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Wintu Grammar

by Harvey Pitkin

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Wintu Grammar

by Harvey Pitkin

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for

CARRIE B. DIXON

JOE CHARLES

ELLEN SILVERTHORN



Carrie B. Dixon



Joe Charles



Ellen Silverthorn

Contents

<u>Map</u>	<u>xvi</u>
<u>Symbols and Notational Conventions</u>	<u>xvii</u>
<u>Introduction</u>	<u>1</u>
<u>I. Synopsis of Structure</u>	<u>9</u>
<u>100. Phonemics</u>	<u>9</u>
<u>200. Morphophonemics</u>	<u>9</u>
<u>300. Morphology</u>	<u>10</u>
<u>400. Word Tactics</u>	<u>13</u>
<u>II. Phonemics</u>	<u>17</u>
<u>100. Suprasegmental Phonemes</u>	<u>17</u>
<u>110. Junctures</u>	<u>18</u>
<u>111. Plus Junctures</u>	<u>18</u>
<u>112. Hyphen Juncture</u>	<u>20</u>
<u>113. Comma Juncture</u>	<u>22</u>
<u>114. Period Juncture</u>	<u>22</u>
<u>120. Phrasal Accent</u>	<u>23</u>
<u>200. Segmental Phonemes</u>	<u>24</u>
<u>210. Consonants</u>	<u>26</u>
<u>220. Vowels</u>	<u>36</u>
<u>230. Syllable</u>	<u>38</u>
<u>III. Morphophonemics</u>	<u>40</u>
<u>100. Introduction</u>	<u>40</u>
<u>200. Canonical Shapes of Morphemes by Class</u>	<u>41</u>
<u>300. Morphophonemic Rules</u>	<u>42</u>
<u>310. Vowel Ablaut</u>	<u>43</u>
<u>311. Front Vowel Raising</u>	<u>44</u>
<u>312. Back Vowel Raising</u>	<u>44</u>
<u>313. Suffix Vowel Assimilation</u>	<u>45</u>

320.	Phonomechanical Processes	45
321.	Consonant Cluster Simplification	46
322.	Consonant Ablaut	48
323.	Syncopation	49
324.	Auxiliary Verb Stem Contraction	51
325.	Summary of Abstract Forms	53
IV.	Morphology	56
100.	Words and Word Classes	56
200.	Verbs	63
210.	Verb Structure	70
215.	Verb Conjugation Classes	72
220.	Verb Stems	78
221.	Indicative Stems	78
222.	Imperative Stems	79
223.	Nominal Stems	80
230.	Verb Radicals	81
231.	Radical Prefixes	81
232.	Roots	84
233.	Root Derivation	90
233.1	Reduplication	90
233.2	Distributive Suffix {V1V1Vh}	91
233.3	Repetitive Suffix {V·r}	91
233.4	Iterative Suffix {V·y}	92
233.5	Transitive Suffix {c}	93
233.6	Stative Suffix {?el}	94
233.7	Privative Suffix *{w}	96
234.	Summary Chart of Radical Structure Position-Classes	98
235.	Summary Chart of Maximal Verb Position-Classes	99
236.	Chart of Imperative Stem Derivational Suffixes	100
237.	Chart of Imperative Stem Inflectional Suffixes	101
238.	Summary Chart of Nominal Stem Suffixes	102

239.	<u>Summary Chart of Indicative Stem</u>	
	<u>Inflectional Suffixes</u>	103
240.	<u>Stem Suffixation</u>	104
241.	<u>Imperative Stem Suffixation</u>	104
241.1	<u>First Position-Class Derivational</u>	
	<u>Suffixes</u>	106
241.11	<u>Particular Aspect of Patient Suffix {t}</u>	106
241.12	<u>Particular Comitative Suffix {i'l}</u>	108
241.13	<u>Generic Comitative Suffix {m}</u>	109
241.2	<u>Second Position-Class, Derivational</u>	
	<u>Suffix: Reflexive {n}</u>	110
241.3	<u>Third Position-Class, Derivational</u>	
	<u>Suffix Suffix: Causative {m}</u>	111
241.4	<u>Fourth Position-Class Derivational</u>	
	<u>Suffixes</u>	112
241.41	<u>Reciprocal Suffix {pur}</u>	112
241.42	<u>Benefactive Suffix {paq}</u>	113
241.5	<u>First Position-Class Inflectional</u>	
	<u>Suffixes</u>	114
241.51	<u>Warning Suffix {ken}</u>	114
241.52	<u>Passive Suffix {here}</u>	115
241.6	<u>Second Position-Class Inflectional</u>	
	<u>Suffixes</u>	117
241.61	<u>Inevitable Future Suffix {le}</u>	117
241.62	<u>Subordinating Potential Temporal</u>	
	<u>Simultaneity {n}</u>	118
241.63	<u>First Person Jussive Suffix {n}</u>	119
241.64	<u>Hortative Suffix {di}</u>	120
241.7	<u>Third Position-Class Inflectional</u>	
	<u>Suffixes</u>	121
241.71	<u>Negative Suffix {mina}</u>	121
241.72	<u>First-Person Dual Hortative Suffix {e'}</u>	123
241.73	<u>Necessary Temporal Anteriority Suffix</u>	
	<u>{so}</u>	123
241.74	<u>Impersonal Interrogative Suffix {i'}</u>	124
241.75	<u>First-Person Interrogative Suffix {u'}</u>	125
241.76	<u>Subordinating Temporal Simultaneity</u>	
	<u>or Anteriority {ta}</u>	126
241.77	<u>Personal Object Suffix {'t}</u>	126

242.	Nominal Stem Suffixation	127
242.1	Stative Denominal Suffix {h}	127
242.2	Intensive Denominal Suffix {s}	128
243.	Indicative Stem Inflectional Suffixes	129
243.1	First Position-Class Inflectional Suffixes	129
243.11	Nonvisual Sensory Evidential Suffix {nt ^h ere}	130
243.12	Hearsay Evidential Suffix {kele}	131
243.13	Inferential Evidential Suffix {re*}	133
243.14	Experiential Evidential Suffix {?el}	134
243.15	Subordinating Causal Anteriority Suffix {r}	135
243.16	Approximation Suffix {puke*}	135
243.2	Second Position-Class Inflectional Suffixes	136
243.21	First-Person Subject (Selfness) Suffix {da}	136
243.22	Second-Person Suffix {sken}	139
243.23	Dubitative Suffix {m}	142
243.24	Completive Suffix {k}	143
243.25	Subordinating Temporal Anteriority Suffix {?a}	145
243.26	Subordinating Unexpected Simultaneity Suffix {tan}	145
244.	The Category of Evidence	146
245.	The Category of Person	153
246.	The Category of Aspect	156
250.	Classification of Verbs	159
260.	Auxiliary Verbs	161
261.	Copulas	164
261.1	Proximal Copula Auxiliary {?iy}	170
261.2	Distal Copula Auxiliary {?uw}	172
261.3	Dependent Copula (Visual Evidential) Auxiliary {?el}	174

262.	Attributive Auxiliaries	177
262.1	Aspectual Attributives	177
262.11	Imperfective (Visual Evidential) Aspect {bEy}	181
262.12	Durative Aspect {bOh}	184
262.13	Perfective Aspect {suk}	185
262.14	Future Aspectuals	187
262.14.1	Future Intentional {wEr}	187
262.14.2	Progressive {har}	188
262.2	Modal Attributives	188
262.21	Desiderative {kOy}	190
262.22	Conditional {kil}	191
262.23	Optative {keneh}	192
262.3	Temporal Attributive {kir}	193
262.4	Attributives of Possibility	194
262.41	Potentiality and Custom	194
262.41.1	Inability {pin}	195
262.41.2	Ability {lel}	195
262.41.3	Usitative {top}	196
262.42	Preverbs of Non-Possibility	196
262.42.1	Prohibitive {be·di}	197
262.42.2	Negative {?elew}	197
300.	Substantives	199
305.	Chart of Noun Position-Classes	201
310.	Nouns	202
311.	Noun Classes Based on Thematic-Aspect Suffixes	203
320.	Thematic Aspect Suffixes (Allomorphy).	207
321.	Particular Aspect {t}	213
322.	Generic Aspect {s}	214
325.	Substantive Case Suffixes	215
325.1	Object Case {um}	216
325.2	Genitive Case {un}	216
325.3	Locative Case {in}	217

325.4	Instrumental Case {r}	218
325.5	Possessive Case {t}	219
325.51	Emphatic Possessive {tun}	219
330.	Noun Possession (Alienability) and Classification	220
331.	Non-Possessed Nouns	222
331.1	Dependent Non-Possessed Nouns	223
331.2	Compounded Dependent Non-Possessed Nouns	224
331.3	Independent Non-Possessed Nouns	226
340.	Pronouns	229
340.1	Chart of Pronoun Position Classes	233
340.2	Deictic Roots	234
341.	First-Person Exclusive Pronominal Root {ni}	246
342.	First-Person Inclusive Pronominal Root {pe}	246
343.	Second-Person Pronominal Root {mi}	246
344.	Third-Person Pronominal Root {pi}	247
345.	Third-Person Proximal Pronominal Root {e}	248
350.	Pronominal Inflectional Suffixes	249
350.1	Dual {*l}	249
350.2	Plural {te}	249
350.21	Human Plural Classifier {ba}	250
350.3	Emphatic {o}	250
350.4	Non-Singular Pronominal Stem-Formant {e}	251
351.	Pronominal Compounding	251
355.	Classifiers	252
360.	Charts of Pronouns Paradigms	253
361.	Chart of First-Person Exclusive Pronominal Forms	254
362.	Chart of First-Person Inclusive Pronominal Forms	255
363.	Chart of Second-Person Pronominal Forms	256
364.	Chart of Third-Person Pronominal Forms	257
365.	Chart of Third-Person Proximal Pr nominal Forms	258

400. Sentence Connectives	259
500. Uninflected Words	260
V. Word Tactics and Text Analysis	264
100. Tactic Units	264
200. Text with Analysis	268
210. Text	268
220. Morphotactic Analysis	271
Index of Morphemes	285
Bibliography	291



Tribes and Territories of California Indians

Symbols and Notational Conventions

[]	square brackets are used for phonetic transcription; e.g., allophones are enclosed in square brackets
/ /	phonemes and phonemic sequences are enclosed in slashes
v	vowel
c	consonant
	vowel length
s	light syllable
S	heavy syllable
<u>S</u>	extra-heavy syllable
	morphophonemic symbols (summarizing pervasive phonologically conditioned variation in phonemic shapes as described in Section III, Morphophonemics); i.e., morphophonemes and morphophonemic sequences are enclosed in parallel bars
{ }	morphemes are designated by their basic allomorphs enclosed in braces (violin brackets)
V or {V}	a short vowel of the same quality as the preceding vowel
→	an arrow is used formulaically, as in {...} → → / / to indicate phonological processes of derivation of the phonemic shapes of morphemes or morphophonemes
*	As asterisk marks a hypothetical or reconstructed form
~	varies with
<	(is) derived from

When section numbers are cited as cross-references, unless marked with a preceding Roman numeral, they refer to sections of the same chapter.

Introduction

Wintu is the northernmost member of the Wintun family of languages. In the 1910 census, 399 Wintu speakers, 4 of whom were living in Nevada, were enumerated, but the language is now spoken only by several older people in Shasta and Trinity counties in northern California. There are no child speakers and there are no longer any monolingual speakers surviving, to my knowledge.

The Wintun family of languages was spoken in the Sacramento River Valley and adjacent areas to the west covering a continuous segment of northern California north from the Carquinez Strait of San Francisco Bay. Wintun is a branch of the Penutian stock of languages of western North America, perhaps most closely related to the four other families of Penutian languages spoken in California--Maiduan, Miwokan, Yokuts, and Costanoan--and more distantly to other languages to the north. Wintun has usually been considered to consist of Wintu, Nomlaki, and Patwin, with Patwin considered the most divergent of the three; for Suisun, a variety of southern Patwin, the materials are too poorly recorded and too few to accord it the status of a distinctly separate language. These languages were

spoken by people in contact with adjacent speakers of Hokan languages (Southeastern, Eastern, and Northeastern Pomo; Chimariko, Shasta, Achomawi, and Yana); both Yukian languages (Yuki and Wappo); Athabaskan languages (especially Wailaki, Lassik, Nongatl, and Hupa); and other Penutian languages (Coast, Lake, and Plains Miwok; Northwestern and Southern Maidu; Northern Valley Yokuts; and Saclan). Besides these contiguous languages surrounding the Wintun area, wider contacts with noncontiguous northern California languages can be assumed. Later there were contacts with speakers of Russian, Spanish, and English.

The Wintun languages do not appear more dissimilar from each other than the Romance languages, and perhaps no more than two thousand years separates them from a common ancestral form of speech. Many indications of the prevalence of bilingualism, resulting from contacts and intermarriages, are apparent in widely disseminated loan words and oral literary motifs which show extensive resemblances throughout northern California. There are great structural resemblances in the grammars and phonologies of the Wintun languages, although some are diffused as well as cognate in origin.

My own interest in this family of languages began some twenty-five years ago, in 1956, with my first field work among the Wintu, and I have been generously helped by many persons and organizations. My biggest debt is of course to those native speakers of Wintu--Carrie B. Dixon,

Joe Charles, and Ellen Silverthorn--who with unstinting generosity of their time and energy patiently collaborated in my collection and analysis of their language. In addition to my teachers, Professors Mary R. Haas and Murray B. Emeneau, these native speakers educated me as anthropologist and linguist; whatever value this work achieves is testimony to the competence, insight, and quality of their assistance. And I am grateful to my teachers of linguistics at the University of California at Berkeley who have always, in their publications and their teaching, as well as personally, conveyed the best ideals of linguistic method and practice. Murray B. Emeneau read and commented on an early draft of this grammar and provided warm encouragement.

My field work on Wintu was generously supported by the Survey of California Indian Languages, and the Wenner-Gren Foundation provided supplemental support for a dialect survey and for investigation of related languages. The Survey of California Indian Languages and Columbia University provided financial assistance for typing and completion of the Wintu dictionary, and the National Science Foundation provided a grant for preparation of the remainder of this work. For all these funds I am very grateful. I am greatly indebted also for help in the preparation of this manuscript to Joan Martus, Abdul Azim, Mia Katigbak, and Resa Babin.

Without the unpublished texts and field notes generously loaned by the late Dorothy Demetracopoulou Lee, this description of Wintu would have been less extensive. Her texts in particular made it possible to re-elicite oral literature

which for the most part had disappeared by the time of my own field work. These materials have augmented the lexical inventory, broadened the synchronic scope by adding a larger variety of idiolects and styles, and--since her own field work preceded mine by a quarter-century--I have also added a somewhat diachronic dimension. These materials were only consulted after my own field work and analysis were essentially independently completed. They are manifest in the dictionary as additional forms and glosses which her forms stimulated, and in the grammatical treatment as either a discussion of alternatives to my analysis (see root-deriving suffixes, especially /-el/ and */-w/ as in the negative auxiliary /[?]elew/), or as unresolved problems of analysis which her materials call attention to, but for which I do not have enough data to do more than indicate the problem (e.g., dependent non-possessed nouns, especially the disjunctive postclitic /to•/).

Field work was carried out during the summers of 1956 and 1957, with additional shorter field trips for checking forms in 1958 and 1959. The three principal Wintu speakers consulted were native speakers of the McCloud River dialect. Carrie B. Dixon, for most of her life a resident of Redding, died in 1976 at age 87. Fluently bilingual in English and Wintu, she was the granddaughter of the last McCloud chief, Qolculu•li. The majority of the forms presented here were first collected from Mrs. Dixon, although also corroborated by others. Joe Charles of Buckeye, north of Redding, who was then over 80 years old, provided most of the texts

collected. Mr. Charles, said to be a former shaman, was also an informant of J. P. Harrington and Morris Swadesh. Ellen Silverthorn of the Clear Creek Rancheria south of Redding, a shaman-interpreter who was then over 80 years old, was monolingual in Wintu but understood English.

Others consulted to a much smaller extent, some only briefly, two of whom may still survive, include:

Flora Jones of Buckeye, still living, an herbalist and subsequently shaman, niece of Joe Charles
 Renee Coleman of Redding, still living
 Nels Sisson, died in 1957, the last traditional male shaman, Ellen Silverthorn's brother
 Lizzie Feder of Lakehead, then over 70 years old
 Walter Loomis of Weaverville, then over 75 years old, speaker of the Trinity County dialect
 Grace Nolton McKibbon of Hayfork, then over 70 years old, speaker of the Trinity County dialect
 Lizzie Cortez of Redding
 Bill Reed of Project City
 Johnny Stacey, then over 80 years old
 Edna Button Banner Raines Fan, then over 70 years old
 Mary Major of Covelo, then over 100 years old

The description of Wintu grammar provided here is considerably revised from the version I presented in 1963 as a doctoral dissertation, and supersedes it in all respects. There are notational differences (e.g., [E] and [O] replace [I] and [U] , respectively), additional description (e.g., in the morphophonemics), and revisions (e.g., the transitive value assigned to {c}). The description of syntax, beyond the few facts presented here, is deferred for another publication.

My orientation to the data considered has been selected for two reasons: to maximize access to the data and thus permit re-interpretation or alternative analyses; and to avoid theoretical models not envisioned during field work,

in the belief that the character of the field work for a description is largely contingent on the linguist's theoretical model. Since Wintu is a dying language, this presentation stays close to the inductive field methods that were employed and close to a "surface" descriptive statement, so that future linguists, employing various theoretical models which may be developed, can avail themselves of the description with a minimum of theoretical baggage. This seems an appropriate approach to a language which may not receive extensive description again before it is extinct.

In addition to avoiding a description with elaborate formalization, the very nature of the language and the availability of some data collected before my own field work (mostly by Dorothy Lee a quarter of a century earlier) have impelled an approach beyond the customary limitedly synchronic description. A degree of internal reconstruction has thus been included along with the synchronic descriptive statements wherever the forms collected earlier, or the character of the structures being described, could be more fully explained by the addition of a diachronic perspective. Since materials from other cognate languages were not employed comparatively, only a relatively shallow degree of diachronic depth can be offered, and only at those points in the characterization of the language where the data make a hypothesis likely; thus these are not systematically complete internal reconstructions. Those presented are clearly indicated as extensions of the

synchronic analysis, and were prompted both by my admiration for Sapir's extensive description of the grammar of Takelma, a northern Penutian language, and by the simultaneous preparation of the Wintu Grammar and Dictionary. Sapir's description did not exclude the presentation of historical insights, and the Wintu Dictionary strongly encourages consideration of the relationships between many partially resemblant forms.

I have taken it that the Saussurean injunction to avoid mixing synchronics and diachronics is not opposed to the greater completeness of description and characterization of the structure of a language which can be achieved by attempting to surpass the artificiality and limitations imposed by the model of a synchronic "slice" in time. Strictly bounded, and especially when it relies on very few native speakers' ideolects, a synchronic slice cannot begin to indicate the richness and complexity of any human language. Moreover, strict synchronicity leaves a residue of tantalizing bits of structure dangling, if the relationship to the rest of the system must be excluded from consideration because it does not occur in the narrow slice of time being described. We understand such irregularities as possible reflections of more extensive subsystems from an earlier time, partially preserved through the happenstance of history. It seems to me to give a richer and more complete description of Wintu structure (both grammatical and lexical) to include available insights, even if they be diachronic in scope--and frankly, it is a personally more

satisfying choice. Each time, in considering the analysis, when I might have excluded a hypothesis about the probable historical origin or relationship of a synchronically aberrant form, I feel I would have betrayed Wintu had I not provided my guess, for the consideration of other linguists.

It is in this spirit that reconstructions are provided in the Wintu Dictionary and in this grammatical description, and that the closing section of this volume contains a text collected by Dixon circa 1909. (For examples of texts collected in 1930 and later, see bibliographical citations under Du Bois and Demetracopoulou 1931 and Pitkin 1977 and 1978, the latter having been analyzed with the inclusion of reference numbers identical to the numbered sections of this grammar.)

* * *

In the intervening twenty years since the doctoral dissertation was completed, both the field of linguistics and my own orientation to the Wintu language have undergone some changes. Deserving mention is the concurrent usage of terminology and theoretical orientation from an earlier as well as a more recent period. This is the result of revisions made to prepare this work for publication. The basic framework, analysis, and findings remain unchanged.

SYNOPSIS OF STRUCTURE

PHONEMICS

100. Syllables have the canonical shape CV(•) (C). Words, typically ranging from monosyllabic to quadrisyllabic, are marked by a word juncture /+/, comprehending an intonational contour. Primary stress, usually on the first syllable, may be deferred to a following prominent heavy syllable with a long vowel. Stress is never functionally contrastive but is predictable in terms of juncture and other prosodic features.

In addition to phonemic vowel length, other prosodic phonemes include the four junctures and a phoneme of phrase pitch. Of segmental phonemes there are six contrasting vowels and thirty consonants. Three consonants and one vowel are anomalous, being of low frequency; /f/, /ʃ/ and /æ/ are loans of rare occurrence, while /θ/ is infrequent but of system internal origin. Half the consonants have very limited distributions.

MORPHOPHONEMICS

200. There are two kinds of automatic alternations: the simplification of consonantal sequences resulting from morpheme combinations through elision and modification, and

syncopation of vowels at morpheme boundaries. In addition to these phonomechanical processes, the most extensive phonological variation affects stem vowels harmonically. These vowel ablauts of quality and quantity induced by specific morphological elements result in dissimilation and vowel shortening.

MORPHOLOGY

300. Morphs occur as C, \cdot C, V, V \cdot , CV, VC, CVC, and CV \cdot C. Longer sequences of syllables up to a maximum of three per morph occur in loan words and reduplicated forms.

Morphemes are combined in sequences which may be defined as morphemic words in terms of fixed-order criteria; i.e., a sequence of morphemes whose order is fixed relative to one another constitutes a morphemic word. The typical order of morpheme classes within the word is based on a nuclear morpheme cluster (stem or theme with lexical meaning), maximally preceded by two position classes of optionally occurring prefixes (directional and locational) and followed by a limited number of position classes of derivational and, finally, inflectional suffixes.

Usually the boundaries of phonemically and morphemically defined words coincide; however, morphemic words which are not also phonemic words are clitics, and they differ from full words in their semantic and syntactic properties also.

Morphologically defined word classes are verbs, substantives, and sentence connectives (all three distinguished by inflection), and a fourth class of uninflected words which

occur in a fixed (invariant) form. Of these classes, the verb is the most complex morphologically and phonologically.

Three main classes of verbs are distinguished: auxiliaries, independent verbs, and dependent verbs. Most radicals (see Chapter IV. 210. Verb Structure) can occur with both verb and substantive derivation and inflection, while some appear to be limited to membership in only one class.

Fundamental (unanalyzable) root morphemes with semantically general meanings (some of which show partial formal and semantic resemblances to each other which may be analyzable diachronically) are mostly monosyllabic, although there are some disyllabic roots and even a few trisyllabic loans. Stems composed of a root plus a vocalic stem-forming suffix almost always contain two vowels. The root vowel may undergo ablaut changes, the change in each instance being conditioned by the following suffix vowel. Most verbs have three stems: indicative, imperative, and nominal.

Three major types of verbal affixes are distinguished: (1) a very limited number of prefixes of location and direction in two position classes; (2) a limited number of derivational suffixes in several position classes; and (3) inflectional word-forming suffixes.

Verbs may distinguish person, although this is fairly recent. Historically they were marked for self, or more typically unmarked for person. Verbs may also be morphologically marked for subordination, plurality, evidence, negation, exhortation, voice, completion, doubt, interrogation, and denomination, although some of these may also be

expressed in periphrastic constructions employing auxiliary verbs. Auxiliary verbs mark aspect, tense, mode, and possibility.

The substantive, especially the pronoun, is more complex in inflection but less complex in derivation than the verb. Substantives are formed (1) from verb stems plus nominalizing suffixes; (2) from roots with no further derivation; or (3) from compound stems. To these stems, roots, or compound stems, inflectional suffixes marking aspect, case, and number are added.

However, not all substantives are inflected for all categories. Differences in inflection divide the substantives into two classes: nouns and pronouns. Nouns, inflected for (1) two aspects, (2) three morphologically marked cases and an unmarked syntactic subject case, and, rarely, (3) for two numbers, are subdivided into alienably and inalienably possessed nouns, and non-possessed postclitics. The inalienably possessed nouns (ten kinship terms) obligatorily occur with a small set of possessive prefixes, and the alienably possessed nouns are further subdivided into a number of subclasses on the basis of formal differences in derivation and inflection.

Pronouns are inflected for two aspects, three numbers, and various cases. Like nouns, they are subdivided on the basis of formal differences in derivation and inflection into subclasses. Personal pronouns distinguish four persons, except in the singular, where only three are distinguished. While there is a considerable elaboration of personal

pronouns, they are infrequently employed, and not all series are complete for all categories.

Uninflected words which are distinguished by their syntactic function include proclitics, exclamatives, conjunctions, and adverbials.

WORD TACTICS

400. The largest tactic unit, the sentence, consists of sequences of morphologically defined words terminated by a period juncture /./.. These strings of words are of two types, depending on the morphological class of their members. The presence or absence of a word belonging to the morphological class designated as "verb" separates these strings into clauses and phrases. Clauses, terminated by a comma juncture /,/ except when occurring finally in a sentence, obligatorily contain verbs.

Clauses are of two types: dependent and independent, contingent on the type of inflectional ending forming the verb--that is, on whether the verb contained is dependent or independent. Independent verbs may take personal inflectional suffixes, whereas dependent verbs are only formed by subordinating inflectional suffixes, which are mutually exclusive with those of person.

Two types of sentences are defined in terms of restrictions on occurrence: independent and dependent. Independent sentences may introduce a discourse or may in themselves constitute a discourse. Dependent sentences do not constitute a discourse or occur first in discourse, but occur only

following independent sentences. Independent sentences obligatorily contain one independent clause, and optionally other independent and dependent clauses as well as phrases. Dependent sentences never contain an independent clause, but may contain or consist of any other clause or phrase, or even a single word.

Clauses and phrases are composed of four types of syntactic units--heads, attributives, satellites, and conjunctions--established on the basis of dependence and agreement relations and syntactic function. Conjunctions connect words, phrases, and clauses. Satellites include forms which function as subject, object, or possessor and show instrumental, locative, or quotative relations. The heads of clauses are always verbs; the heads of phrases may be nouns or verbs. Words unilaterally dependent on the heads of clauses and phrases are attributives. Attributives of nouns are adjectival in function; attributives of verbs are adverbial and auxiliary in function.

The ordering of clauses and phrases in a sentence varies considerably. Within clauses and phrases, word order of the attributives of nouns, auxiliary attributives, conjunctions, and one type of satellite is restricted. Adverbial attributives and other satellites are free to occur at any word boundary, although certain positions seem statistically to be preferred. Thus the order of occurrence of the auxiliary attributives of the verb--of which there may be a maximum of five co-occurring within an independent clause--

is fixed with respect to the main verb, which they follow, and to each other.

Independent (free-form) attributives of nouns precede the noun head they modify. The conjunction precedes the first word in the second of the two syntactic units being connected, while the quotative typically immediately follows a quotation.

The most important types of syntactic relations are concord (agreement) and dependence. The morphological cases of the substantive play a relational role in marking subjects, objects, instrumentality, location, and possession, and express these functions differently in active and passive constructions. The relations of noun heads to their attributives, of verbs to substantives, and of various other syntactic functions are indicated by the concord of their respective morphological cases.

While a great deal of grammatical specificity is potentially possible, only certain semantic areas are usually overtly expressed in great detail. Although verbal categories are many and detailed and primarily obligatory in their expression, ellipsis in substantival categories is a prominent part of the syntax. Inference plays a large role in the latter case; however, specification is possible for emphasis and clarification. Thus, unless overtly marked for person, the first predication in a discourse is assumed to be in the first person. First-person markers are introduced then only for emphasis or to express number. Overtly expressed subjects and objects are, in general, not typically

as frequent as in English. They are, rather, incorporated semantically in the verb; that is, the meaning of the verb implies a certain category of object or subject.* Conjunctions (shifters) are then employed to indicate maintenance or reversal of subject-object relations (switch reference) in successive predications. The large number of pronominal forms are generally restricted in function to the expression of number, proximity, emphasis, or contrast, and are infrequently used. Certain substantival qualities of animateness, number, dispersal, and individuality, as well as contrast between groups, are made explicit through the use of the formal category of noun aspect, with or without the disjunctive proclitic (topicalizing and foregrounding).

In an analogous way, certain overtly expressed obligatory categories of verbs, such as evidence, are a focus of formal expression (parallel to noun aspect), while other categories, such as tense, are not typically marked (parallel to noun number). Subject-person markers affixed to verbs do not indicate number or sex of subjects of verbs in indicative forms.

Occasional remarks concerning diachronic matters with some internal reconstructions are offered at several points in the description.

*This is, of course, not formal incorporation.

II

PHONEMICS

The phonemic system presented here is the "taxonomic" (i.e., autonomous) system of (surface) functionally contrastive minimal-range units of sound which serve to differentiate the meanings of morphemes. The environments in which this system of contrasts has been noted do not take account of the morphology (cf. Chapter III. Morphophonemics).

SUPRASEGMENTAL PHONEMES

100. The suprasegmental features of stress, pitch, and pause form contours used as the distributional frame for establishment of the segmental phonemes. The junctural pauses or transitions and phrasal pitch are phonemic in status; i.e., they are unpredictable and mark distinctions of meaning.

Syllable stress and pitch are predictable partial components of the two junctures $/-/$ and $/+ /$. The phonetic data allow of only one interpretation. That is, junctural transitions and pauses would not be predictable if phonemic stress or phonemically prominent syllables were assumed, while stress is predictable in terms of phonemic juncture.

JUNCTURES

110. There are four phonemic junctures, ranked by the magnitude of transition and their morphological and syntactic function from least to greatest magnitude as hyphen /-/, plus /+/, comma /,/ , and period /./.

PLUS JUNCTURE

111. Plus juncture is central to the system. It consists of potential pause and the conditioning of three phonetic features: the location of higher pitch; the location of relatively heavy--i.e., primary--stress, which phonetically consists of both tenseness and loudness; and the allophonic release of immediately preceding obstruents. The contour boundaries marked by /+/ delimit sequences of phonation which will be called phonemic words. These are co-terminous with the freely volunteered short forms elicited from informants, which may be referred to as informant words. Each phonemic word, then, is preceded and followed by pause or potential pause and consists of one contour with only one prominent syllable of higher pitch and primary stress.

The location of the pitch and stress within the phonemic word bounded by /+/ is determined by the structure of the syllable and its position relative to the juncture. Syllables are of three structural grades, determined by the presence or absence of length and semi-vowels. Light syllables contain short vowels; heavy syllables contain short vowels followed by a semi-vowel (which may be a member of

the next syllable); extra-heavy syllables contain long vowels. The prominent syllable of a phonemic word is always the first syllable following the /+/ juncture, unless the second syllable is heavier--in which case the second syllable is stressed. However, if there is within the phonemic word bounded by /+/ junctures a word-internal /-/ juncture, the prominent syllable with its characteristic pitch and stress is counted as the first syllable following the word-internal /-/, unless the second syllable after the /-/ juncture is heavier than the first. Word-internal /-/ juncture conditions a secondary pattern of stress and pitch preceding the /-/, which is described in the discussion of /-/ further below. Some examples are:

Heavy + light	[^ˈ ciyel]	/+ ^ˈ ciyel+/	'one to be squashed'
Heavy + extra-heavy + light	[^ˈ ciyíːya]	/+ ^ˈ ciyiːya+/	'to be all squashed up'
Heavy + extra-heavy + light	[^ˈ ciyéːda]	/+ ^ˈ ciyeːda+/	'I squashed them up'

The degree of intensity in the primary stress of the single prominent syllable in each word is dependent on two environmental factors. The greater the magnitude of the preceding juncture, the greater the intensity of the stress; the more fortis the glottalization of a preceding consonant or the articulation of a preceding /ʔ/, the stronger the stress. This factor of glottal stricture varies with the idiolect, but appears consistent within each idiolect.

A weaker or secondary stress occurs on any heavy syllable following the prominent syllable and varies in

intensity, being proportionately stronger as that syllable is further from the preceding prominent syllable.

The weakest degree of stress occurs on any syllable which is not already stressed and immediately follows a phonemic juncture. The variation in this degree of stress has a small range, parallel to that described above for primary stress, with respect to junctural magnitude and glottal articulation.

Examples of the various distributions of stress and pitch within a phonemic word are given below. [´] indicates the prominent syllable of higher pitch and greater stress; [˘] the syllable with secondary stress; S an extra-heavy syllable; S a heavy syllable; and s a light syllable.

š	[ní]	/+ni+/'	'I'
<u>S</u>	[bó·s]	/+bo·s+/'	'house'
<u>šs</u>	[kírím]	/+kirim+/'	'cat' (obj.)
šs	[máyum]	/+mayum+/'	'feet' (obj.)
šš	[pé·len]	/+pe·len+/'	'we two'
sS	[holówa]	/+holowa+/'	'to scare someone'
sš	[lilá·]	/+lila·+/'	'to accuse'
<u>šš</u>	[čuyé·]	/+čuye·+/'	'to suck with the lips'
<u>šš</u>	[bé·le·s]	/+be·le·s+/'	'it could be'
<u>ššš</u>	[wérlebò·sken]	/+werlebo·sken+/'	'you will have to come'
šššš	[kénehalè·s]	/+kenehake·s+/'	'it might be'
<u>ššš</u>	[tú·nunà·]	/+tu·nuna·+/'	'to haul big things'
sšš	[ʔolé·lbè·s]	/+ʔole·lbe·s+/'	'God'

HYPHEN JUNCTURE

112. Hyphen juncture /-/-/ occurs within phonemic words. It represents a phonemically functional unit with phonetic properties contrastive with other junctures. Phonetically,

it is a transition with the potential of a very brief pause and it conditions unreleased allophones of obstruents. Like /+/, /-/ affects the location of syllables of higher pitch and stress. But whereas /+/ marks the contour of a phonemic word, conditioning the location of the syllables of greater stress and pitch, /-/ modifies the contour, shifting the pitch and stress. Hyphen juncture is limited in distribution to occurrence within phonemic words. It is therefore the juncture of least magnitude, being the only one occurring within words (specifically following certain prefixes and preceding some auxiliary verbs and enclitics). Prominent syllables are determined counting from /-/.

Examples of minimal pairs demonstrating the contrast between close transition, hyphen juncture, and plus juncture are:

/+ [?] elwine+/	'with, along, accompanying'
/+ [?] el-wine+/	'to look at straight in the eye'
/+ma [•] tceki+/	'ear wax'
/+ma [•] t-ceki+/	'one split ear'
/+ [?] ukin-su [•] s+/	'they belong to that tribe'
/+ [?] ukin+su [•] s+/	'they were standing there'
/+ne [•] l-be [•] s+/	'we two are related through the same mother'
/+ne [•] l+be [•] s+/	'we two slept'

The rules stated above for predicting the occurrence of pitch and stress in terms of /+/ are modified by the occurrence of /-/ within a phonemic word. Only secondary stress may occur on syllables preceding /-/ within a word. Like primary stress, secondary stress always occurs on the initial syllable of the word unless the second syllable is heavier, in which case the second syllable has the secondary stress.

Examples of the various distributions of stress and pitch within phonemic words containing a /-/, using the same symbolization employed in the discussion of /+/, are:

š-š	[nètnén]	/+net-nen+/	'my mother'
š-š	[nè·lbé·s]	/+ne·l-be·s+/	'we two are re- lated through the same mother'
š-šs	[wàyhóla]	/+way-hola+/	'ceremonial pipe'
š-šs	[mèmwáya]	/+mem-wayaya+/	'north part of the stream'
šs-šš	[wàytinomé·l]	/+wayti-nome·l+/	'Dog Creek'
šs-šs	[wàytisáwal]	/+wayti-sawal+/	'Waitisaw' (a place name)
sš-šs	[pubà·npúrun]	/+puba·n-purun+/	'of those others'

COMMA JUNCTURE

113. Comma juncture /,/ has two phonetic features: a fully realized pause, accompanied or preceded by glottal stricture. While /+/ is of greater magnitude than /-/ and marks phonemic words, the contour boundaries marked by /,/ delimit sequences of phonation called phonemic phrases, within each of which a single phrasal accent of unpredictable location obligatorily occurs.

PERIOD JUNCTURE

114. Period juncture /./, the juncture of greatest magnitude, has four phonetic features: a fully realized pause, which need not be followed by further phonation; an associated glottal stricture; a preceding phrasal accent of unpredictable location with allophonically different pitch level from that of the accent preceding comma juncture; and a terminal pitch contour which drops sharply in pitch

level and voicing. Period juncture delimits phonemic sentences. Some examples of comma and period juncture are:

- | | |
|------------------------------|--|
| /ba*s-bo*sin+net, nis+liya./ | 'They threw rocks at me,
because I was eating.' |
| /ba*s-bo*sin+mat, mis+liya./ | 'They threw rocks at you,
because you were eating.' |

PHRASAL ACCENT

120. Phrasal accent /^ˆ/, consisting of very high pitch and particularly heavy stress, occurs on one of the prominent syllables within each contour marked by /,/ or /./. Its occurrence is obligatory within such contours, but its position of occurrence is unpredictable. It is further characterized by a different pitch level on the syllables which follow, depending on whether the following juncture is /,/ or /./. If pitch 3 is high, pitch 2 mid, and pitch 1 low, the syllables preceding the accented syllable are marked by pitch 2, the accented prominent syllable by pitch 3, and the following syllables by pitch 2 before /,/ and pitch 1 before /./. Some examples are:

- | | |
|--------------------|--------------------------|
| /sukuyum+límcada./ | 'My dog is sick.' |
| /súkuyum+limcada./ | 'My <u>dog</u> is sick.' |

Since phrasal accent predictably occurs on the most prominent syllable of one-word utterances, it will not be marked in the examples which follow. Similarly, word boundaries will be indicated by spaces rather than plus junctures as a notational convenience.

SEGMENTAL PHONEMES

200. There are thirty-six segmental phonemes, of which thirty are consonants and six are vowels. In addition, vowel length /•/--a prosodic phoneme lacking any inherent phonetic feature, but functioning like a segmental phoneme (in distribution)--is distinguished from the suprasegmental phonemes for that reason. Four phonemes of very rare occurrence--three consonants and one vowel--are anomalous within this system. The anomalous borrowed vowel /æ/ occurs in only one loan word. Of the consonants, /f/ and /ʃ/ are rare and were recently borrowed, and /θ/ occurred only in the idiolect of C.D., my main informant, and is elsewhere represented by /λ/ in the speech of other Wintu. While the four anomalous phonemes are marginal to the core phonemic system, /θ/ appears to have a system internal origin motivated morphophonemically, occurring only as the result of a rule which simplifies final consonant clusters. That /θ/ should appear in the speech of C.D. most probably has a sociolinguistic basis in the fact of her being the granddaughter of (and youthful co-resident with) the last chief of the McCloud speech community of Wintu.

Segmental Phonemes

Consonant Phonemes

	Labial	Apical	Palatal	Velar	Post- velar	Glottal
Stops						
unaspirated	p	t		k	q	ʔ
aspirated	p ^h	t ^h				
glottalized	p̣	ṭ		ḳ	q̣	
voiced	b	d				
Spirants						
voiceless		λ	s	x	ɣ	h
Affricates						
voiceless			c			
glottalized		λ̣	c̣			
Sonorants						
oral	w	l r	y			
nasal	m	n				
Anomalous	f	θ	ɰ j			

Vowel Phonemes

	Front	Central	Back
High	i		u
Mid	e		o
Low		a	
Anomalous	æ		

Nonsegmental Phoneme

vowel length /•/

Suprasegmental Phonemes

junctures /+/ /-/ /,/ /./
 phrasal accent /´/

CONSONANTS

210. Two types of consonants are distinguished by distribution: those of unrestricted and those of restricted occurrence. For the most part, syllable-initial position is the position of maximum contrast. With two exceptions, /r/ and /θ/, all types of consonants occur there.

Unrestricted consonants occur both initially and finally in syllables and words. They include the plain voiceless stops; the voiceless continuants /λ/, /s/, and /h/; all voiced continuants /w/, /l/, /y/; and both voiced nasals /m/ and /n/.

Restricted consonants are limited to word- and syllable-initial, prevocalic positions with but two exceptions: /r/ is excluded from word-initial position--i.e., it never occurs after any juncture, but it may occur initially in a syllable otherwise--and /θ/ never occurs initially in either a syllable or a word. On the other hand, both /r/ and /θ/ may occur before junctures except before /-/--i.e., in word-final position, unlike all the other restricted consonants.

Consonants of Unrestricted Distribution

	Bilabial	Apical	Palatal	Velar	Post-Velar	Glottal
Stops						
voiceless	p	t		k	q	ʔ
Continuants						
voiceless		λ	s			h
voiced	w	l	y			
Nasals						
voiced	m	n				

Consonants of Restricted Distribution

Obstruents						
glottalized	p̚	t̚ λ̚	c̚	k̚	q̚	
aspirated	p ^h	t ^h	c			
voiced	b	d r				
Continuants						
voiceless				x	x̣	
Anomalous	f	θ	j̣			

The phonetic values assigned below refer primarily to the McCloud River dialect. Only /λ/ and /s/ have significant dialect variants.

In the bilabial and dental-alveolar positions of articulation, there is a four-way contrast in the manner of articulating the stops: glottalized (ejective), aspirated, voiced, and plain (voiceless unaspirated). The bilabials are:

/p/	Voiceless unaspirated, always lenis.
/p ^h /	Voiceless aspirated, usually fortis.
/p̚/	Glottalized, fortis among some younger informants and in citation forms, but lenis in normal speech.
/b/	Voiced and fortis.

In the dental position of articulation, younger and more acculturated informants employ alveolar-stop articulation as in English, while older informants seem to prefer a post-dental position, or a position on the gums when the teeth have been lost. These apical dental-alveolars are:

- /t/ Voiceless unaspirated, always lenis.
- /t^h/ Voiceless aspirated, usually fortis.
- /t̚/ Glottalized, as for /p̚/.
- /d/ Voiced and fortis.

In the velar and post-velar positions of articulation, there is only a two-way contrast in the manner of articulation of stops: glottalized and non-glottalized (voiceless).

- /k̚/ Glottalized, usually lenis, with slight friction of tongue on palate. There are three focal allophones along a continuum of points of articulation: [k̚] pre-velar before /i/ and /e/; [k̚] velar before /a/; and [k̚] backed somewhat in the velar position before /u/ and /o/. This last allophone overlaps with the front allophone of /q̚/ before /i/ and /e/ in the speech styles of some informants, but only in point of articulation (see below).
- /k/ Voiceless, most often slightly aspirated, usually lenis; varies similarly from [k^h] pre-velar . . . [k^h] velar . . . [k̚^h] backed, before /i, e/, /a/, and /u, o/, respectively.
- /q̚/ Glottalized, usually fortis, with a strongly spirantalized release and much friction at the points of articulation, as [q̚^x]; varies in position of articulation from a slightly fronted position before /i/ and /e/ to a more backed position before other vowels.
- /q/ Voiceless, usually lenis, most often unaspirated but in rare instances slightly aspirated; similarly to /q̚/, varies in position from [q] to [q̚] before /a/, /o/, and /u/.

Of the above stop consonants, only /p/, /t/, /k/, and /q/ occur syllable-finally as well as initially, and they all share the following features of syllable-final position allophony:

Before /,/ or /./, they are all closely followed by a slight glottal stricture and an audible release after the occlusion of the appropriate stop. This is not identical with the articulation of the glottalized series of stop phonemes in which the occlusion is generally less tense and the glottalization is a co-articulated and non-delayed feature. The allophones of /k/ and /q/ in this position exhibit none of the friction which is present in the glottalized series, but resemble the non-glottalized stops. The audible glottal stricture following closure of the stop is here (as after /m/, /n/, /l/, /w/, and /y/; see below) interpreted as one of the phonetic components of the junctures /,/ and /./.

Before /+/, these four stops all show an aspirated release which is not fortis, as in the case of the aspirated stop phonemes (which occur only initially), but so lenis as to constitute usually no more than an audible release in rapid speech and a lenis aspiration in citation forms. The aspiration is interpreted as one of the phonetic components of the juncture /+/.

Before /-/ and before close transition, all of these stops are unaspirated and usually unreleased, resembling their syllable-initial allophones--except /k/, which is weakly aspirated in initial position.

A glottal stop /?/, which has an audible release before /,/ and /./ and is of unrestricted occurrence, is weakly articulated except when the speaker is being deliberate or emphatic. This phoneme is in free variation with zero in

word-initial position and in medial position in rapid speech, but is always fully articulated in word-final position. (Note also that the glottalized phonemes are normally articulated in a lax manner, particularly when they are not post-junctural, although some slight glottal co-articulation is never absent, and the acoustic quality of these stops is often quite similar to that of voiceless unaspirated stops. Only in some idiolects or in emphatic speech is fortis glottalization employed; this is somewhat parallel to the glottal stop initially.)

All stop phonemes which occur syllable-finally before other consonants in word-medial two-consonant clusters (the only consonant clusters which exist) are unreleased and are assigned to the voiceless plain series of unrestricted stops. Examples of stop phonemes before each of five vowels contrasted initially by minimal and subminimal pairs are:

/pite/	'in-law'
/pe·t/	'to fold'
/pat/	'outside'
/pot/	'intestines'
/put/	'them'
/p ^h it/	'feathers'
/p ^h e·ta/	'to pound'
/p ^h ata/	'to press on something'
/p ^h oʔuma·/	'to boil'
/p ^h uʔiri/	'wild iris'
/pi·ta/	'to squeeze out through small opening'
/pe·l/	'we' (dual-inclusive)
/pa·ta·/	'to be thick'
/poʔom/	'poison oak'
/pa·ta·/	'to grow old' (of women)
/bi·ta·/	'to make a dent'
/be·di/	'don't!'
/ba·t/	'seeds'
/bo·s/	'afterbirth, home, tribe'
/bu·t/	'boat'
/ti·ka·/	'to make a waterfall'
/tekit/	'a waterfall'

/taka·/	'to hack'
/toki/	'handgame sticks'
/tuka·/	'to make handgame sticks'
/t ^h ike/	'to get jealous' (of women)
/čilt ^h ek/	'mole' (on body)
/t ^h a·ka/	'to spill solids'
/t ^h o·m/	'to be straight'
/t ^h ume·/	'to coo' (as grouse)
/t ^h ikel/	'to be swollen'
/t ^h elik/	'to lick'
/ta·ka/	'to make a hollow in sand to allow water to run off'
,	
/tokot/	'sunfish'
/t ^h uke·/	'to be submerged'
/dika/	'to climb'
/dek/	'climb!'
/dakis/	'girl' (obsolete)
/do·ka/	'to be breathless, faint'
/dukal/	'sunk in'
/kike·/	'to be frosty, icy'
/kela/	'to be long, tall'
/kaka·/	'to crawl'
/koko·ra/	'to bounce with short bounces'
/kula·/	'to join things together'
/kil/	'hail, gravel'
/kelel/	'soot, ashes'
/kalaq/	'feathers'
/koles/	'hooves, claw'
/kule/	'yellow pine'
/ʔel-qilay/	'curved mountain edge'
/qewel/	'house'
/qalaw/	'alder'
/qo·l/	'mouth'
/qu·le/	'elk hide'
/qile·/	'to anoint, paint'
/qede/	'arm'
/qan/	'wing'
/qolca/	'to be fair weather'
/quλa·/	'to borrow'
/ʔilay/	'child'
/ʔelew/	'no'
/ʔa·la/	'to be unable to do something'
/ʔol/	'up'
/ʔule·s/	'almost, if'

Examples of the stop phonemes contrasted in final position are:

/no·p/	'deer'
/ba·t/	'food'
/wint ^h ik/	'he was going to recently'
/te·req/	'buckskin'
/taʔ/	'child-in-law'

Voiceless aspirants are:

- /f/ [f] labio-dental; anomalous; occurs in only two borrowed forms: /foriʃulay/ 'July Fourth' and /friho·lis/ 'beans' (the only example of a non-medial consonant cluster).
- /θ/ [θ] inter-dental after /i/; after /u/ and /o/ the tongue proceeds from a retroflexed position, moving forward in an approach to the teeth as the articulation progresses: [ʰθ]. /θ/ occurs rarely, only word-finally, and is used only by my main informant, C.D.; while it contrasts with /λ/ in her dialect, all other informants employ the phonetically similar /λ/.
- /s/ Older speakers employ [ʂ], a retroflexed post-alveolar slit spirant before or after /a/, /o/, and /u/, and a non-retroflexed post-alveolar slit spirant elsewhere. Younger speakers use the latter sibilant or an apical-alveolar everywhere.
- /λ/ An apical-alveolar laterally released [ɬ], freely varying initially with [tɬ] ([λ]), an apical-alveolar affricate with a lateral release. These two syllable-initial allophones occur in McCloud speech, although [ɬ] is much more frequent. In Trinity speech, only the affricate [λ] occurs. In both dialects, in final position after /u/ and /o/ (similarly to /θ/), the tongue moves from a retroflexed position forward to approach the teeth as [ʰɬ]. In both dialects, in syllable-final position the points of articulation are post-dental after /a/ and inter-dental after /i/ and /e/.
- /x/ Has allophones varying in position from [x̠] . . . [x] . . . [x̣] in a distribution identical to the velar stops. Lenis articulation of /x/ is characteristic.
- /x̣/ Has allophones varying in position of articulation identical to the post-velar stops, and consequently has some allophones which overlap those of /x/, so that /x̣/ before /i/ and /e/ overlaps with /x/ before /u/ and /o/. However, /x̣/ is more fortis in articulation than /x/.
- /h/ Voiceless and fortis; occurs in all positions. It is distinct from /x/ and /x̣/, which are articulated with considerable spirantal friction, and is also distinguished from /ʰ/, which is voiced but not consonantal or fortis. Before /u/, /o/, and /a/, /h/ is a glottal spirant.

Before /i/ and /e/, it is a pre-velar spirant with minimum friction. In syllable-final position, it is a voiceless non-vocalic offglide with the same position of articulation as the preceding vowel, and although relatively fortis in citation forms, /h/ is hard to distinguish from /·/ after /a/ before pause, although there are minimal pairs like /lah/ 'destroy' and /la·/ 'older sister,' allegro: /la/.

Examples of spirant phonemes are:

/foriʃulay/	'July Fourth' (<English)
/friho·lis/	'beans' (<Spanish)
/ci·θ/	'suckerfish'
/yoryoθ/	'June bug'
/nuθ/	'live salmon'
/sileλ/	'a blind person'
/seλa·/	'sitting'
/saqaλ/	'watersnake'
/so·ha/	'to have a cross-sibling'
/su·yus/	'to haul seine'
/λili·pus/	'a whistle'
/λes/	'shadow, shade, ghost, devil'
/λala/	'to sink'
/λos/	'foam, saliva'
/λuλam/	'lime rock'
/xiliha/	'a lot of flies' (verb)
/xeli/	'door'
/xara·/	'to gnaw'
/xolom/	'sunflower'
/xuna/	'nearer to oneself'
/xila·/	'to move one's eyes'
/xer/	'manzanita flour'
/xahal/	'to be lazy'
/xos/	'steam, fog, gas'
/xuna/	'to get dry, be dry, have tuberculosis'
/hisat/	'how many'
/hestam/	'how are you?'
/ha·sma/	'to keep on yawning'
/holhol/	'throat'
/hu·s/	'turkey buzzard'
/soh/	'cross-sibling'
/lah/	'destroy!'
/ʔih/	'you do it!'

Affricates are:

/λ̥/	A glottalized apical-alveolar laterally released [t̥̚] with fortis articulation and much friction during the lateral release. The glottalization is always clear; the occlusion of the affricate occurs in the dental position among older speakers, as for the stops /t, t ^h , t̥, d/.
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- /c/ A fortis palatal voiceless [t^š] beginning in the dental or apical-alveolar position as above.
- /c̣/ The same as /c/, but glottalized; the glottalization is as strong as for the glottalized stops already described.
- /j/ The same as /c/, but voiced; i.e., [d^ž]. It occurs only in /foriʝulay/ 'July Fourth.'

