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THE LANGUAGE OF SANTA ANA PUEBLO
By IRVINE DAVIS

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PREFACE

Data for this monograph were collected at intervals from 1954 through 1961 under the auspices of the Summer Institute of Linguistics. Much of the phonological material first appeared in my master's thesis and the grammatical material in my doctor's dissertation, both prepared at the University of New Mexico (1958 and 1960) under the supervision of Stanley S. Newman. Sincere thanks are due the latter for his understanding guidance and for the many hours of consultation spared from his busy schedule.

Many features of the language as recorded in this paper are shared with the other Keresan dialects, among which Santa Ana is rather centrally located both geographically and linguistically. While much remains to be done in adequately describing Keresan linguistic structure, it is hoped that this analysis will be found worthy of a place among the contributions to our knowledge of a heretofore little-known language. The analysis almost can be said to be that of an idiolect rather than a dialect. It is based largely on data obtained from one informant, a middle-aged man whose mother tongue is that of the Santa Ana Pueblo. I am deeply indebted to him for the endless hours which he spent in patiently supplying the material without which this work would have been impossible.
THE LANGUAGE OF SANTA ANA PUEBLO

By Irvine Davis

PHONOLOGY

SYLLABLE STRUCTURE

Santa Ana Keresan utterances normally may be segmented exhaustively into recurrent structural units, or syllables, of the shape CV. The syllable margin, C, is composed of a simple consonant or a phonetically complex consonantal segment. The nucleus, V, consists of a vowel or vocalic sequence, with or without terminal glottal closure. A few loanwords and a word of possible onomatopoetic origin contain syllables which are closed by a nasal:

nárán orange (Spanish naranja)
?qááumbúmaci drum

Syllables closed by consonants other than a glottal stop, however, are considered as an aberrant pattern.

Excluding sounds introduced by loanwords, there are 48 contrastive syllable margins: 1

<table>
<thead>
<tr>
<th>b</th>
<th>d</th>
<th>d’</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>t</td>
<td>č</td>
<td>k</td>
</tr>
<tr>
<td>ć</td>
<td>ċ</td>
<td>ć’</td>
<td>k’</td>
</tr>
<tr>
<td>sb</td>
<td>sd</td>
<td>sd’</td>
<td>sg</td>
</tr>
<tr>
<td>sp</td>
<td>st</td>
<td>šč</td>
<td>sk</td>
</tr>
<tr>
<td>sĆ</td>
<td>st</td>
<td>šč</td>
<td>sk</td>
</tr>
<tr>
<td>z</td>
<td>ż</td>
<td>ć</td>
<td>ć’</td>
</tr>
<tr>
<td>s</td>
<td>ź</td>
<td>ś</td>
<td>ź’</td>
</tr>
<tr>
<td>m</td>
<td>n</td>
<td>i</td>
<td>ų</td>
</tr>
<tr>
<td>r</td>
<td>r</td>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>w</td>
<td>y</td>
<td>h</td>
<td>?</td>
</tr>
<tr>
<td>ļw</td>
<td>ļy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 The symbols herein used conform to the orthography developed by Wick R. Miller (1939 a, 1939 b, and 1930).
The stops include a voiceless unaspirated series, b, d, and g; a voiceless aspirated series, p, t, and k; and a glottalized series, ũ, ţ, and ŵ, at bilabial, alveolar, and velar points of articulation:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bi-šu</td>
<td>bee</td>
</tr>
<tr>
<td>pē-ta</td>
<td>step on it</td>
</tr>
<tr>
<td>pē-ta</td>
<td>let him step on it</td>
</tr>
<tr>
<td>ťi kupaWA</td>
<td>maybe he chopped</td>
</tr>
<tr>
<td>ťi kupaWA-ne</td>
<td>maybe we chopped</td>
</tr>
<tr>
<td>ţi kupaWA</td>
<td>maybe I chopped</td>
</tr>
<tr>
<td>gā-mā</td>
<td>his house</td>
</tr>
<tr>
<td>kā-ni</td>
<td>let me walk</td>
</tr>
<tr>
<td>kā-ni</td>
<td>he walked</td>
</tr>
</tbody>
</table>

The alveopalatals, d^, č, and ě, require special comment. These are grouped with the stops for the sake of symmetry and because there is evidence for their historic development from a set of stops parallel to the bilabial, alveolar, and velar sets. The voiceless alveopalatal stop, d^, is unaspirated preceding a voiced vowel and aspirated preceding a voiceless vowel:

čd^a I caught him  sld^a squirrel

The voiceless alveopalatal affricates, č and ě, are aspirated and glottalized respectively:

čugúya maybe he sat  ěugúya sit

The Keresan dialects at the present are in various stages of transition to a structure which includes both a set of alveopalatal stops and a set of affricates at the same point of articulation. Acoma, for instance, has a few occurrences of glottalized alveopalatal stops which contrast with the unglottalized phoneme. It also has unaspirated alveopalatal affricates occurring in loanwords. The Santa Ana dialect has unaspirated affricates in loanwords but has not developed aspirated or glottalized alveopalatal stops as distinct phonemes.

Each of the above stops and affricates may occur in a sibilant cluster:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sbíga</td>
<td>woodpecker</td>
</tr>
<tr>
<td>sdú-ci</td>
<td>bowl-shaped</td>
</tr>
<tr>
<td>sd^u-ludi</td>
<td>I (didn’t) give it to him</td>
</tr>
<tr>
<td>sgá-waši</td>
<td>rat</td>
</tr>
<tr>
<td>spé-rá-ná</td>
<td>plate</td>
</tr>
<tr>
<td>stú-ná</td>
<td>autumn</td>
</tr>
<tr>
<td>scâu?u</td>
<td>a crowd</td>
</tr>
<tr>
<td>skú-ná</td>
<td>blackbird</td>
</tr>
<tr>
<td>wíspí</td>
<td>cigarette</td>
</tr>
<tr>
<td>stó-ci</td>
<td>straight</td>
</tr>
<tr>
<td>šísá</td>
<td>six</td>
</tr>
<tr>
<td>škáši</td>
<td>fish</td>
</tr>
</tbody>
</table>

There are voiceless unaspirated affricates, ź and ź; voiceless aspirated affricates, c and č; and voiceless glottalized affricates, č and ě, at alveolar and retroflexed points of articulation:

<table>
<thead>
<tr>
<th>Sound</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>zàd^a</td>
<td>desert</td>
</tr>
<tr>
<td>cēr</td>
<td>breath</td>
</tr>
<tr>
<td>čákù</td>
<td>it bit him</td>
</tr>
<tr>
<td>gáku</td>
<td>let him bite you</td>
</tr>
<tr>
<td>čákù</td>
<td>maybe you bit him</td>
</tr>
<tr>
<td>čákù</td>
<td>maybe I bit you</td>
</tr>
</tbody>
</table>
There is a series of voiceless sibilants, s, š and ș, and of glottalized sibilants, ș, ș and ș at alveolar, retroflexed and alveopalatal points of articulation respectively:

- sa  back
- ša  mine
- șa  you are mine
- šaskə  roadrunner
- há-șuwiyi  shoe

The plain sonorants, m, n, r, w, and y, and the glottalized sonorants, m, n, r, w, and y, are normally voiced but occur as voiceless variants when flanked by voiceless vowels:

- kúcayawa  he is angry
- sgúhima  I believe

In their occurrence between a voiced and a voiceless vowel they may be voiceless, partly voiced, or fully voiced, depending on factors such as the rate of speech:

- díya  dog
- cína  turkey
- gá-ña  his house

Unlike other glottalized consonants, which are produced with the glottis closed, glottalized sonorants are initiated with a momentary glottal closure and release.

The nasals are produced at bilabial and at alveolar or alveopalatal points of articulation. The alveopalatal variant occurs preceding a front vowel, while the alveolar form occurs elsewhere:

- máš-ñi  leaf
- nótrí  prairie dog
- nèku  will bite
- ná-ñi  word
- ñá  down
- ñí-zúwa  will pay

The phonemes r and ř are alveolar flaps, while w, ŵ, y and ų are nonsyllabic vocoids:

- ráwá-  good
- wá-wá  medicine
- yá-áí  sand
- scířá  crow
- vá-yuša  duck
- jáuni  stone

The "glottal fricative," h, and the glottal stop, ?, complete the inventory of native consonants:

- há-bí  feather
- ?á-á-áwí  key

Sounds introduced through loanwords include the voiceless unaspirated alveopalatal affricate, ž; the voiced stops, b, d and g; and the voiced alveolar lateral, l:

- žíri  chili
- bendá-na  window (Spanish ventana)
- ?amá-du  pillow (Spanish almohada)
- gayé-ta  biscuit (Spanish galleta)
- lé-ba  coat (Spanish leva)

Phonemic sequences introduced by loanwords include stops plus r or l and nasals plus homorganic stops:

- blá-sa  city (Spanish plaza)
- sandiyá-ku  St. James (Spanish Santiago)
Vowels are produced at five contrastive tongue positions and may be either voiced or voiceless:

- High front unrounded, \( i \) and \( i' \).
- Mid to low front, \( e \) and \( e' \).
- Low central, \( a \) and \( a' \).
- High central to back unrounded, \( o \) and \( o' \).
- Mid to high back rounded, \( u \) and \( u' \).

Examples of the five voiced vowels in initial syllables are as follows:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>( i )</td>
<td>again</td>
</tr>
<tr>
<td>( a )</td>
<td>back</td>
</tr>
<tr>
<td>( u )</td>
<td>yesterday</td>
</tr>
</tbody>
</table>

Voiced and voiceless vowels are in nearly complementary distribution. Relevant conditioning factors include the position of the vowel within larger phonological units, the pattern of suprasegmental features, and the nature of contiguous consonants. Word-final vowels, for instance, are normally voiceless if they are short, unaccented, and not preceded by an unglottalized sonorant which is in turn preceded by a long accented or by an unaccented vowel:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>( i )</td>
<td>turkey</td>
</tr>
<tr>
<td>( a )</td>
<td>five</td>
</tr>
</tbody>
</table>

Compare:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>( i' )</td>
<td>louse</td>
</tr>
<tr>
<td>( a' )</td>
<td>four</td>
</tr>
</tbody>
</table>

There are, however, a number of words containing voiced vowels in environments in which voiceless vowels normally occur. It is because of these occurrences that phonemic significance must be ascribed to voicing versus voicelessness in vowels:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>( u )</td>
<td>give it to me</td>
</tr>
<tr>
<td>( u' )</td>
<td>woodpecker</td>
</tr>
</tbody>
</table>

Examples of the five voiceless vowels in final and in medial positions are as follows:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>( i )</td>
<td>prairie dog</td>
</tr>
<tr>
<td>( e )</td>
<td>I ate</td>
</tr>
<tr>
<td>( o )</td>
<td>baby</td>
</tr>
<tr>
<td>( a )</td>
<td>winter</td>
</tr>
<tr>
<td>( u )</td>
<td>away</td>
</tr>
</tbody>
</table>

Vowels occur singly or in clusters of two. The following vowel sequences have been recorded:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ia )</td>
<td>I know him</td>
</tr>
<tr>
<td>( e'i )</td>
<td>piñon pine</td>
</tr>
<tr>
<td>( eu )</td>
<td>I gave it to him</td>
</tr>
<tr>
<td>( ai )</td>
<td>all</td>
</tr>
<tr>
<td>( e'i )</td>
<td>he lay down</td>
</tr>
<tr>
<td>( ai )</td>
<td>who</td>
</tr>
<tr>
<td>( au )</td>
<td>bluejay</td>
</tr>
<tr>
<td>( ui )</td>
<td>occurring in the data only in Págüara</td>
</tr>
<tr>
<td>( ua )</td>
<td>salamander</td>
</tr>
</tbody>
</table>
The nucleus of a syllable consists of one of the single vowels or vowel clusters, with or without terminal glottal closure. The nucleus is also the domain of certain suprasegmental features yet to be described. Terminal glottal closure is written as a segmental feature only in unstressed syllables:

\[ \text{náza} \text{ will say} \quad \text{st-ba?tu} \text{ I slept} \]

Contrastive suprasegmental features include accent and vowel length. There are four kinds of accent: level, indicated by an acute accent; falling, indicated by a circumflex accent; breathy, indicated by a grave accent; and glottal, indicated by an apostrophe over the vowel. Unaccented vowels are not marked. Level accented vowels are stressed and normally have a high level pitch:

\[ \text{káci} \text{ ten} \quad \text{záwini} \text{ old} \]

There is a tendency for a slight upglide in pitch on long vowels or vowel clusters with level accent:

\[ \text{ká-ci} \text{ antelope} \quad \text{háubá} \text{ everyone} \]

The pitch on level accented vowels is conditioned to some degree by the position in the word and by the nature of the preceding consonant. A vowel preceded by a plain sonorant, for instance, often has a higher relative pitch than a vowel in a comparable position but preceded by one of the other consonants. The two vowels of čámá tomorrow normally have approximately the same pitch, while there is a pronounced drop in pitch on the second syllable of gásé white.

Falling accent occurs only on long vowels or vowel clusters and is characterized by a downglide in pitch together with diminishing stress:

\[ \text{dá-ni} \text{ pumpkin} \quad \text{yáuni} \text{ stone} \quad \text{másá-ni} \text{ leaf} \]

Vowels or vowel clusters with breathy accent begin with voicing and terminate in voicelessness. The initial voiced segment is short and stressed, and has a relatively high pitch:

\[ \text{các} \text{ breath} \quad \text{máid'ana} \text{ seven} \]

Single short accented vowels or accented vowel clusters which are terminated by glottal closure are written with the glottal accent:

\[ \text{gákú} \text{ he is located} \quad \text{sáubónaca} \text{ I sewed} \]

A voiceless echo vowel may follow the release of the glottal stop, although this is not a consistent feature. The reasons for treating glottal accent as a phenomenon distinct from the glottal closure in unstressed syllables derive largely from comparative considerations.

Vowel length always occurs with falling accented vowels and may occur with level accented or with unaccented vowels:

\[ \text{pá-ni} \text{ bag} \quad \text{čí-ná} \text{ river} \quad \text{háwe} \text{ snow} \]

A slight downglide in pitch tends to occur on final long unaccented vowels.
Potential combinations of the 48 syllable margins with the various types of nuclei number several thousand. Only a fraction of these, however, actually occur in the data. The lack of some combinations may be attributed to incomplete data or to the extremely low probability of certain rare types of nuclei following the less common margins. The absence of other kinds of combinations is apparently a relevant feature of the phonological structure. The more important of these are as follows:

1. A bilabial semivowel, w or ŋ, is never followed by the back rounded vowel, u.
2. An alveopalatal semivowel, y or ţ, is never followed by the high front vowel, i.
3. A retroflexed consonant, q, ŋ, z, j, s, or ǁ, is never followed by a front vowel, i or e.
4. An alveopalatal affricate or fricative, č, š, or ǁ, is never followed by the high central unrounded vowel, a.
5. The voiceless unaspirated stops and affricates, b, d, g, z, and ǁ are never followed by a voiceless vowel.

WORD STRUCTURE

The definition of a word is treated in a later section. Here the general phonological structure of words is described.

Words may be composed of a single syllable, za no, but are more often dissyllabic or polysyllabic. Words of up to nine syllables have been recorded: sgú-ŵâkâčaniguyase-te we are (not) looking at them.

With few exceptions, each of the 48 margins may occur in any syllable of the word. The margins šč, č and š show evidence of special development and occur only word-initially as verb prefixes. Although h is very common initially, its extremely low frequency of occurrence in medial position is significant. In the present data it occurs in this position only in gûhâyA bear and in verbs based on the cores, -hma to believe and -hê?é-zâni to permit.

Each of the single voiced vowels may occur in any syllable of the word, while the voiceless vowels may occur in any except the initial syllable. Of the vowel clusters, iu is found almost exclusively in the initial syllable of verbs where it is divided by a morpheme boundary. The distribution of eu is similar, although the particle ?eu is of very frequent occurrence. The sequences ai, au, and ui are found in all positions in the word, while the remaining clusters occur so infrequently that generalizations are impossible.

Level accented syllables, both short and long, are found in all positions in the word. The glottal accent may occur on any syllable, but only rarely on other than the first. Falling and breathy accents may occur on an initial or medial, but never a final, syllable. Although any syllable of the word may be unaccented, the initial syllable is accented in an overwhelming majority of the words.
Word patterns based on the number of syllables and the arrangement of suprasegmental features are extremely varied. The more commonly occurring patterns found among dissyllabic and trisyllabic words are indicated below:

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV CV</td>
<td>núya</td>
</tr>
<tr>
<td>CV CVV</td>
<td>gášé</td>
</tr>
<tr>
<td>CV CV CV</td>
<td>stá-čí</td>
</tr>
<tr>
<td>CV CV CV</td>
<td>sbí-ná</td>
</tr>
<tr>
<td>CV CV CV</td>
<td>dák-ni</td>
</tr>
<tr>
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**RHYTHM GROUPS**

A rhythm group is a segment of speech which is marked off by pauses and/or which is characterized by the presence of one syllable of extra intensive stress. This unit may consist of an isolated monosyllabic word, such as yu. I don’t know, but ordinarily embraces a sequence of many syllables. In normal speech (i.e., in which there are no hesitation pauses) the boundaries of a rhythm group fall at word boundaries, although every word boundary is not a rhythm group boundary. The number of words included in a rhythm group depends on the grammatical content of the particular utterance and on the style of speech. A free flowing conversational style is characterized by rhythm groups that include relatively long segments of speech. Such extensive groups are consequently few in number in relation to those in a comparable utterance delivered in a more vigorous or in a more hesitating style of speech. In rapid speech the pauses tend to be few in number and the onset of a new rhythm group may be signaled only by a rise in intensity and pitch on an accented syllable. This syllable is most often the initial syllable of the rhythm group.

Rhythm groups are normally characterized by a gradual falling off of the general pitch level and intensity following the syllable which receives the greatest stress. The extent of this falling off depends on the length of the rhythm group. Toward the end of a very long
rhythm group the speech may fade into a whisper in which normally voiced phonemes are unvoiced.

In contrast to normal rhythm groups, an utterance may sometimes show no diminishing of pitch on successive accented syllables. This is true of certain types of questions or other utterances for which a response is anticipated:

\[ \text{ma- hāwé- šu } \text{ʔámámó} \] \( \text{Listen here, grandchild} \ldots \)

Hortatory utterances often are characterized by a gradual diminishing of the pitch level as in a normal rhythm group until the final syllable is reached. The final syllable is then given an extra emphasis that involves the rearticulation of a normally voiced vowel or the voicing of a normally voiceless vowel together with added intensity and pitch:

\[ \begin{align*}
\text{hāwé- } \text{ʔí-} \text{ma} \text{ʔá} & \quad \text{Come here!} \\
\text{díši} \text{ ba } \text{ʔúyú-} \text{kamí} & \quad \text{Wait for me here!}
\end{align*} \]

Compare the same utterances without the hortatory emphasis:

\[ \begin{align*}
\text{hāwé- } \text{ʔí-} \text{ma} \\
\text{díši} \text{ ba } \text{ʔúyú-} \text{kamí}
\end{align*} \]

**MORPHOPHONEMICS**

The morphophonemic rules outlined below consist of a series of statements which simplify the morphological description to follow. Included for consideration are a number of changes in stems and in affixual morphemes which are somewhat regular and which can be explained on the basis of the phonological environment. Two processes, vowel reduction and the voicing or unvoicing of vowels, are rather extensive in their operation and are described in the following two sections respectively. "Miscellaneous Processes" deals with a number of phenomena of more restricted occurrence.

Excluded for consideration here are numerous cases of phonologically similar forms (e.g., the second person subject markers š- and š-) which at an earlier stage in the language may have been in mutually exclusive distribution in terms of their phonological environment. In a synchronic description of the present Santa Ana dialect, however, they are most conveniently treated as allomorphs, the distribution of which is defined morphologically rather than phonologically.

**VOWEL REDUCTION**

Changes in the vowel or vowels immediately following the pronominal affix in verbs may often be explained in terms of vowel reduction. This involves a fusing of the thematic adjunct with a preceding voice prefix or with the vowel of a preceding pronominal affix. Vowel reduction normally follows the patterns outlined below.
1. Two contiguous identical vowels reduce to a single vowel of the same quality. This reduction takes place, for instance, when a pronominal prefix of the shape CV- precedes a stem having an initial vowel of the same quality as that of the prefix:

šaku (ša- + -aku) I bit you

Compare:

šáuni (ša- + -uni) I know you

Apparent shifts in accent in the above and other examples arise from orthographic conventions. Accent is indicated only on the first vowel of a cluster, although it is the entire cluster that is accented. This, together with the fact that accent is not indicated on prefixes of the shape CV- (the prefix vowel assumes the accent of the following thematic adjunct), results in a shift of the written accent to the prefix vowel. Vowel reduction of the above type also occurs when the reflexive prefix -a- or the passive prefix -á?a- precedes a verb stem beginning with -a-:

šaku (š- + -a- + -aku) you bit yourself
šá?aguñe (š- + -á?a- + -aguñe) you were bitten

Compare:

šáukača (š- + -a- + -ukača) you saw yourself
šá?audíta (š- + -á?a- + -udi?ta) it was given to you

2. No vowels or vowel clusters of more than two moras' length occur. A reduction from three to two moras of length takes place when a short and long vowel are juxtaposed:

či-zúwa (či- + -i-zúwa) I paid him
čuízúwa (ču- + -i-zúwa) you paid me

3. The vowel -u- followed immediately by -a- reduces to the single vowel -a-. This occurs when the pronominal prefix ends with -u- and the verb stem begins with -a-:

čaku (ču- + -aku) you bit me
kaku (ku- + -aku) bite me
skaku (sku- + -aku) he bit me

Compare:

čuízúwa (ču- + -i-zúwa) you paid me
kuízúwa (ku- + -i-zúwa) pay me
skuízúwa (sku- + -i-zúwa) he paid me

4. The vowel -i- immediately followed by -a- reduces to the single vowel -e-. This takes place when a pronominal prefix ending with -i- precedes a verb stem beginning with -a-:

sèku (si- + -aku) I bit him
tèku (ti- + -aku) maybe I bit him
pèku (pi- + -aku) let him bite him
Compare:

\[
\begin{align*}
\text{súkáica} & \quad (\text{si-} + -\text{ú-káica}) & \text{I hit him} \\
\text{tíkáica} & \quad (\text{ti-} + -\text{ú-káica}) & \text{maybe I hit him} \\
\text{piúkáica} & \quad (\text{pi-} + -\text{ú-káica}) & \text{let him hit him}
\end{align*}
\]

5. The vowel \text{-i-} immediately followed by \text{-ə-} reduces to the single vowel \text{-i-}. This takes place when certain stems beginning with \text{-ə-} are preceded by a prefix containing \text{-i-}:

\[
\begin{align*}
\text{síska} & \quad (\text{si-} + -\text{síska}) & \text{I drank} \\
\text{si-tá} & \quad (\text{si-} + -\text{tá}) & \text{I am full}
\end{align*}
\]

Compare:

\[
\begin{align*}
\text{gáska} & \quad (\text{g-} + -\text{gáska}) & \text{he drank} \\
\text{gá-tá} & \quad (\text{g-} + -\text{tá}) & \text{it is full}
\end{align*}
\]

6. The vowel \text{-a-} followed immediately by \text{-ə-} reduces to the sequence \text{-ai-}. This change occurs in the first person hortative form of some verbs having stems which begin with \text{-ə-}:

\[
\begin{align*}
\text{kást} & \quad (\text{ka-} + -\text{kást}) & \text{let me drink}
\end{align*}
\]

Compare:

\[
\begin{align*}
\text{káiba?tu} & \quad (\text{ka-} + -\text{iba?tu}) & \text{let me sleep}
\end{align*}
\]

7. The vowels \text{-a-} and \text{-u-} followed immediately by a short level accented \text{-i-} reduce to \text{-á-} and \text{-ú-} respectively:

\[
\begin{align*}
\text{sásti} & \quad (\text{sa-} + -\text{sásti}) & \text{I gave you a liquid} \\
\text{dvústi} & \quad (\text{du-} + -\text{ústi}) & \text{you gave me a liquid}
\end{align*}
\]

Compare:

\[
\begin{align*}
\text{zísti} & \quad (\text{zi-} + -\text{ísti}) & \text{he gave him a liquid}
\end{align*}
\]

A vowel cluster results, however, if the \text{-i-} is characterized by any other type of accent.

\[
\begin{align*}
\text{saizúwa} & \quad (\text{sa-} + -\text{izúwa}) & \text{I paid you} \\
\text{čúita} & \quad (\text{ču-} + -\text{tá}) & \text{you stepped on me} \\
\text{čúisáqa} & \quad (\text{ču-} + -\text{isáqa}) & \text{you named me}
\end{align*}
\]

The patterns of vowel reduction outlined above avoid the following vowel sequences: \text{-ua-}, \text{-ia-}, \text{-iə-}, \text{-əə-} and double vowels. With the exception of a single recorded example of \text{-ua-}, these vowel clusters do not occur in Santa Ana Keresan. Other nonoccurring sequences, \text{-ie-}, \text{-ae-}, \text{-eə-}, \text{-ea-}, \text{-əe-}, \text{-əi-}, \text{-əə-}, \text{-ou-}, \text{-ue-} and \text{-uə-}, involve vowels which are never brought into juxtaposition in morphological constructions.

In addition to the vowel reduction already described there are certain patterns of reduction which involve semivowels. A stem-initial \text{-uw-} (in which the \text{-u-} is short) reduces to \text{-w-} when preceded by a prefix of the shape CV-:

\[
\begin{align*}
\text{ziwa-sa} & \quad (\text{zi-} + -\text{wá-sa}) & \text{he is sick}
\end{align*}
\]
Compare:

gúźúwa-sa (góź- + -úwa-sa) you are sick

Under similar conditions -iy- reduces to -y-. This reduction, however, may be alternatively explained as an example of the pattern u + í > Ú previously described.

skúyanikuya (skú- + -fyanikuya) he told me

Compare:

číyanikuya (či- + -fyanikuya) I told him

In stems of four or more syllables, an initial -uwi- (but not -uwi- or -uwi-) reduces to -ui- when preceded by a prefix of the shape C-:

gúísikuya (g- + -uísikuya) he scolded him

The reduction of -uw- to -w- as described above occurs in the same stem when the prefix is of the shape CV-:

síwísikuya (si- + -uísikuya) I scolded him

Vowel reduction similar to the patterns already described sometimes operates across an intervening glottal stop. The following types of reduction have been recorded:

1. -i- plus -a?a- reduces to -e?-e-:

sé?ćēa (si- + -ā?āča) my tooth

Compare:

zá?āča (z- + -ā?āča) his tooth

2. -i?- plus -a?a- reduces to -ē?-e-:

pě?eša (pi?- + -ā?āša) let him close it

Compare:

šá?āša (š- + -ā?āša) you closed it

3. -i?- plus a short -i- or -o- with level or breathy accent reduces to -i- when followed by a voiceless consonant:

pikupawa (pi?- + -kupawa) let him chop

piskA (pi?- + -dskA) let him drink

Compare:

zikupawa (zi- + -kupawa) he chopped

gdskA (g- + -dskA) he drank

Under similar conditions -i?- plus -a- reduces to -ē- and -i?- plus -u- reduces to -iu-:

pézē (pi?- + -āzē) let him be talkative

plukái (pi?- + -ükái) let him be satisfied

Compare:

gáźē (g- + -āzē) he is talkative

kúkái (k- + -ükái) he is satisfied
If the following consonant is a sonorant, -i?- plus -a- becomes -e?e-, -i?- plus -u- becomes -i?u-, and no change is involved if the second vowel is -i-:

- pá?éyaka (pá? - + -áyaka) let him burn it
- pí?ýúyá (pí? - + -úyá) let him skin it
- pí?ínáta (pí? - + -ináta) let him buy it

Compare:
- záyaka (zá - + -áyaka) he burned it
- gúyá (gá - + -úyá) he skinned it
- zínáta (zá - + -ínáta) he bought it

Changes in the vowel following the pronominal suffix of Type B intransitive verbs are only partly explained in terms of the regular patterns of vowel reduction. The shift to -e or -é in the first person forms of verbs normally taking -a or -á follows the regular pattern of reduction in which -i- plus -a- becomes -e-:

- ?é-sé (?é - + -si- + -á) my name
- cá-sé (cá- - + -si- + -á) I breathed

Compare:
- ?é-gá his name
- cá-ka he breathed

The shift to -e or -é in the first person forms of verbs normally occurring with -u or -ú, however, does not result from any regular pattern of reduction:

- zúse I went
- zúkú he went

**VOICING**

Voiceless vowels occurring in the final syllable (and sometimes those occurring in the penultimate syllable) of a word become voiced under certain conditions of suffixation. A word-final voiceless vowel becomes voiced if it is followed by a suffix containing a voiced vowel:

- dýukačanikuya (dýukača + -nikuya) you are looking at me
- dá?áčinu- (dá?áči + -nu-) when he arrived

Compare:
- dýukača you saw me
- dá?áči he arrived

Suffixes consisting of a glottalized sonorant followed by a voiceless vowel have a similar effect on a preceding vowel:

- gáguáb (gáku + -áb) they bit him
- čúčaá (čúča + -á) maybe they two fell

Compare:
- gáku he bit him
- čúča maybe he fell
A voiceless vowel cluster becomes voiced when followed by any suffix:

\( \text{sê'gaitE} \) (sê'kai+-te) \( I \) (didn't) lie down

Compare:

\( \text{skôkai} \) I lay down

Vowel clusters resulting from the suffixation of \(-kuyA\) (see "Miscellaneous Processes") are likewise voiced:

\( \text{sûbeukuyA} \) (sûpe+-kuyA) I am eating

Compare:

\( \text{sûpe} \) I ate

Certain final voiceless vowels become voiced and long when followed by any suffix:

\( \text{sâud'ûmiše-te} \) (sâud'ûmiše+-te) we (don't) remember you

Compare:

\( \text{sâud'ûmiše} \) (sâud'ûmiši+plural suffix, -še) we remember you

It cannot be predicted from the phonological environment whether or not a voiceless vowel undergoes this change (see "Stem variants"). The fact is indicated in the listing of forms by the vowel length symbol in parentheses:

\(-\text{še}(\cdot)\) plural suffix

A sequence (vowel + unglottalized semivowel + vowel) in which neither vowel is accented, behaves as a single unit with respect to voicing; it is either completely voiceless or completely voiced. A voiceless sequence of this type becomes voiced when followed by any suffix:

\( \text{sâtruyasa} \) (sâtrikuyA+-sa) you are crying

Compare:

\( \text{sâtrikuyA} \) you cried

Of much less frequent occurrence than the above processes is the unvoicing of a stem-final vowel. This occurs when a completely voiceless suffix follows a stem which normally terminates in an unaccented voiced vowel preceded by a voiceless consonant:

\( \text{sâutisâ} \) (sâudi+-sa) I am planting

Compare:

\( \text{sâudi} \) I planted

The alternation between aspirated and unaspirated consonants seen in some of the examples cited in this section is closely linked to the voicing and unvoicing of vowels. The unaspirated consonants, b, d, g, z, and z, do not occur preceding voiceless vowels. When a normally voiced vowel is unvoiced, as in I am planting, a preceding
consonant of this group changes to its aspirated counterpart, \( p, t, k, c, \) or \( ç \). When a normally voiceless vowel is voiced, a preceding aspirated consonant is usually replaced by its unaspirated counterpart:

\[ \text{gàguñë (gàkù + -ñë) they bit him} \]

There are, however, exceptions to the latter rule, in which an aspirated consonant is retained when the following vowel becomes voiced:

\[ \text{zikùpawañë (zikùpawa + -ñë) they chopped} \]

Compare:

\[ \text{zikùpawa he chopped} \]

**MISCELLANEOUS PROCESSES**

**Vowel assimilation.**—The vowels -a- or -ə- occurring in prefixes of the shape CVC- change to -u- when the prefix is attached to verb stems beginning in -u-:

\[ \text{gúžùkača (góz- + -ùkača) he saw you} \]
\[ \text{tá?ùd'asì (tá?- + -ùd'asì) maybe I fasted} \]

Compare:

\[ \text{gúžàku (góz-+åku) he bit you} \]
\[ \text{tá?åuta (tá?-+-åuta) maybe I killed it} \]

The vowel cluster -ai- changes to -ei- following an alveopalatal consonant:

\[ \text{čiùwàdpàñë (č- + -ùwàdpañë) they assembled} \]

Compare:

\[ \text{sáùwàdpañë we assembled} \]

**Change from glottal to level accent.**—A glottal accent in the thematic adjunct normally changes to a level accent following a pronominal prefix containing a glottalized consonant:

\[ \text{čùpe (č- + -ùpe) eat} \]

Compare:

\[ \text{sùpe you ate} \]

This type of change does not affect the \( á \) allomorph of the passive voice prefix:

\[ \text{skád'ra?ta (skù- + -á- + -ád'ra?ta) I was caught} \]

Certain verb stems with a glottalized sonorant following the thematic adjunct show a shift to a plain sonorant when the pronominal prefix contains a glottalized consonant:

\[ \text{čúwàñë (č- + -ùwàñë) hunt} \]

Compare:

\[ \text{súwàñë you hunted} \]
The glottalized sonorant in stems of this kind may have developed from a plain sonorant preceded by a glottal accent in the thematic adjunct, and thus undergoes the above change. Other stems with a glottalized sonorant in a comparable position do not show this change:

\[ \text{Káwaštá it is sour} \]

**Introduction of -u-**—The addition of the continuative suffix -kuya to a verb stem ending in -a, -e, or their voiceless counterparts, results in the formation of a vowel cluster the second member of which is -u-:

\[
\begin{align*}
\text{súbeukuýa} & \quad \text{(súpe + -kuyá)} \\
\text{siwi-deyaukuyá} & \quad \text{(siwi-teyá + -kuyá)}
\end{align*}
\]

I am eating

I am worshiping

Compare:

\[
\begin{align*}
\text{súpe} & \quad \text{I ate} \\
\text{siwi-teyá} & \quad \text{I worshiped}
\end{align*}
\]

**Change of ç to t.**—The phoneme ç in the final syllable of a word changes to t when followed by a high front vowel:

\[
\begin{align*}
\text{súwi-tita} & \quad \text{(súwi-ça + -(i)ta)} \\
\end{align*}
\]

I am making it

Compare:

\[
\begin{align*}
\text{súwi-ça} & \quad \text{I made it}
\end{align*}
\]

Certain pronominal prefixes also show a shift from a retroflexed affricate to an alveolar stop (e.g., sóz- and sód-; see charts 1 and 2). These allomorphs undoubtedly have developed from the process outlined above, but are, in the present stage of the language, no longer phonologically defined. Forms ending in d sometimes occur before vowels other than i:

\[
\text{sóda I am}
\]

**MORPHOLOGY**

**UNITS OF ANALYSIS**

While the validity of the word as a universal linguistic unit is sometimes questioned, it is found convenient in this description of the grammatical structure of Santa Ana Keresan to recognize such a unit. The morphology-syntax division employed here is based on the assumption that the word can be defined with sufficient precision for descriptive purposes. This does not mean, however, that there may not remain a certain degree of arbitrariness in the drawing of some word boundaries.

