sup>?</sup>YniH-||. It also follows Class III nominal themes. If the theme ends in any consonant but ||H||,

this suffix appears in the allomorph  $\|-\text{?YniH}\|$ ; otherwise, it is  $\|-\text{?YniH}\|$ . Themes ending in this suffix, which is productive, are members of Class II, and have been found followed by the past-tense suffix  $\{-h\text{-Y}\}$ . Following a Stem 2, the meaning of this suffix is predicative: 'it is (braided, rolled, parted, etc.)'. After a nominal theme, it is possessive, 'having . . .'; when the nominal theme refers to a numeral, this suffix indicates a unit within a decade. Examples:

pisot·YniH- 'parted,' cf. pisot- 'to part hair'

syk·YniH- 'tattooed,' cf. syk- 'to mark, tattoo'

tewy?·YniH- 'braided,' cf. tew- 'to braid'

muckul·?YniH- $\phi$ -? /muckul?uni?/ 'he has an arrow,' cf. muckul-  
'arrow'

cukuH·?YniH-te-? /cuku?·uni·te?/ 'I have a dog,' cf.ukuH- 'dog'

hu·ki·?YniH- 'having a tail,' cf. hu·ki- 'tail'

na?·a·ca-? keŋ·eH·?YniH-? /na?·a·ca? keŋ·e?·yini?/ 'eleven' (lit.,  
'ten has one'), cf. keŋ·eH- 'one'

na?·a·ca-? tolo·koŋ-?YniH-? /na?·a·ca? tolo·koŋ?uni?/ 'thirteen,' cf.  
tolo·koŋ- 'three'

kawi·t·ijak- $\phi$  na?·a·ca-? ?ojis·a·?YniH-? /kawi·tijak na?·a·ca?  
?ojis·a?·yini?/ 'eighty-four,' cf. ?ojis·a- 'four'

756.  $\{-a\}$ , agentive. This suffix follows (1) a Stem 3; (2) a stem of the form  $C_1V_1C_2V_2C_3-$ , related to a Stem 1; or (3) a verbal base too long to fall within the canonical limits of Stem 1. Where necessary, the  $C_3$  position in both the first two stem types is filled by  $/\text{?}/$ . This suffix has the following allomorphs: following a base, it is  $\|-\text{?a}\|$ ; elsewhere, it is  $\|-\text{a}\|$ . It is productive, and has been found followed by the possessive suffix  $\{-\text{?YniH}\}$ . Themes ending in this suffix are members of Class III. Where the stem is of the second type, they mean 'instrument for . . .ing'; with other types of stem, they mean 'place for . . .ing,' 'thing which is . . . (passive)' or 'instrument for . . .ing (with an iterative implication)'. Examples:

mol·ap·a- 'mush-making place,' cf. mola·p- 'to make mush'

tuk·un·a- 'sewing-machine,' cf. tuk·nY- 'to sew'

?uh·u?·a- 'a drink (i.e., that which is drunk),' cf. ?uhuH- 'to drink'

le·le·nY-?·a- 'school,' cf. le·le·nY- 'to read'

?uhu?·a- 'drinking-basket,' cf. ?uhuH- 'to drink'

hulep·a- 'whistle,' cf. hule·p- 'to whistle'

?elut·a- 'a float,' cf. ?eltu- 'to float'

In a few cases,  $\|-\text{a}\|$  follows a stem of the form  $C_1V_1C_2C_3V_2C_3-$ , which is related to a nominal theme or to a verbal base. Themes of this structure refer to a visible or tangible quality, and are members of Class I. Examples:



hynty-<sup>a</sup>- 'spotted,' cf. hynty- 'eye'

loptot-<sup>a</sup>- 'lumpy,' cf. lopot- 'to form a lump'

757. {-<sup>a</sup>-ci-} follows a Stem 2 (where necessary, the C<sub>3</sub> position is filled by /ʔ/) or a verbal base which does not meet the canonical requirements of Stem 1. The first member of this combination is the agentive suffix {-<sup>a</sup>-}, which shows the same allomorphy in combination as it does alone; the second member may be the nominal suffix ||-ci-|| (see section 707). This combination has been found followed by case suffixes only, and by Series 1 pronominal suffixes and case; no other nonfinal suffixes have been found after it. It appears to be productive, but its meaning is somewhat obscure. Forms containing it are secondary verbals, and translate English gerunds or passive forms. Examples:

hywat-<sup>a</sup>-ci- 'racing,' cf. hywa-<sup>t</sup>- 'to run'

nut-ki-<sup>teʔ</sup> hywat-<sup>a</sup>-ci-Hs-∅ /nutki:teʔ hywat:acis/ 'he's challenging me to race (instrumental; i.e., with racing)'

hinow-<sup>a</sup>-ci- 'playing handgame,' cf. hino-w- 'to play handgame'

wyn-<sup>a</sup>-ci- 'walking,' cf. wy-n- 'to walk'

syk-<sup>a</sup>-ci- 'a mark,' cf. sy-k- 'to mark; to write'

joh-<sup>a</sup>-ci-ʔ-hY- /joh:aciʔhy/ 'it was killed,' cf. jo-h- 'to kill'

ʔese-l-ŋHe-<sup>a</sup>-ci-ʔ-hY- /ʔese:lyŋeʔ:aciʔhy/ 'his birth,' cf.

ʔese-l-ŋHe- 'to be born'

758. {-<sup>a</sup>-po-}, instrumental agentive. This combination follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>- which is related to a nominal theme or to a base. Themes ending in this combination are members of Class III, and have been found followed by the diminutive suffix ||-tki-||. The first member of the combination, which is probably productive, is the agentive suffix {-<sup>a</sup>-}; the second may be related to the past reflexive suffix ||-poH-||, since themes containing the combination appear to have some reflexive references. All such themes so far recorded refer to non-aboriginal artifacts. Examples:

hynt-<sup>a</sup>-po- 'spectacles,' cf. hynty- 'eye'

homuc-<sup>a</sup>-po- 'razor,' cf. ho-muc- 'facial hair'

hyjeŋ-<sup>a</sup>-po- 'mirror,' cf. hyHj-ŋHe- 'to see'

hyjeŋ-<sup>a</sup>-po-tki-ʔ /hyjeŋ:apotkiʔ/ 'little mirror'

759. {-<sup>a</sup>-te-}, instrumental agentive. This combination follows a stem of the form C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>C<sub>3</sub>- (where necessary, the C<sub>3</sub> position is filled by /j/) which is related to a Stem 1, to a nominal theme, or to a stem which does not occur as a theme without a following suffix. Themes ending in this combination are members of Class III. It appears to be productive, and has been found followed by the diminutive suffix ||-tki-||.

All such themes found to date refer to artifacts of non-Indian origin.

Examples:

- hynyt-·a-ṭe- 'spectacles,' cf. hynṭy- 'eye'  
 molij-·a-ṭe- 'umbrella,' cf. mol-i- 'shade'  
 pyhak-·a-ṭe- 'ointment; liniment,' cf. pyha·k- 'to rub on (ointment)'  
 ?ylij-·a-ṭe- 'mirror,' cf. ?yliH?-ṭHe- 'to act silly; to kid around?'  
 or ?y-li- 'Jack o'Lantern; the Little People'?