Examples of the affricate phonemes, contrasted in minimal and subminimal pairs, are:

/ʎiʎe/	'acorns'
/ʎereyu/	'tiger lily'
/ʎal/	'shell'
/ʎol/	'baby-basket'
/ʎuʎci/	'marrow'
/cileq/	'to be angry' (refers to men)
/celma/	'to stripe' (obsolete)
/cala•/	'good'
/colcoθ/	'mountain quail'
/culca/	'to spill liquids accidentally'
/čices/	'sharp-pointed'
/čel/	'cheek'
/čaraw/	'a flat place'
/čoro•r/	'spinal column'
/ču•la/	'to pour in one spot'

Voiced continuants are:

- /m/ A bilabial voiced nasal stop [m] with a closely following but not co-articulated glottal stricture and audible release before /+/ (as for stops). When first member of a medial two-consonant cluster /m/, it is partially devoiced before voiceless consonants in rapid speech.
- /n/ A dental or apical-alveolar voiced nasal stop [n] with a glottalized final allophone before /,/ and /./ as for /m/, and a medial fading to voicelessness before voiceless consonants as for /m/. The dental position is preferred by older speakers.
- /w/ A rounded bilabial voiced semi-vowel with the quality of non-syllabic [u] slightly lowered before non-front vowels, and with a glottalized allophone before /,/ and /./ as for the nasals.
- /r/ Never occurring post-juncturally, is a voiced trill, except inter-vocalically, where it is a voiced flap similar to but contrasting with /d/; pre-juncturally its final articulation fades out

to voicelessness with an aspirated release in careful or slow speech. It is retroflexed in tongue position with the apex approaching the palate, and is never glottalized.

- /l/ A dental or apical-alveolar lateral, always fully voiced, and with a glottalized final allophone before /,/ and /./ as for the stops and nasals. /l/ and /r/ are very rarely confused, and then the informant will make an immediate correction; but in the form / λ il λ exer/ 'acorn meal,' two informants frequently volunteered /l/ for /r/.
- /y/ A voiced palatal semi-vowel with the quality of non-syllabic [i], but somewhat lowered before or after low vowels, and with a glottalized allophone before /,/ and /./ as for the stops, nasals, /l/, and /w/.

Some examples of voiced continuant phonemes are:

/minel/	'dead'
/me·m/	'water'
/mana·/	'to miss'
/mo·ri/	'tamarack'
/muyhuyu·q/	'tadpole'
/nirit/	'grouse'
/ne·res/	'to be like'
/nanama/	'to tell the truth'
/nomkensu·s/	'Hynpom Indians' (i.e., Trinity County)
/nurmem/	'salmon soup'
/wira/	'to come'
/werun/ ,	'shall I come?'
/wayken-kuda/	'to enter a dwelling'
/worimeluy/	'watermelon' (<English)
/wu·ya/	'to have lots of brains'
/lila/	'to manufacture'
/lelu-heres/	'appointee, honorable one, transformed one'
/lapal/	'to lose (games)'
/lo·yos/	'front apron'
/luciqi·r/	'the way hummingbird flies'
/yirmet/	'mountain lizard'
/yemer/	'trail, road'
/yarum/	'white spot on throat of black bear'
/yor/	'tear and rip up white grass [genus <u>Yucca</u>] for baskets!' (imperative)
/yura/	'to tear and rip up white grass [genus <u>Yucca</u>] for baskets'
/ca·wam/	'do you sing?'

/net-ta·n/	'my father'
/la·w/	'sinew'
/ba·r/	'of eating'
/pa·l/	'two'
/may/	'two feet' (body part)

VOWELS

220. Vowel sounds in Wintu are:

- /i/ A short high-front unrounded vowel [i], varying to lower high [I] and to slightly centralized [I[>]].
- /i·/ A long close high-front unrounded vowel [i·], varying to [I·] and [I[>]·].
- /e/ A short mid-front unrounded vowel, varying from [E] to [e] to [ɛ] to [ɛ̃].
- /e·/ A long close mid-front unrounded vowel whose quality varies as for /e/.
- /a/ A short low-central unrounded vowel, varying from [ã] to [a] to [ã] to [ã̃].
- /a·/ A long low-central unrounded vowel whose quality varies as for /a/.
- /o/ A short mid-back rounded vowel, varying from [o] to [õ] to [õ] to [õ].
- /o·/ A long mid-back rounded vowel whose quality varies as for /o/.
- /u/ A short high-back rounded vowel, varying from [u] to [ũ] to [U] to [Ũ].
- /u·/ A long high-back rounded vowel whose quality varies as for /u/.
- /æ/ A short lax open-front unrounded low vowel occurring only in /kænluh/ 'candle.'

Vowel allophones are distributed according to environments, as shown below. All vowels are voiced and oral. In the environment [ʔ . . .], all vowels are very slightly nasalized. Vowels are most tense after /ʔ/; when stressed /ˈ/ or [ˈ]; and when long [ː] or half-long [·].

Vowel Phonemes					
Environments	/i/	/e/	/a/	/o/	/u/
[...y]	i•	e•	a•	Ω•	u•
[.˙.˙.˙]	i:	e:	a:	Ω:	u:
[.˘.˘.˘]	i˘	e˘	a˘	Ω˘	u˘
[...˘]	i˘•	E•	a•	ɔ˘•	u˘•
[.˙.˙]	I˘•	E•	a•	ɔ˘•	U˘•
[.˘.˘]	I•	E•	a•	ɔ•	U•
[...]	I	ε˘	<Λ	ɔ	U
[...q]	I	<ə	ə˘	<Ω	<U
[?....]	I>	ε˘	<Λ	ɔ	U
[...h]	I	E	<a	ɔ	U
[...#]	i˘	E˘	a	Ω	u
[...ʔ]	I	E	a	o	U˘
[...w]	I•	E•	a•	o•	u•

A vowel phoneme has the allophones listed in the chart when it occurs in the environments listed in the left column in the position of the three dots. [...] by itself refers to all other environments.

Examples of vowel phonemes are:

/mi/	'you' (singular, subject)
/mi•/	'tree'
/male•t/	'you' (plural, inclusive, object)
/ma•let/	'you' (dual, inclusive, object)
/mat-/	'your' (singular)
/ma•t/	'ear'

/mu·ka/	'to be dome-, umbrella-, or inverted-pot shaped'
/muku·s/	'spoon, scoop'
/moλ/	'a kind of willow'
/mo·λ/	'a fish resembling a striped suckerfish'

Additional minimal and subminimal pairs of examples of length are:

/ʔi·h/	'acorn(s)'
/ʔih/	'you do it'
/keruma·/	'to slaughter'
/keruma/	'to finish'
/ʃukma·/	'goodbye'
/çu·s/	'wood'
/cuhus/	'gambling'
/sede·ha/	'to glide, float, sail, fly through air'
/sedeha/	'to be like Coyote--i.e., silly, promiscuous'

Although length /·/ is functionally contrastive, /ci·kluli/ 'wild azalea' will be understood and sometimes is pronounced /cikluli/, although the latter form is considered stylistically inferior. Length and /h/ before junctures are not infrequently neutralized (i.e., non-contrastive), despite the examples quoted above from slow, careful citation forms (non-allegro speech).

SYLLABLE

230. The syllable is determined on the basis of the following criteria: consistent informant syllabification of sequences of segmental phonemes with obligatory single consonant onset, followed by a peak of sonority associated with a vowel nucleus of long or short vowel, coterminous with stress and pitch phenomena, and optionally followed by a single consonant. No initial or final consonant

clusters occur within one syllable, and no heterophonous vowel clusters ever occur. The syllabic canon is thus CV(·)(C). Some examples are:

CV	/qa/	'and, or'
CV·	/mi·/	'tree'
CVC	/nuq/	'pus'
CV·C	/ba·s/	'food'

Clusters of consonants occur only when a syllable ending in a consonant is immediately followed in the same word by another syllable; these may be homophonous or heterophonous:

CVCCVC	/potxom/	'poison oak'
CVC-CV·C	/net-ta·n/	'my father'
CVC-CVC	/ʔel-ʔih/	'you put it in'

III

MORPHOPHONEMICS

INTRODUCTION

100. The discussion of phonemics just presented distinguishes a subsystem of the language composed of functionally contrastive minimal-range units of sound which serve the function of differentiating morphemes--i.e., autonomous phonemes which are described independently of morphological contexts; phonemes as a system of abstract units, defined in terms of each other on the basis of their function in keeping meanings separate and distinct. Such phonemic units are characterized phonetically in terms of their articulatory properties in ranges of manifest behavior. This section describes only those few units and several processes which characterize the variations in phonological shapes of morphemes. These units and processes are not inferred directly from native-speaker behavior, but more indirectly on the basis of distributions of phonemes and automatic alternations of phonemes contingent on morpheme combinations, and resulting in maintenance of canonical shapes for morpheme classes. These units and processes are more abstract in the language system than phonemes, and so are not directly defined in terms of articulatory or acoustic features.

Wintu, having relatively simple morphophonemic alternations, does not seem to require postulating a subsystem of phonological units (morphophonemes) based on alternations of morpheme shapes (variants or allomorphs), but can be economically described with only a few such phonological units (cf. [E], [O], and [V]), and several rules which can be stated without reference to specific morpheme environments. Other morphophonemic rules, which are restricted in their application to individual morphemes only, are described following the discussion of each of those morphemes in Chapter IV, Morphology.

CANONICAL SHAPES OF MORPHEMES BY CLASS

200. Roots are typically monosyllabic with the shape CV(·)C, except for the two high-frequency verb roots {b} 'eat' and {λ} 'sit.' The two position classes of prefixes have the shape CVC, except for two with the shape CV (/se-/ and /tu-/) and one with the shape CV' (/po'-/). These may be derived historically from */seh-/ ~ */ser-/ 'hand(s)', */tuh/ '(a)head', and */poh-/ 'new, now', respectively.

Radicals may be derived from roots, and will have the shape CVCCVC if reduplicated, or radicals may be derived by the suffixation of root-deriving suffixes with the shapes C, VC, V·r, V·y, VlVlVh (or VlVh), where the last three suffixes have [V] as the vowel.

Stems are formed from roots or radicals by the addition of suffixes of the shape V(·), yielding stems CV(·)CV(·) if based on roots, except /ba·/ 'to eat' and /-λa·/ 'to sit.'

Suffixes which may be added to stems have the diverse shapes C, ·C, VC, CV(·), CV(·)C, V(·), and V·C; in addition, two exceptional suffixes show consonant clusters: {sken} and {nt^here}, indicating a historically dimorphemic origin.

MORPHOPHONEMIC RULES

300. There are two types of morphophonemic rules presented below; those which are phonomechanical--i.e., operate independently of morphemic environments--and those which only operate in specific morpheme environments. The former affect variations in the shapes of morphemes contingent on idiolect, dialect, and speed of speech. Such pervasive variations, which are phonologically conditioned, result in consonant-cluster simplifications at morpheme boundaries word-medially and finally, consonant ablaut, consonant replacement, syncope, vowel shortening or loss, and sporadic hapology.

The second type of morphophonemic rules which are morphologically conditioned and account for morpheme variation, are either limited in the morphemes affected or very extensive in the language, though not universal. In the former case, they are described during the discussion of the individual morphemes concerned. In the latter case, the rules describe vowel ablaut: raising the height of root-syllable vowels, and harmonic assimilations (complete) of suffix vowels. These vowel-ablating morphophonemic rules are ordered to precede the rules affecting consonant clusters and so are discussed first.

VOWEL ABLAUT

310. Before the operation of the rule simplifying word-medial consonant clusters, the rules for vowel ablaut must operate to adjust the shapes of morphemes. Otherwise a significant conditioning environment for the rules of vowel harmony would be deleted. Vowel ablaut only occurs in the mutations of some verb-root vowels (dissimilation) and three root-deriving suffixes (assimilation). These rules are obligatory in their operation. Root-vowel dissimilation is conditioned by vowel height in the following syllable, and suffix-vowel assimilation is conditioned by the quality of vowel in the preceding syllable. Three morphophonemes are used to represent these automatic alternations which, while very extensive in the language, are yet restricted to certain morphemes. Since the number of morphemes affected is very large and would otherwise require listing, the use of the morphophonemic symbols permits their economical identification in the dictionary by signaling the operation of a rule not applicable to all roots.

The morphophonemes [E] and [O], which only occur in root syllables, are raised in height preceding a single consonant and a following low vowel /a/ in the next syllable, but remain mid vowels before non-low vowels, word boundary, two-consonant clusters, length /·/, or when roots are reduplicated. They also remain mid vowels before [V], which is a short vowel assimilated completely to the quality of the vowel in the preceding syllable. If that preceding vowel is [E] or [O], both morphophonemes in the sequence

are realized as mid vowels, /e/ and /o/ respectively. The rules, exemplified below, operate during verb-stem formation.

[[E]] → /i/ ...Ca, but → /e/ elsewhere:

[[lEla]]	→	/lila/	'to transform'
[[lElu]]	→	/lelu/	'transform!'
[[lElit]]	→	/lelit/	'transformed'
[[cEλa*]]	→	/ciλa*/	'to stone'
[[cEλu*t]]	→	/ceλu*t/	'from a blow on the head'
[[c'Epēt]]	→	/c'epet/	'old, miserable, poor'
[[c'Epastin]]	→	/c'ipastin/	'to talk bad, tell dirty jokes'
[[dEk]]	→	/dek/	'climb!'
[[dEka]]	→	/dika/	'to climb'
[[dEkna*]]	→	/dekna*/	'to step'
[[dEpa]]	→	/dipa/	'to turn inside out'
[[se-dEpca]]	→	/se-depca/	'to spread out wide'
[[xita*]]	→	/xita*/	'to cut something up in small pieces with a knife'
[[xE*ta]]	→	/xe*ta/	'to peel, cut off peel'
[[p'Eyp'E*ya]]	→	/p'eype*ya/	'to chew on some- thing soft'
[[p'Eya*]]	→	/piya*/	'to chew tooth- lessly, to gum'
[[λEyλEyp'ure]]	→	/leyλeypure/	'to throw things back and forth'
[[?el-kEpa]]	→	/?el-kipa/	'to knock, bang'
[[?el-kEpke*pa]]	→	/?el-kepke*pa/	'to knock or bang continually'
[[cElV*ya]]	→	/cele*ya/	'lots of cloth to be torn'

[[O]] → /u/ ...Ca, but → /o/ elsewhere:

[[dOya*]]	→	/duya*/	'to give'
[[dOyu]]	→	/doyu/	'give!'
[[dOyi]]	→	/doyi/	'given, gift, giver'
[[hOwa*]]	→	/huwa*/	'swim, ripple, slither, wriggle, lap, move fins'
[[hOwe*li]]	→	/howe*li/	'ripples'
[[hOworta]]	→	/howorta/	'wiggle away fast'
[[hOwhO*wa]]	→	/howho*wa/	'remain still with fins lapping'
[[kOra]]	→	/kura/	'to lay out a net, make a web'
[[kOro]]	→	/koro/	'net, veil, caul'
[[se-kOrca]]	→	/se-korca/	'close opening with buckskin'

[]k'Ok []	→	/k'ok/	'log, rafter, stem'
[]k'Okol []	→	/k'okol/	'to be braced'
[]k'Oka: []	→	/k'uka:/	'to position rafters'
[]p'OnV'ra []	→	/p'ono'ra/	'to run' (< []p'On [] 'leap')

SUFFIX VOWEL ASSIMILATION

313. The morphophoneme []V] occurs in three root-deriving suffixes and in a few other suffix allomorphs. It completely assimilates to the quality of the vowel preceding in the previous syllables.

[]cewVlVlVha []	/ceweleleha/	'many, to be wide open'
[]bo'lVlVha []	/bo'loloha/	'to pulverize'
[]xi'nVlVlVha []	/xi'nililiha/	'many to sleep separately'
[]kumV'ra []	/kumu'ra/	'eat crunchy things continuously'
[]p'OnV'ra []	/p'ono'ra/	'to run' (< []p'On [] 'leap')
[]cEkV'ya []	/ceke'ya/	'to take many salmon out from baking'

PHONOMECHANICAL PROCESSES

320. With the exception of the rules affecting consonant clusters, which are not permitted finally in words, and which would arise from the suffixation of aspect markers, the following rules are not obligatory.

Although word-medial heterophonous two-consonant clusters resulting from morpheme combination are not obligatorily simplified, most informants show loss of the first consonant. The rules are optional, subject to stylistic variation, but occur frequently. Following the operation of the rules of vowel harmony in stem formation, medial consonant clusters which result from affixation during

stem formation are simplified. In particular, the root-deriving transitive suffix {c} induces clusters which, if simplified before application of the rules of vowel dissimilation, would often (i.e., when followed by /a/) lead to raising, where in fact such raising does not occur, since it is blocked by the consonant cluster. Rules which simplify consonant clusters maintain the canonical CVCV(C) shapes of words.

CONSONANT CLUSTER SIMPLIFICATION

321. Virtually all consonant clusters occur as the result of morpheme combination (notable exceptions are {sken}, {nt^here}, and /wint^hu·h/). When combination of morphemes juxtaposes two identical consonants, they are usually realized as a single consonant. While such homophonous clusters may indeed be articulated by native speakers to emphasize or clarify a citation form, such pronunciations are metalinguistic in function, and, in effect, "etymological" in character.

[] heketto·t []	→ /heketo·t/	'anyone'
[] ?elewwar []	→ /?elewar/	'not'
[] ?el-?ihheres []	→ /?el-?ihheres/	'something put inside'
[] misken hari·lle·s []	→ /misken hari·le·s/	'they could take me'

Clusters of unlike consonants (heterophonous) differ in their realization, depending on their position as final or medial in a word. In word-final position, such phonologically underlying forms as sequences of the voiced continuants /l/, /r/, or /y/, followed by /h/, are always

realized phonemically as a single spirant phoneme: /λ/, /θ/ ~ /λ/, and /h/, respectively. (/θ/ ~ /λ/ is dialectal.)

[[lh]]	→ /λ/	as in	[[ci ^h lh]]	→	/ci ^h λ/	'bear' (particular aspect)
[[rh]]	→ /θ/	as in	[[nurh]]	→	/nuθ/	'salmon' (particular aspect)
			[[ci ^h rh]]	→	/ci ^h θ/	'suckerfish' (particular aspect)
[[yh]]	→ /h/	as in	[[mayh]]	→	/mah/	'foot' (particular aspect)

This obligatory rule accommodates the prohibition of word-final consonant clusters. This rule is the only source of the surface phoneme /θ/, represented in other dialects by /λ/. The nouns in the above examples occur in the generic aspect as /ci^hλ/, /nur/, /ci^hr/, and /may/.

In word-final position, the roots {har} and {wEr} show loss of final /r/ before /n/, and in word-medial position similar loss of /r/ before /l/:

[[harn]]	→	/han/	'I'll go'	
[[wErn]]	→	/wen/	'I'll come'	
[[harlel]]	→	/halel/	'let us two go'	
[[wErlel]]	→	[[warlel]]	→ /walel/	'let us two come' (with unusual vowel ablaut)

In word-medial position, a unique simplification of underlying [[rhd]] occurs:

{nur} {t} + {dOl} {i}	→	[[nurhdoli]]	→	[[nuθdoli]]
		→ /nuhdoli/		'salmon house, weir'

In word-medial position, such phonologically underlying forms as sequences of /r/ followed by /s/, /n/, or any lateral; /l/ followed by a lateral; /n/ followed by /l/; /w/ followed by /h/; /t/ followed by /c/; or /w/ followed by /b/ are all realized phonemically as the second of the two consonants.

[]rs[]	→ /s/	as in []nor sono[]	→ /nosono/	'South Nose' (place name)
[]rn[]	→ /n/	as in []pur nen[]	→ /punen/	'his mother'
[]rl[]	→ /l/	as in []pur la·h[]	→ /pula·h/	'his older sister'
[]rλ[]	→ /λ/	as in []pur λabe·[]	→ /puλabe·/	'his older brother'
[]lλ[]	→ /λ/	as in []?el-λeλe·[]	→ /?eλeλe·/	'to throw things back and forth'
[]lλ'[]	→ /λ'/	as in []?ol-λ'ura[]	→ /?oλ'ura/	'to pile up rocks'

But:

[]lh[]	→ /λ/	as in []canalha[]	→ /canaλa/	'to be moon- light'
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(This is the same as the rule already given for []lh[] word-finally.)

[]nl[]	→ /l/	as in []win lel[]	→ /wilel/	'let's see'
[]wh[]	→ /h/	as in []?uw heʔan[]	→ /?uheʔan/	'anyway'
[]tc[]	→ /c/	as in []yet cu[]	→ /yecu/	'name it!'
[]wb[]	→ /b/	as in []?ewbas[]	→ /?ebas/	'they, these'

There is one example of optional but frequent simplification of a heterophonous two-consonant cluster within a morpheme no longer analyzable synchronically as two morphemes:

[]tʃ[]	→ /ʃ/	as in []potʃom[]	→ /poʃom/	'poison oak'
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CONSONANT ABLAUT

322. In addition to consonant-cluster simplification, described above, a small amount of consonant ablaut occurs. Before word juncture and /č/, /b/ → /p/:

[]čub[]	→ /čup/	'awl'
[]čubčubukus[]	→ /čupčubukus/	'chipmunk'

But:

[]čubema[]	→ /čubema/	'to be stuck with a splinter'
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Some idiolects show a replacement of /s/ for /t/ in the word 'owl': /cutkudut/ → /cus kudut/. Similarly, in allegro

speech /w/ replaces final /yu/ in 'bluejay': /cileyu/ → /cilew/.

Idiolectal and dialectal variation is characteristic of some consonants:

/rc/ ~ /hc/	as in /ʔel-torca/ or /ʔel-tohca/	'pinch, bite'
/l/ ~ /n/	as in /sani·qa/ or /sali·qa/	'to be very thin'
	/poʔila/ or /poʔina/	'small, tiny'
	/xili·la/ (from /xi·n/ 'sleep')	'enter a trance'
/sc/ ~ /hc/	as in /ʔusca/ or /ʔuhca/	'crush, mash'
/rc/ ~ /hc/	as in /ʔel-torca/ or /ʔel-tohca/	'nip, pinch, bite'
/l/ ~ /y/	as in /lilta·s/ or /yilta·s/	'chin tattoo of 5 stripes'
/t/ ~ /y/	as in /yeme·n/ (Shasta) /teme n/ (Trinity)	'along the trail'

However, consonant ablaut between /n/ and /l/ may be a morphological process originally (see Chapter IV. 233. Root Derivation):

/sani·qa/	'to be thin'	→ /sali·qa/	'to be very thin'
/poʔila/	'to be small'	→ /poʔina/	'to be tiny'
/xi·na/	'to sleep'	→ /xili·la/	'to enter a trance'
*/kEn/	'optative'	→ /kil/	'conditional' (see Chapter IV 262.22.)
{hah}	'be nearsighted'	~ {sah}	'blurred, faint, hazy'

SYNCOPATION

323. Syncopations within high-frequency forms typically occur in rapid speech, reducing sequences /V₁ʔV₂/ → /V₁/ with, in some instances, compensatory lengthening, to /V₁·/:

/ʔiye ʔibe•/	→	/ʔiyebe•/	'are, is'
/ʔiye ʔibi•da/	→	/ʔiyebi•da/	'am'

With compensatory lengthening:

/kilaʔel/	→	/kila•l/	'it must have been, I guess'
/biyaʔel/	→	/biya•l/	'it may be, I guess'
/ʔelew/	→	/ʔele•/	'no'

Informants disagree on whether there is no difference in meaning between the slow and allegro versions above.

Similarly, loss of the semi-vowel /y/ occurs in allegro speech with compensatory lengthening of the preceding vowel:

[]wayel[]	→	/wa•l/	'in the north'
[]biyak[]	→	/ba•k/	'always has been'

These three types of syncopation exemplified above may also result in forms without compensatory lengthening, and like other sporadic vowel shortening are considered stylistically inferior. There is usually enough redundancy in context to obviate misunderstanding, and where there is no contrasting form to confuse the meaning intended, long vowels may be shortened:

/ci•kluli/	→	/cikluli/	'wild azalea'
------------	---	-----------	---------------

The vulnerability of semi-vowel /y/ to loss occurs also in syncopation of the type /V₁yV₂/ → /V₁/ limited (as above in the case of /V₁ʔV₂/) to a few forms of the highest frequency:

/biyake•/	→	/bike•/	'it happened'
-----------	---	---------	---------------

Sporadically, final vowel segments are lost in rapid speech:

/mi•bayi/	→	/mi•bay/
-----------	---	----------

There is also sporadic haplology:

/nomti tipa/	→	/nomtipa/	'to cross a ridge westward'
/sohaheres/	→	/soheres/	'cross-sibling'

Like vowels (across morpheme boundaries) contract to

V':

[pe el lel]	→	/pe'lel/	'we' (dual inclusive subject emphatic)
[ne el lel]	→	/ne'lel/	'we' (dual exclusive subject emphatic)
[me el lel]	→	/me'lel/	'you' (dual subject emphatic)
[pe el lel]	→	/pe'lel/	'they' (dual subject emphatic)

Vowel ablaut as a morphological process affects vowel quantity. Some stems with long vowels have short-vowel allomorphs when compounded:

/me·m/	'water'	→	/mem/	in	/daqci-mem/	'hot water'
/qo·l/	'tongue'	→	/qol/	in	/neto-qol/	'my language'
/wint ^h u·h/	'person'	→	/wint ^h uh/	in	/nomke·n-wint ^h uh/	'Indians living at the ocean'
/kete·m/	'one, other'	→	/ketem/	in	/ketem-ma·t/	'the other ear'
/ʔe·l/	'in'	→	/ʔel/	in	/ʔel-qatal/	'wet'

However, see the discussion of Roots (Chapter IV. 232) regarding alternation of root-vowel quantity, and note also variations in translations for forms such as /neto qo·l/ 'my mouth,' /neto-qol/ 'my language,' and /qo·l/ 'tongue.'

AUXILIARY VERB STEM CONTRACTION

324. Auxiliary verbs (attributives) {bEy} (Chapter IV. 262.11), {bOh} (Chapter IV. 262.12), {suk} (Chapter IV. 262.13), {kOy} (Chapter IV. 262.21), {wEr} (Chapter IV. 262.14.1), {har} (Chapter IV 262.142), {kir} (Chapter IV. 262.3); and the passive {here} (Chapter IV. 241.52) and

evidential suffixes {kele} (Chapter IV. 243.12) and {nt^here} (Chapter IV. 243.11) show similar patterns of allomorphy and contraction preceding suffixes, especially the suffix of selfness (first person) {da} (Chapter IV. 243.21), (second-person) {sken} (Chapter IV. 243.22), and the non-visual sensory evidential {nt^here} (Chapter IV. 243.11). (See the separate statements of allomorphic distributions given under each of the above sections.) Though it is defective and not entirely symmetrical, the pattern is charted below:

Attributive Auxiliaries	Roots	Stems	{da}	{nt ^h ere}	{nt ^h ere} + {da}	{sken}	Other Contracted Forms	{s}
{bEy}	biya	bi ^h da	bint ^h e ^h	bint ^h ida	be ^h sken	bi ^h	be ^h s	
{bOh}	buha	ba ^h da	---	---	bo ^h sken	ba ^h	bo ^h s	
{suk}	se ^h ya	se ^h da	---	---	su ^h sken	se ^h	su ^h s	
{kOy}	kuya	kuda	---	---	---	ku	---	
{wEr}	wira	wida	wint ^h e ^h	wint ^h ida	weresken	wi	weres	
{har}	hara ^h	---	---	---	---	---	haras	
{kir}	kir	---	kint ^h ere	---	---	ki	---	
Suffixes								
{here}	---	hida	---	---	heresken	hE	heres	
{kele}	---	kida	---	---	kelesken	ke ^h	---	
{nt ^h ere}	---	nt ^h ida	---	---	nt ^h eresken	nt ^h e ^h	---	

*--- indicates non-occurrence

The other attributive auxiliaries {kil}, {keneh}, {p^hin}, {lel}, {top}, {be^hdi}, and {?elew} do not show such patterns of phonological variation. {kir}, {kele}, {kil}, and {keneh} seem diachronically derived from an original root *{kE} with various suffixes. Among the suffixes, {here} most resembles an auxiliary.

Other phonologically conditioned variations in the shapes of individual morphemes are discussed following the

description of the morphemes affected, but to summarize here: verb-stem (imperative-stem) suffixes {u·}, {e·}, {i·}, and {i·l} have variants with initial /w/ following vowels, without /w/ following consonants. The substantival case suffixes {um} and {un} and the imperative verb-stem inflectional suffix {t} lose their initial vowels following vowels.

SUMMARY OF ABSTRACT FORMS

325. The basic underlying abstract structure suggested by the foregoing morphophonemic processes and by the morphemic patterns to be described in the next chapter (Chapter IV. Morphology, especially section 232) implies a three-vowel system /E a O/ and two patterns of harmony: (1) /V/, the assimilation of a following vowel to the quality of the vowel in the preceding syllable; (2) the dissimilation of /E/ and /O/ to variants with greater height, /i/ and /u/, if followed by a low vowel /a/ with only a single intervening consonant.

A consonant system is implied, with no basic contrast in manner of stop articulation and no differentiation between /l/ and /r/ or /λ/ and /θ/, and an alternation (symbolic) between (1) consonant manners, /l/ and /n/, /h/ and /s/, and (2) vowel frontness ~ backness, /E/ and /O/ in verb roots. Basic forms of verb roots with /E/ are derived into noun roots with replacement of /E/ by /a/. Verb roots are {CE} in shape, with {CO} indicating a semantic shift (sometimes perhaps augmentive in meaning), potentially derived

into stems with more specified, narrower ranges of meaning by the suffixation of a second, syllable-closing consonant, yielding stems of {CEC} and {COC} shapes. These second consonants may have been morphemes (suffixes of manner) indicating state, process, nature of action, etc., such as:

*/p/	'change in state initiated'
*/t/	'intermittent'
*/c/	'severs, expels'
*/k/	'inceptive, punctual, repetitive' (?)
*/q/	'pressure encompasses'
*/l/	'continue, duration, state' (probably alternates with */n/ and */r/)
*/r/	'disseminate, repetitive'
*/s/	'concentrate'
*/m/	'arrest'
*/w/	'privative'

while the reduplication of {CEC} and {COC} stems yields various plural and iterative meanings. Subsequent suffixation of derivational and inflectional function, extending stems into full words, is accomplished by the addition of morphemes with the shape {C}.

Maintenance of the cvcvcv... canon is supported by the intercalation of predictable harmonically appropriate vowels with no semantic functions. Vowel length in root syllables has the function of plurality, e.g., 'iterative-intensive.' If the root syllable has a long vowel, the following syllable has a short vowel. If the root-syllable vowel is short, the following syllable may be long (heavy). Prefixes followed by hyphen juncture /-/ represent original root-plus-root compounds. Suffixes like the passive {here} and the evidentials {kele} and {nt^here} likewise represent compounds of elements similar to auxiliary attributive verbs, but more completely fused

to verb stems within phonologically and morphologically defined words. Enclitics on nouns, like prefixes, represent transitional forms--i.e., marginal-position classes incompletely incorporated within word boundaries. The reduction of final consonant clusters displays the recent addition of suffixes marking noun aspect.

The primary syntactic pattern of verb phrase in sentence-final position, with the lexically significant verb-participle head followed by auxiliary verbs, the last of which is inflected, recapitulates in expanded form the internal structure of verbs with root first, followed by derivational and, finally, inflectional suffixes.

IV

MORPHOLOGY

WORDS AND WORD CLASSES

100. This section describes the internal structure of words in terms of their morphemic constituents, and defines the word classes which are identified on the basis of their morphological characteristics. This level of organization in the language is distinguished both from phonology, whose units have form but no meaning, and from syntax (external distributions of words as they function in sentence contexts), where meanings are distinguished without there being any necessary manifestation in units of form, the meanings being contingent rather on relations between forms. The discussion of morphology will lay the necessary foundation for the syntax by indicating many morphemes, morpheme classes, and word forms with specifically syntactic functions and having significant grammatical, in addition to lexical, meanings.

While the word has previously received phonological definition on the basis of its phonetic, phonemic, and morphophonemic properties (see, e.g., consonant allophony, junctures; distributions of consonant phonemes and intonation; operation of morphophonemic rules at word boundaries

versus word-internally), words may, of course, also be identified morphologically. For the most part these two kinds of definition are in agreement in respect to the identity of the units (words) which they characterize. Discrepancy between the two orders of definition occurs only with respect to clitics, which are elements of syntactic significance with a rather distinct semantic range of meanings and formally recognizable as lying within phonemic intonation contours but outside the morphological boundaries of words defined on the basis of fixed-order criteria.

Morphologically defined words are distinguished on the basis of the occurrence of morphemes within words in a fixed order. That is, at the morphologically defined level of structural organization, the word-level, there are position-classes of morphemes which occur in invariant sequences. Within a word-level position, certain clusters of morphemes have distributional properties equivalent to single morphemes; i.e., morphological units are here assumed with both simple and complex internal structures, but having identical privileges of occurrence and external function. Such morpheme clusters (e.g., polymorphemic radicals which function like roots and have the same distributions as roots) likewise obey the fixed-order criteria used to define words, just as single morphemes do.

Morphemes are here considered to be minimal-range units of form and meaning. They have phonological representations showing the range of variation in form. When the allomorphic variation is unique to a morpheme, it is discussed

where the morpheme is described. Also given is the range of meaning, often indicated with the most frequent translation equivalents.

The unit defined as a morphological word is used as a distributional frame for determining the relative position-classes of morphemes. With one exception, these position-classes contain inventories of morphemes which are limited in membership. The obligatory class of morphemes with virtually unlimited membership is the root class; those morphemes preceding it in sequence within a word are prefixes, and those following it are suffixes. Only the root position-class is obligatorily filled in all forms. However, the presence of a member of certain position-classes conditions the obligatory presence of members of other classes. While the position-classes are not morphemes, their members share common features of meaning, so that each position-class has a class meaning, and the units contained within a class constitute a set with common external functions--i.e., shared privileges of occurrence (shared distributional potential). Members of the same class are mutually exclusive and cannot co-occur in the same construction.

Much affixation of roots during the process of deriving stems results in forms which are endocentric--i.e., they have the same external distributional properties as at least one of the component constituents, from which a layered, cyclical procession of formations may typically ensue. Many forms, then, are composed of distributionally similar forms, which in turn have like internal constituents.

This cycle may be interrupted at many points by the addition of certain suffixes, or may continue through a number of cycles of such stem formation.

Non-root morphemes are thus of two types: derivational and inflectional. Derivational morphemes combine with roots to make stems, or to indicate that a previously formed stem is to be reinterpreted as a radical--i.e., as a single though internally clustered morphological unit to which similar morphemic material may be suffixed in the same cyclical fashion described above. However, inflectional morphemes indicate that the stem can no longer be so reinterpreted, thus closing the cycle of derivation.

Only suffixes are inflectional, while prefixes, reduplication, and consonant ablaut, as well as suffixes, are derivational. Both derivational and inflectional suffixes may occur as the final morpheme in a morphemic word. However, although members of the final-position class of derivational suffixes may optionally occur finally, they may also be followed by other derivational and inflectional suffixes.

The combination of morphemes into words involves suffixation, prefixation, compounding, reduplication, consonantal and vocalic ablaut, and suppletion. Suffixation is the major process of morpheme combination, extensively used for derivation and the only process used for inflection. Prefixation is limited and occurs only with derivational value. Compounding is limited to the juxtaposition of roots to form sequences which function externally as roots,

i.e., radicals--a juxtaposition yielding endocentric, coordinate compounds. Reduplication involves only one class of morphemes--roots--and has but a single function, that of marking iteration. Consonantal ablaut, which appears to have been a very active process in the past, is synchronically analyzable in only a few examples, where it is purely derivational in function.

There are two types of vocalic ablaut: phonologically conditioned harmonic dissimilation of the root vowel of stems, and morphologically conditioned alternation in the vowels of stem ultima preceding certain suffixes. The phonologically conditioned variation has been described in Chapter III. Morphophonemics (see [E], [O], [V]). The morphologically conditioned alternation is described for each morpheme with allomorphs showing morphologically conditioned vocalic ablaut (see {here} passive, {nt^here} non-visual sensory evidential, {kele} hearsay evidential, and the auxiliaries {bEy}, {bOh}, and {wEr}). Suppletion, like vocalic ablaut, functions allomorphically; that is, a few morphemes have suppletive allomorphs.

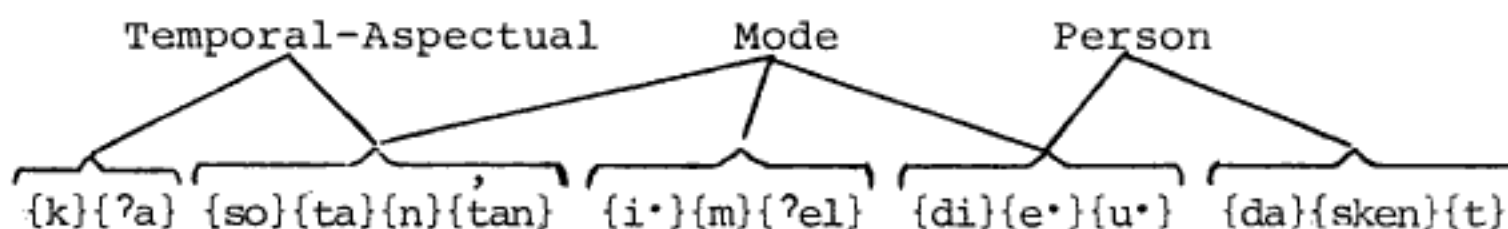
There are three morphological classes of words distinguished on the basis of differences in inflection. Two of the classes, substantives and verbs, are marked by different sets of final-position inflectional morphemes, while the third class is uninflected. Most stems may occur with either substantive or verb inflection, although some may occur with only one type of inflection, and a few never

occur with inflectional suffixes. A small number of stems may occur as either verbs or substantives or uninflected forms.

The final-position class of inflectional suffixes diagnostic of verbs contains fifteen members, listed below in the order in which they are described. They fall into three major groups, with grammatical functions which intersect: person, tense-aspect, and mode.

FP	k	{?el}	the evidential of logical deduction, experiential
		{da}	1st-person (suffix of selfness)
		{m}	dubitative
		{k}	completive (past time)
		{?a}	anteriority
		{tan}	contradictory simultaneity
		{sken}	2nd-person
		{di}	3rd-person hortative: 'may he . . . , let him . . . '
		{u•}	1st-person optative-interrogative
		{n}	subordinating: 'while'
		{ta}	subordinating temporal simultaneity or anteriority: 'while'
		{so}	necessary anteriority: 'before'
		{t}	personal object
		{e•}	1st-person plural hortative
		{i•}	interrogative

These fifteen final-position-class inflectional suffixes falling into the three categories of person, tense-aspect, and modal inflection partly overlap semantically. Modals are central to the pattern, intersecting with both person and tense-aspect. Thus there are five groups, diagrammed below: one pure person, one pure tense-aspect, one pure modal, and two in which the modal intersects with each of the others.



The final-position class of substantive case suffixes includes five members diagnostic of nouns and pronouns.

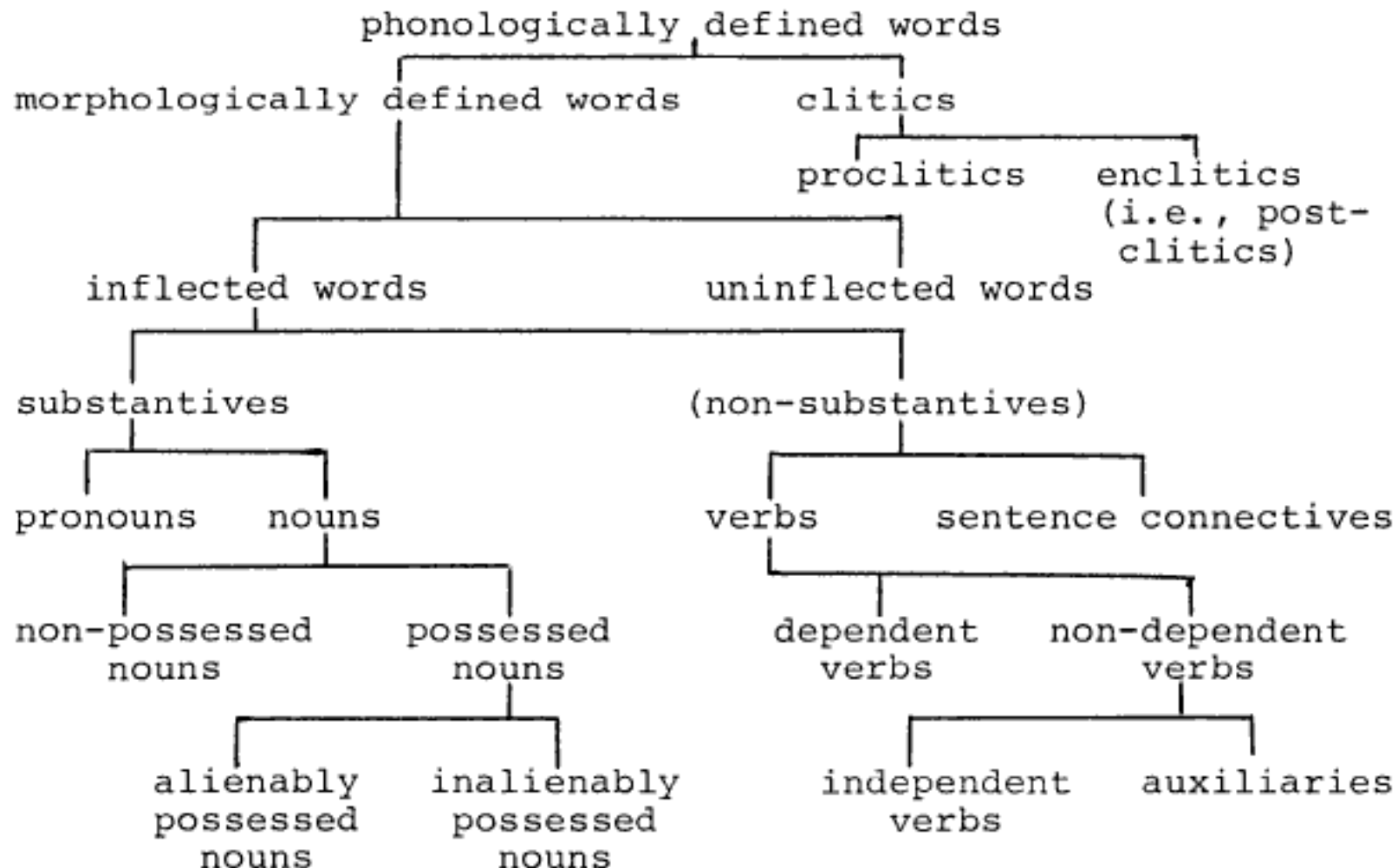
They are:

{um}	object case
{un}	genitive case
{in}	locative case
{r}	instrumental case
{t}	possessive case

In addition, substantives, but not verbs, are marked for aspect with two suffixes (see Section 300. Substantives):

{s}	generic aspect, and
{t}	particular aspect

Both verbs and substantives are further subdivided on the basis of formal criteria. The classes and subclasses of morphological words thus distinguished are charted below:



VERBS

200. This is the major class of words in the language, in several senses: it is the most numerous statistically; it provides the forms essential for predications; it is very frequently the basis for noun derivation; and it has the most elaborate internal morphological structure.

Verbs are described here as occurring in three stem-forms: indicative, imperative, and nominal. This tripartite presentation as a context for describing independent and auxiliary verb derivation and inflection is motivated by informant behavior as well as descriptive convenience, and should not be understood to imply any absolute separation of the three stem-forms. In fact, the patterns of possible derivation allow for nominalization of any verb-stem, formation of indicative stems from nouns, and, even more typically, indicative-stem formation on underlying imperative stems. However, when simple verb-forms were elicited, out of sentence contexts, as translations for English simple or infinitive verbs, informants invariably volunteered the indicative stems. The most common verbs were presented by native speakers in the form of verb-roots followed by the indicative stem-forming suffix. This appears to be the most neutral and unmarked form from the native-speaker point of view--i.e., the citation form which accommodates the fact that bare roots are typically not free forms and must have at least one suffix in order to be quoted. The imperative stem-form of verbs requires for its elicitation the specification in English of that additional

feature of meaning: a command. The nominal stem is very difficult to elicit without further suffixes attached, since its range of meaning does not correspond at all consistently to any of the possible English equivalents, being more generalized in meaning than any of the English-translation equivalents.

For example, the verb 'sing,' which has the monomorphemic and typically monosyllabic form of root {ca'w}, occurs as /ca'wa/ with the indicative stem suffix {a} in response to the gloss 'sing' or 'to sing.' In response to commands 'you sing!' or 'sing!' the imperative stem /ca'wu/ is volunteered. This form, based on the root plus the imperative-stem suffix {u}, is not cited in response to non-command simple English verb-forms. The nominal stem-form /ca'wi/ is very difficult to elicit with an English gloss, since it covers the range from 'song' to 'singer' to 'singing' and usually occurs with further suffixation which narrows its specification. A more extensive syntactic context is generally required for citation of the nominal stem than for citation of the indicative or imperative stems. Nominal stems participate in the system of noun morphology as well as permitting possible further derivation into verbs.

Each of the three stem-forms occurs with a different mutually exclusive set of suffixes, with the exception of a few forms where a synchronic suffix (such as {here} 'passive') is itself transparently an original verb-stem. In a case like /here/--a stem in form, with the typical stem

morphophonemics and privileges of occurrence with following suffixes--a change in function has occurred, resulting in a synchronic suffix which has lost the possibility of functioning as an independent or auxiliary verb-stem in the synchronic system. Such suffixes are still stems in form, but no longer in function.

The stems intrinsic to predications, and with exclusively verbal patterns of suffixation, are the indicative and the imperative. The indicative stem, when appropriately suffixed, specifies evidential categories (including, recently, markers for person as a semantic subvariety of evidence). The indicative stem is used to predicate actual, real events qualified as to the speaker's knowledge of or basis for reporting the event. The person-markers (originally) indicate more the degree of certainty the speaker has than the role of the syntactic subject of the verb in the context of the speech-event situation. The indicative stem functions as a participle--i.e., as the syntactic head of constructions--followed by auxiliary verbs (see Section 260). The indicative-stem formations described may be added to the elaborate imperative-stem constructions in order to combine the notions expressed by the two stems.

The imperative stem functions to express notions of mode, tense-aspect, voice, potentiality, and generally non-indicative views of actions and states which are not being emphasized as unqualifiedly actual, as is the case for indicative verb-stem forms. Imperative stem-forms may, however, be subsequently derived into indicative stems, if

an imperative stem is followed by a derivational suffix or series of suffixes.

Of the three types of verb-stem, only the imperative stem is never used with auxiliary verbs in a verb-phrase. The indicative stem can be the head of such constructions, as is the case also for the nominal stem, which may be the object of any of four attributive auxiliaries as a noun included in verb phrases. In other words, the imperative stem does not participate in periphrastic verb-phrase constructions; its semantic range when suffixed overlaps that of verb-phrases that include auxiliary verbs.

Although the three stem-formants--{a} indicative, {u} imperative, and {i} nominal--contrast with each other, maximally expanded verb-forms have the potential of employing them in sequence in the same verb. In such cases, the permitted order is {a} after {u} or {i}. From this point of view, and because verb-root morphophonemic variants have their basic shapes preceding {u} and their marked (i.e., ablauted) forms preceding {a}, the imperative stem can be considered the basic stem-form, especially as it shows the most elaborate patterns of suffixation (derivation and inflection), occurring with more suffixes and position-classes than the other stems.

Thus the external distribution of the imperative stems, if appropriate derivational suffixes are added, is potentially equivalent to forms (roots and radicals) which may be further suffixed with the indicative stem-formant {a}. Since imperative stems have this potentiality of being

interpreted as the functional equivalents of roots, and of those morpheme clusters called radicals which function externally in their distributions equivalent to roots, a series of embeddings of imperative stems of internally complex structure within indicative stems can yield semantically and structurally elaborate verbs. The addition of inflectional suffixes to any stem precludes their further derivation into stems, but derivational suffixes permit such embedding. The discussion of verb structure that follows (in section 210) will describe stem formation; the imperative, indicative, and nominal stems, each with the suffixation patterns that may apply to that stem, will then be treated in turn.

The patterns of suffixation and stem formation described in the following sections distinguish derivational from inflection suffixation. Verbs with inflectional suffixes may not be reinterpreted as radicals and may not be followed by stem-formants to further extend the patterns of verb derivation. Derivational suffixes may be followed by stem-formants, and thus the new forms so derived constitute verb-stems which can optionally have inflectional suffixes added. Stem-formants and derivational and inflectional suffixes all occur in word-final position. Only the imperative stem occurs with sequences of derivational suffixes following each other. After each such derivational suffix, a stem-formant must be added before another derivational (or inflectional) suffix, so that derivational suffixes do not follow each other directly. The stem-formants added to radicals in extended patterns of derivation alternate with the

derivational suffixes. Only the imperative stem has a set of derivational suffixes in more than one position-class with which it occurs. The nominal stem has a single position-class of two derivational suffixes which may be added to it, and the indicative stem has a set of two position-classes of inflectional suffixes which are restricted to occurrence with indicative stems. The indicative stems are primarily inflected after their formation; the nominal stem most frequently occurs with noun-aspect and noun-case suffixes added, but may occur with derivational suffixes and thus form stems. The imperative stem can occur with both inflectional and derivational suffixes, and rarely occurs with nominal suffixes.

Examples of these patterns with a typical verb, /c'a•w/ 'sing,' are given in the following chart (see also the charts of the position-classes of suffixes for the three verb-stems, in sections 234 through 238).

Form		Gloss	Suffixation Pattern
Root	, ca*w	sing	---
Indicative verb-stem	, ca*wa	sing, to sing	root + indicative stem-formant {a}
Reduplicated root, indicative verb-stem	, , cawcawa	humming a tune	radical + indicative stem-formant {a}
Imperative verb-stem	, ca*wu	sing!	root + imperative stem-formant {u}
Nominal verb-stem	, ca*wi	song; already sung	root + nominal stem-formant {i}
Noun	ca*wito*t	the one who sang	nominal verb-stem + disjunctive postclitic {to*t}
Noun	ca*wus	singer; gizzard	imperative verb-stem + generic noun aspect {s}
[from /ca*wu/, the imperative verb-stem]	, ca*wuma	be singing while doing something else	generic comitative {m} + indicative stem-formant {a}
	, ca*wupaq	sing for/over/about someone	personal object {paq}
	, ca*wuwil	sing with them, help them sing	particular comitative {i'l}
[from /ca*wi/, the nominal verb-stem]	, ca*wiha	be forever singing, be like a song	stative denominal {h} + indicative stem-formant {a}
	, ca*wisa	be chock full of song	intensive denominal {s} + indicative stem-formant {a}
[from /ca*wa/, the indicative verb-stem]	, ca*wada	I'm (we're) singing/just sang	selfness/1st-person {da}
	, ca*wam	did you sing/are you singing?	dubitative {m}
[from /ca*wu/, the imperative verb-stem]	, ca*wumen	while singing . . .	causative {m} + subordinating temporal simultaneity {n}
	, ca*wuleso	before singing . . .	inevitable future {le} + temporal anteriority {so}
	, ca*wudi	may he/she/they sing!	hortative {di}
	, ca*wuta	when (they) finish singing . . .	subordinating temporal simultaneity or anteriority {ta}

VERB STRUCTURE
(Internal Morphological Structure)

210. The sequences of morphemes to which the verbal inflectional endings may be added constitute the verb-stem. The verb-stem is based on a radical. Radicals are of two types in their internal structure: simple or internally derived. The radical consists of either (1) a root, or (2) a root plus an optional position-class of root-deriving suffixes and two optional position-classes of prefixes. The root position may be filled by a reduplicated root.