The principal criterion for recognizing words is that of unlimited substitutability at word boundaries.\(^2\) Severe restrictions on the

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\(^2\) For an explanation of the change in the stem-final vowel, see “Inflectional affixes” and “Stem variants.”

\(^3\) A full treatment of this approach to the definition of a word is given in Greenberg, 1957, pp. 27-34.
number and types of items that may be introduced into an utterance at a morpheme boundary is taken as an indication that the boundary is an infraword boundary. The boundary between a verb core and a following plural subject suffix, for instance, is of this type. The only items that may be introduced at this point are aspect and/or benefactive morphemes, neither of which ever occurs except following a verb core.

A morpheme boundary at which a wide variety of items may be introduced, on the other hand, is regarded as a word boundary. Although a verbal auxiliary is closely linked to a preceding verb core and is meaningless in isolation, it is, nevertheless, a separate word according to the above criterion. Not only may a number of suffixes occur following the verb core and preceding the auxiliary, but also items which, on the basis of distributional criteria, are themselves free words may be introduced at this point.

Words may be exhaustively segmented into morphemes. The term is used here in the sense generally used in American descriptive linguistics and includes word roots as well as various kinds of derivational and inflectional affixes and clitics. Clitics in Santa Ana Keresan are morphemes which, following the distributional criteria for marking word boundaries, are parts of words. They differ from affixes in that they are not so closely linked phonologically to the rest of the word. Specifically, they do not cause morphophonemic voicing of a preceding voiceless vowel and are much more likely than are affixes to be separated from the rest of the word by a pause.

WORD CLASSES

Three major word classes are distinguished on the basis of their internal structure. Of these, the verbs and the verbal auxiliaries occur with inflectional affixes. The third major word class is composed of all uninflected words.

Three principal levels of internal structuring are recognized in words: inflection, stem formation, and derivation. The terms inflection and inflectional affixes are used only with reference to those affixes which are external to the stem. Stem formation involves the combination of a thematic adjunct with a core and may include the addition of a benefactive suffix as well. The term derivation is used with reference to the internal structuring of certain verb cores and of some words of the uninflected class. Although clitics are, by definition, parts of words rather than free words, they are disregarded in the following description of word structure and are reserved for separate consideration.
The general structure of the three major word classes may be distinguished as follows:

1. Verbs are always inflected, always include stem formation and sometimes include derivation.
2. Verbal auxiliaries are always inflected but never include stem formation or derivation.
3. Uninflected words include neither inflection nor stem formation but may include derivation.

Specific morphemes involved in each level of structuring also may serve to distinguish the major word classes. Verbs are distinguished from verbal auxiliaries, for instance, in that all verb stems are potentially capable of occurring with a future tense marker while verbal auxiliaries never include this morpheme.

VERBS

VERB INFLECTION

GRAMMATICAL CATEGORIES

The following grammatical categories are expressed by verb inflection, or, less commonly, by changes in the verb stem:

Subject person.—First, second, or third person subject is recognized in all intransitive verbs in the non-future tense. It is most commonly indicated by a prefix, although in some verbs the pronominal element is a suffix:

\[
\begin{align*}
  s\text{-}\text{ûpe} & \quad I \text{ ate} \\
  s\text{-}\text{ûpe} & \quad you \text{ ate} \\
  k\text{-}\text{ûpe} & \quad he \text{ ate} \\
  zù\text{-}\text{se} & \quad I \text{ went} \\
  zù\text{-}\text{û} & \quad you \text{ went} \\
  zù\text{-}\text{ku} & \quad he \text{ went}
\end{align*}
\]

In addition, some verbs occur with a pronominal morpheme indicating indefinite subject:

sk\text{-}\text{åkui} \quad one\text{'s wives

Subject-object person.—The subject and object of every transitive verb in the non-future tense are indicated by a single prefix. Seven principal subject-object combinations are recognized.

First person subject with third person object: s\text{-}\text{êku} \quad I \text{ bit him}
Second person subject with third person object: s\text{-}\text{êku} \quad you \text{ bit him}
Third person subject with third person object: g\text{-}\text{êku} \quad he \text{ bit him}
First person subject with second person object: g\text{-}\text{êku} \quad I \text{ bit you}
Second person subject with first person object: g\text{-}\text{êku} \quad you \text{ bit me}
Third person subject with first person object: g\text{-}\text{êku} \quad he \text{ bit me}
Third person subject with second person object, g\text{-}\text{êku} \quad he \text{ bit you}

In some, but not all, transitive verbs a fourth person subject with third person object is recognized which is distinct from the third person subject with third person object:

\[
\begin{align*}
  g\text{-}\text{êku} & \quad he \text{ (third person) bit him} \\
  \text{ê-}\text{êku} & \quad he \text{ (fourth person) bit him}
\end{align*}
\]
Fourth person is used when the subject of the action is obscure, as when the speaker is telling of something that he himself did not observe. It is also used when the subject of the action is inferior to the object, as when an animal is the subject and a human being the object.

**Number.---**Singular, dual, and plural number are recognized in both the subject of intransitive verbs and in the subject and object of transitive verbs. The dual and plural of transitive verb subjects are normally expressed by suffixation, while the absence of number suffixes indicates singular subject:

- gaku  he bit him
- gāgu-ŋa they two bit him
- gāgu-ŋe they bit him

Subject number of intransitive verbs may be indicated in a variety of ways:

1. **By suffixation as in the case of transitive verbs:**
   - zikupawa  he chopped
   - zikupawa-ŋa they two chopped
   - zikupawa-ŋe they chopped

2. **By changes in the thematic adjunct (i.e., the vowel or vocalic complex that ordinarily immediately follows the pronominal affix).** These changes are usually accompanied by other number markers but may sometimes constitute the only indication of number:
   - g-áu-d'asi  he fasted
   - g-ŭ-ŋa-d'asi they two fasted
   - g-ŭ-wa-d'asi they fasted

3. **By the prefixation of different sets of pronominal allomorphs together with suffixation and/or changes in the thematic adjunct:**
   - s-iská  I drank
   - sōz-áská we two drank
   - sāz-áskata we drank

Object number of transitive verbs is indicated by changes in the thematic adjunct:

- s-è-ku  I bit him
- s-é-ŋa-ku I bit them two
- s-èiýa-ku I bit them

**Tense.---**Future and non-future tenses are recognized. Verbs which include a pronominal affix are in the non-future tense. Future tense is indicated by replacing the pronominal affix with a tense marker. The pronominal element is then incorporated in a separate word, the verbal auxiliary, which follows the verb:

- šálizúwa  I paid you
- nīzúwa šáumá  I will pay you
- nūpe  I ate
- nūpe sī  I will eat
Mode.—Pronominal affixes indicate not only the person of the subject or the subject and object but also indicate the mode. For each mode there is a distinctive set of pronominal affixes. A total of six modes are recognized; indicative, negative, dubitative, hortative, negative hortative, and future hortative. For each subject-object combination, however, only certain modes are indicated formally in the inflection:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>č-í-zúwa</td>
<td>I paid him</td>
</tr>
<tr>
<td>šd-í-zúwa</td>
<td>you paid him</td>
</tr>
<tr>
<td>ő-í-zúwa</td>
<td>I (didn’t) pay him</td>
</tr>
<tr>
<td>š-í-zúwa</td>
<td>you (didn’t) pay him</td>
</tr>
<tr>
<td>ká-ízúwa</td>
<td>maybe I paid him</td>
</tr>
<tr>
<td>c-í-zúwa</td>
<td>maybe you paid him</td>
</tr>
<tr>
<td>ň-í-zúwa</td>
<td>let me pay him (in the future)</td>
</tr>
<tr>
<td>p-í-zúwa</td>
<td>pay him</td>
</tr>
<tr>
<td>šd'-í-zúwa</td>
<td>(don’t) pay him</td>
</tr>
<tr>
<td>š-í-zúwa</td>
<td>pay him (in the future)</td>
</tr>
</tbody>
</table>

Certain particles characteristic of specific modes may precede the verb and are often necessary in order to avoid ambiguity. Verbs in the negative mode, for instance, are always preceded by the negative particle zázi, and those in the negative hortative mode by the particle bá-mí-:

zázi šd'-í-zúwa I didn’t pay him
bá-mí- šd'-í-zúwa don’t pay him

Voice.—Reflexive-reciprocal and passive voice are indicated by a prefix following the pronominal prefix of transitive verbs together with a distinctive set of pronominal allomorphs. Reflexive and reciprocal voice are indicated by the prefix -à- and are distinguished one from the other by different thematic adjuncts:

š-à-ukača I saw myself
š-à-ukačanati we two saw ourselves
š-à-ýakačanati we two saw each other

Passive voice is indicated by the prefix -á?a- or -á- and takes the plural subject suffix:

šk-á?á-izúwa-ñe I was paid

Aspect.—There are three aspect morphemes. The most common of these expresses continuative action:

šukača-nikuya I am looking at him

Compare:

šukača I saw him

A less common aspect morpheme indicates unfulfilled action:

šupe-we I have come to eat

Compare:

šupe I ate
The third aspect morpheme indicates a remote state and occurs with only a limited number of verb stems:

\[ \text{gō-tā ma} \] it is full (something remote from the speaker)

Compare:

\[ \text{gō-tā} \] it is full (something at hand)

**Condition.**—Verbs which are linked to the larger context by various kinds of subordinate or conditional relationships occur with one of a class of suffixes of rather elusive semantic categorization:

\[ \text{skuizúwa-ne} \] when he paid me
\[ \text{skuizúwa-nu} \] if he pays me

Compare:

\[ \text{skuizúwa} \] he paid me

In addition to the patterns of inflection indicated above, the expression of specific grammatical categories sometimes involves irregular changes in the verb stem (see pp. 99 ff.). In some cases there are changes of such a revolutionary character that the phenomenon may best be described as stem suppletion, which most commonly involves intransitive verbs in the three numbers:

\[ \text{zū-se} \] I went
\[ \text{sōd-sōyu} \] we two went
\[ \text{sōd-eku} \] we went

In rare cases, the expression of continuative action or of plural object number in transitive verbs involves stem suppletion:

\[ \text{č-aku} \] he bit him
\[ \text{č-āpí-kuy} \] he is biting him
\[ \text{č-iyēšia} \] I found him
\[ \text{s-fwādē-y} \] I found them

**Inflectional Affixes**

Each inflectional affix is assigned an identification number and is a member of a century class. Century classes are numbered according to the relative order of occurrence of their members within transitive verbs. An exception to this sequential numbering of century classes is the case of classes 100 and 200 which are never represented in the same verb. Members of both Century Class 100 and 200 are always in initial position in the verb.

Century Class 100 includes all pronominal affixes.\(^4\) Within the class are nine decade classes (100, 110, 120, 130, 140, 150, 160, 170, and 180), each of which includes affixes indicating a specific subject or subject-object combination. Within each decade class, with the exception of 180, there are six morphemes (numbered 101–106, 111–116, etc.), each of which is characteristic of a specific mode. Century

\(^4\) These are termed “affixes” rather than specifically “prefixes” or “suffixes” because, although they occur most commonly as prefixes, there are some intransitive verbs in which they occur as suffixes.
Class 200 consists of one morpheme, the future tense affix. Century Class 300 consists of voice prefixes. Century Class 400 consists of aspect suffixes. Century Class 500 consists of number suffixes. Century Class 600 consists of condition suffixes.

Affixes of Century Class 100 are tabulated in charts 1 and 2 and comprise a set of pronominal indicators. Those affixes which occur with transitive verbs in their primary paradigms appear in chart 1; those occurring with intransitive verbs and with transitive verbs in their secondary paradigms are listed in chart 2. The two charts overlap to a considerable extent, as many forms appear both with transitive and intransitive verbs. This overlap is so extensive that it is convenient to group those pronominal indicators which occur with intransitive verbs together with those which occur with transitive verbs and which indicate first, second, or third person subject with third person object. Affix 101, for instance, occurs with intransitive verbs indicating first person subject and with transitive verbs indicating first person subject with third person object. The difference lies in the fact that there are more allomorphs of each affix affiliated with intransitive verbs than with transitive verbs. The overlapping decade classes appear in the two charts with the designations T or I (e.g., 100T, 100I) indicating transitive or intransitive. The morpheme membership of T and I decade classes are identical: both 100T and 100I, for example, consist of affixes 101, 102, 103, 104, 105, and 106. Decade Class 100I, however, includes many more allomorphs than does Decade Class 100T.

Affixes of Century Class 100 form a rather elaborate system. With few exceptions, there is a distinctive affix for each subject-object combination within each of the three principal modes (indicative, dubitative, and hortative). There is, in addition, a distinctive affix for certain subject-object combinations within the negative and the negative hortative modes. A sixth mode, the future hortative, is indicated by affixes which, in most instances, are identical in form with the corresponding dubitative, hortative, or negative hortative affix. For purposes of description, the entire series is filled-in for each of the six modes, although this results in assigning two numbers to certain forms that, from one point of view at least, may be regarded as the same affix (e.g., affixes 111 and 112, 121 and 122). Thus, there are eight decade classes, each of which contains six morphemes indicating the same subject-object combination, plus Decade Class 180 which consists of a single morpheme. Each of the six morphemes within a decade class indicates a different mode. Within each mode the final digit of the affix identification number remains constant.

Allomorphs of each pronominal affix are distinguished by upper case letters following the identification number. All allomorphs listed
<table>
<thead>
<tr>
<th>Mode</th>
<th>100T</th>
<th>110T</th>
<th>120T</th>
<th>150</th>
<th>140</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decade Class</td>
<td>1st</td>
<td>2d</td>
<td>3d</td>
<td>3d</td>
<td>4th</td>
<td>2d</td>
</tr>
<tr>
<td>Person</td>
<td>1st</td>
<td>2d</td>
<td>3d</td>
<td>4th</td>
<td>1st</td>
<td>2d</td>
</tr>
<tr>
<td>Subj.</td>
<td>101A</td>
<td>102A</td>
<td>101B</td>
<td>112A</td>
<td>121A</td>
<td>115A</td>
</tr>
<tr>
<td>Obj.</td>
<td>101A</td>
<td>102A</td>
<td>102B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>Indicative</td>
<td>101A</td>
<td>102A</td>
<td>103B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>Dubitative</td>
<td>101A</td>
<td>102A</td>
<td>103B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>Future</td>
<td>101A</td>
<td>102A</td>
<td>103B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>Negative</td>
<td>101A</td>
<td>102A</td>
<td>103B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>Hortative</td>
<td>101A</td>
<td>102A</td>
<td>103B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>Negative hortative</td>
<td>101A</td>
<td>102A</td>
<td>103B</td>
<td>112A</td>
<td>121B</td>
<td>115A</td>
</tr>
<tr>
<td>1st</td>
<td>106A</td>
<td>105A</td>
<td>126A</td>
<td>145A</td>
<td>151A</td>
<td>152A</td>
</tr>
<tr>
<td>2d</td>
<td>106B</td>
<td>105B</td>
<td>126B</td>
<td>145B</td>
<td>151B</td>
<td>152B</td>
</tr>
<tr>
<td>3d</td>
<td>106A</td>
<td>105A</td>
<td>126A</td>
<td>145A</td>
<td>151A</td>
<td>152A</td>
</tr>
<tr>
<td>4th</td>
<td>106B</td>
<td>105B</td>
<td>126B</td>
<td>145B</td>
<td>151B</td>
<td>152B</td>
</tr>
<tr>
<td>1st</td>
<td>106A</td>
<td>105A</td>
<td>126A</td>
<td>145A</td>
<td>151A</td>
<td>152A</td>
</tr>
<tr>
<td>2d</td>
<td>106B</td>
<td>105B</td>
<td>126B</td>
<td>145B</td>
<td>151B</td>
<td>152B</td>
</tr>
<tr>
<td>160</td>
<td>161A sg.</td>
<td>161B sku</td>
<td>162A sℓτ</td>
<td>162B sτ</td>
<td>163A τέτ</td>
<td>163B τάδι</td>
</tr>
<tr>
<td>-----</td>
<td>--------</td>
<td>---------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>170</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chart 1.—Century Class 100 Pronominal Affixes Occurring with Transitive Verbs in Their Primary Paradigms
<table>
<thead>
<tr>
<th>Decade Class</th>
<th>Person</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subj.</td>
<td>Indicative</td>
</tr>
<tr>
<td>100 I</td>
<td>1st</td>
<td>101A si</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101B ší</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101C š</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101D š</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101E š</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101F šλ</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101G šG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101H šH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101I šI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>101J šK</td>
</tr>
<tr>
<td>110 I</td>
<td>2d</td>
<td>111A š</td>
</tr>
<tr>
<td></td>
<td></td>
<td>111B šš</td>
</tr>
<tr>
<td></td>
<td></td>
<td>111C š</td>
</tr>
<tr>
<td>111D §</td>
<td>112D §</td>
<td>113D çá?</td>
</tr>
<tr>
<td>111E gáž</td>
<td>112E gáž</td>
<td>113E dráž</td>
</tr>
<tr>
<td>111F gód</td>
<td>112F gód</td>
<td>113F dríd</td>
</tr>
<tr>
<td>111G gódi</td>
<td>112G gódi</td>
<td>113G drídi</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>120 I</th>
<th>3d</th>
</tr>
</thead>
<tbody>
<tr>
<td>121A g</td>
<td>122A g</td>
</tr>
<tr>
<td>121B zi</td>
<td>122B zi</td>
</tr>
<tr>
<td>121C k</td>
<td>122C k</td>
</tr>
<tr>
<td>121D k</td>
<td>122D k</td>
</tr>
<tr>
<td>121E ga</td>
<td>122E ga</td>
</tr>
<tr>
<td>121G z</td>
<td>122G z</td>
</tr>
<tr>
<td>121H čí</td>
<td>122H čí</td>
</tr>
<tr>
<td>121I čí</td>
<td>122I čí</td>
</tr>
<tr>
<td>121J čí</td>
<td>122J čí</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>180</th>
<th>Indefinite</th>
</tr>
</thead>
<tbody>
<tr>
<td>181A sg</td>
<td></td>
</tr>
<tr>
<td>181B sk</td>
<td></td>
</tr>
<tr>
<td>181C sč</td>
<td></td>
</tr>
<tr>
<td>181D sč</td>
<td></td>
</tr>
</tbody>
</table>

*Chart 2.—Century Class 100 Pronominal Affixes Occurring with Intransitive and Transitive Verbs in Their Secondary Paradigms*
in the charts are morphologically defined, i.e., their occurrence cannot be predicted in terms of phonological environment. Phonologically defined allomorphs (e.g., gúz derived by morphophonemic vowel assimilation from góž) are not listed in the charts but may be predicted from the morphophonemic processes described under "Morphophonemics."

The same upper case letters have been used to identify allomorphs which tend to be affiliated with the same group of verbs. This consistency is especially evident in transitive verbs and within each decade class:

<table>
<thead>
<tr>
<th>Allomorph</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>él-zúwa (101B+ verb stem)</td>
<td>I paid him</td>
</tr>
<tr>
<td>sázi-zúwa (102B+ verb stem)</td>
<td>I (didn't) pay him</td>
</tr>
<tr>
<td>tí-zúwa (103B+ verb stem)</td>
<td>maybe I paid him</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
</tr>
</tbody>
</table>

This tendency also is manifested to a lesser degree from one decade class to another within each mode:

<table>
<thead>
<tr>
<th>Allomorph</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>él-zúwa (101B+ verb stem)</td>
<td>I paid him</td>
</tr>
<tr>
<td>sí-zúwa (111B+ verb stem)</td>
<td>you paid him</td>
</tr>
<tr>
<td>zí-zúwa (121B+ verb stem)</td>
<td>he paid him</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
</tr>
</tbody>
</table>

The fact that not all affixes have the same number of allomorphs, makes it obvious that this tendency cannot hold true in the case of every verb. Intransitive verbs, especially, often show a shift from one series of allomorphs to another even within the same decade class:

<table>
<thead>
<tr>
<th>Allomorph</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sážá-?abe (101G+ verb stem)</td>
<td>we two ate</td>
</tr>
<tr>
<td>sážá-?abe (102A+ verb stem)</td>
<td>we two (didn't) eat</td>
</tr>
<tr>
<td>tóžá-?abe (103E+ verb stem)</td>
<td>maybe we two ate</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
</tr>
</tbody>
</table>

The phonetic shape and distribution of many affixes of Century Class 100 is suggestive of certain historical processes. It is probable that many of the B-allomorphs were derived from the corresponding A-allomorphs either through glottalization (compare 141B with 141A, for example) or through palatalization (compare 111B with 111A). B-allomorphs that appear to be a palatalized form of the corresponding A-allomorphs nearly always occur with verb stems beginning in -i-. The few exceptions prevent the phenomenon from being described as a morphophonemic process.

Another type of historical development is suggested by the overlap in phonetic form of certain allomorphs of affixes belonging to different decade classes. This overlap is evident when one compares affixes of Decade Class 100I with those of 160, affixes of Decade Class 110I with those of 170, and affixes of Decade Class 120 with those of 130. This suggests that the system of pronominal affixation may have
developed from one in which intransitive subject and transitive object were equated.

Century Class 200 is comprised of a single morpheme which indicates future tense. It replaces affixes of Century Class 100 as to position in the verb but not as to function. The future tense affix includes the following allomorphs:

201A  n
201B  ni
201C  ñ
201D  ňi
201E  niʔ
201F  nág
201G  nád
201H  nádi

Examples of allomorphs of affix 201 are as follows:

n-úpe  will eat
ni-ukáča  will see
ñ-áuta  will kill
ñl-udiʔ  will give
nikupawańe- (niʔ- + -ikupawańe-)  will chop (plural subject)
náẓ-áʔabeʔ  will eat (dual subject)
nád-áʔ  will be
nádřubu-er  will be frightened

Century Class 300 contains two morphemes, 301 and 302, which function as voice indicators and occur prefixed to transitive verbs following the pronominal prefix.

Affix 301 expresses reflexive or reciprocal action with the single allomorph 301 -a-. Affix 302 indicates passive voice and includes two allomorphs: 302A -áʔa- and 302B -á-. The following examples illustrate the affixes of Century Class 300:

š-á-ukáča  I saw myself
šk-áʔá-izúwa-ñe  I was paid
šk-á-ðaʔtā  I was caught

Century Class 400 is comprised of three morphemes, 401, 402, and 403, which function as aspect indicators and (except for 401H) are suffixed to verb stems.

Affix 401 indicates continuative action and includes the following allomorphs:

401A  -kuyá
401B  -nikušá
401C  -tikuyá
401D  -ku
401E  -(i)ta(·)
401F  -sə
401G  -cádáya
401H  reduplication of the verb core
The following examples illustrate occurrences of allomorphs of affix 401:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>401</td>
<td>sùbeu-kuya</td>
<td>I am eating</td>
</tr>
<tr>
<td></td>
<td>gùkača-nikuya</td>
<td>he is looking at him</td>
</tr>
<tr>
<td></td>
<td>čid'ə?-tikuya</td>
<td>I am catching him</td>
</tr>
<tr>
<td></td>
<td>kàiskòt.-tази-ku</td>
<td>he is turning around</td>
</tr>
<tr>
<td></td>
<td>sfukàici-ta</td>
<td>I am hitting him</td>
</tr>
<tr>
<td></td>
<td>šuti-sëi</td>
<td>I am planting</td>
</tr>
<tr>
<td></td>
<td>kà-nì-čäd'aya</td>
<td>he is walking</td>
</tr>
<tr>
<td></td>
<td>wòkò-wòkò-ka</td>
<td>it is shaking</td>
</tr>
</tbody>
</table>

Associated with allomorph 401E, -(i)ta, is a change from -a or -A to -i or -I in the stem-final vowel of the verb to which it is suffixed. Compares sfukàica I hit him with sfukásacta I am hitting him. Affix 402, which refers to unfulfilled action, contains the following allomorphs:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>402A</td>
<td>-NE( )</td>
<td></td>
</tr>
<tr>
<td>402B</td>
<td>-NE( )</td>
<td></td>
</tr>
<tr>
<td>402C</td>
<td>-we</td>
<td></td>
</tr>
</tbody>
</table>

Illustrations of the occurrence of allomorphs of affix 402 are as follows:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ėl-zúwa--he</td>
<td>I came to pay him</td>
</tr>
<tr>
<td></td>
<td>sfukàša-ne</td>
<td>I came to see him</td>
</tr>
<tr>
<td></td>
<td>sùpe-we</td>
<td>I came to eat</td>
</tr>
</tbody>
</table>

Affix 403 expresses remote state and has the single allomorph, 403 -ma:

gà-tà-ma it is full (something remote)

Century class 500 contains two morphemes, 501 and 502, which express subject number. They are suffixed either directly to the verb stem or follow affixes of Century Class 400. Affix 501 indicates dual subject and includes the following allomorphs:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>501A</td>
<td>-nị</td>
<td></td>
</tr>
<tr>
<td>501B</td>
<td>-natr( )</td>
<td></td>
</tr>
<tr>
<td>501C</td>
<td>-nọt( )</td>
<td></td>
</tr>
<tr>
<td>501D</td>
<td>-nọ</td>
<td></td>
</tr>
</tbody>
</table>

The occurrence of these allomorphs is illustrated by the following examples:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sik̩vpawá-nị</td>
<td>we two chopped</td>
</tr>
<tr>
<td></td>
<td>šikuكاša-natị</td>
<td>we two saw him</td>
</tr>
<tr>
<td></td>
<td>šid'η-đọt( )</td>
<td>we two caught him</td>
</tr>
<tr>
<td></td>
<td>šáudi-nọt( )</td>
<td>we two planted</td>
</tr>
<tr>
<td></td>
<td>sàiskòt.-žai-matị</td>
<td>we two turned around</td>
</tr>
<tr>
<td></td>
<td>šùni-ňashuti</td>
<td>we two know him</td>
</tr>
<tr>
<td></td>
<td>sódèt-ę-șuti</td>
<td>we two are</td>
</tr>
<tr>
<td></td>
<td>sìwì-đeyà-pɔ</td>
<td>we two worshipped</td>
</tr>
</tbody>
</table>

Affix 502, expressing plural subject, has the following allomorphs:

<table>
<thead>
<tr>
<th>Affix</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>502A</td>
<td>-NE( )</td>
<td></td>
</tr>
<tr>
<td>502B</td>
<td>-NE( )</td>
<td></td>
</tr>
<tr>
<td>502C</td>
<td>-ta( )</td>
<td></td>
</tr>
<tr>
<td>502D</td>
<td>-ne</td>
<td></td>
</tr>
<tr>
<td>502E</td>
<td>-me</td>
<td></td>
</tr>
<tr>
<td>502F</td>
<td>-maša</td>
<td></td>
</tr>
<tr>
<td>502G</td>
<td>-wọ</td>
<td></td>
</tr>
</tbody>
</table>
Examples of the allomorphs of affix 502 are as follows:

- sikupawa-ñe we chopped
- šľukače-ne we saw him
- šid'a?-ta we caught him
- săwá-di-ñe we planted
- săyá-skó?-ázai-me we turned around
- šľuna-ňasa we know him

Century Class 600 is comprised of three morphemes, 601, 602, and 603, which express conditional or contrary-to-fact action. Affix 601 has two allomorphs, 601A -ne and 601B -de. Affix 602 has a single allomorph, 602 -nu-. Affix 603 likewise has a single allomorph, 603 -tE. The following examples illustrate the occurrence of these allomorphs:

- skůźůwá-ñe when he paid me
- gůkačáne-de when they saw him
- skůźůwá-ñu- if he pays me

It is difficult to differentiate affixes 601 and 602 by meaning function except that the latter apparently has a dubitative connotation lacking in the former. Affix 603 occurs with many verbs in the negative mode which have a plural subject:

- sgůkačáne-tE we (didn't) see him

**DISTRIBUTION OF AFFIXES**

The distribution within verbs of the inflectional affixes, the thematic adjunct (TA), the verb core, and the benefactive suffix (B) serves to distinguish three major structural types. These are represented by three formulas:

1. **TV** = +100±300 + TA + Core ± 400 ± B ± 500 ± 600/ + 200 ± 300 + TA + Core ± 400 ± B ± 500

Transitive verbs are composed of three obligatory parts, a prefix of either Century Class 100 or Century Class 200 followed by a thematic adjunct and a verb core. Prefixes of Century Class 300 and suffixes of Century Classes 400, 500, and 600 as well as the benefactive suffix occur in some, but not all, verbs of this type. Suffixes of Century Class 600 may occur only if the verb is prefixed by members of Century Class 100.

2. **IVA** = +100 + TA + Core ± 400 ± 500 ± 600/ + 200 + TA + Core ± 400 ± 500

Intransitive verbs of Type A are composed of at least a prefix of either Century Class 100 or Century Class 200 followed by a thematic adjunct and a verb core. They may include, in addition, suffixes of Century Classes 400, 500, or 600.

3. **IVB** = + Core ± 400 + 100 + TA ± 600/ + Core ± 400 ± 200 + TA

---

682–611–64—10
Intransitive verbs of Type B are composed of a verb core together with an affix of either Century Class 100 or 200 occurring as a suffix and followed by a thematic adjunct. An affix of Century Class 400 may follow the core and, in forms containing a member of Century Class 100, a suffix of Century Class 600 may follow the thematic adjunct.

A complete set of paradigms of transitive verbs in all of their possible inflections includes the following:

*Primary paradigms.*—Transitive verbs in their simplest forms, i.e., those which include only the three obligatory elements and which have unexpanded thematic adjuncts, are members of one of the primary paradigms. A transitive verb primary paradigm is composed of seven or eight forms based on the same verb stem, all belonging to the same mode, and each expressing a different pronominal reference. Examples of these paradigms are given in Appendix 1. The classification of verb stems on the basis of the specific allomorphs of Century Class 100 with which they occur in their primary paradigms is dealt with under "Verb Classes."

*Forms with prefixes of Century Class 300.*—Transitive verbs occurring with the reflexive-reciprocal or the passive voice prefix take distinctive sets of allomorphs of the pronominal prefixes. Furthermore, the class division evident in the primary paradigms is lacking in these forms; all transitive verbs take the same sets of allomorphs.

Verbs in the reflexive-reciprocal voice occur with the following set of pronominal allomorphs:

<table>
<thead>
<tr>
<th>s</th>
<th>ská?</th>
<th>tá?</th>
<th>ká?</th>
<th>ŋ</th>
<th>ŋ</th>
</tr>
</thead>
<tbody>
<tr>
<td>101D</td>
<td>102F</td>
<td>103D</td>
<td>104D</td>
<td>105H</td>
<td>106D</td>
</tr>
<tr>
<td>š</td>
<td>š</td>
<td>Čá?</td>
<td>ŋ</td>
<td>ska?</td>
<td>Čá?</td>
</tr>
<tr>
<td>111D</td>
<td>112D</td>
<td>113D</td>
<td>114D</td>
<td>115F</td>
<td>116D</td>
</tr>
<tr>
<td>121F</td>
<td>122F</td>
<td>123F</td>
<td>124F</td>
<td>125F</td>
<td>126F</td>
</tr>
</tbody>
</table>

Those in the passive voice occur with the following:

<table>
<thead>
<tr>
<th>sku</th>
<th>šč</th>
<th>ũ</th>
<th>ni</th>
<th>ni</th>
<th>ni</th>
</tr>
</thead>
<tbody>
<tr>
<td>101J</td>
<td>102H</td>
<td>103B</td>
<td>104E</td>
<td>105A</td>
<td>106A</td>
</tr>
<tr>
<td>š</td>
<td>š</td>
<td>č</td>
<td>z</td>
<td>sč</td>
<td>c</td>
</tr>
<tr>
<td>111C</td>
<td>112C</td>
<td>113C</td>
<td>114E</td>
<td>115H</td>
<td>116C</td>
</tr>
<tr>
<td>č</td>
<td>č</td>
<td>ũ</td>
<td>pí</td>
<td>pí</td>
<td>pí</td>
</tr>
<tr>
<td>121H</td>
<td>122H</td>
<td>123H</td>
<td>124B</td>
<td>125B</td>
<td>126B</td>
</tr>
</tbody>
</table>

Verbs in the passive voice regularly take the plural subject suffix:

sk-áʔá-izúwa-ńe (101J+302A+stem+502A) I was paid

An alternative translation of this verb would be *they (certain unspecified persons) paid me.* This translation is consistent with the presence of the plural subject suffix and with the expansion of the thematic adjunct in forms indicating dual or plural persons being acted upon.
It is not consistent, however, with the presence of pronominal affixes of Decade Classes 100I, 110I, and 120I, which express first, second, and third person subject respectively.

The occurrence of allomorph 302B, -a-, as opposed to 302A, -a?a-, is apparently restricted to verbs having a voiceless and unglottalized core-initial consonant and a normally short and level accented thematic adjunct:

\[
\begin{align*}
g'^{\text{t}}\text{k}^\text{w}^\text{A} & \quad \text{I stabbed him} \\
\text{sk}^\text{d}^\text{g}^\text{w}^\text{A}^\text{E} & \quad \text{I was stabbed}
\end{align*}
\]

**Forms with suffixes of Century Class 400.**—Most transitive verb stems may occur with suffix 401, indicating continuous action. These forms occur with the same pronominal prefixes as occur in the primary paradigms:

\[
g'^\text{k}^\text{A}^\text{n}^\text{i}^\text{k}^\text{u}^\text{A} (121A + \text{stem} + 401B) \quad \text{he is looking at him}
\]

Compare:

\[
g'^\text{k}^\text{A}^\text{c} (121A + \text{stem}) \quad \text{he saw him}
\]

Subclasses of transitive verbs are based in part on their occurrence with specific allomorphs of 401 (see "Verb Classes"). A few transitive verbs are defective in that they never occur with affix 401. The occurrence of affix 402 is quite limited and has been recorded in relatively few verbs. The subclass to which the verb belongs determines which of the several allomorphs occur. There are no occurrences in the present data of transitive verbs which include affix 403.