760. {-·a-ṭi-} follows a Stem 2 or a stem of the form  $C_1V_1C_2V_2C_3$ - which is related to a Class III nominal theme. Themes ending in this combination are members of Class III, and have been found followed by the diminutive suffix ||-c·Y-||. The combination is productive, and means 'ready to . . . .' A number of themes containing it are the names of meals or refer to varieties of prepared food. Examples:

- ?enyh-·a-ṭi- 'ready to mend,' cf. ?enh- 'to make; to fix'  
 hel-·a-ṭi- 'ready to fight,' cf. he·l- 'to fight'  
 husel-·a-ṭi- 'breakfast' (i.e., 'ready for breakfasting on'), cf.  
 huse·l- 'to eat breakfast'  
 cilen-·a-ṭi- 'dinner (midday meal),' cf. cile-·nY- 'to eat a midday meal'  
 cilen-·a-ṭi-tki-? 'a light lunch'  
 sapan-·a-ṭi- 'supper,' cf. sapa-·nY- 'to eat supper'  
 hojum-·a-ṭi- 'acorn soup,' cf. hoju·m-a- 'acorn soup'  
 hupul-·a-ṭi- 'dough,' cf. hupl- 'to knead dough'

761. ||-i-|| follows a stem of the form  $C_1V_1C_2V_1C_2$ -. Such stems are, in some cases, related to the first syllable of a Class III nominal theme or to a stem which does not occur as a base or theme without a following suffix; no other such stems have been found elsewhere. Themes ending in this suffix are members of Class III; the past-tense suffix {-h·Y-} has been found following them. They refer to colors or other visible properties. The suffix does not appear to be productive. Examples:

- citit-·i- 'green,' cf. cit·ak- 'grass'  
 mokok-·i- 'pink,' cf. moke- 'red paint'  
 pukuk-·i- 'yellow,' cf. puk·e- 'California poppy'  
 kulul-·i- 'black,' cf. kul·a- 'charcoal'  
 jococ-·i- 'red,' cf. joc-si- 'to turn red'  
 ṭulul-·i- 'shiny,' cf. ṭul-ja- 'to polish'  
 cakak-·i- 'lacy, thin'

762. ||-liH-|| is found in a number of Class III nominal themes, referring for the most part to animal species. Stem forms are diverse, and in only two cases can a related stem be identified in another environment: one is a Class III nominal theme, the other a base. The suffix is not productive; it has been found followed by the diminutive suffix ||-tki-||. Its exact meaning is obscure; it may be an augmentative. Examples:

py?ca·liH- 'jackrabbit' (a substitute term used on account of a death tabu), cf. py?ca- 'cottontail'  
 tim·ele·liH- 'thunder,' cf. time·l- 'to thunder'  
 ?epla·liH- 'jackrabbit'  
 ?ahe·liH- 'coyote'  
 ?ahe·liH-ni-? /?ahe·li·ni?/ 'you're a coyote'  
 tuku·liH- 'Pandora moth caterpillar'  
 tele·liH- 'black oak'

763. ||-·muH-||, predicative. This suffix follows a stem of the form  $C_1V_1C_2V_2-$ , which is related to a Stem 1 or to a Class III nominal theme. Themes ending in this suffix are members of Class II. The past-tense suffix ||-h·Y-|| has been found after this suffix, which is therefore not prefinal. Its meaning is participial: 'he is (drunk, asleep, etc.)'. Examples:

jyje·muH-te-? /jyje·mu·te?/ 'I am drunk,' cf. jyHq-ŋHe- 'to be drunk'  
 tyje·muH-? /tyje·mu?/ 'he is asleep,' cf. tyj·e- 'to sleep'  
 hewe·muH- 'dry,' cf. hew·e- 'to dry'  
 ?ima·muH- 'unripe,' cf. ?ima- 'raw, unripe'

764. {-ni-}, augmentative. This suffix follows a stem of the form  $C_1V_1C_2V_2-$  which is related to a Class III nominal theme or which has not been recorded in any other environment; it also follows certain demonstrative stems and Class III nominal themes of more than two syllables. It has the following allomorphs: after ||mi-|| 'what?' it is ||-n·i-||; after {?i-} 'that' it is ||-n·i-|| before the locative and before ||-t·Y-|| (see section 748), ||-ni·h-|| before the genitive, and ||-ni-|| elsewhere; after other stems, it is ||-ni-||. It has been found followed by the past-tense suffix {-h·Y-}. Themes ending in this suffix are members of Class III. Its meaning is augmentative or intensifying. Examples:

?awo·ni- f ?owo·ni- 'Yosemite Valley' (i.e., 'big mouth'), cf.  
 ?aw·o- f ?ow·o- 'mouth'  
 ?oja·ni- 'big'  
 ?oja·ni-h·Y-? /?oja·nih·y?/ 'it used to be big'  
 ?oja·ni-ni-? /?oja·nini?/ 'you are big'  
 kawi·ni- 'middle'  
 kot·a·ka·ni- 'very far off,' cf. kot·a·ka- 'far off'  
 ?i-ni- 'this one,' cf. ?i- 'this'  
 mi-n·i- 'where?,' cf. mi- 'what?'

765. {-·u·maH-}, passive participial. This suffixal combination follows a stem of the form  $C_1V_1C_2-$  which is related to a Stem 1, usually of the form  $C_1V_1·C_2-$ . The first member of this combination has two allomorphs:

when the vowel of the stem is /y/, the suffix is  $\| \cdot y \cdot \|$ ; elsewhere, it is  $\| \cdot u \cdot \|$ . It will be noted that this is the reverse of the pattern exhibited by the morphophoneme  $\| Y \|$  (see section 175). The combination is productive, and has been found followed by the past-tense suffix  $\{-h \cdot Y \cdot\}$ . Themes ending in it are members of Class III. The second member is related to the agentive suffix  $\| \cdot ma \cdot \|$  (see section 727); the first member is unknown elsewhere. The meaning of the combination is passive, and participial or predicative: 'it is (broken, cracked, cut, etc.)'. The stem usually refers to some damaging or destructive action. Examples:

- koṭ·u-maH- 'broken,' cf. koṭ- 'to break (trans.)'  
 koṭ·u-maH-h·Y-? /koṭ·umah·y?/ 'old broken thing'  
 koṭ·u-maH-ni-? /koṭ·uma·ni?/ 'you're broke (out of funds)'  
 tyṭ·y-maH- 'one-legged,' cf. tyṭ- 'to cut off; to amputate'  
 tyṭ·y-maH-te-? /tyṭ·y·ma·te?/ 'I'm one-legged'  
 ʔaṭ·u-maH- 'split,' cf. ʔaṭ- 'to split (trans.)'  
 tep·u-maH- 'a wound,' cf. tep- 'to cut'  
 ʔam·u-maH- 'a raw place,' cf. ʔam·u- 'to hurt, wound, injure'

766.  $\| \cdot HmetiH \cdot \|$ , plural. This suffix follows a Class III nominal theme or a Stem 3 (where necessary, the  $C_3$  position is filled by /ʔ/). Themes ending in this suffix are likewise members of Class III. It has been found followed by the past-tense suffix  $\{-h \cdot Y \cdot\}$ . It has a plural meaning: 'there are . . . s among them; the group includes some . . . s; they are people who . . . .' It is fully productive. Examples:

- ʔuc·um-HmetiH-? /ʔuc·um·eti?/ 'there are several flies in the group,' cf. ʔuc·um- 'fly'  
 ʔu·cuH-HmetiH-? /ʔu·cu·meti?/ 'there are several houses there,'  
 cf. ʔu·cuH- 'house'  
 cukuH-HmetiH-? /cuku·meti?/ 'there are dogs in the group too,'  
 cf. cukuH- 'dog'  
 law·a·ti-HmetiH-? /law·a·ti·meti?/ 'there are several snakes,' cf.  
 law·a·ti- 'rattlesnake'  
 his·ik-HmetiH- /his·ik·meti?/ 'several skunks,' cf. his·ik- 'skunk'  
 jam·eH-HmetiH-tHo-ʔ-h·Y· /jam·e·meti·toʔhu?/ 'to the graves,' cf.  
 jam·eH- 'grave'  
 noc·uʔ-HmetiH-koH-∅ /noc·uʔ·meti·ko?/ 'they are people who cry,'  
 cf. nocuH- 'to cry'  
 joh·eʔ-HmetiH-? /joh·eʔ·meti?/ 'Yosemite people' ('they are killers')  
 cf. jo·h- 'to kill' (the Yosemite dialect form /joʃ·eʔ·meti?/ is  
 the source of the name of Yosemite National Park)

767.  $\| \cdot Hna \cdot \|$  follows at least two different types of stem; all themes ending in it are members of Class III, and refer to animals. This suffix

is found after a stem of the form  $C_1V_1C_2V_2C_3V_2$ -, which is related to a nominal theme referring to a body part; where necessary, the  $C_3$  position is filled by /ʔ/. Themes of this structure have the meaning 'animal with big . . . .' The suffix is also found following a nominal theme referring to an animal, or a stem which is not recorded elsewhere. In these instances, where the stem is recorded elsewhere it has exactly the same meaning as when followed by  $\parallel$ -Hna- $\parallel$ ; the only possible meaning for this suffix under these circumstances is perhaps something on the order of 'cute little.' It does not appear to be productive in either usage. It has been found followed by the diminutive suffix  $\parallel$ -tki- $\parallel$ .

Examples:

- ʔol·oko-Hna- 'animal with big ears; jackrabbit,' cf. ʔolkoh- 'ear'  
 hyn·yty-Hna- 'animal with big eyes,' cf. hyn·ty- 'eye'  
 niʔ·oʔo-Hna- 'animal with a big nose,' cf. niʔoH- 'nose'  
 ʔultak-Hna- 'measuring worm,' cf. ʔultak- 'measuring worm'  
 ʔacu·cu-Hna- 'rock wren,' cf. ʔacu·cu·cu- 'rock wren'  
 my·hy-Hna- 'porcupine'  
 pus·iʔ-Hna- 'mouse'  
 pus·iʔ-Hna-tki-ʔ /pus·iʔnatkiʔ/ 'little mouse'  
 waʔak-Hna- 'frog'

768. {-HwyjeH-}. This suffix follows a Class III nominal theme, and themes ending in this suffix are likewise members of Class III. It has the following allomorphs: after a theme ending in the plural suffix  $\parallel$ -j·a- $\parallel$  (see section 719) it is  $\parallel$ -ʔwyjeH- $\parallel$ ; elsewhere, it is  $\parallel$ -HwyjeH- $\parallel$ . It has been found followed by the past-tense suffix {-h·Y-}. Themes containing it refer to two participants in a given social relationship, which is indicated by the nominal theme preceding this suffix. Within the limitations of meaning, it is productive. Examples:

- ka·ka-HwyjeH-koH- $\emptyset$  /ka·ka·wyje·ko/ 'they are an uncle and his nephew,' cf. ka·ka- 'maternal uncle'  
 ka·ka-HwyjeH-h·Y-ʔ /ka·ka·wyje·h·yʔ/ 'it used to be him and his uncle'  
 kakʔa-j·a-ʔwyjeH- 'uncles and nephews'  
 ʔypy·py-HwyjeH- 'paternal uncle and nephew,' cf. ʔypy·py- 'paternal uncle'  
 cukuH-HwyjeH- 'a dog and his master,' cf. cukuH- 'dog'  
 ʔoh·a-HwyjeH- 'him and his wife,' cf. ʔoh·a- 'woman; wife'  
 ʔociH-HwyjeH- 'partners,' cf. ʔociH- 'partner'  
 ʔaja·p-a-HwyjeH- 'the neighbors,' cf. ʔaja·p-a- 'neighbor'

769.  $\parallel C_1V_1C_2C_1V_1C_2$ - $\parallel$ : several Class III nominal themes referring to birds have this form. In no case do they bear any resemblance to

stems recorded in other environments; some appear to be onomatopoeic. The pattern is not productive. Examples:

laŋlaŋ- 'goose'

laʔlaʔ- 'goose'

pakpak- 'a large woodpecker'

waʔwaʔ- 'duck'

wekwek- 'a raptorial bird (species unidentified)'

770.  $\parallel C_1V_1C_2\cdot V_2C_3V_2 \parallel$ : numerous stems of this structure are members of Class III. Some of these bear no clear relationship to any other recorded stem; a few show a similarity to a nominal theme or to a Stem 1, but in some cases have a different  $C_3$ , or have a  $C_3$  where none is present in other environments. In some such stems,  $V_1$  and  $V_2$  are identical, as are  $C_2$  and  $C_3$ . Themes of this structure frequently correspond to English adjectives: they refer to a quality or characteristic, usually one which is visible or tangible. Examples:

hul·uwu- 'the hungry one,' cf. hulw- 'to be hungry, to starve'

joʔoko- 'dirty ones,' cf. joʔok- 'dirty'

lew·ehe- 'heavy,' cf. lew·ap- 'thick'

juʔata- 'sticky,' cf. juʔa- 'to glue, to stick'

ʔoʔono- 'short,' cf. ʔoʔ- 'to seat (trans.)'

ʔyh·yʔy- 'bad'

hiš·aša- 'rigid'

771. A number of Class III nominal themes show possible evidence of prefixed reduplication, of the form  $C_1V_1C_2-$ . In most cases, the stem cannot be related to any other known stem. Such themes, for the most part, refer to plants or animals. The pattern is not productive. Examples:

haʔ·haʔa- 'duck,' cf. haʔ·e- 'foot' (a Miwok legend describes how

Duck acquired her flat feet)

lek·lekša- 'a small hawk'

hok·hokot- 'California sweetshrub'

hut·hutja- 'Indian paintbrush'

pil·pilka- 'gold fern'

ʔen·ʔena- 'cedar bark'

772. Apart from the preceding, a number of other Class III nominal themes referring to plants and animals show evidence of reduplication. These stems cannot be related to any other known stems, and various patterns of repetition are found. Examples:

pałaʔ·aʔa- 'woodpecker'

tipi·sisi- 'bat'

ʔapəʔ·oʔ·o- 'pollywog'

tapat·apa- 'redbud'

## CHAPTER EIGHT

### POSTFIXES

#### 800. INTRODUCTION

Postfixes are a prominent feature of Southern Sierra conversational style, although all but a few are uncommon in narrative texts except for quoted speech. They follow the final suffixes. They are classed as affixes for the following reasons: (1) they do not meet the phonological criteria for independent words; (2) they cannot be elicited in isolation; (3) no utterance can commence with a member of this class; and (4) members of this class are not followed by any of the final suffixes. In some cases, postfixes appear to be in immediate constituency with more than the form whose final suffixes they follow. They are thus of the nature of postclitics.