Radicals of all internal structural types are derived into stems. Verbs, in addition to being classified on the basis of the internal structure of verb-stems in terms of position-classes of morphemes and morpheme clusters, may also be classified into conjugation classes according to the number of stem-formants from which they are formed, and the particular allomorph each stem-formant has when suffixed to them. The majority of verbs show three stem-forms. A small number show only two stem-forms, while a smaller group has only one form of stem. The classes of verbs are charted below in terms of the number of stem-formants with which each class may occur, and the particular allomorph of each stem-formant morpheme which occurs with it.

The auxiliaries do not fit into any of these subclasses of conjugational types, but are quite aberrant, each one virtually constituting a separate class. Their conjugational stem-forms are therefore individually described in the discussion of auxiliaries.

Note that because of the neutralization of contrasts in shapes of stem-formants for some conjugation classes, the distinctions between stem-forms which typically obtain are suspended. For conjugation IV, the single stem-forms which exist serve all stem functions and have corresponding translations. For conjugations II and III, in similar fashion, stem contrasts are neutralized, and these conjugations show only two stems each, resulting in the suspension of contrasts. One of the effects of these neutralizations is to make the morphs for certain stem-formants indistinguishable as they appear in their surface phonemic representations. Nevertheless, this discussion of stem formation assumes as the basic pattern the maximally differentiated typical verbs of high frequency which in fact display a three-way contrast of stems with phonemically contrastive shapes marking the three functions: indicative, imperative, and nominal. In particular instances, usually resulting from stem-derivational suffixation, the stem-formants which are ambiguous because of non-distinctive phonemic surface shapes are identified as imperative, indicative, or nominal on the basis of the pattern of co-occurring suffixes, since for typical verbs the stems occur with mutually exclusive sets of suffixes. The suffixes that do appear in neutralized contexts have been employed to identify their preceding stem-formants with those which occur for maximally differentiated verb-stems of the conjugation I verb-classes.

In such cases, from another view, the undifferentiated stem-formant vowels might be seen as merely phonologically

(canonically) required fillers between suffixes of mostly consonantal canonical shapes. These "inserted" vowels would then occur merely to prevent the reduction of consonant clusters, whose information-bearing function could not tolerate morphophonemic elision, and no meaning would be assigned to these obligatorily occurring vowels.

VERB-CONJUGATION CLASSES

215. There are four major verb-conjugation classes, distinguished on the basis of the contrasts or identities in form between the three stem-formants:

Major Conjugation-Types

		<u>Number of Stem-Forms</u>
I	(indicative) x (imperative) x (nominal)	3
II	(indicative = nominal) x (imperative)	2
III	(indicative) x (imperative = nominal)	2
IV	(indicative = imperative = nominal)	1

x: contrasts in form
=: identity of form (merged)

Verb conjugation-type I differentiates the indicative, the imperative, and the nominal stems from each other by the contrast in their surface phonemic representations--i.e., in the shapes of the three stem-formants, whose basic symbols are {a}, {u}, and {i}. Conjugation-type I contains

eight classes (A through H), which are distinguished by the allomorphy of the three stem-formants (see following chart). It will be seen that the imperative stem-formant is almost always /u/, occasionally zero. Half the time the nominal stem-formant is a front vowel (thrice /i/, once /e/), half the time the chameleon harmonizing vowel [V]. The indicative stem-formant is the most complex in phonemic shape (allomorphy), being represented mostly as short or long /a/, but occasionally with /a/ alternating with zero, and in three classes replaced by long or short /e/.

Verb conjugation-type II differentiates the imperative from the indicative and nominal stems, which merge. The merged formant is thrice short or long /a/, once long /e/, linking it in shape with the indicative formant of conjugation-type I. The imperative formant twice shows /u/, as in I, once /e/ as in I, and once now /a/. Conjugation-type II contains four classes (I through L).

Verb conjugation-type III differentiates the indicative from the imperative and nominal stems, which merge. The indicative formant is /a/, while the merged formant is /e/ in the single class (M) of this conjugation type.

Verb conjugation-type IV merges all three verb-stems. The single stem-formant is short or long /a/ in its two classes (N and O).

The stem-formant allomorphs of the indicative {a}, the imperative {u}, and the nominal {i} are complex in their surface phonemic representations, but the following

characterizations can be made from the perspective of surface shapes, in order to help in recognition of the class and conjugation of a formant:

/u/	always imperative
/i/	always nominal
/e•/	} always indicative or includes indicative
/a•/	
/e/	may be nominal (class D); indicative (H); imperative (L); merged imperative-nominal (M)
/a/	most often indicative (classes A, E, F, G, H, I, J, M), but may be imperative (K), or merged from all three (N and O)

Verb conjugation-classes primarily result from derivational suffixation. The derivational suffixes listed below, when final in stem formation, select stem-formant allomorphs according to the following pattern:

{t}	particular aspect of patient (241.11) yields verbs of class J
{i•l}	particular comitative (241.12) yields verbs of class F
{m}	generic comitative (241.13) yields verbs of class M
{n}	reflexive (241.2) yields verbs of class K
{m̄}	causative (241.3) yields verbs of class M
{pur}	reciprocal (241.41) yields verbs of a unique subclass of H
{paq}	benefactive (241.42) yields verbs of class F

However, as can be seen from the chart of examples which follows the Chart of Conjugational Classes below, the classes are necessary also in order to accommodate simple verb-roots with no derivational extensions (excepting classes M and N). The classes are also necessary to accommodate contrasts such as /kire•/ 'to die' (many people):

/kira•/ 'to singe, singeing,' even if these two verbs are historically related (possibly /kira•/ may have originally meant 'to murder by setting fire to houses with torches').

Chart of Conjugational Classes
(According to Stem-Formant Allomorphy)

Conjugation- type	Class	Indicative {a}	Imperative {u}	Nominal {i}
I	A	/a/	/u/	/i/
	B	/a*/	/u/	/i/
	C	/e*/	/u/	/i/
	D	/e*/	/u/	/e/
	E	/a/	∅*	[]V[]
	F	∅ ~ /a/**	∅ ~ /u/***	[]V[]
	G	/a/**	/u/	[]V[]
	H	/e/	∅ ~ /u/***	[]V[]
		Indicative and Nominal {a}	Imperative {u}	
II	I	/a/	∅ ~ /u/***	
	J	/a/	/u/	
	K	/a*/	/a/	
	L	/e*/	/e/	
		Indicative {a}	Imperative and Nominal {i}	
III	M	/a/	/e/	
		Indicative, Imperative, and Nominal {a}		
IV	N	/a/		
	O	{λ} and {b} only) /a*/		

*There is no overt marker of the imperative stem-formant.

**Indicative stem-formant is marked by /a/ obligatorily if inflectionally suffixed; the suffix may be dropped after conditioning the appropriate expression of []E[] or []O[] in the root if there is no further suffixation.

***Imperative stem-formant /u/ may be dropped unless inflectional suffixes follow.

∅ Unmarked, i.e., absence of vocalic formant (zero).

~ Variation is indicated (here, depending on whether there is a following inflectional suffix).

[]V[] Harmonic vowel, i.e., a short vowel of the same quality as the preceding vowel.

Examples of verb-stems for all classes are:

Conjugation- type Class	Indicative {a}	Imperative {u}	Nominal {i}	Gloss
I A	/ca'wa/	/ca'wu/	/ca'wi/	'sing'
B	/baya'/	/bayu/	/bayi/	'cauter- ize'
C	/buqe'/	/buqu/	/buqi/	'build a house'
D	/cice'/	/cicu/	/cice/	'be sharp'
E	/cuta/	/cot/	/coto/	'undo'
F	/co'r/~ /co'ra/	/co'r/~ /co'ru/	/co'ro/	'open nuts'
G	/ce'w/~ /ce'wa/	/ce'wu/	/ce'we/	'preach'
H	/cuqe/	/cuq/~ /cuqu/	/cuqu/	'help'
II I	/co'ra/	/co'r/~ /co'ru/	/co'ra/	'burrs to open'
J	/ci'qa/	/ci'qu/	/ci'qa/	'wring out, squeeze'
K	/cina'/	/cina/	/cina'/	'defe- cate'
L	/huye'/	/huye/	/huye'/	'save, hoard'
III M	/dukama/	/dukame/	/dukame/	'put away'
IV N	/ha'smena/	/ha'smena/	/ha'smena/	'yawn once'
O	/ba'/	/ba'/	/ba'/	'eat'

~Variation is indicated (here, depending on whether there is a following inflectional suffix). N.B.: The imperative stems of {har} 'go' and {wer} 'come' lack any surface (vowel) representation of {u}; cf. class F.

Typically, verb-stems are disyllabic in shape. However, two monosyllabic verb-stems (/ba'/ 'eat' and /la'/ 'sit') are found, and some auxiliary verb-stems are contracted to monosyllables. Many of the stems produced by internal

derivation are longer. These longer stems behave just like the disyllabic stems in terms of external derivation and inflection. The disyllabic type is based on a monosyllabic root, CVC or CV'C, to which is suffixed a stem-formant vowel, which varies for specific stem-class and verb-class.

There are monosyllabic roots of similar phonemic shape, occurring with differing conjugation-subclass membership and taking different allomorphs of the stem-formant {a}, which frequently show variations in vowel length and often have tantalizingly similar meanings which often appear to involve a contrast in transitive versus intransitive or iterative versus single or punctual. These variations in meaning and form do not seem to be synchronically consistent, however, and no attempt at segmentation has been made. Examples of such partial resemblance are seen in conjugational subtypes of the two forms /'co'r/ 'to open nuts' and /'co'ra/ 'burrs to open.' Although the composition of the monosyllabic sequences occupying the radical position has not been found susceptible to synchronic analysis, the partial patterns of derivation apparent within these sequences seem, at least diachronically, to have been determinant for conjugation-class membership. More extensive analysis, possibly based on further field work, might make clearer the synchronic and diachronic patterns of relationship between conjugational subclasses, on the one hand, and the seeming relationship in form and meaning between individual radicals, on the other.

VERB STEMS

220. The three stem-formant morphemes {a}, {u}, and {i} constitute a single class functionally. They form stems from radicals, occurring obligatorily before any inflectional suffixes and after any radical-forming suffixes. They are the only class of derivational morphemes which may occur in final position if the verb is not inflected. One of the stem formants, {u}, may potentially occur as many as five times within a form if the radical consists of a number of radical-derived stems. However, the last occurrence of a stem-formant invariably signals that the derivational process is terminated for that form.

INDICATIVE STEMS

221. The stem-formant {a} marks the indicative form of verbs. It is commonly translated as an infinitive in English, and is the form most likely to be elicited.

The morpheme {a} has four allomorphs--/a/, /a^{*}/, /e/, and /e^{*}/--which are morphologically conditioned by the class of radical to which they are affixed. Thus {a} has the allomorph /a/ when suffixed to verb classes A, E, F, G, I, J, M, and N. It is obligatorily suffixed to members of classes F and G if inflectional suffixes are also added; otherwise it is optionally deleted after conditioning root-vowel raising of [E] and [O]. The morpheme {a} has the allomorph /a^{*}/ when suffixed to verb classes B, K, and O; the allomorph /e/ when suffixed to class H; and the allomorph /e^{*}/ when suffixed to classes C, D, and L. The

stem-formant {a} is optionally followed by two position-classes of inflectional suffixes.

Examples of each allomorph are:

/a/	{ca•w}	{a}	→	/ca•wa/	'to sing'
/a•/	{ḃay}	{a}	→	/ḃaya•/	'to cauterize'
/e/	{cuq}	{a}	→	/cuqe/	'to help'
/e•/	{huy}	{a}	→	/huye•/	'to save, hoard'
/a/	when followed by inflectional suffixes:				
	{co•r}	{a}	{da}→	/co•rada/	'I open nuts,'
					but elsewhere:
∅	{co•r}	{a}	→	/co•r/	'to open nuts'

IMPERATIVE STEMS

222. The stem-formant {u} marks the imperative form of verbs, a freely elicitable form, translated as the imperative form of an English verb. It has six morphologically conditioned allomorphs: /u/, /e/, /a/, /h/, ∅*, and /a•/. The morpheme {u} is unmarked for class E and for the future-intentional auxiliary {wEr}. It has the shape /h/ when suffixed to the two auxiliary verbs of doing, {?uw} and {?iy}; the shape /e/ when suffixed to a verb of class L; the shape /a/ when suffixed to one of class K; and the shape /u/ when suffixed to members of classes A - D and F - J. The morpheme {u} is only suffixed to members of classes F, H, and I if inflectional suffixes are added, except {har} and {wer}.

The stem-formant {u} may be followed by up to four optional position-classes of inflectional suffixes. If followed by more than one position-class of derivational suffix, the morpheme {u} also obligatorily recurs between

*Imperative stem-forms of monosyllabic shape are lengthened to /V•/ before suffixation.

each derivational suffix. The stem-formant {u} is unmarked; e.g., when it occurs with the verb 'to go' {har}. Examples are:

∅	{wer}	{u}	→	/war/	'come!'	
∅	{har}	{u}	→	/har/	'go!'	
/a•/	{ḡ}	{u}	→	/ḡa•/	'eat!'	
∅	{c0t}	{u}	→	/cot/	'undo!'	
/h/	{ʔiy}	{u}	→	∅ʔiyh∅	+ /ʔih/	
					'do it (nearby)!'	
/e/	{ḡuy}	{u}	→	/ḡuye/	'save, hoard!'	
/a/	{çEn}	{u}	→	/çina/	'defecate!'	
/u/	{ca•w}	{u}	→	/ca•wu/	'sing!'	
/u/	when followed by inflectional suffixes:					
	{co•r}	{u}	{n}	→	/co•run/	'while opening nuts'
but:	{co•r}			→	/co•r/	'open nuts!'

NOMINAL STEMS

223. The stem-formant {i} marks the nominal stem-form of verbs. This form, which is only indirectly elicitable, translates as a participle or nominal indicating the completion of action, the product of action, or the instrument or object of an action. This stem is not distinguished in verb classes I - L, N, and O.

The morpheme {i} has five morphologically conditioned allomorphs: /i/, /e/, /•/, /a•/, and ∅V∅. It has the shape /i/ when suffixed to members of verb classes A, B, and C; the shape /e/ when suffixed to members of class D; the shape /•/ when suffixed to the negative auxiliary /ʔelew/ and the perfective auxiliary {suk}; and the shape of a short vowel identical in quality with that of the final root vowel when suffixed to members of classes E - H.

The stem-formant {i} may be followed by two position-classes of inflectional suffixes. When the allomorphs of

{i} are /e/, /·/, /a·/, or [V], it is obligatorily followed by one of the two suffixes marking substantive aspect: {s} or {t}.

Examples of the allomorphs of stem-formant {i} are:

/i/	{ca·w}	{i}	→	/ca·wi/	'song, singing'
/e/	{cic}	{i} {s}	→	/cices/	'being sharp-pointed, that which is sharp-pointed'
/·/	{suk}	{i} {s}	→	/su·s/	'standing, being, those standing'
/a·/	{b}	{i} {s}	→	/ba·s/	'food'
[V]	{cOt}	{i} {s}	→	[cOtVs] → /cotos/	'undoing'

VERB RADICALS

230. The radical to which the stem-formants are initially suffixed may consist of four position-classes of morphemes: two optional classes of prefixes, an obligatory class of roots, and one optional class of root-deriving suffixes. The optional prefixes are locational and directional in meaning. The optional suffixes qualify the meaning of the radical as regards number (i.e., plurality), transitivity, or the state of the subject.

RADICAL PREFIXES

231. The sixteen members of the first position-class of prefixes are optional in occurrence, locational and directional in meaning, and mutually exclusive. When affixed directly to roots (except {λ} 'to sit'), they are followed by a hyphen juncture, which is not present when they are followed by the second optional position-class of prefixes.

These prefixes are listed below in alphabetical order, together with their specific meanings. Historically, they were probably independent roots rather than prefixes or proclitics.

{nom}	'west'	
	/nom-wana*/	'to be in, move west'
{nor}	'south'	
	/nor-wana*/	'to be in, move south'
{pat}	'outside'	
	/pat-kuda/	'to go outside'
{po•}	'now, new, recently'	
	/po•-wint ^h una*/	'to be, become young' (of people)
{puy}	'east'	
	/puy-wana*/	'to be in, move east'
{se}	'distributively, on all sides, everywhere, with both hands'	
	/se-ye•ka/	'to shake clothes, to spread them out'
	/se-ceca/	'to stretch something out'
{ser}	'crosswise, twice, in two directions' (probably derived from {se} 'with both hands')	
	/ser-wanuma*/	'to move crosswise'
{tep}	'behind'	
	/tep-dile/	'to remain behind, be widowed, left in mourning'
{tu}	'straight ahead, forward, or down'	
	/tu-kuda/	'to go on ahead'
{way}	'north'	
	/way-wana*/	'to be in, move north'
{xun}	'toward, or along'	
	/xun-wana*/	'to come closer, approach'
{xal}	'other, apart, separately'	
	/xal-qolti•na/	'to talk a different, foreign language'
{xan}	'away, off'	
	/xan-kuda/	'to go away, step off'
{yay}	'around, encircling'	
	/yay-lamirta/	'to go round and round'
{yel}	'back'	
	/yel [?] ol-t ^h amuma*/	'push deer-head decoy back up'
{ [?] el}	'in, in horizontally, intensively'	
	/ [?] el-taqa/	'to spank'
	/ [?] el-kuda/	'to step in the house'

The second optional position-class has two members which are also mutually exclusive and directional in meaning. (The two classes of prefixes were probably one class originally.)

They are always followed by a hyphen juncture except when prefixed to the root {λ} 'to sit.' They are:

{ken}	'down, in'	
	/kenλa·/,	'to sit down'
	/wayken-kuda/	'to enter the door'
	/xunken-pana/	'to get down here'
{ʔol}	'up, above'	
	/ʔol-saca/	'to lift up'
	/yelʔol-t ^h amuma·/	'push deer-head decoy back up'

Note, however, that on the basis of the following example it is likely that {ʔel} 'in, in horizontally,' probably belongs in the second position-class rather than the first: /norel-he·na/ 'to lift the arms up toward the south.' If, however, this form should properly have been recorded as two words with no intervening hyphen juncture, then /norel/ is perhaps to be interpreted as an independent non-inflected directional word (see section 500) with the meaning 'to the south, southward,' alongside other parallel forms with directional/locational meanings.

In addition, there are forms like /way+se-tira/ 'walking around northward' which occur with uninflected directional terms as independent minimal free forms, whose stress and following juncture patterns mark them as phonologically defined independent words, rather than as prefixes or proclitics dependent on and separated from following nouns by a hyphen juncture.

Historically, all these morphemes in the radical-prefix class probably were once only separate roots, and the hyphen juncture occurs in those forms where compounding has been partially accomplished, while the last two examples above

show /norel/ and /way/ in forms not yet completely assimilated to the dominant type of radical extension by directional/locational prefix-derivation exemplified in this section.

ROOTS

232. The statistically largest single position-class of morphemes, the only class which is universally obligatory morphologically in all words, is the root class. It is open in membership, and loans from other languages have been recently included (e.g., from English medicine there is now a root {mer}, a derived generic aspect noun /meres/, and the instrumental case of that noun /meresin/; from Russian, via intervening Pomo languages, /súka/ 'dog' has provided a new root {suk} 'dog, horse'). The root class of morphemes itself seems to be the historical source for radical-deriving prefixes of location/direction, and various suffixes (e.g., the reciprocal {pur}, the benefactive {paq}, warning {ken}, passive {here}, negative {mina}, all the evidential suffixes, approximation {puke*}, the second-person {sken}, and the plural suffix {wi}).

Morphemes of the root class usually have lexical rather than grammatical-relational meanings. They are not readily classifiable as verb or noun roots, since most roots can be derived into verbs or substantives. On the basis of the sequence of patterns of derivation, with few exceptions, most roots are more verbal than nominal in function and semantics. There are some few roots which seem never to

be derived into verbs; but even pronouns and some nouns are derived into verbs (e.g., the noun 'coyote' /sede/ may be derived into a verb /sedeha/ 'to be promiscuous'). The meaning ranges of underived roots are quite large by comparison with Indo-European languages, not only typically including a characteristic object/patient which cultural convention associates with the action or state described by the root, but because of severe limitations on the canonical phonemic shapes of roots: statistically, few root-shapes are available, and hence speakers apportion the universe of meaning among those few roots.

Except for two textually high-frequency roots with single consonants as their quite anomalous phonemic shapes-- {b} 'eat' and {λ} 'sit (cross-legged)'--most other roots are monosyllabic and have the shape CVC or CV·C. A few roots with demonstrative, deictic, or pronominal meanings have the shape CV. Longer sequences, while they do occur, are rare, and probably result from incomplete morphemic analysis in some cases, or from loans in other cases.

Even the typically monosyllabic roots seem to pose problems of internal structure. Patterns of partially recurring similarities of form and meaning suggest that: (1) manner of articulation of the initial consonant is correlated with variations in meaning; (2) roots had a basic structure of CEC, and roots with COC shapes are derived from them, while roots with CaC shapes are basically nominal; (3) variations of vowel quality are derivational

(e.g., long vowels indicating some kind of plurality); (4) root-final consonants are derivational suffixes whose synchronic analysis is no longer possible.

Examples cited below in the four following paragraphs display some of the evidence, in brief scope, for considering that the morphemes which are members of the root class and synchronically minimal units are probably at least diachronically complex as regards their internal derivation. There are four patterns of recurring partial similars to be found internally in monosyllabic roots:

(1) Initial consonants in roots show patterns of alternation of manner of articulation reflecting what appears to be submorphemic sound symbolism. Examples are:

{t ^h aλ}	'naked'	/taλas/	'clothes'
{tEq}	'press down'	{t'iq}	'to iron'
{tEl}	'glisten, scraped, bald'	/siloqa/	'to be smooth, slick'
{tEw}	'blow up, sail, float, fly'	{t ^h Ew}	'fly, float'

(2) Root vowels show alternations of quality suggestive of earlier root-derivational processes. Examples are:

{k ^h al}	'coal'	/k ^h e ^h el/	'soot' < *{k ^h el}
{kid}	'bray'	{k ^h Ed}	'gasp'
{hEn}	'arrive'	{har}	'go'
{hEt}	'dam to break'	{hat}	'water to escape'

(3) Root vowels show alternations of quantity suggesting that length may indicate an active iterative or intensive verb, and corresponding short vowels may indicate a non-iterative verb. While roots occur with both long and short vowels, long vowels in the root syllable are not followed by stem-formants in the next syllable which are also

long; i.e., there are no sequences of two heavy syllables.

Examples are:

/k'ida•/	'to gasp'	/ki•da/	'to gasp for breath with effort'
/p ^h ure/	'breathe'	{p ^h u•r}	'to rest; heart'
{lo•y}	'to crochet'	{loy}	'spiderweb'

But note also:

/seλa•di/	'sitting around'	/seλadi/	'crisscrossed lacing'
/p ^h i•lit/	'mountain whip-snake'	/p ^h ilit/	'already-cut hair'
{t ^h Es}	'ruffle, fluff'	/t ^h e•sa/	'ruffles to protrude'
		/t ^h isa•/	'to put ruffles on a dress'

Some long vowels suggest plural objects or patients.

(4) Root-final consonants seem to show traces of a pattern of former derivation where the alternations of consonants marked syntactic categories of verbs as to state, process, action, and the like. Examples are:

{k'eh}	'breathe with difficulty'	{k'ed}	'gasp'
{huy}	'save, hoard'	{hur}	'be filled up'
{hEr}	'paddle, oars'	{hu•l}	'fat'
{tEq}	'press down'	{hil}	'cut grass, scythe'
{t ^h Ew}	'fly, float'	{tic}	'flatten'
		{t ^h Er}	'glide, spread wings'
		{t ^h e•h}	'fly'
		{t ^h Es}	'ruffle, fluff'

None of these four types of root-internal variation has been analyzed in this description, because they are considered to reflect diachronic processes. (See the list of reconstructions for second consonants of roots considered as derivational suffixes in Chapter III. 325.)

However, the Wintu Dictionary offers numerous cross-references between forms like the preceding and following listed examples, and where an internal reconstruction is

apparent, it is provided. Roots form large groups with diversely linked semantic relations, and quality gradations in articulatory features of consonants and vowels are suggestive of semantic content ascribable, to an extent, to such articulatory features. Only clearly segmentable processes have been described in this morphological description, and no analysis of these resemblances, exemplified below, is attempted here, although they are very suggestive. *{cE} is internally reconstructed with meanings ranging from 'bind (close/open), tight ...' to '... strands of flexible material for tying,' on the basis of the following synchronic roots:

- {c'ek} 'hair, fuzz, moss, fur' + /c'ekeya/ 'to be hairy'
 {c'ew} 'braid' + /c'ewel/ 'to braid hair' (cf. {ci'w} 'slit, be narrow')
 {c'ey} 'lengthen, stretch, separate' (e.g., /se-c'eyca/ 'pull apart')
 {c'e·k} 'rope, cord, string, tie with rope' + /c'e·ka/ 'tie with rope'
 {c'it} 'tie, squeeze, press, concentrate' + /c'ita·/ 'press out liquid, /c'ite·/ 'to squeeze out of,' /c'itel/ 'to be tied tight,' /c'i·ta/ 'press juice out, milk a cow,' /c'itik/ 'pimple, wart'
 {c'Ew} 'open, shell' + /c'iwa·/ 'shell peas, nuts, acorns' (cf. /c'iw/ 'pinch' {c'Or} 'shell nuts')

But also:

- {c'aw} 'take apart' + /c'awa·ya/ 'hulls of nuts to open, ripened'
 {c'ih} 'be free-running, not wedged in or caught fast, as of sap or liquids' (cf. {c'uh} 'flow')
 {c'ik} 'hold, hang on to tightly' + /c'ika·/ 'to hold on to something tightly' (cf. {ci·k} 'pimply' + /c'i·ka/ 'to have a rash')
 {c'im} 'wink, blink, shut the eyes'
 {c'ip} 'peel bark for basket-making' (cf. /c'upal/ 'skin to slip off,' {ci·p} 'stripe,' {c'Op} 'peel,' {c'Or} 'nuts to come out of hull')
 {c'iq} 'disappear, be put through a sieve, lose an eye' (cf. {ci·q} 'wring, squeeze, press')
 {ci·r} 'squint' (cf. /c'iri·ka/ 'to be slender, thin, narrow')

- {c'Et} 'loosen, separate' + /c'ita/ 'loosen grip by separating fingers' (cf. {c'Ot} 'undo')
- {c'iy} 'mash, squash' + /c'iyē/ 'to mash many' (cf. {c'it} 'press')
- {c'i·c} 'squash, mash, smash' + /c'i·ca/ 'squash' (cf. {c'it} 'press')
- {c'i·w} 'slit, be narrow, squint' (cf. {c'iw} and /c'iwī·q/ 'pinch,' {c'im} 'wink,' {c'ew} 'braid,' /c'o·tna/ 'to undo braids,' /c'uta/ 'take (clothes) off over the head,' /c'uta·/ 'to husk corn,' /c'utawil/ 'sober')

Such roots as the above are also linked to many verbs with back vowels (both long and short)--cf. {c'Or} 'shell nuts,' {c'Ot} 'undo,' etc.--and with modifications of manner of articulation of the initial consonant, with non-recurring but related differences in meaning--i.e., with partial similarities of form and meaning that are not systematically recurrent and that characterize the entire lexicon, making it appear that phonemes and perhaps even articulatory features also have some arbitrary, conventionalized semantic values in a manner analogous to the meanings of morphemes.

In addition to the preceding hypothesis for the internal reconstruction of a root with lexical meaning, *{c'E}, an additional example, but one with a particularly complex synchronic root and forms related to it, is presented as an illustration of a root with grammatical/functional meaning: the optative root {ke}. Unlike most synchronic roots with a CVC canonical shape, {ke} has the CV shape typical of deictic roots (demonstratives and pronouns). It is best described and understood best following the description of verbs and substantives, and is for that reason deferred until the section on Deictic Roots, 340.2.

Roots may be compounded, reduplicated, or directly followed by the stem-formants or one of the optional class of root-deriving suffixes to form radicals.

ROOT DERIVATION

233. Root derivation may be accomplished by reduplication and suffixation. There are five productive root-deriving suffixes which constitute a class of optional occurrence, and one optional process of root derivation. Both the suffixes (with one exception, {el}) and the reduplication are obligatorily followed by one of the stem-formants. The suffix {el} is obligatorily followed only by the stem-formant {i}, the stem-formants {a} and {u} only occurring with it if followed by inflectional suffixes.

REDUPLICATION

233.1. The derivational process of reduplication of the root morpheme marks plurality of an intensive, iterative, distributive, or numerical type, and is correspondingly translated. Roots having the shape either CVC or CV·C take the shape CVCCVC when reduplicated, and rarely also the shape CVCCV·C--probably the result of a secondary process of vowel lengthening to mark plurality of object. The monoconsonantal roots {λ} 'sit' and {b} 'eat' are never reduplicated. Some examples are:

{bal}	'tell a lie'	
	/balbala/	'tell all kinds of stories'
{xi·n}	'sleep'	
	/xinxina/	'many to sleep'

{wEr}	'come'	
	/wirwira-be'm/	'many are coming'
{har}	'go'	
	/harhara-be'm/	'many are going'
{ti'n}	'talk'	
	/tintin/	'chat'
{kEp}	'knock on something, bang; sift'	
	/ʔel-kepke'pa/	'to bang/knock on contin- ually'
{la'k}	'sprinkle, dilute, moisten'	
	/lakla'ka/	'to sprinkle clothes'
{kow}	'hit'	
	/kowkowa/	'(to) hammer'

DISTRIBUTIVE SUFFIX

233.2. The root-deriving suffix {VlVlVh}, the distributive pluralizer, commonly translates 'many separately to' It has two phonologically conditioned variants, [VlVh] after /l/, and [VlVlVh] elsewhere, as though it were [Vl] reduplicated. It is suffixed directly to the root and must be followed by a stem-formant. It is probably derived analogically from the model of /kele'l/ 'long' from {kel} 'long' + {el} stative (cf. 233.6) + {h} stative derivational suffix (cf. 325.51). Examples are:

/ceweleleha/	'many to be wide open'
/bo'loloha/	'to pulverize'
/xi'nililiha/	'many to sleep separately'

REPETITIVE SUFFIX

233.3. The root-deriving suffix {V'r}, the time/space extended-continuative pluralizer, commonly translates as 'to . . . repeatedly, to . . . continuously.' Long root vowels are shortened before this suffix. It is suffixed directly to the root and must be followed by a stem-formant

(cf. {el} stative, 233.6; {VlVlVh} distributive, 233.2, and {V·y} iterative, 233.4, all of common origin). Examples are:

{kOp}	, 'chop with instrument or tool'	
	/kopo·ra/	'to run with tail cut in half'
{kum}	, 'eat crunchy things intermittently'	
	/kumu·ra/	'eat crunchy things continuously'
{pOn}	, 'leap'	
	/pono·ra/	'run'
{tOq}	, 'spot'	
	/toqo·ra/	'to be spotted all over'
{ku·m}	'water to roar'	
	/kumu·ra/	'waterfalls roar'
{te·l}	'(to) skin off, scab off'	
	/tele·ra-hara·/	'bald-headed ones to move'
{ci·m}	, 'to blink, shut lids of eyes'	
	/cimi·ra/	'blink fast, repeatedly'

ITERATIVE SUFFIX

233.4. The root-deriving suffix {V·y} is iterative of action or patient of the action, and is correspondingly translated. Like the suffix {V·r}, long root vowels are shortened before this suffix. {V·y} is suffixed directly to the root and is obligatorily followed by a stem-formant. It probably shares a common historical origin with {V·r} repetitive, 233.3; {VlVlVh} distributive, 233.2; and stative {el}, 233.6. Examples are:

{cOr}	, 'skin nuts'	
	/coro·ya/	'many to be skinned'
{te·l}	'(to) skin off, scab off'	
	/tele·ya/	'many to be bald'
{daq}	'scorch'	
	/daqa·ya/	'many to get burned'
{cOd}	, 'be chapped'	
	/codo·ya/	'many to be chapped'
{cOb}	, '(to) peel'	
	/cobo·ya/	'face to peel in many places'
{cib}	, 'scrape with knife'	
	/cibi·ya/	'to whittle'

{cE1}	'tear cloth'	
	/cele•ya/	'lots of cloth to be torn'
{cEk}	'take a salmon out from baking'	
	/ceke•ya/	'to take many salmon out from baking'

TRANSITIVE SUFFIX

233.5. The root-deriving suffix {c}, the transitive, indicates a specification of the syntactic function of a root so suffixed. It concerns the intersection of case and voice, and does not necessarily specify that the verb so derived has an overt object (although it may have), but may derive an action verb from a process verb, and may co-occur with the reflexive, the causative, or the suffix of selfness, which now marks first person. It is often translated with an English transitive, but also may have medio-passive force, as with the asterisked D. D. Lee examples below which occur with the suffix of selfness, {da}. It is added directly to roots and is obligatorily followed by the stem-formant allomorphs characterizing class A. A detailed analysis of the syntax is required to fully specify the function of {c}, but most cases imply a single instance or punctual meaning.

{ciq}	'consume or drain (of liquids)' → /ciqca/ 'to drink, drain off all the contained liquid'
{cEk}	'take apart, disengage, split' → /cekca/ 'tear cloth or buckskin'
{cE1}	'tear' → /celca/ 'to tear a little piece'
{cib}	'whittle, scrape, plane' → /ɣan-čipca/ 'to whittle one piece off, to , tear off'
{cim}	'wink, blink' → /cimca/ 'to blink the eyes'
{ciq}	'disappear' → /ciqca/ 'to sift, put something through a sieve'

/xan-pumca/	'to blow something away' (as of a shaman blowing on payment preceding a curing ceremony)
/xan-phuλca/	'to blow something away'
/lakca/	'to embrace'
/mincuna/	'for a close relative to die' < {min} 'not exist' + {c} transitive + {u} imperative stem-formant + {n} reflexive + {a} indicative stem
/tepca/	'to come to life' < {tep} 'emerge, be transformed' + {c} transitive + {a} indicative stem-formant

The following examples collected by Lee in 1931 were re-elicited, but would otherwise not have been available twenty-five years later, although both the forms and translations were acceptable to the native speakers consulted. /tu'tuhum/, /sukuyum/ and /ba*s/ are obj. cases.

*/tu'tuhum limcada/	'my mother is sick' (i.e., my mother got sick on me)
*/sukuyum limcada/	'my dog is sick' (i.e., my dog got sick on me)
*/ba*s daqcada/	'the food got scorched (on me)'
*/tu'tuhum lipcada/	'my mother is thirsty'

(Compare the same verb root with the stative suffix {el} as in the example /limel/ 'to be sick' in 233.6 below.) The four examples above emphasize the effect on the self (speaker), rather than indicating the first person as an agent/subject marked with the suffix {da} (see 243.21).

STATIVE SUFFIX

233.6. The root-deriving suffix {el} forms stative, intransitive verbs. It is commonly translated 'to be . . .' It is suffixed directly to roots, but it may only be followed by a stem-formant in the event that some other inflectional or derivational suffixes are to be added.

(Compare the experiential evidential {?el}, 243.14, and

the visual evidential {ʔel}, 261.3, which represent semantic extensions of a single common morpheme. See also the repetitive {V·r}, 233.3; iterative {V·y}, 233.4; and distributive {VlVlVh}, 233.2, which seem to share a common historical origin and have undergone symbolic consonant ablaut and reduplication to express plurality and intensiveness in meaning. /kele·l/ 'long' from {kel} 'long, far' may have provided a model for analogizing the reduplication and the long vowel.)

The phonemic shapes representing the stative {el} are conditioned by the vowel in the preceding root syllable: /el/ after non-low vowels, but /al/ after /a/, almost permitting the surface representation to be stated as [Vl].

Examples are:

/ciqel/	'to be/have run dry (e.g., of creeks),'
	from {ciq} 'consume, drain of liquids'
/çiqel/	'to lose an eye,' from {çiq} 'disappear'
/çibel/	'to be a long cloud in the sky' (perhaps
	metaphorically: 'planed smooth or knife-
	shaped),' from {çib} 'scrape or plane even
	and smooth with a knife; whittle'
/citel/	'to be tied tight,' from {çit} 'grip'
/minel/	'to be dead,' from {min} 'not exist'
/silel/	'to be blind,' from {sil} 'blind'
/limel/	'to be sick,' from {lim} 'ail, sick'
/sahal/	'to be blurred,' from {sah} 'blurred,
	faint, hazy'
/sahaλ/	'grindingstone,' from */sakal/ from {sak}
	'loose, come apart'
/cuheles/	'stiff one,' from {cuh} 'stiff'

But note the following anomalous forms:

/cilal/	'to be torn,' from {cEl} 'tear' (cf. /celca/
	'tear a little piece'), where /al/ is
	conditioned by the preceding [E] in the
	root: [ECel] + /iCal/
/se-kisil-biya/	'they kept rolling over and over,' from
	{kis} 'roll animates horizontally' (perhaps
	misrecorded)

PRIVATIVE SUFFIX

233.7. Forms elicited by Lee in 1930 such as */?iwi·ca mi ?uwe-bele·s cipi qayumina/ "It's so unknown, don't travel around at night alone, it's dangerous!" and */?iwi·ya/ 'to not know' seem to indicate that there is a privative morpheme *{w} which probably also occurs in the synchronically unanalyzable negative auxiliary /?elew/. If this is so, then four optional position-classes of root derivation must be recognized, rather than a single one. Presumably /?iwi·ya/ consists of four morphemes: {?i}, *{w}, {V·y}, and {a}; while */?iwi·ca/ would consist of {?i}, *{w}, {V·y}, {c}, and {a}; and /?elew/ would consist of {?i}, {el}, and *{w}. The suffixes {el}, {V·y}, and {c}, which are described above as belonging to the same position-class, would then be members of not one, but three, separate classes. Since it proved impossible to re-elicite the Lee 1930 forms, these classes are not presented as synchronically extant. The privative *{w} is thus an internally reconstructed morpheme, and serves as an indication of changes in the morphotactics which occurred during the quarter-century following Lee's fieldwork.

However, there is synchronic justification for subdividing this group of six root-deriving radical-forming suffixes. Three suffixes in this class form a set on semantic grounds--{VlVlVh}, the distributive, {V·r}, the repetitive; and {V·y}, the iterative--all of which qualify the radical with respect to plurality or extent in time, space, or action. The remaining three suffixes--{c}, the

transitive; {el}, the stative (i.e., intransitive); and *{w} the privative--have related syntactic functions as well as very different external distributions. Whereas the suffixes marking plurality never co-occur with each other, the Lee forms cited above, as well as the form /lamirca/* 'to run around something' < {lam} 'to encircle,' suggest that the three suffixes affecting transitivity may be members of at least a second position-class, radical final, following the first set, and unrelated to the specification of plurality of any kind. In fact, they might be seen as indicating non-plurality, and the privative as indicating "non-number."

*The derivation of the radical /lamir-/ is unclear. There are some additional two-syllable verb radicals whose internal derivation has not been analyzed. Such verb radicals of more than one syllable (including compounded roots) do not undergo root-derivational processes. Where we cannot analyze the internal derivation of a verb radical, it is cited in unbracketed form in the Wintu Dictionary, unlike the bracketed monomorphemic entries.

234. Summary Chart of Radical Structure Position-Classes

1st-position class prefixes (optional) (231)	2nd-position class prefixes (optional) (231)	Roots (obligatory) (232)	Root-deriving suffixes (in 2 subclasses) (optional) (233)	Stem- formants (220)
{nom}	{ken}	root	{VlVlVh} (233.2)	{a} (221)
{nor}	{ʔol}	or	{V•r} (233.3)	
{pat}		optional redupli- cation (233.1)	{V•y} (233.4)	{u} (222)
{po•}			{c} (233.5)	{i} (223)
{puy}		or	{el} (233.6)	
{se}		optional compound- ing of root + root	*{w} (233.7)	
{ser}				
{tep}				
{tu}				
{way}				
{xun}				
{xal}				
{xan}				
{yay}				
{yel}				
{ʔel}				

Parenthesized numbers refer to sections where morphemes are discussed individually.

235. Summary Chart of Maximal Verb Position-Classes

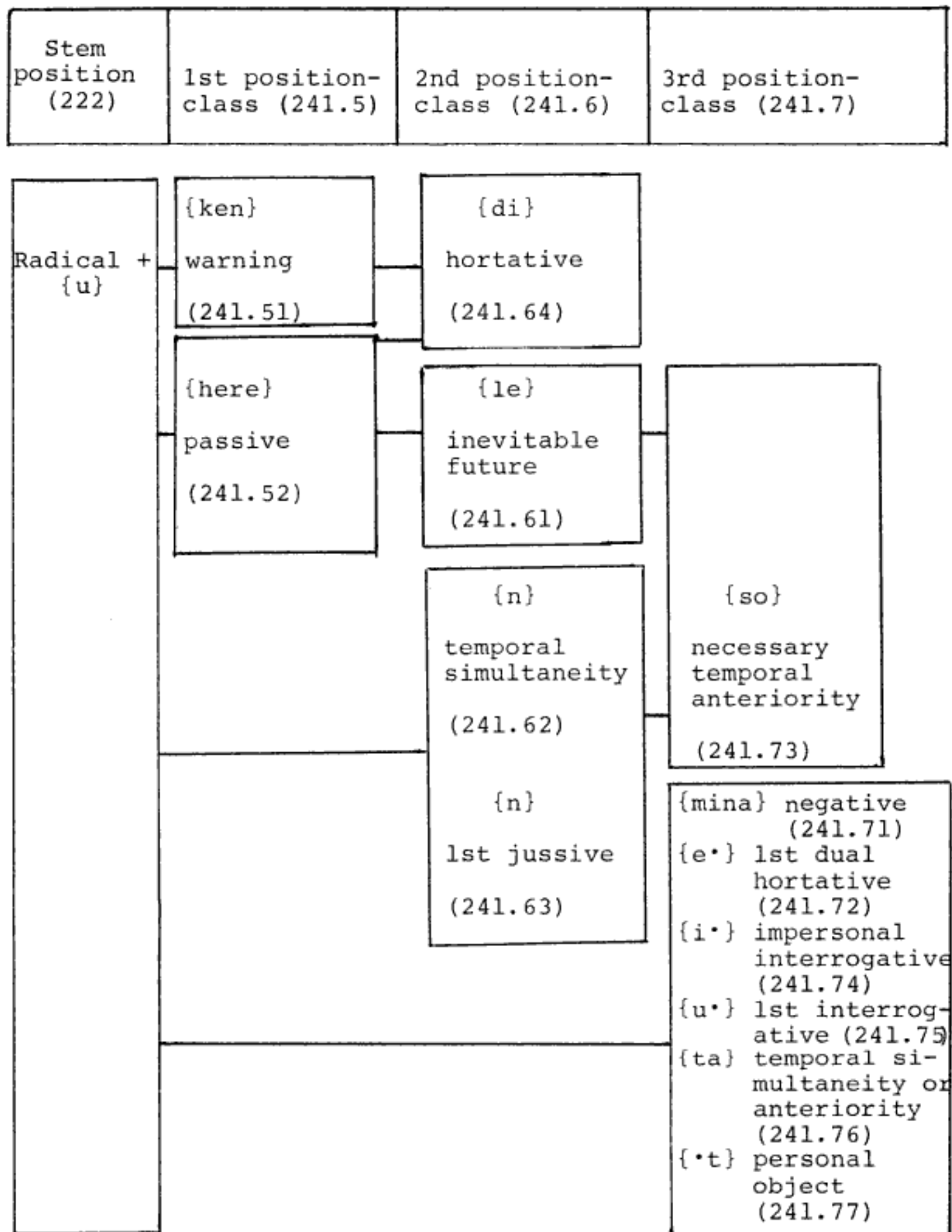
Position-classes of indicative inflectional suffixes (243)

Radical (230)					Stem suffixation (240)			
1st-position class prefixes	2nd-position class prefixes	Root position	Root-deriving suffixes	Imperative stem-formant	Imperative stem-deriving suffixes	Nominal stem-formant	Nominal stem-deriving suffixes	Indicative stem-formant
(231)	(231)	(232)	(233)	{u}	(241.1) (241.2) (241.3) (241.4)	{i}	{h} {s}	{a}
				(222)	Inflectional suffixes (241.5) (241.6) (241.7)	(242)	(242)	(243)
				(241) Imperative Stems	(242) Nominal Stems	(243) Indicative Stems		
				(231) Radicals				
						Inflectional suffixes of noun aspect {t} {s}		(320)

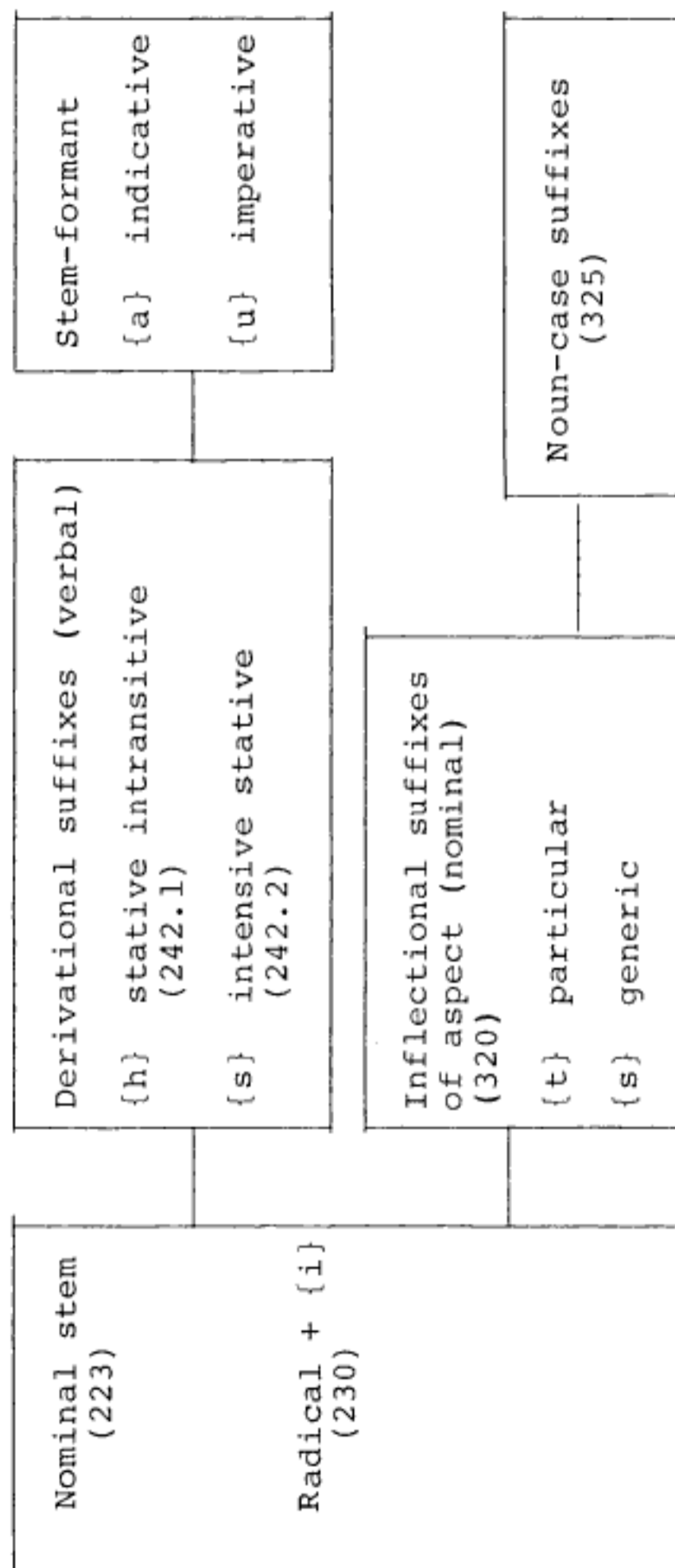
236. Chart of Imperative Stem Derivational Suffixes (241)

Stem position (222)	1st position		2nd position		3rd position		4th position	
Radical + {u}	{m} (241.13)	t		t		t	{pur} (241.41)	t
	{t} (241.11)	e	{n} (241.2)	e	{m} (241.3)	e		e
		m		m		m		m
		-		-		-		-
		f		f		f		f
	{i·1} (241.12)	o		o		o	{paq} (241.42)	o
		r		r		r		r
		m		m		m		m
		a		a		a		a
		n		n		n		n
		t		t		t		t

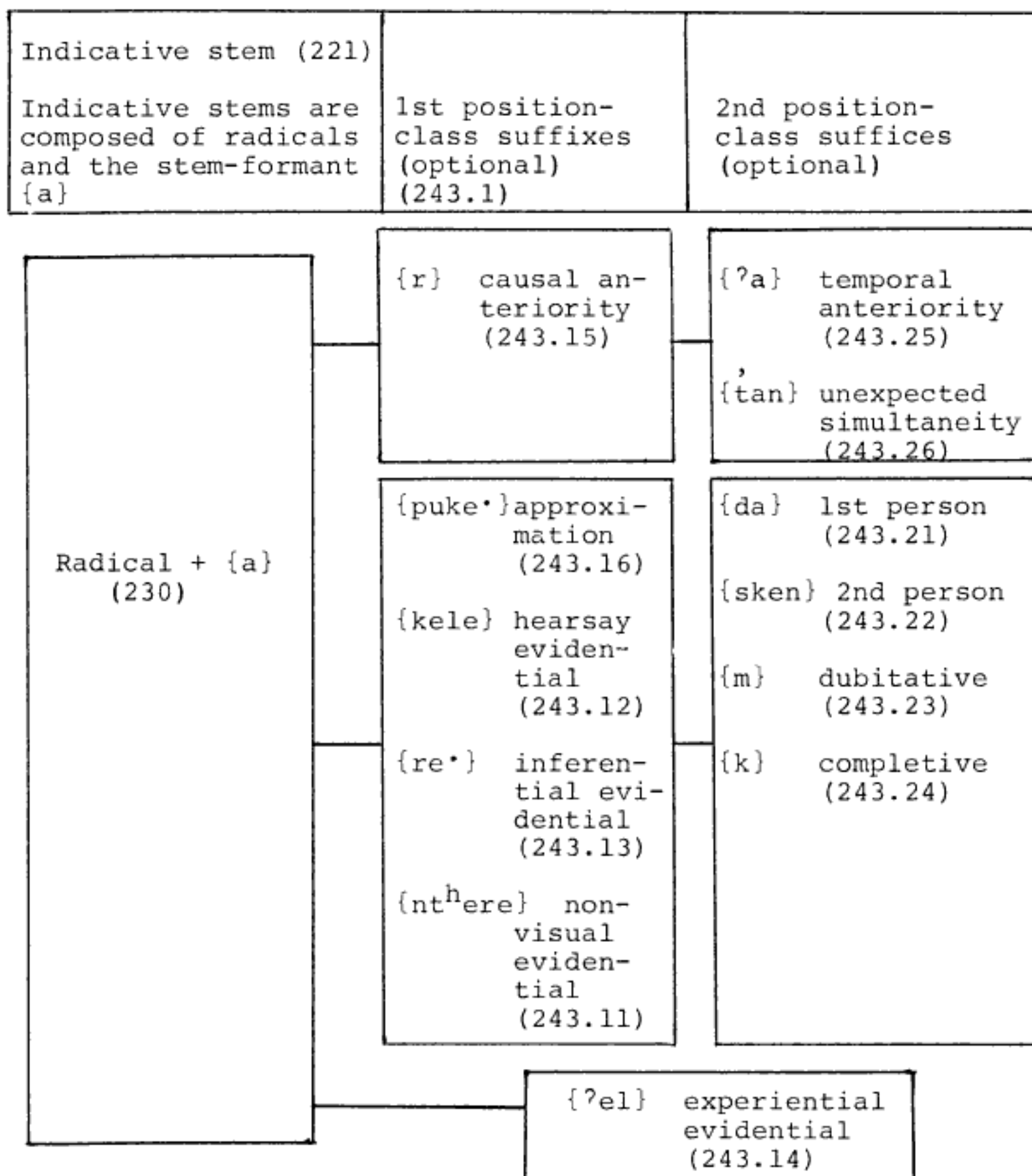
237. Chart of Imperative Stem
 Inflectional Suffixes (241)



238. Summary Chart of Nominal Stem Suffixes (242)



239. Summary Chart of Indicative Stem Inflectional Suffixes (243)



Parenthesized numbers refer to sections where morphemes are discussed individually.