**Forms with suffixes of Century Class 500.**—All transitive verbs, with the exception of a few defective stems, may occur with a subject number suffix, 501 or 502. In general, the same sets of allomorphs of Century Class 100 occur with these forms as occur in the primary paradigms:

\[
g'^\text{k}^\text{A}^\text{c}^\text{n}^\text{A}^\text{t} (121A + \text{stem} + 501B) \quad \text{they two saw him} \\
g'^\text{k}^\text{A}^\text{c}^\text{A} (121A + \text{stem} + 502B) \quad \text{they saw him}
\]

Compare:

\[
g'^\text{k}^\text{A}^\text{c} (121A + \text{stem}) \quad \text{he saw him}
\]

Forms expressing first person subject and third person object, however, are an exception. Verbs which in their primary paradigms occur with A-allomorphs of Decade Class 100 (101A, 102A, 103A, etc.) take allomorphs 101E, 102A, 103H, 104F, 105B, and 106B when the subject is dual or plural. Those with B-allomorphs in their primary paradigms occur with allomorphs 101E, 102B, 103H, 104F, 105B, and 106B in the dual and plural forms:

\[
\begin{align*}
\text{si}^\text{k}^\text{A}^\text{c}^\text{A}^\text{n}^\text{E} (101E + \text{stem} + 502B) & \quad \text{we saw him} \\
\text{si}^\text{z}^\text{u}^\text{w}^\text{A}^\text{E} (101E + \text{stem} + 502A) & \quad \text{we paid him}
\end{align*}
\]

Compare:

\[
\begin{align*}
\text{si}^\text{k}^\text{A}^\text{c} (101A + \text{stem}) & \quad \text{I saw him} \\
\text{si}^\text{z}^\text{u}^\text{w}^\text{A} (101B + \text{stem}) & \quad \text{I paid him}
\end{align*}
\]
The choice of allomorphs of suffixes 501 and 502 depends on the subclass to which the transitive verb belongs and on the presence or absence of affixes of Century Classes 200 and 400. The occurrence of these allomorphs is described more fully under "Verb Classes."

*Forms with suffixes of Century Class 600.*—Suffixes 601 and 602, in general, may be attached to any transitive verb in the non-future tense. This involves no concomitant changes in the allomorphs of other affixes which are present in the verb:

- \( \text{skúizúwa-ne } (161B + \text{stem} + 601A) \) when he paid me
- \( \text{skúizúwa-nu- } (161B + \text{stem} + 602) \) if he pays me

Compare:

- \( \text{skúizúwa } (161B + \text{stem}) \) he paid me

Allomorph 601B rather than 601A occurs with verbs in which the subject is dual or plural:

- \( \text{skúizúwa- \( \text{\ } \) -ne-de } (161B + \text{stem} + 502A + 601B) \) when they paid me

Affix 603 is of much more limited distribution, occurring only in verbs with plural subject in the negative mode when other Century Class 600 suffixes are absent:

- \( \text{sgùkačane-te } (102A + \text{stem} + 502B + 603) \) we (didn't) see him

*Forms with prefix 201.*—All forms of transitive verbs outlined above, with the exception of those containing suffixes of Century Class 600, may be changed to the future tense by replacing the pronominal prefix with prefix 201. This results in a form of the verb that does not include subject-object person and which must be followed by a verbal auxiliary. Transitive verbs which occur with allomorph 101A in forms indicating first person subject with third person object take allomorph 201B in most future tense forms:

- \( \text{siukakača } (101A + \text{stem}) \) I saw him
- \( \text{nšukakača } (201B + \text{stem}) \) will see

Those verbs which occur with allomorph 101B take allomorph 201D:

- \( \text{či-zúwa } (101B + \text{stem}) \) I paid him
- \( \text{ni-zúwa } (201D + \text{stem}) \) will pay

Future tense verbs in the reflexive voice, however, occur with allomorph 201C rather than 201B or 201D:

- \( \text{ńšukakača } (201C + \text{stem}) \) will see oneself

The presence of affix 201 sometimes determines the choice of allomorphs of suffixes 501 and 502. Some verbs in the future tense take the same allomorph of a number suffix as do the corresponding non-future forms:

- \( \text{ńi-zúwa-ńa } (201D + \text{stem} + 501A) \) will pay (dual subject)
Compare:

\[ \text{zí-žúwa-ńa} (121B+stem+501A) \quad \text{they two paid him} \]

Verbs occurring with allomorphs 502A, 502B, or 502C in the non-future tense show a lengthening and voicing of the suffix vowel in the future tense:

\[ \text{zí-žúwa-ńe} (121B+stem+502A) \quad \text{they paid him} \]
\[ \text{ńí-žúwa-ńe} (201D+stem+502A) \quad \text{will pay him (plural subject)} \]

Chart 3 summarizes all possible sequences of inflectional affixes representative of the six century classes and illustrates them with examples based on the verb to see. For each of the non-future forms in the chart there are parallel forms representing other modes and other subject-object persons, as well as forms incorporating other affixes of Century Classes 300, 400, 500, and 600. The multiplicity of forms based on a single verb core is further increased by the possibility of changes in the thematic adjunct and/or the inclusion of a benefactive suffix. These, however, are regarded as stem changes rather than inflection and are treated in that portion entitled “Stem Formation.”

Type A intransitive verbs follow the same general pattern of inflection as transitive verbs, but occur with a more restricted inventory or inflectional affixes. These verbs, for example, never occur with affixes of Century Class 100 which express first person object (i.e., Decade Classes 150 and 160). Furthermore, specific intransitive verbs commonly lack the capacity for combining with affixes of one or more of the optionally occurring classes; few intransitive verbs exhibit the full pattern of inflection indicated for transitive verbs in chart 3. Affixes of Century Class 300, for instance, rarely occur with intransitive verbs. There are a few verbs, however, which are classified as intransitive on structural grounds, but which have a transitive meaning and which admit affixes of this class:

\[ \text{ská?autawa} (101J+302A+stem+502G) \quad \text{I was killed} \]

Members of Century Classes 400 and/or 500 may likewise be lacking in the inventory of inflectional affixes with which specific Type A intransitive verb stems occur. Certain of these verbs have no distinctive continuative action forms, while others indicate dual and plural subject by changes in the stem rather than by inflection.

Type B intransitive verbs are even more restricted in their inflection than are Type A. They never occur with affixes of Century Class 500, and the expression of aspect is limited to the reduplication of the verb core to indicate continuative action (allomorph 401H):

\[ \text{wókaka} \quad \text{it moved} \]
\[ \text{wókowókaka} \quad \text{it is shaking} \]
<table>
<thead>
<tr>
<th>100+S</th>
<th>g-ulkača</th>
<th>he saw him</th>
</tr>
</thead>
<tbody>
<tr>
<td>200+S</td>
<td>g-ulkača</td>
<td>will see</td>
</tr>
<tr>
<td>100+300+S</td>
<td>ni-ulkača</td>
<td>he saw himself</td>
</tr>
<tr>
<td>200+300+S</td>
<td>ni-ulkača</td>
<td>will see oneself</td>
</tr>
<tr>
<td>100+S+600</td>
<td>g-ulkača-nu</td>
<td>if he sees him</td>
</tr>
<tr>
<td>100+300+S+600</td>
<td>g-ulkača-nu</td>
<td>they saw him</td>
</tr>
<tr>
<td>100+S+500</td>
<td>g-ulkača-ne</td>
<td>will see</td>
</tr>
<tr>
<td>200+S+500</td>
<td>ni-ulkača-ne</td>
<td>they saw (plural subject)</td>
</tr>
<tr>
<td>100+300+S+500</td>
<td>ni-ulkača-ne</td>
<td>they saw themselves</td>
</tr>
<tr>
<td>100+S+400</td>
<td>g-ulkača-nikuy</td>
<td>he is looking at him</td>
</tr>
<tr>
<td>200+S+400</td>
<td>g-ulkača-nikuy</td>
<td>will be looking</td>
</tr>
<tr>
<td>100+300+S+400</td>
<td>ni-ulkača-nikuy</td>
<td>he is looking at himself</td>
</tr>
<tr>
<td>200+300+S+400</td>
<td>ni-ulkača-nikuy</td>
<td>will be looking at oneself</td>
</tr>
<tr>
<td>100+300+S+500</td>
<td>g-ulkača-nu</td>
<td>he is looking at his own self</td>
</tr>
<tr>
<td>100+300+S+600</td>
<td>g-ulkača-nu</td>
<td>will be looking at his own self</td>
</tr>
<tr>
<td>100+300+S+500</td>
<td>g-ulkača-nu</td>
<td>he is looking at the dog</td>
</tr>
<tr>
<td>100+300+S+600</td>
<td>g-ulkača-nu</td>
<td>will be looking at the dog</td>
</tr>
<tr>
<td>100+300+S+500</td>
<td>g-ulkača-nu</td>
<td>he is looking at the cat</td>
</tr>
<tr>
<td>100+300+S+600</td>
<td>g-ulkača-nu</td>
<td>will be looking at the cat</td>
</tr>
<tr>
<td>100 + S + 500 + 600</td>
<td>g-á-kí-a-ni-guy-yá-a-nu. when they see him</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>200 + S + 400 + 500</td>
<td>m-ú-á-kí-a-ni-guy-yá-a-nu. if he is looking at him</td>
<td></td>
</tr>
<tr>
<td>100 + 300 + S + 400 + 500</td>
<td>kí-a-á-kí-a-ni-guy-yá-a-nu. if he is looking at himself</td>
<td></td>
</tr>
<tr>
<td>200 + 300 + S + 400 + 500</td>
<td>tí-b-á-kí-a-ní-guy-yá-a-nu. will be looking at themselves</td>
<td></td>
</tr>
</tbody>
</table>

**Chart 3—Century Class Stem Sequences**
A few Type B intransitive verbs always occur with -ni in word-final position. This morpheme cannot be assigned a meaning function and does not fit in any of the classes of inflectional affixes:

ká-gańi  it is red
ká-seńi  I am red

There is a tendency for words beginning in g-, k- or k- to develop by analogy a set of inflectional affixes even though the word may not originally have been a verb. This may be seen in the word gast-ki cacique borrowed from the Spanish. The initial g- no longer behaves like a part of the stem but is identified with the third person prefix and may be replaced by other pronominal or future tense affixes:

ses-t-ki  I am a cacique
nest-ki  will be a cacique

Some words have an indicative and a dubitative form but never occur with the future tense prefix or any other inflectional affix:

kú-tí  mountain
cú-tí  there may be a mountain

The potentiality for occurring with a future tense prefix is taken as a necessary condition for membership in the verb class. Mountain, therefore, is not a verb, but is classified as an uninflected word which exhibits two alternate forms.

**VERB STEMS**

Verbs are analyzed as consisting of a stem plus inflectional affixes of the various classes previously described. The stem itself is analyzed as consisting of two obligatory components, a thematic adjunct and a core, and may include a benefactive suffix as well. The combination of these elements to form verb stems is described in the section to follow. Certain verb cores, in turn, may be analyzed further. These will be described under "Verb Core Derivation."

**STEM FORMATION**

The thematic adjunct (abbreviated TA) is an element of the verb occurring, in most cases, immediately preceding the core (i.e., it is the initial element of the verb stem). The verb zínata he bought it, for example, may be dissected as follows:

<table>
<thead>
<tr>
<th>z-</th>
<th>-i-</th>
<th>-nata</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TA</td>
<td>core</td>
</tr>
<tr>
<td>pronominal prefix</td>
<td>stem</td>
<td></td>
</tr>
</tbody>
</table>
In those verbs in which the pronominal affix follows the core the thematic adjunct is the element immediately following the pronominal affix:

\[ zù-k-u \text{ (core + pronominal affix + TA)} \]  he went

The stem in such cases, as \( zù-u \) in the above example, is discontinuous.

Thematic adjuncts occurring in transitive verbs are either simple, indicating singular object, or expanded to indicate dual or plural object. Simple thematic adjuncts in transitive verbs are most commonly single vowels, either short or long:

- \( g-ù-ni \)  he knows him
- \( d'v-ù-di \)  you gave it to me
- \( c-f-zùwa \)  I paid him

A few transitive verbs occur with vowel clusters as simple thematic adjuncts:

- \( ʃ-ài-kú-mi \)  I brought it to you
- \( ʃ-âu-?u \)  I gave it to you

A particular transitive verb ordinarily retains the same thematic adjunct throughout its primary paradigms (see Appendix 1). Frequently, however, there is a different thematic adjunct in the passive voice (see "Stem Variants").

To indicate dual or plural object, the thematic adjunct of transitive verbs is expanded according to a pattern that is regular but not analyzable in terms of additive morphemes. Chart 4 lists simple transitive thematic adjuncts together with their dual and plural expanded forms. With the simple thematic adjuncts are vowels or vowel clusters which result from a combination of the final vowel of a preceding prefix together with the thematic adjunct. This includes, for instance, -e- resulting from a combination of -i- plus -a- and -au- resulting from a combination of -a- and -u-. Only those vowels and vowel clusters are given which have actually been recorded in transitive verbs. This accounts for the omission from the chart of many vowels and vowel combinations that might be expected to occur.

Thematic adjuncts and their expansions are listed in the chart by types based on the forms which appear in the primary paradigms and in the passive voice respectively. Type u/a, for example, has reference to verbs which exhibit -u- as thematic adjunct in their primary paradigms and -a- in the passive voice. The expansion of these adjuncts involves a radical change in the accent pattern only in the case of those which in their simple form are short and level accented. These are grouped together in a separate section of the chart. In other verbs the accent of the simple thematic adjunct is retained on
the final vowel or vowel cluster of the expanded forms, while the initial syllable receives a level accent. Vowel length occurring with a simple thematic adjunct likewise is retained on the final vowel of the expanded forms.

<table>
<thead>
<tr>
<th>Type</th>
<th>Simple</th>
<th>Dual Expanded</th>
<th>Plural Expanded</th>
</tr>
</thead>
<tbody>
<tr>
<td>i/a</td>
<td>-i-</td>
<td>-à-</td>
<td>-ái'yà-</td>
</tr>
<tr>
<td></td>
<td>-á-</td>
<td>-à-</td>
<td>-ái'yà-</td>
</tr>
<tr>
<td></td>
<td>-ú-</td>
<td>-à-</td>
<td>-ái'yà-</td>
</tr>
<tr>
<td>u/a</td>
<td>-ú-</td>
<td>-ú?u-</td>
<td>-úwà-</td>
</tr>
<tr>
<td></td>
<td>-áu-</td>
<td>-á?u-</td>
<td>-áuwa-</td>
</tr>
<tr>
<td></td>
<td>-fu-</td>
<td>-fu?u-</td>
<td>-fuwà-</td>
</tr>
<tr>
<td></td>
<td>-á-</td>
<td>-á?á?a-</td>
<td>-á?áwà-</td>
</tr>
<tr>
<td>a/a</td>
<td>-a-</td>
<td>-a?a-</td>
<td>-ái'yà-</td>
</tr>
<tr>
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<td>-e-</td>
<td>-e?e-</td>
<td>-eí'yà-</td>
</tr>
<tr>
<td>ai/ai</td>
<td>-ai-</td>
<td>-ai?ai-</td>
<td>-ái'yai-</td>
</tr>
<tr>
<td></td>
<td>-ei-</td>
<td>-ei?ei-</td>
<td>-ei'yai-</td>
</tr>
<tr>
<td>au/au</td>
<td>-au-</td>
<td>-au?au-</td>
<td>-ái'yau-</td>
</tr>
<tr>
<td></td>
<td>-eu-</td>
<td>-eu?eu-</td>
<td>-ei'yau-</td>
</tr>
<tr>
<td>i/i</td>
<td>-i-</td>
<td>-i?ai-</td>
<td>-ái'yà-</td>
</tr>
<tr>
<td></td>
<td>-ai-</td>
<td>-ai?ai-</td>
<td>-ái'yà-</td>
</tr>
<tr>
<td></td>
<td>-ui-</td>
<td>-ui?ai-</td>
<td>-ái'yà-</td>
</tr>
<tr>
<td>u/a</td>
<td>-u-</td>
<td>-u?u-</td>
<td>-u?wa-</td>
</tr>
<tr>
<td></td>
<td>-au-</td>
<td>-au?au-</td>
<td>-auwa-</td>
</tr>
<tr>
<td></td>
<td>-iu-</td>
<td>-iu?iu-</td>
<td>-iuwa-</td>
</tr>
<tr>
<td></td>
<td>-a-</td>
<td>-a?a-</td>
<td>-a?uwà-</td>
</tr>
<tr>
<td>u/u</td>
<td>-u-</td>
<td>-au?au-</td>
<td>-áiwa-</td>
</tr>
<tr>
<td></td>
<td>-au-</td>
<td>-au?au-</td>
<td>-áiwa-</td>
</tr>
<tr>
<td></td>
<td>-iu-</td>
<td>-au?au-</td>
<td>-áiwa-</td>
</tr>
</tbody>
</table>

Chart 4.—Expansion of Thematic Adjuncts
Examples of such expansion in the order that they occur in chart 4 are as follows:

<table>
<thead>
<tr>
<th>šádr̄a</th>
<th>you caught him</th>
<th>šádr̄a</th>
<th>you caught two</th>
</tr>
</thead>
<tbody>
<tr>
<td>šádr̄a</td>
<td>you caught you</td>
<td>šádr̄a</td>
<td>you caught you</td>
</tr>
<tr>
<td>čúdr̄a</td>
<td>you caught me</td>
<td>čúdr̄a</td>
<td>you caught us</td>
</tr>
<tr>
<td>gúsuküca</td>
<td>he kicked him</td>
<td>gúsuküca</td>
<td>he kicked them</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I kicked you</td>
<td>súsuküca</td>
<td>I kicked you</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I kicked him</td>
<td>súsuküca</td>
<td>I kicked two</td>
</tr>
<tr>
<td>skásukuzàne</td>
<td>I was kicked</td>
<td>súsuküca</td>
<td>we were kicked</td>
</tr>
<tr>
<td>gúsuküca</td>
<td>I kicked him</td>
<td>súsuküca</td>
<td>you bit them</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I kicked him</td>
<td>súsuküca</td>
<td>I bit them</td>
</tr>
<tr>
<td>skásukuzàne</td>
<td>I was kicked</td>
<td>súsuküca</td>
<td>I bit two</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I kicked him</td>
<td>skásukuzàne</td>
<td>I brought to you</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I kicked two</td>
<td>súsuküca</td>
<td>I brought to you</td>
</tr>
<tr>
<td>súsuküca</td>
<td>we two were kicked</td>
<td>súsuküca</td>
<td>I gave it to you</td>
</tr>
<tr>
<td>skásukuzàne</td>
<td>you bit them</td>
<td>súsuküca</td>
<td>I gave it to you</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I bit them</td>
<td>súsuküca</td>
<td>you paid them</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I bit two</td>
<td>súsuküca</td>
<td>you paid two</td>
</tr>
<tr>
<td>skásukuzàne</td>
<td>you paid me</td>
<td>súsuküca</td>
<td>you paid us</td>
</tr>
<tr>
<td>súsuküca</td>
<td>you paid us</td>
<td>súsuküca</td>
<td>he hit them</td>
</tr>
<tr>
<td>súsuküca</td>
<td>he hit them</td>
<td>súsuküca</td>
<td>I hit two</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I hit them</td>
<td>súsuküca</td>
<td>we two were hit</td>
</tr>
<tr>
<td>súsuküca</td>
<td>I hit two</td>
<td>súsuküca</td>
<td>you gave it to us</td>
</tr>
<tr>
<td>súsuküca</td>
<td>we were hit</td>
<td>súsuküca</td>
<td>I gave it to you</td>
</tr>
<tr>
<td>súsuküca</td>
<td>you gave it to you</td>
<td>súsuküca</td>
<td>you gave it to you</td>
</tr>
<tr>
<td>súsuküca</td>
<td>you gave it to them</td>
<td>súsuküca</td>
<td>you gave it to them</td>
</tr>
</tbody>
</table>

You caught them all
You caught us
He kicked them
I kicked them
I kicked us
We were kicked
You bit them
I bit them
I gave it to you all
I gave it to them
You paid them
You paid us
He hit them
I hit them
We were hit
You gave it to us
You gave it to us
You gave it to them
Thematic adjuncts occurring in intransitive verbs with singular subject are single vowels or vowel clusters:

- `g-ú-yá` he skinned it
- `s-á-ni` you walked
- `s-ái-nata` I cooked it
- `s-áu-ta` I killed it

In most cases the thematic adjunct remains the same in all singular forms of the verb. Two exceptions, however, should be noted. (1) Type B intransitive verbs which normally take `-u` or `-ü` show a shift to `-e` or `-E` in certain forms (see also "Vowel Reduction") as:

- `zúk-u` he went
- `zús-E` I went

(2) Intransitive verbs of classes 9–11 and 9–12 (see pp. 110 ff.) show a change from `-au-` to `-u-` in the second person hortative:

- `s-áu-ta` you killed it
- `c-ú-ta` kill it

Intransitive verbs with dual or plural subject often have the same thematic adjunct as the singular form:

- `z-f-kupa` he chopped
- `z-f-kupa` they two chopped
- `z-f-kupa` they chopped

In other verbs there are changes resembling the expansion of the thematic adjunct of transitive verbs:

- `s-ú-tá-niça` I worked
- `s-úwa-tá-níza` we worked

There is, however, no regular pattern of expansion in intransitive as there is in transitive verbs. Stem changes involving the thematic adjunct are treated under "Stem Variants."

The benefactive suffix is analyzed as part of the stem rather than as an inflectional affix because its inclusion in a verb normally involves a change in the classification of the verb: verbs with this suffix occur with a distinctive set of pronominal allomorphs that differs, in most cases, from the set which occurs in the simpler forms. All verb stems with the benefactive suffix are Class D transitive stems (see p. 108). They may be formed, however, from stems that are either transitive or intransitive and which belong to any of the principal classes. There are five allomorphs of the benefactive suffix: `-ni`, `-mi`, `-mi`, `-dimi`, and `-wi`. The occurrence of these allomorphs correlates with specific allomorphs of the plural subject suffix. Verbs which are pluralized by 502A or 502B in forms lacking Century Class 400 suffixes take the `-ni` allomorph of the benefactive suffix:

- `énáta` I bought it
- `sátanáda`e we bought it
- `efunàdani` I bought it for him
- `sátiša` I talked to you
- `sátanáda`e we talked to you
- `sátišani` I talked to him for you
Allomorph -mi correlates in a similar fashion with 502E and 502K; -ni, correlates with 502D; -dimi with 502C; and -wi with 502G and 502H:

súwâne I went hunting  čídpa I caught it
súwawâne?e we went hunting šídpa?ta we caught it
šáwânemí I went hunting for you šáudpa?dimi I caught it for you
šáudi I planted záʔá·ta he opened it
šáwá-diñê we planted záʔá·tawê they opened it
čuñidîhi I planted for him šáʔá·lawi I opened it for you

Examples showing a correlation of benefactive suffixes with 502F, 502I, 502J, 502L, 502M, and 502N are lacking in the data. Positionally, the benefactive suffix occurs between suffixes of Century Class 400 and Century Class 500. In forms containing a suffix of Century Class 400 the stem is thus discontinuous:

šáukáicerta-ni (141B + TA + verb core + 401E + benefactive suffix, -ni)
I am hitting him for you

**STEM VARIANTS**

Stem variants result primarily from changes in the thematic adjunct and from changes in the final syllable of the verb stem, although other syllables may occasionally be involved as well. Certain of these changes are irregular and must be indicated in a listing of stems. Others, however, may be predicted on the basis of previously described processes which show a certain degree of regularity. The latter result from specific morphophonemic processes, from the expansion of transitive verb thematic adjuncts and the change in the thematic adjunct of intransitive verbs of classes 9–11 and 9–12, (“Stem Formation”), and from the suffixation of affix 401E or 502L (“Inflectional Affixes”).

Vowel reduction normally results in the fusing of the thematic adjunct with a preceding vowel. Stem variants will then show either a shift in, or a loss of, the initial (thematic adjunct) vowel, depending on how the prefix-stem cut is made:

g-àku (g- + -àku) he bit him
š-àku or ša-ku (ša- + -àku) I bit you
s-èku or sè-ku (si- + -àku) I bit him

The morphophonemic reduction of vowel plus semivowel sequences results in similar stem changes:

g-ùwit-teya (g- + -ùwit-teya) he worshiped
sì-ùwit-teya (si- + -ùwit-teya) I worshiped
g-ùšiskuya (g- + -ùšiskuya) he scolded him
sì-ùšiskuya (si- + -ùšiskuya) I scolded him
Morphophonemic processes involved in suffixation, too, often result in regular stem changes:

- **g-úkača** (g- -úkača)  
  - he saw him
- **g-úkača-nikuya** (g- -úkača + nikuya)  
  - he is looking at him
- **g-úpe** (g- -úpe)  
  - he ate
- **g-úbeu-kuya** (g- -úpe + kuya)  
  - he is eating
- **s-úwitiča** (s- -úwitiča)  
  - I made it
- **s-úwiti-ti-ta** (s- -úwitiča + -i(ta))  
  - I am making it

Stem variants may result from regular changes which do not involve morphophonemic processes. The most common of these is the expansion of the thematic adjunct to indicate dual or plural object of transitive verbs. This kind of change is regarded as stem change rather than inflection because (1) the changes are of such a nature that no additive morpheme can be isolated, and (2) it parallels in many ways the kind of irregular change which takes place in certain intransitive verb stems in the dual and plural as compared with the singular forms. The expansion of thematic adjuncts in transitive verbs has been described in “Stem Formation” and examples given.

The regular change from -au- to -u- in the second person hortative forms of Class 9–11 and 9–12 intransitive verbs likewise produces stem variants:

- **š-áudi**  
  - I planted
- **č-údi**  
  - plant it

The change to -i or -ı of a stem-final -a or -A preceding allomorph -ta of the continuative action suffix and before allomorph -yA of the plural subject suffix was noted in “Inflectional Affixes”:

- **či-zúwa** (či- -i-zúwa)  
  - I paid him
- **či-zúwi-ta** (či- -i-zúwa + -ta)  
  - I am paying him

Changes which are irregular and which must be indicated in stem listing are of the following types:

1. Changes in intransitive verb stems in the dual and in the plural as compared to the singular.—Dual and plural forms of intransitive verbs, except for a relatively few which exhibit stem suppletion, are clearly related to the singular forms. The changes in the stem, however, are highly irregular:

- **g-úmá**  
  - he left
- **g-úmì**  
  - they two left
- **z-ě-ná**  
  - they left
- **k-úpe**  
  - he ate
- **g-ạ-abe**  
  - they two ate
- **g-ạ-ape**  
  - they ate
- **k-útá-ńiča**  
  - he worked
- **g-útá-ńiča-ńi**  
  - they two worked
- **g-úwatańiča-ńe**  
  - they worked
Because of this irregularity, intransitive verb stems are listed separately for the singular, dual, and plural.

2. **Accentual changes and the alternation between voiced and voiceless vowels in verb stems of the same number.**—In some verbs the thematic adjunct alternates from a short accented vowel in most forms to a voiceless vowel in forms prefixed by pronominal morphemes of the shape CVC-:

- s-étid\text{v}_A \quad my back
- gáč-átid\text{v}_A \quad your back

Verbs of this type also may show a shift to a voiceless vowel in the verb core if the core is monosyllabic and normally contains a voiced vowel:

- s-ádp\text{v}_A \quad my animal
- gáč-ad\text{v}_A \quad your animal

Verb stems which exhibit this type of alternation are listed with the thematic adjunct accent in parentheses:

- [\text{q}]-ádp\text{v}_A \quad back
- [\text{q}]-ádp\text{v}_A \quad to possess an animal

A few verb stems have a distinctive form which occurs only following prefixes composed of a consonant plus -i-. This form of the stem is characterized by a breathy accent on the thematic adjunct and by a final voiceless vowel:

- sádp\text{v}_A \quad I descended \quad sík\text{a} \quad I looked
- gádp\text{v}_A \quad he descended \quad zígá \quad he looked

These stems are listed thus:

- [\text{-}]-ígá \quad (-\text{i}k\text{a}) \quad to look

Some transitive verbs normally characterized by a breathy accent in the thematic adjunct take a level accent in those forms of the primary paradigms in which a vowel cluster results from prefixation:

- g-úkáč\text{a} \quad he saw him
- sf-ukáč\text{a} \quad I saw him

Stems that exhibit this type of change are listed with the following notation:

- [\text{-}]-úkáč\text{a} \quad (-\text{v}v-) \quad to see

A few type B intransitive verbs show a shift from a breathy to a falling accent when the core is followed by -n-:

- zú-k\text{u} \quad he went
- zú--n\text{e} \quad will go

These are listed in the following manner:

- zú--\text{u} \quad (zú-n-) \quad to go
3. **Shifts in the thematic adjunct vowel of transitive verbs in the passive voice.**—Some verbs that normally occur with -u- as the thematic adjunct show a shift to -a- in the passive voice:

<table>
<thead>
<tr>
<th>sg-ú-kâica</th>
<th>he hit me</th>
</tr>
</thead>
<tbody>
<tr>
<td>skâ?-á-kâizaâe</td>
<td>I was hit</td>
</tr>
</tbody>
</table>

This change cannot be predicted from the phonetic content of the stem nor from its class membership, and is indicated as follows in stem listings:

-ú/-á-kâica to hit

4. **The change from a glottalized to a plain sonorant in the initial stem consonant.**—Stems which are based on cores normally beginning with a glottalized sonorant sometimes show a shift to a plain sonorant in forms prefixed by a glottalized consonant. Other verbs, however, retain the glottalized sonorant:

<table>
<thead>
<tr>
<th>ñ-úwâne</th>
<th>you hunted</th>
</tr>
</thead>
<tbody>
<tr>
<td>ê-úwâne</td>
<td>hunt</td>
</tr>
<tr>
<td>gâz-á-ñi</td>
<td>your child</td>
</tr>
<tr>
<td>k-á-ñi</td>
<td>his child</td>
</tr>
</tbody>
</table>

Those stems which exhibit this type of change are indicated thus:

-úw/ñwâne to hunt

5. **The lengthening of a stem-final vowel.**—In “Voicing” it was noted that some vowels which are normally voiceless become voiced and long when followed by a suffix. This lengthening is characteristic of some, but not all, stem-final vowels:

<table>
<thead>
<tr>
<th>ñt-zúwa</th>
<th>I paid him</th>
</tr>
</thead>
<tbody>
<tr>
<td>êt-ñwâ-ñe</td>
<td>we paid him</td>
</tr>
<tr>
<td>êd-ñwâ-ñe</td>
<td>we stabbed him</td>
</tr>
</tbody>
</table>

Vowels which undergo this type of lengthening are followed by a vowel length symbol in parentheses in stem listings:

-ñt-ñwâa( ) to pay

6. **The introduction of a glottal stop after the stem-final vowel.**—Some verb stems are characterized in certain forms by the introduction of a glottal stop following the stem-final vowel. The glottal stop appears regularly, in forms without suffixes, in the negative mode and in the future tense:

<table>
<thead>
<tr>
<th>ñd'ña</th>
<th>he caught him</th>
</tr>
</thead>
<tbody>
<tr>
<td>ña ziñd'ña?</td>
<td>he didn't catch him</td>
</tr>
<tr>
<td>ñd'ña?</td>
<td>will catch</td>
</tr>
</tbody>
</table>

In some of these verbs the glottal stop also appears in all forms containing suffixes, together with the rearticulation of the stem-final vowel if the suffix begins with a sonorant:

<table>
<thead>
<tr>
<th>zîd-tñôa</th>
<th>he fed him</th>
</tr>
</thead>
<tbody>
<tr>
<td>zîd-tñôa-tñôa</td>
<td>he is feeding him</td>
</tr>
<tr>
<td>zîd-tñôa-tñôa</td>
<td>they fed him</td>
</tr>
</tbody>
</table>
These verbs are listed thus:

-idi-ša(?) to feed

Other verbs show the glottal stop in word-final position but not in forms containing a suffix:

ži-bád’u he awoke him
úi-bád’u? will awaken
ži-bád’ušš he is awakening him

Verbs of this type are listed with the glottal stop in double parentheses:

-i-bád’u(?) to awaken

There is at least one verb in the data which contains a final glottal stop in the negative mode and future tense, and retains the glottal stop with vowel rearticulation when followed by a suffix beginning with a sonorant, which shows a lengthening of the stem-final vowel and no glottal stop when followed by other suffixes:

gúbe he told him
zázi gúbe? he didn’t tell him

This verb is listed as follows:

-úbe(?) to tell

7. The voicing of a final vowel or vowel-consonant sequence.—The future tense of some verbs is characterized by the voicing of certain segments which are voiceless in other forms. This usually involves vowel clusters or sequences of the type -kuyA:

čikai he lay down
nigai will lie down

These stems are listed in this manner:

-ikai (fut. -igai) to lie down
-čkuyA (fut. -čguya) to do

8. The retention of aspirated stops under conditions in which unaspirated stops normally appear.—Stops which are aspirated preceding voiceless vowels normally become unaspirated if the vowel is voiced. A few stems and suffixes, however, retain aspirated stops in all environments:

zikupawa he chopped
zikupawašš they chopped

Stops which remain aspirated before voiced vowels are underlined in the listing of stems:

-škupawa to chop

VERB CORE DERIVATION

The verb core is the element which, together with the thematic adjunct, normally comprises the verb stem. The verb core may be a single morpheme and often consists of one or two syllables:

-sti to give a liquid -kašA to see
-pE to eat -tišA to speak to
cá- to breathe -nášA to buy
Some two-syllable cores and most, if not all, polysyllabic cores show evidence of being derived from simpler forms. However, very few derivational affixes which are still productive can be identified. The majority of polysyllabic verb cores are suspected of being derived for one of the following reasons:

(1) They include sequences of phonemes which recur with great frequency in verb cores, although such sequences cannot be correlated with any common semantic feature. For example:

- a. -wa in
   -ça-yawa to be angry
   -žá-čúwa to awaken
   -kupa-wa to chop
- b. -ya in
   -á-t-eyà to worship
   -yúce-yà to carry
   -wàçaša-yà to stir
- c. -íi in
   -witu-níi to care for
   -disduwi-ní to be sticky
   -sùt-iñi to sweat
- d. -ku-yà in
   -za?anikuyà to preach
   -nikuyà to bathe
   -tikuyà to cry
   -wúšikuyà to scold

(2) They include sequences of phonemes which occur in two or more semantically related verb cores. For example:

- a. -stu in
   -yánsstú to be hungry
   -pánístu to be thirsty
- b. -sta in
   -su-nec?esta to teach
   -čidvusta to ponder

(3) They include sequences of phonemes which, if eliminated from the core, would leave a remainder that would itself be a verb core semantically related to the longer form. For example:

- a. -çì in
   -sù-cì windpipe; compare sù- to swallow
   It also recurs in a number of semantically unrelated cores:
   -sá-baci to pound
   -sgú-čuci to drool
- b. -çà in
   -kúica man's sister; compare -kui wife
   -d'ümìça to learn; compare -d'úmi to remember
   Other cores in which it occurs include the following:
   -tά-ňiça to work
   -wičá-çà to listen
c. -ca in
   -cayuca to break; compare cayu- to be broken
   It also recurs in a great many semantically unrelated cores including the following:
   -pe-ruca to lick
   -ce-naca to chew
   -yu-chwi-ca to rest

d. -tu in
   -metu to freeze; compare -me?e to be frozen and ha-me- ice
   -ba?tu to sleep; compare -ba? to be sleepy

e. -la in
   -be-la to ask; compare -be to tell

f. -da- in
   -dawaca to cut; compare -cawaca to cut

g. -wai in
   -wai? to be hot (liquid); compare -c to be hot
   -wai-staya to be cold (liquid); compare -staya to be cold

VERB CLASSES

The primary division in verbs is between transitive and intransitive verbs. Transitive verbs occur with a full set of pronominal affixes (except Decade Class 180 and, in some cases, Decade Class 130) while most intransitive verbs occur with only those of Decade Classes 100, 110, and 120. Some intransitive verbs occur with affixes of Decade Class 140; others occur with Decade Class 180; but none occur with Decade Classes 130, 150, or 160. Certain verbs which are intransitive according to this inflectional definition must be translated by an English transitive expression with a third person object:
   sava I killed it

The transitive-intransitive dichotomy is thus based on structural and not semantic criteria.