A form may be followed by more than one postfix. In this case, the postfixes occur in a definite sequence; certain postfixes always follow others, and never precede them. At least five sequential positions can be recognized. It is most convenient to number these positions from the end of the word. Position 1 postfixes are never followed by any others. Position 2 postfixes are sometimes followed by Position 1 postfixes; Position 3, by Positions 1 and/or 2; Position 4, by Positions 1, 2, and/or 3; and Position 5, by Positions 1, 2, 3, and/or 4. No postfix is ever found following one of the same or a lower numbered position. If a postfix is a member of Position 4, for instance, it is never found following members of Position 2 or 3, nor does it follow other Position 4 postfixes. Members of the same position have not been found in the same form.

All of the postfixes are completely invariable in form, in all respects; none has been found which has more than one allomorph. Even the morphophonemes  $\|Y\|$  and  $\|H\|$ , which occur frequently elsewhere, have not been found in postfixes.

801.  $\|-hi\|$  follows nouns. In postfix sequences, it has only been found followed by  $\|-\text{ta}\|$ , which is a member of Position 4;  $\|-hi\|$  is therefore a Position 5 postfix. Its meaning is obscure: in most cases, it has been found in forms whose meaning is that of an "information, please" question. It occurs primarily in conversation. Examples:

mi-taH-n-hi· 'when will it be?,' cf. mi-taH-n 'when?'

myl'i?·iH-?-hi· 'is he a singer?,' cf. myl'i?-iH-? 'he habitually sings'

tin'y-j-hi· 'what is (he saying, etc.)?,' cf. tin'y-j 'something, what? (accusative case)'

802. ||-ho?|| 'and' follows nouns or verbs. It is a member of Position 2; it has been found followed by members of Position 1 and preceded by members of Positions 3, 4, and 5. Its meaning is 'and, also.' It is found both in conversation and in narrative texts. Examples:

neH-t-ø-ho? ?i-ni-t-ø-ho? 'here and there,' cf. neH-t-ø 'here,'  
 ?i-ni-t-ø 'there' (allative case)

ɬama-?-ho? 'sourberries also,' cf. ɬama-? 'sourberry, saltberry'  
 ?enh-ŋHe-ø--ho? 'and it is made,' cf. ?enh-ŋHe-ø-· 'it is made'  
 ?oh'a-ŋ-lek-ho? 'but also for girls,' cf. ?oh'a-ŋ 'woman (genitive case)'

803. ||-ja·|| has usually been found following nouns, but it has also been observed after an imperative verb. Only ||-ʔok|| has been found preceding ||-ja·||, which is therefore a member of Position 4 or a lower position. Its meaning is vague and interjectional in nature: one informant described it as follows: "It means like you would say 'sir'" (as in 'how's that, sir?'). It occurs primarily in conversation. Examples:

kac·-eH-?-ja· 'say this, then!,' cf. kac·-eH-? 'say this!'

we'l-ni-nti-?-ja· 'well, can I get it?,' cf. we'l-ni-nti-? 'can I get it?'

jal'al-nY-?Yh·Y-te-?-ja· 'I certainly yelled, sir!,' cf.

jal'al-nY-?Yh·Y-te? 'I yelled repeatedly'

804. ||-jo·|| follows nouns. It has not been found in combination with other postfixes. Its meaning is quite indefinite; it was used by one informant as a hesitation morpheme. It is found only in conversation. Examples:

tin'y-?-jo· 'what?'

mitokh-j-jo· 'how long?'

kan'i-?-jo· 'I—er—'

805. ||-lek|| follows nouns, verbs, and particles. It is a member of Position 3, being followed by members of Positions 1 and 2 and preceded by members of Positions 4 and 5. Its meaning is closest to 'but,' since it usually involves some sort of contrast. It occurs primarily in conversation; in narrative texts, it is found only in quoted speech. Examples:

?i-w'i-n-lek 'but nowadays,' cf. ?i-w'i-n 'now, today'

ken-lek 'no, it's not,' cf. ken 'no' (cf. Fr. mais non)

hyj?y-ksY-ø-ma·-lek 'but I know,' cf. hyj?y-ksy-ø-ma· 'I know'



806. ||-le·|| follows nouns, verbs, and particles. It is a member of Position 3, being followed by members of Position 2 and preceded by those of Position 5. Its meaning is interjectional and hard to define: it sometimes corresponds to 'well' or 'then!' It occurs frequently in conversation, but in narrative text it is found only in quoted speech. Examples:

- tin·y-?-le· 'well, what is it?,' cf. tin·y-? 'something, what?'  
 ?i-taH-n-?ok-le· 'at that time, then,' cf. ?i-taH-n-?ok 'at that time'  
 ?enh-ŋHe-Ø-·-le· 'it is being made, then,' cf. ?enh-ŋHe-Ø-· 'it is being made'  
 cytyH-?-le· 'well, that's good,' cf. cytyH-? 'it is good'

807. ||-man|| follows nouns, verbs (particularly in the imperative mode) and particles. It is a member of Position 4, being followed by members of Positions 2 and 3. Its meaning is hortative: 'you had better . . . , be sure to . . . .' It is often in immediate constituency with the phrase as a whole rather than with the form which it immediately follows. Examples:

- sy·k-eH-·-man 'be sure to write to me!,' cf. sy·k-eH-· 'write to me!'  
 ken-man-lek-ho? 'and don't ever . . . ,' cf. ken 'no; not; don't'  
 ken-man ?eta·l-eH-? 'you'd better not go back!,' cf. ken ?eta·l-eH-? 'don't go back!'

808. ||-pan|| follows nouns, verbs, and particles. It is a member of Position 4, being followed by members of Positions 1, 2, and 3, and preceded by those of Position 5. Its meaning is difficult to determine: it may be affirmative or confirmative, or it may mean something like 'moreover' or 'also.' It occurs mainly in conversation. Examples:

- ne-?-?ok-pan 'this one, then,' cf. ne-?-?ok 'this one'  
 hy·?y·-pan 'yes,' cf. hy·?y· 'yes'  
 pulak-·a-?-pan 'baskets also (?),' cf. pulak-·a-? 'basket'  
 hyj·y-ksY-ni-?-nY·-pan 'you ought to know,' cf. hyj·y-ksY-ni-?-nY· 'you might know'

809. ||-pa?|| follows nouns and verbs, especially those with an interrogative or indefinite meaning. It has not been found in combination with other postfixes. Its meaning appears to be indefinite: it seems to correspond to the English phrase '(something) or other.' It has only been found in conversation. Examples:

- tin·y-t-Ø-pa? 'in some (month) or other; I don't know in what (month),' cf. tin·y-t-Ø 'in what?, at something (allative case)'  
 tin·y-j-pa? 'something or other (accusative case)'  
 mic·y-Ø-·-pa? 'he's doing something or other,' cf. mi-c-Ø-· 'he's doing something'

