REPORT 9

SURVEY OF CALIFORNIA AND
OTHER INDIAN LANGUAGES

PROCEEDINGS OF THE
HOKAN-PENUTIAN WORKSHOP

July 8-9, 1994
University Of Oregon, Eugene

And

July 5-6, 1995
University Of New Mexico, Albuquerque

Victor Golla, Volume Editor
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INTRODUCTION

The papers in this volume were originally presented at the meetings of the Hokan-Penutian Workshops in Eugene, Oregon, July 8-9, 1994, and in Albuquerque, New Mexico, July 5-6, 1995. The 1994 Workshop was held in conjunction with a two-week invitational conference on Comparative Penutian Linguistics (the proceedings of which will be published in a forthcoming issue of the International Journal of American Linguistics) and was organized by the coordinators of that conference, Scott DeLancey and Victor Golla. The 1995 Workshop was one of a series of meetings on Americanist linguistics that formed part of the 1995 Linguistic Institute at the University of New Mexico, and was organized by Victor Golla under the auspices of SSILA.

A special feature of the 1995 Hokan-Penutian Workshop was a half-day session on the Present Status of Hokan Linguistics specially organized by Margaret Langdon and William H. Jacobsen, Jr. A substantial part of the present volume is given over to Appendices containing the bibliographies and short summaries of pronominal reference and case systems that were prepared for this session. Also included is the draft of a lexicon of Seri, prepared by Stephen A. Marlett and Mary B. Moser for Mary Ritche Key's "Intercontinental Dictionary Series," a lexical database designed to facilitate crosslinguistic research. The format of this database is derived from Carl Darling Buck's Dictionary of Selected Synonyms in the Principal Indo-European Languages.

This is the second volume of Hokan-Penutian Workshop Proceedings to be published by the Department of Linguistics, University of California, Berkeley, as one of the Reports of the Survey of California and Other Indian Languages, under the general editorship of Leanne Hinton.

Victor Golla
Volume Editor
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On Nez Perce Nouns with Irregular Metrical Behavior or

"Why ‘Grizzly Bear’ Has Horrible Stress"

Harold Crook, UCLA

1. Introduction. Stress plays an important role in speech production and recognition. Pronounce a word with non-standard stress placement, and native speakers look at you quizzically until they at last understand. Then they immediately repeat the word with the “correct” stress. Stress location must therefore be predictable (i.e., governed by regular rules) or be lexical, so that native speakers share knowledge of its location in any given word. The disadvantages of lexical stress are that one will not know how to stress neologisms and that if secondary, ternary and possibly other levels of stress are factored in, a very great deal of information would need to be stored. Lexical stress usually also results in some forms that are incongruent with principles of rhythm. As Hayes (1995) argues and makes clear with abundant illustration, the stress systems of a vast proportion of the world’s languages are ultimately based upon rhythmic fundamentals that probably are at some level part of general human cognition.

In Nez Perce, by far the majority of nouns obey regular principles of stress assignment. Nevertheless, there is a considerable residue of nouns with unpredictable stress under some or all grammatical inflections. This paper explores that residue for patterns that may help to explain their existence, at least in part. Only main stress assignment will be considered, since stress at lower levels follows regular principles. This is consistent with what is seen cross-linguistically. While a number of languages have lexical primary stress for some or all of their words, in most cases, regular principles derive stress at the lower levels.

I begin with an account of regular stress placement so that the nature of irregular nouns can be appreciated. The nouns with irregular stress are then treated, grouped by their various commonalities. A final section discusses some possible conclusions. I have restricted the scope of the discussion to nouns because the morphological issues involved with Nez Perce verbs are too complex for treatment in a paper of this size. The sources from which I have collected irregular nouns are Aoki (1970), Aoki (1979), Aoki (1994), Aoki and Walker (1989), Rude (1985), and my own field notes.