STEM SUFFIXATION

240. The remaining inflectional and derivational suffixes are added not to the root but to stem-forms, i.e., forms consisting of a radical plus one of the stem-formants. These suffixes will therefore be classified and discussed under the stem-form of the verb to which they are added. The derivational suffixes capable of being added to stems enable the stem to be treated (reinterpreted distributionally) as a radical--that is, to be interpreted as a morpheme cluster which is functionally equivalent to a root and can so be followed by yet another stem-formant. Cyclical patterns of derivation previously discussed then ensue. This type of endocentric derivation only applies to imperative and nominal verb stems, since indicative stems are only followed by inflectional suffixes.

IMPERATIVE STEM SUFFIXATION (see 222)

241. In terms of suffixational potential, the imperative stem-form of verbs is by far the most complex of the stem-forms, both in number of position-classes and in number of suffixes affixed. Four position-classes of stem-deriving derivational suffixes, comprising in all seven morphemes, and three position-classes of inflectional suffixes, comprising a total of thirteen morphemes, are optionally affixed to the imperative stem to mark various categories of mood, voice, agent, and patient. Although no class is obligatory, the occurrence of a member of both the second and third position-classes of inflectional

suffixes is contingent on the occurrence of a member of the preceding class. Each of the four optional position-classes of stem-deriving suffixes is obligatorily followed by the imperative stem-formant {u} if further imperative stem suffixation follows. This results in the alternation of derivational suffixes and stem-formants in extended sequences of derivation as was shown on the chart in 236.

Two semantic classes of derivational suffixes are used to classify the syntactic categories and relations of agents, patients, and objects which occur with verbs, but which need not be overtly represented by nouns or pronouns at the surface. The underlying (deleted) nouns and pronouns are classified as to their aspect (particular or generic) in the first position-class of suffixes if they are not agents. Both agents and patients have their relations marked by the suffixes of the second semantic class--i.e., whether reflexive, causative, reciprocal, or benefactive. Noun aspect is marked in the first position-class, and the remaining three position-classes of derivational suffixes mark noun syntactic relations. (See chart p. 201.)

The three classes of inflectional suffixes are used to mark voice, mood, subordination, and personal object: the first marks voice; the second marks mood (inevitability/potentiality/futurity/exhortation); and the third marks mood (negative/interrogative/exhortation) and a personal object. Both the second and third classes may also mark subordination of verbs.

(Modal notions, such as ability, option, condition, desire, future intention, aspect, time, and various copula functions are marked by auxiliary verbs; see 260.)

FIRST POSITION-CLASS DERIVATIONAL SUFFIXES

241.1. The first position-class of stem-deriving (derivational) suffixes contains three members which specify the aspect of the overtly or covertly expressed syntactic patients or objects of verbs (see 232).

For a discussion of noun aspect, see 310 and 320, especially the last part. See also 245 and 246, where these three suffixes are discussed in their relation to verb semantics. Aspect of substantives resembles aspect of verbs in function (meaning) to the extent that particular aspect of nominal forms implies a finiteness or specificity like perfective aspect in verbs, while generic aspect of nominal forms implies an extensiveness or generality like the imperfective and durative aspects of verbs. This matter of focus on the boundedness or lack of sharp boundedness recurs in noun-aspect, evidential, verbal, and classifier categories. The three suffixes described below participate in specifying with more precision the aspectual nature of non-subject nouns which are satellite to verbs, when the non-subject nouns have been omitted from any overt representation.

PARTICULAR ASPECT OF PATIENT SUFFIX

241.11. The stem-deriving derivational suffix {t}, which is not translated, marks the verb as having a syntactic

patient in the particular aspect, the patient being usually not otherwise overtly expressed. This suffix, which in form resembles the particular aspect suffix {t} forming noun themes (320.1), and the personal object suffix {*t} (cf. 241.77), and the subordinating temporal simultaneity or anteriority suffix {ta} (cf. 241.76), formally incorporates the aspect of the patient of the verb into the verb-stem. While the suffix is itself not translated, the verb is translated so as to imply a conventional category of patient (most often human), i.e., a presupposition.

The suffix {t} has two morphologically conditioned allomorphs: /*t/ if suffixed to a verb of class B, C, D, K, or L--all of which have long vowel allomorphs of the stem-formant {a}--and /t/ elsewhere. It forms verbs which are then members of class J if a stem-formant is then to be added.

In a few instances, indicative stems derived from forms marked with this suffix are homophonous, with stems inflected for subordination as dependent verbs with the suffix {ta}: e.g., the dependent verb /ba*ta/ 'while eating' <{ta} (241.76); and /ba*ta/ 'to be meaty' (of nuts or acorns) <{t} particular aspect of patient + {a} indicative stem-formant. Examples are:

/ba*ta/	'to be meaty (of nuts or acorns)' < /ba*/ 'to eat' (Note: /ba*s/ 'food' is in the generic aspect with the suffix {s} (320.2); /ba*ta/ is literally 'to be foody, of that specific, typical food variety understood by all but not overtly named' (i.e., acorns, nutmeats, and the like)
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- /ba•tar/ 'because of being meaty' < {b} 'eat' + {a} stem-formant + {t} particular aspect of patient + {a} stem-formant + {r} (243.15) subordinating suffix of causal anteriority
- /hulu•ta/ 'to bunch together (of particular ones, e.g., people) and run' < {hul} 'spring up and run, flock, crowd' + {u} imperative stem-formant + {t} + {a} indicative stem-formant, as in /ko•t yayin hulu•ta/ 'they all swarmed up behind him,' where /ko•t/ 'all' is an overtly expressed subject, and the patient ('him, her') is not overtly expressed only implied with this suffix {t} which indicates the particular aspect of patient
- /hokelta/ 'to jump' < {hok} 'jump, buck, leap' + {el} stative intransitive + {t} + {a} stem-formant; lit., 'for particular ones (people) to be in a state of jumping' as in /pat-hokelta?a hara•/ 'after he had jumped out he went away'; /hokelta?a/ has the final suffix {?a} subordinating temporal anteriority (243.25)
- /boloqtuma•/ 'to do (something particular) gently or softly (i.e., in a particularly careful way?)' < /boloq/ 'soft, fragile' + {t} + {u} stem-formant + {m} causative + {a} stem-formant, as in /boloqtuma• har/ 'walk slowly, carefully, softly!'; lit., 'walk! make (it) particular(ly?) gentle'
- /yaleqtut/ 'Let go of me!' /yaleq/ 'desist' < {t} + {u} + {•t} personal object suffix (241.77)

PARTICULAR COMITATIVE SUFFIX

241.12. The particular comitative stem-deriving (derivational) suffix {i•l} indicates that the verb has a syntactic object in the particular aspect, which may be overtly expressed, but need not appear overtly. It frequently translates as 'together' or 'with,' if there is such a noun

overtly expressed, otherwise a conventional category of object is implied, usually human (see {t} 241.11).

It has two phonologically conditioned variants: /wil/ after vowels, and /i·l/ after consonants. It forms verbs that are members of class F. Examples are:

/ca·wuwil/	'sing with them!' (cf. /ca·wu/ 'sing!')
/wacuwil/	'to cry with someone' (cf. /wacu/ 'cry in sympathy')
/weri·l/	'to bring someone'
/noyi·l/	'to laugh with someone'
/suki·l/	'to own, have'; lit., 'to be standing with particular ones'
/cupi·l/	'to wade with someone'
/bohi·l ^h pure/	'living together (i.e., with someone)'
/xun-pile·wil/	'all bound up'
/put tupuwilda/	'I weeded (the garden) with him/her,' where /put/ 'him, her' is marked as particular by its concord with the verb suffix {i·l}
/ ^h ole·lbe·m gewel hari·lenso/	'I'd like to take them to church' where there is no overtly expressed object/patient, but 'them' implied as probably human in the English translation results from the suffix {i·l}
/ ^h ol-hika·yuwil/	'to stand with someone'

GENERIC COMITATIVE SUFFIX

241.13. The generic comitative stem-deriving derivational suffix {m} indicates that the verb has a syntactic object in the generic aspect which may not necessarily be overtly expressed. The action of another verb may be interpreted as syntactically equivalent to a generic object. It is frequently translated 'with' or 'while doing (something else).' It forms verbs that are members of class M. (The syntactic objects indicated by the suffix are presupposed.) Examples are:

/qerumena•/	'to suffer (something)' < {qEr} 'moan, groan' + {u} stem-formant + {m} generic comitative + {u} stem-formant + {n} reflexive + {a} stem-formant; lit., 'to moan with something (agony) reflexively'
/wikema/	'to tip something over'
/werma/	'to come bringing (i.e., with some- thing)' < {wEr} 'to come'
/qayuma/	'to carry things with one, to peddle'
/ca•wuma/	'to sing along while doing something else'
/λolumena•/	'to bandage oneself'
/documa/	'to roast meat'
/dukama/	'to put things away'
/haya•ruma/	'to go around fast'
/keruma/	'to finish'
/kerumeta/	'after having finished'

SECOND POSITION-CLASS,
DERIVATIONAL SUFFIX: REFLEXIVE

241.2. The second position-class of optional stem-deriving suffixes contains a single member, the reflexive {n}, which indicates that the consequences of the verbal action revert to, affect, involve, or are for the sake of the subject. It is commonly translated, if translated at all, by the English reflexive pronouns, or, rarely in idiomatic fashion, by a form referring to a specific extension of the subject, such as clothing. It forms verbs which are members of conjugation class K. Examples are:

/mutna•/	'to feel oneself'
/xagcuna•da/	'I'm hitting myself'
/yoquna•/	'to wash any part of one's body'
/yoqunaḡure/	'let's wash each other'
/doyuna•/	'to be tame' (of animals); lit., 'to give themselves'
/doyunama•/	'to tame'; lit., 'to make to give themselves'
/cinuna•-wen/	'Shall I help myself? I intend to help myself!'
/λolumena•/	'to bandage oneself'; lit., 'to wrap oneself with generic materials'

/ʔel-tununa·/	'to put things away inside'
/ʔel-tununa·ʔa/	'after they put them away, then . . .'
/ʔel-tununa·rʔa/	'after having put them away, then . . .'
/se-dokcuna·/	'they put it here and there inside their clothes'; lit., 'on two sides/ stick away objects/benefitting the subject/for the sake of the subject's specific extension--i.e., 'clothes'
/tisa·na·s/	'an umbrella'; lit., 'that which is shady to oneself'

THIRD POSITION-CLASS,
DERIVATIONAL SUFFIX: CAUSATIVE

241.3. The third position-class of optional stem-deriving suffixes also contains a single member, the causative suffix {m}, which frequently translates as 'make . . .,' 'cause . . .,' or as an adverbial showing involvement, participation, or manipulation. The causative suffix forms verbs of conjugation class M. Examples are:

/ba·ma·/	'to feed'; lit., 'to cause to eat'
/ba·ma·s-koyit/	'(a) hospitable (person)'; {kOy} 262.21
/peruma·/	'to fish with bait'; lit., 'to cause to swallow'
/taqiqma·-bint ^h e·/	'she made me hurt, I feel it'
/caluma·/	'to do well, carefully, nicely'; lit., 'make good'
/caluma· ʔih/	'Be careful!'
/tepuma·s caluma· cupuma·da/	'I make my garden grow nicely'; lit., 'that which is caused to be developed/ make good/cause to grow (of plants)'
/boloqtuma·/	'to do softly or gently'; lit., 'to cause to be soft particular subjects'
/ʔel-pokcumana·/	'to make someone else pin something on themselves'
/harmen/	'before going, while going . . . '
/harmenso/	'before I go, before going'
/ca·wumen/	'while singing'
/weʔe war se-xosunamen/	'Come to seek good luck!'
/harmenso me·m doyu·t/	'Give me a drink of water before you go' i.e., 'Give me a drink of water, since you are forced to go'
/hulmen boy ba/	'eat so much so as to get fat'

/mayuma's/	'the teacher'; lit., 'the one who causes (them) to follow'
/mayume/	'You teach them!'

FOURTH POSITION-CLASS
DERIVATIONAL SUFFIXES

241.4. The fourth and last position-class of stem-deriving suffixes contains two members: the reciprocal and the personal transitivizer.

RECIPROCAL SUFFIX

241.41. The stem-deriving derivational suffix {^ˈpur}, the reciprocal, also occurs on pronouns. It indicates that the action takes place between the plural subjects who participate mutually, reciprocally, and distributively in the action. It forms a unique subclass of the conjugation class H, having the stem-forms /^ˈpure/ for indicative, /^ˈpur/ for imperative, and /^ˈpuri/ for the nominal stem-form.

Examples are:

/manap ^ˈ ure/	'to have war'
/bohi·lp ^ˈ ure/	'to live together'
/ʔelew-be·m likup ^ˈ urmina/	'peace'; lit., 'no fighting each other now'
/likup ^ˈ ule/	'Let's all fight (each other)' < { ^ˈ pur}*
/yalup ^ˈ ure/	'to separate'
/me·m nite·rum leweqap ^ˈ ure ʔise·da/	'we talked about the water'
/depelwilp ^ˈ ure/	'everybody is happy'
/cinup ^ˈ ure/	'to commit adultery'
/cinup ^ˈ uri/	'having committed adultery'
/yoqunap ^ˈ ure/	'to wash each other'
/xun-topup ^ˈ ure/	'to be all joined together'
/qomihp ^ˈ ure/	'to agree, conclude'
/mincaypur/	'nephew' etc. (reciprocal kin term)

* /^ˈpur/ ~ /^ˈpul/ assimilation resulting from initial /λ/, or < /likup^ˈurle/, where /l/ < /rl/ ({le} inevitable future).

When the reciprocal is added to pronouns, it only occurs with forms marked as plurals (except for the third person, and it never occurs with the first-person inclusive pronominal root {pe}, being restricted to the plurals of {ni} first-person exclusive; {mi} second person; {ʔe} third person (proximal); and the dual and plural of {pi} third person (distal) (see charts, 360). It appears in the shape /puru/, and is followed by further pronominal suffixation (aspect and case suffixes). Examples are:

/nite/	'we (first-person exclusive plural)'
/nitepurut/	'we . . . each other (first-person exclusive plural particular aspect)'
/nitepurum/	'we . . . each other (first-person exclusive plural generic aspect)'
/pule*t/	'they two (distal) (third-person dual particular aspect)'
/pule* ^ʔ purun/	'of those two people reciprocally (third-person dual genitive case)'
/ʔeba* ^ʔ puruna/	'to be reciprocally theirs (third-person proximal genitive human reciprocal indicative verb-stem)'

The sequence /puru/ is probably compounded to the preceding pronoun form, since the pronoun may be inflected for case. /puru/ appears to be an imperative verb-stem 'to (be or do) reciprocal(ly)' and when suffixed can form indicative verb-stems when compounded to pronouns. The suffixes added include {n} reflexive and {a} indicative, as in the example /ʔeba*^ʔpuruna/ 'to be reciprocally theirs.'

BENEFACTIVE SUFFIX

241.42. The stem-deriving derivational suffix {paq}, the benefactive, indicates that the verb syntactically has a (personal) object which may or may not be overtly expressed.

It forms verbs which are members of conjugation class F, but which are somewhat defective, occurring in this corpus only followed by three inflectional suffixes: the personal object suffix {*t}; the first-person subject suffix {da}; and the nominalizing generic aspect suffix {s}. {paq} is probably related to third-person pronominal root {pi},³⁴⁴. Examples are:

/mi λitiqpaqat/	'You fix it for me!'
/ʔelewpaq/	'lacking someone'
/puba*tpurum	
ʔihpaq/	'Do it for them!'
/mi ʔihpaqat/	'You do it for me!'
/ba*s-ʔilay mis	
werepaqda/	'I brought you a little food'
/ti*npaq ʔise*da	
silelesum/	'I talked (interpreted) for the blind one'
/ʔiləpaqas/	'something all decorated, trimmed, ornamented'
/hika*yupaqheres/	'the one(s) who stood by him/her/them'

FIRST POSITION-CLASS INFLECTIONAL SUFFIXES

241.5. The first optional position-class of inflectional suffixes contains two members: the passive suffix, and the suffix of warning. The passive suffix is somewhat anomalous in that it is the only imperative stem inflectional suffix which may be followed by indicative stem inflectional suffixes.

WARNING SUFFIX

241.51 The inflectional suffix {ken}, indicating warning in the sense of English 'lest,' is commonly translated 'be careful . . . might happen.' It resembles two morphemes

of similar shape: the compounded non-possessed noun {ke} (331.2) which emphasizes an individual at the expense of all other individuals who might have been referred to or included in the expectation, and is translated 'maybe'; and the post-posed optative root {keneh}, translated as 'may, might' (262.23). The differences in function and distribution make it impossible to synchronically identify this suffix with either the two aforementioned morphemes or with the second-person suffix {sken}, although the limitations on the co-occurrence of {ken} with other imperative stem inflectional suffixes mark it as anomalous and point to a common historical origin for these three morphemes.

The warning suffix has two morphologically conditioned allomorphs; it has the shape /ke/ when followed by the hortative {di}, and it has the shape /ken/ elsewhere. It may only be followed by the suffix {di}. Examples are:

/paλken/	'Be careful, you might menstruate!'
/tukuken/	'You might get drowned, watch out!'
/balaken/	'Don't tell a lie!'
/piya ʔihkedi/	'He might do it himself, don't let him do it! You do it yourself!'
, /pode•li	
, koyuken/	'Don't try to get hurt!'
/pode•luken/	'Look out, you might get hurt!'

PASSIVE SUFFIX

241.52. The inflectional suffix {here}, the passive, is anomalous for several reasons. Unlike any other inflectional suffixes affixed to imperative stem-forms of verbs, it may be followed by two indicative stem inflectional suffixes--{da} and {sken}--and one nominal stem

(generic aspect) inflectional suffix, {s}. In addition, it differs from the other inflectional suffixes affixed to the imperative stem in number and type of allomorphs, its allomorphy more closely resembling in both number and type that of auxiliary verbs and the nonvisual sensory evidential {nt^here}; historically it may derive from the demonstrative root *{hE} 340.2 + {re*} inferential evidential 243.13.

The passive has two phonologically conditioned variants [hE], /hi/ and /he/, which alternate morphologically with /here/. Preceding the second-person subject suffix {sken} and the nominalizing suffix {s}, the passive has the shape /here/; elsewhere it has the shape [hE].

The passive is followed by five suffixes: the first-person subject {da}; the second-person subject {sken}; the generic aspect suffix {s}; the inevitable future {le}; and the hortative {di}. It seems {here} was historically a stem available for compounding. Examples are:

/leyhida/	'I just got hit'
/leyheresken/	'you just got hit'
/leyheres/	'the one who got hit, he who got hit'
/doyuheres/	'the one it was given to'
/harma*heres/	'the one who was made to go'
/hari*lheres/	'the one who was taken along'
/hari*lheresken/	'I see you are being taken along'
/hari*lhida/	'I am/was being taken along'
/doyuheresken/	'it is being given to you'
/doyuhida/	'it is being given to me'
/ʔel-ʔiheres/	'things that have been stored'
/pur winhele-ba*da hima*/	'I will be seen by him tomorrow'
/wimayun po* kacuhedi/	'May he now be chewed up by the grizzly bear!' (literary curse)
/harhele*s/	'so that they could go'; lit., 'so that they could be taken'
/boyun winhida/	'I am being seen by a lot of them'

SECOND POSITION-CLASS
INFLECTIONAL SUFFIXES

241.6. The second optional position-class of inflectional suffixes affixed to the imperative stem-form of verbs contains four members which refer to non-actual anticipated actions; two of these indicate anticipation or expectation of a verbal action as yet uninitiated.

INEVITABLE FUTURE SUFFIX

241.61. The inflectional suffix {le}, the inevitable future, indicates natural and inevitable necessity, futurity, causality, potentiality, and probability which may or must be later in the sequence of events; thus it indicates ability or likelihood. In contrast to the auxiliary verb {wEr}--the future intentional, which often has the same English translation--the inevitable future {le} does not describe an intentional or volitional act. It is commonly translated as the future, or 'before . . . ,' 'so as to,' or 'about to.' Unless a pronoun accompanies it syntactically, {le} is generally translated as third-person and is never translated as second-person. If the person is to be specified morphologically, it is necessary to add a pronoun or a post-posed auxiliary, inflected for person. Historically, the morpheme {le} seems to be the reduced form of a verb root {lEl}, meaning 'to make, to become, to become perforce, to manufacture, to be arranged, placed, or transformed.' The morpheme {le} has two morphologically conditioned allomorphs: it has the shape /le•/ before the

generic aspect suffix {s}, and the shape /le/ elsewhere. The morpheme {le} is followed only by the imperative stem inflectional morpheme {so} and the nominal stem inflectional morpheme {s}. Examples are:

/harle/ ~ /hale/	(allegro) "Let's go, let's all go"
/ba·le·s ni/	'I will/might/could/should/would/ought to eat'
ˊ /ca·wa-hale·s/	'They could go there to sing; they could go along singing; they could go and sing'
/pite·rum harle-bo·m/	'all of them will go'
/mite·rum harle-bo·sken/	'you will all go'
/pele harle-ba·da/	'we'll all go'
/likupule/	'Let's all fight each other'
/xi·naleso/	'before they went to sleep'
/ca·wuleso/	'before singing'
/har-walele, be·le-ba·da/	'Go, you two, I must/will stay'
/xonle-bo·m ba·leso/	'He shall get dry before he eats'
ˊ /tintinpure buha-kilake· xi·naleso/	'they sat talking before they went to bed' (They went to bed by force of custom; talking beforehand was a matter of preference.)
ˊ /litiqle/	'Let's all fix it, it's going to be made'
ˊ /litiqhele/ ,	'so that they'll make it'
/po·m honda behetan ni wele·s/	'even if it took many years, I would come'

SUBORDINATING POTENTIAL TEMPORAL SIMULTANEITY

241.62. The subordinating inflectional suffix {n} indicates temporal simultaneity, especially of as yet unrealized or potential action, and the verb so suffixed is syntactically dependent. It commonly translates as 'while,' but is untranslated when appearing with the morpheme {so}. When the suffix {n} follows an imperative stem-form which has

been derived with the generic comitative suffix {m}, it often translates in the second person, thus the sequence /men/ < {m} + {u} + {n} has the same force for the second person that {le} has for first and third persons. It has three morphologically conditioned allomorphs. When suffixed to verbs of conjugation classes B-D, K, and L, which have a long vowel allomorph of the stem-formant {a}, the morpheme {n} has the shape /·n/; when suffixed to a member of conjugation class E, it has the shape /un/; and elsewhere it has the shape /n/. It may only be followed by the subordinating suffix {so}. (Cf. locative case suffix 325.3.) Examples are:

/doyu·n/	'while giving'
/were·n/	'while bringing'
/werun/	'while coming'
/harmen/	'before going, while going...'
/ʔuna· hara·-be·sin.../	'then while he was going...'
/harmenso/	'before I go, before going...'
/ca·wumen/	'while singing...'
/ba·men ca·wu/	'Sing while you're eating!'
/ba·menso cu·s kop/	'Before eating, chop me some wood!'
/weʔe war se-xosuna·men/	'Come to seek good luck!'
/ken-wanu tepumen/	'Open your mouth wide, so that you can get across!'
/harmenso me·m doyu·t/	'Give me a drink of water before you go!'
/wayken-harmenso, yelwinit/	'Before you go over the brow of the hill, look back at me!'
/hulmen boy ba·/	'Eat much so as to get fat!'
/hima· harmen pomin-pana/	'Before you leave tomorrow morning, go to bed!' ('Go to bed, since you must leave')

FIRST-PERSON JUSSIVE SUFFIX

241.63. The inflectional suffix {n}, the first-person jussive, commonly translates as 'I'll . . . , let me . . . , I'd like to' It has two phonologically conditioned

variants: /^{*}n/ following vowels, and /en/ following consonants, which alternate morphologically with /n/ following the two verbs, the future intentional auxiliary {wEr}, and the progressive {har}. The first-person jussive may only be followed by {so}. The first-person pronominal root {ni} (341.) and the first-person jussive suffix (241.63) seem to both be derived from an original ^{*}{n}. Examples are:

/han/, /hen/	'I'm going to go, let me go'
/wen/ ,	'I'll come, shall I come?'
/ni mikis han/	'I'll go first'
/hari·lenso/	'Let me take . . . , I'd like to take'
/ca·wu-wen/	'I'm going to sing'
/ʔitigna·nso/	'I'll make it for myself'

HORTATIVE SUFFIX

241.64. The inflectional suffix {di}, the hortative, is commonly translated as 'May it happen, would that it happen.' The hortative is suffixed directly to the root or following a member of the first position-class of inflectional suffixes. When the hortative is suffixed to the auxiliary {bEy}, the resulting form /be·di/ functions as a negative preverb. This form possibly consists of the morpheme {bEy}, the auxiliary root, plus ^{*}{w}, the privative, and {di}, the hortative, with the same morphophonemic consonant loss and compensatory lengthening which often occurs with the negative preverb; e.g., /[?]elew/ + /[?]ele·/. Examples are:

/hardi/	'Let him go!'
/ca·wudi/	'may he sing'
/witi·l sanihadi po·/	'may it soon be daylight'
/ [?] ewin be·di po·/	'would that he were here'
/ [?] ole·las po· ni be·di/	'would that I were tall'

/piya ʔihkedi/	'He might do it himself, don't let him do it! (You do it yourself)'
, /qorudi-bo*/	'Let him pound him'
/be'di hu'mus war ba'mina/	'Don't eat any fat'
/pite'rum ca'wudi/	'Let them sing'
/pi ca'wudi/	'Let him/her sing'
/wimayun po' kacuhedi/	'May he be now chewed up by the grizzly bear!'

THIRD POSITION-CLASS INFLECTIONAL SUFFIXES

241.7. The third and final optional position-class of inflectional suffixes affixed to imperative stem-forms of verbs contains seven members which indicate negation, exhortation, interrogation, subordination, and the presence of a personal object. None of these morphemes are ever followed by further suffixation.

NEGATIVE SUFFIX

241.71. The inflectional suffix {mina}, the negative, is commonly translated as 'not.' Although the final vowel /a/ is no longer synchronically segmentable, this suffix is evidently related to a verb root {min} 'to not exist,' from which is derived the stative form /minel/ 'to be dead.' While itself a bound morpheme, {mina} is apparently always syntactically dependent on one of two preverbs: the negative /ʔelew/ or the prohibitive /be'di/. These two preverbs always occupy the first syntactic position in the verb string, while {mina} is always the final morpheme affixed to the last member of the verb string, the verb whose meaning it negates. The suffix {mina} may also be suffixed

to the negative preverb itself to form /ʔelewmina/ 'certainly--i.e., 'Don't demur, don't (say) no, don't not!' The negative {mina} is always suffixed directly to the imperative stems of verbs. Examples are:

/ʔelewda harmina/	'I didn't go'
/ʔelew-be'sken harmina/	'you didn't go'
/ʔelew-be'm harmina/	'he didn't go'
/ʔelewar xi'namina/	'not enough sleep'
/ʔelew-be'sken haras-leli be'mina/	'I see you're not able to go'
/ʔelewda ca'wi-koyumina/	'I don't want to sing'
/ʔelewam ca'wi-koyumina/	'Don't you want to sing?'
/bohmina/	'Don't stay!'
/ʔelew-wira ʔibewi' ni harmina/	'Am I not going to go?'
/ʔelew-wira ʔibewi' ni wi'nmina/	'Am I not going to see them?'
/ʔelew-ʔikilak mi haras-koyumina/	'you didn't want to go'
/ʔelew-ʔise'da haras-koyumina/	'No, I don't want to go'
/ʔelew-ʔise'm haras-koyumina/	'I guess he didn't want to go'
/ʔelew-kilaʔel haras-koyumina/	'I guess he didn't/doesn't want to go, I judge'
/ʔelew cuhmina/	'not gambling, I'm not playing cards, I never gamble, no one is gambling/gambles (no person is specified)'
/ʔelew-be' cuhmina/	'he/she/they are not playing cards'
/ʔelewda harmina/	'I'm not going'
/ʔelew-be'sken haras-koyumina/	'you don't want to go'
/ʔelew luhemina/	'it doesn't/didn't/isn't rain(ing)'
/ʔelewbe'm λikupurmina/	'peace' (no one fighting each other now)
/niyo ʔelew-bak hayhaynamina/	'I don't like that very well'
/ʔelewam harmina/	'You didn't go?'
/be'di hu'mus war-ba'mina/	'Don't eat any fat!'

FIRST-PERSON
DUAL HORTATIVE SUFFIX

241.72. The inflectional suffix {e•}, the first-person dual hortative, is commonly translated as 'Let's you and I . . . , let's we two' It has two phonologically conditioned variants: /we•/ following vowels and /e•/ following consonants. It is suffixed directly to the stem and never follows any of the other classes of inflectional suffixes. This morpheme may be historically related in form to the future intentional {wEr} 'to come,' whose imperative has the variant shape /we[?]e/, of which /we•/ could be a contraction. In meaning it seems to be related to the future intentional auxiliary {wEr}. Examples are:

/ba•we•/	'Let's we two eat'
/ [?] uhe•/	'Let's you and I do it'
/hare•/	'Let's you and I go'
/yoqunawe•/	'Let's wash our two selves'

NECESSARY TEMPORAL
ANTERIORITY SUFFIX

241.73. The inflectional suffix {so} formerly indicated necessary temporal anteriority, and that the verb so suffixed was syntactically dependent or contingent on another predication. It is commonly translated as 'before' and refers to an unspecified time, frequently reflected by a future translation in English. (It is often associated with the inevitable future suffix {le}.) It is never suffixed directly to the stem form, but is always preceded by a member of the second position-class of inflectional suffixes. It probably is historically derived from *{s0}; cf. {suk} perfective aspect, and {soqo} 'unknown' 340.2.

Examples are:

/ʔitiqnaˈnso/	'I'll make it for myself'
/caˈwu-wenso/	'I'm going to sing, I want to sing'
/wensō/	'I'll come'
/halesō/	'just before going, just before one goes'
/poˌqta ʔilaˌm hariˌlenso/	'Let me take the little girl'
/harmenso/	'before going'
/siˌwi hayuwen harmenso/	'I'm going to read a little before I go'
/ʔoleˌlbeˌm qewel hariˌlenso/	'I'd like to take them to church'
/xiˌnaleso/	'before they went to sleep'
/caˌwuleso/	'before singing'
/wayken-harmenso yelwinit/	'before you go over the brow of the hill, look back at me'
/xonle-boˌ baˌleso/	'he shall get dry, being (perforce) about to eat' ('he shall get dry before he eats')
/tintinˌpure buha-kilakeˌ xiˌnaleso/	'they sat talking before they went to bed' (They went to bed by force of custom; talking beforehand was a matter of momentary preference.)

IMPERSONAL INTERROGATIVE SUFFIX

241.74. The inflectional suffix {i·}, the impersonal interrogative, questions the predication. If the utterance is not syntactically marked as to person, the interrogative translates as third-person; if the utterance is syntactically marked, it may translate as any person. It has two phonologically conditioned variants: /wi·/ following vowels and /i·/ following consonants. The interrogative is suffixed only to auxiliaries and evidentials (cf. *{w} privative suffix). Examples are:

/ʔel-wira ʔibewiˌ ni harmina/	'Am I not going to go?'
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/nuya ʔibewi·/	'Is he laughing?'
/peh ʔisto· ti·n ʔisuki·/	'What did that person say?'
/suke-bewi·/	'Is he standing there, do you see him?'
/weri·/	'Is he/are they coming?'
/waca·nt ^h eri·/	'Did she cry, did you hear her?'
/hestit ʔiye-bewi·/	'What sort of person is she?' (you have seen her)
/heker ʔiye ʔibewi·/	'Whose is that?'
/hestar pi wira weri·/	'I wonder why he is coming?'
/peh si·wi ʔiye ʔibewi·/	'What writing is that?'
/hesta kint ^h eri· net harasleli/	'How did it sound to you about my going?'
/hesta bint ^h eri· net haras-leli/	'What do you think, should I go?'
/boy ti·n wint ^h eri·/	'Are they going to talk a lot?'

FIRST-PERSON
INTERROGATIVE SUFFIX

241.75. The inflectional suffix {u·}, the first-person interrogative, questions the predication and always translates as a first-person interrogative. The co-occurrence of pronouns with this morpheme, as elsewhere with morphemes marking person syntactically, specifies number. The first-person interrogative has two phonologically conditioned variants: /wu·/ following vowels and /u·/ following consonants (cf. *{w} privative suffix). Examples are:

/weru·/	'Shall I come?'
/heke·n-bo·m weri·lu· p ^h aqam/	'From where shall we bring the manzanita wood?'
/tepumewu·/	'Shall I cross with it?'
/ʔut pe·l henuwu·/	'What shall we two do?'

SUBORDINATING TEMPORAL
SIMULTANEITY OR ANTERIORITY

241.76. The subordinating inflectional suffix {ta} indicates temporal anteriority or simultaneity which is conditioned, dependent, or resultant, and the verb so suffixed is syntactically dependent. It is commonly translated as 'while, during, after, when, as.' It has two phonologically conditioned variants: [Vta] after stems ending in a consonant, such as /silel/ 'to be blind,' and /ta/ after all other stems. Examples are:

/mineleta haleba·da/	'I'll go just as he's dying'
/ba·ta/	'while eating' (homonymous with derived verb-stem /ba·ta/ 'to be meaty, of nuts')
/ca·wuta haleba·da/	'I'll go when they finish singing'

PERSONAL OBJECT SUFFIX

241.77. The inflectional suffix {*t} indicates that there is a personal (particular aspect) object of the verb-stem action. When the verb-form does not co-occur syntactically with an overt pronoun or noun object, {*t} commonly translates 'for me, to me'; when there is a pronoun object, the translation of {*t} will agree with it in person. It has two phonologically conditioned variants: /t/ following vowels and [Vt] following consonants, which alternate morphologically with the shape /*t/ when {*t} is suffixed to members of conjugation classes B-D, K, and L (which have long vowel allomorphs of the indicative stem-formant {a}). The personal object suffix is affixed directly to the stem or following the benefactive {paq} (241.42) (cf. /t/ the allomorph of the object case {t} 325.1, {t} the

particular aspect of patient suffix 241.11 and {t} particular aspect suffix of nouns 320.1). Examples are:

/doyu•t/	'Give it to me!'
/yaleqtut/	'Let go of me!'
/mi ?ihpaqat/	'You do it for me!'
/mi λitigpaqat/	'You fix it for me!'
/doyu•t put/	'Give it to him!'

NOMINAL STEM SUFFIXATION

242. Only the substantival inflectional suffixes of aspect are affixed to nominal stem-forms of verbs. There is, however, a single optional position-class of stem-deriving derivational suffixes which may be affixed to nominal stems. These derivational suffixes are identical in phonemic shape and related in meaning to allomorphs of the substantival (noun) aspect suffixes, but are marked as being synchronically separate morphemes by their distribution and their own allomorphy. This optional position-class of stem-deriving derivational suffixes is obligatorily followed by a stem-formant, and contains two members which form stative, intransitive verbs.

STATIVE DENOMINAL SUFFIX

242.1. The stem-deriving derivational suffix {h} derives stative, intransitive verbs from nominal stem-forms of verbs of primarily nominal function. In one instance it also derives a verb from a pronominal root. It is commonly translated as 'to be . . . , to be like . . . ' (cf. the allomorph /h/ of the particular aspect suffix {t} 321.). Examples are:

/sani/	'today'
/saniha/	'to be daylight/daytime'
/pu/	'that'
/puha/	'to be yonder'
/sede/	'coyote'
/sedeha/	'to be like Coyote (promiscuous, flirtatious)'
/sede•/	'glide'
/sede•ha/	'to be gliding, sailing, flying, floating'
/ceri/	'sand'
/ceriha/	'to be sandy'
/kuli/	'penis'
/kuliha/	'to be slim, thin'
/ca•wi/	'a song'
/ca•wiha/	'to be like a song'
/te•li/	'belly'
/te•liha/	'to be pregnant'; lit., 'to be belly-ed'
/wi•ta/	'man'
/wi•taha/	'to mature'
/coki/	'near'
/cokihā/	'to approach'
/canal/	'moon'
/cana•la/	'to be moonlight'

INTENSIVE DENOMINAL SUFFIX

242.2. The stem-deriving derivational suffix {s} derives stative intransitive verbs with intensification of meaning from nominal stem-forms of verbs. There is no common translation for this morpheme. The suffix {s} has two morphologically conditioned allomorphs: following verbs of conjugation classes B-D, K, and L, which have long vowel allomorphs of the stem-formant {a}, it has the shape /•s/; elsewhere it has the shape /s/ (cf. the generic aspect suffix {s}, 322.). Examples are:

/duya•/	'to give'
/doyi•sa/	'to be generous'
/toq/	'to stand up something long; to be like a post'
/toqesa/	'to be sterile'
/ca•wa/	'to sing'

/ca ^ˈ wisa/	'to be chock-full of song'
/cun/	'to urinate'
/cunesa/	'to not be able to control bladder'
/kur/	'to be fertile, semen'
/kuresa/	'to be full of semen'
/qota ^ˈ /	'to be strong, hard, or deep'
/qoti ^ˈ sa/	'to be full of strength'

INDICATIVE STEM
INFLECTIONAL SUFFIXES

243. When inflectional suffixes are added to stems of indicative derivation, the meaning is not primarily temporal but makes predications of actual events which can be translated with both past and present verb-forms in English. The actual events described are qualified, when they are reported, by the evidential suffixes and the personal subject-marking suffixes (including the dubitative, which marks third-person predications), by how the speaker knows what he reports--i.e., from what kind of evidence or with what certainty.*

There are two optional position-classes of inflectional suffixes, containing in all 12 members, which may be added to indicative stem-forms of verbs to mark categories of person and evidence.

FIRST POSITION-CLASS
INFLECTIONAL SUFFIXES

243.1. The first position-class contains six members: the evidential suffixes, a suffix of approximation, and a suffix of subordination. The evidential suffixes are at

*Cf. 262.11, especially the last examples cited, 244. Evidence and 245. Person.

present disappearing from colloquial use, but still survive in the oral literature.

NONVISUAL SENSORY
EVIDENTIAL SUFFIX

243.11. The evidential suffix {nt^here} indicates that the action described is reported on the basis of nonvisual sensory perception--hearing, touch, smell, or taste--and is commonly translated, if translated at all, as 'it feels . . . to me.' This morpheme is anomalous for several reasons. It is one of two affix morphemes in the language beginning in a consonant cluster, the other being {sken}; it is also one of two morphemes in which this particular sequence occurs, the other occurrence being the form /wint^hu•h/ 'person.' In addition, it is one of two evidentials (the other being {kele}) which have a number of allomorphs and which may be followed by the personal suffixes {da} and {sken}.

The suffix {nt^here} has four morphologically conditioned allomorphs: /nt^hi/ before the first-person suffix {da} and the completive suffix {k}; /nt^here/ before the second-person suffix {sken}; /nt^her/ before the interrogative suffix {i•}; and /nt^he•/ elsewhere. Two other suffixes and an auxiliary verb have similarly conditioned allomorphs of similar shapes: the passive suffix {here} has the shape /hi/ before the first-person suffix {da}, /here/ before the second-person suffix {sken}, and /heres/ elsewhere; the hearsay evidential {kele} has the shape /ki/ before the first-person suffix {da}, /kele/ before the second-person suffix {sken}, and /ke•/ elsewhere; and the future-intentional auxiliary {wEr}

has the shape /wi/ before the first-person suffix {da}, /were/ before the second-person suffix {sken}, and /weres/ elsewhere (see III. 324). Suggestive as these similarities are, their incomplete symmetry in shape and their lack of systematic parallelism in positions of occurrence (combinatory possibilities) only indicates a historical relation. ({nt^here} < {mut} 'hear, feel' + *{hE} + {re*}.)

The nonvisual sensory evidential is suffixed to indicative forms of verbs and may optionally be followed by one of five suffixes: the first-person {da}; the second-person {sken}; the dubitative {m}; the interrogative {i*} (which is added to imperative stems); and the completive {k}.

Examples are:

/ʔuna·nt ^h eresken/	'thus you said (in my hearing)'
/hire·nt ^h e· qewel/	'the house is burning' (feel and smell it)
/p ^h oyoq kuya·-bint ^h ida/	'I have a headache, I am aching as to the head' (i.e., 'I feel it') (obsolete)
/hesta-bint ^h eri· net haras-leli/	'What do you think, should I go?'
/boy ti·n-wint ^h eri·/ /pi kupa ^h e·/	'Are they going to talk a lot?'
	'he is chopping wood' (I hear the noise or feel chips flying')
/wirwira-kin ^h ik/	'they came some time ago' (firsthand knowledge)
/ca·wa-wint ^h e·m/	'they/he/she just keep on singing'
/tube·la-bint ^h e·/	'it is fragrant'

HEARSAY EVIDENTIAL SUFFIX

243.12. The evidential suffix {kele}, indicating that the source of evidence is hearsay, is used largely in the narration of myths, gossip, and the description of something not experienced; it is commonly translated, if

translated at all, as 'I have heard . . . to be; . . . it is said.' This evidential has three allomorphs similar to those of the nonvisual sensory evidential: it has the shape /ki/ when followed by the first-person suffix {da} and the completive suffix {k}, /kele/ when followed by the second-person suffix {sken}, and /ke*/ elsewhere. While sometimes suffixed to other indicative stem verb-forms, in the oral literature the morpheme {kele} occurs far more frequently suffixed to one of the two auxiliaries--the conditional {kil} and the distant past {kir}--forming constructions in which the sequence of auxiliary plus evidential is postposed as a semantic unit to main verbs of predications. The two sequences /kilake*/ and /kirke*/ then frequently translate and function simply as a past tense. The suffix {kele} may be followed by one of three personal suffixes: the first-person {da}, the second-person {sken}, and the dubitative {m}. It is, however, rarely followed by the personal suffixes {da} and {sken}, and syntactically is equally rarely used with the first- or second-person independent pronominal subjects, possibly because of semantic restrictions (cf. 262.22 conditional {kil}).

When notions of past time and hearsay evidence are combined as {kir} + {kele} and marked for person, the following high-frequency paradigm results with the meaning 'must have done/happened/been . . .':

1st-person	/kirkida/
2nd-person	/kirkelesken/
3rd-person	/kirke*/ or /kirke*m/

From a historical point of view, the hearsay evidential {kele} seems to have a common origin with the distant past {kir} and the conditional {kil} ultimately from a common root *{kEl} < *ki 'far, distant, far (from the here and now)' (cf. {kel} 'long, far, far away' and {kEr} 'finish,' from which the past temporal attributive auxiliary {kir} (262.3) is derived). Examples are:

/kilepma ^ˈ kuya-bike ^ˈ /	'Frightfully sick you are' ('I hear, you are supposed to be')
/ca ^ˈ wa-kirke ^ˈ m/	'I guess they must have sung'
/leyet-kirke ^ˈ /	'I found out he got it'
/ʔuni-kilake ^ˈ /	'you heard about it' (remote past)
/ʔuni-ke ^ˈ /	'that's what I was told'
/kirkida/	'I must have'
/kirkelesken/	'you must have (come), I see you did it'
/kirke ^ˈ /	'a third person must have come/gotten'
/pi ^ˈ kupake ^ˈ /	'he is chopping wood, I hear'

INFERENCE EVIDENTIAL SUFFIX

243.13. The inferential evidential suffix {re^ˈ} indicates that the information being given is inferred from logic applied to circumstantial sensory evidence, or evidence of natural necessity. It is commonly translated, if translated at all, as 'it must be.' The evidential {re^ˈ}, unlike the evidentials {nt^here} and {kele}, may be followed by only a single optional suffix, the dubitative {m}. ({re^ˈ} < *{r} 'because'; cf. 243.15 and 325.4.) Examples are:

/sukere ^ˈ /	'must be there (standing)'
/biyare ^ˈ /	'must be there (lying)'
/wirare ^ˈ /	'must have come'
/hara ^ˈ re/	'must have gone'
/suke-bire ^ˈ /	'(I guess) they are (standing)'
/biya-bire ^ˈ /	'(I guess) they are (lying)'
/wira-bire ^ˈ /	'they must be coming'

/hara•-bire•/	'they must be going'
/nicay hara•re• nor/	'my nephew has gone south' (I infer from seeing specific traces)
/pi kupa•re•/	'he's chopping wood' (he and his axe are gone from the cabin, so I infer it)
/biyare•m/	'this must be the one (lying), (I guess)'

EXPERIENTIAL EVIDENTIAL SUFFIX

243.14. The experiential evidential suffix {[?]el} indicates that the information being given is deduced from experience and involves the exercise of judgment. It is commonly translated, if translated at all, as 'I think it is (to be) so.' The experiential evidential differs from the other evidentials in that it is never followed by further suffixation (cf. 233.6, the stative {el}, and 261.3, the visual evidential {[?]el}). Examples are:

/buha [?] el/	'I guess they're sitting home'
/pi kupa [?] el/	'he is chopping wood' (he has a job cutting wood, he usually goes every day between 8 and 5, it is 3 o'clock, and yesterday at 3 o'clock he was chopping wood)
/cala• biya [?] el/	'I guess that may be good' (it was good last time)
/ho•n hina-kila [?] el/	'they should have arrived by now'
/ [?] elew [?] el/	'not sure'
/hesta [?] el/	'I wonder how he (she, it, they) is (are)'
/har walel yowuna• [?] el/	'you two go, he is homesick for you' (referring to a husband the speaker does not know and extrapolating from his experience; a judgment and a logical deduction)

/pite bira [?] el/	'my father-in-law must be hungry (because I know he's alone and bedridden)'
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SUBORDINATING CAUSAL
ANTERIORITY SUFFIX

243.15. The inflectional subordinating suffix {r} indicates that the verb so suffixed is syntactically dependent and semantically anterior in regard to causality or time. It is commonly translated 'because of, of . . .'. It is optionally followed by one of two morphemes: the subordinating suffix of temporal anteriority {[?]a}, or the subordinating suffix of unexpected simultaneity {[?]tan}. The inferential {re[•]} (243.13) and the instrumental case suffix {r} (325.4) in its possessive syntactic function are probably historically related to the subordinating suffix {r}.

Examples are:

/ba [•] r/	'because of eating . . .'
/nis ba [•] -be [•] sum winer hara [•] [?] isuk/	'they left because they saw me eating'
/ [?] iwi [•] yar nis [?] ele [•] le [•] s mis [?] qayupaqmina/	'because it is so unknown I can't come to see you'
/ [?] el-tununa [•] r [?] a/	'after having put it away then . . .'
/buharta [?] n/	'while sitting, while remaining, staying . . .'

APPROXIMATION SUFFIX

243.16. The inflectional suffix of approximation {puke[•]} indicates unrealized states and frequently translates 'almost.' This suffix is probably derived from the independent verb stem /puke[•]/ 'to be not quite done (cooked),

raw, or partly raw.' It is optionally followed by the suffix {da}. Examples are:

/x̣icuna·puke·da/	'I almost cut my finger'
/hara·puke·da/	'I came near going, I almost went'
/qoti·sapuke·-be·sken/	'I see you look as if you would prove to be strong' (lit., 'strong-like I see you are')

SECOND POSITION-CLASS INFLECTIONAL SUFFIXES

243.2. The second and final position-class of inflectional suffixes which are optionally added to indicative stem-forms of verbs contains six members: the personal suffixes, the dubitative suffix, the completive suffix, and two subordinating suffixes. Not all six of these co-occur with all the members of the first position-class of inflectional suffixes.

FIRST-PERSON SUBJECT (SELFNESS) SUFFIX

243.21. The inflectional suffix {da}, the personal suffix of selfness, always translates as first-person subject, unmarked for number. Apparently, before the two morphemes *{s} and *{ken} coalesced into the second-person inflectional suffix {sken}, the suffix {da} distinguished self from non-self. Just as the second-person morpheme appears to have developed from a nominal suffix of concession or emphasis following a nominalizing suffix, the first-person morpheme may historically be ultimately related to the substantival emphatic and intensifying suffix {da}, as

occurring in the form /hida/ 'very' with, originally, the meaning 'the very one, the very selfsame' (cf. the range of meaning of Latin ipse; < *{hE} 340.2 +' {da}).

Syntactically, {da} participates in the system of evidentials. It forms the first-person member of a triad which also includes two forms of the imperfective auxiliary {bEy}, the second-person form /be'sken/, and the third-person form /be'/. where all three function to mark visual evidence as the basis for reporting the predication of an action or event (cf. 261.3 {?el} for reporting visually attested states).

In this function, as the first-person form in the category of visual evidence, it indicates what is particularized as absolutely and reliably known to be true, and the categories of person and evidence are merged in this suffix. Its origin as an intensifier is exemplified in the following examples:

/hida/	'very, most' (< *{hE} demonstrative root 'again, too, same')
/tuda/	'farther away' (< /tu/ 'forward, ahead')
/bohemda mem/	'the largest river' (< /bohe/ 'to be big')

and in expressions of time:

/le'nda/	'yesterday' (< /le'n/ 'past time, ancient')
/lendada/	'a long time ago' (< /le'nda/ 'yesterday')
/hima'da/	'a little while ago' (< /hima'/'morrow'); i.e., 'earlier in the day,' lit., 'more morrow'

In its function of marking person, it contrasts with the second-person {sken} and the unmarked third-person category or forms suffixed with the dubitative {m}, and co-occurs with other evidentials. (Verbs seem not to have been historically marked for person; they are still not marked for number of the subject, except by independent pronouns.) In its function of marking evidence, it contrasts with verb-forms suffixed with the evidential suffixes--{nt^here} non-visual (243.11), {kele} hearsay (243.12), {re•} inferential (243.13), and {ʔel} experiential (243.14)--and is complementary to forms with the auxiliary copulas {bEy} and {ʔel} (cf. 262.11 and 261.3; see Person 245).

When it co-occurs with evidential suffixes, it functions to express first person or selfness. With the imperfective aspectual auxiliary {bEy} as /bi•da/, it means 'I see that . . .'; with {nt^here} as /nt^hi da/, it means 'I sense (taste, hear, feel). . .'; with {kele} as /kida/, it means 'I must have (done it)' or 'I am told.' It cannot co-occur with {re•} (forms with {re•} mean the speaker infers) or with {ʔel} (forms with {ʔel} mean the speaker judges the event to have occurred, from systematic cogitation). With {puke•} as /puke•da/, the speaker also qualifies what is reported as not being completely realized. With the hearsay evidential {kele}--which usually reports actions of third persons, as in the narration of myths and gossip--(third-person) unmarked forms which co-occur with a first- or second-person independent pronoun translate as follows where the hearsay evidential suffix {kele} in the form /ke•/

co-occurs with /ni/ 'I' and /mi/ 'you':

/coyilake• ni/	'I am drunk (they say), they tell me I'm drunk'
/kilepma kuyabike• mi/	'frightfully sick you are (I hear); you are supposed to be very sick'

Although itself without allomorphs, the suffix {da} frequently conditions two types of allomorphs if the preceding morpheme is one of five auxiliaries or three suffixes. One type involves contraction of a two-consonant cluster, and the second type a syncopation with or without compensatory vowel lengthening or vowel ablaut. These alternations are discussed under each of the following affected auxiliaries and suffixes: {suk}, {wEr}, {kOy}, {bOh}, {bEy}, {here}, {nt^here}, and {kele} (cf. III. 324). Examples are:

/hara•da/	'I am walking'
/muteda/	'I hear'
/wineda/	'I see'
/hure ?ibi•da/	'I am sewing'
/pele harle-ba•da/	'we'll all go'
/ca•wa ?ise•da/	'I sang recently'
/ca•wa-kirkida/	'I guess I sang'
/ca•wada/	'I'm singing, I just finished singing'
/ca•wa-bint ^h ida/	'I guess I'm singing'
/ni haras-kuda/	'I want to go'
/leyhida/	'I just got hit'
/hari•l-wida/	'I'm about to take them'
/hara•puke•da/	'I came near going, I almost went'

SECOND-PERSON SUFFIX

243.22. The inflectional suffix {sken}, the second-person subject suffix, is commonly translated as 'you.' Non-canonical in phonemic shape (only one other suffix, {nt^here}, begins in a consonant cluster), it seems to resemble the combination of two morphemes: the generic aspect {s} and either the non-possessed noun {ke} (331.2) with the shape /ken/ in

the generic-aspect form (translated often as 'maybe,' which emphasizes an individual at the expense of all other individuals that might have been referred to or included in the expectation); or the post-posed optative modal auxiliary (262.23) {keneh} (which expresses doubt and translates often as 'may, might'). Both of the latter morphemes with shapes similar to /ken/ may ultimately be related historically, and semantically are possible candidates for second-person final inflectional suffixes, being paralleled by a suffix of very high frequency on third-person forms, the dubitative {m}, since {sken} also marks a concession to the personal subject when reporting the addressee's behavior, and indicates less certainty than when reporting the behavior of the speaker (first person). Moreover, another suffix, {ken}, the warning imperative suffix often translated 'lest' and used with imperative stems, has the allomorph /ken/ only with second persons.