TRANSITIVE VERBS

Transitive verb stems are classified on the basis of their occurrence with specific allomorphs of inflectional affixes. The most important such classification is based on allomorphs of the pronominal prefixes. While the number of verb classes is considerable, this number is only a small fraction of what theoretically could result from all possible combinations of the many allomorphs of inflectional affixes. There are rather strict limitations on the freedom of distribution of specific allomorphs. Groups of allomorphs rather than individual allomorphs may be viewed as independent units in an examination of the combinations which may constitute a complete verb paradigm.

Allomorphs of Century Class 100 occurring with transitive verbs may be arranged in two sets of three partial paradigms. These are designated 1a, 2a, 3a, 1b, 2b, and 3b (chart 5). Each allomorph is listed by its phonemic shape and its reference number. In general,
<table>
<thead>
<tr>
<th>Partial paradigm</th>
<th>Person</th>
<th>Mode</th>
<th>Subj.</th>
<th>Indicative</th>
<th>Negative</th>
<th>Dubitative</th>
<th>Hortative</th>
<th>Future</th>
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<td>šč-162B</td>
<td>tǎ-163B</td>
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<td>zi-122B</td>
<td>di-123B</td>
<td>pì-124B</td>
<td>pì-125B</td>
<td>pì-126B</td>
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</tr>
</tbody>
</table>

**Chart 5.**—Transitive Verb Partial Paradigms
the occurrence with a specific verb of one allomorph within a partial paradigm presupposes the potential occurrences of all other allomorphs of that partial paradigm with the same verb. For instance, if a verb occurs with allomorph 141A it may be predicted that the same verb will occur with 142A, 143A, 144A, 145A, and 146A; if it occurs with 151A it may be predicted that it also will occur with 152A, 153A, 161A, etc.

The combinations of three partial paradigms (1a or 1b with 2a or 2b and 3a or 3b) plus, in certain cases, allomorphs of Decade Class 130, form the primary paradigms of a transitive verb. The partial paradigms combine in four different ways resulting in four principal classes of transitive verbs: 6

Class A verbs occur with partial paradigms 1a, 2a, and 3a.
Class B verbs occur with partial paradigms 1b, 2b, and 3a.
Class C verbs occur with partial paradigms 1a, 2b, and 3b.
Class D verbs occur with partial paradigms 1b, 2a, and 3b.

Class A transitive verbs occur with the following allomorphs of Decade Class 130:

<table>
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<tr>
<th>zi-</th>
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<th>di-</th>
<th>pi-</th>
<th>pi-</th>
<th>pi-</th>
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</thead>
<tbody>
<tr>
<td>131A</td>
<td>132A</td>
<td>133A</td>
<td>134</td>
<td>135</td>
<td>136</td>
</tr>
</tbody>
</table>

Those of Class B occur with the following:

<table>
<thead>
<tr>
<th>č-</th>
<th>č-</th>
<th>č-</th>
<th>pi-</th>
<th>pi-</th>
<th>pi-</th>
</tr>
</thead>
<tbody>
<tr>
<td>131B</td>
<td>132B</td>
<td>133B</td>
<td>134</td>
<td>135</td>
<td>136</td>
</tr>
</tbody>
</table>

Verbs of Classes C and D do not occur with prefixes of Decade Class 130.

The primary paradigms of all four classes of transitive verbs are given in full in Appendix 1, page 143. It should be noted that this four-fold classification applies only to verbs with singular object. All transitive verbs take A-allomorphs of the pronominal prefixes in forms indicating dual or plural object:

šīžúwa (111B + stem) you paid him
šā?áizúwa (111A + stem) you paid them two
šāiyá-zúwa (111A + stem) you paid them

A further subclassification of transitive verbs may be made on the basis of their occurrence with specific allomorphs of the inflectional suffixes. At least eight subclasses may be defined in terms of occurrence with allomorphs of suffixes 401, 501, and 502. Verbs of Subclass 1 take allomorphs 401E, 501A, and 502A:

šūkâici-ta I am hitting him
šūkâiza-ňa we two hit him
šūkâiza-ňe we hit him

6 There is one transitive verb in the data which does not conform to any of the four major classes: ʔauʔu to give a long or flat object. In general it takes allomorphs of partial paradigms 1b, 2b, and 3b. However, the -i- is omitted from the prefix in all forms except those expressing first person subject with third person object in the indicative, dubitative, negative hortative, and future hortative modes: čauʔu (či- + -auʔu) I gave it to him, but ʔauʔu (č- + -auʔu) he gave it to him.
Verbs of Subclass 2 occur with the B-allomorphs of these three suffixes (401B, 501B, and 502B):

\[ \text{siukača-nikuyA} \quad I \text{ am looking at him} \]
\[ \text{siukača-na} \quad \text{we two saw him} \]
\[ \text{siukača-nE} \quad \text{we saw him} \]

Verbs of Subclass 3 take the C-allomorphs (401C, 501C, and 502C):

\[ \text{čid}^{\text{a?}-\text{tikuyA}} \quad I \text{ am catching him} \]
\[ \text{šid}^{\text{a?}-\text{tI}} \quad \text{we two caught him} \]
\[ \text{šid}^{\text{a?}-\text{ta}} \quad \text{we caught him} \]

Subclass 4 transitive verbs occur with allomorphs 401F, 501D and 502D:

\[ \text{či-bád}^{\text{u}-\text{sE}} \quad I \text{ am awakening him} \]
\[ \text{ši-bád}^{\text{u}-\text{rI}} \quad \text{we two awakened him} \]
\[ \text{ši-bád}^{\text{u}-\text{rE}} \quad \text{we awakened him} \]

The remainder of the subclasses are poorly represented in the data, each being attested by a single verb. As far as the data show, verbs of Subclasses 5, 6, and 7 do not occur with the continuative action suffix (401). Those of Subclass 5 occur with allomorphs 501F and 502F in the dual and plural:

\[ \text{šíuni-mA} \quad \text{we two know him} \]
\[ \text{šíuni-mA} \quad \text{we know him} \]

Verbs of Subclass 6 take allomorphs 501G and 502I:

\[ \text{šíyù-kami-šu} \quad \text{we two waited for him} \]
\[ \text{šíyù-kami-šE} \quad \text{we waited for him} \]

Those of Subclass 7 occur with allomorphs 501H and 502G:

\[ \text{šíyùnA-pE} \quad \text{we two found him} \]
\[ \text{šíyùnA-wA} \quad \text{we found him} \]

Subclass 8 transitive verbs occur with allomorphs 401A, 501H, and 502H:

\[ \text{šúbe-tau-kuyA} \quad I \text{ am asking him} \]
\[ \text{šúbe-tA-pa} \quad \text{we two asked him} \]
\[ \text{šúbe-tA-wE} \quad \text{we asked him} \]

Transitive verbs furthermore occur with a different allomorph of suffix 502 if suffix 401 is also present than they do in the simpler forms. Subclass 1 verbs take allomorph 502L in plural continuative forms:

\[ \text{šúkačítti-yA} \quad \text{we are hitting him} \]

Compare:

\[ \text{šúkača-na} \quad \text{we hit him} \]

Verbs of other subclasses occur with allomorph 502M in the plural continuative:

\[ \text{šúkačaniguya-sE} \quad \text{we are looking at him} \]
Compare:

šľukača-ne we saw him

The distribution of specific allomorphs of suffix 402 correlates with the subclasses outlined above. Examples are lacking for the occurrence of this suffix with verbs of several of the subclasses. So far as the data go, however, allomorphs of 402 correlate with homophonous allomorphs of 502:

šľukača-ne I came to see him
čičůwa-ňe I came to pay him

Compare:

šľukača-ne we saw him
čičůwa-ňe we paid him

Transitive verb subclasses crosscut the major classes previously described. The data contain examples, for instance, of Class A verbs which belong to Subclasses 1, 3, 4, and 5. A single designation (A1, A3, A4, A5, etc.) may be used to indicate both the major class and the subclass to which the transitive verb belongs.

INTRANSITIVE VERBS

Like transitive verbs, intransitive verbs are classified on the basis of the particular pronominal allomorphs with which they occur. There are, however, many more intransitive than transitive verb classes. Furthermore, intransitive verbs in general may be transitivized by the addition of the benefactive suffix. This means, in effect, that these intransitive verbs belong not only to their own intransitive class, but also are linked to a transitive class.

Major classes of intransitive verbs are designated by a code composed, in most cases, of two numbers (e.g., 1–3). The first number identifies the allomorphs of the third person affixes (121–126) as well as the first person negative (102) and the second person negative hortative (115) affixes with which the verb occurs. The code numbers with their corresponding sets of allomorphs are tabulated below. Indicated in the tabulation are allomorphs of affixes 121, 123, 124 and 102. Allomorphs of 122 are identical in phonetic content to those of 121, while the same is true of 115 in relation to 102, and of 125 and 126 in relation to 124.

<table>
<thead>
<tr>
<th></th>
<th>121A</th>
<th>123A</th>
<th>124G</th>
<th>102A</th>
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<td>g-</td>
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<td>124C</td>
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<td>dř-</td>
<td></td>
<td>pf?-</td>
<td></td>
</tr>
<tr>
<td>sg-</td>
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<tr>
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<td>dř-</td>
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</tr>
<tr>
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<tr>
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</tr>
<tr>
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<td>4.</td>
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<td>Affix 2</td>
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<td>102J</td>
</tr>
</tbody>
</table>

Some intransitive verbs, because of semantic limitations, occur only in the third person. These are identified by a single code number in accordance with the above scheme. The data include examples of verbs of this type belonging to Classes 1, 4, 6, 9, 10, 13, and 14:

- **gágočati** flower, it blossomed (Class 1)
- **káča** it rained (Class 4)
- **kápaši** it is dark (Class 6)
- **káʔumuca** it thundered (Class 9)
- **zēstaγa** it is breezy (Class 10)
- **čiya-ti** it is sharp (Class 13)
- **cëdpu** it cost (Class 14)

The second number of the code identifies allomorphs of the first and second person affixes, with the exception of the first person negative and the second person negative hortative morphemes. Tabulated below are the allomorphs of affixes 101, 103, 104, 106, 111, 113 and 114 corresponding to each code number. Allomorphs of 105 are phonetically identical to those of 104; allomorphs of 112 correlate with those of 111; and allomorphs of 116 with those of 113.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Affix 3</th>
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<td>16. 101E</td>
<td>103H</td>
<td>104C</td>
<td>106B</td>
<td>111A</td>
<td>113A</td>
</tr>
<tr>
<td>sí-</td>
<td>tf?</td>
<td>k-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>17. 101E</td>
<td>103H</td>
<td>104F</td>
<td>106B</td>
<td>111A</td>
<td>113A</td>
</tr>
<tr>
<td>sí-</td>
<td>tf?</td>
<td>ňi-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>18. 101E</td>
<td>103H</td>
<td>104Q</td>
<td>106B</td>
<td>111A</td>
<td>113A</td>
</tr>
<tr>
<td>sí-</td>
<td>tf?</td>
<td>sítí-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>19. 101E</td>
<td>103H</td>
<td>104F</td>
<td>106B</td>
<td>111C</td>
<td>113C</td>
</tr>
<tr>
<td>sí-</td>
<td>tf?</td>
<td>ňi-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>20. 101E</td>
<td>103H</td>
<td>104Q</td>
<td>106B</td>
<td>111C</td>
<td>113C</td>
</tr>
<tr>
<td>sí-</td>
<td>tf?</td>
<td>sítí-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>21. 101F</td>
<td>103H</td>
<td>104I</td>
<td>106E</td>
<td>111C</td>
<td>113C</td>
</tr>
<tr>
<td>sítí-</td>
<td>tf?</td>
<td>nítí-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>22. 101F</td>
<td>103H</td>
<td>104P</td>
<td>106E</td>
<td>111C</td>
<td>113C</td>
</tr>
<tr>
<td>sítí-</td>
<td>tf?</td>
<td>sítí-</td>
<td>ňi-</td>
<td>š-</td>
<td>c-</td>
</tr>
<tr>
<td>23. 101G</td>
<td>103E</td>
<td>104J</td>
<td>106F</td>
<td>111E</td>
<td>113E</td>
</tr>
<tr>
<td>sóz-</td>
<td>tóz-</td>
<td>nóz-</td>
<td>nóz-</td>
<td>góz-</td>
<td>dýóz-</td>
</tr>
<tr>
<td>24. 101G</td>
<td>103E</td>
<td>104M</td>
<td>106F</td>
<td>111E</td>
<td>113E</td>
</tr>
<tr>
<td>sóz-</td>
<td>tóz-</td>
<td>š-</td>
<td>nóz-</td>
<td>góz-</td>
<td>dýóz-</td>
</tr>
<tr>
<td>25. 101H</td>
<td>103F</td>
<td>104K</td>
<td>106G</td>
<td>111F</td>
<td>113F</td>
</tr>
<tr>
<td>sód-</td>
<td>tód-</td>
<td>nód-</td>
<td>nód-</td>
<td>gód-</td>
<td>dýód-</td>
</tr>
<tr>
<td>26. 101H</td>
<td>103F</td>
<td>104O</td>
<td>106G</td>
<td>111F</td>
<td>113F</td>
</tr>
<tr>
<td>sód-</td>
<td>tód-</td>
<td>st-</td>
<td>nód-</td>
<td>gód-</td>
<td>dýód-</td>
</tr>
<tr>
<td>27. 101I</td>
<td>103E</td>
<td>104J</td>
<td>106F</td>
<td>111E</td>
<td>113E</td>
</tr>
<tr>
<td>sóg-</td>
<td>tóz-</td>
<td>nóz-</td>
<td>nóz-</td>
<td>góz-</td>
<td>dýóz-</td>
</tr>
<tr>
<td>28. 101J</td>
<td>103G</td>
<td>104L</td>
<td>106H</td>
<td>111G</td>
<td>113G</td>
</tr>
<tr>
<td>škú-</td>
<td>tódi-</td>
<td>nódí-</td>
<td>nódí-</td>
<td>gódi-</td>
<td>dýodi-</td>
</tr>
</tbody>
</table>

Various combinations of the two code numbers identify the major intransitive verb classes. At least 31 such classes are attested by the data.\(^6\) Classes 1–1, 1–3, 1–16, 4–3, 4–5, 5–2, 5–8, 6–3, 7–13, 8–1, 8–3, 9–1, 9–3, 10–1, 10–3, 11–1, 11–3, 11–16, 12–1, 12–3, 13–1, 13–3, 14–1, 14–3, 15–1, 15–3, 16–1, 16–3, 17–1, 17–3, 18–1, 18–3, 19–1, 19–3, 20–1, 20–3, 21–1, 21–3, 22–1, 22–3, 23–1, 23–3, 24–1, 24–3, 25–1, 25–3, 26–1, 26–3, 27–1, 27–3, 28–1, 28–3.

---

\(^6\) A few intransitive verbs have been noted which occur with allomorphs 101E š-š, 111E góz- and 121D k- in the indicative mode: šš- na my eye, góz- na your eye, ká- na his eye. Full paradigms (including the hortative modes) have never been obtained for these verbs. Since they do not fit any of the major classes outlined here they are listed in the vocabulary as unclassified.
7-15, 8-14, 9-11, 10-6, 10-7, 12-27, 13-28 and 14-4 are apparently confined to singular verb stems. Classes 1-17, 2-23, 5-9, 10-21 and 14-19 are found only among plural verb stems, and Classes 1-18, 2-24, 5-10, 9-12, 10-22, 11-26, and 14-20 among dual verb stems. Class 11-25 occurs in both the singular and the plural, and Class 3-27 in all three numbers.

There is a certain degree of correlation between classes characteristic of the three numbers. Verbs, for example, which belong to Class 1-17 in the plural number normally belong to Class 1-18 in the dual and Class 1-1 in the singular. Other common correlations are as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-8</td>
<td>5-10</td>
<td>5-9</td>
<td></td>
</tr>
<tr>
<td>9-11</td>
<td>9-12</td>
<td>5-9</td>
<td></td>
</tr>
<tr>
<td>10-7</td>
<td>10-22</td>
<td>10-21</td>
<td></td>
</tr>
<tr>
<td>14-4</td>
<td>14-20</td>
<td>14-19</td>
<td></td>
</tr>
</tbody>
</table>

Furthermore, dual Class 2-24 is commonly linked with plural Classes 2-23 or 11-25. These combinations, however, occur with a variety of singular classes.

Class membership does not necessarily imply the potential occurrence of the full set of affixes represented by the code numbers. Some verbs, notably those referring to body parts, are seldom if ever found in the hortative modes and only rarely in certain other forms. The code numbers, nevertheless, indicate at least the indicative affixes with which the verb occurs.

Class 7-15 verbs are unique in that they often occur, not only with the allomorphs indicated by the code numbers, but also with allomorphs of Decade Class 140. Specifically, verbs of this class take allomorphs 141B ša-, 142B ša-, 143B ča-, 144B ša-, 145B ša- and 146B ča-. In this context, affixes of Decade Class 140 may express either first person subject with second person object or the reverse:

šáuči-ni you are my friend (or) I am your friend

Verbs belonging to Class 7-15 are, in general, those which refer to kinship or similar relationships, or which indicate possession.

Type B intransitive verbs fall into the general scheme of classification, although many of the classes are not represented in these verbs. Furthermore, in Type B verbs ending in a voiceless vowel there is no contrast between aspirated and unaspirated pronominal affixes. Aspiration in such cases is ignored in stem classification. For example, zůku he went, occurs with an aspirated pronominal affix, -k-. The stem, however, belongs to Class 1-1, a class normally taking g- in the third person indicative. This classification is consistent with the occurrence of other affixes such as -dův- in the third person dubitative: zůdův maybe he went.
The occurrence of affix 181 is rather restricted and apparently not related to class membership except that allomorphs of this affix correlate with those of affix 121. The data indicate a correlation of allomorph 181A with 121A or 121E, 181B with 121D, and 181D with 121G:

- sg-á-ríña (181A + stem) one's houses
- g-á-ríña (121A or 121E + stem) his house
- šk-áukui (181B + stem) one's wives
- k-áukui (121D + stem) his wife
- sč-í-ká (181D + stem) one's mouths
- z-t-ká (121G + stem) his mouth

Allomorph 181C occurs in the data only in ščáu?u a crowd. An apparently related form is gáu?u he dwells, although the correlation is not certain.

Intransitive verbs may be subclassified, as are transitive verbs, on the basis of their occurrence with specific allomorphs of the inflectional suffixes. Since intransitive verbs are listed and classified separately for the three numbers, affixes of Century Class 500 are not involved, and such a subclassification would be based solely on allomorphs of suffix 401. Rather than designate intransitive subclasses by a code, it is simpler to indicate directly the allomorph of suffix 401 with which the verbs occur.

Paradigms illustrating the major intransitive verb classes are to be found in Appendix 1, page 143.

**VERBAL AUXILIARIES**

Verbal auxiliaries are a class of words which always are inflected to indicate person and sometimes are inflected to indicate other grammatical categories as well. They are distinguished formally from verbs in that they are never inflected to indicate future tense. Semantically and functionally they differ from verbs in that alone they cannot constitute a predicate.

The function of the verbal auxiliary is to indicate the person of the subject or the subject and object of an action when this is not otherwise indicated. The most common occurrence of verbal auxiliaries is in conjunction with verbs in the future tense. In such cases the verb does not include a pronominal affix:

\[
\text{núpe si} \quad \text{I will eat}
\]

\[
\text{ní-zúwa si} \quad \text{I will pay him}
\]

**Compare:**

\[
\text{súpe} \quad \text{(first person prefix, s- + verb stem) I ate}
\]

\[
\text{čí-zúwa} \quad \text{I paid him}
\]

The verbal auxiliary may also occur following a verb containing an allomorph of affix 124 (third person subject with third person object
in the hortative mode). The result is a hortative expression with an added pronominal element:

\[ \text{pfí'ínàta si (hortative prefix, 124G pfí', + verb stem followed by auxiliary, si) I want him to buy it} \]

Compare:

\[ \text{pfí'ínàta let him buy it} \]

Occasionally an uninflected word will function as a predicate, in which case a verbal auxiliary indicates the subject and object:

\[ \text{té-né si I like him} \]

The word té-né fulfills the function ordinarily performed by a verb, both semantically (it may be translated to like) and syntactically (it fills a predicate slot) although it is never inflected.

The basic forms of the verbal auxiliaries are listed in chart 6. As in the case of pronominal prefixes occurring with transitive verbs, verbal auxiliaries appear with seven principal subject-object combinations. In addition, there is a form expressing fourth person subject with third person object, distinctive forms for the passive voice, and a form expressing indefinite subject. Unlike the set of verb affixes, however, only three modes are recognized. A comparison with charts 1 and 2 reveals that verbal auxiliaries are based on a set of prefixes identical in form to certain allomorphs of the affixes of Century Class 100. Verbal auxiliaries actually have nothing that can be regarded as a stem unless it is the vowel -u (or -i in a few cases). This vowel, however, is comparable to the thematic adjunct of verbs. The -má occurring in many forms may best be regarded as a suffix, although it cannot be assigned a meaning.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Object</th>
<th>Indicative</th>
<th>Negative</th>
<th>Dubitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>3d</td>
<td>si</td>
<td>sgu</td>
<td>ti</td>
</tr>
<tr>
<td>2d</td>
<td>3d</td>
<td>su</td>
<td>su</td>
<td>cu</td>
</tr>
<tr>
<td>3d</td>
<td>3d</td>
<td>gu</td>
<td>gu</td>
<td>d'vu</td>
</tr>
<tr>
<td>4th</td>
<td>3d</td>
<td>zú'úmA</td>
<td>zú'úmA</td>
<td>díúmA</td>
</tr>
<tr>
<td>1st</td>
<td>2d</td>
<td>šá'úmA</td>
<td>šá'úmA</td>
<td>zá'úmA</td>
</tr>
<tr>
<td>2d</td>
<td>1st</td>
<td>d'šúmA</td>
<td>d'šúmA</td>
<td>d'šúmA</td>
</tr>
<tr>
<td>3d</td>
<td>1st</td>
<td>šd'šúmA</td>
<td>šd'šúmA</td>
<td>tázú'úmA</td>
</tr>
<tr>
<td>3d</td>
<td>2d</td>
<td>gúzúmA</td>
<td>gúzúmA</td>
<td>d'gúzúmA</td>
</tr>
</tbody>
</table>

Passive voice

<table>
<thead>
<tr>
<th>Person</th>
<th>Indicative</th>
<th>Negative</th>
<th>Dubitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>šká?á'í'ása</td>
<td>šká?á'í'ása</td>
<td>tá?á'í'ása</td>
</tr>
<tr>
<td>2d</td>
<td>šá?á'í'ása</td>
<td>šá?á'í'asa</td>
<td>cá?á'í'asa</td>
</tr>
<tr>
<td>3d</td>
<td>čá?á'í'ása</td>
<td>čá?á'í'asa</td>
<td>tá?á'í'asa</td>
</tr>
</tbody>
</table>

Indefinite subject

| Indefinite subject | sgú'úe          |

**Chart 6.**—Basic Forms of Verbal Auxiliaries
Transitive verbs occur with the full set of verbal auxiliaries:

- nũkača si  I will see him
- zázi nũkača sgu  I won't see him
- nũkača ti  maybe I will see him
- nũkača su  you will see him
- zázi nũkača šu  you won't see him
- nũkača qu  maybe you will see him
- nũkača gu  he will see him
- zázi nũkača gu  he won't see him
- nũkača dů  maybe he will see him
- nũkača zůůna  he (fourth person) will see him
- zázi nũkača zůůna  he won't see him
- nũkača důůna  maybe he will see him
- nũkača šůůna  I will see you
- zázi nũkača šůůna  I won't see you
- nũkača šūůna  maybe I will see you
- nũkača dvůůna  you will see me
- zázi nũkača dvůůna  you won't see me
- nũkača dvůůna  maybe you will see me
- nũkača sůůna  he will see me
- zázi nũkača sůůna  he won't see me
- nũkača tůůůna  maybe he will see me
- ně?ěkačane- šká?áũasa  I will be seen
- zázi ně?ěkačane- ščá?áũasa  I won't be seen
- ně?ěkačane- šě?áũasa  maybe I will be seen
- ně?ěkačane- šá?áũasa  you will be seen
- zázi ně?ěkačane- šá?áũasa  you won't be seen
- ně?ěkačane- ščá?áũasa  maybe you will be seen
- ně?ěkačane- ščá?áũasa  he will be seen
- zázi ně?ěkačane- ščá?áũasa  he won't be seen
- ně?ěkačane- ščá?áũasa  maybe he will be seen

Most intransitive verbs occur with those verbal auxiliaries listed in the first three rows of chart 6:

- nůpe si  I will eat
- zázi nůpe sgu  I won't eat
- nůpe ti  maybe I will eat
- nůpe su  you will eat
- zázi nůpe šu  you won't eat
- nůpe çu  maybe you will eat
- nůpe gu  he will eat
- zázi nůpe gu  he won't eat
- nůpe dvů  maybe he will eat

A few intransitive verbs (those which are prefixed by sgu- or sku- in the first person indicative) occur with the verbal auxiliaries which normally express third person subject with first object, third person subject with second person object, and fourth person subject with third person object:

- ňigai sůůna  I will lie down
- zázi ňigai sůůna  I won't lie down
In addition to their basic forms, verbal auxiliaries may be inflected to indicate dual or plural subject and/or object. Those forms indicating dual or plural subject, in general, are constructed from the basic forms by the addition of a suffix. Dual subject is expressed by the addition of either the suffix -\(^u\), with concomitant lengthening of the preceding vowel, to basic forms which terminate in -\(u\), or the suffix -\(^a\) to forms which terminate in -\(\text{ma}\):

\[
\begin{align*}
\text{nážá-?Abe' gú-\(^u\)} & \quad \text{they two will eat} \\
\text{ní-zúwa-\(^a\) šÁu\text{ni\(a\)}} & \quad \text{we two will pay you}
\end{align*}
\]

Note that dual subject is indicated in both the verb and the auxiliary. Compare:

\[
\begin{align*}
\text{núpe gu} & \quad \text{he will eat} \\
\text{ní-zúwa šÁu\text{ni\(a\)}} & \quad \text{I will pay you}
\end{align*}
\]

Plural subject is expressed by the addition of the suffix -\(sa\), together with the development of a glottal accent on the preceding syllable in forms lacking the -\(\text{ma}\) suffix:

\[
\begin{align*}
\text{nážá-?Ape' gús\(a\)} & \quad \text{they will eat} \\
\text{ní-zúwa-\(e\) šÁu\text{ni\(a\)\(s\)}} & \quad \text{we will pay you}
\end{align*}
\]

Some dual and plural verbal auxiliaries are constructed not from the basic form, but from distinctive dual/plural forms. The following are those which differ from the basic forms:

1. First person subject with third person object indicative:

\[
\text{súzú-, as in nážá-?Abe' súzú-\(^u\)} \quad \text{we two will eat}
\]

2. First person subject with third person object dubitative:

\[
\text{túzú-, as in nážá-?Abe' túzú-\(^u\)} \quad \text{maybe we two will eat}
\]

3. Second person subject with third person object indicative and negative:

\[
\text{gúzú-, as in nážá-?Abe' gúzú-\(^u\)} \quad \text{you two will eat}
\]

4. Second person subject with third person object dubitative:

\[
\text{d\(v\)úzú-, as in nážá-?Abe' d\(v\)úzú-\(^u\)} \quad \text{maybe you two will eat}
\]

Those verbal auxiliaries which terminate in -\(\text{ma}\) may be inflected to indicate dual or plural object. This involves a change similar to the expansion of thematic adjuncts in verbs plus, in the case of plural
object, the addition of -zu-. The following indicates the forms of the auxiliaries expressing singular, dual, and plural object:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>dual</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>-úman</td>
<td>-ú-'úman</td>
<td>-ú-wazúman</td>
<td></td>
</tr>
<tr>
<td>-áman</td>
<td>-á-'áman</td>
<td>-áwazúman</td>
<td></td>
</tr>
<tr>
<td>-iún</td>
<td>-i-'iún</td>
<td>-i-wazúun</td>
<td></td>
</tr>
</tbody>
</table>

These forms are illustrated in the following examples:

- úzúwa d'úmai  
  you will pay me

- né.'éizúwa d'ú-'úmai  
  you will pay us two

- né.'éizúwa zá.'ámá  
  you will pay us

- né.'éizúwa šá.'ámá  
  I will pay you

- né.'éizúwa šáwazúmani  
  I will pay you two

- né.'éizúwa šúwazúmani  
  I will pay you all

- nukatá ziúna  
  he (fourth person) will see him

- ni-ýúkača zi.'ýumá  
  he will see them two

- niwúkača ziuwazúma  
  he will see them

In addition to being inflected for person and number, verbal auxiliaries may occur with one of three condition suffixes. These are -né, corresponding to the verbal suffix 601A; -de, corresponding to suffix 601B; and -nu-, corresponding to suffix 602:

- nukatá sí-né  
  when I will see him

- úzúwa-de. gúsa-de  
  when they will pay him

- ñlgai gúzúma-nu-  
  if you will lie down

**UNINFLECTED WORDS**

Included in the major class of uninflected words are those which express a wide variety of functions and exhibit a considerable number of derivational formations. A division of these words into function classes will be outlined in the section to follow, although a full description of syntactic function will be reserved for the chapter on syntax. Subclasses based on derivational formations will be described under "Derivation."

Uninflected words belong to one of the following function classes depending on their grammatical function:

*Referentials.*—All uninflected words, with the exception of pronouns, that may alone fill a subject or an object slot are referentials. These are, in general, nounlike words such as names of beings, things, and places.

*Pronouns.*—This is a class of rather limited membership comparable to English pronouns. The most commonly occurring members of this class are:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>hinu</td>
<td>I, we</td>
<td>we</td>
</tr>
<tr>
<td>hišu</td>
<td>you</td>
<td>mí-ga</td>
</tr>
<tr>
<td>du</td>
<td>this one</td>
<td>?iská</td>
</tr>
<tr>
<td>he</td>
<td>that one</td>
<td>hau</td>
</tr>
</tbody>
</table>

we that one (inobviate)

mí-ga another one

?iská one

hau someone
Attributes.—Included in this class are a variety of adjective and adverb-like words. They may modify a referential, a pronoun, or a verb:

ráwá- díya  good dog
hnú rálwá-  I am good
ráwá- sí-bá?tu  I slept well

Temporals.—This class is made up of words which specify the relative or the absolute time of an action. Some of the more common temporals are as follows:

súwá  yesterday
htwá  today
čámá  tomorrow
ná-nu  next day
swmí  already
há-wíná  right away
má-nu-  a long time
háha-  long ago
dráwá  early
cé-yá  first

Also included are names of days, seasons, or the time of day. Many of these, however, are Spanish loanwords.

Prepositions.—Included in this class are a number of words which specify the location and/or direction of an action with respect to the speaker or to the actor. Among the more common prepositions are the following:

dúké-  that way (near and away from the speaker)
dúwě-  this way (near and toward the speaker)
yúké-  that way (at a distance and away from the speaker)
yúku  yonder, away
dí?  right here
yúsí  from afar

Directionals.—This class comprises a rather limited number of commonly occurring words such as:

dí  up
hó  down
si  back here
sa  back (to previous location)

Also included are the points of the compass which occur with great frequency in native text.

Interrogatives.—Included in this class is the interrogative particle ?a which, occurring at the beginning of a sentence, makes it a question. Also included are:

zi  what?
háidí  which one?
hau  who?
háikú  when?
há-di  where? (location)
hái  where? (destination)
háiwé-  from where?
háikuma-  what direction?

Modals.—This class includes a number of words which fix the mode of a following verb. Negative, negative hortative, and future hortative modes are obligatorily marked by such words:

zázi  not (negative mode)
bá-mf-  don’t (negative hortative mode)
ba  future hortative mode marker
In addition, dubitative mode is sometimes marked by káncigái maybe and hortative mode by the hortatory exclamation, há-úé.

Connectives.—This is a class of very limited membership including gu and, ?e and, and ?ésgosku but.

Narrative particles.—This class contains a few short words, şu, ?e, ?ai, ?eu, and du, which occur in various combinations with very high frequency in narrative text. They cannot be translated except in a general way as and then.

Exclamations.—Included in this class are a variety of exclamations such as:

<table>
<thead>
<tr>
<th>Word</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ha.</td>
<td>yes</td>
</tr>
<tr>
<td>za</td>
<td>no</td>
</tr>
<tr>
<td>me.</td>
<td>don’t</td>
</tr>
<tr>
<td>hiñá</td>
<td>O.K.</td>
</tr>
<tr>
<td>mo.</td>
<td>look!</td>
</tr>
</tbody>
</table>

Most uninflected words are not amenable to internal structural analysis. There are, however, a number of subclasses, largely of quite limited membership, which exhibit specific types of derivational formations. These subclasses will be described below.

Nominalized verbs.—There are three general types of referentials which are derived from verbs by the omission of all verb prefixes and the addition of a nominalizing suffix.