2. Regular stress assignment. Regular principles govern the assignment of stress in most words (2.1). Words with final consonant clusters (2.2.) or vowel reduction (2.3.) create extra complications, but ultimately fit into patterns of regularity as well. Optimality Theory provides a formal means of examining the interaction of principles of the grammar (2.4). Morphological factors must also be taken into account (2.5.).

---

1 The author wishes to express his appreciation to his Nez Perce teachers Mr. Horace Axtell and the late Mr. Elmer Paul, to his advisors Pamela Munro and Donca Steriade, to the participants of the UCLA Amerian Indian Languages Seminar, and to the participants of the 1994 Hokan-Penutian Conference. Errors are of course entirely the author’s responsibility.
2.1. Fundamental principles. Several principles interact to determine where stress is located in the majority of Nez Perce nouns (1).

(1) a. Morphology: Stress placement respects certain morphological principles.
    b. Weight to Stress: Place stress on a long vowel if there is one.
    c. Non-Finality: Do not place stress on the final syllable.
    d. Rightmost syllable: Place stress as close as possible to the word’s right edge.

These principles are arranged in order of priority. Temporarily setting aside the issues of morphology and stress (see (2.5.)), let us consider the other three principles. In (2), the syllable with the long vowel receives main stress in each example, whatever its position in the word.

(2) a. ?íníit ‘house (nom)’
    b. wéeptes ‘eagle (nom)’
    c. háamana ‘man (obj)’
    d. hísémtuksnim ‘sun, moon (erg)’

The principle of Weight to Stress, which follows that of Prince (1991), requires main stress go to the heavy syllables.

In Regularly stressed nouns that lack long vowels, stress is penultimate; when light case suffixes are added, stress “shifts” one syllable to the right.4

(3) a. cóqoy ‘smokehole (nom)’
    b. cóqóyna ‘smokehole (obj)’

(4) a. talátat ‘cedar (nom)’
    b. talatátki ‘cedar (inst)’

(5) a. téhes ‘ice (nom)’
    b. tehésnim ‘ice (erg)’

Note that these examples illustrate the interplay of principles (1c) and (1d). While stress stays close to the right edge of the word, it is not assigned to the ultima.

An alternative approach to these data is to say stress is assigned to the rightmost foot (the Nez Perce foot being a moraic trochee) (6),(7).

\[^2\] The Nez Perce phonemes: ptckq? ṭs̓x̓h m̓n̓wyl p̗t’c’k’q’ m’n’w’y’il’.
\[^3\] Nez Perce has an unusual tripartite, ergative case system in the sense of Dixon (1994). An ergative (erg) subject has one case inflection, a direct object (obj) has a different case marker, and an absolutive subject (nom) is different from both in that the noun is uninflected. Other case inflections abbreviated in this paper are locative (loc), instrumental (inst), allative (all), and vocative (voc).
\[^4\] Light syllables are CV and CVC word finally.
2.2. Nouns with final clusters. An additional complication is found in the class of nouns that end in consonant clusters. The final consonant (be it extrametrical or a syllabic consonant) prevents a violation of the principle against the realization of the final (vowed) syllable with main stress (1c).

(8) a. nacoʔχ
    b. nacoʔχnim
        ‘otter (nom)’
        ‘otter (erg)’

(9) a. miyáʔc
    b. miyaʔásna
        ‘child (nom)’
        ‘child (obj)’

(10) a. meʔéqs
    b. meʔéspe
        ‘skin, hide (nom)’
        ‘skin, hide (loc)’

We would otherwise expect to see examples like *nácoʔχ, *miyaʔc, and *méʔéqs in the nominative forms.

2.3. Vowel Reduction. There is a further characteristic of nouns with regular stress properties – vowel reduction. Many syllables have long vowels which exist underlyingly but which only appear when the syllable is penultimate. In other positions, the vowel shortens (11).