810. ||-ʔat|| follows nouns, verbs (especially in the imperative mode), and particles. It is a member of Position 4, being followed by members of Position 3 and preceded by those of Position 5. Its meaning is intensifying or emphatic. It is frequent in conversation; in narrative texts, it is found in quoted speech. Examples:

ken-ʔat 'no sir!,' cf. ken 'no'

liwa-k-koX-ʔ-ʔat 'you do the talking!,' cf. liwak-koX-ʔ 'talk!'

koto-no-n-ʔat 'long, long ago,' cf. koto-no-n 'long ago'

811. ||-ʔek|| follows present imperfect verbs only. It has not been found in combination with other postfixes. Its meaning is that of a durative past tense; sometimes it has the quality of an afterthought: 'he is (fishing, etc.)—I mean he was.' It was very frequent in the speech of one informant (CB), rare in that of others. Examples:

ʔakp-ʃ-ma-ʔek 'I was thirsty,' cf. ʔakp-ʃ-ma 'I am thirsty'

hune-m-ʃ-p-u-ʔek 'they were fishing,' cf. hune-m-ʃ-p-u 'they are fishing'

hal-ki-ʃ-ʔek 'he was hunting,' cf. hal-ki-ʃ 'he is hunting'

ʔamʔy-j-nY-ʃ-ʔek 'he wanted to give it to him,' cf. ʔamʔy-j-nY-ʃ  
'he wants to give it to him'

812. ||-ʔe|| follows nouns, verbs, and particles. It is a member of Position 1, being preceded by members of Positions 2, 3, 4, and 5. Its meaning is interrogative; it calls for confirmation, corresponding to the phrases 'isn't it?' and 'isn't that true?' It is frequent in conversation, but has not been found in narrative texts. It often appears to be in immediate constituency with the whole phrase. Examples:

ʔi-Hs-ʃ-ʔok-ʔe 'with that, isn't it?,' cf. ʔi-Hs-ʃ-ʔok 'with that'

lak-h-ʃ-p-u-ʔe 'they are coming out, aren't they?,' cf. lak-h-ʃ-p-u  
'they are coming out'

cyl'a-HmetiH-j-ʔe 'awls (accusative case), isn't that so?,' cf.

cyl'a-HmetiH-j 'awls (accusative case)'

813. ||-ʔic|| is found following nouns and verbs. It has not been found preceded or followed by any other postfix. Its meaning is obscure; it has been found largely in "information, please" questions, with no apparent modification of meaning. If it is a question morpheme, it appears to be in immediate constituency with a whole phrase rather than with the word which it immediately follows. It is used primarily in conversation.

Examples:

micyk-na-ŋHe-ʃ-ʔic 'how is it done?,' cf. micyk-na-ŋHe-ʃ 'how is it done?'

tin-y-ʔ-ʔic 'what is it?,' cf. tin-y-ʔ 'something; what?'

koto-no-n-ʔic 'long ago,' cf. koto-no-n 'long ago'

814. ||-ʔi·|| follows nouns and particles. It is a member of Position 5, being followed by members of Positions 3 and 4. Its meaning is specifying or definite: 'this one.' It is more frequent in conversation than in narrative text. Examples:

neH-ʔ-ʔi· 'here it is; this one,' cf. neH-ʔ 'this one'

mi-n·i-ʔ-ʔi· 'where is this one?,' cf. mi-n·i-ʔ 'where?'

815. ||-ʔok|| follows nouns only, especially those containing the demonstrative stems {ʔi-} and {neH-}. It is a member of Position 5, being followed by members of Positions 1, 2, 3, and 4. Its meaning is not known; {neH-} can serve as an independent pronoun without this suffix, as well as with it, although {ʔi-} as a pronoun stem is always followed by ||-ʔok||. It is frequent in both conversation and narrative text. Examples:

ʔiH-∅-ʔok 'that one; he,' cf. ʔi- 'that'

ʔi-taH-n-ʔok 'then'

ne-k'o-ʔ-ʔok 'these; cf. ne- 'this'

ʔi-pu't-j-te-ʔ-ʔok 'I'll do that'

816. ||-ʔyntyk|| follows nouns referring to location only. It has not been found in combination with other postfixes. Its meaning is 'from the direction of . . . .' It occurs both in conversation and in narratives.

Examples:

li·leH-ʔ-ʔyntyk 'from upwards,' cf. li·leH-ʔ 'up'

ʔe·ca-ʔ-ʔyntyk 'from inside,' cf. ʔe·ca-ʔ 'inside'

hi·hy-m-∅-ʔyntyk 'from the east,' cf. hi·hy-m-∅ 'in the east'

## CHAPTER NINE

### SYNTAX

#### 900. INTRODUCTION

In Southern Sierra Miwok, syntax depends heavily on the final suffixes, which might be described as the syntactic "mortar" holding utterances together. The final suffixes tell who did what, when, where, to whom, with what, and in what direction; they tell what properties appertain to what item, and to whom an item belongs.

As in other languages with elaborate case systems, word order is of very little significance in Southern Sierra Miwok. It matters little whether one says /naŋ·aʔ halki· hika·hyj/, /naŋ·aʔ hika·hyj halki·/, /hika·hyj naŋ·aʔ halki·/, or /halki· naŋ·aʔ hika·hyj/; all mean 'the man is hunting the deer'. In this example, the relationships between /naŋ·aʔ/ 'man, nominative case', /hika·hyj/ 'deer, accusative case' and /halki·/ 'he is hunting' are shown by the final suffixes ||-ʔ||, nominative case; ||-j||, accusative case; and ||-·||, third person singular Series 3 pronominal suffix. These relationships remain the same no matter what the order of the words. Only with particles is word order of any importance, since particles do not have final suffixes. Even here, however, it is a matter of juxtaposition rather than of strict sequential order: particles are found next to the word or phrase with which they are in immediate constituency, sometimes preceding and sometimes following. Nothing intervenes between two immediate constituents if one is a particle, but the order of the two constituents in question is freely variable.

#### 910. SYNTACTIC SUBSTITUTION CLASSES

Southern Sierra Miwok has three syntactic substitution classes. These are the class of **NOMINAL EXPRESSIONS**, that of **VERBALS** and **VERBAL EXPRESSIONS**, and that of **PARTICLES**. At least some members of each class sometimes stand alone as complete utterances. Members of the various classes are also combined in various ways to provide more complex utterances. In these longer utterances, members of the same class

substitute for each other without changing the nature of the structure; members of different substitution classes do not.

911. The class of nominal expressions includes several different types of structure. Nominal expressions are composed of nouns, and except for verbals of nominal form (see section 912), all nouns in any particular utterance are or are members of nominal expressions. Nouns and nominal expressions combine with each other in structures of increasing complexity, which are nonetheless members of the same substitution class. Any individual noun, therefore, may be a member of several nominal expressions at different levels of immediate constituency. Examples of this phenomenon will be given below.