The first type, which principally includes certain body parts, is based on the verb core; i.e., the thematic adjunct is excluded. The nominalizer in such words is regularly -ni. The following examples show first the verb form (translatable into English possessed body parts) followed by the nominalized form:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Nominalized Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>gánáságái</td>
<td>his head</td>
</tr>
<tr>
<td>gáyú-spr</td>
<td>his shoulder</td>
</tr>
<tr>
<td>sówí-sí</td>
<td>my nose</td>
</tr>
<tr>
<td>náságäni</td>
<td>head</td>
</tr>
<tr>
<td>yú-sbini</td>
<td>shoulder</td>
</tr>
<tr>
<td>wísí-ní</td>
<td>nose</td>
</tr>
</tbody>
</table>

The second type of nominalized verb also includes body parts primarily and is based on the verb stem (which includes the thematic adjunct) preceded by h-. The nominalizer in these words is either -ni or -nani:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Nominalized Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>sásdi</td>
<td>your foot</td>
</tr>
<tr>
<td>sá-múčú</td>
<td>your toe</td>
</tr>
<tr>
<td>šá?áčá</td>
<td>your tooth</td>
</tr>
<tr>
<td>hásdí?ini</td>
<td>foot</td>
</tr>
<tr>
<td>há-múčuni</td>
<td>toe</td>
</tr>
<tr>
<td>há?áčanani</td>
<td>tooth</td>
</tr>
</tbody>
</table>

The third type of nominalized verb includes a wide variety of action words and is based on the verb core preceded by ?ú- or ?ú-. The nominalizer in these words is most commonly -ñi, but may be any one of several suffixes:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Nominalized Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>čikupawa</td>
<td>I chopped</td>
</tr>
<tr>
<td>sugýa</td>
<td>I sat down</td>
</tr>
<tr>
<td>sfube</td>
<td>I told him</td>
</tr>
<tr>
<td>súpe</td>
<td>I ate</td>
</tr>
<tr>
<td>súbáya</td>
<td>I built a fire</td>
</tr>
<tr>
<td>?úgupáwañi</td>
<td>ax</td>
</tr>
<tr>
<td>?úgúyáúñi</td>
<td>seat</td>
</tr>
<tr>
<td>?ú-bé-táñi</td>
<td>story, news</td>
</tr>
<tr>
<td>?úbéwi</td>
<td>food</td>
</tr>
</tbody>
</table>
| ?ú-báyáñi     | fireplace
**Numerals.**—Keresan numerals are based on a decimal system. Cardinal numbers 1 through 10 are unanalyzable, although the terms for 7, 8, and 9 are polysyllabic and may be derived forms. The term for *seven*, for instance, includes a sequence of phonemes similar to those in the term for *four*.

<table>
<thead>
<tr>
<th>Keresan</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ṭiskA</td>
<td>one</td>
</tr>
<tr>
<td>d'ú-mi-</td>
<td>two</td>
</tr>
<tr>
<td>čémi</td>
<td>three</td>
</tr>
<tr>
<td>d'á-na</td>
<td>four</td>
</tr>
<tr>
<td>tā-mA</td>
<td>five</td>
</tr>
<tr>
<td>sósA</td>
<td>six</td>
</tr>
<tr>
<td>náid'ana</td>
<td>seven</td>
</tr>
<tr>
<td>gúkúmiši</td>
<td>eight</td>
</tr>
<tr>
<td>máyuku</td>
<td>nine</td>
</tr>
<tr>
<td>káci</td>
<td>ten</td>
</tr>
</tbody>
</table>

Numbers 11 through 19 are designated by the word for *ten* followed by the word for *one, two, three*, etc.:

- káci ṭiskA *eleven*
- káci d'ú- *twelve* (note the omission of -mi- here and in derived forms)
- káci čémi *thirteen*

The addition of the suffix -wa or -ya to the terms for cardinal numbers 1 through 10 results in forms that occur both in the designations for 20, 30, 40, etc. and, in other contexts, as ordinal numbers. The suffix -ya occurs following the terms for two and three, while -wa is suffixed to the remainder of the number terms:

- d'ú-ya *twice, second*
- d'ú-ya káci *twenty*
- čémiya *three times, third*
- čémiya káci *thirty*
- d'á-nawa *four times, fourth*
- d'á-nawa káci *forty*

**References to pueblos and their inhabitants.**—Place names are sometimes derived from the term designating an inhabitant of that place, while in other cases the reverse is true. The former type of derivation involves the addition of the suffix -že:

- ţi-wa *a Tiwa Indian*
- hé-miši *a person from Jemez*
- să-ni *a person from Zuni*

The addition of the suffix -mE to a place name indicates an inhabitant of that place:

- dámáya *Santa Ana Pueblo*
- ṭi-wi- *Santo Domingo Pueblo*

**Diminutives and augmentatives.**—The prefix rá- occurs in a large number of words indicating smallness:

- rá-skisi *little*
- rá-ká-paši *thin*
- rá-ká-šika *narrow*
- rá-káči *shallow*
- rá-cičá *a small person*
The prefix mé-, on the other hand, occurs with words expressing largeness:

mé-zǐči  big
mé-kà-paši  thick
mé-kà-tika  wide (something rigid)
mé-kàčiš  deep
mé-chiša  wide (something like cloth)
mé-chiča  a tall person

Derived prepositions.—Many prepositions are derived from a combination of two morphemes. In these words dú- expresses nearness and yú- distance. Among the second elements, -ké- expresses motion away from the speaker, -wé- motion toward the speaker, -si a return, and -?ai a fixed location:

dúké  that way (near and away from the speaker)
duwé  this way (near and toward the speaker)
yúké  that way (at a distance and away from the speaker)
yuwé  this way (at a distance and toward the speaker)
yúsī  back from afar
yú?ái  there (located at a distance)

Points of the compass.—Several types of derived forms are based on the points of the compass, dźfáɑ north, bo west, ku south, and ha east. Motion toward the cardinal points of the compass is expressed by the following derived forms:

dźfáɑmí  toward the north
bónámí  toward the west
kúwámí  toward the south
há-námí  toward the east

Motion from the cardinal points is likewise expressed by derived forms:

há-ní  from the east
bóní  from the west

Terms for northeast, northwest, southeast, and southwest result from a combination of modified forms of the terms for the cardinal points:

dźfádiyábó  northwest
kúyábó  southwest

Less frequently occurring forms derived from the terms for the points of the compass include those designating the east or the west side of the river (the Rio Grande) and those designating the four corners of the pueblo world:

bónísde  the west side
há-sukú  Santa Fe (literally east corner)
Interrogatives.—A large majority of interrogatives begin with ha-, suggesting that this is a derivational morpheme:

- hau = who?
- hai = where? (destination)
- há-di = where? (location)
- hái-wé = from where?
- hái-kuma = what direction?
- hái-kú = when?
- háidí = which one?
- háćú = how many?

CLITICS

Clitics are a class of morphemes which do not effect morphophonemic voicing of a previous vowel as do suffixes (see "Voicing") but which, on the basis of distributional evidence, are not treated as free words (see "Units of Analysis"). Their position, then, is intermediate between that of an affix and a free word.

In terms of function there are four kinds of clitics, all of which occur as postclitics:

1. Pluralizing clitics occur following a limited number of referentials and verbs which function as subject or object. The most commonly occurring of these clitics is -dmong:

- ká-wir-dmong = his children
- ká bíuna-dmong = his servants

2. Locative-instrumental clitics occur following words which function as subject or object and include the morphemes -di, -dika, -ší, and -si:

- mé-sa-di = on the table
- hinu-dika = by me (through my instrumentality)
- gawá-yu-ší = by horseback
- gañaša-si = in his house

3. The nominalizer, -šé, is often attached to verbs which function as the subject or object of a clause:

- gáwínska-tršé = his two hearts

4. The clitics -šanu and -dɔn (often contracted to -šau and -dɔ with nasalized vowels) occur following referentials which refer to living beings or following kinship terms (verbs) which function as subject or object. They occur rather frequently in narrative text recounting happenings of the distant past. The clitic -šanu occurs in ordinary narrative while -dɔn carries a dubitative connotation:

- káuški-šanu = his wife
- kádɔ́uma-dɔn = his brother (reported to be)

Both pluralizing and narrative past tense clitics may occur in the same word. In such cases the past tense clitic always follows the pluralizing clitic:

- čtá-wir-dmong-šanu = his children
SYNTAX

In "Morphology," words were described and classified on the basis of their internal structure. The emphasis in this section is on the grammatical function of words and phrases and the sequential arrangement of functional units. The word-class categories of the previous section are abandoned except in describing the kinds of words which may fill a function slot. This approach is adopted for the reason that there is in Santa Ana Keresan a lack of correlation between structural classes and function classes. Words which structurally are verbs, for instance, may have not only a verblike function but may have a nounlike function as šâ-mà in the following example:

\[
\begin{align*}
yúké. & \quad šâ-mà \quad ?e \quad sa \quad zùse \\
that \quad way & \quad my \quad home \quad back \quad I \quad go
\end{align*}
\]

DEFINITION OF SYNTACTIC UNITS

Syntactic structure will be analyzed in terms of function slots. The term is used here to mean a position within the clause or larger syntactic unit which is characterized by:

1. A more or less fixed location in relation to other function slots. This does not imply an absolutely rigid sequential ordering of elements within the clause, but rather a relatively narrow limit to the kinds of sequences which are admissible.

2. A uniform grammatical function assignable to the slot together with the elements which may fill that slot. These grammatical functions (e.g., subject, object, predicate) will be discussed in detail on pp. 126 ff.

3. The potentiality of being filled by a single word. This criterion defines the lower limit of a function unit. Any position within the clause that is always filled by more than one word is not a single function slot.

4. The potentiality of being filled by a continuous sequence of words. A function slot, therefore, may be filled alternatively by a single word or by a sequence of words that are functionally equivalent to a single word. Such a sequence of words constitutes a phrase. Two or more non-contiguous positions within a clause which are filled by words or phrases having the same or similar grammatical function will be treated as separate slots rather than a single discontinuous slot.

The usual definition of a clause as a sequence of words containing a subject and predicate needs to be modified somewhat for the purposes of describing Santa Ana syntactic structure. The term clause will be understood to refer to a syntactic unit which includes a verb functioning as a predicate as well as to certain other relatively infrequently occurring types of units to be described below. A predicate clause in
its minimal form consists of a single verb. There need not be an expressed subject other than the pronominal marker incorporated in the verb. Expanded forms of the predicate clause may contain an expressed subject and/or object as well as various other elements. Certain kinds of word sequences which do not include a verb functioning as predicate are treated as special types of clauses. These word sequences lend themselves to description as clauses comparable to predicate clauses because: (1) they are units with a more or less fixed structure and may be described in terms of function slots in the same manner as predicate clauses; (2) they possess a semantic content comparable to that of predicate clauses and, although not containing a predicate, are usually best translated by full English sentences; (3) they correlate closely with phonological units in the same manner as predicate clauses which, as with all clauses, tend to be set off by pauses in a connected text; and (4) their length and distribution in the text is such that their incorporation into contiguous predicate clauses often would result in unwieldy units. These special clauses are of three types: prepositional clauses, interrogative clauses, and ?eu clauses, all of which will be described under "Non-predicate Clauses."

The term sentence will be used much in its traditional sense to refer to a word or group of words which expresses an independent utterance, not part of any larger syntactic construction. A sentence may be a single independent clause, or it may consist of two or more clauses, one of which is an independent clause.

MAJOR FUNCTION SLOTS AND THEIR FILLERS

Nine major function slots are identified within Santa Ana Keresan clauses. Each function slot, assigned an uppercase letter for easy reference, is described in the sections to follow.

In the description of the elements which may fill a function slot the occurrence of narrative particles are ignored. These particles occur with very high frequency in narrative text but are not considered to be an essential part of the syntactic structure. Although they contribute to the sense of continuity of a narrative and are roughly equivalent to English "And then . . . ," their omission in no way changes the basic structure and meaning of the utterance. The narrative particles, ?e, ?e eu, ?ai, and du, occur either singly or in various combinations. The more commonly occurring combinations are:

<table>
<thead>
<tr>
<th>?e</th>
<th>?e eu</th>
</tr>
</thead>
<tbody>
<tr>
<td>?e su</td>
<td>?eu su</td>
</tr>
<tr>
<td>?e su</td>
<td>?eu su ?e</td>
</tr>
<tr>
<td>?ai su</td>
<td>?ai su ?e</td>
</tr>
<tr>
<td>?e su</td>
<td>?ai su ?e</td>
</tr>
</tbody>
</table>
Longer combinations made up of two or more of the above sometimes occur:

\[\text{su } ?e \text{ ?ai } \text{ su} \]
\[\text{su } ?e \text{ su } ?e\text{u } \text{ su} \]

etc.

When the informant is searching for words he often fills in with a rather long series of narrative particles which occur, most commonly, at the beginning of a clause:

\[\text{su } ?e \text{ su } d^{v}\text{i dig\-a-nikuyA c\-e\-c} \text{ hi}g\-\text{a-nti } \text{?ad}^{v}\text{A}\text{-s}e\]

*Then the giant’s eagle, too, looked up.*

Roughly half of the clauses in the text are introduced by a narrative particle or combination of particles. Narrative particles occur less commonly, although with considerable frequency, between function slots within a clause:

\[\text{su } ?e \text{ d\-si ku } \text{ su } ?e \text{ su } d^{v}\text{?\-a}i\text{y}u\]

*Then they flew southward.*

In the analysis of clause structure, narrative particles are assigned, where possible, to the initial position within the function slot. The above clause, for example, is analyzed as consisting of two function slots with the division occurring between ku and su.

Narrative particles occur occasionally in non-initial position within a function slot. This may be true in certain function slots, such as the D slot (see p.132), which sometimes includes two or more elements with intervening narrative particles:

<table>
<thead>
<tr>
<th>D slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>[\text{su } ?e \text{ su } d-u\text{-e} \text{ su } si \text{ } \text{-c-a}\text{-ni}\text{c}\text{d}^{v}\text{A}A\text{Y}A]</td>
</tr>
<tr>
<td>this way back he was walking</td>
</tr>
</tbody>
</table>

*Then he was walking back.*

**PREDICATE SLOT (p)**

The grammatical function of a predicate slot with its filler is that normally associated with the term “verb.” Among the more common types of concepts which may be expressed by this unit are the following:

- **Action:** sk\text{\-a}ku \quad he bit me
- **Perception:** sg\text{\-u}k\text{\-a}c\text{\-a} \quad he saw me
- **State of being:** c\text{\-i}y\text{\-a}m\text{\-a}s\text{\-t}u \quad I am hungry
- **Relationship:** ka \quad it is his

The predicate slot is normally filled by a single verb. It may comprise the entire utterance (as in the above examples) or may be part of a larger construction:

\[\text{P} \quad \text{su } ?e \text{ ?ai} \text{?i y\text{\-u}\text{\-ke}}. \quad d^{v}\text{?\-a}\text{\-i}\text{y}u \quad y\text{\-u}\text{\-ai} \quad h\text{\-a}\text{-di} \quad c\text{\-u}\text{-t}i\]

*Then they flew away to the mountains.*
A verb phrase rather than a single verb may fill the predicate slot, although this construction is statistically much less frequent. Four types of modifying elements may occur with a verb in a verb phase.

1. A qualifying word may occur either preceding or following the verb:

\[
P \quad \text{šu } \text{šišf } \text{hā-} \text{nū-yū- } \text{kā- } \text{ni}
\]
then east alone he walked

\[
\text{Then he walked eastward alone.}
\]

\[
P \quad \text{?e } \text{šu } \text{?e } \text{šu } \text{čá?āizi } \text{čēci}
\]
he went too

to bed

\[
\text{Then he went to bed, too.}
\]

2. The particle ?eu may precede or follow the verb. This particle, which cannot be adequately translated into English, gives additional emphasis to a particular word or phrase:

\[
P \quad \text{šu } \text{?e } \text{?ai } \text{hau? } \text{d̰á-} \text{?āer } \text{?eu}
\]
near they arrived

\[
\text{Then they came near.}
\]

\[
P \quad \text{?eu } \text{sgūšipā}
\]
I need him.

3. The verb may be preceded by an uninflected word which functions semantically as the principal carrier of meaning:

\[
P \quad \text{šumī } \text{hā-kū } \text{ḏawinza} \text{nī } \text{?eu } \text{čāukui-} \text{šanu}
\]
already ready she made

\[
\text{his wife}
\]

\[
\text{His wife had things already prepared.}
\]

4. Certain verbs are preceded in most of their occurrences by characteristic particles which have no close semantic equivalent in English. These include ?e, which precedes most forms of the verbs meaning to go and to say, and gui?, which precedes the verb to do:

\[
P \quad \text{šu } \text{?e } \text{?eu } \text{ḏaw-} \text{mi } \text{?e } \text{čāza}
\]
eagle

\[
\text{he said}
\]

\[
\text{And then the eagle said,}
\]

\[
P \quad \text{šu } \text{?e } \text{yūkē-} \text{ kū- } \text{tí } \text{?e } \text{zūpeis}
\]
that way mountain

\[
\text{go}
\]

\[
\text{Go away to the mountains!}
\]

\[
P \quad \text{zi } \text{gui? } \text{gēdēkuyā}
\]
what you are doing

\[
\text{What are you doing?}
\]
Predicate slots may be subdivided on the basis of whether or not the verb that fills the slot incorporates a pronominal marker indicating the person of the subject or of the subject and object. P1 slots, illustrated by all of the above examples, are filled by verbs in the non-future tense and incorporate pronominal markers. P2 slots are filled by future tense verbs which do not incorporate pronominal markers:

\[
\begin{array}{c}
P_2 \\
nódë?ëyú disí ku súzú?u há-di higá-nti dźá-dźa \\
\end{array}
\]

will go there south we where giant his house

*We will go south to the giant’s house.*

**Auxiliary slot (A)**

The occurrence of a P2 slot presupposes the presence in the same clause of an A slot filled by a verbal auxiliary (as súzú?u we, in the example above). Verbal auxiliaries comprise both a structural class and a function class. The A slot is always filled by a single verbal auxiliary and performs the function of indicating the person of the subject or subject and object when this is not included in the verb itself. The A slot in general immediately follows the P slot:

\[
\begin{array}{c}
P \\
háiku dāwē. si \\
\end{array}
\begin{array}{c}
A \\
źu-ne šu \\
\end{array}
\]

when this way back will you go

*When will you come back?*

The occasional occurrence of other elements between the P and A slots prevents treating the verb plus its auxiliary as a verb phrase filling a simple slot.

**Subject slot (s)**

The grammatical function of a subject slot with its filler is to indicate the subject of the verb in the predicate slot. This unit is not obligatory to a complete clause, as the person and number of the subject is indicated in the verb itself or in the verb together with its auxiliary. The filling of the subject slot either adds redundancy or else indicates the subject with more specificity. The subject slot may be filled by any one of the following elements.

**Pronouns.**— Included in this category are the first person pronoun, hínu, the second person pronoun, híšu, and various third person pronouns such as ?īskA one, du this one, he that one, hau someone and ?īsgawa both of them:

\[
\begin{array}{c}
S \\
šu ?e ?īsgawa \\
both \\
P \\
ai šu ?e šu čādžádyí \\
they fought \\
\end{array}
\]

*Then the two of them fought.*
Verbs.—The most common type of verbs filling a subject slot are those indicating inalienably possessed objects (e.g., kinship terms and terms referring to body parts):

\[
\begin{array}{ccc}
S & ?e \, ?e \, su \, kaolaisdru & P \\
& his father & \, ?e \, d'eihe ita & he said \\
\end{array}
\]

Then his father said.

Referentials.—These are, in general, nounlike words and the most commonly occurring fillers of the S slot.

\[
\begin{array}{ccc}
S & ?eu \, ?aici \, diyu-kami & P \\
& also she waited & \, ?u \, ?e \, c'uguy\alpha & king his wife \\
\end{array}
\]

Then the eagle perched there.

Phrases based on the above elements.—These are of the five general types given below.

1. Two or more words linked in possessive relationship:

\[
\begin{array}{ccc}
P & \, ?u \, ?e \, ecet & S \\
& d'ya-kami & gast-ki \, c'aukui-\, sanu \\
& also she waited & king his wife \\
\end{array}
\]

The king's wife was waiting, too.

\[
\begin{array}{ccc}
S & ka \, h'azanici & P \\
& his hair & d'yi \, g'a'asunne \\
& up it stood & \\
\end{array}
\]

His hair stood up.

\[
\begin{array}{ccc}
S & h'icani \, c'adpya-khe & P \\
& giant his & d'ya-mi \\
& eagle he cried out & \, ?u \, ?e \, d'ya-\, skee \alpha \\
\end{array}
\]

The giant's eagle cried out.

2. Two or more words linked in coordinate relationship:

\[
\begin{array}{ccc}
P & di\, ?ai \, d'ya\, ?atu\, ?u & S \\
& there they lived & h'aczeza \, gu \\
& man and his wife & \, c'aukui-\, sanu \\
\end{array}
\]

A man and his wife lived there.

3. A combination of two or more pronouns or a combination of one or two pronouns with a referential or a verb:

\[
\begin{array}{ccc}
& one someone he was planting & c'a'outisa \\
\end{array}
\]

There was someone planting.

\[
\begin{array}{ccc}
S & zi \, h'adif \, gan\, \, e \, ru & P \\
& thing which sheep & d'uyawa\, skee \alpha \\
\end{array}
\]

There were some sheep bleating.
4. A verb or a referential with an attributive:

\[ \begin{array}{c}
\text{P} & \text{S} \\
?ai ta du\text{"}ku & rikusi hâçce \\
\text{thus he was rich man} \\
\text{Once there was a rich man.}
\end{array} \]

5. A pronoun, verb, referential or phrase of one of the above types preceded and/or followed by ?eu and/or čecì:

\[ \begin{array}{c}
\text{P} & \text{S} \\
?e su du\text{"}ka\text{"}a & ?e u mu-\text{"}kaça \\
\text{he saw him mountain lion} \\
\text{Then the mountain lion saw him.}
\end{array} \]

\[ \begin{array}{c}
\text{S} & \text{P} \\
?e ?e ?eu sandiyâ-\text{"}ku čecì su yuku ńe e\text{"}guyanu \\
\text{St. James also away down he sat} \\
\text{Then St. James dismounted, too.}
\end{array} \]

Clauses with compound subjects (i.e., two or more words in coordinate relationship) sometimes have two S slots with the subject split between the two:

\[ \begin{array}{c}
\text{S} & \text{P} & \text{S} \\
?e hâ\text{"}wài buiyasì & zè?ć & gu gawâ-yu gu mu-\text{"}la \\
\text{there oxen they are and horses and mules} \\
\text{There are oxen, horses, and mules.}
\end{array} \]

**OBJECT SLOT (o)**

An object slot with its filler indicates the object of the action expressed by the verb in the predicate slot. Like the subject slot, this is a nonobligatory element which adds redundancy or specificity. The same types of words or phrases may fill the object slot as the subject slot:

**Pronouns:**

\[ \begin{array}{c}
\text{P} & \text{O} \\
?eu sàyêiba-te & hišu \\
\text{I look for you you} \\
\text{I am looking for you.}
\end{array} \]

**Verbs:**

\[ \begin{array}{c}
\text{O} & \text{P} \\
?e su ?eu su kà-\text{"}d\text{"}e-mi & ?e du-\text{"}wâbëuca \\
\text{his children he called them} \\
\text{Then he called his children.}
\end{array} \]

**Referentials:**

\[ \begin{array}{c}
\text{P} & \text{O} \\
?e su da?àdanu- & mukaiçà \\
\text{he killed it mountain lion} \\
\text{Then he killed the mountain lion.}
\end{array} \]
Phrases:

1. Two or more words in possessive relationship:

\[
\begin{array}{ccc}
S & O & P \\
\text{su } ?e \text{ sandiyá'-ku} & \text{kámáka} & \text{gasí-ki} & \text{tiwakuiča} \\
\text{St. James} & \text{his daughter} & \text{king} & \text{he married}
\end{array}
\]

_Then St. James married the king’s daughter._

2. Two or more words in coordinate relationship:

\[
\begin{array}{ccc}
P & O \\
\text{há-di } ?égu ?eu \text{ su-\text{wàkačane}} & \text{gawiyá-ra wá-gasi} \\
\text{where then you saw them horses cattle}
\end{array}
\]

_Where, then, did you see the horses and cattle?_

3. Combination of pronoun plus pronoun, verb or referential:

\[
\begin{array}{ccc}
O & P & A \\
\text{du má-cú } ?éu \text{ néyazáčce} & \text{si} \\
\text{this mule will choose I}
\end{array}
\]

_I will choose this mule._

4. Combination of verb or referential plus attributive:

\[
\begin{array}{ccc}
O & P \\
\text{su } ?é \text{ su } \text{gášé gawá-yu} & \text{du } \text{ diwiza-ni-dranu} \\
\text{white horse he saddled him}
\end{array}
\]

_Then he saddled the white horse._

5. Any of the above elements in combination with ?eu or čéci:

\[
\begin{array}{ccc}
P & O \\
\text{su } ?é \text{ ai tá?ámud\text{uzača}} & \text{du } \text{ hičá\text{ntr}} \\
\text{he was killed this giant}
\end{array}
\]

_Then the giant was killed._

When both the subject and the object slots in a clause are filled the two are distinguished by relative order (see “Predicate Clauses”). When one but not the other is filled, the context determines whether it is an object or a subject slot. A clause may occasionally have two object slots:

\[
\begin{array}{ccc}
O & P & O \\
\text{?a } \text{ zázi } \text{ai há-di gawiyá-ra } \text{d\text{ú}-\text{wàkačane} } \text{gu wá-gasi} \\
\text{question not somewhere horses you saw them and cattle}
\end{array}
\]

_Haven't you seen some horses and cattle somewhere?_

The two object slots may be filled by a split compound object as in the example above, or they may be filled by a direct and an indirect object respectively:

\[
\begin{array}{ccc}
O & P & O \\
\text{su } ?é \text{ su } \text{dási } \text{sai zi } \text{tá?áwiya-\text{ani}t\text{a}} & \text{?eu sandiyá'-ku} \\
\text{there all thing was left to him St. James}
\end{array}
\]

_Then everything was left to St. James._
A directional-locational slot with its filler specifies the direction taken by an action and/or its location either in an absolute sense or in relation to the speaker. The D slot may be filled by one of the following elements.

**A preposition:**

\[
D \quad P
\]
\[
?e \; su \; ?e \; hâwé \quad ?á \- ni
\]
this way he came

*Then he advanced.*

**A directional:**

\[
D \quad P
\]
\[
?e \; su \; ?e \; dê \quad dê \- ë\- yu
\]
up they went

*Then they went up.*

**A referential which includes a locative clitic:**

\[
P \quad D
\]
\[
su \; ?e \; di\- yâ\- tis\- i\- wi\- sd\- ë\- anu \quad gá\- ru\- di
\]
he hitched them wagon to

*Then he hitched them to the wagon.*

**A phrase belonging to one of the following general types:**

1. **Two prepositions:**

\[
D \quad P
\]
\[
yûké \; hâwé \quad digé\- ni\- ku\- yâ
\]
that way this way he was looking

*He was looking this way and that.*

2. **Two directionals:**

\[
D \quad P
\]
\[
su \; ?e \; sa \; dê \quad çugú\- yanu
\]
back up he sat

*Then he sat up again.*

3. **A combination of one or more prepositions with one or more directionals:**

\[
D \quad P
\]
\[
su \; ?e \; yûû\- sî \quad ñö \quad zû\- ë\- yu
\]
from there down he went

*Then he went back down.*

\[
D \quad P
\]
\[
dûké \; ku \; ñö \quad ?eu \; sê\- ni\- ô\- dá\- a\- ña
\]
that way south down I am going

*I am going on down south.*
4. A preposition plus a referential:

<table>
<thead>
<tr>
<th>D</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>šú ʔe yúké·  kú-tí  ŋe zúpe·</td>
<td></td>
</tr>
<tr>
<td>that way mountain  go</td>
<td></td>
</tr>
<tr>
<td>Go away to the mountains!</td>
<td></td>
</tr>
</tbody>
</table>

5. A verb phrase:

<table>
<thead>
<tr>
<th>D</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>šétyá ʔaį dvi  cúgyá</td>
<td></td>
</tr>
<tr>
<td>my back  up  sit</td>
<td></td>
</tr>
<tr>
<td>Sit up on my back.</td>
<td></td>
</tr>
</tbody>
</table>

Most clauses occurring with a D slot contain only one such slot. Occasionally, however, a clause occurs with two D slots, one preceding and the other following the P slot:

<table>
<thead>
<tr>
<th>D</th>
<th>P</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>šú ʔai hau? dvi  šúgyanu·  mé-ša-di</td>
<td></td>
<td></td>
</tr>
<tr>
<td>near up  when you sit  table at</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When you sit up at the table,</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TIME SLOT (T)**

The grammatical function of a time slot with its filler is to specify the relative time of an action. This slot is usually filled by one of the temporals (see "Function Classes").

<table>
<thead>
<tr>
<th>D</th>
<th>T</th>
<th>P</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>dúwe·  si  há-wíná  zú-ne  si</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>this way  back  soon  will come  I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will come back soon.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th></th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋe šú  ŋe ná-nu  čáʔaǐza-nu·</td>
<td></td>
<td></td>
</tr>
<tr>
<td>next day  it occurred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The next day arrived.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The T slot is sometimes filled by a phrase composed of two temporals or of the negative, zázi, plus a temporal:

<table>
<thead>
<tr>
<th>T</th>
<th></th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>šumí  hámí·  záʔaǐza-nu·</td>
<td></td>
<td></td>
</tr>
<tr>
<td>already long ago  it occurred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It already happened long ago.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T</th>
<th>S</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋesgšku  zázi  na  saí  záʔańe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>but  not yet  all  it is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>But this isn’t all yet.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As in the case of the D slot, a clause may occasionally occur with two T slots, one preceding the P slot and the other following:

<table>
<thead>
<tr>
<th>T</th>
<th>D</th>
<th>P</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋemí  dúwe·  ku  zíyádšu  šumí  má-nu·</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>already  this way  south  he passed  already long time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It has been a long time since he passed by going south.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MODIFIER SLOT (M)

A modifier slot with its filler functions as a modifier of the predicate. The filler of this slot is ordinarily a single attributive:

\[
\begin{array}{cccc}
M & \text{su ñe} & \text{su núbada} & \text{D} \\
& \text{alone} & \text{near down} & \text{P} \\
& \text{he entered}
\end{array}
\]

Then he went in alone.

\[
\begin{array}{cccc}
M & \text{?ésgaskú} & \text{su wínú} & \text{P} \\
& \text{but fast} & \text{also will travel} & \text{A} \\
& \text{we}
\end{array}
\]

But we will also travel fast.

INTERROGATIVE-MODAL SLOT (I)

An interrogative-modal slot may be filled by a variety of uninflected words classified as either interrogatives or modals (see "Function Classes"). The function of this slot with its filler is to form a question or to reinforce the mode (other than indicative) of the clause.

\[
\begin{array}{cccc}
I & \text{zázi} & \text{há-di} & \text{hau} \\
O & \text{?e zi} & \text{gákú} & \text{P} \\
& \text{what you are planting}
\end{array}
\]

There is nobody here.

\[
\begin{array}{cccc}
I & \text{su ñe} & \text{zi} & \text{záutsa} \\
& \text{not where someone is}
\end{array}
\]

What are you planting?

\[
\begin{array}{cccc}
I & \text{káuigá} & \text{du} & \text{tíčá-gu} \\
& \text{maybe this I change}
\end{array}
\]

Maybe I'll change it.

\[
\begin{array}{cccc}
I & \text{há-ńé} & \text{dúké} & \text{kàigá} \\
& \text{let me that way let me look}
\end{array}
\]

Let me look around.

Interrogative or modal phrases sometimes fill the I slot. These are ordinarily composed of an interrogative or a modal together with zázi not or ?égu then:

\[
\begin{array}{cccc}
I & \text{zázi} & \text{?ite} & \text{dvúhá} \\
& \text{not able to he emerged}
\end{array}
\]

He couldn't get out.

\[
\begin{array}{cccc}
I & \text{?égu} & \text{gúva} & \text{sa} \\
& \text{then how back will emerge I}
\end{array}
\]

How, then, will I get back out?

CONNECTIVE SLOT (C)

The connective slot with its filler occurs in clause-initial position and relates that clause to the preceding one. This slot is filled by
one of the following connective particles: gu and, ?e and, ?égu then, ?ésgëskú but, or by the combination ?e ta and thus.

\[
\begin{array}{c}
gu \\
\text{?eu} \\
\text{cúñaza}
\end{array}
\]
\[\text{and} \quad \text{he is healthy} \]
\[\text{And he is healthy.} \]

\[
\begin{array}{c}
\text{?ésgëskú} \\
\text{?eu} \\
\text{?e} \\
\text{?u} \\
\text{djuwáwa-sa} \\
\text{?écr}
\end{array}
\]
\[\text{but} \quad \text{they were sick also} \]
\[\text{But they were sick, too.} \]

**SEQUENTIAL ORDERING OF FUNCTION SLOTS**

The structure of clauses is analyzed here in terms of the sequential ordering of the function slots. The statistical treatment is based on the types of clauses occurring in a sample of text material consisting of myths narrated by one informant. The sample contains about 4,500 words and was transcribed from 55 minutes of recorded narrative.

**PREDICATE CLAUSES**

The large majority of clauses in the text are predicate clauses. Of 910 clauses identified in the text there are 868 of this type.

Predicate clauses are built around a predicate slot filled by a verb or verb phrase. The predicate clause may contain only a predicate slot, or it may include a wide variety of slots preceding and/or following the predicate slot. The structure of all predicate clauses in the text is indicated in charts 7 and 8. The former shows the structure of P1 clauses, i.e., clauses in which the predicate slot is filled by a non-future tense verb. P2 clauses, outlined in chart 8, contain verbs in the future tense. Formulas indicate the sequential arrangement of the function slots and employ the following abbreviations:

- \(P\) = Predicate slot
- \(S\) = Subject slot
- \(O\) = Object slot
- \(D\) = Directional-locational slot
- \(T\) = Time slot
- \(M\) = Modifier slot
- \(I\) = Interrogative-modal slot
- \(C\) = Connective slot
- \(A\) = Auxiliary slot

The number of occurrences of each type of predicate clause in the text is indicated following the formula. Although certain details of the chart are arbitrary, the arrangement of the formulas indicates an increasing complexity from left to right in terms of the number of slots contained in the clause. The slots are introduced in a specific order from top to bottom within each box bounded by solid lines and
from left to right across contiguous boxes. This order (P, S, O, D, T, M, I, C) reflects, to some degree, an increasingly peripheral nature of the slots.