(11) a. UR /paapas/ 
    páaps
    papáski
    ‘red fir (nom)’
    ‘red fir (inst)’

    b. UR /sik’em/
    sik’em
    sik’éempe
    ‘horse (nom)’
    ‘horse (loc)’

    c. UR /weeptees/
    weeptes
    weptéesne
    ‘eagle (nom)’
    ‘eagle (obj)’
d. UR /heepey/  
   héephy       ‘middle (nom)’
   hepéynim    ‘middle (erg)’

e. UR /coqoy/  
   cóqoy       ‘smokehole (nom)’
   coqóyna    ‘smokehole (obj)’

In each case, the underlying long vowel is reduced to a short version if it is not penultimate. Sometimes there is more than one long vowel underlyingly (11c), so only the one which is penultimate receives main stress and is realized as long. Note that vowels must be underlyingly long to surface as such. Several vowels in the examples in (11) are underlyingly short and do not surface as long when they have main stress (11a,b,d). If no vowels are underlyingly long, then no vowel will surface as long (11e).

Of nouns with long vowels, those that undergo reduction are in the majority. There are exceptions, however, as we see in (12), (13).

(12) UR /?iniit/  
     ?iniit      ‘house (nom)’
     ?iniitne    ‘house (obj)’

(13) UR /hiismtuks/  
     hiismtuks  ‘sun, moon’
     hiismtuksnim  ‘sun, moon’

In these irregular words, where non-penultimate long vowels do not reduce, main stress is awarded to the syllables with the long vowel. This implies that the principle of Weight to Stress (1b) outweighs that of the principle which mitigates against final stress (1c) and which favors stress being as close as possible to the right edge (1d).

2.4. Optimality Theoretic formalization.⁵ Optimality Theory, as developed originally by Prince and Smolensky (1993) and by McCarthy and Prince (1993), provides a cogent means of illustrating the interaction of principles in the grammar. In this approach, the grammar produces a surface form by first generating a set of candidates from a given underlying representation. The grammar then chooses among the candidates to determine which is the best surface form.

The principles of the grammar are cast in terms of constraints. The candidate with the least serious set of violations of those constraints is the winner and becomes the surface form. Every or almost every candidate will violate some constraint or set of constraints, but what is crucial is the nature of the violations. The constraints are ranked in order of importance, and the violation of a highly ranked constraint will outweigh any number of violations of constraints that have a lower ranking.

---

⁵ While I did not present my Optimality Theoretic analysis at the 1994 Conference, it had already been developed. I present a summary here that will be relevant for those interested in this theory of phonology. Other readers may pass over it without detracting from their understanding of the rest of the paper. Although the purposes of this paper are primarily descriptive, I include this discussion since it provides a useful means of representing the interplay of the stress principles.
The Nez Perce stress principles may be converted to constraints as follows:

(14)  
a. **Weight to Stress:** Any long vowel realized without main stress is a violation.  
b. **Non-Finality:** Stress realized on the final syllable is a violation.  
c. **Edge Right:** Every syllable between main stress and the right edge counts as a violation.  
d. **Faithfulness:** A long vowel realized as a short vowel is a violation (i.e., faithfulness to lexical information: Don't needlessly reduce a long vowel).

These constraints are listed in (14) in order of their priority. The following tableaux show how the correct surface form is produced for wéeptes 'eagle (nom)' (15).

<table>
<thead>
<tr>
<th>UR: wéeptes</th>
<th>Weight To Stress</th>
<th>Non-Finality</th>
<th>Edge Right</th>
<th>Faithfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. wéeptes</td>
<td>✗</td>
<td>✗</td>
<td>*</td>
<td>✗</td>
</tr>
<tr>
<td>b. wéptées</td>
<td>✗</td>
<td>*</td>
<td>*</td>
<td>✗</td>
</tr>
<tr>
<td>c. wéptes</td>
<td>✗</td>
<td></td>
<td>*</td>
<td>✗</td>
</tr>
<tr>
<td>d. wéeptees</td>
<td>✗</td>
<td></td>
<td></td>
<td>✗</td>
</tr>
<tr>
<td>e. wéeptées</td>
<td>✗</td>
<td>✗</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. wéptées</td>
<td></td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. weéptes</td>
<td>✗</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>h. weptes</td>
<td></td>
<td></td>
<td>*</td>
<td>✗</td>
</tr>
</tbody>
</table>