A nominal expression may consist of:

(1) One noun, with any case suffix. Examples:

||naŋ'aH-ʔ|| /naŋ'aʔ/ 'the man (nominative case)'

||cyl'a-Hs-∅|| /cyl'as/ 'with an awl (instrumental case)'

||kan'-ŋ|| /kan'yŋ/ 'my (genitive case)'

(2) Two or more nouns with the same case suffix. Such nouns are in immediate constituency with each other. Besides agreeing with each other as to case suffix, nouns in immediate constituency agree in person. If one of them is an independent pronoun, the other(s) always contain the corresponding Series 2 pronominal suffix; nouns other than independent pronouns contain the same Series 2 pronominal suffix when in immediate constituency with each other. Likewise, if one member of a nominal expression of this type contains a diminutive, augmentative, or plural suffix, some or all other members of the same expression often contain the same suffix. This type of agreement, however, is not obligatory; agreement in case and person is obligatory. Examples:

||ʔi-HmetiH-j-ʔok cicka-HmetiH-j|| /ʔi'metiʔok cicka'meti/ 'those birds (plural, accusative case)'

||ʔi-Hs-∅-ʔok tin'y-t'i-Hs-∅, monac'a-t'i-Hs-∅-le, tela-ʔHYniH-ti'i-Hs-∅. . .tin'y-Hs-∅, ja'ny-t'i-Hs-∅|| /ʔisʔok tin'yt'is, monac'at'isle, telaʔynit'is. . .tin'ys, ja'nyt'is/ 'with that little something, with pretty little things, with little colored things, with something, with fine yarn'

||ʔokaHh-∅-ŋ ʔi'h-ŋ-ʔok ʔama-∅-ŋ|| /ʔoka'hyŋ ʔi'hyŋʔok ʔamaŋ/ 'the same one's, its, sourberry's'

(3) A POSSESSIVE EXPRESSION, consisting of a form containing a Series 1 pronominal suffix and a nominal expression of type 1 or 2 (see above) in the genitive case. The genitive nominal expression and the form with a Series 1 pronominal suffix are in immediate constituency with each other, and the Series 1 pronominal suffix agrees with the genitive form.

If the genitive form is a pronoun, the Series 1 pronominal suffix must correspond in person and number; if the genitive form is not a pronoun, it contains the Series 2 pronominal suffix corresponding to the Series 1 suffix in question. The case of a possessive expression is that of the form containing a Series 1 pronominal suffix. Examples:

?ajtuH-me-ŋ han'a-?-mah'i' /?ajtu'meŋ han'a'mah'i'/ 'the heads of all of us'

kan'-ŋ cyl'a-nti-Hs-∅ /kan'yŋ cyl'antis/ 'with my awl (instrumental case)'

?okaHh-ŋ ?i'h-ŋ-?ok ɬama-ŋ la'ma-?-hY' /?oka'hyŋ ?i'hyŋ?ok ɬamaŋ la'ma'hy'/ 'that same sourberry's bush'

(4) A possessive expression and another nominal expression with the same case suffix, with which the possessive expression is in immediate constituency. Example:

?okaHh-ŋ ?i'h-ŋ-?ok ɬama-ŋ la'ma-?-hY'. . .cytyH-?-le' /?oka'hyŋ ?i'hyŋ?ok ɬamaŋ la'ma'hy'. . .cyty?le'/ 'that same sourberry's bush. . .is good'

Where two or more members of a nominal expression are in the same case, there is no way in which head and attribute(s) can be distinguished on the basis of form or distribution. Within the limits of meaning, any two nominal expressions in the same case substitute for each other. The members of a nominal expression are themselves nominal expressions; therefore, where the case is the same, they can substitute for each other. For example, /naŋ'a? cyty?/ 'the good man; the man is good' is a nominal expression, consisting of two nouns, ||naŋ'aH-?|| 'man' and ||cytyH-?|| 'good; goodness; the good one,' both in the nominative case. One may say /naŋ'a? cyty? ?yn'y'/ 'the good man is coming,' adding a verbal (||?yn'-∅-|| 'he is coming') (see section 912). In this structure, either /naŋ'a?/ or /cyty?/, or indeed any nominal expression in the nominative case, can substitute for the nominal expression /naŋ'a? cyty?/:

/naŋ'a? ?yn'y'/ 'the man is coming'

/cyty? ?yn'y'/ 'the good one is coming'

/?i'hyŋ?ok ta'ci'hy' ?yn'y'/ 'his brother is coming' (where ||?i'h-ŋ-?ok ta'ciH-?-hY'|| 'his brother' is a nominal expression of the third type listed above)

However, certain theoretically possible utterances do not occur, owing to the limitations of meaning, by which I refer to the fact that informants will usually reject an utterance that does not make sense even though it is formally correct. For instance, one would not be likely to say /la'ma? ?yn'y'/ 'the tree is coming,' although in other utterances ||la'ma-?|| 'tree, nominative case' can substitute for ||naŋ'aH-?|| 'man,' ||cytyH-?|| 'good,' or ||?i'h-ŋ-?ok ta'ciH-?-hY'|| 'his brother.'

In possessive expressions, the form containing a Series 1 pronominal suffix may be described as the head of the expression, since it can substitute for the whole expression. The form(s) bearing the genitive case suffix can be regarded as attribute(s). For example, in the possessive expression /cukuŋ hu·kiʔhy/ 'the dog's tail,' ||hu·ki-ʔ-hY·|| 'his tail' can substitute for the whole expression; ||cukuH-ŋ|| 'the dog's' cannot.

Nouns in the temporal case do not necessarily show agreement with other nouns or nominal expressions with which they are in immediate constituency. Where a nominal expression contains one or more nouns in the temporal case, the case of the expression as a whole is that of those members which are not in the temporal case, whether the temporal noun serves as head or attribute. For example, the accusative case in one of its uses implies 'during; all through; for the duration of'; and nominal expressions exist where all members have this case suffix with this meaning, such as ||ʔajtuH-j hiʔe·ma-j|| /ʔajtuj hiʔe·maj/ 'all day.' However, there are comparable expressions where one member has this case suffix while the other has the temporal case, such as ||ʔajtuH-j hojeH-no-n|| /ʔajtuj hoje·non/ 'all the next day.' In these instances, the form with the temporal case may be described as the head of the expression, since it can substitute for the whole expression; but the expression as a whole can be said to be in the accusative case, since it is structurally equivalent to expressions where all members are in the accusative case.

In similar fashion, a noun in the temporal case may be in immediate constituency with a nominal expression in the nominative case, as for example in /miw·yŋ koto·non ʔy·wyh·yʔko·/ 'it was the Indians' food, long ago,' where ||koto·-no-n|| 'long ago (temporal case)' is in immediate constituency with the possessive expression /miw·yŋ . . . ʔy·wyh·yʔko·/ 'it was the Indians' food,' which in turn is composed of the noun ||miw·yH-ŋ|| 'Indians', people's (genitive case)' and the noun ||ʔy·wy-h·Y-ʔ-ko·|| 'it was their food' ('food-past-nominative-their'). In this instance, the form in the temporal case is attributive, since it cannot substitute for the whole expression, while the possessive expression can. The case of the whole expression is that of the possessive expression, namely nominative, since the whole expression can substitute for other expressions all of whose members are in the nominative case.