<table>
<thead>
<tr>
<th>SP 42</th>
<th>SOP 6</th>
<th>SPO 2</th>
<th>SDOP 1</th>
<th>CSDPO 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 19</td>
<td>DSP 12</td>
<td>DSPD 1</td>
<td>DPS 12</td>
<td>TSDP 2</td>
</tr>
<tr>
<td></td>
<td>SDP 13</td>
<td>DSPS 1</td>
<td>SPD 1</td>
<td>TSDP 2</td>
</tr>
<tr>
<td></td>
<td>SP 42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TSP 2</td>
<td>STP 1</td>
<td>DTSP 2</td>
<td>TSPD 1</td>
</tr>
<tr>
<td></td>
<td>TPS 2</td>
<td>TSP 1</td>
<td>TDSP 2</td>
<td>TPS 1</td>
</tr>
<tr>
<td></td>
<td>MSP 2</td>
<td>SMP 2</td>
<td>IDSP 2</td>
<td>CIDSP 1</td>
</tr>
<tr>
<td></td>
<td>PMS 1</td>
<td></td>
<td>IDPS 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISP 8</td>
<td></td>
<td>ISPD 2</td>
<td></td>
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<tr>
<td></td>
<td>CSP 5</td>
<td>CPS 2</td>
<td>CSP 3</td>
<td>CSDP 2</td>
</tr>
<tr>
<td>OP 20</td>
<td>DOP 7</td>
<td>PDO 2</td>
<td>OTDP 1</td>
<td>IDOTP 1</td>
</tr>
<tr>
<td>PO 14</td>
<td>DPO 5</td>
<td>DOPO 1</td>
<td>IODP 2</td>
<td>IDOP 1</td>
</tr>
<tr>
<td></td>
<td>ODP 8</td>
<td></td>
<td>CDOP 2</td>
<td>CDOP 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CDPO 2</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>TOP 1</td>
<td>TPO 2</td>
<td>IOPT 1</td>
<td>CITOP 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CTOPT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MOP 1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>IOP 14</td>
<td>IOPO 1</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>IPO 2</td>
<td></td>
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<tr>
<td></td>
<td>COP 7</td>
<td>CPO 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DTP 5</td>
<td>DTPT 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TDP 5</td>
<td>TDPT 1</td>
<td></td>
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<td></td>
<td>DPT 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DTP 5</td>
<td>DTPM 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDP 5</td>
<td>MDPM 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MDPM 1</td>
<td>DDP 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IDP 6</td>
<td>CDP 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CDP 4</td>
<td>CPD 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTP 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTPM 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMP 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMP 4</td>
<td>CPM 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CIP 2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chart 7.—P1 Clause Types
In spite of some freedom of order in the arrangement of slots within the clause there are definite restrictions on their distribution. Considering the slots in the order that they are introduced in the charts following the P slot, the following observations can be made.

The A slot always follows the P slot, usually contiguously. There are a few occurrences, though, of a D slot intervening between the P and A slots (PDA, DPDA and CSPDA).

The S and O slots may each occur either preceding or following the P slot. The S slot and, to a lesser extent, the O slot occur with greater frequency preceding than following the P slot. These slots are generally contiguous to the P slot or separated from it by one another, but occasionally a D, T, or M slot may intervene as in the sequences SDP, OTDP, DSMP, etc.

Most commonly the D slot occurs immediately preceding the P slot or separated from it by an S or O slot, or less frequently by a T or M slot. When not occurring in this position it immediately follows the P slot, or there may be two D slots in the clause, as in the sequences DSDP, DSPD and MDPD.

The distribution of the T and M slots is comparable to that of the D slot. They generally precede, but sometimes immediately follow, the P slot. When preceding the P slot they may be separated from it by an S, O, D, T or M slot.
The I and C slots are the most restricted in their distribution. An I slot occurs only clause-initially or preceded by a C slot, while a C slot may occur only in initial position in the clause.

NON-PREDICATE CLAUSES

Non-predicate clauses are of rather infrequent occurrence in the text, comprising only 42 of the 910 clauses. Of these, the most commonly occurring is the prepositional clause, of which there are 30 in the text.

Of the prepositional clauses, seven consist of a D slot only:

D
di? bónisdé ńá
here west side down
*It was down here on the west side.*

Sixteen are composed of a D slot followed by an S slot:

D
áp?didi ńá ńé-na
this way north down river
*It was at the river flowing from the north.*

Four are made up of a D slot preceded by an S slot:

S
higá-ntr ?áʔá-táwi yúké-
giant key there
*The giant's key is there.*

In addition, there is one clause of the type CD and two of the type CDS:

C D S
su di-yú bisá-ri
and here blanket
*And here is a blanket.*

There are ten ?eu clauses in the text. These all contain an S slot either introduced or closed by the particle ?eu. In this context ?eu may be translated as *it was* or *there was*.

S
?eu čásápa
*Satan*

All but one of the ?eu clauses is composed entirely of an S slot. The one exception has a C slot preceding the S slot:

C S
?e su ?e ta ?eu su ?e má-ču ńśká háidí ?eu
thus mule one which
*There was one special mule.*
There are only two interrogative clauses in the text, but such clauses are more common in ordinary conversation than this sampling would indicate. An interrogative clause consists uniformly of an I slot followed by an S slot:

\[
\begin{array}{c|c}
I & S \\
\hline
\text{há-di} & \text{dą-mi} \\
\text{where eagle} & \text{Where is the eagle?}
\end{array}
\]

**INDEPENDENT VERSUS DEPENDENT CLAUSES**

Most clauses are independent clauses and as such may stand alone as full sentences. A dependent clause, on the other hand, never occurs in isolation but is closely linked to a contiguous independent clause. Three types of dependent clauses are identified in the text:

1. Prepositional clauses:
   
   \[\text{dí? bónisde há It was down here on the west side.}\]

2. Clauses introduced by a C slot filled by gu and:
   
   \[\text{gu ?iska ?eu su ča?áubónai?i And he put one of them in (his pocket).}\]

3. Clauses introducing or closing a quotation:
   
   \[\text{dąninča ?eu dą-mi The eagle said.}\]

Clauses introduced by gu differ from those introduced by other connectives in that they presuppose a preceding clause to which they are linked:

\[
\begin{array}{ccccccc}
O & D & P & C & O & D & P \\
\hline
\text{du ?iska} & \text{?eu hé-yá} & \text{ca-ca-dąmi} & \text{gu} & \text{du ?iska} & \text{?eu hé-yá} & \text{tįșá-ti-şé} \\
\text{this one with it} & \text{he breathes} & \text{and this one} & \text{with it} & \text{he has power} & \text{With one he breathes} & \text{and with the other he has power.}\n\end{array}
\]

Clauses introduced by ?ęsgąskų or other connectives, on the other hand, may stand alone as independent clauses:

\[
\begin{array}{cccc}
C & T & P & M \\
\hline
\text{?ęsgąskų} & \text{na} & \text{čąpąš} & \text{kųįmį} \\
\text{but} & \text{yet} & \text{dark} & \text{slightly} \\
\text{But it was still a little dark.}\n\end{array}
\]

**SUPRACLAUSE STRUCTURE**

In this section the clause will be examined within the context of longer stretches of speech. Certain elements will first be described which are not considered to be an integral part of any clause. This will be followed by a consideration of the position of dependent clauses within larger syntactic units.

**FRAGMENT UTTERANCES**

Certain words or short sequences of words occur both in narrative and in conversation which may be spoken in isolation, but which are
meaningless apart from the context in which they are spoken. The fragment may be semantically dependent on the immediate linguistic context or on the non-linguistic context.

Fragment utterances are most commonly exclamations or short answers to questions. They do not occupy a definable slot within a clause or larger unit and are themselves too brief for syntactic analysis. The following are examples of the 103 fragment utterances occurring in the text:

\[
\begin{align*}
\text{ha-} & \quad \text{Yes.} \\
\text{hiñá} & \quad \text{O.K.} \\
\text{he} & \quad \text{What?} \\
?\text{eu he} & \quad \text{Is that so?} \\
\text{ma- na șu} & \quad \text{Let's go!} \\
\text{hawi} & \quad \text{Here!} \\
\text{wó-?é} & \quad \text{Thanks.}
\end{align*}
\]

**COMPLEX SENTENCES**

The narrative text on which this analysis is based consists, for the most part, of a series of independent clauses, each of which is in itself a complete structural unit. Since each independent clause is a complete sentence and is, in general, relatively brief, a Santa Ana narrative appears highly fragmented as compared with English.

There are in the text two types of complex sentences, each composed of an independent clause with one or more dependent clauses. The first type of complex sentence is composed of an independent clause followed by one or more dependent clauses of the type introduced by the connective gu. There are 43 sentences of this type in the text, including the following example:

\[
\begin{align*}
\text{independent clause} & \quad \text{dependent clause} \\
?\text{ai șu }?\text{e }?\text{íska }?\text{á?áučáyuca} & \quad \text{gu }?\text{íska }?\text{eu șu }?\text{á?áuabñai?i} \\
\text{one he broke it} & \quad \text{and one } \text{he put it in}
\end{align*}
\]

Then he broke one and put one in (his pocket).

The second type of complex sentence is composed of an independent clause preceded or followed by one or more prepositional clauses. There are 27 occurrences of this type of sentence in the text, including the following examples:

\[
\begin{align*}
\text{independent clause} & \quad \text{dependent clause} \\
?\text{e șu }?\text{e șu si yúku zúku }?\text{eu sandiyá-ku} & \quad \text{?\text{ai di?áí pákacíu} } \text{there gully} \\
\text{back away he went } \text{St. James} & \quad \text{there gully}
\end{align*}
\]

Then St. James went away again into the gully.
Of the three types of dependent clauses described on page 139, two occur as parts of the complex sentences discussed above. The third type is that which introduces or closes a quotation and is ordinarily translated by such expressions as *he said, he said to him*, etc. The occurrence of these clauses closely parallels the English equivalents in that they may precede or follow the quotation, or they may be omitted entirely.

Quotations are sometimes preceded and followed by dependent quotational clauses:

\[
\begin{array}{ccc}
\text{quotational clause} & \text{fragment} & \text{quotational clause} \\
\text{su } ?e & \text{?a?u } ?u & \text{su } \text{?u } \text{?a?u} \\
\text{he said to him} & \text{he said} & \text{he said} \\
\text{Then the eagle said, } \text{"O.K."}
\end{array}
\]

Constructions such as these are not regarded as complex sentences because dependent quotational clauses may be linked not only to a single fragment or independent clause but, in extended quotations, to a whole series of sentences, some of which may themselves be complex.
### APPENDIX 1. VERB PARADIGMS

**TRANSITIVE VERB PRIMARY PARADIGMS**

#### CLASS A

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRANSITIVE PRIMARY PARADIGMS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CLASS A</strong></td>
<td></td>
</tr>
<tr>
<td>sfúkáica</td>
<td>káukáica</td>
</tr>
<tr>
<td>shú-káica</td>
<td>pú-káica</td>
</tr>
<tr>
<td>gu-káica</td>
<td>píukáica</td>
</tr>
<tr>
<td>zzúkáica</td>
<td>píukáica</td>
</tr>
<tr>
<td>sáukáica</td>
<td>let me hit him</td>
</tr>
<tr>
<td>d'ú-káica</td>
<td>sgú-káica</td>
</tr>
<tr>
<td>gúzú-káica</td>
<td>gu-káica</td>
</tr>
<tr>
<td></td>
<td>nůzú-káica</td>
</tr>
<tr>
<td></td>
<td>zů-káica</td>
</tr>
</tbody>
</table>

#### NEGATIVE

| zázi sgú-káica           | bá-mf- nůukáica          |
| zázi shú-káica           | bá-mf- sgú-káica        |
| zázi gu-káica            | bá-mf- píukáica         |
| zázi zzúkáica            | bá-mf- píukáica         |
|                         | let me not hit him      |
|                         | don't hit him           |
|                         | let him not hit him     |
|                         | not hit him             |

#### DUBITATIVE

| tíukáica                 | ba nůukáica              |
| chú-káica                | ba chú-káica            |
| d'ú-káica                | ba píukáica             |
| důukáica                 | ba píukáica             |
|                         | ba nůukáica              |
|                         | ba chú-káica            |
|                         | ba píukáica             |
|                         | ba nůukáica              |

#### FUTURE HORTATIVE

| tfukáica                 | ba nůukáica              |
|                         | let me hit him (in the future) |
|                         | hit him                  |
|                         | let him hit him          |
|                         | let him (4th person) hit him |

---

**CLASS B**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>sěku</td>
<td>kaku</td>
</tr>
<tr>
<td>sáku</td>
<td>paku</td>
</tr>
<tr>
<td>gáku</td>
<td>peku</td>
</tr>
<tr>
<td>čáku</td>
<td>pékuku</td>
</tr>
<tr>
<td>šáku</td>
<td>šaku</td>
</tr>
<tr>
<td>čáku</td>
<td>káku</td>
</tr>
<tr>
<td>skáku</td>
<td>názáku</td>
</tr>
<tr>
<td>gózáku</td>
<td>záku</td>
</tr>
</tbody>
</table>

---

143
### INDICATIVE

<table>
<thead>
<tr>
<th>Zázi sgákû</th>
<th>I didn't bite him</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zázi šákû</td>
<td>you didn't bite him</td>
</tr>
<tr>
<td>Zázi gákû</td>
<td>he didn't bite him</td>
</tr>
<tr>
<td>Zázi čákû</td>
<td>he (4th person) didn't bite him</td>
</tr>
</tbody>
</table>

### DUBITATIVE

<table>
<thead>
<tr>
<th>Têku</th>
<th>maybe I bit him</th>
</tr>
</thead>
<tbody>
<tr>
<td>Čaku</td>
<td>maybe you bit him</td>
</tr>
<tr>
<td>Drâku</td>
<td>maybe he bit him</td>
</tr>
<tr>
<td>Tâku</td>
<td>maybe he (4th person) bit him</td>
</tr>
<tr>
<td>Čaku</td>
<td>maybe I bit you</td>
</tr>
<tr>
<td>Tôzâku</td>
<td>maybe you bit me</td>
</tr>
<tr>
<td>Drôzâku</td>
<td>maybe he bit me</td>
</tr>
</tbody>
</table>

### HORTATIVE

<table>
<thead>
<tr>
<th>Ká-sí-zúwâ</th>
<th>let me pay him</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pi-zúwâ</td>
<td>pay him</td>
</tr>
<tr>
<td>Pî-zúwâ</td>
<td>let him pay him</td>
</tr>
<tr>
<td>Sâí-zúwâ</td>
<td>let me pay you</td>
</tr>
<tr>
<td>Kuí-zúwâ</td>
<td>pay me</td>
</tr>
<tr>
<td>No-dî-zúwâ</td>
<td>let him pay me</td>
</tr>
<tr>
<td>Di-zúwâ</td>
<td>let him pay you</td>
</tr>
</tbody>
</table>

### CLASS C

| Zázi sfî-zúwâ | I didn't pay him |
| Zázi šî-zúwâ  | you didn't pay him |
| Zázi šî-zúwâ  | he didn't pay him |
| Zázi šáí-zúwâ | I didn't pay you |
| Zázi čúî-zúwâ | you didn't pay me |
| Zázi sêî-zúwâ | he didn't pay me |
| Zázi gôdî-zúwâ | he didn't pay you |

### DUBITATIVE

| Tî-zúwâ     | maybe I paid him |
| Ci-zúwâ     | maybe you paid him |
| Dî-zúwâ     | maybe he paid him |
| Ciúzúwâ     | maybe I paid you |
| Cúîzúwâ     | maybe you paid me |
| Tôdî-zúwâ   | maybe he paid me |
| Drôdî-zúwâ  | maybe he paid you |

### NEGATIVE

| Bâ-mî- nêkû | let me not bite him |
| Bâ-mî- sgákû | don't bite him |
| Bâ-mî- pêkû  | let him not bite him |
| Bâ-mî- pêkû  | let him (4th person) not bite him |

### FUTURE HORTATIVE

<table>
<thead>
<tr>
<th>Bê-û- zúwâ</th>
<th>let me pay him (in the future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bê-û- sfî-zúwâ</td>
<td>don't pay him</td>
</tr>
<tr>
<td>Bê-û- pî-zúwâ</td>
<td>let him pay him</td>
</tr>
<tr>
<td>Bê-û- sáí-zúwâ</td>
<td>let me pay you</td>
</tr>
<tr>
<td>Bê-û- kuí-zúwâ</td>
<td>pay me</td>
</tr>
<tr>
<td>Bê-û- no-dî-zúwâ</td>
<td>let him pay me</td>
</tr>
<tr>
<td>Bê-û- di-zúwâ</td>
<td>let him pay you</td>
</tr>
</tbody>
</table>

### NEGATIVE

| Bê-û- nêkû | let me not bite him |
| Bê-û- sfî-zúwâ | don't bite him |
| Bê-û- pî-zúwâ | let him not bite him |
| Bê-û- sáí-zúwâ | let me not bite you |

### FUTURE HORTATIVE

<table>
<thead>
<tr>
<th>Bê-û- zúwâ</th>
<th>let me pay him (in the future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bê-û- pî-zúwâ</td>
<td>pay him</td>
</tr>
<tr>
<td>Bê-û- sáí-zúwâ</td>
<td>let him pay him</td>
</tr>
<tr>
<td>Bê-û- kuí-zúwâ</td>
<td>pay me</td>
</tr>
<tr>
<td>Bê-û- no-dî-zúwâ</td>
<td>let him pay me</td>
</tr>
<tr>
<td>Bê-û- di-zúwâ</td>
<td>let him pay you</td>
</tr>
</tbody>
</table>
**CLASS D**

### Indicative

<table>
<thead>
<tr>
<th>cludi</th>
<th>I gave it to him</th>
<th>kàudi</th>
<th>let me give it to him</th>
</tr>
</thead>
<tbody>
<tr>
<td>šludi</td>
<td>you gave it to him</td>
<td>pludi</td>
<td>give it to him</td>
</tr>
<tr>
<td>zludi</td>
<td>he gave it to him</td>
<td>pludi</td>
<td>let him give it to him</td>
</tr>
<tr>
<td>šàudi</td>
<td>I gave it to you</td>
<td>šàudi</td>
<td>let me give it to you</td>
</tr>
<tr>
<td>dỳüdi</td>
<td>you gave it to me</td>
<td>gùdi</td>
<td>give it to me</td>
</tr>
<tr>
<td>sgûdi</td>
<td>he gave it to me</td>
<td>nòdludi</td>
<td>let him give it to me</td>
</tr>
<tr>
<td>gòdludi</td>
<td>he gave it to you</td>
<td>dludi</td>
<td>let him give it to you</td>
</tr>
</tbody>
</table>

### Negative

<table>
<thead>
<tr>
<th>zázi sùldi?</th>
<th>I didn't give it to him</th>
<th>bà?mí- šludi</th>
<th>let me not give it to him</th>
</tr>
</thead>
<tbody>
<tr>
<td>zázi šludi?</td>
<td>you didn't give it to</td>
<td>bà?mí- sùldi</td>
<td>don't give it to him</td>
</tr>
<tr>
<td>zázi šludi?</td>
<td>didn't give it to him</td>
<td>bà?mí- šludi</td>
<td>let him not give it to</td>
</tr>
<tr>
<td>zázi šàudi?</td>
<td>I didn't give it to you</td>
<td>bà?mí- šàudi</td>
<td>don't give it to you</td>
</tr>
<tr>
<td>zázi d̀ùdi?</td>
<td>you didn't give it to</td>
<td>bà?mí- gùdi</td>
<td>give it to me</td>
</tr>
<tr>
<td>zázi sùldi?</td>
<td>didn't give it to me</td>
<td>bà?mí- nòdludi</td>
<td>let him not give it to</td>
</tr>
<tr>
<td>zázi gòdludi?</td>
<td>didn't give it to you</td>
<td>bà?mí- sùdi</td>
<td>let him not give it to</td>
</tr>
</tbody>
</table>

### Dubitative

<table>
<thead>
<tr>
<th>cludi</th>
<th>maybe I gave it to him</th>
<th>ba šludi</th>
<th>let me give it to him (in the future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dludi</td>
<td>maybe he gave it to him</td>
<td>ba pludi</td>
<td>give it to him</td>
</tr>
<tr>
<td>çàudi</td>
<td>maybe I gave it to you</td>
<td>ba çàudi</td>
<td>let him give it to him</td>
</tr>
<tr>
<td>d̀ùdi</td>
<td>maybe you gave it to</td>
<td>ba d̀ùdi</td>
<td>give it to you</td>
</tr>
<tr>
<td>tódludi</td>
<td>maybe he gave it to me</td>
<td>ba nòdludi</td>
<td>let him give it to me</td>
</tr>
<tr>
<td>d̀ìdludi</td>
<td>maybe he gave it to you</td>
<td>ba d̀ìdludi</td>
<td>let him give it to you</td>
</tr>
</tbody>
</table>

### Future Hortative

<table>
<thead>
<tr>
<th>ba šludi</th>
<th>let me give it to him (in the future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ba pludi</td>
<td>give it to him</td>
</tr>
<tr>
<td>ba çàudi</td>
<td>let him give it to him</td>
</tr>
<tr>
<td>ba d̀ùdi</td>
<td>give it to me</td>
</tr>
<tr>
<td>ba nòdludi</td>
<td>let him give it to me</td>
</tr>
<tr>
<td>ba d̀ìdludi</td>
<td>let him give it to you</td>
</tr>
</tbody>
</table>

### Transitive Verb Secondary Paradigms

#### Reflexive

<table>
<thead>
<tr>
<th>šãku</th>
<th>I bit myself</th>
<th>kà?ãku</th>
<th>let me bite myself</th>
</tr>
</thead>
<tbody>
<tr>
<td>šãku</td>
<td>you bit yourself</td>
<td>çàku</td>
<td>bite yourself</td>
</tr>
<tr>
<td>kà?ãku</td>
<td>he bit himself</td>
<td>pà?ãku</td>
<td>let him bite himself</td>
</tr>
</tbody>
</table>

#### Negative

<table>
<thead>
<tr>
<th>zázi šãku?</th>
<th>I didn't bite myself</th>
<th>bà?mí- šãku</th>
<th>let me not bite myself</th>
</tr>
</thead>
<tbody>
<tr>
<td>zázi šãku?</td>
<td>you didn't bite your-</td>
<td>bà?mí- šãku?</td>
<td>don't bite yourself</td>
</tr>
<tr>
<td>zázi kã?ãku</td>
<td>he didn't bite him-</td>
<td>bà?mí- pà?ãku</td>
<td>let him not bite him-</td>
</tr>
</tbody>
</table>

### Dubitative

<table>
<thead>
<tr>
<th>tã?ãku</th>
<th>maybe I bit myself</th>
<th>ba šãku</th>
<th>let me bite myself (in the future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>çã?ãku</td>
<td>maybe you bit yourself</td>
<td>ba çã?ãku</td>
<td>bite yourself</td>
</tr>
<tr>
<td>çã?ãku</td>
<td>maybe he bit himself</td>
<td>ba pã?ãku</td>
<td>let him bite himself</td>
</tr>
</tbody>
</table>
BUREAU OF AMERICAN ETHNOLOGY

PASSIVE

INDICATIVE

ská?àguñe I was bitten
sá?àguñe you were bitten
cá?àguñe he was bitten

NEGATIVE

zázi sá?àguñe I wasn't bitten
zázi sá?àguñe you weren't bitten
zázi cá?àguñe he wasn't bitten

DUBITATIVE

té?àguñe maybe I was bitten
cá?àguñe maybe you were bitten
tá?àguñe maybe he was bitten

HORTATIVE

né?àguñe let me be bitten
zá?àguñe be bitten
pé?àguñe let him be bitten

NEGATIVE HORTATIVE

bá-mí- né?àguñe let me not be bitten
bá-mí- sá?àguñe don't be bitten
bá-mí- pé?àguñe let him not be bitten

FUTURE HORTATIVE

ba né?àguñe let me be bitten (in the future)
ba cá?àguñe be bitten
ba pé?àguñe let him be bitten

INTRANSITIVE VERB PARADIGMS

CLASS 1-1

INDICATIVE

sfuyá I skinned it
súyá you skinned it
gúyá he skinned it

NEGATIVE

zázi sgúyá I didn't skin it
zázi súyá you didn't skin it
zázi gúyá he didn't skin it

DUBITATIVE

tuuyá maybe I skinned it
cúyá maybe you skinned it
dpúyá maybe he skinned it

HORTATIVE

káuyá let me skin it
púyá skin it
pi'yúyá let him skin it

NEGATIVE HORTATIVE

bá-mí- káuyá let me not skin it
bá-mí- sgúyá don't skin it
bá-mí- pi'yúyá let him not skin it

FUTURE HORTATIVE

ba sfuyá let me skin it (in the future)
ba cúyá skin it
ba pi'yúyá let him skin it

CLASS 1-3

Class 1–3 verbs are inflected like those of Class 1–1 except that allomorph 114H occurs in the second person hortative:

?áska drink it

CLASS 1-16

INDICATIVE

šiku I am located
šáku you are located
gáku he is located

NEGATIVE

zázi sgáku I am not located
zázi šáku you are not located
zázi gáku he is not located

HORTATIVE

káku let me be located
záku be located
pi?lkü let him be located

NEGATIVE HORTATIVE

bá-mí- káku let me not be located
bá-mí- sgáku don't be located
bá-mí- pi?lkü let him not be located
DUBITATIVE

\begin{align*}
t'ii'iku & \text{ maybe I am located} \\
ca'ku & \text{ maybe you are located} \\
d'\text{\textoverline{a}ku} & \text{ maybe he is located}
\end{align*}

FUTURE HORTATIVE

\begin{align*}
\text{ba } \text{i'iku} & \text{ let me be located (in the future)} \\
\text{ba } ca'ku & \text{ be located} \\
\text{ba } d'\text{\textoverline{a}ku} & \text{ let him be located}
\end{align*}

CLASS 1–17

\begin{align*}
\textsc{indicative} & \text{ } \\
\text{\textoverline{si}uy\textoverline{a}-\textoverline{ne}} & \text{ we skinned it} \\
\text{\textoverline{su}uy\textoverline{a}-\textoverline{ne}} & \text{ you all skinned it} \\
\text{\textoverline{gu}uy\textoverline{a}-\textoverline{ne}} & \text{ they skinned it} \\
\textsc{negative} & \text{ } \\
\text{za'zi } \text{\textoverline{s}g\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ we didn't skin it} \\
\text{za'zi } \text{\textoverline{g}\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ you all didn't skin it} \\
\text{za'zi } \text{\textoverline{g}\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ they didn't skin it} \\
\end{align*}

DUBITATIVE

\begin{align*}
\text{t\textoverline{i}'uy\textoverline{a}-\textoverline{ne}} & \text{ maybe we skinned it} \\
\text{cu'uy\textoverline{a}-\textoverline{ne}} & \text{ maybe you all skinned it} \\
d'\text{\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ maybe they skinned it}
\end{align*}

HORTATIVE

\begin{align*}
\text{\textoverline{n}\textoverline{u}uy\textoverline{a}-\textoverline{ne}} & \text{ let us skin it} \\
\text{\textoverline{p}\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ skin it (you all)} \\
\text{\textoverline{p}i'\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ let them skin it}
\end{align*}

NEGATIVE HORTATIVE

\begin{align*}
\text{ba } \text{mi'-n\textoverline{u}uy\textoverline{a}-\textoverline{ne}} & \text{ let us not skin it} \\
\text{ba } \text{mi'-s\textoverline{g}uy\textoverline{a}-\textoverline{ne}} & \text{ don't skin it (you all)} \\
\text{ba } \text{mi'-pi'\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ let them not skin it}
\end{align*}

FUTURE HORTATIVE

\begin{align*}
\text{ba } \text{i'iku } & \text{ let us skin it (in the future)} \\
\text{ba } \text{cu'yu-\textoverline{ne}} & \text{ skin it (you all)} \\
\text{ba pi'\textoverline{u}y\textoverline{a}-\textoverline{ne}} & \text{ let them skin it}
\end{align*}

CLASS 1–18

Class 1–18 verbs are inflected like those of Class 1–17 except that allomorphs 104Q and 105Q occur in the first person hortative and negative hortative:

\begin{align*}
\text{\textoverline{s}t\textoverline{i}uy\textoverline{a}-\textoverline{na}} & \text{ let us two skin it}
\end{align*}

CLASS 2–23

\begin{align*}
\textsc{indicative} & \text{ } \\
\text{\textoverline{s}\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ we ate} \\
\text{\textoverline{g}\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ you all ate} \\
\text{\textoverline{g}\textoverline{a}\text{-\textoverline{ape}}} & \text{ they ate} \\
\textsc{negative} & \text{ } \\
\text{za'zi } \text{\textoverline{s}g\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ we didn't eat} \\
\text{za'zi } \text{\textoverline{g}\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ you all didn't eat} \\
\text{za'zi } \text{\textoverline{g}\textoverline{a}\text{-\textoverline{ape}}} & \text{ they didn't eat} \\
\textsc{dubitative} & \text{ } \\
\text{t\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ maybe we ate} \\
\text{d'\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ maybe you all ate} \\
\text{d'\textoverline{a}\text{-\textoverline{ape}}} & \text{ maybe they ate}
\end{align*}

HORTATIVE

\begin{align*}
\text{\textoverline{n}\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ let us eat} \\
\text{\textoverline{z}a}\text{-\textoverline{ape}} & \text{ eat (you all)} \\
\text{\textoverline{p}\textoverline{a}\text{-\textoverline{ape}}} & \text{ let them eat}
\end{align*}

NEGATIVE HORTATIVE

\begin{align*}
\text{ba } \text{mi'-n\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ let us not eat} \\
\text{ba } \text{mi'-s\textoverline{g}o\textoverline{z}a}\text{-\textoverline{ape}} & \text{ don't eat (you all)} \\
\text{ba } \text{mi'-p\textoverline{a}\text{-\textoverline{ape}}} & \text{ let them not eat}
\end{align*}

DUBITATIVE

\begin{align*}
\text{ba } \text{\textoverline{t}\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ let us eat (in the future)} \\
\text{ba } \text{d'\textoverline{o}\textoverline{z}a}\text{-\textoverline{ape}} & \text{ eat (you all)} \\
\text{ba } \text{d'\textoverline{a}\text{-\textoverline{ape}}} & \text{ let them eat}
\end{align*}

CLASS 2–24

Class 2–24 verbs are inflected like those of Class 2–23 except that allomorphs 104M and 105M occur in the first person hortative and negative hortative:

\begin{align*}
\text{\textoverline{b}\textoverline{a}\text{-\textoverline{a}be}} & \text{ let us two eat}
\end{align*}
### CLASS 3–27

#### INDICATIVE
- **sgúwa-sa** *I am sick*
- **gúzúwa-sa** *you are sick*
- **ziwa-sa** *he is sick*

#### NEGATIVE
- **zázi sdýwa-sa?** *I am not sick*
- **zázi gúzúwa-sa?** *you are not sick*
- **zázi ziwa-sa?** *he is not sick*

#### DUBITATIVE
- **túzúwa-sa** *maybe I am sick*
- **dʰúzúwa-sa** *maybe you are sick*
- **diwa-sa** *maybe he is sick*

#### HORTATIVE
- **núzúwa-sa** *let me be sick*
- **žúwa-sa** *be sick*
- **piwa-sa** *let him be sick*

#### NEGATIVE HORTATIVE
- **bá-mí- núzúwa-sa** *let me not be sick*
- **bá-mí- sdýwa-sa** *don’t be sick*
- **bá-mí- piwa-sa** *let him not be sick*

#### FUTURE HORTATIVE
- **ba núzúwa-sa** *let me be sick (in the future)*
- **ba dʰúzúwa-sa** *be sick*
- **ba piwa-sa** *let him be sick*

### CLASS 4–3

#### INDICATIVE
- **šíukai** *I am satisfied*
- **šůkái** *you are satisfied*
- **kůkái** *he is satisfied*

#### NEGATIVE
- **zázi skúkái** *I am not satisfied*
- **zázi šúkái** *you are not satisfied*
- **zázi kúkái** *he is not satisfied*

#### DUBITATIVE
- **tiukai** *maybe I am satisfied*
- **cušúkái** *maybe you are satisfied*
- **čúkái** *maybe he is satisfied*

#### HORTATIVE
- **káušúkái** *let me be satisfied*
- **rãošúkái** *be satisfied*
- **plůkái** *let him be satisfied*

#### NEGATIVE HORTATIVE
- **bá-mí- káušúkái** *let me not be satisfied*
- **bá-mí- šúkái** *don’t be satisfied*
- **bá-mí- plůkái** *let him not be satisfied*

#### FUTURE HORTATIVE
- **ba nišúkái** *let me be satisfied (in the future)*
- **ba čúkái** *be satisfied*
- **ba plůkái** *let him be satisfied*

### CLASS 4–5

#### INDICATIVE
- **šiždéca** *I ran*
- **šiždéca** *you ran*
- **kždéca** *he ran*

#### NEGATIVE
- **zázi skždéca** *I didn’t run*
- **zázi sždéca** *you didn’t run*
- **zázi kždéca** *he didn’t run*

#### DUBITATIVE
- **tždéca** *maybe I ran*
- **cždéca** *maybe you ran*
- **čždéca** *maybe he ran*

#### HORTATIVE
- **kždéca** *let me run*
- **tždéca** *run*
- **pždéca** *let him run*

#### NEGATIVE HORTATIVE
- **bá-mí- kždéca** *let me not run*
- **bá-mí- sždéca** *don’t run*
- **bá-mí- pždéca** *let him not run*

#### FUTURE HORTATIVE
- **ba nždéca** *let me run (in the future)*
- **ba cždéca** *run*
- **ba pždéca** *let him run*
CLASS 5-2

**INDICATIVE**

- siwá-teya I worshiped
- šúwá-teya you worshiped
- kúwá-teya he worshiped

**NEGATIVE**

- zázi skúwá-teya I didn't worship
- zázi šúwá-teya you didn't worship
- zázi kúwá-teya he didn't worship

**DUBITATIVE**

- tiwá-teya maybe I worshiped
- čúwá-teya maybe you worshiped
- čúwá-teya maybe he worshiped

**HORTATIVE**

- kúwá-teya let me worship
- čúwá-teya worship
- púwá-teya let him worship

**NEGATIVE HORTATIVE**

- bá-mú- kúwá-teya let me not worship
- bá-mú- skúwá-teya don't worship
- bá-mú- púwá-teya let him not worship

**FUTURE HORTATIVE**

- ba niwá-teya let me worship (in the future)
- ba čúwá-teya worship
- ba púwá-teya let him worship

CLASS 5-8

**INDICATIVE**

- šúpe I ate
- šúpe you ate
- kúpe he ate

**NEGATIVE**

- zázi skúpe I didn't eat
- zázi šúpe you didn't eat
- zázi kúpe he didn't eat

**DUBITATIVE**

- tüpe maybe I ate
- čúpe maybe you ate
- džúpe maybe he ate

**HORTATIVE**

- kúpe let me eat
- čúpe eat
- púpe let him eat

**NEGATIVE HORTATIVE**

- bá-mú- kúpe let me not eat
- bá-mú- skúpe don't eat
- bá-mú- púpe let him not eat