The sequence /sken/ patterns and functions like a single morpheme unrelated to the sequence {s} + {ken} in terms either of possibilities of occurrence or of position-class membership. Thus the form {sken} is suffixed only to four auxiliaries and three suffixes--the passive {here}, the hearsay evidential {kele}, and the nonvisual sensory evidential {nt^here}--while the generic-aspect suffix {s} is only suffixed to the nominal stem-form of all verbs, but never to the two suffixes {kele} and {nt^here}. In addition, these suffixes are never followed by stem-formants, while {s} is always suffixed to the stem-formant {i}. The analysis of

/sken/ as a single morpheme is further supported by its apparent membership in a single position-class. That is, there are only two position-classes of inflectional suffixes which are added to indicative stem-forms of verbs. The evidentials which may precede /sken/ in sequences may only be followed by a single morpheme. If the sequence /sken/ is analyzed as two morphemes, a third position-class--which would consist of only one member, capable of co-occurring with but a single member of the preceding position-class--would have to be recognized.

Patterns of syntactic agreement also support the analysis of the sequence /sken/ as a single morpheme. That is, verb-forms terminating with /sken/ may only co-occur syntactically with second-person pronominal forms, just as verb-forms terminating with {da} 'first person' may only co-occur with first-person pronominal forms. Most probably, {sken} is historically two morphemes, but has just become synchronically analyzable as one. (See Person 245.)

The suffix {sken} may only be suffixed to the morphemes {here}, {nt^here}, and {kele}, as well as to the stems of the auxiliary verbs {wEr}, {bEy}, {?iy}, and {suk}, and may not be followed by further suffixation. Main verbs not inflected for one of the categories marked by the suffixes {here}, {nt^here}, or {kele} may only be marked for second-person syntactically, by post-posing or juxtaposing an auxiliary verb-form inflected for second person. Examples are:

/?una*nt ^h eresken/	'thus you said (in my hearing)'
/kirkelesken/	'you must have (come), I see you did it'

/qoti·sapuke·-be·sken/	'I see you as if you would prove to be strong' (lit., 'strong-like you are, I see')
/mite·rum harle-bo·sken/	'you will all go'
/ʔelew-be·sken haras-koyumina/	'you don't want to go'
/nis holowi kuyar ʔiye kirkelesken/	'you were trying to scare me'
/ʔeh ʔisken/	'you did this just now'
/ʔuhheresken/	'I see it was said to you'
/ba· ʔibe·sken/	'you're eating'
/calit be·le-bo·sken/	'you will always be good'
/miya ma·n minele-bo·sken/	'you too shall die, be dead'
/mutle-bo·sken/	'you shall hear it, you can't help it'
/hari·l-weresken/	'I see you're about to take them'
/ʔuni kenehale·sken/	'you might do it that way, you could if you wanted to'

DUBITATIVE SUFFIX

243.23. The inflectional suffix {m}, the dubitative, expresses doubt or question.* It seems to be functionally and semantically equivalent to the addition of interrogative intonation to declarative statements in English. It has two common translations: a declarative statement of some slight doubt, or a weak interrogative. When suffixed to forms to which the second-person suffix {sken} may also be suffixed, it generally translates as a third-person declarative of some doubtfulness. When suffixed to forms to which the second-person suffix {sken} is never affixed, it generally translates as a second-person interrogative, although it may also be translated as a third-person declarative of mild doubt. Syntactic co-occurrence with personal pronouns

*These two functions are formally distinguished with two aspectual attributive auxiliaries, {bEy} and {bOh} (see 262).

specifies not only number, but the choice between interrogation and a declarative of doubt.

There seems to be a tendency, perhaps due to the pressure of English bilingualism, to use the dubitative {m} suffix to indicate almost paradigmatic contrast with the first- and second-person suffixes {da} and {sken}, which are conveniently members of the same position-class. Thus, informants generally translate English paradigms 'I/we . . . ,', 'you . . . ,', 'he/she/they . . . ' by / . . . -da/, / . . . -sken/, and / . . . -m/, respectively, although in a more normal situation, {m} clearly implies primarily an element of uncertainty, not person. In view of the internal structural and external functional pressures, were the language to survive in use, the verb might well become inflected for three persons, with {m} marking the third person.

The dubitative suffix {m} is added directly to the stem or to the evidential suffixes {nt^here}, {kele}, and {re•}. It is never followed by further suffixation. Examples are:

/çá•wam mi/	'Did you sing, are you singing?'
/çá•wam/	'Did you sing, are you singing?'
/çá•wa wiram/	'Are you going to sing?'
/çá•wa-bo•m mi/	'Do you sometimes sing?'
/çá•wa ʔibe•m/	'they are singing (doubtfully)'
/çá•wa kilake•m/	'I guess they sang long ago (I heard about it)'
/çá•wa kenehale-bo•m/	'they might sing (I guess)'
/çá•wa ʔele•m/	'Someone (they) sang just now' (doubtfully); 'You sang?'

COMPLETIVE SUFFIX

243.24. The inflectional suffix {k}, the completive (cf. {kir} past temporal auxiliary, 262.3), indicates that action is, was, or will be performed or finished. When

combined with the auxiliaries of aspect, appropriate extensions in meaning ensue. For example, the combination of the durative auxiliary {bOh} with the completive indicates that an action is performed completely during an extent of time--and by extension repeatedly, generally, or always. It is therefore most frequently translated as 'always, repeatedly, as a rule, generally,' etc., or not translated at all. The completive suffix has two phonologically conditioned variants: /ik/ after consonants and /k/ after vowels. It is suffixed only to five auxiliaries--{bEy}, {bOh}, {wEr}, {kil}, and {suk}--and to the evidential {nt^here}. It is suffixed to the indicative stem-form of these auxiliaries, but in one example it appears to be suffixed not to the auxiliary alone, but to the whole construction in which the auxiliary participates, consisting of a main verb, in the indicative stem-form, followed by a nominal stem for the auxiliary {bEy} (cf. Evidence and Person). Examples are:

/λo•ma ʔikilak/	'(I myself saw) them kill (it)'
/ba• ʔikilak/	'(I) ate it (distant past)'
/ʔuni ni ʔiye-ba•k/	'that's the way I do it (always)'
/ca•wa-be•sik/	'you saw them sing a while ago, you know they can/do sing'
/ca•wa-ba•k ni/	'I sing all the time, sometimes I sing, I sing once in a while'
/caluma•-suk/	'Always be good!'
/pi ča•wit biyak/	'I'm sure he does sing (I've seen him)'
/ča•wit biyak/	'you sing, I've seen you'
/ča•wa-be•sint ^h ik/	'I heard them singing some time ago'
/ne•l ʔelew ba•k/	'we two do not; no, we don't'
/ne•let yica• ʔisuk/	'they named the two of us'

SUBORDINATING TEMPORAL
ANTERIORITY SUFFIX

243.25. The subordinating inflectional suffix {ʔa} indicates temporal anteriority, and the verb so suffixed is syntactically dependent. It is commonly translated as 'then . . . , after having' It is suffixed directly to the stem, or after the subordinating inflectional suffix indicating causal anteriority {r}. Examples are:

/pat-hokeltaʔa hara·/	'After he jumped out he went away, he jumped out and went away.'
/ba·ʔa/	'while eating'
/bo·staʔa/	'all of a sudden'
/ʔuniʔa/	'and then'
/ʔel-tununa·ʔa/	'after they put it away, then'
/ʔel-tununa·rʔa/	'after having put it away, then'

SUBORDINATING UNEXPECTED
SIMULTANEITY SUFFIX

243.26. The subordinating inflectional suffix {tan} indicates unexpected, or contrary to expectation, simultaneity of actions or states. It is commonly translated as 'while . . . , in spite of . . . , anyhow . . . , anyway . . . , although' It is suffixed only to auxiliaries or following the subordinating inflectional suffix indicating causal anteriority, {r}, and the passive {here}. Examples are:

/ca·wa-wetan/	'anyway, I'll still sing'
/ʔelew-be·tan wine hara· wira ʔibi·da/	'even if there's nothing to it, I'm going to get it'
/ʔelew-be·tan beme·s/	'even though I haven't got it'

/mincay ni mis xa'yuma'le's hadi calule's mi, ?uhe'tan ?uni/	'Oh nephew, I can make you white and then you would look nice.' (but even despite this, even so, he wouldn't do it)
/hara' ?isuk net ba'-bohe'tan/ ,	'even though I was eating, they left anyway'
/buhetan/ ,	'even while they are sit- ting . . .'
/puba'npurun ba'-he'tan leyleypaq/ /ca'wa-be'tan/ /buhar'tan/	'While they were eating, they threw rocks at me.' 'while singing . . .' 'while sitting, while remain- ing, staying . . .'
/hara' ?isuk, net ?ele'tan yi'las koyumina/	'he went in spite of my coax- ing him to stay'

THE CATEGORY OF EVIDENCE

244. The evidential suffixes and the other indicators of evidential meanings--e.g., the first-person suffix {da} and the two auxiliary verbs {bEy} and {?el}--form a semantic set, correlated with the categories of person and aspect as they appear in verb-forms, and also with the category of aspect in noun-forms. The morphemes found in verb-forms have as their function discrimination by the speaker of the source of information on which the predication is based. The speaker may select among five degrees of evidential certainty, ranging from most certainly true (based on visual evidence) to most questionably true (hearsay evidence):

1. the visual evidentials {da} (243.21), {bEy} (262.11) and {?el} (261.3)
2. the nonvisual sensory evidential {nt^here} (243.11)
3. the inferential evidential {re' } (243.13)
4. the experiential evidential {?el} (243.14)
5. the hearsay evidential {kele} (243.12)

In 1930, Dorothy D. Lee was able to collect a full five-way contrasting set of minimally different verb-forms, all meaning '(he) is chopping/chopped wood':

<u>kupabe</u> *	(visual evidential/imperfective aspect) < {bEy}
<u>kupant^he</u> *	(nonvisual sensory evidential) < {nt ^h ere}
<u>kupare</u> *	(inferential evidential) < {re*}
<u>kupa^ʔel</u>	(experiential evidential) < {ʔel}
<u>kupake</u> *	(hearsay evidential) < {kele}

Other examples are given under the relevant sections of the grammar where the morphemes concerned are discussed, but note also:

hestit <u>ʔiyebe</u> *wi	'What sort of person is he/she?' (which assumes an eye-witness report)
wacant ^h <u>eri</u>	'Did he/she cry?' (i.e., 'Did you hear her cry?')
biyare <u>m</u>	'This must be the one (I infer, with doubt), in a lying position.'
be*s <u>ile</u> *	'(I see/saw them) lying there.'
coyilake <u>*</u> ni	'(They tell me) I'm drunk.'

When a speaker selects one of the visual evidential markers (1. above), he is claiming the strongest personal responsibility for the truth of the statement being predicated. On the other hand, however, when a speaker selects the hearsay evidential (5. above), he disclaims personal knowledge and responsibility for the truth of the statement by attributing it to others. Within this ranking, the speaker indicates the manner by which he arrived at the knowledge, simultaneously assigning an evaluation from the greatest to the least degree of certainty concerning the reliability of the evidence for such knowledge.

1. The visual evidential is indicated by:
 - a. an optional indicative verb-stem inflectional suffix of selfness (1st-person) {da} of the second position-class of suffixes; other members of that class include the person-marking suffixes {sken} (2nd-person) with concessive force (243.22) and {m} (3rd-person) with dubitative force;
 - b. the imperfective aspect attributive auxiliary verb {bEy} used with actions or events, and correlated with the three person-marking suffixes {da}, {sken}, and {m}; or
 - c. the dependent copula (visual evidential) auxiliary verb {ʔel}, probably derived from deictic elements and formally resembling the experiential evidential (4. above). When the visual evidential is marked by the dependent copula {ʔel}, states rather than actions or events are being described. The only possible suffixation is not contrastive of person, since only the dubitative {m} may occur.

When the visual evidential is used, the meaning is not only known to be true from personal visual observation, but there is a necessary correlation with the categories of person and verb aspect.

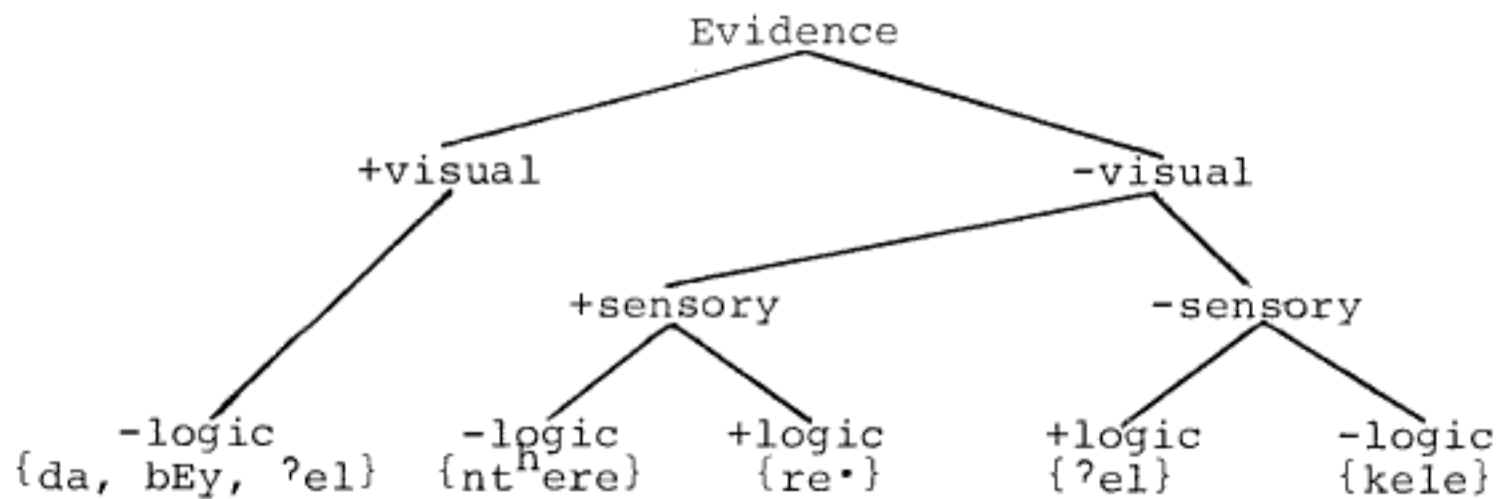
2. The nonvisual sensory evidential is indicated by {nt^here} which is a member of the first position-class of optional indicative verb-stem inflectional suffixes (like the other three evidentials 3., 4., and 5. above). The meaning is that the statement being made is based on directly perceived observation through any sense other than the visual sense--i.e., by touch, taste, smell, or frequently by hearing (auditory). Like the visual evidential, it too is correlated with the category of person, and it displays morphophonemic processes like {bEy} and {kele} when suffixed with the personal suffixes. It is not as strongly associated with first-person predications, and it is not as unequivocally true as the visual evidential, ranking just below it in order of reliability/certainty. It appears to be historically derivable from {mut} 'hear, feel, sense' + {here} passive < *{hE} 340.2 + {re*} inferential evidential.
3. The inferential evidential, indicated by {re*}, means that the statement made is based on logic, circumstantial evidence, and inductively on some unspecified amount and quality of sensory perception. It is not correlated with the category of person, and it ranks as less reliably true than the preceding

two evidentials mentioned above, both of which are based on more definite perceptions rather than any cogitation about circumstances.

4. The experiential evidential is indicated by {ʔel}, and it means that the statement being made is a judgment based on systematic thinking without induction, and not on any directly perceived sensory evidence; it cannot be correlated with suffixes representing the category of person, inasmuch as it does not occur with any second position-class optional inflectional suffixes as do the preceding three evidentials (cf. chart, 239), thus having a distribution (privilege of occurrence) like the copula {ʔel} (261.3). Although the experiential {ʔel} forms a semantic set with the preceding three evidentials above, its more limited distribution removes it from that position-class which they occupy.

5. The hearsay evidential, indicated by {kele}, which states reported events, depends on no direct perception and on no consideration of logic or deduction. It merely permits repetition of what the speaker has been told (hearsay, myth, or gossip), with no responsibility being taken by the speaker for the reliability, truth value, or certainty of the predication. It is therefore the weakest kind of evidence because it obscures the relation between the predication and the reality by ascribing the knowledge to others.

One may thus infer for 1930 a structure for the category of evidence consisting of the following features:



However, by a quarter of a century later only the two polar categories of evidence, the visual and the hearsay, were used in speech (as opposed to text), and categories 2., 3., and 4. became obsolete, as for example:

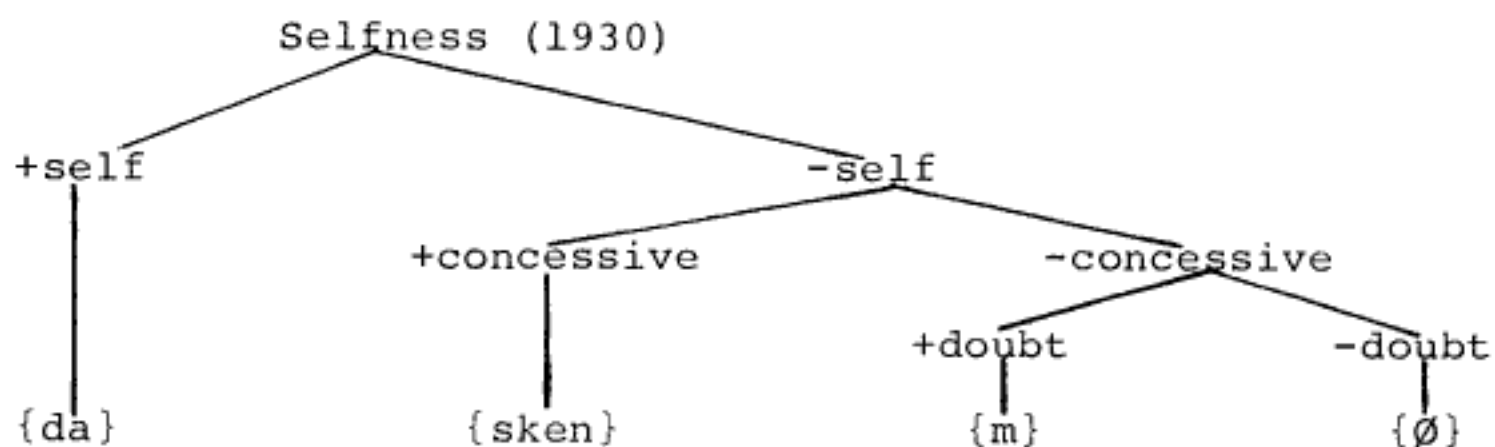
p^hoyoq kuya•-bint^hida 'I have a headache (I feel it)' < {nt^here}

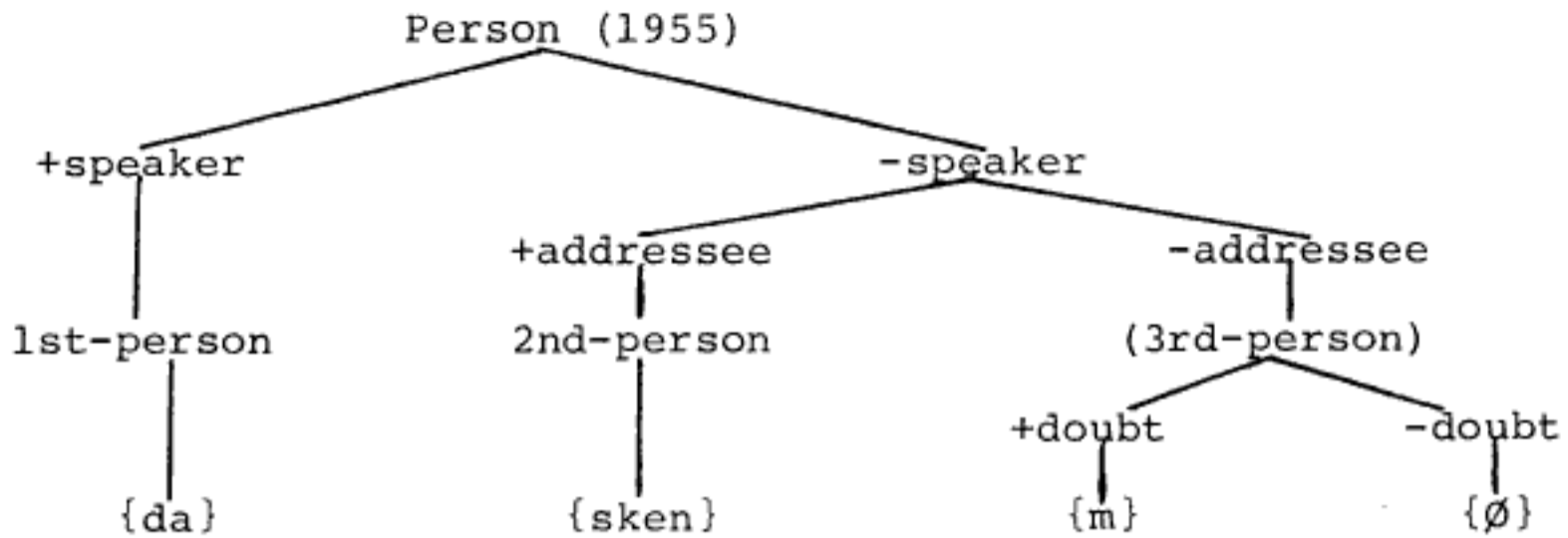
being replaced by category 1., the visual evidential:

p^hoyoq kuya• ?ibi•da 'I have a headache (I vouch for it being entirely true on the basis of sensory evidence)'

This change suggests a structure for the category of evidence with fewer features being discriminated (since at least about the 1950s), and with only a two-way contrast between the visual evidential and the hearsay evidential surviving in speech.

At the same time that the category of evidence became less elaborated, the correlated category of person became more specified. What was originally a two-way contrast between self and non-self (involving two degrees of uncertainty) has become a system of three persons:





The original distinction between self and non-self was a contrast between what could be reported as certain because it was experienced by the speaker and known firsthand (marked with {da}, cf. Latin *ipse*) vs. for the non-self what could only be reported with less assurance. To a second person being addressed, a concession was made, marked with {sken}, inasmuch as the addressee rather than the self (speaker) would have more certain evidence of what might be predicated of his/her actions or state. The least certain predications involving potential doubt about third persons' actions or states, or explicit second-person interrogatives, were marked with the dubitative {m} (see {da} 243.21, {sken} 243.22, and {m} 243.23). Thus {da} participated formally and semantic-ally in two different systems: evidence-marking and self/person-marking. By 1955 {da} already belongs to a set of three person-markers indicating speaker, addressee, and other, and only vestiges of the original system are retained in the third person, where doubt could optionally still be overtly marked. In like fashion, the original possibility

of making third-person predications marked with {da}, where such a marking indicated an effect on the speaker of the third person's state--e.g., illness, thirst, etc., of a pet or kin-group member--has become an obsolete possibility. Similarly, the intermediate values involving selfness have tended to disappear, leaving only the extremely contrastive meanings.

What has been maintained in both systems are the most functionally contrastive values: (1) most sharply focused certainty (+true) vs. hearsay (-true); and (2) most sharply focused self (+first-person) vs. non-first-person (+doubt). Blurred intermediate areas are exemplified by the more recent reporting of headaches with the visual evidential, and the use of the dubitative to mark third-person predications as well as second-person interrogatives. This latter case bears continuing testimony to the lesser significance in the original semantic system of the notion of person and the greater significance of the notion of certainty of evidence (epistemic distinctions).

The marking of person on verbs, as discussed above, refers to syntactic subjects. It is in the case of personal subjects that the matter of evidence is most germane. In the marking of non-subjects as objects or patients of verbs, the suffixes having those functions are most closely associated with the representation of another category of semantic focus: noun aspect. Thus the category of person correlates with those of evidence and noun aspect. (See the

following discussions of person (245), noun aspect (310 and 320), and verb aspect ({bEy} 262.11, and {?el} 261.3), all of which contribute to expressing syntactic focus.)

THE CATEGORY OF PERSON

245. Suffixed to verbs are the following three classes of person marking suffixes:

Class I	Class IIa	Class IIb
Indicative Stem	Imperative Stem	Imperative Stem
2nd position-class inflectional suffixes	2nd position-class inflectional suffixes	3rd position-class inflectional suffixes
{da} self, 1st-person	{n} 1st-person jussive	{e*} 1st-person dual hortative
{skən} 2nd-person	(∅ 2nd-person imperative)	{i*} impersonal interrogative
{m} dubitative	{di} 3rd-person hortative	{u*} 1st-person interrogative
		{*t} personal object

The Class I suffixes added to indicative stems, with three members which mark the person of the syntactic subject of the verb, originally only contrasted self (first-person) and non-self. Class II suffixes, with two subclasses suffixed to imperative stems, also contrast first-person with non-first-person. Indicative stems are employed for predicating the actual and real, and imperative stems are employed in predications of the hypothetical and potential. These

semantics are also reiterated in the above suffixes. Class I person-markers correlate with evidential qualifying markers (realis). Class II person-marking suffixes correlate with interrogative and imperative meanings (irrealis). Verb predications are historically probably all impersonal, with the optional possibility of being marked for self (speaker) or of occurring with independent pronouns to make person and number explicit (cf. 340. Pronoun).

Class I subject-person suffixes co-occur with independent pronouns only to express number, for emphasis, or to contrast inclusive/exclusive or proximate/distal notions. Class II person-suffixes likewise generally co-occur only with independent pronouns, in order to express similar functions. All the above-listed suffixes express subject functions, except for {•t}, the personal object suffix. However, {•t}, unless it co-occurs with an overtly expressed noun or pronoun object with which it then agrees as to semantic person, always indicates a first-person object (i.e., self).

In addition to the personal object suffix {•t}, three other suffixes occur on the imperative stem and have similar functions. They qualify the noun aspect (320) of patients and objects of the verb. These imperative stem first position-class derivational suffixes are:

{t}	particular aspect of patient
{i•l}	particular comitative
{m}	generic comitative

(the generic aspect of patient is not overtly marked).
These suffixes resemble the personal object suffix {•t} in

indicating noun aspect. They occur in contrast to the reflexive {n}, the reciprocal {p^uur}, and the benefactive {paq}, but like the personal object suffix {*t} only indicate the aspect of the non-subject nouns co-occurring with the verb. Wintu verbs typically do specify semantically whether subjects are first person or non-first person, and also specify a semantic feature of non-subjects (object/patient): particular vs. generic noun aspect.

The formal resemblance of the personal object suffix {*t} and the particular aspect of patient {t} and the particular aspect noun theme {t}, as well as their similar functions, indicate a likely common historical origin.

The foregoing survey indicates that verb suffixes emphasize the contrast for subjects of self vs. non-self, as well as the contrast of noun aspect of non-subjects. The other categories of person may be more delicately discriminated by the use of independent pronouns. The occurrence of pronouns then amplifies and elaborates a basically two-way contrast (self/non-self), while marking the aspect of non-subject noun satellites of verbs by means of verb suffixes more narrowly specifies non-subject nouns which are normally implied and understood without their overt appearance in predications. This is so because the meanings of verb roots which take objects assume that the objects are of high frequency, culturally predictable ones, conventional objects expected and known to the hearer. Verb roots typically include in their meaning range the action as well as the object conventionally acted on, or the state and the patient typically

156 University of California Publications in Linguistics
 experiencing that state. Aspect specification narrows the
 focus to specify more exactly the nature of such object/
 patients, anaphorically and cataphorically.

Noun Aspect		
Stem	Singular number; originally 'particular aspect' in 1930 {-t}	Plural number; originally 'generic aspect' in 1930 {-s}
{tu}	eye(s)	face(s)
{ma}	toe(s)	foot/feet
{Kaha}	the 'quick' (of nail)	toenail/fingernail(s)
{λal}	mussel(s)	shell(s)
{nur}	whole/live salmon	salmon (food/flesh)
{no•p}	live deer, whole deer	venison
{sede}	Coyote	coyote(s)
{ci•r}	live suckerfish/spirit	mass of suckerfish
{t ^h uli}	otter, swimmer	swimming, swimmer(s)

THE CATEGORY OF ASPECT

246. Both verbs and substantives exhibit overt marking for aspect, and although there is a difference in the two classes of words and the morphemic markers used to indicate aspect, it seems justifiable to use this single term in both cases for more than merely traditional reasons. Aspect (cf. Dorothy D. Lee's use of this term for Wintu nouns in "Categories of the Generic and Particular in Wintu," American Anthropologist, n.s. 46, 1944) is commonly understood in reference to well-studied Indo-European languages, and also

to Hopi, to pertain only to verbs with categories like perfective/imperfective, continuative, durative, punctual, momentaneous or iterative, etc., and while that is true here as well, and Lee also applies the term to nouns, it has been employed here because of a semantically pervasive characteristic of Wintu. This semantic field, shared alike by substantives and verbs, is reflective of the opposition between values associated with (1) definiteness of outline, boundedness, setness, completion, finiteness, individuation, integration, particularity and limited discreteness of scope, a narrow focus, unity as a whole or a particular "thatness"; vs. (2) indefiniteness of outline, unboundedness, incompleteness, distribution in space and time, non-singularity, generality, extensiveness, massness, a continuum, or an unspecified extensiveness: "somethingness not yet a that." This semantic range is subdivided and exemplified by the auxiliary verbs, by verb suffixes (those indicating aspect discussed already), and by the evidential markers; and also in nouns, pronouns, and classifiers. (Dell Hymes points out a resemblance of the same type in Chinookan, another Penutian language; personal communication.) Some examples of this opposition are:

Definite Sharp Concentrated Focus	Indefinite Diffuse Focus
<u>Particular/Perfective</u>	<u>Generic/Imperfective</u>
{t} particular aspect (substantives) (321)	{s} generic aspect (substantives) (322)
{bEy} imperfect aspectual auxiliary (262.11)	{bOh} durative aspectual auxiliary (262.12)
{suk} perfective aspectual auxiliary (262.13)	
{le} inevitable future suffix (241.61)	{wEr} future intentional auxiliary (262.141)
{k} completive suffix (243.24)	{har} progressive aspectual auxiliary (262.142)
{kir} temporal attributive auxiliary	
visual evidentials {da}, {bEy}, {ʔel}	hearsay evidential {kele} (243.12)
{t} particular aspect patient (241.11)	∅ generic aspect of patient (unmarked)
{i·l} particular comitative (241.12)	{m} generic comitative (241.13)
*{kE} optative-interrogative (340.2)	*{kO} optative-encom- passing (340.2)
{da} selfness/1st person (243.21)	{m} dubitative suffix (243.33)
{to·} disjunctive postclitic (331.1)	{ʔusa} classifier 'some' (331.3)
{el} stative suffix (233.6)	{VLVLh} distributive suffix (233.2)
{c} transitive, *{w} priva- tive (233 ff.)	{V·r} repetitive, {V y} iterative (233 ff.)
∅ singular number of pro- nouns (unmarked)	{·l} dual number of pro- nouns (350.1)
{o} emphatic suffix (350.3)	{e} non-singular suffix (350.4)

The above-listed examples of morphemes marking the two contrastive polarities of definiteness of deictic focus indicate how pervasive throughout the morphology and syntax this semantic field of focus appears as reflected in the categories of Aspect, Person, and Evidence. Various degrees of syntactic Focus are achieved by linking these three syntactic/semantic categories, and the category of Evidence is a crucial link between Aspect and Person, being correlated with both, synchronically and diachronically.

Focus	
Definite/concentrated	Indefinite/diffuse
+definite	-definite
{t} particular	{s} generic
{da} self/speaker	{m} dubitative/3rd person
{bEy} visual	{kele} hearsay
realis	irrealis

CLASSIFICATION OF VERBS

250. Verbs are classified as dependent, independent, or auxiliary on the basis of the coincidence of syntactic function and morphological structure. Any verb may be morphologically marked as syntactically dependent by the suffixation of one of a small number of subordinating morphemes as the final suffix. Verbs not so marked are syntactically independent--i.e., capable themselves of constituting

independent clauses. Auxiliaries are distinguished phonologically by an intervening hyphen juncture when postposed to independent verbs; and morphologically by their anomalous stem-formation, their unique privilege of occurrence with certain inflectional suffixes, and their inability to occur with those independent verbs which, with subordinating suffixes, form dependent verbs. They may only be postposed to independent verbs.*

Verbs are marked as syntactically dependent by the final-position suffixation of one of the following subordinating suffixes, previously discussed in section 210. Verb Structure.

Suffixed to indicative stems, indicating the actual:

- {r} causal anteriority (243.15)
- {ʔa} temporal anteriority (243.25)
- {tan} unexpected simultaneity (243.26)

Suffixed to imperative stems, indicating the non-actual:

- {n} potential temporal simultaneity (241.62)
- {so} necessary temporal anteriority (241.73)
- {ta} temporal simultaneity or anteriority (241.76)

A subclass of verbs which are syntactically intransitive is morphologically distinguished by the suffixation of one of a small number of derivational suffixes. These form stative or adjectival verbs. The three suffixes are both root- and stem-deriving.

Root-deriving suffix:

- {el} stative intransitive (233.6)

Stem-deriving suffixes affixed to nominal stems:

- {h} stative (242.1)
- {s} intensive stative (242.2)

*Most auxiliaries normally occur postposed, but can also be elicited as free forms in isolation, or at least discussed.

AUXILIARY VERBS

260. The auxiliary verbs are very frequent in predications, permitting modal and temporal notions to be expressed. Some auxiliaries serve various copula functions as well. The copulas are particularly complex in semantic and syntactic functions. Verb phrases may consist of sequences of auxiliaries following a main verb, usually in its indicative stem-form (when the main verb is the head of the phrase), and less frequently in its nominal stem-form (when the auxiliary is the head of the phrase). If the main verb is an indicative stem, it functions like a participle; if a nominal stem, it functions like a noun object (gerund) of the auxiliary. In first position preceding the main verb, two preverbs may optionally occur in auxiliary functions--the negative and the prohibitive--while in phrase-final position, inflectional suffixes may occur on the last auxiliary in the verb-string terminating the verb-phrase sequence. A complete description of auxiliary verbs is a matter for syntactic analysis and is not fully provided in this description. Auxiliaries which are also copulas or mark mode or aspect have complex morphophonemics, while those expressing past time and possibility are morphologically simple. Auxiliaries are either closely related in form and meaning to independent verbs and other auxiliaries, or are clearly derivable from roots with other functions (e.g., demonstratives).

Auxiliaries may be divided into two main classes--copulas and attributive auxiliaries--on the basis of morphology, syntax, and semantics, although the classification

is not perfectly clear-cut. Copulas are of three types:

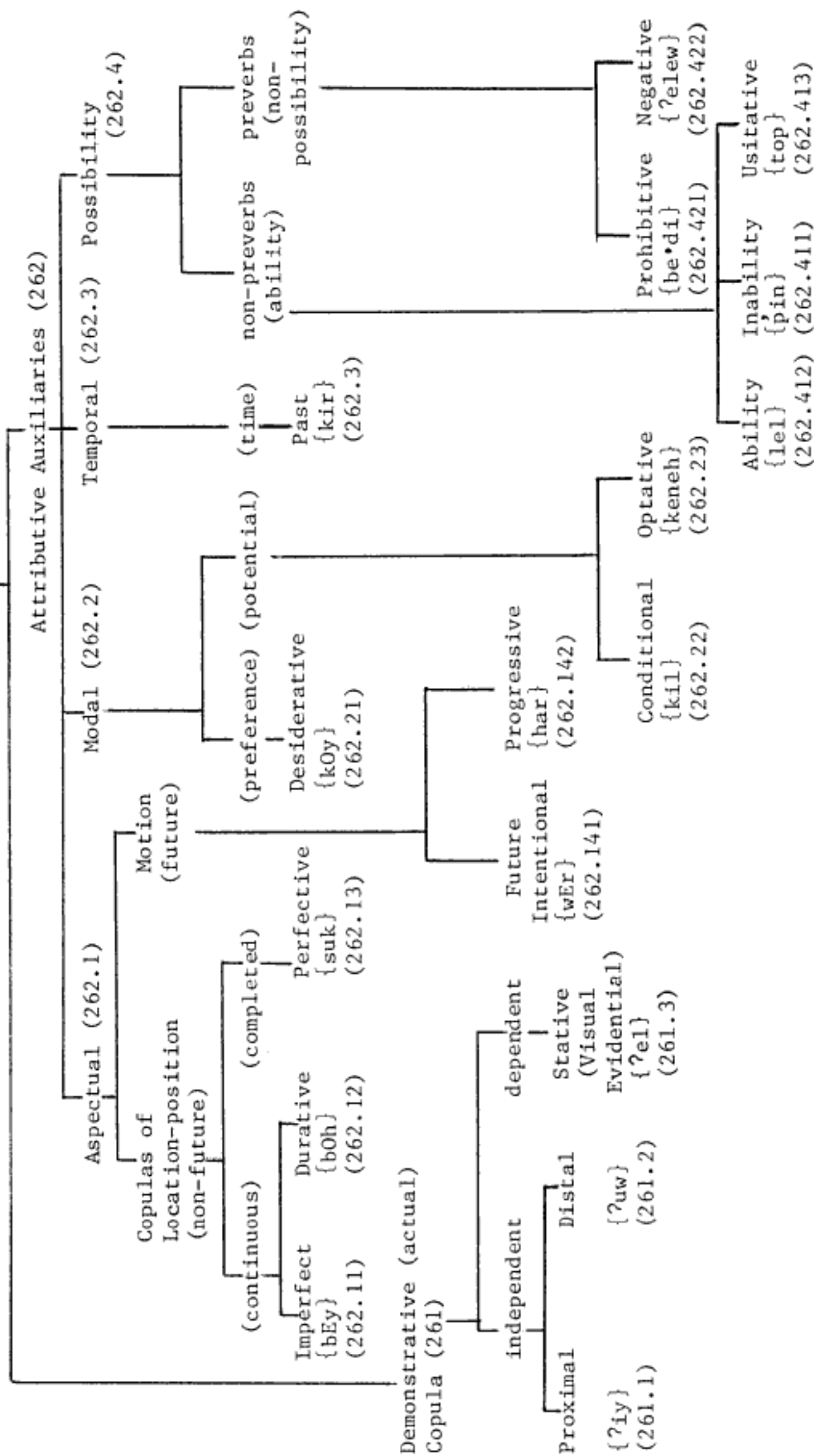
(1) those derived from demonstrative roots which are general verbs of being (existential) or doing: {ʔiy}, {ʔuw}, and {ʔel}, the last of which has properties in common with attributive auxiliaries; (2) those derived from verbs of location-position which express aspect: {bEy}, {bOh}, and {suk}; and (3) the negative copula {ʔelew}, which functions as a preverb. All of these copulas except {ʔel} and {ʔuw} also occur as independent main verbs of predications in addition to occurring as auxiliaries.

Attributive auxiliaries express: (1) futurity: {wEr}, {har}; (2) mode: {kOy}, {kil}, {keneh}; (3) past time: {kir}; and (4) possibility: {lel}, {p^hin}, {top}. In addition, there are two syntactically attributive preverbs: {ʔelew}, the negative copula, and {be·di}, an exhortative, which functions as the prohibitive when it occurs with a verb suffixed with {mina}, the negative suffix.

Semantics separates the copulas from the other auxiliaries, since the copulas describe the real, actual, and observable, while the other auxiliaries characterize non-actual (potential, possible, or past events).

When auxiliary verbs are described below as being postposed to main verbs, rather than as free forms or suffixed, they appear as enclitic (i.e., postclitics) to those verbs, in fashion parallel to the dependent non-possessed nouns described in 331.1.

CLASSIFICATION OF AUXILIARY VERBS



Note: Semantic features are parenthesized, as are section reference numbers.

Of the 17 auxiliaries, the class of attributive auxiliaries is divided into four main types, as is seen in the above chart. Except for the two preverbs, the two independent copulas {ʔiy} and {ʔuw}, the three aspectual auxiliaries {bEy}, {bOh}, and {suk}, when functioning as copulas, and {ʔel}, all the auxiliaries are postposed to main verbs of predications by means of an intervening hyphen juncture. Although {ʔel} occurs suffixed or as a free form when attributive, it is never postposed with hyphen juncture. The three aspectual auxiliaries, when not functioning as copulas, occur as suffixes rather than postposed. But sequences of attributive auxiliaries which are postposed to main verbs are suffixed to each other, and it is only the first member of the string which is separated by a hyphen juncture from the main verb of the predication.

COPULAS

261. The three types of copulas (which include the seven auxiliaries {ʔelew}, {ʔiy}, {ʔuw}, {ʔel}, {bEy}, {bOh}, and {suk}) are distinguished by their morphological composition and external functions. The negative preverb {ʔelew} is derived from the negative copula of the same shape, and as a preverb is invariant in stem-form and may only occur with the negative suffix {mina}. It can probably be reconstructed as based on a demonstrative root *{ʔE} and a stative *{l} or future suffix {le} (241.61) and the privative radical-forming root-deriving suffix *{w} (233.7). The forms {ʔiy}, {ʔuw}, and {ʔel} seem also to be based on

demonstrative roots *{ʔE}, *{ʔu}, and *{ʔE} + *{l}, respectively; {bEy}, {bOh}, and {suk} are derived from verbs of location-position of the same phonemic shapes. The first two types of copulas, except {ʔel}, are independent copulas. They occur as both main verbs of predications and auxiliaries, with no change in patterns of stem-formation or semantic function. The form {ʔuw} is anomalous in auxiliary function, while the aspectual auxiliaries and {ʔel}--the visual evidential attributive auxiliary, which is grouped with the copulas on the basis of semantics and derivation, but not syntax--are exceptional as copulas and require individual description which is given below in the following sections.

The two independent copulas of the demonstrative type, {ʔiy} and {ʔuw}, differ from each other in stem allomorphy and in the set of suffixes which can be affixed to them. In terms of inflectional suffixation potential, they have complementary privileges of occurrence, {ʔiy} being followed by the indicative stem personal inflectional suffixes, while {ʔuw} may be followed by imperative stem suffixes. Only {ʔuw} is followed by a stem-deriving (derivational) suffix, {m} causative. As independent main verbs of predications, they contrast with each other in meaning and in command forms, and so are recognized as synchronically in functional contrast:

/ʔih/	'Do it (nearby)!'
/ʔuh/	'Do it (over there)!'

The form {ʔuw} lacks most typical auxiliary functions.

These two demonstrative copulas of the independent subtype, {ʔiy} and {ʔuw}, which are not postposed with hyphen juncture to another preceding verb, are given different meanings by informants--which indicates that while they are both general verbs of being or doing, {ʔiy} is the unmarked form, or describes what is near, if it is compared to {ʔuw}--which, while also a general verb of being or doing, describes a foregrounded, contrasted, topicalized, other, distant, or in some way marked action or existential relationship. In form and suffixation potential, {ʔiy} resembles an indicative stem, while {ʔuw} resembles an imperative stem. Were it not for the potential contrast in meaning (proximal vs. distal), and contrast as commands, they might well be considered as stem-forms of a single copula root.

In comparing these two copulas with the third member of the class of demonstrative copulas--the visual evidential dependent copula {ʔel}, which is not independent, but only appears when preceded by another verb--it is possible to hypothesize that {ʔel} may have been a nominal stem-form of a root *{ʔE ~ ʔO}, at least diachronically. Although it is significantly different in synchronic meaning, it is resemblant enough in form to be relatable, and in its synchronic function tends to describe states, as a nominal stem-form of a copula well might. (The final consonant resembles the stative suffix {el} (233.6) in root derivation. While alternation of /u/ and a front vowel is not morphophonemically synchronic, alternation of /i/ and /e/ occurs synchronically (cf. [E]). The alternation of /u/ and /E/ appears

reconstructable as a morphemic contrast of distal vs. proximal when the pronominal roots are compared--e.g., 340.2 {ʔuk} and {ʔeh}.) Additionally, {ʔel} resembles {ʔiy} and {ʔuw} in never being postposed as are attributive auxiliaries: thus, for all the above reasons, it is classed with the two independent demonstrative copulas.

The independent demonstrative copulas {ʔiy} and {ʔuw} occur as independent verbs that are the main verbs of predications, while {ʔiy} also occurs in auxiliary functions. When they are main verbs of predications, they show various stem-forms as other verbs do, and then translate as general verbs of being or doing. In this independent function, they have indicative stem-forms /ʔiye/ and /ʔuwe/, respectively, that may be followed by auxiliaries, including the copula auxiliaries {ʔiy} and {ʔuw}, just as other main verbs may be followed by these copula auxiliaries. The non-auxiliary functions of {ʔiy} and {ʔuw} as independent general verbs of being and doing are described below, preceding sections 261.1 and 261.2, where their copula auxiliary functions in verb phrases are discussed.

Examples of {ʔiy} and {ʔuw} as main verbs are:

- 1) {ʔiy} functioning as an independent main verb comprising the entire verb phrase, preceded by /ne·l/ the first-person plural exclusive subject pronoun, with the first-person verb suffix {da} (in concord with the pronoun):

/ne·l ʔiyeda/ 'We do/did it (right) now.'

- 2) As independent main verbs in indicative stem-form with directional prefixes:

/ʔel-ʔiye/	'to put in horizontally'
/ken-ʔiye/	'to put in vertically downward'

- 3) As independent main verbs with preceding proximal demonstrative particular aspect /ʔeh/ 'this,' suffixed with first- and second-person inflectional suffixes {da} and {sken}:

/ʔeh ʔiyeda/	'I did this just now.'
/ʔeh ʔisken/	'You did this just now.'

where, in the latter case, the contracted form of the stem, /ʔi/, occurs.

- 4) As independent main verbs in the nominal stem-form with postposed attributive auxiliary {kOy} 'desiderative' and final personal inflectional suffixes {m} 'dubitative' and {da} 'first-person' with preceding independent demonstrative pronouns /ʔewet/ and /ʔeh/ 'this':

/ʔewet ʔis-kuyam/	'Do you want to use this?'
/ʔeh ʔis-kuda/	'I want to do this.'

where the nominal stem-form is /ʔis/.

- 5) In the imperative stem-form /ʔih/:

/ʔihpaq/	'Do it for them!'
/ʔeh ʔih/	'Do this!'
/ʔuku ʔih/	'Do that close by!' (/ʔuku/ 'that')

and with a directional prefix {ʔel} 'in, on,' the reflexive suffix {n}, and the indicative stem-formant {a}:

/ʔuni ʔel-ʔina/	'He put them on (his face).'
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where /ʔih/ → /ʔi/ according to rules of consonant cluster simplification, and /ʔuni/ is the quotative, a sentence connective.

The form {ʔuw} occurs in the indicative stem-form /ʔuwe/ in an adverbial function preceding verb phrases with the meaning 'anyway, just that way' as though it were a fixed

idiomatic expression derived from a verb phrase with other forms deleted in the surface representation. It occurs as an independent main verb in the indicative stem-form as /ʔuwe/ in one instance:

/ʔuwebele's/	'(a weak prohibition)' perhaps from /ʔuwe/ + {bEy} imperfect aspect + /ʔelew/ negative copula + {s} generic aspect (322); cf. {be'di} prohibitive (262.42.1)
/ʔuwe ʔis-biyak/	(3rd-person subject omitted) 'do(es) (it) any old way,' where /ʔis/ is a nominal stem of the independent copula {ʔiy} as an auxiliary, and /-biyak/ is the postposed attributive aspectual auxiliary {bEy} imperfective + {k} completive inflectional suffix of indicative stems (243.24)

The form {ʔuw} occurs rarely in the nominal stem-form /ʔus/ as the included noun object of another verb constituent of a verb phrase, preceding those postposed attributive auxiliaries which require nominal rather than indicative stem-forms as their immediate constituents.

/ʔus-koyu/	'Try to do it!' (/koyu/ is the imperative of the desiderative auxiliary {kOy})
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The nominal stem-forms of preceding auxiliaries, which behave like gerunds, are required by the attributive auxiliaries of possibility {pin}, {lel}, and {top}, and by the desiderative {kOy}, as in the last example above.

But far more typical and frequent is {ʔuw} in its imperative stem-form /ʔuh/ as in the following examples, where it is the independent main verb of the verb phrase:

/ʔuh/	'you do it!'
/ʔuhe•/	'Let's you and I do it!' ({e•} 1st-person plural hortative 241.72)

/ʔuheres/	'being that (indicated) one' (+ {here} passive 241.52 + {s} generic aspect 322)
/ʔuhle•s/	'might do it' ({le} inevitable future 241.61 + {s} generic aspect 322)
/ʔuhida/	'it was said to me' ({here} pas- sive 241.52 + {da} 1st-person 243.21)
/ʔuheresken/	'(I [see] it) was (said) to you' (+ {here} passive + {sken} 2nd- person)
/ʔuni ʔuhe•/	'Let's do it that (quoted) way!' (+ {e•} 1st-person plural hor- tative)
/ʔuhma•/	'that's the way to do it' (causa- tive with adverbial use) (+ {m} causative 241.3 + {a} stem-formant)
/be•di ʔuhmina/	'Don't do that!' ({be•di} prohib- itive + {mina} negative)

The copula auxiliaries {ʔiy} and {ʔuw} are further dis-
cussed below (261.1 and 261.2).

PROXIMAL COPULA AUXILIARY

261.1. The general verb of doing or being, {ʔiy}, commonly is untranslated when it occurs in periphrastic constructions as an auxiliary. Diachronically, it can probably be internally reconstructed as based on a demonstrative root *{ʔE} (cf. 340, 340.2, 345; {ʔe}: /ʔeh/, /ʔew/ 'this'). The indicative stem is /ʔiye/, the bound stem is /ʔi/, to which attributive auxiliaries are suffixed. Examples are:

/tum te•da ʔisuk/	'he blushed' (lit., 'face to be red,' be-perfective) /tum/ 'face' noun phrase + verb phrase /te•da/ 'to be red,' /ʔi/ + /suk/ perfec- tive
/pa•lel hara• ʔisuk/	'two of them went' (lit., 'two, to to go,' be-perfective) /pa•lel/ 'two' noun phrase + verb phrase /hara•/ 'to go' /ʔi/ + /suk/ perfective

/calit su*s ʔiye ʔibi*da/	'I was always the good one.' (lit., 'good-one, always, to be,' be-imperfective, 'self') /calit/ 'good' (nominal stem of {cal} + {t} particular aspect) noun phrase + verb phrase /su*s/ 'always' /ʔiye/ /ʔi/ + /bi*/ imperfective + /da/ 'self'
/pi neto ʔiye ʔibe*/	'That one is mine.' (lit., 'that, mine, to be,' be-imperfective) /pi/ 3rd-person pronoun, /neto/ 1st-person pronoun noun phrase + verb phrase /ʔiye/, /ʔi/ + /be*/ imperfective
/ne*1 ʔiye ʔise*da/	'We (two) did (it).' (lit., 'we-two, to be,' be-perfective 'self') /ne*1/ pronoun noun phrase + verb phrase /ʔiye/, /ʔi/ + /se*/ perfective + /da/ 'self'
/ne*1 ʔiye ʔibi*da/	'We (two) are the very same two.' (lit., 'we-two, to be,' be-imperfective 'self') verb phrase + /ʔiye/ + /ʔi/ + /bi*/ + /da/

When {ʔiy} occurs as an independent copula rather than as an auxiliary--i.e., as a general verb of doing (proximal) or being--it is commonly translated as 'being; using; or doing (nearby).' As an independent verb, it has the forms /ʔiye/ as the indicative, /ʔis/ as the (generic) nominal, and /ʔih/ as the imperative; examples were cited in the preceding section. Additional examples of {ʔiy} as independent copula functioning as main verb are:

/mato kelekele ʔiyeda/	'I used your knife.' (lit., 'your, knife, use-self')
/ʔiye bint ^h e*/	'I hear them doing it.' (lit., 'doing,' imperfective aspect-non-visual sensory evidential)
/nis holowi-kuyar, ʔiye-kirkelesken/	'You were trying to scare me.' (lit., 'me, scared-because-of-wanting,' 'did,' past time-hearsay evidential 'you')

In the last example, the subordinating suffix {r} marks the verb phrase preceding as a subordinate verb phrase (dependent clause); /ʔiye-kirkelesken/ is the independent clause of which /ʔiye/ is the main verb (head), and the postposed auxiliary /-kirkelesken/ is < past time {kir} + {kele} + {sken}.