The members of a nominative expression are sometimes separated from each other by other words that are not members of that expression. Rarely do more than two or three such words intervene. The relationship between the members is indicated by their agreement in case, and in person if any pronominal suffixes or pronouns are present. For ex-

ample, in the expression /tin'y? ?i'hyŋ?ok ?oja'he?hy' tuhuh'iŋ/ 'what is that black one's name?', ||?i'h-ŋ-?ok|| 'his, that one's' and ||tuhuh-·i-ŋ|| 'the black one's' are the immediate constituents of a nominal expression in the genitive case, which in turn is in immediate constituency with ||?oja'he-?-hY·|| 'his name,' forming a possessive expression in the nominative case. This, in its turn, is in immediate constituency with ||tiny-?|| 'something, what?,' which is also in the nominative case. The whole constitutes a nominal expression in the nominative case.

912. Verbals differ from nominal expressions in that they are often found in associations with a group of attributive nominal expressions, which may be in several different cases. This cluster of nominal expressions refers to the subject, object, instrument, location, direction, and time of the action or state represented by the verbal, according to the meanings of the various case suffixes (see sections 321-329). Except as noted in connection with possessive expressions and the temporal case (see section 911), nominal expressions occur only (1) in immediate constituency with other nouns or nominal expressions in the same case, or (2) as attributes to a verbal. They are never found with an attributive cluster of nominal expressions in a variety of cases.

A verbal alone, or a verbal with its associated cluster of attributive nominal expressions, constitutes a **VERBAL EXPRESSION**. Verbals, therefore, are members of the same substitution class as the verbal expressions of which they may be members. It is, however, convenient to have a separate term for verbals, since they serve as heads and must be distinguished from their attributive nominal expressions. They cannot be referred to as verbs, since many of them are morphologically nouns.

Verbals may be verbs or nominal forms. If verbs, they are present imperfect verbal themes followed by Series 3 pronominal suffixes, by the nominative case and Series 1 pronominal suffixes, or by the allative case; present perfect verbal themes followed by Series 3 pronominal suffixes; or imperative verbal themes followed by Series 4 pronominal suffixes, Series 4 suffixes and the genitive case, Series 1 suffixes and the nominative case, or the allative case. Verbals of nominal form contain themes ending in one of the following suffixes: {-a-} (see section 701); ||-haHk-||, gerundial (see section 711); {-iH-}, habitual (see section 715); {-j-}, future (see section 716); ||-ka-||, past (see section 720); {-keH-}, past (see section 723); ||-ni-|| 'can, might, ought to' (see section 733); ||-tho-||, gerundial (see section 744); ||-tHuH-||, reventive (see section 749); ||-?aX-||, infinitive (see section 752); {-?YniH-} 'having' (see section 755); or any of the above followed, where possible, by {-h·Y-}, past (see section 713).



Verbals and verbal expressions are PRIMARY or SECONDARY. Primary verbals are present imperfect or present perfect verbal themes followed by Series 3 pronominal suffixes; present imperfect verbal themes followed by the allative case; imperative verbal themes followed by Series 4 pronominal suffixes or the genitive case; or nominal forms in the nominative case.

Secondary verbals are imperative verbal themes followed by the allative case; imperfect or imperative verbal themes followed by the nominative case and Series 1 pronominal suffixes; or nominal forms in cases other than the nominative. Secondary verbals and verbal expressions are attributive to primary verbals or verbal expressions.

For example, in the utterance /neʔok kiwsaʔ hyjʔyksyt ʔywʔynyʔajhyʔ/ 'this crane knew what he (Coyote) wanted to eat,' /neʔok kiwsaʔ hyjʔyksyt/ is a primary verbal expression, composed of a verbal, ||hyjʔy-ksY-ϕ-t|| 'he knew' and a nominal expression in the nominative case, /neʔok kiwsaʔ/ 'this crane,' composed of ||ne-ʔ-ʔok|| 'this' and ||kiwsa-ʔ|| 'crane'; ||ʔywʔy-j-nY-ʔa-j-hyʔ|| 'what he wanted to eat (accusative case)' is a secondary verbal, attributive to ||hyjʔy-ksY-ϕ-t|| 'he knew.'

In the utterance /kanʔiʔpanlek, nejʔok tawaʔhalʔyniʔteʔ, halpyksyʔantiʔ kikʔyj/ 'but as for me, this is my job, watching the water,' ||tawaʔhalʔYniH-te-ʔ|| 'I have a job' is a primary verbal, which together with the nominal expressions ||kanʔiʔ-pan-lek|| 'but as for me (nominative case)' and ||ne-j-ʔok|| 'this (accusative case)' forms a primary verbal expression. The remainder of the utterance, /halpyksyʔantiʔ kikʔyj/ 'watching the water,' is a secondary verbal expression attributive to the above, composed of the secondary verbal ||halp-ksY-ʔa-nti-j|| 'my watching (accusative case)' and its nominal attributive, ||kikʔy-j|| 'water (accusative case).'

In the utterance /hoʔajhoʔ ʔokahpuksuʔuhʔukoʔ cilenʔekoj hojeʔ/ 'and also they would do the same thing again after they have lunch,' ||ʔokaHh-pu-ksY-ʔYh-Y-koʔ|| 'they would do the same thing' is a primary verbal, with which the particle ||hoʔaj-hoʔ|| 'and also' is in immediate constituency. ||cilenʔ-e-koH-ŋ|| 'after they had lunch' is a secondary verbal, which has as attribute ||hojeH-ʔ|| 'next (nominative case),' forming a secondary verbal expression attributive to /ʔokahpuksuʔuhʔukoʔ/.

913. The syntactic substitution class of particles coincides with the morphological class of the same name. Particles are found in immediate constituency with, and as members of, nominal and verbal expressions. Particles have no effect on the substitution class of the expressions of which they are members. The substitution class of an expression containing a particle is that of the member which is not a particle. Particles may therefore be said to be attributive forms.

Since particles do not have final suffixes, their relationship to other forms is not indicated by agreement. Instead, it is shown by position. Particles are found immediately following or preceding the word or expression with which they are in immediate constituency.

Since a particle does not affect the substitution class of the expression of which it is a member, a verbal or nominal expression may commence or end with a particle. Another particle, in immediate constituency with the whole expression, may then precede or follow. Sequences of two or three particles may thus occur; each is in immediate constituency with the preceding or following verbal expression, whether or not that expression contains a particle. Examples:

The utterance /manaj hane· halap·eme?/ 'we found somebody' consists of a verbal, ||halap·e-me-?|| 'we found him,' preceded by a nominal expression in the accusative case, /manaj hane·/ 'somebody or other,' consisting of a noun, ||manaX-j|| 'somebody (accusative case)' and a particle, ||hane·|| 'maybe.'

The utterance /hel'i? ?i·?okpan cyty? ho?·aj/ 'those mushrooms are good too' is a nominal expression, consisting of a particle, ||ho?·aj|| 'and, also,' in immediate constituency with a nominal expression consisting of three nouns in the nominative case, ||hel'i-?|| 'a species of mushroom,' ||?iH-Ø-?ok-pan|| 'that one,' and ||cytyH-?|| 'good.'