**FUTURE HORTATIVE**

- ba niupe let me eat (in the future)
- ba čúpe eat
- ba púpe let him eat

CLASS 5-9

Class 5-9 is inflected like Class 5-8 except that allomorphs 104G and 105G occur in the first person hortative and negative hortative:

nuwáta-nizañe let us work

CLASS 5-10

Class 5-10 differs from Classes 5-8 and 5-9 in that it takes allomorphs 104M and 105M in the first person hortative and negative hortative:

štúta-nizaña let us two work
INDICATIVE

sê-ni I walked
šâ-ni you walked
kâ-ni he walked

HORTATIVE

kâ-ni let me walk
?â-ni walk
pê-ni let him walk

NEGATIVE

zázi skâ-ni I didn’t walk
zázi šâ-ni you didn’t walk
zázi kâ-ni he didn’t walk

NEGATIVE HORTATIVE

bâ-mî- kâ-ni let me not walk
bâ-mî- skâ-ni don’t walk
bâ-mî- pê-ni let him not walk

DUBITATIVE

tê-ni maybe I walked
čâ-ni maybe you walked
čá-ni maybe he walked

FUTURE HORTATIVE

ba nê-ni let me walk (in the future)
ba čâ-ni walk
ba pê-ni let him walk

INDICATIVE

sâza I said
gôçâza you said
kâza he said

HORTATIVE

kâza let me say
záza say
pâza let him say

NEGATIVE

zázi skâaza I didn’t say
zázi gôçâza you didn’t say
zázi kâaza he didn’t say

NEGATIVE HORTATIVE

bâ-mî- kâaza let me not say
bâ-mî- skâaza don’t say
bâ-mî- pâaza let him not say

DUBITATIVE

táza maybe I said
drôçâza maybe you said
čáza maybe he said

FUTURE HORTATIVE

ba nâza let me say (in the future)
ba drôçâza say
ba pâza let him say

INDICATIVE

ša it is mine
gâzâ it is yours
ka it is his
šâ you are mine

HORTATIVE

ša let it be mine
gâzâ let it be yours
ka let it be his
šâ be mine

NEGATIVE

zázi skâ it isn’t mine
zázi gôzâ it isn’t yours
zázi ka it isn’t his
zázi šâ you aren’t mine

NEGATIVE HORTATIVE

bâ-mî- šâ let it not be mine
bâ-mî- skâ let it not be yours
bâ-mî- šâ let it not be his
bâ-mî- šâ don’t be mine

DUBITATIVE

tâ maybe it is mine
drôgâ maybe it is yours
dâ maybe it is his
dâ maybe you are mine

FUTURE HORTATIVE

ba šâ let it be mine (in the future)
ba drôgâ let it be yours
ba pâ let it be his
ba šâ be mine
**LANGUAGE OF SANTA ANA PUEBLO—DAVIS**

**CLASS 8–14**

<table>
<thead>
<tr>
<th><strong>INDICATIVE</strong></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>síud'asi</td>
<td>kú?uíd'asi</td>
</tr>
<tr>
<td>gúgd'asi</td>
<td>zúd'asi</td>
</tr>
<tr>
<td>gáud'asi</td>
<td>páud'asi</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>zázi sgáud'asi</td>
<td>bá-mí- kú?uíd'asi</td>
</tr>
<tr>
<td>zázi gúgd'asi</td>
<td>bá-mí- sgáud'asi</td>
</tr>
<tr>
<td>zázi gáud'asi</td>
<td>bá-mí- páud'asi</td>
</tr>
</tbody>
</table>

**DUBITATIVE**

<table>
<thead>
<tr>
<th></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>tó?uíd'asi</td>
<td>ba núd'asi</td>
</tr>
<tr>
<td>d'préúd'asi</td>
<td>ba d'préúd'asi</td>
</tr>
<tr>
<td>d'áud'asi</td>
<td>ba páud'asi</td>
</tr>
</tbody>
</table>

**CLASS 9–11**

<table>
<thead>
<tr>
<th><strong>INDICATIVE</strong></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>šáudi</td>
<td>ká?áudi</td>
</tr>
<tr>
<td>šáudi</td>
<td>cháudi</td>
</tr>
<tr>
<td>ká?áudi</td>
<td>pá?áudi</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>zázi ská?áudi</td>
<td>bá-mí- ká?áudi</td>
</tr>
<tr>
<td>zázi šáudi</td>
<td>bá-mí- ská?áudi</td>
</tr>
<tr>
<td>zázi ká?áudi</td>
<td>bá-mí- pá?áudi</td>
</tr>
</tbody>
</table>

**DUBITATIVE**

<table>
<thead>
<tr>
<th></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>tá?áudi</td>
<td>ba šáudi</td>
</tr>
<tr>
<td>ča?áudi</td>
<td>ba ča?áudi</td>
</tr>
<tr>
<td>ča?áudi</td>
<td>ba pá?áudi</td>
</tr>
</tbody>
</table>

**CLASS 9–12**

Class 9–12 verbs differ from those of Class 9–11 in that allomorphs 104N and 105N occur in the first person hortative and negative hortative:

šáudiñá let us two plant

**CLASS 10–6**

<table>
<thead>
<tr>
<th><strong>INDICATIVE</strong></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>sí-ba?tu</td>
<td>káiba?tu</td>
</tr>
<tr>
<td>ši-ba?tu</td>
<td>í-ba?tu</td>
</tr>
<tr>
<td>zi-ba?tu</td>
<td>pí?i-ba?tu</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th></th>
<th><strong>HORTATIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>zázi sdí-ba?tu</td>
<td>bá-mí- káiba?tu</td>
</tr>
<tr>
<td>zázi ši-ba?tu</td>
<td>bá-mí- sdí-ba?tu</td>
</tr>
<tr>
<td>zázi zi-ba?tu</td>
<td>bá-mí- pí?i-ba?tu</td>
</tr>
</tbody>
</table>

682–611—64—14
DUBITATIVE

tí-ba?tu  maybe I slept
ce-ba?tu  maybe you slept
dí-ba?tu  maybe he slept

FUTURE HORTATIVE

ba ni-ba?tu  let me sleep (in the future)
ba ce-ba?tu  sleep
ba pfí-ba?tu  let him sleep

CLASS 10-7

INDICATIVE

ôkupawa  I chopped
šikupawa  you chopped
zikupawa  he chopped

HORTATIVE

kákupawa  let me chop
pikepawa  chop
pikepawa  let him chop

NEGATIVE

zázi sôôkupawa  I didn't chop
zázi šikupawa  you didn't chop
zázi zikupawa  he didn't chop

NEGATIVE HORTATIVE

bá-mí- kákupawa  let me not chop
bá-mí- sôôšikupawa  don't chop
bá-mí- pikepawa  let him not chop

DUBITATIVE

îkupawa  maybe I chopped
cêkupawa  maybe you chopped
dêkupawa  maybe he chopped

FUTURE HORTATIVE

ba ūkupawa  let me chop (in the future)
ba cêkupawa  chop
ba pêkupawa  let him chop

CLASS 10-21

INDICATIVE

šikupawanê  we chopped
šikupawanê  you all chopped
zikupawanê  they chopped

HORTATIVE

nikupawanê  let us chop
pikepawanê  chop (you all)
pikepawanê  let them chop

NEGATIVE

zázi sôôšikupawanê  we didn't chop
zázi šikupawanê  you all didn't chop
zázi zikupawanê  they didn't chop

NEGATIVE HORTATIVE

bá-mí- nikupawanê  let us not chop
bá-mí- sôôšikupawanê  don't chop (you all)
bá-mí- pikepawanê  let them not chop

DUBITATIVE

tikupawanê  maybe we chopped
cêkupawanê  maybe you all chopped
dêkupawanê  maybe he chopped

FUTURE HORTATIVE

ba nikupawanê  let us chop (in the future)
ba cêkupawanê  chop (you all)
ba pêkupawanê  let them chop

CLASS 10-22

Class 10–22 verbs are inflected like those of Class 10–21 except that allomorphs 104P and 105P occur in the first person hortative and negative hortative:

stikupawanê  let us two chop
**CLASS 11-25**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>sōdēku we went</td>
<td>nōdēku let us go</td>
</tr>
<tr>
<td>gōdēku you all went</td>
<td>dēku go (you all)</td>
</tr>
<tr>
<td>zēkU they went</td>
<td>pēkU let them go</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>zāzi sōdēku we didn't go</td>
<td>bā-mī- nōdēku let us not go</td>
</tr>
<tr>
<td>zāzi gōdēku you all didn't go</td>
<td>bā-mī- sōdēku don't go (you all)</td>
</tr>
<tr>
<td>zāzi zēkU they didn't go</td>
<td>bā-mī- pēkU let them not go</td>
</tr>
</tbody>
</table>

**DUBITATIVE**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>tōdēku maybe we went</td>
<td>ba nōdēku let us go</td>
</tr>
<tr>
<td>d'ōdēku maybe you all went</td>
<td>ba dōdēku go (you all)</td>
</tr>
<tr>
<td>dēku maybe they went</td>
<td>ba pēkU let them go</td>
</tr>
</tbody>
</table>

**CLASS 11-26**

Class 11-26 verbs differ from those of Class 11-25 in that they occur with allomorphs 104O and 105O in the first person hortative and negative hortative:

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ste'al'yu let us two go</td>
<td></td>
</tr>
</tbody>
</table>

**CLASS 12-27**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>sō-gā-naważI I am mean</td>
<td>nō-gā-naważI let me be mean</td>
</tr>
<tr>
<td>gōzā-naważI you are mean</td>
<td>zū-naważI be mean</td>
</tr>
<tr>
<td>čā-naważI he is mean</td>
<td>pē-naważI let him be mean</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>zāzi sō-gā-naważI I am not mean</td>
<td>bā-mī- nō-gā-naważI let me not be mean</td>
</tr>
<tr>
<td>zāzi gōzā-naważI you are not mean</td>
<td>bā-mī- sō-gā-naważI don't be mean</td>
</tr>
<tr>
<td>zāzi čā-naważI he is not mean</td>
<td>bā-mī- pē-naważI let him not be mean</td>
</tr>
</tbody>
</table>

**DUBITATIVE**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>tōzā-naważI maybe I am mean</td>
<td>ba nō-gā-naważI let me be mean (in the future)</td>
</tr>
<tr>
<td>d'ōzā-naważI maybe you are mean</td>
<td>ba dōzā-naważI be mean</td>
</tr>
<tr>
<td>tā-naważI maybe he is mean</td>
<td>ba pē-naważI let him be mean</td>
</tr>
</tbody>
</table>

**CLASS 13-28**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>skūikai I lay down</td>
<td>nōdikai let me lie down</td>
</tr>
<tr>
<td>gōdikai you lay down</td>
<td>dikai lie down</td>
</tr>
<tr>
<td>čikai he lay down</td>
<td>pīkai let him lie down</td>
</tr>
</tbody>
</table>

**NEGATIVE**

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>HORTATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>zāzi sōlkai I didn't lie down</td>
<td>bā-mī- nōdikai let me not lie down</td>
</tr>
<tr>
<td>zāzi gōdikai you didn't lie down</td>
<td>bā-mī- sōlkai don't lie down</td>
</tr>
<tr>
<td>zāzi čikai he didn't lie down</td>
<td>bā-mī- pīkai let him not lie down</td>
</tr>
</tbody>
</table>
DUBITATIVE

tó dikai    maybe I lay down

dó dikai    maybe you lay down

tikai      maybe he lay down

FUTURE HORTATIVE

ba nó dikai let me lie down (in the future)

ba dó dikai lie down

ba pikai   let him lie down

CLASS 14-4

INDICATIVE

ši-ça    I did it

ši-ça    you did it

cí-ça    he did it

HORTATIVE

káiça    let me do it

pl-ça    do it

pl?t-ça let him do it

NEGATIVE HORTATIVE

bá-mí- káiça let me not do it

bá-mí- sči-ça don’t do it

bá-mí- pl?t-ça let him not do it

NEGATIVE

zázi sči-ça I didn’t do it

zázi ši-ça you didn’t do it

zázi cí-ça he didn’t do it

DUBITATIVE

ti-ça    maybe I did it

cí-ça    maybe you did it

ti-ça    maybe he did it

FUTURE HORTATIVE

ba ni-ça let me do it (in the future)

ba cí-ça do it

ba pl?t-ça let him do it

CLASS 14-19

INDICATIVE

ši-ža-ňe we did it

ši-ža-ňe you all did it

cí-ža-ňe they did it

HORTATIVE

ňi-ža-ňe let us do it

pl-ža-ňe do it (you all)

pl?l-ža-ňe let them do it

NEGATIVE HORTATIVE

bá-mí- ňi-ža-ňe let us not do it

bá-mí- sči-ža-ňe don’t do it (you all)

bá-mí- pl?l-ža-ňe let them not do it

NEGATIVE

zázi sči-ža-ňe we didn’t do it

zázi ši-ža-ňe you all didn’t do it

zázi cí-ža-ňe they didn’t do it

DUBITATIVE

ti?l-ža-ňe maybe we did it

cí-ža-ňe maybe you all did it

ti-ža-ňe maybe they did it

FUTURE HORTATIVE

ba ňi-ža-ňe let us do it (in the future)

ba cí-ža-ňe do it (you all)

ba pl?l-ža-ňe let them do it

CLASS 14-20

Class 14–20 verbs differ from those of Class 14–19 in that they take allomorphs 104Q and 105Q in the first person hortative and negative hortative:

št-ža-ňa let us two do it
APPENDIX 2. TEXT 7

\[ \begin{array}{cccccc}
D & P & S & D \\
\text{di'á?i} & \text{dá?á?i} & \text{sandiyá-ku} & ?\text{ai }?\text{e }?\text{e há-di} \\
\text{there } & \text{he arrived } & \text{St. James } & \text{where} \\
\hline
S & I & P & C \\
\text{čí-má} & \text{zázi} & \text{dýúmá} & ?\text{e }?\text{a} \\
\text{river } & \text{it is full } & \text{not able to } & \text{he crosses } & \text{thus} \\
\hline
P & D & O \\
\text{su čuídá-} & \text{dúké-} & \text{UŠâyE} \\
\text{he was asking } & \text{that way up } & \text{Our Father} \\
\hline
P & I & D & O \\
\text{čuídá-} & \text{gúwa} & \text{dúké-} & \text{gá-tá-má} \\
\text{he was asking } & \text{how at least } & \text{that way } & \text{south water } & \text{it is full} \\
\hline
P & A & D & O \\
\text{númá} & \text{gúne} & \text{?e su }?\text{e yúsí} & \text{?e} \\
\text{will cross } & \text{he } & \text{from there down } & \text{eagle} \\
\hline
P & I & D & P \\
\text{?e su }?\text{e yúsí} & \text{tágúyané} & \text{?e hau} & \text{diuwáči} \\
\text{from there down he was sent } & \text{near } & \text{he approached} \\
\hline
P & I & A & P & S \\
\text{?e su }?\text{e dáci} & \text{yu} & \text{?e hé-mé} & \text{?e} & \text{súzú-} \\
\text{he said to him } & \text{what which } & \text{yes } & \text{he said } & \text{eagle} \\
\text{maybe will be of use } & \text{you } & \text{all right } & \text{he said } & \text{eagle} \\
\hline
I & P & A & D & A & D \\
\text{yu} & \text{núdýá-wa} & \text{cul} & \text{?e} & \text{há-di} \\
\text{he said to him } & \text{maybe will be of use } & \text{you } & \text{all right } & \text{he said } & \text{where} \\
\text{O.K. then } & \text{will go } & \text{there south we } & \text{two } & \text{we two } & \text{two king} \\
\hline
S & P & A & S \\
\text{hió-ntí} & \text{dýá-má} & \text{?e }?\text{ai hau} & \text{Súzú-} & \text{gasí-ki} \\
\text{giant his home } & \text{near } & \text{will go } & \text{we two } & \text{king} \\
\hline
O & P & A & S \\
\text{káukui} & \text{?e iu} & \text{Súzú-} & \text{Súzú-} \\
\text{his wife } & \text{he lost } & \text{will look for } & \text{we her} \\
\end{array} \]

7 Superior numbers in Indian text are explained on pages 163-164.
he arrived

they fought

St. James

knife

he had

?eu ū eu hē-yā-ši ū eu du higā-ntri ĺādʔā-še-ši dīdʔāwa/dīʔāi

with it

this giant

his (eagle)

he stabbed

there

?e ū eu čāʔāudaper-ʔanu / ū eu yūwē. ūo ū eu dʔū-ʔa-čā ū eu du

they killed him

this way down

he fell this

higā-ntri dʔā-mī ĺādʔā-še / ū eu ?āisi ū eu du dēʔēyu / ū eu ūu

giant eagle

there

they went

hā-di ūa yūwē. ū eu nādēʔēyu ū eu ai hā-di higā-ntri dʔā-ma

where down this way

will go

where giant

dwells

sčāʔā-sti-ča / ūisi dʔā-ma / ū eu ai bendā-na dʔāwizahānū / ū eu

city there

dwells

window he was there

?āisi dʔi dʔā-mi ū eu čūgūya / ū eu ū eu sandiyā-ku ċēci ū ū yūku

there up eagle he sat

St. James also away

ūa čūgūyanū. / ū eu ?āisi dʔi čūgūya / ū eu ū eu du sandiyā-ku

down he sat

there up he sat

this St. James

dʔā-mī hāwē. ḫyū-zē-yāne ūe dācikuyā / dīsī ba čūyū-κami/
eagle this way

he lead

he said to him here

future

wait for me

hā-ūo dūkē. kāigā / ū eu hiṅā dʔēiṅēʔa ū eu dʔā-mī /

let me there look

O.K. he said

eagle

-su ūe yūkē. ūe hāwē. ūa dīgā-nikuyā ūe sandiyā-ku / yūkē-

that way

this way

around he looked

St. James that way

hāwē. dīgā-nikuyā / hāwē. bendā-na ūa ūe čiṅēsā / ū eu zāzi

this way he looked

this way window

around down

he peered

not

?ite dʔūbānū. / ūgōskū ū eu saí dāʔāʔa. ūa čiṅāsēči-ča-ši / ū eu

able to be entered

but

all it is shut

thing iron with

?u ū e ū e ū eu ai hā-di / han? dāʔāci ū eu ai hā-dī čāukui-šanu

thus

where

near

he came

where his wife

gasī-ki ū ai dʔākū / ū e ūe dʔā-še ūe ū e dišāca / ū e ū e

king she was

her name

he called
čáskó-’aćai ęu gasí-ki čáukui-šanu / he d’ěiñeša / šu ṣe ṭey ęu
she turned king his wife what she said
šájięiba-še hisu / gáža-žó ęu skúyanikuyá dúwé. si ṭúdí-ye /
I look for you you your husband he told me this way back to get
šu ṣe ṭey d’ěiñeša / ęu he / ṭegu gúwa- sa níumá si / higá-ntí
she said all right then how back will I giant
get out
key that way there where it is only he has
zázi hinu ská?-teya / gúwa- ṭegu sa núzú-má / šu ṣe ęu gasí-ki
not I I have how then back will get out
king čáukui-šanu ṭe čáza / dúwái dúsi né?ééi gu kü’mí háeu màgu/
his wife she said this way will come he in a little while
háýeí ba há-di čuísmgúmaša / dúsi zá?ácinu- / ṭe šu há-wíná náud’u
somewhere there future hide back he arrives right away will know
wu / šu ṭe hiná d’ěiñeša / šu ṭe ęu si yúku zùd’u šu yú’ái há-di
he O.K. he said back away he went there somewhere
čuísmgúmaša / šu ṭe šu dúwé- šu si čáničad’ýayá / ṭésɡeskú ńo kášanu-
he hid this way back he was coming but down he stepped
šu ṭe šu há’áci- wákωwák-ad’á/šu ṭemí šu čá?áud’u/mmm d’ěiñeša/
earth it shook already he knew he said
hau di? zi gáku / d’ěiñeša ęu higá-ntí / šu ṭe ęu gasí-ki
who here thing he is he said giant king
čáukui-šanu ṭe čáza / zázi há-di hau gáku gu zázi há-di hau
his wife she said not somewhere who he is and not somewhere who
ská?átušaniguyaná-dí / šu ṭe ęu gasí-ki čáukui-šanu higá-ntí
we talk to each other king his wife giant
ʔe dácikuyá / mí-ná šásbanaśuśmanu- / yu- d’idíčáyuma/
she said to him let me I wash your head maybe you are tired
mí-ná šásbanaśuśmanu- / šu ęyú- mé’é- núyúčid’í-ca cu ráwá- /
let me I wash your head maybe thus will rest you good
gu ni-baʔtu cu / šu ṭe hiná ṭegu / d’ěiñeša ęu higá-ntí / šu ṭe ęu šu
and will sleep you O.K. then he said giant
she made suds this king his wife when
tá?ásbanašúmaíí / ?eu du híká-ntí ?eu tá?ásba našúmaíí / his head was washed this giant his head was washed
he slept this giant his wife
d'ubéuca sandiyá-kú / dúwé. šu gáiti si ?í-ma / šu zí-ba?tu / šu ?e she called St. James this way come on back come he sleeps
d'í ?eu d'áwá.?a / ?aisí cá-cad'á ?eu / gu ?eu ?aisí d'áwínuska-tí / up he kept them there he breathes and there his hearts
d'ú-mi. ?aisí d'áwínuska-tí / du ?iska ?eu hé-yá cá-ca-d'ani / two there his hearts this one with it he breathes
gu du ?iska ?eu hé-yá tíšá-ší-šé / šu ?e ?eu ía ?ai tá?ábe?ené and this one with it he has power thus he was told
?eu du sandiyá-kú / du d'así-kí čáukui-šanu ?e čáza / ?ésgësku ?ai this St. James this king his wife she said but there
gáukú mû?kaiça / ?ai cá-nawání mid'ú.- / ?eu ?ai gúwa-sd'ú / šu ?e ?eu he has mountain lion he is mean very there he watches
sandiyá-kú ?e čáza / hé-mé. ?e zú-ne si / šu ?e ša d'úmënu. / St. James he said all right will go I back he left
šu ?e ?e dácikuya d'á-mí/dúwé. ?égu šu na šu sté?éyu/šu ?e sa he said to him eagle this way then let's go let's go back
d'í čúnguyánu. / šu ?e ?aisí yúké. d'á?áiyú yú?ái há-di ?eu čú-tí / up he sat there that way they flew there where mountain
šu ?e há-di no zíyá. bá ño čúnguyáñá di?-d'ánu šu ?e šu / ?ésgësku where down below west down they sat here but
šu ?e ?emí di-yúkača kau? zi mû-kaiça / šu ?emí di-yúkača / already he saw them something mountain lion already he saw them
šu ?e šu ?ai šu yúku ño čúnguyá ?eu sandiyá-kú / šu ?e ?aisí ha-
away down he sat St. James from there east
himself he walked he went he saw him mountain lion near from the

cá-ničad’yaye / šu ?e yu? zi kúčayawane me. / ka házáni d’i gá?ašúné
he was walking there thing he was mad like his hair up it stood
this he walked already St. James also ready he had way

knife both they fought she told him
this king his wife there two his hearts

he killed it mountain lion up he climbed
he saw them eggs this way up they sat one
he broke it and one he put in his pocket from there down he went

back he arrived where back he waited eagle with it
he was going back there he sat from there they went
but already there how king his wife she told him already

he sat also she waited king his wife
back he arrived she called him come on this way enter
dácikuyá / šu gáíti há-ńé / ?a si cíyúce / ha. d’yóíncía /
she said to him come on question back you brought yes he said
he back I brought here it was given there

both they went he was sick he said to him

d’i šánáságái ?e pi-ča / dáčikuyá / šu ?e ša d’i tì-zane / šu ?e
up your head do it he said to him thus up he did
St. James arrived at the ocean and was not able to cross. So he asked God how he might cross the ocean. Then an eagle was sent down from above.

The eagle approached and said, “What is it?” “Yes,” he said, “I need you. Maybe you will be of use.” “All right,” said the eagle. “O.K., then, we will go south to the giant’s house. The king lost his wife. We are going to look for her.” “O.K.,” said the eagle, “come sit on my back.” Then St. James got on. Then they flew south and up they went. As they were flying up there they saw the giant’s city down below. The giant also had an eagle and he knew what was happening.

The giant’s eagle looked up and cried out. Then the giant heard and came out. “O.K., attack!” he commanded his eagle. So the eagle attacked. When he came near they began fighting. St. James had a knife and with it stabbed the giant’s eagle. They killed the giant’s eagle and down he fell! Then they went down to the city where the giant lived. The eagle perched on the window of the giant’s house and St. James got off and sat down. Then St. James said to the eagle who had taken him there, “Wait for me here. Let me look around.” “O.K.,” said the eagle.

So St. James looked around this way and that. He peered through the window but he could not get in. It was shut with iron bars. Then he came to where the king’s wife was. He called her name and she turned around. “What is it?” she said. “I’m looking for you.
Your husband told me to come and get you." "All right," she said, "but how will I get out? The giant has the only key somewhere. I don't have any. How will we get out, then? He will come back in a little while. Hide somewhere. When he comes back he will know right away what is going on." "O.K.," he said, and he went and hid somewhere. The giant was coming back and as he stepped the earth shook. He already knew, and he said, "Hmmm! Who is here?" Then the king's wife said, "Nobody is here and there is nobody talking with me." The king's wife then said to the giant "Let me wash your head. Maybe you are tired. Let me wash your head and then maybe you will rest well and go to sleep." "O.K., then," said the giant. Then the King's wife made suds. When his head was washed the giant went to sleep. Then the king's wife called to St. James, "Come here; he is asleep." Then she told him, "Go to the mountains. He keeps them there. There he breathes and there he has his two hearts. He breathes with one, and with one he has power." Thus it was told to St. James. The king's wife said, "But he has a mountain lion there watching who is very mean." Then St. James said, "All right, I'll go." So he left and talked with the eagle who had led him. Then the eagle said to him, "Come on, let's go." So he got back on and they flew away to the mountains. Then they landed down on the west side, but the mountain lion had already seen them.

Then St. James got off and walked on eastward alone. The mountain lion saw him and approached from the east. He was mad and his hair stood up as he approached. St. James had his knife ready and the two of them fought. The king's wife had told him where the two hearts were, so he killed the mountain lion and climbed up. He saw two eggs sitting there. Then he broke one of them, put one in his pocket and climbed back down.

Then he arrived back where the eagle was waiting. He got back on and from there they returned according to the instructions of the king's wife. The giant was already sick when he got back and dismounted. The king's wife, too, was waiting. "Come on in," she called to him, "did you bring it back?" "Yes," he said, "here it is." And he gave it to her. Then they both went to the sick one. He said to him, "Lift up your head." Then he lifted it up and burst. So the giant was killed. Then the king's wife and St. James got on the eagle and they went back to the king's house. And St. James married the king's daughter that he had promised to him. That is the story.
EXPLANATION OF NUMBERS IN TEXT

1. Preposition, there.
2. Preposition, near.
5. Preposition, where, somewhere.
6. Referential, river.
7. Verb, it is full. Affix 123A + stem, -ó-íá + affix 403.
8. Modal, not.
9. Modal, able to.
10. Verb, he emerged or, in this context, he crosses over. Affix 123A + stem, -úmá.
11. Connective, thus.
12. Verb, he was asking. Affix 123C + stem, -úídá?A + affix 401B.
13. Preposition, that way.
14. Directional, up.
15. Verb, our father. Affix 101G + stem, -táíšdvy + affix 501I.
16. Interrogative, how?
17. Modal, at least.
18. Directional, south.
19. Referential, water.
20. Verb, it is full. Same as 7 but with affix 121A instead of 123A.
21. Verb, will emerge or cross over. Same as 10 but with affix 201B instead of 123A.
22. Verbal auxiliary, third person subject with condition suffix.
23. Preposition, from there, from afar.
24. Directional, down.
25. Particle which in certain contexts adds emphasis to other words.
26. Referential, eagle.
27. Verb, he was sent. Affix 123H + affix 302B + stem, -águya + affix 502A.
29. Verb, he said to him. Affix 123G + stem, -áčikuya.
30. Interrogative, what?
31. Interrogative, which?
32. Modal, maybe.
33. Exclamation, yes.
34. Verb, he said. Affix 123A + stem, -áičča.
35. Verb, I need you. Affix 141B + stem, -íčpa.
36. Verb, will be of use. Affix 201B + stem, -údva-wa?.
37. Verbal auxiliary, second person subject.
38. Exclamation, all right, that will do.
39. Exclamation, O.K.
40. In some contexts a connective; here part of an exclamatory phrase.
42. Preposition, there.
43. Verbal auxiliary, first person dual subject.
44. Referential, giant. From Spanish gigante.
46. Referential, king. From Spanish cacique. May be alternatively analyzed as a verb consisting of affix 121A + stem, -así-kí.
47. Verb, his wife. Affix 121D + stem, -áukui.
48. Particle which modifies meaning of following verb.
49. Verb, he did it, or, in this context with the particle íu, he lost. Affix 121G + stem, -íwiča.
50. Verb, will look for (dual subject). Affix 201D + stem, -f'yéipa + affix 501B.
51. Verb, he said. Affix 123D + stem, -áza.
52. Preposition, this way.
55. Verb, he sat. Same as 54 but with affix 123C instead of 114D.
57. Verb, they two went. Same as 41 but with affix 123G instead of 201G.
58. Verb, they were going. Affix 123G + stem, -6'ý-ya?atá + affix 402B.
59. Verb, he saw him (or it). Affix 123A + stem, -úkačá.
61. Particle, also.
63. Verb, he knew. Affix 123F + stem, -áud'ú.
64. Verb, he was looking. Affix 123G + stem, -igá + affix 401B.
67. Pronoun, this one.
68. Verb, he was commanded. Affix 123H + affix 302A + stem, -áñeyá + affix 502G.
70. Verb, he attacked. Same as 69, but with affix 123F rather than 114D
72. Verb, they fought. Affix 123C + stem, -áwáihýá.
73. Referential, knife.
74. Verb, he had. Affix 123A + stem, -áučú.
<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Hawaiian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>interrogative particle</td>
<td>a</td>
</tr>
<tr>
<td>2</td>
<td>there</td>
<td>ai</td>
</tr>
<tr>
<td>3</td>
<td>mattress, mat</td>
<td>ʔāi cástí</td>
</tr>
<tr>
<td>4</td>
<td>house</td>
<td>ʔāčíni</td>
</tr>
<tr>
<td>5</td>
<td>cooking pot</td>
<td>ʔāduaští</td>
</tr>
<tr>
<td>6</td>
<td>tether</td>
<td>ʔā-dvā-ùt</td>
</tr>
<tr>
<td>7</td>
<td>nail</td>
<td>ʔāugubaʔakāer nail</td>
</tr>
<tr>
<td>8</td>
<td>seat</td>
<td>ʔānāmāti</td>
</tr>
<tr>
<td>9</td>
<td>lamp</td>
<td>ʔānāziʔáni</td>
</tr>
<tr>
<td>10</td>
<td>tasty</td>
<td>ʔānē-tasty</td>
</tr>
<tr>
<td>11</td>
<td>large bowl</td>
<td>ʔā-sá</td>
</tr>
<tr>
<td>12</td>
<td>there</td>
<td>ʔāsí</td>
</tr>
<tr>
<td>13</td>
<td>trousers</td>
<td>ʔāsiazaʔáni</td>
</tr>
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<td>hot (in reference to the weather)</td>
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85. čémi  three; čémiya  three times
86. či-ná  river
87. čánámi  bat
88. čáyáni  shaman
89. čít-riqá  hawk
90. dabónuska  horned toad
91. dá-ni  squash, pumpkin
92. dá-pačí  corpse
93. dá-wáqa  moon, month
94. dešu  place
95. di?  here
96. dfi?áí  there
97. dísí  from here
98. di-skáámá  cornhusk
99. diya  dog
100. du  this, this one
101. dúké  that way
102. dúwimíšt  stocking
103. dúwé  this way
104. drá-drú  bobcat
105. drá-mí  eagle
106. drá-na  four
107. dráña  jackrabbit
108. dráñé  deer
109. dráva  early
110. drá-wí  gourd
111. dráya?ani  piñon nut
112. dr’éct  piñon pine
113. dr’í  up
114. dr’id’á  north
115. dr’iní  above
116. drú-bí  badger
117. drú-mí  two
118. drúmá  brother
119. drú-yá  twice
120. drú-ša  elk
121. gánámi  beans
122. gáśísha  world
123. gasgáuga  quail
124. gáwer  seed
125. gá-yu  morning
126. gu and
127. gu?  for, therefore
128. gu?-u  beaver
129. gúcí  firewood
130. gúháya  bear
131. gúkúmiší  eight
132. gúmsásáwa  cooking pot
133. gúwa-  how
134. gúyáší  basket
135. ha-  east; há-námi  eastward
136. hai  where (destination)
137. hau  who, someone
138. hau?  near, suddenly
139. háubá  everybody
140. hábáni  oak
141. há-bí  feather
142. há-dé̱či, há-dé̱či  land, earth
143. há-cu  how much, how many, few
144. há-dé̱čánáni  tooth
145. há-cáče  man
146. hádáwíní  navel
147. há-di  where, somewhere
148. hádífí  which, what
149. hádýání  soapweed
150. há-ka-ka  fir
151. há-káimí  once
152. há-ka-ni  fire, hot coals
153. há-ké  that way
154. há-kú  ready
155. há-ku  when
156. há-ma-ní  leg, thigh
157. há-mí  tobacco
158. há-múčuní  toe
159. há-múša-ní  beard
160. há-ná-  long ago
161. há-má-ní, há-má?ani  hail
162. há-násdl’íni  hand, finger
163. há-né  ice
164. há-ná-mí  naked
165. há-ní  pine
166. há-nú  people
167. há-né  hortative particle
168. há-sdé  yucca
169. há-sdí?íni  foot
170. há-soñí  bone
171. há-táti-čá  town, city
172. há-ũwimí  shoe, moccasin
173. há-tawe  pollen
174. há-we  snow
175. há-wiñá  stalk
176. há-wá  there
177. há-wé  this way
178. há-wí  here, take it
179. há-wí-čánáni  claw, fingernail
180. há-wíná  quickly, immediately
181. há-yáct  awl
182. há-yéí  there
183. há-záni  hair
184. há-žáni  onion
185. he  that one
186. hé-ne  all right, enough
187. hé-náití  cloud
188. hé-yád’í  turtle
189. héyáší  fog, mist
190. hé-yá  with (instrumental)
191. hñu I, we
192. hñá all right
193. hí-séf sunflower
194. hispái knife
195. hńí-ha arrowhead, spearhead
196. hńu you
197. hńwá now, today
198. hńyá-aná domestic animal
199. hńy-ńí road, path
200. hńy-ńwá doorway, road
201. hńźái tree, cottonwood
202. hńź-ani seed
203. hú-bóni salíva
204. hú-ńa dove
205. húñení wool
206. húñkáni yucca fruit, banana
207. húñ-ńí cotton
208. húwáka sky
209. húwáná-aní eye
210. húwń-ńí milk
211. hńçaskáwa willow
212. kád'á behind; kád'ámalá back ward
213. káñáti summer, year
214. ká-ńiña clean, pure
215. kimátí green corn
216. kíwá plant
217. ku south; kúwání southward
218. kú-ká winter
219. kúpéstuié lightning
220. kúwe?e sweet
221. ká-ci antelope
222. káci ten
223. káucagái maybe
224. káka-d'i square, plaza
225. kákana wolf
226. kámaska spider
227. káñi cedar
228. káñání heat of sun
229. kásd'á-ci rainbow
230. káwiná moss
231. ku woman, female
232. kúmí slightly, a small amount
233. kúá last night
234. kú-tí, čú-tí mountain
235. kú-yú old woman
236. kńyáltú game animal
237. mai almost
238. mágo- girl
239. má-nu a long time
240. má-céu tortilla
241. má-sá-ni leaf
242. má-sá light
243. máyuńu nine
244. mńuśćiwa buffalo
245. mńši soapweed
246. midńu very
247. mń-ná hortative particle
248. mń-kńića mountain lion
249. má-dé- boy
250. má-ná?déí blood
251. mádáí ball
252. mádáínama seven
253. máhayí evil
254. máhá dipper
255. má-ní word
256. má-ńswi buzzard
257. má- like, similar to
258. má-sha mud
259. má-zíčí large
260. má-čí clay
261. má-čá hummingbird
262. má-ta moth
263. má-ća others
264. máña salt
265. má-ćśiñi ashes
266. má-ši alkali
267. má-nína na yet
268. má-nína new
269. má-ši food, lunch
270. má-nńá middle-aged
271. má-šá under
272. má-šá thank you (women’s speech)
273. má- only, itself
274. má-nína alone
275. má-nńá separate
276. má-núa night
277. má-núa oneself
278. má-ńúa rubber
279. má-núa prairie dog
280. máu many
281. máwiñá egg
282. máu down
283. máwu lung
284. máwu bag
285. máwu bedbug
286. má-ša jackrabbit
287. má-ša cornmeal
288. máwí buckskin
289. máwí fancy, fine
290. máwí flag
291. máwí skin, hide
292. máwí good
293. máwí rabbit
294. máwí goose
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<td>297.</td>
<td>sa</td>
<td>back, return to previous location</td>
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<td>sai</td>
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<td>sāču day</td>
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<td>sure</td>
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<td>si again, return to present location</td>
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<td>yúké- that way</td>
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VERBS

Verbs are listed alphabetically by the verb core. The stem or stems based on each core follow, together with the stem classification. See "Verb Classes" for an outline of stem classification and "Stem Variants" for an explanation of notations identifying stem variants.