/ʔeyet-kirkeʔ/ 'I found out he got it.' (presumably < {ʔEy} + {i} + {t})

DISTAL COPULA AUXILIARY

261.2. The general verb of doing (distal) or being, {ʔuw}, only functions as an independent main verb copula and is defective syntactically as well as morphologically, since it never occurs as an auxiliary to another main verb. The only form which may be counted as possibly auxiliary in function by internal reconstruction is the indicative stem-form in its idiomatic use as 'anyway,' a fixed expression, as is the other form based on the indicative stem: /ʔuwebeleʔs/ 'don't, you shouldn't do that' (a weak prohibition). It is probably derived from /ʔuwe/ + /be/ (< /bEy/) (imperfective aspect) + {ʔelew} negative copula, + {s} generic aspect noun theme formant, and literally means 'doing-do not be (in that) state.' The imperative force is from /ʔelew/, the imperative stem-form. The form /ʔuwe/ 'anyway,' 'just that way'--literally, 'being done, doing distally, i.e., that way'--is the only form of {ʔuw} which is not syntactically clearly able to function as an independent copula, as the nominal and imperative forms do. However, it is also

difficult to rule it out as syntactically dependent on the negative preverb in /ʔuwebele·s/, and it is classified with {ʔiy} and {ʔel}, though it is very anomalous.

Diachronically, it can probably be internally reconstructed as based on a demonstrative root *{ʔu} < *{ʔO} 340.2; cf. 331.3 /ʔuku/ 'that.' The copula {ʔuw} has an indicative stem /ʔuwe/, an imperative stem /ʔuh/, and a nominal stem /ʔus/. The indicative is not followed by any verb-stem suffixes. To the imperative stem are suffixed the stem-deriving causative suffix {m} and four imperative stem inflectional suffixes: the passive {here}, the inevitable future {le}, the first-person plural hortative {e·}, and the negative {mina}. As is the case for the copula {ʔiy}, attributive auxiliaries are suffixed, not postposed, to two stem-forms of the copula {ʔuw}. The aspectual auxiliaries are suffixed to the indicative stem, while the modal auxiliary {kOy} is suffixed to the nominal stem. Examples, in addition to those already given (cf. 261), are:

- | | |
|-------------------|--|
| /ʔuheres-to·t/ | 'the one to whom it happened'
(elliptical for the forbidden, wounded, or previously marked or described one) < /ʔuh/ < {ʔuw} + {u} stem-formant + {here} passive + {s} generic aspect + /to·t/ < {to·} disjunctive postclitic + {t} particular aspect |
| /ʔuwe ʔiye ʔibe·/ | 'They did it anyway.' |
| /ʔuwebele·s mi | 'You shouldn't do that.' (/mi/ is a 2nd-person independent subject pronoun) |
| ʔuhmina/ | |

DEPENDENT COPULA
(VISUAL EVIDENTIAL) AUXILIARY

261.3. The third member of the class of demonstrative copulas, {ʔel}, which indicates visual evidence, is syntactically dependent in that it may never be the main verb of a predication and is always dependent on the preceding verb in the verb phrase. It is stative in function and occurs both as the only auxiliary following a main independent verb and as a dependent, suffixed (bound) verb following the three aspectual auxiliaries when they function as location-position-indicating main verbs. In both cases the meaning of the dependent copula {ʔel} is the same, and the variations in stem-forms--/ʔele·/ when a free stem and /ile·/ when a bound suffixed form--while not conforming to the morphophonemic rule of vowel ablaut for [E], are nevertheless clearly relatable variant phonemic representations of the same morpheme.

While it indicates visual evidence, and is frequently so translated, and while informants respond positively in accepting that meaning, the source of the translations seems to be connected to reporting the very most actual states of an existential copula.

The stative dependent copula verb of being, {ʔel}, is not a true copula syntactically, since it is never able to function as the independent main verb of equational verb phrases. But the resemblances and common derivation when it is compared to the independent demonstrative copulas invite this classification, although it is anomalous. It

is never postposed; it is a general verb of being with a demonstrative (deictic) sense: 'See here, it is visibly true and actual'; and it seems to be derived from the same demonstrative root *{ʔE} as is {ʔiy}. Its distribution is almost complementary with the other two nearly complementarily distributed copulas, {ʔiy} and {ʔuw}.

This dependent verb of being, {ʔel}, which marks statements as being known from firsthand (usually visual) observation to be true, is untranslated or may be translated 'I see/saw.' It differs from the independent copulas in that it may be suffixed, and it never occurs as a main verb; and it differs from both the independent copulas and the other attributive auxiliaries in that it has a single indicative stem-form which is only followed by a single suffix. It has the stem allomorph /ʔele*/ except when suffixed to the nominalized stem-form of one of three aspectual auxiliaries: {bEy}, {bOh}, or {suk}, when it has the allomorph /ile*/ (cf. [E]). These appear to be indicative stem-forms, by reason of the quality and length of the second vowel and the fact that only an indicative stem inflectional suffix, the dubitative {m}, may be affixed.

(Diachronically, it seems likely that {ʔel} is to be internally reconstructed as based on the demonstrative root *{ʔE} + *{l} derivational suffix, as are also the related stative root-deriving suffix {el}, discussed in 233.6, and the experiential evidential {ʔel}, discussed in 243.14--all having related meanings and phonemic shapes.)

The visual evidential dependent copula is increasingly employed to report events which are known to be absolutely true, but known about non-visually. Having a headache is now so reported, where it would previously have been reported with the non-visual sensory evidential {nt^here}. (Cf. {da} in its evidential function (243.21), and also the aspectual auxiliary {bEy} the imperfective (262.11); cf. also 244. Evidentials.)

Examples of {ʔel} suffixed to aspectual verbs when they are independent copulas in syntactic function and have their position-location meanings are:

/bo*sile/	'(I saw) them sitting there'
/be*sile*/	'(I saw) them lying there'
/su*sile*/	'to be standing (visibly)
/qewel-to* be*sile*/	'(I saw that) there was a house there'

The previous examples show the allomorph (bound) /ile*/, while the following examples show {ʔel} with other verbs as the main verbs (head constituents) of verb phrases:

/ca*wa-be*sile*/	'(I see/saw them) singing; singing they are/were'
/ca*wa-be*sile*m/	'I guess I saw them singing'
/ba*-betan ca*wa-be*sile*m/	'while eating he was singing (said with doubt)'
/ca*wa ʔele*/	'(I saw) them sing right now, they just now sang'
/bukul ʔol-poyo*ka ʔele*/	'(I see/visibly) the dust is rising'
/hari*1 wira ʔele*/	'(I see they're) going to take 'em'
/nor-hara* ʔele*m/	'someone is going (visibly) south, I guess'
/nor-hara* ʔele*/	'someone is going south (visibly)'
/memin ʔalu*qa ʔele*/	'there is/was a reflection in the water'
/la*qum lo*ma ʔele* bohemin soni*n/	'I saw them kill a rattlesnake with a big rock (recently/right now/just now)'

ATTRIBUTIVE AUXILIARIES

262. The four main types of attributive auxiliaries are aspectual, modal, temporal, and auxiliaries of possibility. They are distinguished from each other on the basis of the coincidence of syntactic function, morphological structure, phonological shape, and semantic range. A subtype, attributive auxiliaries of possibility, which occur as preverbs in absolutely initial position preceding the head constituent of the verb-string, and which express non-possibility-- {?elew} the negative, and {be·di} the prohibitive--are unique in many ways syntactically and morphologically, and are the most aberrant auxiliaries.

While based on roots from which main verbs are also formed, attributive auxiliaries, except the three aspectuals as syntactic copulas, are themselves never main verbs, but are always syntactically unilaterally dependent on main verbs--i.e., they are syntactically attributive to independent verbs.

ASPECTUAL ATTRIBUTIVES

262.1. The aspectual auxiliaries are distinguished from the other attributive auxiliaries in that they can be followed by the personal subject suffixes {da} and {sken} and can occur as imperatives. The aspectuals are divided into two subclasses: one with three members which may be copulas and can indicate position or location,* the other

*Compare Spanish ser and estar, aspectual copulas derived historically from roots meaning 'sit' and 'stand,' respectively.

with two members based on roots indicating motion toward or away from the speaker. (See 246. Noun Aspect for parallelism of aspect to {bEy} and {bOh}.)

The three aspectual copula auxiliaries of location-position which characterize non-future predications-- {bEy} the imperfective, {bOh} the durative, and {suk} the perfective--are derived synchronically from independent main verbs meaning 'to be in a lying position,' 'to be in a sitting position,' and 'to be in a standing position,' respectively. As copulas, they occur without all the morphophonemic contractions characteristic of the other attributive auxiliaries, translate with forms of the verb 'be,' and have existential meanings. They are like the independent demonstrative copula auxiliaries {ʔiy}, {ʔuw}, and {ʔel} in regard to being copulas with both actual and existential meanings, and in the way they have a tripartite symmetry, as though they were the three stem-forms of a single original verb (indicative {bEy}, imperative {bOh}, and nominal {suk}); but they are postposed with hyphen juncture after main verbs exactly like the other attributive auxiliaries, and, as attributives, have semantic ranges more like the attributives of mode, which seem to be "subjunctive (irrealis)" versions of the aspectual copulas and are similarly based on a single historical root. They thus lie along a continuum from most independent, copula-like, and variant in stem-forms, to least copula-like, monosyllabic, and with no stem variations--i.e., in the order in which the several auxiliaries are in fact discussed in this

presentation. Their classification is thus not clear-cut, as they bear resemblances to both copulas and attributive auxiliaries. That they may be suffixed with no intervening hyphen juncture when they are attributive in function (syntactically dependent on another verb which is the head of the verb phrase), and may follow another copula, classifies them as more like the attributive auxiliaries.

The second subclass of aspectual auxiliaries, {wEr} future intentional and {har} progressive, are only attributive in function and are never copulas, although they are clearly derivable from independent verbs of motion. They characterize future, as yet unrealized predications, and so resemble the modal attributive auxiliaries in meaning. But the future aspectual auxiliaries indicate the real as opposed to the irrealis meanings of potentiality or preference of the modals (cf. {wEr} future intentional with the inevitable future suffix {le} 241.61).

The three members of the first subclass, {bEy}, {bOh}, and {suk}, also share a morphophonemic distinction. The disyllabic indicative stem-forms all have a contracted monosyllabic alternant of the shape CV* before the first-person subject suffix {da}. If the medial consonant is a semivowel, the vowel of the contracted monosyllabic alternant is the same in quality as that of the vowel of the first syllable of the disyllabic stem-form. If the medial consonant is not a semivowel, the vowel of the contracted monosyllabic stem alternant is identical in quality with that of the vowel in the second syllable of the disyllabic

alternant. In formulaic terms: $C_1V_1YV_2 \rightarrow C_1V_1^*$, but $C_1V_1C^-YV_2 \rightarrow C_1V_2^*$. {bEy} \rightarrow /bi·da/, {bOh} \rightarrow /ba·da/, {suk} \rightarrow /se·da/, < /biya/, */buha/, /se·ya/, respectively.

The imperative and nominal stems of {bEy} and {bOh} also seem to be the result of a similar contraction. When followed by further suffixation, they have the shape CV*, the vowel being of that quality to be expected from the operation of the morphophonemic rules for [E] and [O] in an uncontracted imperative stem-form of the shape $C_1V_1C_2u$ or an uncontracted nominal stem-form of the shape $C_1V_1C_2i$. In formulaic terms: $C_1V_1C_2V_2 \rightarrow C_1V_1^*$.

Thus for imperative stems:

{bEy} + {u} \rightarrow [bEyu] \rightarrow */beyu/ \rightarrow /be·s/
 {bOh} + {u} \rightarrow [bOhu] \rightarrow */bohu/ \rightarrow /bo·s/

although it is also possible that the allomorph of {u} here is /h/, as for {?iy} and {?uw}.

For nominal stems:

{bEy} + {i} + {s} \rightarrow [bEysis] \rightarrow */beyis/ \rightarrow /be·s/
 {bOh} + {i} + {s} \rightarrow [bOhis] \rightarrow */bohis/ \rightarrow /bo·s/

The forms {bEy} and {bOh} have additional imperative stem-forms used only for commands.

In addition, these two aspectual attributives formally distinguish the two polarities in the range of meaning of the dubitative inflectional suffix {m}. This suffix, which is affixed to indicative stem-forms of verbs, is affixed to both the indicative stem and the imperative stem-forms of the aspectual attributive auxiliaries {bEy} and {bOh} with a concomitant semantic distinction. When the dubitative is suffixed to indicative stem-forms it only translates as

a second-person weak interrogative, while when suffixed to imperative stem-forms it translates as a doubtful or probable statement.

IMPERFECTIVE
(VISUAL EVIDENTIAL) ASPECT

262.11. The imperfective aspect attributive auxiliary {bEy} characteristically participates in predications which are generally, reliably, and continuingly true. It is commonly translated by a progressive "tense" in English. Synchronically, it appears to be internally reconstructed as based on the root {bEy} 'to be in a lying position,' from which independent main verbs are also formed. The indicative stem-form of the imperfective auxiliary has the contracted shape /bi*/ before evidential suffixes, and the shape /biya/ elsewhere. The imperative stem-form has the contracted shape /be/ when it functions as a command and before {i*} interrogative, and the shape /be*/ elsewhere. The nominal stem-form is /be*s/. When attributive, all stem-forms only occur suffixed to the copula roots {?iy} and {?uw}, or postposed to other main verbs. The indicative stem inflectional suffixes {nt^here}, {kele}, and {re*} are suffixed to the contracted allomorph of the indicative stem /bi/, while the indicative stem inflectional suffixes {?el}, {m}, and {k} are suffixed to /biya/, and the suffix {da} is, of course, affixed to the contracted allomorph /bi*/ of the indicative stem described in the previous section and tabulated in III. 324. Examples of {bEy} in various syntactic functions follow:

With independent main verbs:

/ba·-be·ʔan ɕa·wa- besile·m/	'he was singing while eating'
/suke-bire·/	'I guess they are (standing)'
/biya-bire·/	'I guess they are (lying)' (main verb is {bEy})
/wira-bire·/	'they must be coming'
/hara·-bire·/	'they must be going'
/wirwira-bint ^h ik/	'I heard them a-coming some time ago'

With copulas:

/pi neto ʔiye ʔibe·/	'that is mine'
/ba· ʔibi·da/	'I'm eating'
/ba· ʔibe·sken/	'you're eating'
/ba· ʔibe·(m)/	'they're eating' (said doubtfully)

As a copula:

/pi po·m be·le-bo·m/	'that ground will always be (there)' (with locational value, i.e., lying there)
/calit be·le- bo·sken/	'you will always be good' (a good one)
/calit be·le-ba·da/	'I'll always be good' (a good one)
/calit biya ʔikilak ni/	'I used to be good' (a good one)

With copulas:

/calit su·s ʔiye ʔibi·da/	'I was always good' (a good one)
/calit ʔiye ʔibe·/	'he is always good' (a good one)
/ho·n calit ʔiye ʔibe·/	'he always was good' (a good one)

As a verb of position-location:

/bewi·l biyak/	'they two are always sleeping together' (i.e., in a lying position)
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With an independent main verb:

/çá·wa-be·sile·/	'I saw him singing'
/çá·wa ʔibe·wi·/	'Are they singing?'
/çá·wa ʔibiyam/	'Are you singing?'
/çá·wa ʔibe·m/	'they are singing (doubtfully)'

See also examples cited under {ʔel} in 261.3.

The imperfective aspect auxiliary {bEy} is complementary in function to {da} the first-person suffix of selfness (243.21), and to the dependent copula {ʔel} (261.3) in indicating reliability and truth of predications. The forms /bi·da/ first-person, /be·sken/ second-person, and /be·/ third-person or /be·m/ dubitative third-person, function as a set to indicate visual evidence of actions or events, just as {ʔel} indicates visual evidence of states unmarked for person distinctions. In the following examples originally collected by Dorothy Lee and verified by (other) native speakers later, the contrast with evidential suffixes already described (cf. 243) can be noted:

/kupake·/	'he is chopping wood (I know from hearsay)'
/kupant ^h e·/	'he is chopping wood (if I hear him or if a chip flies off and hits me)'
/kupare·/	'he is chopping wood (I have gone to his cabin, find him absent and his axe is gone)'
/kupaʔel/	'he is chopping wood' (if I know that he has a job chopping wood every day at this hour, that he is a dependable employee, and, perhaps, that he is not in his cabin'; /ʔel/ above is the experiential evidential (243.14), not the copula {ʔel} (261.3))
vs.	
/kupa-be·/	'he is chopping wood' (if I see or have seen him)

Note also sentences like the following:

- /hestit ?iyebe•wi?/ 'What sort of person is she?'
 (which assumes an eyewitness
 report)
- vs.
- /wacant^heri•?/ 'Did she cry?' (lit., 'Did you hear
 her cry?' with the non-visual sen-
 sory evidential {nt^here})

DURATIVE ASPECT

262.12. The durative aspect attributive auxiliary {bOh} emphasizes the duration or extension in time of the action expressed by the predication. It commonly translates in English as 'keep on doing . . . , always . . . , sometimes . . . , remain . . . ,' or 'still' Synchronically, it appears to be derived from the root {bOh} 'to be in a sitting position, to remain, to reside,' from which main verbs are formed.

Unlike {bEy}, the durative auxiliary has only contracted stem-forms. The indicative stem has the shape /ba•/; the imperative stem has the shape /boh/ when functioning as a command, but /bo•/ elsewhere; and the nominal stem has the shape /bo•s/. All stem-forms only occur postposed. The indicative stem inflectional suffixes {da}, {k}, and {m} are affixed to the indicative stem, the suffix {m} may also be affixed to the imperative stem, as is the suffix {sken}. The indicative stem evidential suffixes and the imperative stem modal suffixes are never affixed to the durative {bOh}; thus it is in nearly complementary distribution with the imperfective auxiliary {bEy} and parallel in meaning to generic aspect of nouns. Examples are:

/pi po·m be·le-bo·m/	'that ground will always be there'
/calit be·le-bo·sken/	'you will always be good' (a good one)
/calit be·le-ba·da/	'I'll always be good' (a good one, i.e., a good person: /t/ suffix of particular aspect of nouns on the nominal stem of the verb root {cal} 'good')
/calit sukle-bo·m/	'he'll always be a good person' (probably with doubt)
/ʔelewle-bo·m he·sin calumina/	'he never will be good' (/ʔelew/ negative preverb, /le/ inevitable future)
/cala· kenehale-bo·m/	'he might get good'
/pur bo·t haras-kuda/	'if they were there I'd go' (/bo·t/ is the particular aspect form of the generic nominal stem /bo·s/)
/miya ma·n minele-bo·sken/	'you too shall die, be dead' (/mine/ is the imperative stem of /mina/ 'to be dead, not exist')
/be·le-bo·m/	'it shall remain'
/mutle-bo·sken/	'you shall hear it, you can't help it' (< /mut/ 'hear')
/ca·wa-ba·m/	'Do you sometimes sing?'
/ni ca·wa-ba·k/	'I sing once in a while, sometimes I sing' (/ni/ 'I,' /ca·wa/ 'sing,' /ba·/ durative, /k/ completive)
/ʔuni ni ʔiye-ba·k/	'that's the way I do it'

PERFECTIVE ASPECT

262.13. The perfective aspect attributive auxiliary {suk} emphasizes the punctual, completed, non-durative nature of the predication. It commonly translates in English as simple past. Synchronically, it is derived from the root {suk} 'to be in a standing position,' from which main verbs are derived. The indicative stem has the shape /se·ya/ when followed by the dubitative {m}, and the contracted shape /se·/ elsewhere; the imperative stem has the

shape /su•/ when followed by the second-person subject suffix {sken}, and the shape /suk/ elsewhere; the nominal stem has the shape /su•s/ which, like /ʔuwe/ 'anyway,' is an idiom syntactically adverbial: 'always.' The indicative stem-form /se/ and the imperative stem allomorph /su•/ only occur suffixed to the copula root {ʔi} and elsewhere postposed, while the nominal stem /su•s/ only occurs postposed, and is translated as 'always.' The inflectional suffixes {da} and {m} are affixed to the indicative stem allomorph /se•/; the dubitative suffix {m} is also suffixed to the indicative stem allomorph /se•ya/, and the imperative stem inflectional suffixes {le} and {i•} are affixed to the imperative stem allomorph /suk/. It is parallel to particular aspect of nouns in meaning, perhaps from *{sV} classifier, cf. 340.2 Deictic Roots, + {k} completive suffix 243.24.

Examples are:

/calit suk-le-bo•m/	'he'll always be good' (a good one)
/ca•wa ʔise•m/	'Did you sing?'
/ba• ʔise•yam/	'Did you eat?'
/ba• ʔise•/	'they ate'
/ba• ʔisuki•/	'Did they eat?'
/ba•s-kuda ʔise•da/	'I wanted to eat'
/ba•-be•tan ca•wa ʔisuk/	'he was singing while eating (in past)' (i.e., when he ate, he was singing)
/ʔo•ma ʔisuk ʔa•qum bohemin soni•n/	'she killed a rattlesnake with a big rock recently'
/calit-su•s ʔiye ʔibi•da/	'I was always good' (a good one)

FUTURE ASPECTUALS

262.14. The two members of the second subclass of aspectual auxiliaries, {wEr}, and {har}, are never suffixed to the copula root {ʔi}. They are derived from verbs of motion and describe future events and continuing events.

FUTURE INTENTIONAL

262.14.1. The future intentional aspect attributive auxiliary {wEr} emphasizes the intentional or volitional nature of an act about to take place. It commonly translates as 'to be about to . . . , going to' Synchronically, it is derived from a root {wEr} 'to come, to move toward the speaker.' Like the durative and imperfective aspect auxiliaries, {wEr} has a contracted, monosyllabic alternant of the indicative stem, /wi/, which occurs before the suffixes {da} and {nt^here}, and a disyllabic alternant /wira/, which occurs elsewhere. The imperative stem-form has the shape /war/ as a command, and the shape /wer/ before {mina}, and the shape /were/ elsewhere, while the nominal stem-form has the shape /weres/. Unlike other verbs in the language, except {har} 'go,' this command form, /war/, may be morphologically marked for number. The unmarked (singular) imperative is /war/, the dual /walel/, and the plural /wata•rum/, from the independent verb {wEr} 'come!' The associated suffixes all appear with the pronouns. All stem-forms occur postposed. Examples are:

/hari•l-wida/	'I am about to take them'
/hari•l-weresken/	'I see you're about to take them'
/hari•l-weres/	'they're about to take them; the one who's about to take them'

/hari·l-wira ʔele·/	'I see they're going to take them'
/hari·l-wint ^{he} ·/	'they just keep on coming'
/hari·l-wint ^{hik} /	'they were coming some time ago (maybe they didn't arrive)'

PROGRESSIVE

262.14.2. The progressive aspect attributive auxiliary {har}, of rare occurrence, emphasizes the progressive and often future nature of an act. It translates as 'while . . . -ing,' 'getting . . . ,' and 'during' Synchronically, it is derived from a root {har} 'to move (go) away from the speaker.' Only an indicative stem-form /hara·/ without further suffixation and a nominal stem-form /haras/ with {s}, the generic aspect suffix, are attested in this corpus. Imperatives as commands are /har/ unmarked (singular), /halel/ dual, /hata·rum/ plural, are < {har} the independent verb and translate 'go!' Examples are:

/wira-hara·/	'while, during the course of his coming'
/kiye·-haras biyak/	'he's getting old'
/ciri·ka-haras biyak/	'he's getting skinny'
/ni ma·n qati· kiye·-hara· bint ^{hida} /	'as for me, I go on growing older'

MODAL ATTRIBUTIVES

262.2. The modal auxiliaries are distinguished from the other attributive auxiliaries by their inability to be followed by the second-person suffix {sken}. There are three modal auxiliaries: the desiderative, the conditional, and the optative, which form two subclasses: a modal of preference, the desiderative {kOy}; and modals of potentiality

the conditional {kil} and the optative {keneh}. All three are similar in phonemic form and may be historically derived from a single reconstructed root with vowel ablaut, analogous to the copula aspectual auxiliaries and the independent demonstrative copulas; i.e.:

(locational) demonstrative copulas from a root
 $*\{?E\} \sim *\{?O\}$

aspectual auxiliaries from a root
 $*\{bE\} \sim *\{bO\}$

modal auxiliaries from a root
 $*\{kE\} \sim *\{kO\}$ (cf. 340.2)

Moreover, the subjunctive semantics of the modal auxiliaries puts them in contrast with the copulas and aspectuals which describe the actual or real. The three modals describe preference or potentiality.

The conditional and optative mode attributive auxiliaries differ from the desiderative. They have no imperatives, and they are defective, being marked for only a single stem-form, and do not occur postposed. The conditional {kil} and the optative {keneh} do not show various stem-forms as {kOy} does, but resemble the attributive auxiliaries of time and possibility, described further below, in having invariant stem-forms. The desiderative {kOy} occurs with nominal forms preceding it (indicating its relation to {kōy} 'crave, ache, hurt, be sick'), as though the nominals were gerund objects of the auxiliary included in the verb phrase. But the optative and conditional follow indicative rather than nominal stem-forms of verbs, as do the auxiliaries already described and like the temporal auxiliary. The desideratives, in co-occurring with nominal forms,

resemble the three attributives of possibility which also co-occur with nominal stems preceding. The optative and conditional may co-occur with each other: /le·nda cala·keneha kila[?]el./ 'He might have been good yesterday.' Both {kil} and {keneh} resemble copulas in not occurring postposed, but as free forms, while the desiderative {kOy} occurs postposed with hyphen juncture (as though frozen in its compounded relation to the noun object <{koy} 'crave, ache, hurt, be sick').

DESIDERATIVE

262.21. The desiderative mode attributive auxiliary {kOy} indicates intention, preference, or desire. It is commonly translated 'want' or 'try.' Diachronically, it is derived from the root {koy} 'to ache, to be sick, to hurt.' Like the aspectual auxiliaries, it has a contracted allomorph of the indicative stem before {da}, /ku/ (which follows the same morphophonemic pattern previously described), and the indicative stem allomorph /kuya/ elsewhere. The imperative stem-form is /koyu/. The inflectional suffix {m} dubitative is affixed to the indicative stem allomorph /kuya/, while the inflectional suffix {da} self/first-person is affixed to the contracted form /ku/. All stems are postposed to nominal stems of main verbs or copulas. Examples are:

/ [?] ewet [?] is-kuyam/	'Do you want to use this?'
/ [?] eh [?] is-kuda/	'I want to do this'
/ba·s-kuda/	'I want to eat'
/ba·s-kuya	
[?] ise·da/	'I wanted to eat'

/ʔoqci-kuda/	'I feel nauseated, I want to vomit, I will vomit'
/ʔus-koyu/	'Try to do it!'
/pur bo•t haras-kuda/	'if they were there, I'd go' (i.e., 'maybe I'd go if they were there')

The last example shows the relation to the optative

{kE} ~ {kO} (cf. 340.2).

CONDITIONAL

262.22. The conditional mode attributive auxiliary {kil} frequently translates as 'might, if . . . , when'

It may be diachronically related to a number of other morphemes of similar shape: the warning inflectional suffix {ken}, the optative auxiliary {keneh} (< *{kEn} (340.2) + noun stem-form {i} + {h} stative); the hearsay evidential {kele}; the non-possessed noun (optative) {ke} (331.2); translated as 'maybe' with the shape /ken/ in the generic aspect form. All of these would appear to be derived from a root *{kE} with various derivational suffixes (cf. {kele} 243.12. and 340.2. Deictic Roots).

The stem of the conditional auxiliary has a contracted shape /ki/ when followed by the first-person subject suffix {da}, and the shape /kila/ elsewhere. These are probably two allomorphs of the indicative stem, since they only occur with the indicative stem inflectional suffixes {kele}, {re•}, {ʔel}, {k}, and {da}. When the conditional auxiliary is followed by the completive suffix {k}, it is obligatorily suffixed itself to the copula root {ʔiy}, thus conforming to attributive auxiliary patterns of syntactic distribution.

For example:

/le·nda cala·
keneha kilaʔel/ 'He might have been good yesterday'

As /kila/ followed by /ke·/, hearsay evidential, as in the next example below, it may be the origin for the evidential allomorph /kele/ (cf. {kele} 243.12, the hearsay evidential, and 340.2. Deictic Roots).

/ʔuni ʔisto·
kilake·/ 'it was said just like that, it was supposed to have been said just like that'

/bula kila mi
koyule·s/ 'if you drank it you'd get sick' (/koyule·s/ noun derived from {koy} 'be sick')

/wirwira kila/
'when they all get here' (should they get here)

/hari·l kida/
'I might take them/him/her; I could take them/him/her'

/ba· kilaʔel/
'they must have eaten'
'I heard they took them'
'once upon a time . . . ' (lit., 'I heard it may have/supposed to have been transformed that')

/ʔuni kilake·/
'that's the way it is supposed to have been said'

/ba· kila
kuyaʔise·da/
'perhaps (because) of eating I got sick'

/calit biya
ʔikilak ni/
'I used to be good' (a good one)

OPTATIVE

262.23. The optative mode attributive auxiliary {keneh} commonly translates as 'might' or 'may.' It may be < {ke} optative (331.2), diachronically related to one or all of a number of morphemes with similar shapes listed under the discussion of the conditional {kil} (262.22) and Deictic Roots (340.2). The optative {keneh} has a single stem-form

/keneha/ which may be an imperative stem-form, since it is only followed by a single imperative stem inflectional suffix, the inevitable future {le}. Examples are:

/cala• kenehale-bo•m/	'(he) might get good'
/le•nda cala• keneha kila?el/	'(he) might have been good yesterday'
/hara• kenehale•s/	'(they) might go'
/hara• kenehale/	'What do you say we might all go?/ we'll all go'
/?uni nis keneha yecule•s/	'(they) could/might name me'
/?uni kenehale•s/	'it could be that way'
/?uni kenehale•sken/	'you might do it that way, you could if you wanted to'
/ca•wa kenehale•s/	'(they) might sing'
/hari•l kenehale•s/	'you could/must have taken them'

TEMPORAL ATTRIBUTIVE

262.3. The single temporal attributive auxiliary {kir}, derived from {kEr} 'finish,' is distinguished from the other attributive auxiliaries by its inability to occur unsuffixed, or with the personal suffixes {da} and {sken} directly suffixed to its stem-form, or as a command, or to be suffixed to the copula root {?iy}. The temporal auxiliary {kir} marks the past tense, and commonly translates as the simple past in English. It is followed by only three inflectional suffixes: the evidentials {nt^here}, {kele}, and {re•}. It has the shape /ki/ when followed by the evidential suffix {nt^here}, and the shape /kir/ when followed by the other suffixes. These seem to be allomorphs of an indicative stem, since all the suffixes which may be affixed to it are indicative stem inflectional suffixes. It occurs postposed to main verbs (cf. {k} the completive suffix, 243.24). Examples are:

/ko·m neto ba·s ba·-kire·m/	'They must have eaten up all my food' (/m/ dubitative)
/wuha· ?imit ?uyu·la-kirke·/ /wirwira-kint ^{he} ·/ /wirwira-kint ^{hik} /	'The milk became sour' 'They came (I heard them)' 'They came some time ago (first- hand knowledge)' (/k/ comple- tive)
/ca·wa-kire·/ /ca·wa-kint ^{he} ·m/	'They must have sung' (/re·/ inference) 'They sang, I guess, I heard about it' (/m/ dubitative)
/xal qolin ti·n-kint ^{he} ·/	'They spoke a different language' (/nt ^{he} ·/ non-visual sensory evidence)

ATTRIBUTIVES OF POSSIBILITY

262.4. The attributive auxiliaries of possibility, distinguished from the other auxiliaries by the fact that they are always postposed to nominal stem-forms of verbs (i.e., it is likely that historically they were objects of independent verbs), only occur in a single stem-form without allomorphy, never occur with the second-person subject suffix {sken}, have no command form, and are never suffixed to the copula root {?iy}.

POTENTIALITY AND CUSTOM

262.41. The three attributive auxiliary verbs of ability, i.e., potentiality and custom, are distinguished from the prohibitive and the negative preverbs, i.e., non-possibility, by their semantics and their syntactic positions. Only the negative and the prohibitive may occur as preverbs in absolutely initial position preceding head constituents of the verb string.

INABILITY

262.41.1. The attributive auxiliary of inability {pín} indicates inability and commonly translates as 'to be unable, to have none,' or 'to lack.' It has a single (indicative) stem-form /pína·/, to which may be suffixed only the first-person subject suffix {da}. It is derived from {pé} 'without' + {n} reflexive. Examples are:

/ca·wule·s-pína·da/	'I am unable to sing'
/t ^h ewle·s-pína·da/	'I am unable to fly'
/bo·s-pína· pe·l/	'They two are homeless'
/be·le·s-pína·/	'I can't stay overnight'
/hurle·s-pína·/	'I cannot sew'
/ca·wi-pína·da/	'I have nothing to sing, I have no song'

ABILITY

262.41.2. The attributive auxiliary of possibility {lel} indicates power and ability and commonly translates as 'can, so that I can' It has a single stem-form (nominal) /leli/, to which is suffixed only the particular aspect suffix {t}. It is derived from {lel} 'to make or transform' and the nominal stem-formant {i}. Examples are:

/si·wi caluma ^l itipaqat net haras-leli/	'Fix me out writing so that I can go (write me a note so that I will be able to go)'
/conos-leli/ /ni haras-lelit be·le·s/	'in order to dance' 'I ought to go, might be able to go'
/hestule·s ni haras- lelit be·mina/ /net ca·wi-leli be·le·s/	'I wonder if I'll be able to go?' 'I might be able to sing'

USITATIVE

262.41.3 The attributive auxiliary of possibility {top}, the usitative, indicates customary predications, and is commonly translated as 'used to,' 'used for.' It has a single stem-form (nominal) /topi/ to which is suffixed only the nominalizing particular aspect suffix {t}. It may be derived from {top} 'to learn how, get used to.' Examples are:

/ʔo·mi-topi/	'used to killing/murdering'
/pi kenʔa·s-topi be·m/	'that's a chair' (lit., 'that is used for sitting')
/be·s-topi/	'bed' (lit., nominalized form of 'to lie down--usually used for lying down on')

PREVERBS OF NON-POSSIBILITY

262.42. Two preverbs, the prohibitive /be·di/ and the negative /ʔelew/, are distinguished on the basis of their syntactic patterns. Morphologically, they seem to be subtypes of auxiliaries, /be·di/ being possibly reconstructed as the contracted imperative stem-form of the imperfective aspect attributive auxiliary {bEy}, perhaps plus the privative *{w} and certainly with the hortative suffix {di}; and /ʔelew/ possibly being a derived stem-form of the visual evidential stative copula {ʔel} plus the privative suffix *{w}.

While /be·di/ appears only in this form, /ʔelew/ has two stem-forms to which are affixed the inflectional suffixes {da}, {m}, {s}, and {here}. The indicative stem has two allomorphic shapes: /ʔelewa/ before the dubitative {m} and

/ʔelew/ elsewhere. The imperative-nominal stem has the contracted shape /ʔele's/.

PROHIBITIVE

262.42.1. The preverb of non-possibility {be•di}, the prohibitive, only functions as a prohibitive when it co-occurs with the suffix {mina}, which is its typical privilege of occurrence. It may, however, rarely occur without {mina} (perhaps as a "poetic" form), and then functions as an exhortation; one such example is provided below.

/be•di hu•mum ba•mina/	'Don't eat any fat!'
/be•di ʔuhmina/	'Don't do that!'
/be•di warmina/	'Don't go!'

As an exhortation:

/ʔewin be•di po•/	'Would that he were here now!'
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NEGATIVE

262.42.2. The preverb of non-possibility {ʔelew}, the negative, like {be•di}, the prohibitive, occurs almost exclusively with {mina}. Without {mina} it is either (1) an exclamation 'no,' or the adverbial 'never,' and may occur alone as an entire utterance parallel to /ho•/ 'yes'; or (2) an independent verb, a negative copula, which denies existence or equation. In the latter case, when not syntactically dependent as an auxiliary but when occurring as the main (head) verb of a predication, it shows the syntactic characteristics of non-auxiliary independent verbs.

Examples of the non-auxiliary function are:

/ʔelewʔel/	'not sure'
/ʔelew hadi po• mi/	'I wish you'd die already now'
/ʔelew-haras/	'the deceased'
/ʔelew-war/	'Don't venture! Don't ever again!'
/ʔelewma•da/	'the person I was taking care of died'
/ʔelemina/	'don't demur; don't say no; certainly'

With numerals, the nominalized form with the generic suffix {s} means 'minus' as in:

/kete•t ʔele•s/	'nine' (i.e., one lacking; minus one)
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Or, in full form:

/tiqeles kete•m ʔele•s/	'nine' (lit., ten-one-minus, where /ʔele•s/ is, lit., 'being in the state of not being')
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Examples of /ʔelew/ as a negative preverb auxiliary

are:

/ʔelewda haras- koyumina/	'I don't want to go'
/ʔelewan haras- koyumina/	'you don't want to go'
/ʔelew-be•m haras- koyumina/	'they don't want to go'
/ʔele•s-biyak harmina/	'he never does go' (describes a state)
/ʔelew-be•sken hara•-wermina/	'you were not supposed to go' (lit., you-imperfective-not, to go-future-not) < {ʔelew}-{bEy} {sken} {har} {a}-{wEr} {mina}
/ʔelewle-bo•m he•sin calumina/	'he never will be good'
/ʔelewhetan harma•s- koyumina, hara• ʔisuk/	'he went away in spite of me' (suffixed with {here}, passive and {tan} (243.26) contradictory simultaneity) (lit., nevertheless-not, go-causative-state, desiderative-not; to go, thus did-perfective)

<{?elew} {here} {t'an} {har}
 {m} {a} {s}-{kOy} {u} {mina},
 {har} {a} {?iy} {suk}

SUBSTANTIVES

300. Substantives as a class are sharply distinguished from verbs (see the final paragraphs of section 100) by the mutually exclusive sets of suffixes with which each class may occur. Substantives are marked for aspect and case, and the subclass of pronouns is also marked for number and person. Internal structural differences divide substantives into two types depending on their derivational sources: those formed directly from roots (e.g., pronouns, non-possessed nouns, inalienably possessed kinship terms, and a small number of other nouns), and those based on forms of complex derivation from radicals and stems (i.e., most nouns).

Inflectional differences further subdivide substantives into two classes: noun and pronoun. Pronouns, a closed class, may be distinguished by the five roots on which they are based: their three numbers (singular, dual, and plural); their occurrence with case suffixes distinguishing possessive from instrumental functions, and a suffix marking plural humans, {ba}; their different semantics (e.g., person); and resemblance to verbs (their occurrence with the reciprocal suffix and their potential for derivation into verbs).

Nouns are based on a wide variety of roots; are an open class; may show number (singular and plural), or classification, in rare forms; do not distinguish possessive from

instrumental functions formally, but mark both functions with a single case suffix (genitive); and occur with derivational prefixes (cf. 330 {^ʔcan} and {ye}) and postclitics (cf. 331.1 {to^ʔ}, {ʔila}, etc.).

Nouns may be further subclassified into those which may not be possessed (non-possessed nouns) and those which occur with possessive pronouns. The latter, possessed nouns, include both inalienably possessed kinship terms and alienably possessed nouns, which are the most numerous of all nouns. The pronouns may be subclassified as true pronouns (first- and second-person), and third-person pronouns, ({pi} and {ʔe}), which are based on demonstrative roots. All these subtypes of substantives differ in inflectional potential from verbs and sentence connectives; and, except for alienably possessed nouns, they also differ in the roots on which they are based. Alienably possessed nouns are based on roots which also serve to form verbs.

The basic case system for substantives includes an unmarked subject case, an object case {um}, a genitive case {un} (with both possessive and instrumental syntactic functions), and a locative case {in}. The first-, second-, and third-person pronominal roots, {ni}, {mi}, and {pi}, have an additional case distinction in their singular number forms. In place of a single genitive case, they distinguish an instrumental case {r} from a possessive case {t}. While the kinship terms are like the nouns in their system of case markers, the allomorph of the genitive case suffix has the shape /r/ (i.e., resembling the instrumental case of

pronouns). For noun-themes which terminate in long vowels, the surface phonemic contrast between the genitive {un} and locative {in} cases of nouns is neutralized, since the appropriate allomorphs are /n/ after vowels and /•n/ after short vowels, respectively.

Among the five pronouns, only the first-person exclusive {ni}, the second-person {mi}, and the third-person {pi} discriminate possessive and instrumental cases in their singular forms, while the first-person inclusive {pe} and the third-person proximal {ʔe} do not, but conform to the genitive case pattern of other substantives. However, the proximal {ʔe} in the singular number shows an allomorph of the genitive case {un} with the shape /r/--i.e., the same phonemic form as the instrumental case (cf. kinship terms above).

305. CHART OF NOUN POSITION-CLASSES

Derivational Prefixes (330)	Stem Position (310)	Thematic Aspect Suffixes (320)	Nominal Inflectional Suffixes: Case (325)	Post-clitics (331.1)
{can} (330) 'half; one side'	root or radical or stem alienably possessed nouns (320.2)	{t} particular aspect (320.1) {s} generic aspect (320.2)	∅ subject case (325) {um} (325.1) object {un} (325.2) genitive {in} (325.3) locative	{to•} {ʔila} {ʔisto•} etc.
possessive pronouns vocative {ye}	inalienably possessed nouns (320.3)		{r} (325.4) instrumental {t} (325.5) possessive	

NOUNS

310. The sequences of morphemes to which the nominal inflectional suffixes are added constitute the noun-theme. The noun-theme consists of two elements: an optionally final position-class of thematic aspect suffixes and a stem. The stem position may be filled by a verb-stem--most frequently the nominal stem--a radical, or a root. Like verbs, nouns are divided into classes, depending on the number of themes they show and the allomorphy of each thematic aspect suffix. The 18 classes of nouns are charted below (followed by examples of each class) at the end of the next section (311).

The two thematic-aspect suffixes which derive noun-themes from stems are the generic, formed with {s}, and the particular, formed with {t}. In a general way, the aspect suffixes may now correlate with number, to a degree (especially from the point of view of English categories), but it is more typically animateness and integrity of an individual, and not the category of number, which is signaled by the aspect suffixes: traditionally, the generic category is associated with plurality, inanimateness, a mass of parts or individuals; while the particular is specific in force, indicating singularity, animateness, personification, or individuation. The two thematic-aspect suffixes are noun-formants, which derive nouns from non-substantives and prepare nouns to receive the case suffixes. The noun classes described in the following section (311) are based on allomorphy of these two aspect theme-deriving suffixes.

(From a historical point of view, there seems to have been a pattern of derivation for some nouns from verb-roots based on vowel ablaut: from verb-roots with CEC or COC shapes, the derived nouns (especially the names of animals) occur with the shape CaC. Historically, the generic aspect seems to have been unmarked by any overt suffix, and the particular aspect suffix {t} seems to have originated from a topicalizing/foregrounding suffix *{t} with something like the force of a definite article, like the disjunctive post-clitic {to·} which marks new information and agent syntactic function (see 331.1 and the several suffixes with the shape /t/ discussed under 245. Person and 246. Aspect).

NOUN CLASSES BASED ON THEMATIC-ASPECT SUFFIXES

311. The fact that the noun exhibits a number of classes resulting from correlation of the allomorphs for the particular and generic aspect suffixes is probably related to the fact that verb-stem-formant allomorphy directly results in verb classes on which generic aspect nouns are based (see 210 and 220, 221, 222, and 223), and also related to the recurring partial similarities manifested by monosyllabic verb-roots and stems (discussed with the example of /co·r/ 'to open nuts' and /co·ra/ 'burrs to open' in the last paragraph of 210). These complexities in morphemic structure and phonological representation of generic nouns appear to result from the fact that nouns are primarily formed directly from verb-stems and roots, and that patterns of verb derivation historically underlie and

condition the phonemic shapes of the generic aspect-suffix allomorphs.

In the cases of verb-stem formants and verb-roots, the historical derivation of verbs would also seem to account for the asymmetry and partial symmetry of these patterns extensively found in the language (see 232). In some instances, the recurring partial similarities suggest further synchronic analysis or internal reconstruction (e.g., length of root vowel, associated perhaps with syntactic functions of verbs formed from those roots). In the case of verb-stem-formant allomorphy, derivational patterns for the verb-stems resulting in the class membership of verbs is paralleled by noun aspect-suffix allomorphy (i.e., theme "formant" allomorphy), where the noun-themes are in fact derived from verb-stems directly into their generic theme-forms. For example, noun class C* has members with a derivationally included passive suffix {here} + {s}, the generic aspect noun-theme forming a suffix (the same in its shape as {s}, the intensive derivational suffix of nominal stem-forms of verbs, 242.2), as in the example noun cited on the following charts: /tulcuheres/ generic aspect of Tulcuheres, lit., 'the one it is taboo to touch.'

Imperative and nominal verb-stem derivational suffix allomorphy determines the conjugation-class membership of verbs just as underlying historical stem derivation of nouns determines noun classification. While the particular

* For noun classes, see section 311.

aspect-suffix manifests only two phonemic shapes, /h/ and /t/, the generic aspect (the unmarked category) has a number of alternant phonemic shapes which in fact often appear to have been derivational verb suffixes originally. Thus, the generic aspect {s} suffix has the following allomorphs:

- ∅ (unmarked), since this category is the unmarked one; as in class A < a verb stem ending in a vowel;
- /t/ because there is no contrast with the particular in noun class B, that being accomplished by the case-suffixed forms;
- /s/ because of the original noun-marking function of {s} (see {s} nominal stem suffix, 242.2) for classes C, L, and M;
- /*/ because of derivation from verb-stem-formant allomorphs ending in long vowels, as for class D;
- /w/ if derived from forms suffixed with */w/ privative or perhaps from stems ending in /u/, as for classes E and F;
- /m/ may be a verb-stem derivational suffix; for classes G and R < {m}, generic comitative verb suffix (241.1).

From another point of view, the generic aspect-suffix allomorph /s/ could be construed as the same morpheme (at least diachronically) as the intensive derivational suffix of nominal stems {s} (242.2) which derives stative verbs, in which case verbs formed with the latter suffix would be interpreted as based directly on nouns, giving denominal verbs. So also the particular aspect-suffix allomorph /t/ could be construed as the same morpheme as the particular aspect of patient suffix {t} of imperative stems (241.11). This does not seem feasible synchronically for two reasons: (1) the difference in suffix distributions, since the verb-deriving suffixes require verb-stem formants, while the

noun-aspect suffixes may only be followed by noun-case suffixes; and (2) the unaccounted-for remaining allomorphs with other phonemic shapes. Since the particular aspect is the marked category, and the generic aspect the unmarked, it is not unlikely that the morphemic marking of the generic aspect is historically derived from the final phonemes of the verb-stems being used as the derivational basis for noun-themes (see the list of putative derivational morphemes given in III. 325). This interpretation is further supported by those classes where aspect is unmarked in the generic, or where, in the particular, a case suffix follows an unmarked theme, the case suffix then indicating particular/generic distinctions. At present it is assumed as a matter for internal reconstruction, and there does not appear to be any advantage in denying suppletive allomorphs of the aspect suffixes and labeling them as synonymous but separate suffix morphemes. The /h/ allomorph of the particular aspect morpheme may be identical diachronically with the nominal stem stative suffix {h} (242.1).

From a historical point of view, the allomorphs of the generic aspect suffix are to be understood as the reflexes and remaining representations of stem-final derivational consonant suffixes (III. 325). It would be possible to postulate abstract phonological rules stating that such stem-final consonants are maintained as first members of clusters, when the second consonant, the generic aspect suffix {s}, is lost, and that these same stem-final consonants are lost as first members of clusters where the

second consonant is the particular aspect suffix {t}. In this latter case, the particular aspect suffix would be maintained: [Cs] → /C/, but [Ct] → /t/. (Historically these two allomorphs derive from *{t} and *{hE}.)

Note that the /h/ allomorph of the particular aspect-suffix, when added to nouns with final /l/, /r/, and /y/, results in a final consonant cluster simplification yielding a spirant (see III. 321):

[cil-h]	→	ciλ	'bear'
[sakal-h]	→	sakaλ	'grinding stone'
[nur-h]	→	nuθ	'salmon'
[cir-h]	→	ciθ	'suckerfish'
[may-h]	→	mah	'foot'

THEMATIC ASPECT SUFFIXES (ALLOMORPHY)

320. The generic aspect suffix {s} and the particular aspect suffix {t} are represented by a number of allomorphic shapes and have wide ranges of meaning. The pattern of allomorphy which results in noun subclassification is tabulated on the following chart, followed by a table of examples. Where two forms are cited, the first represents the subject case form and the second (following a ~) represents the noun-stem allomorph before oblique case suffixes. A discussion of the meaning ranges follows, with a tabulation of example noun-stems with contrastively distinct meanings in the two aspects. This category of aspect and the labels "generic" and "particular" were first noted by Dorothy Demetrocopoulou Lee (1944).

Noun Classes According to the Allomorphy of the
Particular and Generic Aspect Suffixes, Word-Final and Before
Case Suffixes

CLASSES	Particular Aspect {t}		Generic Aspect {s}	
	final allomorphs	before case suffixes	final allomorphs	before case suffixes
vowel stems				
A	/t/	∅	∅	∅
B	/t/	∅	/t/	/t/
C	/t/	∅	/s/	/s/
D	/t/	∅	/•/	/•/
E	/t/	∅	/w/	/w/
F	/t/	∅	∅	/w/
G	/h/	/h/	/m/	/m/
H	/h/	/h/	/n/	/n/
I	/h/	/h/	/w/	/w/
J	/h/	/h/	/y/	/y/
K	/h/	/h/	/•/	/y/
L	*	∅	/s/	/s/
M	* ¹	∅	/s/	/s/
Consonant stems				
N	*	*	∅	∅
O	/h/	∅	∅	∅
P	/h/	/h/	∅	∅
Q	/h/ ¹	/h/	∅	∅
R	/t/	∅	/m/	/m/

*no attested forms; ∅ designates an unmarked allomorph (zero)

¹long vowel in stem final syllable

Examples are:

Class	Particular Aspect Theme	Generic Aspect Theme	Gloss
A	/t ^h akit/ ~ /t ^h aki/	/t ^h aki/	'hat'
B	/sedet/ ~ /sede/	/sedet/	'coyote'
C	/tulcuheret/ ~ /tulcuhere/	/tulcuheres/	'the one it is taboo to touch, the sun god Tulcuheres, a myth hero'
D	/tunet/ ~ /tune/	/tune•/	'leader/older'
E	/sulat/ ~ /sula/	/sulaw/	'trout'
F	/sutut/ ~ /sutu/	/sutu/ ~ /sutuw/	'tail'
G	/koloh/	/kolom/	'basket'
H	/soh/	/son/	'stone'
I	/ʔi•h/	/ʔi•w/	'acorn'
J	/kahah/	/kahay/	'fingernail'
K	/siwih/	/siwi•/ ~ /siwiy/	'testicles'
L	* ~ /semelhe•na/	/semelhe•nas/	'ring'
M	* ~ /ticele•/	/ticeles/	'ground squirrel'

(cont.)