The utterance /ken hane· mana?/ 'maybe nobody,' a nominal expression in the nominative case, consists of a particle, ||ken|| 'no, not,' in immediate constituency with a nominal expression, /hane· mana?/ 'maybe somebody,' consisting of a particle, ||hane·|| 'maybe' in immediate constituency with a noun, ||manaX-?|| 'somebody, who? (nominative case)'

## 920. IMMEDIATE CONSTITUENCY

Immediate constituency is indicated by agreement in person, where pronominal suffixes are present; by the use of case suffixes; and sometimes, in the case of nouns, by agreement in diminutive, augmentative, or plural suffixes. An important point to note concerning immediate constituency is that, in nominal or verbal expressions of more than two members, the immediate constituents cannot always be divided in binary fashion. In nominal expressions of more than two members, where all members have the same case suffix, all of the members are immediate constituents at the same level. Any one may be omitted without changing the structure, and any one may substitute for the whole expression. For example, the nominal expression /?i·?ok cyty? naŋ·a?/ 'he is a good man; that man is

good' is composed of three nouns in the nominative case:  $\|\text{?iH-}\emptyset\text{-?ok}\|$  'that one,'  $\|\text{cytyH-?}\|$  'good,' and  $\|\text{naŋ'aH-?}\|$  'man.' Any one may be omitted, and the structure remains a member of the same substitution class; and all the members of the expression are members of the same substitution class as the whole expression. There are, therefore, no formal grounds for cutting off one of the three and saying that it is in immediate constituency with the other two. The three nouns must be treated as fully coördinate with each other, and both cuts must be made at the same time.

In verbal expressions, the situation is a little different. A verbal expression contains a head—the verbal—and one or more attributes, which are nominal expressions in various cases. Each nominal expression is in immediate constituency with the head, and with the head alone, without reference to other nominal expressions. Any particular nominal expression may be omitted without changing the substitution class of the verbal expression. Since all the nominal expressions are attributes to the same head, all the cuts between the attributes and the head must be made at the same time. For example, in the utterance /hoje? hoja'pasy' ?i'ok cin'ipitki', cyl'as/ 'next you start on a small one, with an awl,' the head is the verb  $\|\text{hoja'-pa-}\emptyset\text{-sY}\|$  'you commence.' It has three attributive nominal expressions:  $\|\text{hojeH-?}\|$  'next (nominative case)'; /?i'ok cin'ipitki'/ 'that small one (accusative case),' composed of two accusative nouns,  $\|\text{?iH-j-?ok}\|$  'that one' and  $\|\text{cin'ipi-tki-j}\|$  'a small one (diminutive)'; and  $\|\text{cyl'a-Hs-}\emptyset\|$  'with an awl (instrumental case).' All of these nominal expressions are in immediate constituency with the same head; any of them could be omitted without changing the substitution class of the structure.

Where an utterance contains more than one verbal, it is sometimes difficult to determine to which verbal a particular nominative expression is attributive. This can be true where one verbal is primary and the others secondary, or where two or more primary verbals are present in a coördinate construction. The fact that a particular nominal expression is in the accusative case, for example, indicates only that it is the object of an action; which action, if the sentence contains reference to several, is indicated only by meaning and relative proximity. These are not always reliable guides; ambiguities are possible. In some cases the nominal expressions in question can even be regarded as referring to more than one verbal. For example, in the utterance /wy?i'tymyksyma' nem'o'ok kot'an hyjŋenti'/ 'I am peeping over from here, a long way I can see' contains a primary verbal,  $\|\text{wy?i't-mY-ksY-}\emptyset\text{-ma}\|$  'I am peeping,' and a secondary verbal,  $\|\text{hyHj-ŋHe-ni-nti-j}\|$  'I can see (accusa-

tive case). The two nominal expressions, ||neH-m'-?-?ok|| 'from here' and ||kot-taH-n|| 'far off' could apply to either verbal, or both.

### 930. SENTENCE TYPES

In preceding sections, the syntactic units of Southern Sierra Miwok have been described. These units combine in various ways in different types of sentence, or speech segments, which at least sometimes stand alone as complete utterances. Southern Sierra sentence types include the following:

- (1) Certain particles in isolation:

/hy·?y·/ 'yes'

/ken/ 'no'

/jej/ 'hey!'

- (2) A nominative expression, in any case:

/?ypy·/ 'Father!' (vocative case)

/naŋ·a·? cyty·?/ 'The man is good' (nominative case)

/?is?ok cyl·as/ 'With this awl' (instrumental case)

/lu·ti· hi?e·maj/ 'Another whole day' (accusative case)

- (3) A nominative expression with one or more particles:

/?i·?ok hane·/ 'That must be it'

/hy·?y· ?ama?ho· ?i·?ok/ 'Yes, those sourberries'

/ken manaŋ/ 'Nobody's'

/?iw·inlek ken sikej/ 'But not very much now'

- (4) A primary verbal:

/cy·lyma·/ 'I'm weaving'

/ly·ty·?yh·yko·/ 'They would scrape it with a stick'

/micyknaninti·?/ 'What can I do?'

- (5) A primary verbal with one or more particles:

/kel·a·me·? hane·/ 'Maybe it's going to snow on us'

/?awi·ny·?yh·yko· ho·?aj·y·/ 'They were playing too'

/hyj·ic·yp·u· pa?is sikej/ 'They are looking at it so earnestly'

- (6) A primary verbal with one or more nominal expressions (a primary verbal expression):

/sypes ?ol·u·?uh·uko· tol·et pat·ytyt/ 'With a digging stick, they would dig in the hard ground'

/ken tin·y·? ?enpuni·?hy·/ 'He can't chase anything'

/hoje·? hyh·ys ?is?ok ?o·lu·?uh·uko·/ 'Next, with a stick they would skin it'

(7) A primary verbal expression with one or more secondary verbal expressions:

/ʔitanʔok hojeʔ, keŋoʔtuʔuhʔukoʔ lepʔathoj/ 'Then next they would gather it up, being finished'

/ʔespaniniʔkan, miʔlek sikej cinʔipicʔyniʔ, ʔehʔyhniʔ sikej ʔiʔok ʔipuksuʔajnyʔok, lotuksuʔajnyʔ ʔiʔok hawaj/ 'I can help you, you are very small, you are very light to be doing that, to be holding on to that rock'

/ken haneʔ ʔylʔymaʔmetiʔ lakhyjikʔynintiʔ kanʔyŋ nymih miʔnyŋ lakhyʔajnyʔ/ 'Perhaps I cannot go through the holes the way you can'

/halpyksymahʔiʔ tinʔyŋ ʔyhʔyʔymʔaŋ hyʔjaʔajhyʔ/ 'We are watching for something bad to arrive'

(8) Two or more primary verbal expressions, with or without secondary verbal expressions, in coördinate constructions:

/ʔitaʔnonʔok cytyʔ peʔwisaʔ ʔicʔyt, wilʔatmetiʔ ʔicʔyʔyhʔykoʔ/ 'Long ago it meant good roots, they chose long ones'

/ʔiniʔlek ʔywʔymaʔ ʔokahputeʔ, ken hyjaʔnymaʔ ken tinʔyjʔic micyknaʔatʔejhyʔ/ 'But I'm going to eat that one just the same, I don't care what he does to me'

/luʔtiʔ ʔojiswiʔjyʔ, luʔtiʔ ʔoʔikwiʔjyʔ/ 'Some quarter it, some divide it in two'