425. -a to be. -a(?) Singular, Class 11-25 intransitive. -é?-e-su-ti Dual, Class 11-26 intransitive. -á?-á Plural, Class 11-25 intransitive.

426. -a to have, to possess. -a Singular, Class 7-15 intransitive. -á?-á Dual, Class 2-24 intransitive. -á?-á?e Plural, Class 2-23 intransitive.

427. -?á to be closed. -á?-á?á Singular, Class 10 intransitive.

428. ?esu—á to sneeze. Type B, singular, Class 1-1 intransitive.

429. -u to give a flat or long object. -á?u Irregular transitive.


432. -bá-bá grandparent, a man's mother's mother or father's father. -ábá-bá Singular, Class 7-15 intransitive.

433. -bádú to awake, get someone out of bed. -í-bádú(?) Class C4 transitive.


436. -be to tell. -ú-/abe(?) (-ýv-) Class A1 transitive.

437. -búca to call. -ú/-búca Class A1 transitive.

438. -be-í to ask. -ú/-abe-í (-ýv-) Class A8 transitive.

439. -bí to get wood. -úbí Singular, Class 5-8 intransitive.

440. bé-il—ání to be smooth. Type B, singular, Class 1 intransitive.


442. -bu-ct to be frightened. -úbu-ct Singular, Class 13-23 intransitive.

443. bú-pu—ání fresh, cool. Type B, singular, Class 1 intransitive.

444. búsú—á to have an odor. Type B, singular, Class 1-1 intransitive.
445. -bónaca to sew. -áubónaca Singular, Class 5–8 intransitive.
446. -bonaiʔi to put in a bag. -áubonaiʔi Singular, Class 9–11 intransitive.
447. b?óʔi—i winding, zigzag. Type B, singular, Class 10 intransitive.
448. cá—A to breathe. Type B, singular, Class 1–1 intransitive.
449. -ácikuya to say. -ácikuya Singular, Class 10–7 intransitive.
451. čáyu—i to be broken. Type B, singular, Class 10 intransitive.
452. -čáyuca to break. -áʔáčáyuca Singular, Class 5–8 intransitive.
453. -čé-nača to chew. -áʔáčé-nača Singular, Class 5–8 intransitive.
455. -číd'usta to think, to worry. -účíd'usta Singular, Class 5–8 intransitive.
456. -či-ku to be guilty. -úči-ku Singular, Class 3–27 intransitive.
457. -čípa to need, to want. -áčípa Singular, Class 3–27 intransitive. Transitive forms conforming to Class B based on the stem -čípa also occur for first and second person objects.
458. -čišu water well. -áʔáčišu Singular, Class 1–1 intransitive.
459. -čišća to cut. -áʔáčišća Singular, Class 5–8 intransitive.
460. -ča to rain. -áča Singular, Class 4 intransitive.
461. -ča to fall. -úča Singular, Class 5–8 intransitive. -áča-ᵑ tà Dual, Class 5–10 intransitive.
462. -čaŋi to stand. -áčaŋi Singular, Class 1–3 intransitive.
463. -či-ni to dance. -áči-ni Singular, Class 1–3 intransitive.
464. -čiŋi yellow. -účiŋi Singular, unclassified intransitive. kú-čiŋi it is yellow.
465. čú—A to belch. Type B, singular, Class 1–1 intransitive.
466. -ču to have in a bag. -úču Singular, Class 8–14 intransitive. -úʔáču Dual, Class 2–24 intransitive. -ú-waću Plural, Class 2–23 intransitive.
467. -ča tooth. -áʔáča Singular, Class 10–6 intransitive.
468. -ča to be hot. -áʔáča Singular, Class 1–3 intransitive.
469. -čáʔi to close the eyes. -áʔáčáʔi Singular, Class 5–8 intransitive.
470. -čáwa to steal. -účáwa Singular, Class 5–8 intransitive.
471. -čáyuńa to be tired. -účáyuńa Singular, Class 13–28 intransitive.
472. -ča animal’s horn. -áča Singular, Class 10 intransitive.
473. -ča to build a house. -áʔáča Singular, Class 9–11 intransitive.
475. -ča to happen. -áʔáča Singular, Class 9 intransitive.
476. -ča house. -áča Singular, Class 4 intransitive. -áʔá-ča Plural, Class 2–23 intransitive.
477. -ča to smoke. -áča Singular, Class 5–8 intransitive.
478. -dáʔa to ask for something. -údáʔa Singular, Class 5–8 intransitive.
479. -dáʔa grandparent, woman’s father’s father or mother’s mother. -ádáʔa Singular, Class 7–15 intransitive.
480. dáʔawa—A to boil. Type B, singular, Class 1 intransitive.
482. -di to give a bulky object. -údi(ʔ) Class D3 transitive.
171

-điša to feed. -i/ádiša(?) Class C1 transitive.
172
-điye to get, to fetch. -údiye Singular, Class 1–3 intransitive.
173
-đúd’á to hang something. -iđúd’á Singular, Class 10–7 intransitive.
174
-đra to catch. -i/áđra(?) Class C3 transitive.
175
-đra to descend. -óđra (–óđra) Singular, Class 1–3 intransitive.
176
-đrá to possess an animal. -á‘d’rá- or -‘d’ád’áše Singular, Class 7–15
intransitive.
177
-đ‘ád’á to fight. -úd’ád’á Plural, Class 5–9 intransitive.
178
-đráši to fast. -úd’ráši Singular, Class 8–14 intransitive. -ú?úd’ráši
Dual, Class 2–24 intransitive. -ú-wád’ráš Plural, Class 23 intransitive.
179
-ďráwa to stab. -i/áďráwa Class C1 transitive.
180
-ďúva to be helpful. -úďúva(?) Singular, Class 1–1 intransitive.
181
-ďvu to cost. -úďvu Singular, Class 14 intransitive.
182
-ďvu to arrive. -é-ďvu Plural, Class 11–25 intransitive.
183
-ďvu to know, to be aware of. -úďvu Singular, Class 9–11 intransitive.
184
-ďůmí to remember. -ú-/á-ďůmí Class B6 transitive.
185
-ďůmiča to learn. -áďůmiča Singular, Class 5–8 intransitive.
186
-ďůmiquéwi to forget. -ú-/á-ďůmiquéwi Class B4 transitive.
187
-ďůma man’s brother. -úďůma Singular, Class 7–15 intransitive.
188
-ďůši to be afraid. -úďůši Singular, Class 13–28 intransitive.
189
d‘á–ání to be lazy. Type B, singular, Class 1–1 intransitive.
190
-gá to look. -ígá (-ika) Singular, Class 10–6 intransitive.
191
-gúya to sit. -úgúya Singular, Class 5–8 intransitive. -úgúya-ňa
Dual, Class 5–10 intransitive.
192
-gúya to place, to send, to sell. -i/ágúya Class C1 transitive.
193
-góčati to blossom. -ágóčati Singular, Class 1 intransitive.
194
-háu-á to yawn. Type B, singular, Class 1–1 intransitive.
195
-hima to believe. -áhima Singular, Class 3–27 intransitive.
196
-ká to hear. -áká- Singular, Class 4–3 intransitive.
197
-káyá—í to be broken. Type B, singular, Class 10 intransitive.
198
-kái to be full, satisfied. -úkái (-úkái) Singular, Class 4–3 intransitive.
199
-kái to lie down. -íkái (fut. -igái) Singular, Class 13–28 intransitive.
200
-ká to see. -ú/-íká (-v-) Class A2 transitive.
201
-kázi to heat. -ú/-íkázi(?) Class A4 transitive.
202
-kú to bite. -ákú Class B1 transitive.
203
-kú to go. -čkú Plural, Class 11–25 intransitive.
204
-kú to be located. -ákú (-íkú) Singular, Class 1–16 intransitive.
205
-kú-mí to bring. -ákú-mí(?) Class D3 transitive.
206
-kúpawa to chop. -íkúpawa Singular, Class 10–7 intransitive.
207
-íkúpawa-ňa Dual, Class 10–22 intransitive. -íkúpawa-ňa Plural,
Class 10–21 intransitive.
208
209
-ká—ání to be red. Type B, singular, Class 1–1 intransitive.
210
-ka mouth. -íka Singular, Class 10–7 intransitive.
211
-káca to hit. -ú/-íkáca Class A1 transitive.
212
-káya to wipe. -ú-káya Class A7 transitive.
213
214
-kúi wife. -áukúi Singular, Class 7–15 intransitive.
215
-kúga man’s sister. -ákúga Singular, Class 7–15 intransitive.
216
-kúmná string. -úkúmná Singular, Class 4 intransitive.
217
218
-kúña—I smoke, billowing dust. Type B, singular, Class 10 intransitive.
531. -ma to go. Unclassified intransitive, occurring only in the hortative mode. ?i-ma go.
532. -ma- thigh. -à-ma Singular, Class 4–3 intransitive.
533. -ma-ci to be true. -àima-ci Singular, unclassified intransitive. kàima-ci it is true.
534. -mákà daughter. -ámákà Singular, Class 7–15 intransitive.
535. -má-zání to help. -ú-má-zání(?) Class D3 transitive.
536. -mú-ca to thunder. -áumú-ca Singular, Class 9 intransitive.
537. -múčù toe. -ú-múčù Singular, Class 4–3 intransitive.
538. -mudúca to kill. -ú/amudúca Class A1 transitive.
539. mùrá—t tented. Type B, singular, Class 10 intransitive.
541. -mómó grandfather, grandchild. -áumómó Singular, Class 7–15 intransitive.
543. -ña house, to dwell. -á-ña Singular, Class 8–14 intransitive. -á?-á-ña Dual, Class 2–24 intransitive.
544. -máči waist. -úmáči Singular, Class 4–3 intransitive.
545. -má-dyà to pick fruit. -úm/má-dyà Singular, Class 5–8 intransitive.
546. -má-pa palm of hand. -áñà-pa Singular, Class 1–1 intransitive.
547. -mádsì hand, finger. -ánmádsì(?) Singular, Class 4–3 intransitive.
549. -na eye. -á-na Singular, unclassified intransitive. kà-na his eye.
550. -na to be cloudy. -ína Singular, Class 10 intransitive.
552. -nádyàwi to light a fire. -ánádyàwi(?) Singular, Class 10–7 intransitive.
553. -ánádyàwi-ña Dual, Class 10–22 intransitive. -ánádyàwi-ìe Plural, Class 10–21 intransitive.
554. -námáti seat, nest. -ánámáti Singular, Class 7–15 intransitive.
556. -násgùi head. -áñásgùi Singular, Class 1–1 intransitive.
557. -nàta to buy. -íñàta Singular, Class 10–7 intransitive.
558. -nàta to cook. -áñàta Singular, Class 9–11 intransitive.
559. -nawaì to be mean. -ànawaì Singular, Class 12–27 intransitive.
560. -nàwe man’s mother’s brother, sister’s son. -á-nàwe Singular, Class 7–15 intransitive.
562. -ni to know, be acquainted with. -ú/ánni(?) Class B5 transitive.
563. -ni to go, to walk. -à-ni Singular, Class 6–3 intransitive.
564. -nì-ùcà to pull. -ú-nì-ù-cà Singular, Class 1–1 intransitive.
566. -nàza to be healthy. -ún/nàza(?) Singular, Class 5–8 intransitive. -ún/nàza?u-ña Dual, Class 5–10 intransitive.
567. -nìsì to look, to peer. -íñ/nìsì Singular, Class 4–5 intransitive.
568. -nìtà to say. -áñìtìa Singular, Class 1–3 intransitive.
569. -ñi body. -ñì Singular, Class 14–4 intransitive.
570. -ñùti lower leg. -áñùtìi Class 1–1 intransitive.
571. -pàni to be dry. -i-pàni Singular, Class 13–28 intransitive.
572. -pasdu to be tied. -ápasdu Singular, Class 7-13 intransitive.
573. -páši to be dark. -ápáši Singular, Class 6 intransitive.
575. pétá—a to be cracked. Type B, singular, Class 1 intransitive.
576. -pi forehead. -úpi Singular, Class 1-1 intransitive.
577. písča—i flat, spread out. Type B, singular, Class 10 intransitive.
578. -pú-ca to blow. -ú-pú-ca Singular, Class 1-1 intransitive.
579. -për to enter. -úpër Singular, Class 1-3 intransitive.
580. -pákaca to touch. -ú/ápákaca Class A1 transitive.
581. -sa difficult. -áusa Singular, Class 6 intransitive.
582. -sé to draw water. -áusé Singular, Class 5-8 intransitive.
583. -sípa eyelash. -ísípa Singular, Class 14-4 intransitive.
584. -sukuca to kick. -ú/ásukuca Class A1 transitive.
586. -sbí-ca to whistle. -úsbí-ca Singular, Class 1-1 intransitive.
587. -sbóča to string beads. -úsbóča Singular, Class 5-8 intransitive.
588. -sécca to squeal, make an animal noise. -ú-sécca Singular, Class 1-3 intransitive.
589. -šéú—A to swallow. Type B, singular, Class 1-1 intransitive.
590. -ščušu—to cough. Type B, singular, Class 1-1 intransitive.
591. -sdi foot. -ássi(?) Singular, Class 4-3 intransitive.
592. -sdú.—i bowl-shaped. Type B, singular, Class 10 intransitive.
593. -sdvá to suck. -í/sdvá Singular, Class 10-6 intransitive.
594. -sdíri to be brown. -úsdíri Singular, Class 6 intransitive.
596. -sgušaša to hide. -úsgušaša Singular, Class 5-8 intransitive.
597. -ška to drink. -áška Singular, Class 1-3 intransitive. -áška Dual, Class 2-24 intransitive. -áška-ta Plural, Class 2-23 intransitive.
598. -škáši—I to be hard. Type B, singular, Class 10 intransitive.
599. -škúrú—I spherical. Type B, singular, Class 10 intransitive.
600. -skó-?ačai to turn around. -áiskó-?ačai Singular, Class 5-8 intransitive.
601. -skóri—I round. Type B, singular, Class 10 intransitive.
602. -spíka to paint. -íspíka Singular, Class 10-7 intransitive.
603. -spá-ca to push. -íspá-ca Class C1 transitive.
604. -spá?ákača to knock at the door. -ú-spá?ákača Singular, Class 1-1 intransitive.
605. -stáya to be cold. -áístáya (future -áísdaya) Singular, Class 1 intransitive.
606. -stáya to be breezy. -éstáya (future -ésdaya) Singular, Class 10 intransitive.
607. -sti to give a liquid. -í/ásiti(?) Class D3 transitive.
608. -stí-ca city, town. -áťástí-ča Singular, Class 7-15 intransitive.
609. -stú to die. -ústú Singular, Class 4-3 intransitive.
610. -ša to step. -áša Singular, Class 5-8 intransitive.
611. -ša to close. -áťáša Singular, Class 10-7 intransitive.
612. -še name. -ášé Singular, Class 1-1 intransitive.
613. -šé to be white. -ášé Singular, Class 1-1 intransitive.
614. -ší knee. -áši Singular, Class 1-1 intransitive.
615. -ší-ci to be hospitable. -áší-ci Singular, Class 8-14 intransitive.
616. -šu to be wet. -ášu Singular, Class 1-3 intransitive.
617. -šuku—i square. Type B, singular, Class 10 intransitive.
618. šúpa—A to spill. Type B, singular, Class 1–1 intransitive.
619. šaça to name, to call ones name. -šaça (-'v-) Class C1 transitive.
620. šāt—A torn. Type B, singular, Class 1 intransitive. šāt—i torn.
Type B, singular, Class 10 intransitive.
621. šūwi—i crooked. Type B, singular, Class 10 intransitive.
624. -tivid'A back. -'d'-tivid'A Singular, unclassified intransitive. kâtivd'A his back.
625. -tigu to remove many objects. -utigu Singular, Class 1–1 intransitive.
626. -tika-ša to climb. -utika-ša Singular, Class 5–8 intransitive.
627. -tikuya to cry. -'atikuya (future. -'atiguya) Singular, Class 1–3 intransitive.
628. -tīša to talk to. -atīša Class A2 transitive.
629. -tu-ñi to know. -atu-ñi Singular, Class 4–3 intransitive.
630. -tâ to put in, to write down. -štâ Singular, Class 10–7 intransitive.
631. -tâ to be full. -š-tâ Singular, Class 1–3 intransitive.
632. -tâ to test, try. -ú-'á-tâ Class A1 transitive.
633. -tâ to step on. -tâ(,) Class C2 transitive.
635. -tâd'yi to stand up. -š-tâd'yi Singular, Class 1–3 intransitive.
636. -tî to give a granular substance. -tîti(?) Class D3 transitive.
637. -tu-d'v Singular, Class 10 intransitive.
638. -wâšâšâya to stir. -š-wâšâšâya Singular, Class 1–1 intransitive.
639. wâkâ—a to spill. Type B, singular, Class 10–7 intransitive.
641. -wa-ša to be sick. -š-wa-sa(?) Singular, Class 3–27 intransitive.
642. -waši to attack, pick a fight. -š-waši Singular, Class 9–11 intransitive.
643. -wa-tdv to watch, guard. -š-wa-tdv Singular, Class 1–3 intransitive.
644. -wâši face. -š-wâši Singular, unclassified intransitive. kâwâši his face.
645. -wi neck. -š-wi Singular, Class 1–1 intransitive.
646. -wî-či chest. -š-wî-či Singular, Class 1–1 intransitive.
647. -wî-ča to listen to. -š-wî-ča Class A1 transitive.
648. -wishbâ to loosen, untie. -š-wishbâ Singular, Class 1–1 intransitive.
649. -wishkâ blue, green. -š-wishkâ Singular, Class 6–3 intransitive.
650. -wi-stiye to be happy. -š-wi-stiye(?) Singular, Class 3–27 intransitive.
651. -wishkuya to scold. -š-wishkuya Class A2 transitive.
653. wâkâ—A to move, shake. Type B, singular, Class 1–1 intransitive.
654. -wâ to kill (plural object) -š-wâ Singular, Class 5–8 intransitive.
656. -wâči to have a turn. -š-wâči Singular, Class 3–27 intransitive.
658. -wâd'ya to gather something. -š-wâd'ya(?) Singular, Class 10–7 intransitive.
659. -wâki to dress. -š-wâki Singular, Class 5–8 intransitive.
660. -wâne to go hunting. -š-wâne (future -š-wâ-ne-) Singular, Class 5–8 intransitive.
661. -wasdâ to be sour. -š-wasdâ Singular, unclassified intransitive. kâwasdâ it is sour.
662. -wáti man's male in-law. -áwáti Singular, Class 7–15 intransitive.
663. -wí child. -á-wí Singular, Class 7–15 intransitive.
665. wíní—í fast. Type B, singular, Class 10–6 intransitive.
667. -wíši nose. -áwíši Singular, Class 1–1 intransitive.
668. -wí-teya to worship. -úwí/wí-teya (future -úwí-deya) Singular Class 5–2
                intransitive. -úwí/wí-deya-pa Dual, Class 5–10 intransitive.
                -úwí/wí-deya-wa Plural, Class 5–9 intransitive.
669. -yá to skin an animal. -úyá Singular, Class 1–1 intransitive. -úyá-áx
                Dual, Class 1–18 intransitive. -úyá-áx Plural, Class 1–17 intransitive.
670. -yá to be born. -íyá Singular, Class 14–4 intransitive.
671. -yaka to burn something. -áyaka Singular, Class 10–7 intransitive.
672. -yámásí to be hungry. -íyamásí Singular, Class 10–7 intransitive.
673. -yanikuya to tell, command. -í/yawanikuya Class C1 transitive.
674. yát—a to be weak. Type B, singular, Class 10–6 intransitive.
675. -yá-íti sharp. -íyá-íti Singular, Class 13 intransitive.
676. -yu hard. -áyu Singular, Class 1–1 intransitive.
677. -yu to go. -úyu Dual, Class 11–26 intransitive.
678. -yú-kami to wait for. -í/yú-kami Class D6 transitive.
681. -yáská to sweep. -áyáská Singular, Class 5–8 intransitive.
682. -yéíña to find. -í/yéíña Class C7 transitive.
683. -yéipa to look for. -í/yéipa Class C2 transitive.
684. -yéísiya to eat. -ú-yéísiya Singular, Class 5–8 intransitive.
685. -yúchü-íca to rest. -úyúchü-íca Singular, Class 5–8 intransitive.
686. -yú-mí arm. -áyú-mí Singular, Class 1–1 intransitive.
687. -yúpi ear. -áyúpi Singular, Class 1–1 intransitive.
688. -yúska tail. -áyúska Singular, Class 1 intransitive.
689. -yú-spt shoulder. -áyú-spt Singular, Class 1–1 intransitive.
690. -yúta to sing. -áyútá Singular, Class 5–8 intransitive.
691. -za to say. -úza(?) Singular, Class 7–13 intransitive. -áza(?) Dual,
                Class 2–24 intransitive. -ázi?i-ya Plural, Class 2–23 intransitive.
692. -za?anikuya to preach. -úza?anikuya (future -úza?aniguya) Singular,
                Class 5–8 intransitive.
693. -záípa shadow. -ázáípa Singular, Class 1 intransitive.
696. -zi to lie down. -ázi(?) Singular, Class 5–8 intransitive.
697. zó—u (zó-n-) to go. Type B, singular, Class 1–1 intransitive.
698. -zówa to pay. -í/zówa(-) Class C1 transitive. -áizówa(-) Singular,
                Class 5–8 intransitive.
699. -zá-ówa to awake. -ázá-ówa Singular, Class 4–5 intransitive.
700. -za-á to fall. -ú-za-á Singular, Class 1–3 intransitive.
702. -záca to run. -ízáca Singular, Class 4–5 intransitive.
AFFIXES AND CLITICS

703. ?- Second person hortative. 114H
704. -a- Reflexive-reciprocal. 301
705. -á?a- Passive voice. 302A
706. -á- Passive voice. 302B
707. -?e Plural subject. 502K
708. -?u Verbal auxiliary dual subject.
709. c- Third person indicative and negative. 121J 122J
710. c- Second person dubitative and future hortative. 113C 116C
711. ci- Second person dubitative and future hortative. 113B 116B
712. ě- Third person indicative and negative. 121H 122H
713. ě- Fourth person subject with third person object, indicative and negative. 131B 132B
714. či- Third person indicative and negative. 121I 122I
715. či- First person indicative. 101B
716. č- Third person dubitative. 123C
717. čá?- Third person dubitative. 123F
718. -čáāya Continuative action. 401G
719. č- Third person dubitative. 123D
720. č- Second person hortative. 114D
721. ču- Second person subject with first person object, indicative, negative, dubitative, and future hortative. 151B 152B 153B 156B
722. č- Second person dubitative and future hortative. 113A 116A
723. čá?- Second person dubitative and future hortative. 113D 116D
724. ča- First person subject with second person object, dubitative, and future hortative. 143B 146B
725. d- Third person dubitative. 123G
726. d- Second person hortative. 114F
727. -de Plural conditional. 601B
728. -di Locative-instrumental clitic.
729. di- Third person dubitative. 123B
730. di- Fourth person subject with third person object, dubitative. 133A
731. di- Second person hortative. 114G
732. di- Third person subject with second person object, hortative. 174B
733. -dika Locative-instrumental clitic.
734. -diini Benefactive.
735. d?- Third person dubitative. 123A
736. d?á- Third person dubitative. 123E
737. -d?anu Narrative past tense clitic.
738. -d?é-mí Pluralizing clitic.
739. -d?i Dual subject. 501C
740. d?íd- Second person dubitative and future hortative. 113F 116F
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742. d?ídí- Third person subject with second person object, dubitative and future hortative. 173B 176B
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751. gódi- Third person subject with second person object, indicative and negative. 171B 172B
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755. k- First person hortative and negative hortative. 104C 105E
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757. ká?- Third person indicative and negative. 121F 122F
758. ká?- First person hortative and negative hortative. 104D 105F
759. -ku Continuative action. 401D
760. -kuya Continuative action. 401A
761. k- Third person indicative and negative. 121D 122D
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763. ku- Second person subject with first person object, hortative and negative hortative. 154B 155B
764. -ma Remote state. 403
765. -me Plural subject. 502E
766. -mi Benefactive.
767. -mí Direction toward.
768. -mati Dual subject. 501E
769. -ña Verbal auxiliary suffix.
770. -ňasa Plural subject. 502F
771. -nãsuti Dual subject. 501F
772. nê- Augmentative.
773. -në Plural subject. 502D
774. -në Suffixed to place names to indicate inhabitants of that place.
775. -nì Benefactive.
776. -nì Dual subject. 501D
777. n- First person hortative, negative hortative, and future hortative. 104G 105G 106C
778. n- Future tense. 201A
779. -námí Direction toward.
780. -nani Nominalizer.
781. -ne Conditional. 601A
782. -ne Plural subject. 502B
783. -ne Unfulfilled action. 402B
784. ni- First person hortative, negative hortative, and future hortative. 104E 105A 106A
785. ni- Future tense. 201B
786. -ni Benefactive.
787. -ni Nominalizer.
788. -ni Direction from.
789. ni?- First person hortative, negative hortative, and future hortative. 104I 105I 106E
790. ni?- Future tense. 201E
791. -nikuya Continuative action. 401B
792. -nu- Conditional. 602
793. nád-  First person hortative, negative hortative, and future hortative.  
104K 105K 106G

794. nād-  Future tense.  201G

795. nádi-  First person hortative, negative hortative, and future hortative.  
104L 105L 106H

796. nādi  Third person subject with first person object, hortative, negative 
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797. -nati  Dual subject.  501B

798. náq-  First person hortative, negative hortative, and future hortative.  
104J 105J 106F

799. náq-  Third person subject with first person object, hortative, negative 
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800. náq-  Future tense.  201F

801. ŋ-  First person hortative, negative hortative, and future hortative.  104H  
105H 106D

802. ŋ-  Future tense.  201C

803. -ŋe  Plural subject.  502A

804. -ŋe  Unfulfilled action.  402A

805. -ŋe  Verbal auxiliary conditional.

806. ŋi-  First person hortative, negative hortative, and future hortative.  
104F 105B 106B

807. ŋi-  Future tense.  201D

808. -ŋi  Nominalizer.

809. -ŋa  Dual subject.  501A

810. p-  Third person hortative, negative hortative, and future hortative.  
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811. p-  Second person hortative.  114A

812. pa-  Third person hortative, negative hortative, and future hortative.  
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813. pá?-  Third person hortative, negative hortative, and future hortative.  
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814. pi-  Third person hortative, negative hortative, and future hortative.  
124A 125A 126A

815. pi-  Second person hortative.  114B

816. pí?-  Third person hortative, negative hortative, and future hortative.  
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817. -pá  Dual subject.  501H

818. pí-  Third person hortative, negative hortative, and future hortative.  
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819. pí-  Third person hortative, negative hortative, and future hortative.  
124B 125B 126B

820. pí-  Fourth person subject with third person object, hortative, negative 
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821. rá-  Diminutive.

822. s-  First person indicative.  101C

823. -sá  Verbal auxiliary plural subject.

824. -sé  Plural subject.  502M

825. si-  First person indicative.  101A

826. -si  Locative-instrumental clitic.

827. sí?-  First person indicative.  101F

828. -sá  Continuative action.  401F

829. sád-  First person indicative.  101H

830. sáq-  First person indicative.  101G
831. sē- Indefinite subject. 181C
832. sē- First person negative. 102J
833. sē- Second person negative hortative. 115J
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843. sō- Third person subject with first person object, negative hortative. 162A
844. sō- Third person subject with second person object, negative hortative. 175A
845. sō- First person negative. 102B
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847. sg- First person negative. 102A
848. sg- First person indicative. 101I
849. sg- Second person negative hortative. 115A
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851. sg- Third person subject with first person object, indicative. 161A
852. sga- First person negative. 102E
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854. sk- First person negative. 102C
855. sk- Second person negative hortative. 115C
856. skd?- First person negative. 102F
857. skd?- Second person negative hortative. 115F
858. sk- Indefinite subject. 181B
859. sk- First person negative. 102D
860. sk- Second person negative hortative. 115D
861. sku- First person indicative. 101J
862. sku- Third person subject with first person object, indicative. 161B
863. st- First person hortative and negative hortative. 104O 105O
864. stj?- First person hortative and negative hortative. 104P 105P
865. sti- First person hortative and negative hortative. 104Q 105Q
866. š- First person indicative. 101D
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870. šče Nominalizing clitic.
871. še Plural subject. 502I
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873. št Plural subject. 502J
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876. š- Second person indicative and negative. 111A 112A
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878. -sanu Narrative past tense clitic.
879. -suti Dual subject. 501G
880. š- Second person indicative and negative. 111D 112D
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882. t- First person dubitative. 103C
883. t- Third person dubitative. 123J
884. -ta Continuative action. 401E
885. -ta Plural subject. 502C
886. tá?- First person dubitative. 103D
887. -táhi Nominalizer.
888. -te Plural negative. 603
889. ti- First person dubitative. 103A
890. ti?- First person dubitative. 103H
891. -tikuya Continuative action. 401C
892. tód- First person dubitative. 103F
893. tódi- First person dubitative. 103G
894. tódi- Third person subject with first person object, dubitative. 163B
895. tóz- First person dubitative. 105E
896. tóz- Third person subject with first person object, dubitative. 163A
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901. ti- Third person dubitative. 123I
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903. -wa Plural subject. 502G
904. -we Plural subject. 502H
905. -we Unfulfilled action. 402C
906. -wi Benefactive.
907. -wi Nominalizer.
908. -ya Numeral suffix.
909. -ya Plural subject. 502L

LOANWORDS

910. 'amá-du pillow. Spanish almohada.
911. 'arabigú- apricot. Sp. albaricoque.
912. 'ará-ru plow. Sp. arado.
913. 'arú-sa rice. Sp. arroz.
917. bagé-ta leather. Sp. vaqueta.
918. bandé- basin, tin cup. Sp. bandeja.
919. bá-ra bullet. Sp. bala.
920. bá-sa drinking glass. Sp. vaso.
923. nú-gi buggy.
924. núyasi oxen. Sp. buey.
925. ba- bread. Sp. pan.
926. bá-ni cloth. Sp. paño.
927. bây-skü feast, holy day. Sp. pascua.
928. bá-šu straw. Sp. paja.
929. bèla pear. Sp. pera.
930. bicù-ti pig. Nahuatl pitzoll.
931. bisá-ri blanket, rug. Sp. pisar.
932. bísá-ri church officer. Sp. fiscal.
934. dábú-pu governor. Zuni ta-pu-pu.
935. dá-sa cup. Sp. taza.
936. dasasú-na taxes. Sp. tasación.
937. důdáči priest. Nahuatl totatzin.
940. dór-nda store. Sp. tienda.
941. gayé-ta biscuit. Sp. galleta.
943. gahé-ra drummer. Sp. cajero (?).
945. gamá-tu bed. Sp. cama (?).
946. ganá-sti basket, nest. Sp. canasta.
947. gané-ru sheep. Sp. carnero.
948. gapé. coffee. Sp. café.
949. gasl-ki high priest, king. Sp. cacique.
950. gás-ilu jail. Sp. cárcel.
951. gá-šu box. Sp. caja.
953. gawiyá-ra herd of horses. Sp. caballada.
954. gayawarti-sa barn. Sp. caballeriza.
957. gumunirá jail. Sp. comandancia.
958. gunžú mattress. Sp. colchon.
961. hasú soap. Sp. jabón.
964. hů-bisí Thursday. Sp. jueves.
967. kisá stew. Sp. guisado.
968. lé-ba, ré-ba coat. Sp. leva.
969. lelú-sa watch, clock. Sp. reloj.
970. má-disí Tuesday. Sp. martes.
971. madí-ya hammer. Sp. martillo.
972. mé-guríši Wednesday. Sp. miércoles.
975. mé-sa table. Sp. mesa.
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