*no attested form

Class	Particular Aspect Theme	Generic Aspect Theme	Gloss
N	*	/lasik/	'bag'
O	/ciλ/ ~ /cil/	/cil/	'bear'
P	/sileλ/	/silel/	'blind person'
Q	/la·h/	/lah/	'older sister'
R	/kete·t/	/kete·m/	'one'

The two mutually exclusive inflectional thematic suffixes of aspect mark the noun as of particular or generic aspect. Only one class of nouns, class N, includes members which appear unmarked for aspect distinction. Four other classes, A, O, P, and Q, have members which are only marked for one aspect, the particular. The members of all other classes are distinguished for both aspects.

The particular aspect (247) specifies a live, animate, personified, or whole (entire) individual, a group considered as a unit contrasting with an undifferentiated mass, or an action which is punctual rather than durative; in short, a particular individuated from the mass or general type. The generic defines a mass in general, a continuum, a group, a plurality, or simply an unspecified, not particularized, individual, class, or genus. Thus nouns referring to particular people, proper names, live animals, personified entities, and paired body parts (when prefixed with {can} 'one side, half') occur in the particular aspect. Nouns referring to manufactured things (i.e., mass-produced); generally

unbounded masses such as fire, wood, water, pus, and smoke; geographical terms such as creek, flat, valley, road, trail, and land; calendar units; and body parts all occur in the generic aspect. Nouns based on a nominal verb-stem often translate as the action or material in the generic, e.g., / λ ahi/ 'doctoring,' /t^huli/ 'swimming,' /waci/ 'weeping'; but as the actor in the particular, / λ alit/ 'doctor,' /t^hulit/ 'otter' (swimmer par excellence), /wacit/ 'the one who is crying.'

Some substantives occur in only one aspectual category, but may be potentially extended to the other aspect. For example, particular people typically occur in the particular, but may also be marked for the generic--just as in English, proper names generally occur without articles but may be particularized by the use of 'the,' as in 'the Toms I've known'

The generic and particular aspects of substantives have varying translations in English which seem most often to involve animate vs. inanimate or singular vs. plural distinctions. Since the translation rarely accurately expresses the aspectual contrast, the range of meanings expressed by aspectual distinctions is illustrated below by a few examples:

Noun Stem	Signifies in the Particular Aspect {t}	Signifies in the Generic Aspect {s}
/tu/	eye	face(s)
/ma/	toe	foot/feet
/se/	finger, hand	hand(s)
/kaha/	the quick of a nail, or a single nail	fingernail(s)
/ʔal/	mussel	shell(s)
/nur/	a live salmon (i.e., not cut up)	dead fish considered as food/flesh
/nop/	a live deer (i.e., not butchered)	venison
/sede/	Coyote, the hero in myths as personified	coyote(s), as species
/ci·r/	a live suckerfish, or a specific spirit	fish, number not specified, as a mass, e.g., for food; meat
/t ^h uli/	an otter or a particular swimmer	swimming (gerund), swimmer(s)
/wi/	chief ("the man")	men, husband(s), people
/canaλ/	moon, moonlight	---
/ceki/	pitch, pitchwood, pitchwood stick	wax, a stick full of pitch (used for a torch)
/cepka/	a bad person	bad thing(s)
/womol/	a white feather (quail)	a quail crest (feathers)
/ʔaba/	cheekmeat, e.g., hog jowl	jaw, jawbone
/p ^h i·li/	mountain whip snake	crawling (Of reptiles, etc.)
/niri/	a wild mountain grouse	cooing; grouse

These examples of generic and particular meanings of the same stems show some of the maximal semantic contrasts available and noted originally by Lee. However, while these forms may potentially still have these meanings, the most common meanings for the aspect contrast currently available for most nouns appear more restricted. The particular is typically associated with finite, singular, and animate values, while the generic, which is the derivational suffix most productive of nouns when it is affixed to verb-stems, functions as an unmarked form--i.e., unmarked for number, animateness, particularity, or any specific category that might be applied, indicating only an unbounded extensiveness or unspecified general class.

PARTICULAR ASPECT

321. The inflectional thematic suffix of particular aspect {t} has two morphologically conditioned allomorphs: /t/ and /h/. It has the shape /t/ when affixed to members of noun declension classes A - F and R; the shape /h/ when affixed to members of classes G - K and O - Q. The particular aspect-suffix does not occur on members of classes A - F, L, M, O, and R if inflectional case suffixes follow. Examples of the allomorphs of {t} are:

/t/ as in class B:	/sedet/	'Coyote' subject, but
	/sedem/	'Coyote' object
/h/ as in class G:	/koloh/	'basket' subject
	/kolohum/	'basket' object
/h/ as in class Q:	/la·h/	'older sister' subject
	/la·hum/	'older sister' object

/h/ as in class O:	/ciλ/	'bear' subject,
	/cilum/	but 'bear' object

GENERIC ASPECT

322. The inflectional thematic suffix of generic aspect {s} has seven morphologically conditioned allomorphs: /s/, /t/, /w/, /y/, /m/, /n/, and /•/. It has the shape /s/ when affixed to members of classes C, L, and M; /t/ when affixed to members of class B; /w/ when affixed to members of classes E, F, and I; /y/ when affixed to members of classes J and K; /m/ when affixed to members of class G and R; /n/ when affixed to members of class H; and /•/ when affixed to members of classes D and K. The allomorphs /y/ and /w/ only occur on members of classes K and F, respectively, if case inflectional suffixes follow. The allomorph /•/ only occurs on members of class K if inflectional suffixes do not follow. Examples of the allomorphs of {s} are:

/s/ as in class C:	/tulcuheres/	'the one it is taboo to touch (subject)'
	/tulcuheresum/	'the one it is taboo to touch (object)'
/t/ as in class B:	/sedet/	'coyote(s) (sub- ject)'
	/sedetum/	'coyote(s) (ob- ject)'
/w/ as in class E:	/sulaw/	'trout (object)'
	/sulawin/	'trout (loca- tive)'
/w/ as in class F:	/sutu/	'tail(s) (sub- ject)'
	/sutuwini/	'tail(s) (loca- tive)'
/y/ as in class J:	/kahay/	'fingernail(s) (subject)'
	/kahayum/	'fingernail(s) (object)'

/y/ as in class K:	/siwiyum/	'testicles (object),'
	/siwi•/	'testicles (subject)'
/m/ as in class G:	/kolom/	'basket(s) (subject)'
	/kolomum/	'basket(s) (object)'
/n/ as in class H:	/son/	'stone(s) (subject)'
	/sonum/	'stone(s) (object)'
/•/ as in class D:	/tune•/	'front (subject)'
	/tune•n/	'in front (locative)'
/•/ as in class K:	/siwi•/	'testicles (subject),'
	/siwiyum/	'testicles (object)'

SUBSTANTIVE CASE SUFFIXES

325. The three mutually exclusive final-position inflectional suffixes of case morphologically mark several syntactic relations: object, possessor, agent, instrument, and location. Members of all classes are not attested occurring in all three cases in both aspects, although some are. Whether this is a factor of class membership, the moribund state of the language, or the difficulties in eliciting categories which are only indirectly translatable into English, it is at present not possible to determine. Nouns unmarked for case--that is, marked only for aspect--function syntactically as subjects: such nouns inflected for particular aspect function as subjects of active and transitive verbs, while nouns which are inflected for generic aspect not only function as subjects of active and transitive verbs, but also as noun attributives.

OBJECT CASE

325.1. The inflectional suffix {um}, the object case, marks substantives and noun phrases as objects of transitive verbs. This suffix has two phonologically conditioned variants: (1) /um/ following consonants, and /m/ following vowels, which alternate morphologically with /s/ when affixed directly to the first- and second-person pronominal roots {ni} and {mi}; and (2) /t/ when affixed to inalienably possessed nouns, to /pu/, an allomorph of the third-person pronominal root {pi}, and to /ʔewe/, an allomorph of {ʔe}, the third-person proximal pronominal root. Examples are:

/sedem/	'Coyote (particular object)'
/şedeṭum/	'coyote(s) (generic object)'
/çuruçurum/	'a brown cricket (particular object)'
/çuruçurutum/	'brown cricket(s) (generic object)'
/sulehum/	'water-oak acorn (particular object)'
/suleyum/	'water-oak acorn(s) (generic object)'
/nis/	'me'
/mis/	'you'
/put/	'him'
/ʔewet/	'this one'
/net lehet/	'my younger brother (referential) (inalienable object)'
/harasum/	'while it is going,' lit., 'the going' (generic object)
/nis ba*-be*sum winer hara* ʔisuk/	'they left me because/while they saw me eating,' lit., 'They left because of seeing me eating'
/pule*t/	'them (plural)'

GENITIVE CASE

325.2. The inflectional suffix {un}, the genitive case, marks substantives as possessors and as agents of passive verbs. This suffix has two morphologically conditioned allomorphs with two phonologically conditioned variants each:

with kinship terms and with {ʔe}, the third-person proximal demonstrative pronoun, it has the shape /r/ after vowels and [Vr] after consonants (e.g., after /ʔew/, the generic aspect stem of {ʔe}); elsewhere, it has the shape /n/ after vowels and /un/ after consonants. Examples are:

/seden/	'Coyote's, by Coyote' (particular genitive)'
/sedetun/	'coyote(s)'s, by the coyote(s) (generic genitive)'
' '	
/curucurun/	'a brown cricket's, by the brown cricket (particular genitive)'
' '	
/curucurutun/	'brown cricket(s)'s, by the brown crickets (generic genitive)'
/sulehun/	'of/by the water oak acorn (particular genitive)'
/suleyun/	'of/by the water oak acorn(s) (generic genitive)'
/wimayun po* kacuhedi./	'May he now be chewed up by the grizzly bear!' (grizzly bear generic genitive /wimayun/)
/boyun winhida./	'I am being seen by a lot of them.'
/pule*n/	'their (dual), by them'
/puqar/	'his wife's, by his wife'
/ʔewer/	'of this one, by this one (generic aspect)'
/puler/	'by his younger brother'
/pulahar/	'by his older sister'
/pune*r/	'by his mother, of her mother'

LOCATIVE CASE

325.3. The inflectional suffix {in}, the locative case, marks substantives and noun phrases for spatial or temporal location. It has three phonologically conditioned variants: /in/ after consonants, /*n/ after short vowels, and /n/ after long vowels (cf. genitive case variant /n/ after vowels). Examples are:

/t ^h aki·n/	'in, on the hat'
/la·hun qedewin buha xilit	'The fly sat on the older sister's arm
/qedewin λeyhida./	'I was hit on the arm.'
/ba·s-bo·sin net, nis λiya./	'While/because I was eating, they threw rocks at me.' (lit., 'At/for/upon my eating, (they) threw (rocks) (at) me.'
/minelesin/	'after dying . . .' (upon dying, at dying)
/xilit buha kayayin./	'The fly sat on the fingernail (generic locative)'
/xilit dile kahahin./	'The fly alighted on the fingernail (particular locative).'
/heke·n/	'where at'

Two additional inflectional case suffixes are distinguished for pronouns: the instrumental case and the dependent possessive case.

INSTRUMENTAL CASE

325.4. The inflectional case suffix {r}, the instrumental, morphologically distinguishes the syntactic function of instrumentality from that of possession, which are both marked by the genitive case suffix {un}. The genitive marks both functions for all substantives, except only for the singular number of the three pronouns {ni}, {mi}, and {pi}.

The instrumental {r} has only the phonemic shape /r/ with these three pronouns, an extremely limited privilege of occurrence (see the allomorph of the genitive case which occurs with kinship terms and the proximal pronoun {ʔe}).

It generally translates as 'by' or 'because of' (cf. the inferential evidential suffix {re·}, 243.13, and the suffix of causal anteriority {r}, 243.15, with both of which

it probably shares a common historical origin). Examples are:

/ner/	'by me, because of me'
/mar/	'by you, because of you'
/pir/	'by him, because of him/her'

POSSESSIVE CASE

325.5. The inflectional case suffix {t}, the possessive, distinguishes in the pronoun the syntactic function of possession from that of instrumentality marked by the instrumental suffix {r}. It has two morphologically conditioned alternants: /t/ affixed to the first-person exclusive pronominal root {ni} and the second-person pronominal root {mi}; /r/ when affixed to the third-person pronominal root {pi}. It only occurs with these three pronouns (cf. instrumental case suffix {r}, 325.4, and note that the allomorphs of the possessive and instrumental cases after {pi} are homophonous, while the forms are distinguished by the shapes of the pronominal root allomorphs: /pir/:/pur/). Examples are:

/net/	'my'
/neto/	'mine'
/mat/	'your'
/mato/	'yours'
/pur/	'his, hers'

EMPHATIC POSSESSIVE

325.51. A unique sequence of morphs resembling in function the forms /neto/ and /mato/ above--/putuntun/ 'it's his (very own),' based on the reduplication of the last syllable--seems composed of the allomorph /pu/ of {pi} and

the possessive case suffix /t/, followed (redundantly, for emphasis?) by the genitive case suffix /un/. Reduplication in the form of a suffix only occurs elsewhere with the distributive suffix {VlVlVh} (233.2), in the derivation of roots. In the latter case, the analogy seems to have been on the model of /kele'l/ 'long,' with a final syllable suffix *{V'l} repeated. In this case, the emphatic possessive function of emphasis is achieved 'symbolically' with the repetition of a form doubly marked for possession.

NOUN POSSESSION (ALIENABILITY)
AND CLASSIFICATION

330. Substantives, excluding pronouns from consideration, may be divided into three classes: those which are alienably possessed (the largest number of nouns in the language), those few (kinship terms) which are inalienably possessed, and those which are non-possessed.

The alienably possessed nouns are optionally preceded by possessive pronouns, or may be prefixed with {can} 'half, one side.' They are inflected for the two aspects (generic and particular) and for three cases: object, genitive, and locative (the subject case being unmarked by any suffix). They may be syntactically modified by the diminutive and pejorative as well as by enclitics like the disjunctive topicalizer. This class of alienably possessed nouns constitutes the largest and only open class of substantives, the major type of noun, both in terms of the number of forms and the number of declension subclasses it includes (cf. 310 and charts in 320).

The inalienably possessed nouns include only some kinship terms; are closed in membership; and are preceded by possessive pronouns, or, optionally, by the vocative prefix {ye}. They are not marked for aspect, but function as though inflected for the particular aspect. They may or may not have an alienably possessed counterpart functioning as a generic alienably possessed noun. Inalienably possessed nouns, like other nouns, are inflected for object, genitive, and locative cases, but take an allomorph of the genitive case homophonous in form with the instrumental case form of pronouns: [Vr]. They also resemble pronouns in taking an allomorph of the object case found on the singular third-persons {pi} and {ʔe}. Like pronouns, they may also be derived into verbs which can be marked as reciprocal with the suffix {pʊr} (241.41). Like alienably possessed nouns, kinship terms may be followed and syntactically modified by enclitics, including the diminutive and pejorative, etc.

Non-possessed nouns, which never occur with possessive pronouns or prefixes of any kind as the other nouns do, are in that respect like pronouns. They are like alienably possessed nouns in occurring in two aspects and maximally in three cases--object, genitive, and locative--but they are not all attested in all cases and both aspects. They do not co-occur with the diminutive, pejorative, or enclitics, and thus resemble pronouns. They neither have the distinction between possessive and instrumental cases which pronouns have, nor do they form verbs by further derivation or occur with the reciprocal suffix, like pronouns or kinship terms.

Thus they are morphologically clearly substantive in inflection; form a closed class defined by a limited number of roots on which they are based; are syntactically attributive to and modify semantically the nouns they follow in the enclitic or compounded constructions they enter; and are deictic, demonstrative, and classifying in their function. They may be translated variously in English by demonstratives, adjectives, quantifiers, numerals, interrogatives, articles, and prepositions, but they are post-positional. These anomalous members of the substantive class are more or less unlike other substantives, and although distinct from pronouns and the two types of nouns, do not form a homogeneous group.

NON-POSSESSED NOUNS

331. Non-possessed nouns are of two types, dependent and independent, and have various deictic and adjectival functions. Three dependent non-possessed nouns are postclitics and have disjunctive and adjectival functions, while others may be compounded to substantive stems, themes, or nouns inflected for case, and are attributive to the preceding substantive.

The independent non-possessed nouns may occur as full words and function as demonstratives, interrogatives, and classifiers of quantity. Although inflected maximally for both case and aspect, the aspect and case allomorphy is so anomalous that no attempt has been made to establish subclasses of non-possessed nouns, paradigms being given

instead for each form in sections 332.1, 331.2, and 331.3 below.

DEPENDENT NON-POSSESSED NOUNS

331.1. The three dependent non-possessed nouns which are enclitic and follow a hyphen juncture which separates them from the noun they modify are: a) the disjunctive postclitic {to•}, which foregrounds, topicalizes, focuses, marks new information, and in the subject case marks agency; b) the diminutive postclitic {ʔila} (< 'child, little one'); and c) the pejorative postclitic /ʔisto•/ (probably <{ʔiy} + {s} + {to•}). In the following paradigms, non-attested forms are marked by an asterisk:

	<u>Particular Aspect</u>	<u>Generic Aspect</u>
a)	The disjunctive postclitic {to•} (historically, perhaps derived from {t} particular aspect + {o} emphatic):	

Subject	to•t	to•
Object	to•	to•num
Genitive	*	to•nun
Locative	to•n	to•nin

b) The diminutive postclitic {ʔila} ('child, little one'):

Subject	ʔilah	ʔilay
Object	ʔila•m	*
Locative	ʔila•n	*

c) The pejorative postclitic /ʔisto•/:

Subject	ʔisto•t		ʔisto•
Object	*		ʔisto•num
Genitive	ʔisto•n		ʔisto•nun
Locative	ʔisto•nin		*

COMPOUNDED DEPENDENT NON-POSSESSED NOUNS

331.2. The dependent non-possessed nouns which may be compounded to other substantives (to nouns usually, without any intervening hyphen juncture, which links the preceding three enclitics {to•}, {ʔila}, and /ʔisto•/ to preceding nouns) are:

a) The intensive diminutive {ʔina} 'tiny, dear little,' which has been recorded in a single form, unmarked for case or aspect:

/ʔina/

Particular AspectGeneric Aspect

b) The referential {qat} 'as for...':

Subject	qat		qati•
Object	*		qati•m

c) The privative {pe} 'without, -less' (cf. {pin} 'inability,' 262.411):

Subject	peh		peni
Object	penum		penim
Locative	*		peni•n

d) The exclusive {te} 'only' (cf. {t} particular aspect, 320.1):

Subject	tet		te
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Particular Aspect

Generic Aspect

e) The classifier {ho} 'only, just' (cf. {hE}

demonstrative):

Subject	hot		hom
Genitive	hon		*

f) The locational {lome} 'exactly at, middle of' (cf.

/kala'n/ 'in the midst, among' < *{kal}, /kala/ 'edge,

shore'; also cf. {loq} 'next to'):

Subject	*		lomes
Object	lome'm		*
Genitive	lome'n		*

g) The optative {ke} 'maybe' (perhaps < *{kE}; cf. /heke/

interrogative):

Subject	ket		ken
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h) The classifier {me} 'own, kind, variety':

Subject	met		men
Object	*		menum

i) The concessive {ma*}: /ma*/ and /ma'n/, e.g., /nisma*/

'me, I guess,' /nisma'n/ 'my fault'; (cf. {me} classifier,

above).

j) The indefinite {luqa} 'ever' (cf. {loq} 'next to'):

Subject	*		luqas
Object	*		luqa'm
Genitive	*		luqa'n

k) The precedential {ki} 'first' (< {kE} 'one'):

Subject	kis
---------	-----

Particular AspectGeneric Aspect

l) The locational {t'a·} 'beside, bottom' (cf. {t'an} contradictory simultaneity, 243.26):

Subject	t'a·h		t'a·
Object	*		*
Locative	t'a·n		t'a·hin

m) The reciprocal {p'ur} 'each other,' compounded only with plural number pronouns (cf. {p'ur} reciprocal verb suffix, 241.41):

Subject	p'urut		p'urum
Genitive	p'urun		*

n) In addition, /kala·n/, a non-possessed post-position translating 'in the midst' or 'among,' and apparently derived from a stem /kala/ 'edge, shore,' perhaps from a root *{kal}, is likely as a non-possessed noun in the locative case.

INDEPENDENT NON-POSSESSED NOUNS

331.3. Independent non-possessed nouns include all numerals, interrogatives, demonstratives, and classifiers.

They are:

Particular AspectGeneric Aspect

a) The interrogative /heke/ (< {hE} demonstrative root + {kE} optative 331.2):

Subject	heket	'who'		heke	'where'
Object	hekem	'whom'		*	
Genitive	*			heketun	'whose'
Instrumental	heker	'by whom'		*	

<u>Particular Aspect</u>		<u>Generic Aspect</u>
Locative	*	heke·n 'where at'
Also:	hek 'where'	hen 'how'
b) The classifier of the uncertain /soqo/ 'strange, unknown,' with a single attested form, /soqot/ subject case particular aspect (cf. /ʔusa/ and /ʔoqti/ below).		
c) The classifier {ko·} 'all':		
Subject	ko·t 'everybody'	ko·m 'everything'
Genitive	ko·n 'of all'	*
Locative	*	ko·min 'all the time'
d) The classifier of quantity /ʔusa/ 'some' (< {ʔuw}):		
Subject	ʔusat	ʔusa
Object	ʔusam	*
Genitive	ʔusan	*
e) The classifier of kind /ʔoqti/ 'identical, the same kind of' (perhaps from *{ʔOq}, cf. /hiʔoq/, /henoq/, {ʔuk}):		
Subject	ʔoqtit	ʔoqti
Object	ʔoqtim	*
Locative	ʔoqti·n	*
f) The interrogative classifier of kind /henoqti/ 'what kind of, what identity' ({henoq} interrogative classifier):		
Subject	henoqtit	henoqti
Locative	henoqti·n	*
g) The demonstrative /ʔuqa·/ 'identical' (< {ʔuw}):		
Unmarked	ʔuqa 'that very one'	
h) The interrogative /pe·/ 'what' (cf. {pi} 3rd-person pronoun 'that'):		
Subject	pe·t 'what'	pe·h 'what'

<u>Particular Aspect</u>			<u>Generic Aspect</u>
i) The interrogative /hisa*/ 'some, how many' (< {hE}):			
Subject	hisa*t		*
Object	hisa*m		*
Genitive	hisa*n		*
j) The interrogative /hest/ 'how' (< {hE}):			
<u>Indicative Stem</u>			<u>Nominal Stem</u>
Subject	hesta 'how'		hesti 'which, what sort of'
Locative	hesti*n 'once in a while, some other time'		
Instrumental	hestar 'why'		
k) The interrogative /he*s/ 'when'			
Locative	he*sin 'when'		
l) The demonstrative {ʔuk} 'yonder' (< {ʔuw}):			
<u>Indicative Stem</u>	<u>Imperative Stem</u>		<u>Generic Nominal Stem</u>
Subject	ʔuka 'then, there'	ʔuku 'that, over there'	ʔuk 'that, yonder'
Instrumental	*	*	ʔuki*n 'with that'
Locative	*	*	ʔukin 'at that spot'

Interrogatives include: /heke/ general interrogative: 'who, where,' etc., /hest/ 'how,' /henoqti/ interrogative classifier: 'what kind of,' /hisa*/ 'some, how many,' and /pe/ 'what.' (See {p^ur}, the reciprocal, 241.41, which appears compounded to pronouns already inflected for case. Like the interrogatives above, {p^ur} is also probably derived from a deictic root; cf. 340.2.)

Classifiers include: /hisa•/ 'some, how many,' /ʔoqti/ 'identical,' /ʔusa/ 'some,' /ko•/ 'all,' /ho/ 'only, just,' and /me/ 'kind.'

Demonstratives include: /ʔuk/ 'yonder,' /ʔuqa•/ 'same,' /hE/ demonstrative, /ke/ optative, /pe/ privative, /qat/ referential, /te/ 'only,' /to•/ disjunctive postclitic, /lome/ 'middle, exactly,' and /loq/ 'next to.'

PRONOUNS

340. Pronouns, a subclass of substantives distinguished by their five distinctive roots, their inflectional potential, and their semantics and syntax, resemble most the kinship terms and independent non-possessed nouns, among the other substantives. Pronouns fall into two subtypes: third-person pronouns, with some demonstrative functions and historical origins, and first- and second-person pronouns. These two subtypes differ in their case and aspect and their further derivational potential. Non-third-person singular pronouns are the most pronominal in their characteristics, while non-singular third-person forms are the least pronominal.

Maximally, pronouns distinguish three numbers (singular, dual, and plural); five persons; five cases (subject, object, possessive, instrumental, genitive); two aspects (particular and generic); and human, emphatic, and reciprocal categories, although not all pronouns are inflected for all forms. (See sections 361. through 365.)

Aspect and case suffix marking in the dual and plural pronominal forms resemble alienable nouns, but have unique forms for some aspect and case suffix allomorphs. The pronouns are also unique in occurring with three number-marking suffixes: {·l} the dual, {te} plural, and {ba} human plural. Pronouns, unlike nouns, reverse the order of case and aspect markers, permitting aspect suffixes to follow case suffixes. Pronouns are unique in occurring with the emphatic and non-singular stem formants {o} and {e}. If pronouns are further derived into verbs, those verbs are members of conjugation class N. The allomorphy of three of the pronominal roots, {ni}, {mi}, and {pi}, is partially parallel (see charts of the pronouns following section 360).

Pronominal roots and their derived forms fall into two classes, the first-person forms based on {ni} and the second-person forms based on {mi} forming one class. These true pronouns show no aspect contrast in the singular, and their case suffixes are both marked with the same allomorphs in the singular (object and possessive). They are never used syntactically as demonstratives. An anomalous pronoun, the first-person inclusive {pe}, not only lacks a singular, is never used as a demonstrative, and never suffixed with the reciprocal {pur}, but diachronically resembles the third-person non-proximal {pi} in a fashion parallel to the resemblance of *{kE} to *{kE} (see 340.2) in form and meaning--the glottalization being taken as a symbolic increment (consonant symbolism), in this case marking the coordinate fourth person (first: +speaker; second: +hearer;

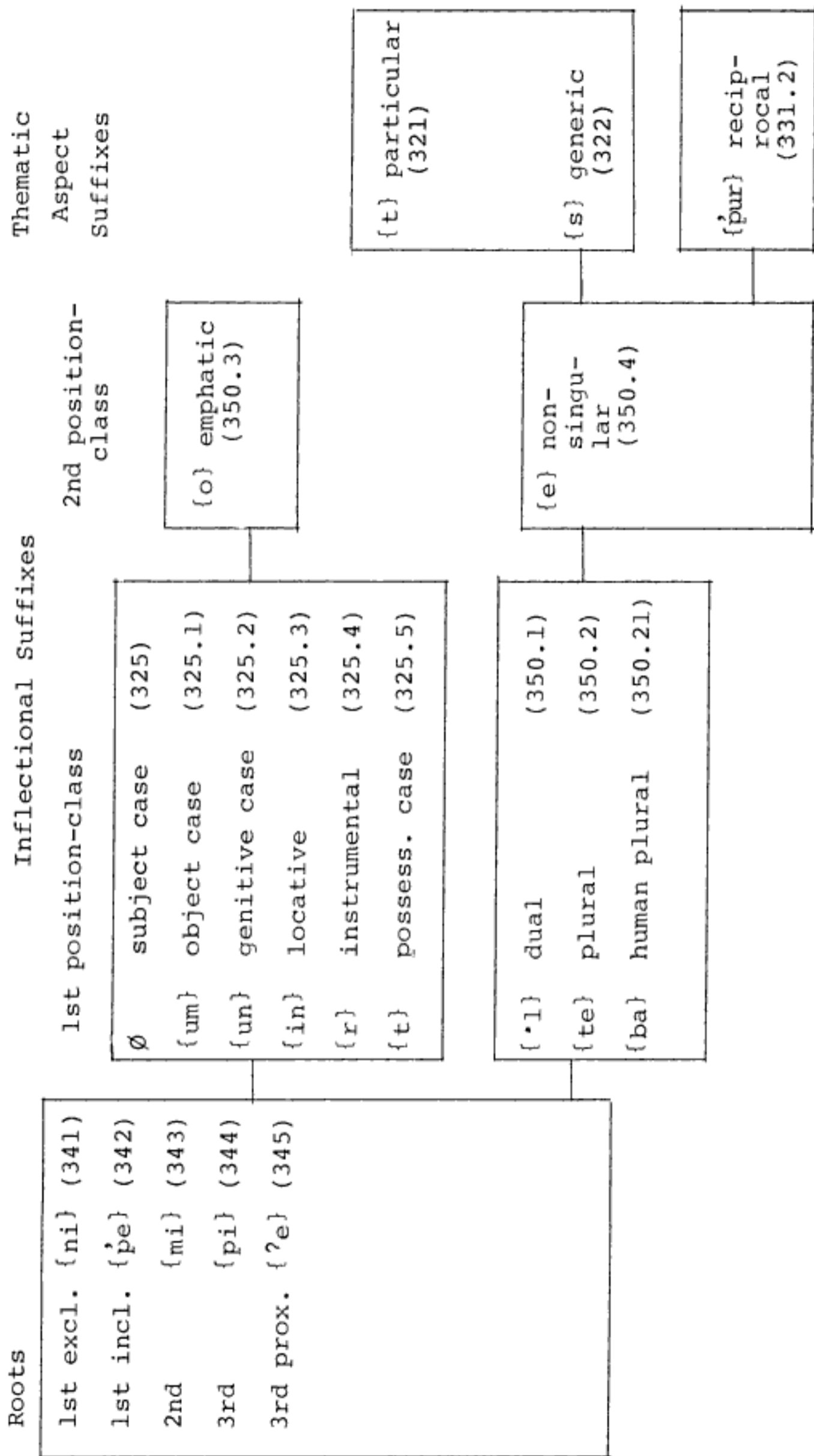
third: -speaker -hearer; fourth [first inclusive] +speaker +hearer, and derived from the deictic/demonstrative root $\{pE\} \sim \{p'E\}$ from which the unmarked third-person non-proximal is derived).

Other demonstrative forms with the same origin are the interrogative $\{pe'\}$ 'what,' $\{pi\}$ third person, $\{paq\}$ benefactive, and $\{pur\}$ reciprocal. The third-person root $\{pi\}$ contrasts with the proximal third-person root $\{?e\}$ in meaning, although it resembles it as regards phonology, morphology, and syntax. Both these third-person forms share case-suffix allomorphs in the singular which are unlike those of $\{ni\}$ and $\{mi\}$. The third-person forms occur with the reciprocal, like $\{ni\}$ and $\{mi\}$, but also occur with the human plural $\{ba\}$, unlike $\{ni\}$ and $\{mi\}$. The third-person forms occur as demonstratives, attributive to the nouns they precede, unlike $\{ni\}$ and $\{mi\}$, and in their syntactic dependence on nouns are like the non-possessed noun post-clitics already discussed. They not only participate in the same semantic domain of deictic and demonstrative roots (see 340.2), but form a small triad with the deictic/demonstrative $\{?uk\}$ 'yonder.' The unmarked demonstrative $\{pi\}$ only has distal value when contrasted with the proximal $\{?e\}$ which is the marked member of the pair. The imperative stem of $\{?uk\}$ 'yonder' is farther off in distance than $\{pi\}$, and is the super-marked member of the triad, never occurring with pronominal anaphoric value, but only as a demonstrative.

The distal:proximal contrast has to do not with "kind of person" (e.g., a fourth person) but with an

additional deictic marking not uncommon with third-person forms (see also the discussion of person in 245). The third-person forms, then, contrast with the first subclass of two pronouns based on {ni} and {mi}. The forms {p'e}, {pi}, and {ʔe} all lack the pure singularity of {ni} and {mi}: {p'e} lacks a singular number entirely, being inherently a set; the two third-person pronouns fuse the notion of singularity with foregrounding of space (distal/proximal); and {p'e}, being the most marked pronominal root, is likewise foregrounding in effect compared to the other three person-categories. In the set of pronoun forms, what is foregrounded is (1) that which is near; (2) that which is more distant than the non-near; (3) the particular; and (4) the implicit ongoing joint relationship between the speaker and the hearer. Presumably, (4) above derives from the correlation with the foregrounding of self associated with {da} first-person suffix, and the association with visual evidential and particular aspect categories with first person. The glottalization of {p'e} seems a phonetic reflection symbolic of the foregrounding. Of the above "shifters," only {pi}, {ʔe} and {ʔuk} typically have cataphoric reference in discourse.

340.1 Chart of Pronoun Position-Classes



DEICTIC ROOTS

340.2. From a historical perspective, the third-person pronouns (the only pronouns indicating proximity-deixis) and the non-possessed nouns with deictic/demonstrative/interrogative/classifier functions were probably part of the same original system of demonstratives, and they shared root morphemes and derivational processes within that system (cf. Roots, 232). Some traces of such derivation and such roots are summarized in the sets given below, which have roots already cited among non-possessed nouns in 331 ff., and one example, $\{kV\}$, is discussed in some detail in 262.2.

$\{to\}$, $/\text{?isto}\cdot/$, $\{te\}$, $\{ta\}$, $/\text{?oqti}/$, $/\text{hesta}/$, $\{t^hu\}$ $\{tan\}$, perhaps all derived from $\{tV\} \sim \{t^hV\}$ classifier; $\{ila\}$, $/\text{?isto}\cdot/$, $\{ina\}$, perhaps from $\{iy\}$ proximal demonstrative, derived from $\{?E\}$ proximal demonstrative; $\{ho\}$, $/\text{heke}/$, $/\text{henoqti}/$, $/\text{hisa}\cdot/$, $/\text{hest}/$, perhaps from $\{hE\}$ demonstrative; $\{lome\}$, $\{me\}$, perhaps from $\{me\}$ classifier/demonstrative; $\{ke\}$, $\{ki\}$, $/\text{heke}/$, $\{ko\}$, perhaps from $\{kV\} \sim \{k^hV\}$ demonstrative; $\{uk\}$, $/\text{?usa}/$, $/\text{?oqti}/$, $/\text{henoqti}/$, perhaps from $\{uw\}$ distal demonstrative, derived from $\{?O\}$ distal demonstrative; $/\text{hisa}\cdot/$, $/\text{?usa}/$, $/\text{soqo}/$, $\{s\}$ generic, perhaps from $\{sV\}$ classifier; $\{qat\}$, $/\text{soqo}/$, $/\text{?uqa}\cdot/$, perhaps from $\{qV\}$; $\{paq\}$ benefactive, $/\text{?oqti}/$, $/\text{hi?oq}/$, $/\text{henoq}/$, $/\text{?uqa}\cdot/$, perhaps from $\{?Oq\}$; $\{paq\}$ benefactive, $/\text{pe}\cdot/$ 'what' and $\{pi\}$ 3rd-person; $\{pur\}$ reciprocal and $\{pe\}$ 1st-person exclusive, perhaps from $\{pE\} \sim \{p^hE\}$ (cf. $\{tV\} \sim$ and $\{t^hV\}$ and $\{kV\} \sim \{k^hV\}$ re glottalization; and $\{hE\} \sim \{hO\}$, $\{?E\} \sim$, $\{?O\}$, and $\{kV\}$, etc., re alternation of $[E] \sim [O]$ cf. 262.2).

Note that glottalization is taken to be an increment with symbolic, affective, and intensifying function, which when added to obstruants has a foregrounding effect. The above hypotheses for internally reconstructed deictic roots with demonstrative/classifier/modal values depends in part on argument like that presented in abbreviated detail in 232. Roots for *{cE} 'bind...' (cf. Pitkin 1979 "Two Plus Two Makes Two," and M. Silverstein 1975 "On Two California Penutian Roots for Two," for examples of "shallow diachrony" and "deep synchrony" with respect to related numeral/classifier forms).

To exemplify in more detail the considerations and basis for the sets of related forms and reconstructions hypothesized above, the non-possessed demonstrative root {ke}, the optative, will be the starting point in an examination of forms related to it and contrasting with it. It is a synchronically isolable deictic root with more grammatical than lexical meaning, and it is quite characteristic of such roots, as regards the difficulty found in defining its meaning and the complex network of its relations to other forms.

The optative root {ke} 'maybe' (cf. 331.2, 232, and 351), unlike most synchronic roots, which have a CVC canon, has the CV shape typical of deictic roots (demonstratives and pronouns). Historically it seems to be part of the set of demonstrative/interrogative/classifier/modals, sharing that semantic range which is also occupied by the other

non-possessed nouns (331). It resembles them in shape and function and is also compounded to them and to pronouns. It also shares with a number of other morphemes a specific formal and meaning-range resemblance, and it presumably has a common historical origin with those verbal morphemes. It stands symmetrically in a paired contrast to another root, {hE}, demonstrative in function, parallel in form, and with similar combinatory potential, but opposed in meaning.

The root {ke} occurs in two forms, /ket/ particular aspect and /ken/ generic aspect; it is compounded to pronouns and nouns; and it emphasizes (as though with deictic force) the substantives to which it is compounded, while adding the meaning of the hypothetical, non-actual, or uncertain. It is often inadequately translated as 'maybe.' It is the second morpheme in the interrogative stem /heke/, derived from {hE} + {ke}, which appears in /heke/ 'where,' /heket/ 'who?,' /hekem/ 'whom?,' /heketun/ 'whose?,' /heker/ 'by whom?,' /heke·n/ 'where at?,' and in diminished form in /hek/ 'where?'.

It occurs also with pronouns in forms where its emphatic deictic meaning and its uncertainty merge to produce a polite concession, emphasizing one individual at the expense of all others who might have been included in the hearer's expectation: e.g., /nisken/ 'maybe me, just me'; /niteken hale·s/ 'we might all go'; /niyoken λitiqle·s/ 'I'll do it all myself, I might do it all myself'; /ʔeh-ken/ 'it could be this person/one' (where /ʔeh/ is the third-person proximal pronoun particular aspect); /ʔew-ken/ 'maybe this

person, maybe this one is the one' (where /[?]ew/ is the third-person proximal pronoun generic aspect); /niyoket harleba'da/ 'I'll go by myself (just me alone, although that may not have been expected).' Note the unrealized-future, hypothetical character of the above examples.

It appears to be the second morpheme in {sken}, the second-person subject verb suffix (cf. 243.22), and is identical historically to the suffix of warning {ken} (cf. 241.51). Its concessive force of polite uncertainty is manifest in {sken}, and its meaning 'if ..., then maybe ... something dire' or '(don't!) lest ...' of surprised expectation is apparent in the warning sense of {ken}, both of these values being apparent also in the examples with pronouns above. Two auxiliary verbs, the conditional {kil} and perhaps the past tense {kir}, are related in form and in their meanings; both of these morphemes deny the currently real or actually perceptible reality (cf. 244, 262.22, and 262.3). The modal attributive auxiliary {keneh}, the optative (262.23), is certainly derived from {ke}.

In addition, the hearsay evidential suffix {kele} (which has as its phonemic representation two allomorphs, /kele/ and /ki/; cf. 243.12) is probably also derived from {ke} (cf. the conditional {kil} above). The allomorph of the hearsay evidential /ki/ further suggests that the historic shape of {ke} was probably < *{kE}, since the vowel of the root, if cognate, shows itself capable of being raised before low vowels (see 243.12 and III. 324). And as for the previously described morphemes above, the meaning of the

hearsay evidential is parallel, being the least strong claim respecting the truth or reality of a predication within the system of evidentials that characterize Wintu concern for specification of reality, truth, actuality, and the boundaries that certify facts and things (cf. 244. Evidentials, and noun aspect at the end of section 320).

Since roots are not typically specialized as to their potential verbal vs. substantive derivations, but may yield either class of words, there is no difficulty in hypothesizing that $\{kE\}$ may have been derived into the following group of interrelated forms by the suffixation of consonant-shaped morphemes of manner (listed partially in III.325):

$\{kE\}$ optative-interrogative root

$\{kE\}$	$\{kEn\}$	$\{kEl\}$	$\{kEr\}$
1. $\{ke\}$ optative /ket/ /ken/ 'maybe'	2. $\{ken\}$ 'lest' 3. $\{sken\}$ 2nd-person 'concessive' 4. $\{keneh\}$ optative modal auxiliary	5. $\{kil\}$ conditional auxiliary 6. $\{kele\}$ /kele/ /ki/ hearsay evidential	7. $\{kir\}$ 'die, kill, finish off' 8. $\{ker\}$ 'finish' 9. $\{kir\}$ past tense auxiliary

Many roots containing the vowel $\{E\}$ show an alternation with roots, otherwise identical, but with the vowel $\{O\}$, both roots having related meanings (cf. the examples given above for $\{cE\}$ and 262.2). Alongside $\{kE\}$ there is the possibility of hypothesizing a root $\{kO\}$, from which are

derived two morphemes: the classifier {ko•} 'all' (cf. 331.3), and the desiderative auxiliary {kOy} a verb root (cf. 262.21) with additional derivation (/•/ and /y/). Not only does {ko•} have the same class membership as {ke} (both are non-possessed nouns), participating in that set of demonstrative/classifier/modals, with resemblant forms linked by the extensive alternation between roots CE(C) ~ CO(C), but they are symmetrically opposed in meaning. While {ke} designates a hypothetical, uncertain, or non-actual individual with particular and specific deictic force, {ko•} encompasses the maximal general class of (all) potential individuals: one + non-actual vs. all + potential (hypothetical) seems to almost capture the contrast in meaning signaled here by the alternation of the root vowels [E] ~ [O] (cf. generic and particular aspect meaning contrasts, which are parallel) with root vowel symbolic lengthening in {ko•}.

The desiderative {kOy}, undoubtedly sharing a common origin with the independent verb-root {kOy} 'to crave (for), to ache,' is an auxiliary verb with modal value (like the optative and conditional auxiliaries above), and its non-actual, hypothetical force coincides well with the meanings of those morphemes already discussed. As regards its form, the value to be assigned to its final consonant remains yet unclear, but is obviously related to that of the final consonants of the three forms reconstructed above: $\{kEn\}$, $\{kEl\}$, and $\{kEr\}$. All these four consonants, /n l r y/, are members of the same set of CV root-deriving suffixes considered earlier under the example $\{cE\}$ 'bind, etc.,'

and three are found also in a set of related suffixes with closely related meanings as a class of root-derivational morphemes: stative {eI}, iterative {V'y}, repetitive {V'r}, and distributive {VlVlVh} (see sections 233.2 through 233.7; second consonants of CVC roots such as /l y r/ are mentioned also in III.325 regarding their potential meanings as internally reconstructable root-deriving manner suffixes).

It is then possible to hypothesize a root *{kO} with a meaning-range including the features generic class + potential/encompassing, in contrast with *{kE} particular class + optative/hypothetical, or the like. These two roots, *{kE} and *{kO}, are opposed to the synchronic demonstrative root {hE} which refers to the actual and particular (non-hypothetical, non-optative), and which is indicated above as the first morpheme of the interrogative stem /heke/ (/heke/ is actually a member of a subclass of interrogative pronouns of the non-possessed nouns, and one of very few forms in which {hE} and {ke} are synchronically clearly isolable).

The form {hE} also occurs as the internally reconstructed first morpheme in the passive suffix {here} (241.52), originally a verb-stem like {kele} hearsay evidential and {keneh} optative modal auxiliary, and like them it is no longer an independent stem. But {hE} displays rather that same basic tendency of all the morphemes being compared in this discussion of {ke}, i.e., a syntactic and distributional potential as a dependent, compounded, or affixed word element, unlike independent verb-roots, but like the pronominal roots in shape and deictic force. In the passive suffix {here} it

presumably refers the force of the verb action back onto the affected logical object of the verb. It is the synchronic root in the intensifier /hida/ 'very,' where the second morpheme is historically the suffix of selfness, {da} (cf. 243. 21), which conditions the raising of the vowel to /i/ according to regular morphophonemic rule. In these and other respects, {hE} parallels forms derived from *{kE}, as will be described below.

The meanings of {kele} and {kil} are similar to each other with regard to the specification of the actual, both implying a denial of a contemporary reality. The non-past paradigm for personally marked forms of {kele} hearsay evidence (closely resembling the paradigms of auxiliary verbs and the passive) is:

1st-person / ...-kida/
 2nd-person / ...-kelesken/
 3rd-person / ...-ke*/

and the past forms (where {kir} is the past tense auxiliary) are:

1st-person / ...-kirkida/ 'I/we must have...'
 2nd-person / ...-kirkelesken/ 'You did... (reported hearsay)'
 3rd-person / ...-kirke*/ 'They did... (reported hearsay)'

Not only are the meanings similar in reporting events as distant from the here and now (cf. *{kEl} with {kel} 'long, far, far away'), but in the first-person (i.e., with the suffix {da}) there is the neutralization of any possible contrast in form among {kir}, {kele}, and {kil}, as also when {ken} the warning suffix is followed by the hortative suffix {di}

(241.64), since /n/, /r/, and /l/ would be lost before /da/ and /di/, but the potential contrast in meaning is suspended as well in the form /kida/. It means 'I/we must have, could have, supposedly are doing, or must have done ... according to reports (in the past or now)--hearsay evidence, in any case, necessarily referring to the past with or without {kir} overtly present in form. And for first-person, in any case, {da} neutralizes any potential uncertainty that {kil} or {kele} might express, as the speaker usually is able to report his own actions or states with great certainty. The form {hE} is parallel in the following respects, then, to *{kE}:

- (1) {hE} is demonstrative in force;
- (2) contrastive with *{kE} because of meaning oppositions: {hE} +actual, -hypothetical / *{kE} -actual, +hypothetical;
- (3) they share the same morphophonemic patterns and CE canonical shape: auxiliary verb morphophonemics and pronoun root canon;
- (4) they are both the basis for the formation of disyllabic stems (e.g., {here} and {kele}) which have become dependently suffixed to independent verbs and cannot any more occur as verb-stems; but unlike other verb suffixes, they do occur with person-markers suffixed just as independent and auxiliary verbs;
- (5) they both may co-occur with each other (/heke/) as well as occurring with substantives: they are suffixed to

nouns historically, appearing synchronically still in the forms of the optative {ke} 'maybe,' and as the /h/ allomorph of the particular aspect suffix {t};

(6) while the classifiers reconstructed at the beginning of this section have typically low vowel */a/, reconstructed deictic demonstratives like these show */E/ and */O/ grades;

(7) while they now occupy two sequential position-classes, {hE} preceding {ke}, they originally were members of that same first position-class which precedes {da}. They follow the pattern of /tuda/ and other uninflected adverbial forms (section 500):

- /honda/ 'long ago'
- /le·nda/ 'yesterday'
- /tuda/ 'foremost, ahead, increasingly, further along'
- /wayda/ 'from the north'

occurring in a position-class where the locational/directional prefixes derived from body parts (e.g., {se ~ ser} 'hand(s)'; {tu} 'head, face, eyes, i.e., top'; {yel} 'back, rear, etc. '; cf. 231) also occur, and being followed by the class which includes {da}. The form /hida/, best translated with the Latin ipse, an intensifier--'very, the very ...'-- is the paradigmatic instance and model for all the forms like /...-kida/ 'must have' and /...-kuda/ 'want' (from {kOy} + {da}). Derived synchronically from {hE} + {da}, and resembling /kida/ and /kuda/ just cited, /hida/, is the basis for the passive paradigm:

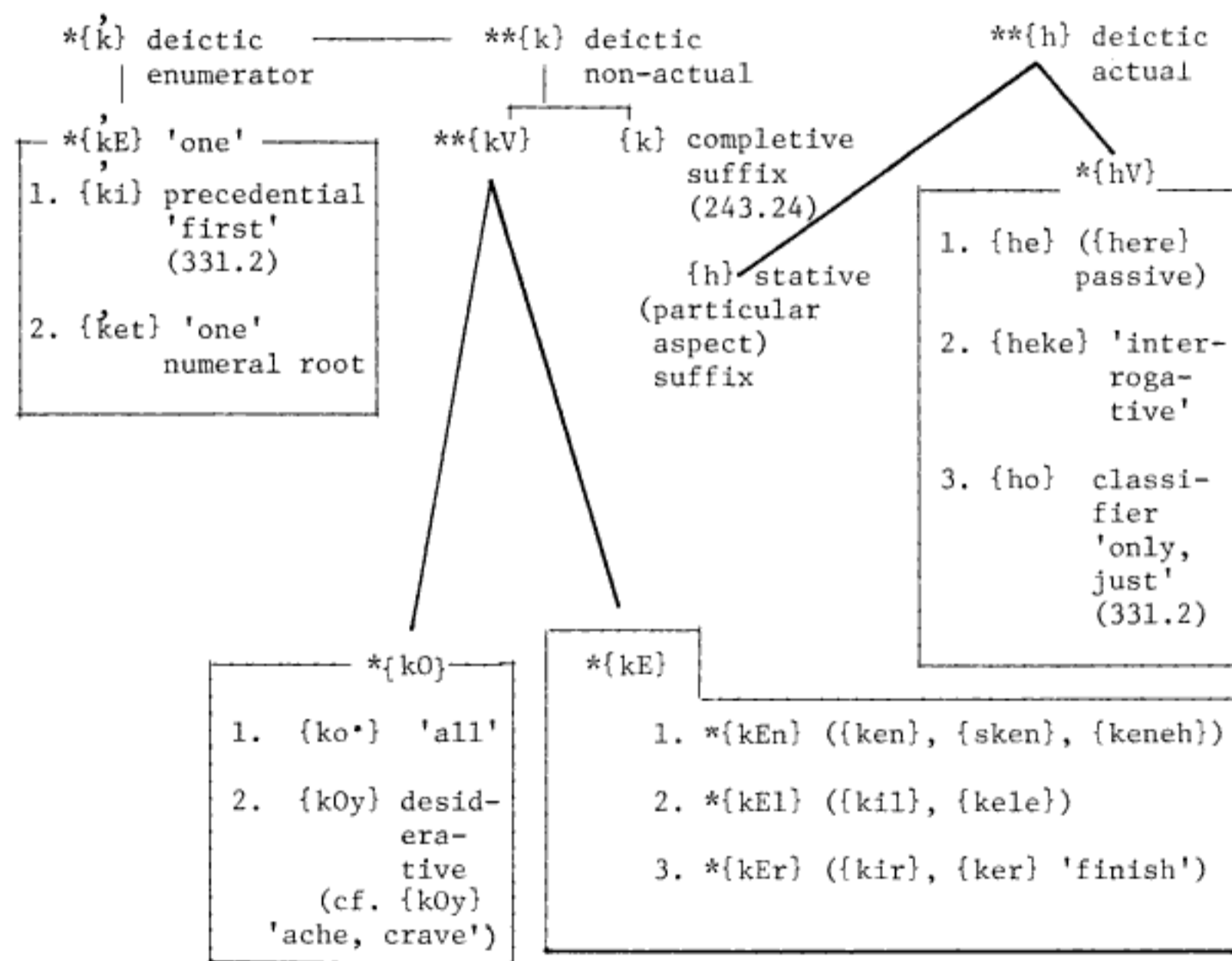
1st-person /...-hida/
 2nd-person /...-heresken/
 3rd-person /...-he*/

constructed on the same pattern as the paradigm for {kele}, cited above, where the original form was the impersonal (third-person) form, and the second syllable of the morpheme is probably the diachronic result of a common origin with {kil} the conditional, which has an indicative stem /kila/, while {kele} has an allomorph /ke*/ following {kil} and {kir}, both forms equivalently functioning as a past-tense indicator neutralizing any differences in meaning (243.12) between conditional and past when the hearsay-evidential follows, and resembling a reduplication of the same suffix. In the passive paradigm above, {hE} likewise has a second syllable extension before the second-person {sken} suffix, likewise with an evidential origin from {re*} the inferential (243.13). This is a further example of their common position-class and hence contrastive origin.

(8) The synchronic position-class membership difference {kE} and {hE} now exhibit is the result of a recently developed combinatory potential, arising from their contrastive meanings: *{kE} giving rise to forms with verbal morphological distributions (auxiliaries, evidential, completive suffix {k} (243.24); {ken} warning suffix; {sken} second-person suffix); while {hE} is connected to substantive morphology, giving rise to non-possessed nouns with deictic

functions, {h} a denominal stative suffix applied to nominal stems (242), identical historically to the /h/ allomorph of the particular aspect suffix which derives nouns (242.1 and 320.1). In the passive suffix, {hE} maintains its deictic function by indicating the actual semantic experiencer of the verbal action, despite the surface grammatical form with subject suffix (cf. examples under 241.52).

Thus, the forms discussed above may be presented in the following summary form:



FIRST-PERSON EXCLUSIVE PRONOMINAL ROOT

341. The first-person exclusive pronominal root {ni} indicates that the person addressed is excluded from the predication. It has three morphologically conditioned allomorphs. The root {ni} has the shape /ni/ when followed by /te/, an allomorph of the pronominal plural suffix {te}; /s/, an allomorph of the object case suffix {um}; or when not followed by further suffixation. It has the shape /ne/ when followed by /t/, an allomorph of the pronominal possessive case suffix {t}; /r/, an allomorph of the instrumental case suffix {r}; /·l/, an allomorph of the pronominal dual suffix {·l}; or /le/, an allomorph of the pronominal plural suffix {te}. It has the shape /niy/ when followed by the emphatic-independent pronominal suffix {o}, or {ni} + {yo} vocative (cf. {da} first-person suffix 243.21).

FIRST-PERSON INCLUSIVE PRONOMINAL ROOT

342. The first-person inclusive pronominal root {pe} indicates that the person addressed is included. It has a single phonemic shape, /pe/. It only occurs in the dual and plural numbers (cf. {pur} reciprocal 331.2, 241.41).

SECOND-PERSON PRONOMINAL ROOT

343. The second-person pronominal root {mi} has four morphologically conditioned allomorphs. The root {mi} has the shape /mi/ when followed by /te/, an allomorph of the pronominal plural suffix {te}; /s/, an allomorph of the

object case suffix {um}; or when not followed by further suffixation. It has the shape /ma/ when followed by /t/, an allomorph of the pronominal possessive case suffix {t}; /r/, an allomorph of the instrumental case suffix {r}; or when followed by the pronominal dual number suffix /•l/ plus stem-formants. It has the shape /me/ when followed by the pronominal dual number suffix /•l/ alone, or the dual suffix plus the pronominal stem-formant {e} and the generic aspect suffix {s}. Apparently as the result of analogy when inflected for object or genitive cases in the generic aspect, there are two competing second-person pronominal stem forms: one based on the allomorph /me/, the other on the allomorph /ma/. The second-person pronominal root {mi} has the shape /miy/ before the emphatic-independent pronominal suffix {o}, or {mi} + {yo} vocative.

THIRD-PERSON PRONOMINAL ROOT

344. The third-person pronominal root {pi} indicates any third person or thing. When in contrast with the pronominal root {?e}, the proximal, it is distal. It has four morphologically conditioned allomorphs. The root {pi} has the shape /pi/ when followed by /te/, an allomorph of the pronominal plural suffix {te}; /r/, an allomorph of the instrumental case suffix {r}; or when not followed by further suffixation. It has the shape /pu/ when followed by /t/, an allomorph of the object case suffix {um}; /r/ an allomorph of the pronominal possessive case suffix {t}; when followed by the pronominal dual number suffix {•l} plus stem-formants;

and when followed by {ba} human plural. It has the shape /pe/ when followed by the pronominal dual number suffix {·1} alone, or the dual suffix plus the pronominal stem-formant {w}, and the generic aspect suffix {s}. Apparently as the result of analogy, when inflected for object or genitive cases in the generic aspect, there are two competing third-person pronominal stem forms, one based on the allomorph /pe/ and the other based on the allomorph /pu/.

THIRD-PERSON PROXIMAL PRONOMINAL ROOT

345. The third-person proximal pronominal root {ʔe} distinguishes two aspects, particular and generic, in singular subject forms, while aspect is not distinguished for other numbers or cases. The pronominal root {ʔe} has three morphologically conditioned allomorphs. It has the shape /ʔe/ when followed by /h/, an allomorph of the particular aspect suffix; /w/, an allomorph of the generic aspect suffix {s}; and before {ba}, the human plural classifier. It has the shape /ʔewe/ when followed by /t/, an allomorph of the object case suffix {um}; /r/, an allomorph of the pronominal possessive case suffix {t}; and the dual suffix {·1}. It has the shape /ʔew/ when followed by /i·n/, an allomorph of the instrumental case suffix {r}; or /n/, an allomorph of the locative case suffix {in}. It has the shape /wi/ when followed by /le/, an allomorph of {te} plural.

PRONOMINAL INFLECTIONAL SUFFIXES

350. The five pronominal roots are optionally followed by two position-classes of inflectional suffixes. The first position-class contains seven members: the object case inflectional suffix {um}; the pronominal possessive case inflectional suffix {t}; the instrumental case inflectional suffix {r}; the locative case inflectional suffix {in}; the pronominal dual inflectional suffix {·l}; the pronominal plural inflectional suffix {te}; and {ba}, the human plural classifier.

DUAL

350.1. The pronominal dual inflectional suffix {·l} marks dual number. It has two morphologically conditioned allomorphs. It has the shape /l/ when affixed to /pu/, an allomorph of the third-person pronominal root {pi}, or to the third-person proximal pronominal root {ʔe}; it has the shape /·l/ elsewhere. It may be followed by the pronominal stem-formant {e}. It can probably be internally reconstructed as an allomorph of the uninflected dual number morpheme {lel}.

PLURAL

350.2. The pronominal plural inflectional suffix {te} marks plural number. It has three morphologically conditioned allomorphs. It has the shape /te/ when affixed to /ni/, an allomorph of the first-person exclusive pronominal root {ni}; /mi/, an allomorph of the second-person pronominal root {mi}; /pi/, an allomorph of the third-person pronominal

root {pi}. It has the shape /le/ when affixed to /ne/, an allomorph of {ni}; /ma/, an allomorph of {mi}; /wi/ an allomorph of {ʔe}; and the first-person inclusive pronominal root {p'e}. (The third-person pronominal root [proximal] {ʔe} does not co-occur with {te}, the plural suffix, except in the form /wile/, but only with {ba} the human plural suffix of this class, which contrasts with {te}, both {te} and {ba} occurring with {pi}, the third-person [distal] root.) The form {te} may be followed by {e}, the non-singular pronominal stem-formant (340.4), and by the reciprocal {p'ur} (241.41).

HUMAN PLURAL CLASSIFIER

350.21. The third member of the second-position class of pronominal number suffixes, {ba}, which marks plural humans, is almost complementary to {te} plural suffix; {ba} occurs only with third-person roots {pi} and {ʔe}--e.g., /puba·/ 'those people,' /ʔeba·/ 'these people'--as well as with aspect and reciprocal suffixes. There is a pluralizer {wi} as in /ʔilawi/ 'children,' a morpheme of unique occurrence.

The second optional position-class of suffixes affixed to pronominal roots includes two members: the emphatic-independent inflectional suffix and the pronominal stem-formant.

EMPHATIC

350.3. The emphatic-independent inflectional suffix {o} has both a semantic and a syntactic function. Semantically it emphasizes the form to which it is suffixed, while

syntactically it marks that form as an independent pronoun. It has a single phonemic shape /o/, and is suffixed directly to the pronominal root or to the pronominal root plus the possessive suffix {r}. It does not occur with the first-person inclusive pronominal root {pe} or the third-person proximal pronominal root {[?]e}. Historically, {o} is probably from *{[?]o} distal demonstrative (cf. 340.2).

NON-SINGULAR PRONOMINAL STEM-FORMANT

350.4. The suffix {e}, the pronominal stem-formant, is suffixed to the dual and plural number suffixes, and is obligatorily followed by either aspect suffix. It has three morphologically conditioned allomorphs: /e/ following /[?]l/, an allomorph of the dual number suffix {[?]l}; /e^{*}/ following /pu/, an allomorph of the third-person pronominal root {pi}, plus /l/, an allomorph of the dual number suffix {[?]l}; and the shape /^{*}/ following the plural number suffix {te}, perhaps from *{[?]E} demonstrative (cf. 340.2).

PRONOMINAL COMPOUNDING

351. The non-possessed nouns /[?]ta^{*}/, /[?]te/, /[?]lome/, /[?]pe/, /ho/, /ke/, /[?]ki/, /qat/, /me/, and /[?]pur/ may be compounded to the bare pronominal root, the pronominal root plus members of either one or both of the two position-classes of suffixes affixed to the root, or to the pronominal dual and plural forms inflected for aspect and case.

CLASSIFIERS

355. Classifiers of quantity and quality occur as members of different morphological classes. Number is marked to an extent by the particular and generic aspect suffixes {t} and {s}; by a plural suffix {wi} of unique occurrence with the root for child {ʔila}; by the pronominal inflectional suffixes of number {·l} dual, {te} plural, and {ba} human plural; and by the non-singular pronominal stem-formant {e}. Classifiers of quantity and quality include some non-possessed nouns with enclitic syntactic forms and functions such as:

<u>quantity</u>	<u>quality</u>
/ʔusa/ 'some'	ʔila diminutive
/hisa·/ 'some, how many'	/ʔisto·/ pejorative
{ko·} 'all'	{pe} privative
{te} 'only'	{me} 'own, kind, variety'
{ho} 'only, just'	{luqa} indefinite
{lel} dual	{ki} precedential
all numerals	/soqo/ uncertain
	/ʔoqti/ identical
	/henoqti/ 'what kind, what identity'
	/ʔuqa·/ identical

In addition, there occurs in the form /wint^hu·h/ a sequence of phonemes between the isolatable noun /win/ 'men, people' and /h/ particular aspect: /t^hu·/, not elsewhere found in the language, which appears to be a human/plural noun-classifier, similar in function to the pronominal suffix

{ba}. (The name of this language and people, their own word for themselves, would then be, literally, 'the particular men, the chief people.')

CHARTS OF PRONOUN PARADIGMS

360. Note that singular pronominal forms show no contrast between particular and generic aspect forms except for the proximal third-person subject forms /[?]eh/ 'particular' and /[?]ew/ 'generic.' There obviously is no contrast in first-person singular forms between inclusive and exclusive forms, all singular forms being based on the exclusive root {ni}. The verb forms derived from pronouns translate 'to be ...' --e.g., /neta/ 'to be mine.' The third-person forms have demonstrative functions syntactically, /pi/ translating as non-proximal 'that' if contrasted with /[?]ew/ 'this.' The first-person inclusive forms based on the root {[?]pe} show no reciprocal pronouns with the suffix {[?]pur} 'each other' (cf. 241.41) and fewer forms altogether than other pronouns (perhaps for semantic reasons). The third-person pronouns (essentially demonstrative in force, contrasting distal and proximal meanings) show a contrast for {pi} of inanimate vs. human, while for {[?]e} (proximal) only the human classifier (plural) suffix {ba} occurs in the paradigm (except for the subject form /wile/). Note the demonstrative, independent non-possessed noun {[?]uk} 'yonder,' p. 228.

361. Chart of First-Person Exclusive Pronominal Forms

{ni}: /ni/, /niy/, /ne/

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Singular</u>				
Subject				
Neutral		ni		
Emphatic		niyo		
Object				
		nis		
Dependent Possessive				
		net		neta
Independent Possessive				
		neto		
Instrumental				
		ner		
Reflexive Verb				
				niya
<u>Dual</u>				
Subject				
	ne•let	ne•l	ne•lel	
Object				
	ne•lem		ne•lelum ne•letum	
Genitive				
	ne•len		ne•lelun ne•lelen	ne•lena
Reflexive Verb				
				ne•la
<u>Plural</u>				
Subject				
	nele;t nitepurut	nite	nite;rum nitepurum	
Genitive				
	nele•n, nele•npurun		nele•len	nele•na
Reflexive Verb				
				nite•ruma

362. Chart of First-Person Inclusive Pronominal Forms

{pe}

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Dual</u>				
Subject	pe•let	pe•l	pe•lel	
Object	pe•lem		pe•lelum pe•letum	
Genitive	pe•len		pelelun pe•lelen	pe•lena
Reflexive Verb				pe•la
<u>Plural</u>				
Subject	pele•t	pele		
Genitive	pele•n		pele•len	
Reflexive Verb				peleya

363. Chart of Second-Person Pronominal Forms

{mi}: /mi/, /ma/, /me/, /miy/

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Singular</u>				
Subject				
Neutral		mi		
Emphatic		miyo		
Object		mis		
Dependent Possessive		mat		mata
Independent Possessive		mato		
Instrumental		mar		
Reflexive Verb				miya
<u>Dual</u>				
Subject	ma•let	me•l	me•lel	
Object	ma•lem		ma•lelum ma•letum	
Genitive	ma•len		ma•lelun me•lelen	ma•lena
Reflexive Verb				me•la
<u>Plural</u>				
Subject	male•t mite ^ˈ purut male•t ^ˈ purut	mite	mite•rum mite ^ˈ purum	
Genitive	male•n male•n ^ˈ purun		male•len	male•na
Reflexive Verb				mite•ruma

364. Chart of Third-Person Pronominal Forms

{pi}: /pi/, /piy/, /pu/, /pe/

	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Singular</u>				
Subject				
Neutral		pi		
Emphatic		piyo		
Object		put		
Dependent Possessive			pur	pura
Independent Possessive	putun			
Instrumental		pir		
Reflexive Verb				piya
<u>Dual</u>				
Subject	pule't	pe'l*	pe'lel	
Object	pule'm		pule'lum pule'tum	
Genitive	pe'len		pe'lelen pe'lulun	pe'lana
Locative	pule'n, pule'npurun		pule'len	pule'na
Reflexive Verb				pe'la
<u>Plural</u>				
Subject	pite'rut pite'purut puba'tpurut	pite puba'	pite'rum pite'purum puba'tpurum	
Genitive	puba'npurun		pite'purun	puba'npuruna
Reflexive Verb				pite'ruma
(cf. 241.41 reciprocal {pur}, 241.42 benefactive {paq})				

* may also function as a conjunction 'and'

365. Chart of Third-Person Proximal Pronominal Forms

	{ʔe}			
	Particular Aspect	Aspect Unmarked	Generic Aspect	Verb Forms
<u>Singular</u>				
Subject	ʔeh		ʔew	
human	ʔebeh			
Object	ʔewet			
Dependent Possessive		ʔewer		
Independent Possessive	ʔewetun			
Instrumental			ʔewi·n	
Locative		ʔewin		
<u>Dual</u>				
Subject			ʔewelet	
Object			ʔeweletam	
<u>Plural</u>				
Subject	ʔebas ^h purut	{ʔeba ^h wile }	ʔebas ^h purum	
Genitive	ʔeba·n ^h purun		ʔeba·n ^h purun	ʔeba·n ^h puruna
Object	ʔeba·t ^h purut		ʔeba·t ^h purum	
	ʔeba·n ^h purut		ʔeba·n ^h purum	

SENTENCE CONNECTIVES

400. Sentence connectives are distinguished primarily in terms of syntactic function, but are morphologically marked in two ways. They are all based on the (auxiliary verb) root {ʔuw}, they take a very limited number of verbal and nominal suffixes, and are followed by postposed auxiliaries. Six forms are based on the general verb of doing (distal) root {ʔuw}, while five are based on a stem derived from this root, /ʔuni/. To the root {ʔuw} are suffixed the passive {here}, the inevitable future {le}, the causative {m} plus the stem-formant {a}, and the particular aspect suffix {t}; while to the stem /ʔuni/ the subordinating suffix {r} is affixed, and the auxiliaries {har}, {bOh}, and {kil} are postposed. The five forms based on /ʔuni/ are totally anomalous in morphological composition. The suffix and the three auxiliaries are normally added to the indicative stem-forms of verbs, but the vowel /i/ is usually the nominal stem-formant {i}.

The following sentence-connective forms are based on the auxiliary root {ʔuw}:

/ʔuwe/	'just that way, anyway'
/ʔut/	implies change in subject, 'then, so then and yet' (a deictic shifter for switch reference)
/ʔule's ʔut/	'if you had ..., I would have'
/ʔule's ʔunir/	'just because they were alike'
/ʔuma•/	'thus'
/ʔuhetan/	'unless, anyhow, despite, even though'

/ʔuna•/ 'then' (subordinating)

The following sentence-connective forms are based on the stem /ʔuni/ (perhaps from {ʔuw} + {n} reflexive):

/ʔuni/ quotative (nominalized verb)

/ʔuni-hara•/ 'after ... had continued and' (when previous predication was a continuous state)

/ʔunir/ 'because' (that's the way it is)

/ʔuni-buha/ 'and, and then' (a deictic shifter for switch reference; subject remains the same)

/ʔuni-kila/ 'if, and, and then' (conditional)

UNINFLECTED WORDS

500. The last category of words, uninflecteds, are fixed in form and are distinguished by their inability to occur with inflectional suffixes. They include four semantically and syntactically defined classes--conjunctions, exclamatives, adverbs, directionals--and one numeral.

The conjunctions are:

/ʔut/ 'then, so then, and then' (with subject change), a deictic shifter used for switch referencing, cf. 400

/qah/ ~ /qa/ 'or, and or'

/ʔelwin/ 'with'

/kala•n/ 'among'

The exclamatives are:

/di'h/	'indeed, hm'
/hada•/	wonder
/hadi/	wonder
/ha•haq/	'look' (shamanistic)
/hala/	(disgust)
/he•he•/	'see here, well, well!'
/hi•he/	a curse
/ho•/	'yes'
/huh/	'well, all right then'
/huhlel/	'all right!'
/ma•/	'oh me!'
/ma•n/	concessive, indefinite
/ma•y/	'oh me!'
/me•kur/	a curse
/mi•ta/	annoyed surprise
/peh/	awe
/sici•/	'oh damn!'
/tah/	surprise
/ye•/	vocative, addressive
/ye•/	'oh!'
/yo/	vocative
/yo•/	conjectural to self (assured?)
/ʔani•/	regret
/ʔay/	ingratiating (weak 'please')
/ʔelew/	'no, never'
/ʔi•/	(a sigh)
/ʔu•/	'I don't know'
/ʔume•/	'well'

The adverbs are:

/hima*/	'morrow'
/hima*da/	'earlier'
/honbes/	'old' (of things)
/honda/	'long ago, for a long time'
/ho*n/	'already'
/lendada/	'long ago'
/le*n/	'ancient'
/le*nda/	'yesterday'
/limon/	'away, out of sight, hearing, faintly'
/po*/	'now'
/su*s/	'always' (cf. {suk} perfective aspect)
/tuda/	'increasingly, further along (from {tu} 'forward' + {da} intensive) 'foremost'
/ʔelewmina/	'certainly'
/ʔuku/	'there' (cf. {ʔuk} 'yonder')
/ʔuwe/	'anyway'

There are eleven uninflected words of directional meaning:

/ken/	'down'
/nom/	'west'
/nor/	'south'
/pan/	'on'
/puy/	'east'
/tuda/	'ahead' (see above: /tuda/ 'increasingly')
/way/	'north'
/yay/	'back'
/yel/	'away'
/ʔel/	'in'
/ʔol/	'up'

These also occur prefixed to roots in verb forms. The directionals and /tu/ 'ahead' and /xun/ 'toward,' which do not occur as free forms, are followed by four suffixes that appear to be locational, but for which meanings and functions cannot be further specified. These four suffixes are:

{ti}	'at, in'
{da}	'from, of' (< {da*1} 'toward')
{dal}	'at, at the direction of' (cf. {daw} 'front,' {tu} 'ahead')
{el}	'toward, in' with two allomorphs, /e*1/ following {ʔol} and {xun} and {kel}; /el/ elsewhere

Examples are:

/kele*1/	'far'
/kenti/	'below, under'
/norel/	'to the south, southward'
/panti/	'top of'
/wayda/	'from the north'
/waydal/	'outdoors' (referring to traditional house door location)
/wayti/	'other side'
/xundal/	'from lower'
/xune*lte/	'on this side' ({xun} + {el} + {ti}, dialect?)
/yelti/	'back of'
/ʔelti/	'inside'
/ʔole*1/	'up above'
/ʔoltay/	'up above (dialect form of /ʔolti/ ?)
/ʔolti/	'above'

There is one uninflected numeral, the dual {lel} which is translated as 'two' (cf. {*1} dual number 350.1).

V

WORD TACTICS AND TEXT ANALYSIS

TACTIC UNITS

100. Most typically, the boundaries of morphological words defined on the basis of the fixed order of their component morphemes coincide with those of phonemic words discussed earlier. The unit defined by the agreement of phonological and morphological word boundaries is a full word and constitutes a basic syntactic unit. In some instances, forms which are phonemically a single word consist of two or more morphemic words. These constitute another kind of syntactic unit, called a complex word.

The morphological words which occur within the boundaries of a phonological word contour are classed as clitics and non-clitics on the basis of dependence. The clitic is always unilaterally dependent on the non-clitic, the direction of this dependence being determined by 'dropping.' Clitics are classified as proclitics and postclitics by their position relative to the non-clitic. Some morphemic words occur as both clitics and full words. For example, the partial utterance /+qewel+[?]el+/ 'in the house' consists of two phonemic words and two morphemic words. The partial utterance /+[?]el-qewel+/ 'in the house' consists of one

phonemic word as well as two morphemic words, and hence of one full word. The monomorphemic form /ʔel/ 'in' is both a full word in /+qewel+ʔel+/ and a proclitic in /+ʔel-qewel+/>.

The largest syntactic unit considered is the sentence. Sentences consist of sequences of full words terminated by a period juncture /./.. These sequences of words are of two types, depending on the presence or absence of a word belonging to the morphological class 'verb' which separates them into clauses and phrases.

Clauses which are terminated by a comma juncture /,/, except when occurring sentence-finally, obligatorily contain verbs. Phrases obligatorily contain nouns and never main verbs. Clauses are of two types: dependent and independent, according to the type of inflectional suffix forming the verb--that is, according to whether the verb contained is dependent or independent. Independent verbs may take the personal inflectional suffixes, while dependent verbs are marked by the subordinating suffixes {r}, {ʔan}, {ʔa}, {n}, {so}, and {ta}.

Within sentences, the syntactic relations between full words and between full words and clitics are indicated by word-order and by inflectional and derivational suffixes as well as by conditions of dependent occurrence. Four types of functions are thereby distinguished: head, attributive, satellite, and conjunction.

Heads and attributives are mutually self-defining, heads being those full words not dependent on other forms (heads) for their occurrence. This dependence is generally marked

both by the presence of certain inflectional morphemes associated with attributive functions and by the order of the forms relative to each other. Thus, attributives of nouns which are in the locative or genitive case or are subject pronouns precede the noun heads they modify. For example:

/wint ^h u·n qewelin/	'in an Indian (Wintu) house'
/pi kete·t/	'that lone one'
/po·min λuci/	'... fell, stuck in the ground'
/yay-seden yayt ^h apus/	'Coyote's backsplitter'

Generic subject attributives of nouns follow the heads they modify; for example:

/kete·t carawa/	'one coyote'
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Attributives of verbs in the locative case--i.e., nouns in the locative case and noun phrases with heads in the locative case--precede the verb they modify. For example:

/wint ^h u·n qewelin buha/	'in an Indian house he did live'
/ʔewin biya/	'here are ...'
/qolci·n norel p ^h uta·/	'it's boiling up in the sky heading south'
/ʔe·lin kuda/	'step all over'

Attributives of verbs in the genitive case follow the verb they modify; for example:

/qolca ʔol-kulun/	'the sky being on edge'
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Satellites, which only occur in clauses and include words, phrases, or dependent clauses, are either the subjects or objects of verbs. This relation is marked by both word-order and concord of the nominal inflectional case

suffixes {um}, {un}, and {in}, or the particular aspect suffix {t} or the generic aspect suffix {s} (which when unmarked for case [i.e., no overt case suffix] function as subjects) with the imperative verb-stem-deriving suffixes: {t} (which marks the verb as having a patient in the particular aspect) and the comitative suffixes {i·l} (which marks the verb as having an object in the particular aspect) and {m} (which marks the verb as having an object in the generic aspect). Thus the satellite subject of a verb always precedes it (and is generally the first member of the clause, unless the verb also has an adverbial attributive) except when the satellite object is a dependent clause, or a noun-phrase containing a genitive attributive, in which case it immediately follows. For example:

/po·m yel-hura/	'land destroyed'
/čarawa buha way/	'Coyote lived in the north'
/sedet ʔelew kiyemti·n/	'Coyote never speaks wisely'
/wayda me·m hina/	'a northern flood-water (will) arrive'

But:

/mutut čarawa ʔelew heke·n wint ^h u·h sukmina/	'Coyote sensed, perceived that there was not a person anywhere'
/ʔewin tipna· yay-seden yayt ^h apcus/	'this did Coyote's back-splitter understand'

TEXT WITH ANALYSIS

200. The following text, originally published by Dixon in *The Putnam Anniversary Volume* (1909, G.E. Stechert and Co.; Franz Boas, ed.), was entirely re-elicited from Carrie Dixon and retranslated in 1956, and may profitably be compared with the original version. Such a text could not have been collected recently, and like much oral literature is unfortunately only rarely any longer preserved. (A plus juncture /+/ will be replaced by a space everywhere for greater legibility.)

210. Text:

THE FLOOD

1. po·m¹ yel-hura², 'carawah³ buha⁴ way⁵.

land destroyed coyote stay north

There was a big flood, and Coyote lived in the north.

2. gewel⁶, wint^hu·n⁷ gewelin⁸ buha⁹.

house Wintu in house stay

He lived in a house; in an Indian (Wintu) house did he live.

3. 'kete·t¹⁰ 'carawah¹¹, pi¹² 'kete·t¹³, ?elew¹⁴

heke·n¹⁵ wint^hu·h¹⁶ sukmina¹⁷.

one coyote he one no

where the people stand-not

One Coyote, that lone one, with no humans to be seen anywhere.

4. 'carawah¹⁸ t^hawana¹⁹, waca²⁰, p^hu[•]rus²¹ waca²².
 Coyote be sad cry heart cry
 Coyote was sad and lonely; he cried; his heart cried.
5. mutut²³ 'carawah²⁴ ?elew²⁵ heke[•]n²⁶ wint^hu[•]h²⁷ sukmina²⁸.
 heard it coyote no where person stand-not
 Coyote sensed/perceived that there was not a person
 anywhere.
6. pi²⁹ 'kete[•]t³⁰ buha³¹.
 he one stay
 That one remained there alone.
7. mute³² 'kiyemti[•]n³³.
 hear old man-speak
 He heard a wise man speaking.
8. sedet³⁴ ?elew³⁵ 'kiyemti[•]n³⁶.
 Coyote no old man-speak
 Coyote never speaks wisely.
9. ?ewin³⁷ biya³⁸ yay-'carawah³⁹ 'kiyemti[•]n⁴⁰.
 here be back-coyote old man-speak
 Coyote-with-a-tail who was here (then) spoke wisely.
10. 'carawah⁴¹ ti[•]n⁴², henuni⁴³ po[•]m⁴⁴ hima[•]45
 ?ibewi[•]46, ?uni⁴⁷.
 Coyote speak how land morrow
 be? thus quote
 The Coyote said, "How will the world be on the
 morrow?" Thus he said.

11. po·m⁴⁸ me·m⁴⁹ 'cuha·⁵⁰ -wira⁵¹, ?uni⁵².

land water flow will thus quote

"A flood will flow," he said.

12. wayda⁵³ me·m⁵⁴ hina⁵⁵, ?uni⁵⁶.

north water arrive thus quote

"A great northern flood-water will arrive," he said.

13. 'qolci·n⁵⁷ norel⁵⁸ p^huta·⁵⁹.

sky-in south boil

"It's boiling up in the sky heading south."

14. me·m⁶⁰ wayken-hara·⁶¹, kele·l⁶² hara·⁶³.

water north go far go

The water receded northward, a long way it went.

15. 'qolci⁶⁴ po·min⁶⁵ 'λuci⁶⁶ hara·⁶⁷.

sky land-in stuck went

That which was sky fell deeply into the ground.

16. me·m⁶⁸ p^huta·⁶⁹.

water boil

The water boiled up.

17. sedet⁷⁰ ?elew⁷¹ 'tipnamina⁷², ?ewin⁷³ 'tipna·⁷⁴

yay-seden⁷⁵ yayt^hapcus⁷⁶.

Coyote no know-not here know

back-coyote-of back-breaker

Coyote hadn't understood; Coyote's

back-splitter understood this.

18. yayt^hapcus⁷⁷ ti·n⁷⁸, ?elew⁷⁹ ?ibe·sken⁸⁰ peh⁸¹
'tipnamina⁸².

back-splitter speak no be-you aw!

know-not

The back-splitter said, "Aw, you don't know/understand anything."

19. ya·paytu⁸³ ?e·lin⁸⁴ 'kuda⁸⁵ ?ibe·⁸⁶, ?uni⁸⁷.

spirit all over step are thus quote

"The spirits/white people are arriving all over the world," he said.

20. 'qolca⁸⁸ ?ol-kulun⁸⁹, panti⁹⁰ 'kuda⁹¹ -wira⁹² ?ibe·⁹³.

be sky of-up-edge on top step will be

"The sky being on edge, they are going to step over it"--i.e., the horizon's edge.

MORPHOTACTIC ANALYSIS

220.

1. po·m 'earth, land'; noun class N, generic subject/object, satellite subject of verb /yel-hura/; from {po·} 'now, new, world' + {s} generic aspect suffix.
2. yel-hura 'become broken up, destroyed, reversed'; verb class A, stem I, independent main verb of the independent clause; {yel-} prefix 'back, backwards' + {hOr} root 'remain, be left' + {a} stem I formant.

3. ^ˈcarawah 'Coyote,' lit., field creature; noun class P, particular subject, satellite subject of verb buha; {^ˈcar} root 'green' + indicative stem-formant {a} + {s} generic aspect suffix + {a} stem-formant to form a class N verb + {t} particular aspect suffix.
4. buha 'stay, sit, remain'; verb class A, indicative stem, independent main verb of the independent clause; {bOh} root 'sit' + {a} stem-formant.
5. way 'north'; uninflected directional, attributive adverbial to /buha/; {way} root 'north.'
6. gewel 'house'; noun class N, generic subject, one-word independent noun-phrase; derivation obscure, appears to be {gew} root (?) + {el} root-deriving stative verb suffix.
7. wint^hu•n 'Wintu, Indian'; noun class O, particular locative, as attributive of /gewelin/ in noun phrase; {wi} root 'person, man' + {in} locative case suffix + {t^hu•} (synchronically obscure, diachronically *tV animate classifier, unique occurrence of this bound morpheme) + {in} locative case suffix.
8. gewelin 'in a house'; noun class N, generic locative, head of noun phrase which is a satellite of the verb /buha/; for derivation see 6, + {in} locative case suffix.
9. buha See 4.

10. ^ʔkete•t 'one'; non-possessed noun class R, particular subject, head of independent noun-phrase; {ket} root 'little' + {a} stem-formant + {t} particular aspect suffix.
11. ^ʔcarawah 'coyote'; noun class P, generic subject, attributive of /^ʔkete•t/ in independent noun phrase; for derivation see 3. The generic aspect suffix {s} does not occur with members of noun class P, the aspectual function being marked by the paradigmatic contrast with the marked particular.
12. pi 'that one, he'; third-person singular pronominal subject, attributive of /^ʔkete•t/ in independent noun-phrase which is in apposition to the previous noun-phrase; {pi} third-person pronominal root, unmarked for aspect or case.
13. ^ʔkete•t See 10.
14. ^ʔelew 'no'; negative preverb attributive auxiliary, attributive of main verb /sukmina/; derivation obscure; see discussion, IV. 262.42.2.
15. heke•n 'where'; non-possessed noun class A, generic locative, attributive of /wint^hu•h/ in noun phrase; {hE} interrogative/demonstrative root + {ke} optative root + {in} locative suffix (literally, 'where at').
16. wint^hu•h 'Wintu, people'; noun class O, particular subject, head of noun-phrase which is satellite to verb /sukmina/; see 7 for derivation, + {t} particular aspect suffix.

17. sukmina 'stand-not'; verb class H, imperative stem, independent main verb of the independent clause; {suk} root 'stand, be' + {mina} negative, imperative stem inflectional suffix.
18. ^ˈcarawah See 3; satellite subject of verb /t^hawana•/.
19. t^hawana• 'be sad, grieve'; verb class K, indicative stem, independent main verb of the first independent clause; {t^haw} 'have a scar' + {a} stem-formant + {n} reflexive + {a} stem-formant.
20. waca• 'cry'; verb class B, indicative stem, independent main verb constituting the second independent clause; {wac} 'cry' + {a} stem-formant.
21. p^hu•rus 'heart'; noun class L, generic subject, satellite subject of verb /waca•/ (22); {p^hu•r} 'breathe' + {u} nominal stem-formant + {s} generic aspect.
22. waca• See 20; independent main verb of the third independent clause, of which /p^hu•rus/ is the single satellite.
23. mutut 'heard, perceived him'; verb class H, imperative stem, its position as first word in the sentence marks it as the main verb of the independent clause which includes a dependent clause satellite as well as a satellite subject; {mut} root 'sense, perceive' + {u} imperative stem-formant + {t} personal object suffix.

24. 'carawah See 11; satellite subject of main verb /mutut/.
25. ?elew See 14; attributive of main verb /sukmina/ of the dependent clause which is a satellite of the main verb /mutut/.
26. heke'n See 15.
27. wint^hu'h See 16.
28. sukmina See 17; independent main verb of dependent clause which is satellite to the main verb /mutut/.
29. pi See 12; attributive of noun /kete't/ in noun-phrase which is the satellite subject of /buha/.
30. kete't See 10; head of noun-phrase which is satellite subject of independent verb /buha/.
31. buha See 4.
32. mute 'hear, perceive'; verb class H, indicative stem word-order again marks it as main verb of independent clause which has as its satellite object a dependent clause; see 23.
33. kiyemti'n 'wise-speaking, lit., old man-talk'; verb class F, indicative or imperative stem morphologically, but indicative stem syntactically, main verb which constitutes a dependent clause which is the satellite object of the verb /mute/; /kiyemti'n/ is a compound of /kiyem/ 'old man,' noun class G, generic subject, attributive to {ti'n} root 'speak'; /kiyem/ {kiy} root 'to age, of males' + {i} nominal stem-formant + {s} generic aspect suffix.

34. sedet 'Coyote'; noun class B, particular subject, satellite subject of main verb /'kiyemti·n/; /sede/ appears to be formed from a root {sEd} or {sed} of unique occurrence in this form + {i} nominal stem-formant + {t} particular aspect suffix.
35. ?elew See 14; attributive of main verb /'kiyemti·n/.
36. 'kiyemti·n See 33; main verb of independent clause with a satellite subject /sede/ and an adverbial attributive.
37. ?ewin 'here'; third-person proximal pronominal, locative case, attributive of the attributive auxiliary /biya/; {?e} third-person pronominal root + {in} locative case suffix.
38. biya 'is/was'; imperfective aspect attributive auxiliary, attributive auxiliary to main verb /'kiyemti·n/; {bEy} 'be, lie' + {a} indicative stem-formant.
39. yay-carawah 'coyote with a tail,' lit., back-coyote; noun class P, generic subject, satellite subject of main verb /'kiyemti·n/; see 3.
40. 'kiyemti·n 'speak wisely,' lit., old man-speak; see 33; main verb of independent clause with satellite subject /yay-čarawa/, and attributive auxiliary.
41. čarawah See 3; satellite subject of main verb of independent clause /ti·n/.

42. ti'n 'speak'; verb class F, indicative stem, main verb of independent clause with a satellite subject; {ti'n} root 'speak,' does not occur with an overt representation of the indicative stem-formant.
43. henuni 'how'; verb class B, nominal stem, main verb of independent clause with satellite subject and auxiliary and adverbial attributives; /henuni/ is a compound of /hen/ + /ʔuni/, /hen/ < {hE} interrogative/demonstrative root + {n} locative suffix and /ʔuni/ probably < {ʔuw} copula root of doing (distal) + {n} reflexive suffix (?) + {i} nominal stem-formant.
44. po'm See 1; satellite subject of verb /henuni/.
45. hima' 'morrow'; uninflected adverbial, attributive of main verb /henuni/; {hE} interrogative/demonstrative root + {m} causative suffix (?) + {a} indicative stem-formant (?); lit., cause to arrive, to be here (?).
46. ʔibewi' 'be'(?); imperfective aspect attributive auxiliary, attributive to main verb /henuni/, {ʔiy} copula root of doing + {bEy} root 'be, lie' + {u} imperative stem-formant (contracts to /be'/' when auxiliary) + {i'} interrogative suffix.
47. ʔuni 'thus said'; quotative sentence connective, indicates immediately preceding independent clause is quotation; see 43.

48. po'm See 1; word-order indicates satellite object function to verb /'cuha'/.
 49. me'm 'water'; noun class N, generic subject/object, word-order indicates satellite subject function to verb /'cuha'/; {me'm} is an unanalyzable root.
 50. 'cuha' 'flow'; verb class B, indicative stem, main verb of independent clause which has satellite subject and object and postposed attributive auxiliary; {'cuh} root 'flow' + {a} indicative stem-formant.
 51. -wira 'will'; future intentional aspect attributive auxiliary, postposed attributive to main verb /'cuha'/; {wEr} root 'come' + {a} indicative stem-formant.
 52. ?uni see 47.
 53. wayda 'from the north'; uninflected directional, attributive to verb /hina/; {way} root 'north' + {da} locative suffix 'from.'
 54. me'm see 49.; satellite subject of verb /hina/.
 55. hina 'arrive'; verb class E, indicative stem, main verb of independent clause with satellite subject and adverbial attributive; {hE} interrogative/demonstrative root + {n} locative suffix ? + indicative stem-formant {a}.
 56. ?uni See 47.

57. qolci'n 'in the sky'; noun class A, generic locative, attributive of main verb /p^huta'/; {qol} root 'weather, sky' + {c} mediopassive suffix + {i} stem-formant + {in} locative case suffix.
58. norel 'toward south'; uninflected directional, attributive of verb /p^huta'/; {nor} root 'south' + {el} locational suffix 'toward.'
59. p^huta' 'boil'; verb class B, indicative stem, main verb of independent clause with locative and directional attributives; {p^hot} root 'boil' + {a} indicative stem-formant.
60. me'm See 49; satellite subject of verb /wayken-hara'/.
61. wayken-hara' 'go north'; verb class F, indicative stem, main verb of independent clause with satellite subject; {way} prefix 'north' + {ken} prefix 'in, down' + {har} root 'motion away from speaker' + {a} indicative stem-formant.
62. kele'l 'far'; uninflected directional attributive of verb /hara'/; {kel} 'long' + {el} locational suffix 'toward, in.'
63. hara' 'go'; see 61; main verb of independent clause with directional attributive.
64. qolci 'being sky, sky'; verb class A, nominal stem, generic nominal stem of noun class A, satellite subject of main verb /hara'/; see 57.

65. po'min 'in the land'; noun class N, generic locative case, attributive of noun /^luci/ in noun phrase; see 1, + {in} locative case suffix.
66. ^luci 'being stuck'; verb class A, nominal stem, generic nominal stem of noun class A, satellite object of main verb /hara*/; {^lu} 'stick, stab, plant; of long objects' + {c} transitive suffix + {i} nominal stem-formant.
67. hara* See 61; main verb of independent clause with satellite subject and satellite object noun-phrase.
68. me*m See 49; satellite subject of verb /p^huta*/.
69. p^huta* See 59; main verb of independent clause with satellite subject.
70. sedet See 34; satellite subject of verb /^tipnamina/.
71. [?]elew See 14; attributive auxiliary of verb /^tipnamina/.
72. ^tipnamina 'hadn't understood'; verb class K, imperative stem, main verb of independent clause with satellite subject and attributive auxiliary; {^tip} root 'notice' + {n} reflexive suffix + {u} imperative stem-formant + {mina} negative suffix.
73. [?]ewin See 37; attributive of verb /^tipna*/.

74. 'tipna' 'understand, know'; see 72; main verb of independent clause with locative attributive and noun-phrase satellite subject.
75. yay-seden 'of the Coyote with the tail'; noun class B, particular genitive case, possessive attributive of noun /yayt^hapcus/; {yay} prefix 'back' + /sede/ (see 34) + {un} genitive case suffix.
76. yayt^hapcus 'back-splitter'; noun class L, generic subject, noun head of noun-phrase, satellite subject of main verb /'tipna'/; {yay} root 'small of the back' (i.e., a body part; see prefix {yay}) + {t^hap} 'break, split in two, pull apart' + {c} transitive + {u} imperative stem-formant + {s} generic aspect suffix.
77. yayt^hapcus See 76; satellite subject of verb /ti'n/.
78. ti'n See 42; main verb of independent clause with satellite subject.
79. ?elew See 14; attributive auxiliary of verb /'tipnamina/.
80. ?ibe'sken 'you being ...'; imperfective aspect attributive auxiliary, attributive of negative preverb /?elew/; {?iy} copula root of doing + {bEy} root 'be, lie' + {u} imperative stem-formant (contracted to /be'/ as auxiliary) + {sken} second-person subject suffix.

81. peh 'aw'; uninflected exclamative, attributive of verb /^ʔtipnamina/; perhaps from {pe^ʔ} interrogative root occurring as an independent non-possessed noun 'what.'
82. ^ʔtipnamina 'not understand, know'; see 72; main verb of independent clause with attributive auxiliary verb-phrase, and exclamative.
83. ya^ʔpaytu 'spirits, ghosts, white people' (i.e., pale faces like ghosts?); unclassifiable, being a verb in form but nominal in function, satellite subject of verb /^ʔkuda/; from stem /ya^ʔpay/ of unknown derivation 'to surround enemies, attack' + (perhaps ?) classifier (supernatural); cf. {t^hu^ʔ} human classifier (see 7).
84. ^ʔe^ʔlin 'all over'; noun class N, generic locative case, attributive of verb /^ʔkuda/; {^ʔe^ʔl} root 'inside, everywhere' + {in} locative case suffix.
85. ^ʔkuda 'step, arrive in specified direction'; verb class A, indicative stem, main verb of independent clause with satellite subject, locative attributive, and auxiliary attributive; {^ʔkOd} root 'step, arrive' + {a} indicative stem-formant.

86. ʔibe* 'are'; imperfective aspect attributive auxiliary, attributive of verb /kuda/; {ʔiy} copula root of doing + {bEy} root 'be, lie' + {u} imperative stem-formant (contracted to /be*/ as auxiliary).
87. ʔuni See 47.
88. ʔolca See 57 and 64; indicative stem, main verb of independent clause with a genitive attributive.
89. ʔol-kulun 'of the up-edge, horizon'; noun class N, generic genitive case, attributive of verb /ʔolca/; {ʔol} prefix 'up' + {kul} root 'rim, edge, joint' + {un} genitive case suffix.
90. panti 'on top of, above, upon'; uninflected attributive of verb /kuda/; {pan} root 'on' + {ti} locational suffix 'at, in.'
91. kuda See 85; main verb of independent clause with adverbial attributive and auxiliary attributives.
92. -wira See 51; postposed auxiliary attributive of verb /kuda/.
93. ʔibe See 86; auxiliary attributive of /kuda-wira/.

Index of Morphemes

{ a }	indicative stem-formant	72 , 78 , 98 , 99
{ b }	'eat'	76 , 85 , 107 , 108
{ ba }	human plural classifier	230 , 231 , 233 , 250
/be•di/	prohibitive preverb	162 , 196 , 197
{ bEy }	imperfect aspect attributive auxiliary (visual evidential)	51 , 146 , 159 , 162 , 178 , 181
{ bOh }	durative aspect attributive attributive auxiliary	51 , 162 , 178 , 184
{ c }	transitive suffix	93 , 98
{ čan }	prefix 'half, one side'	200 , 201 , 210 , 220
{ ca•w }	'sing'	69
{ da }	1st-person subject (selfness) suffix	52 , 103 , 136 , 146 , 151 , 153 , 159
{ da }	directional suffix 'from'	263
{ dal }	suffix (locational)	263
{ di }	3rd-person hortative suffix	101 , 120 , 153 , 241
{ e }	3rd-person proximal pronominal root	248
{ e }	non-singular pronominal suffix	230 , 233 , 251
{ el }	stative suffix	94 , 98 , 160
{ el }	locative suffix	263
{ e• }	1st-person dual hortative suffix	53 , 101 , 123 , 153

{h}	stative denominal intransitive	99, 102, 127, 160, 245
{har}	progressive aspect attributive auxiliary	51, 162, 179, 188
/heke/	interrogative	226, 234, 236, 245
/henogti/	interrogative classifier 'what kind of'	227, 234, 252
{here}	passive suffix	51, 101, 115, 204
/hest/	interrogative 'how'	228, 234
/he•s/	interrogative 'when'	228, 234
{hE}	deictic root	226, 234, 240, 242, 245
/hisa•/	interrogative 'some, how many'	228, 234, 252
{ho}	'only, just'	225, 234, 245, 251, 252
{i}	nominal stem-formant	72, 80, 98, 99
{in}	locative case suffix	200, 217, 233, 267
{i•}	impersonal inter- rogative suffix	53, 101, 124, 153
{i•l}	particular comitative suffix	53, 100, 108, 154, 267
{k}	completive suffix	143, 163, 245
{ke}	optative 'maybe'	225, 234, 238, 240, 245, 251
{kele}	hearsay evidential suffix	52, 103, 131, 146, 159, 237, 241
{ken}	warning suffix	101, 114, 238, 241, 245
*{kE}	optative-interrogative	238, 241, 242, 244, 245
{keneh}	optative mode attributive auxiliary	162, 189, 192, 237
{kil}	conditional mode attributive auxiliary	162, 189, 191, 237, 241, 245

{kir}	temporal attributive auxiliary	51, 162, 193, 238, 241, 245
{ko•}	classifier 'all'	227, 234, 239, 245, 252
{kOy}	desiderative modal auxiliary	51, 162, 188, 190, 239, 245
{k ^h i}	the precedential 'first'	225, 234, 245, 251, 252
{le}	inevitable future suffix	101, 117
{lel}	attributive of ability	162, 195
{lel}	dual	252, 263
{λ}	'to sit'	76, 85
{λome}	'exactly, middle'	225, 234, 251
{λuqa}	the indefinite 'ever'	225, 252
{m}	dubitative suffix	103, 142, 150, 151, 153, 159
{m}	generic comitative suffix	100, 109, 154, 267
{m}	causative suffix	100, 111
{ma•}	the concessive	225
{me}	'own, kind, variety'	225, 234, 251, 252
{mi}	2nd-person pronominal root	200, 230, 233, 246, 256
{min}	'to not exist'	128
{mina}	negative suffix	101, 121, 162
{n}	reflexive	100, 110
{n}	subordinating suffix of temporal simultaneity	101, 118, 160, 265
{n}	1st-person jussive suffix	101, 119, 153
{ni}	1st-person exclusive pronominal root	200, 230, 233, 246, 254
{nt ^h ere}	non-visual sensory evidential suffix	52, 103, 130, 146

{o}	emphatic suffix	230, 233, 250
{paq}	benefactive suffix	100, 113, 231, 234, 257
/pe•/	interrogative 'what'	227, 231, 234
{pi}	3rd-person pronominal root	200, 230, 233 ff., 247, 257
{puke•}	approximation suffix	103, 135
{'pe}	the privative	224, 234, 251, 252
{'pe}	1st-person inclusive pronominal root	230, 233, 246, 255
{'pin}	attributive of inability	162, 195
{'pur}	reciprocal compounded noun	226, 230, 233 ff., 251
{'pur}	reciprocal verb suffix	100, 112, 231, 257
prefixes	(various)	82 ff., 98
{qat}	the referential	224, 234, 251
{r}	subordinating causal anteriority suffix	103, 135, 160, 265
{r}	instrumental case suffix	200, 218, 233
{re•}	inferential evidential suffix	103, 133, 146
{s}	generic aspect thematic suffix	99, 102, 156, 159, 204, 207, 214, 233, 267
{s}	intensive denominal stative	99, 102, 128, 160
{skən}	2nd-person subject suffix	52, 103, 139, 151, 153, 238
{so}	subordinating suffix of necessary temporal anteriority	101, 123, 160, 265
/soqo/	the unknown	227, 252
{suk}	perfective aspect attributive auxiliary	51, 162, 178, 185

{t}	particular aspect of patient	100, 102, 106, 154
{t}	particular aspect thematic suffix	99, 156, 159, 207, 213, 233, 267
{t}	possessive case suffix	200, 219, 233
{ta}	subordinating temporal suffix	101, 126, 160, 265
{te}	plural pronominal suffix	230, 233, 249
{ti}	locative suffix 'at'	263
{top}	usitative attributive	162, 196
{to•}	disjunctive postclitic	200, 201, 223, 234
{tun}	emphatic possessive suffix	219
{t ^h u•}	classifier	234, 252
{tan}	subordinating unexpected simultaneity suffix	103, 145, 160, 265
{ta•}	'beside, bottom'	226, 234, 251
{te}	the exclusive	224, 234, 251, 252
{u}	imperative stem-formant	72, 79, 98, 99, 100, 101
{um}	object case suffix	200, 216, 233, 267
{un}	genitive case suffix	200, 216, 233, 267
{u•}	1st-person interrogative suffix	53, 101, 125, 153
*{w}	privative suffix	96, 98, 164
{wEr}	future intentional aspect attributive auxiliary	51, 162, 179, 187
{ye}	vocative prefix	200, 201, 221
{?a}	subordinating temporal anteriority suffix	103, 145, 160, 265

{ʔe}	3rd-person proximal pronominal root	200, 233, 237, 248, 253, 258
{ʔel}	experiential evidential suffix	103, 134, 146
{ʔel}	dependent copula (visual evidential)	162, 174
/ʔelew/	negative preverb	162, 196, 197
{ʔila}	diminutive postclitic	200, 201, 223, 234, 252
{ʔina}	intensive diminutive	201, 224, 234
{ʔisto•}	pejorative postclitic	201, 223, 234, 252
/ʔiwi•ca/	unknown	96
/ʔiwi•ya/	to not know	96
{ʔiy}	proximal copula	162, 165, 170, 223, 234
/ʔoqti/	classifier of kind	227, 234, 252
{ʔuk}	demonstrative 'yonder'	228, 231, 234
/ʔuqa/	demonstrative 'identical'	227, 234, 252
/ʔusa/	classifier 'some'	227, 234, 252
{ʔuw}	distal copula	162, 165, 172, 259
{•l}	dual pronominal suffix	230, 233, 249
{•t}	personal object suffix	101, 126, 153
{VlVlVh}	distributive suffix	91, 98, 220, 240
{V•r}	repetitive suffix	91, 98, 240
{V•y}	iterative suffix	92, 98, 240

Bibliography

This bibliography is divided into four sections: (1) general references; (2) synchronic linguistic materials; (3) historical and comparative linguistic materials; and (4) ethnology and archeology. (My thanks are due to Margaret C. Blaker, Archivist, Office of Anthropology, Smithsonian Institution, for making copies of catalogue cards available and for pointing out two errors in a previously published bibliography as noted below under the entries for Curtin and Powell in Section 2.)

ABBREVIATIONS USED IN BIBLIOGRAPHY

AA	American Anthropologist
AAK	Archives of Aboriginal Knowledge
AR	Anthropological Records
BAE	Bureau of American Ethnology
BAMNH	Bulletin of the American Museum of Natural History
CNAE	Contributions to North American Ethnology
IJAL	International Journal of American Linguistics
JAFL	Journal of American Folklore
JSAP	Journal de la Société des américanistes Paris
NMA	New Mexico Anthropologist
OM	Overland Monthly
PPSC	Proceedings of the (Fifth) Pacific Science Congress
RUSGS	Report on U.S. Geographic Surveys West of the 100th Meridian
SCILA	Survey of California Indian Languages Archives
SCOIL	Survey of California and Other Indian Languages
SWJA	Southwest Journal of Anthropology

- UCASR University of California Archeological Survey Report
- UCPAAE University of California Publications in American Archaeology and Ethnology
- UCPL University of California Publications in Linguistics

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