The winning candidate (15a) has two violations, but they are not as bad as any other candidate. Note how vowel reduction prevents the violation of Weight to Stress that takes place in the candidates without vowel reduction on the unstressed syllable (15b,d,e,g). By contrast, some candidates have a reduced vowel on the stressed syllable. This is unnecessary to avoid a Weight to Stress violation, and so the violations of Faithfulness rule these candidates out (compare especially (15a) and (15b)).

In the inflected form, wéptéesne 'eagle (obj),' it is the second syllable of the stem that is penultimate, and so that syllable is realized with the long vowel and the first syllable's vowel is reduced as seen in the abbreviated table in (16).

<table>
<thead>
<tr>
<th>UR: wéeptéesne</th>
<th>Weight To Stress</th>
<th>Non-Finality</th>
<th>Edge Right</th>
<th>Faithfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. wéeptéesne</td>
<td>✗</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>b. wéeptéesne</td>
<td>✗</td>
<td>✗</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>c. weéptéesne</td>
<td>✗</td>
<td></td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>d. wéeptéesne</td>
<td></td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
</tbody>
</table>
Example (16b) is more faithful to the underlying representation, but the long vowel in the antepenult results in a violation of Weight to Stress. Both (16c,d) have antepenultimate stress which violates the Edge Right constraint twice.

As mentioned above, if a syllable has a non-reducing long vowel, then main stress is awarded to that position. I interpret this as a consequence of the priority of the Weight to Stress constraint. This is illustrated in (17) for hiisemtuks "sun, moon."

<table>
<thead>
<tr>
<th>UR: hiisemtuks</th>
<th>Weight To Stress</th>
<th>Non-Finality</th>
<th>Edge Right</th>
<th>Faithfulness</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. hiisemtuks</td>
<td>**</td>
<td>*</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>b. hiisemtuks</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>(c. hisemtuks)</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

We would expect, all things being equal, that the third candidate (17c) would win, since it does not violate Weight to Stress and has penultimate stress. Given the Optimality framework, it must be assumed that an additional constraint (or set of constraints) exists that is ranked even higher than Weight to Stress which prevents the reduction of long vowels in these irregular words (Thus (17c) is represented in parentheses).

2.5. Morphology. As noted in (1a), morphology also interacts with stress assignment. Certain suffixes are stress attracting while others repel stress.\textsuperscript{6} The first kind is seen in (18) where the intensifier -nix attracts stress to itself.

(18) a. hámít'ic  
    b. haamt'ísníx  
    (haamt'ic ‘fast’ + -níx ‘intensifier’)

The second kind is shown in (19) where the suffix -?ees is realized with a long vowel that would otherwise be expected either to shorten or to be realized with main stress (compare the noun ?íníít, ?íníítne ‘house (nom)/(obj)’).

(19) a. wepițq’ees    wepițq’eensne  ‘drill (nom)/(obj)’  
    (wepițq ‘to puncture’ + -?ees ‘instrument’)  
    b. ?ilayáq’aas  ?ilayáq’aaspa  ‘wood stove (nom)/(loc)’ 
    c. wehéyyq’ees  wehéyyq’eesski  ‘necktie (nom)/(inst)’

The existence of such morphemes complicates the stress picture, but this does not

\textsuperscript{6} These attributes can be formulated in Optimality Theoretic terms as well, although to do so would go beyond the limitations of this paper.
invalidate the generalizations about stress previously noted. We cannot go further into the issues of stress and morphology, but the ability of morphemes to attract or repel stress is noted because this may help to explain some of the sets of exceptional nouns discussed below. None of the light case suffixes have unusual stress properties, so they can be used to test the nature of a noun’s stress assignment.

3. Nouns with irregular stress. Summarizing from the previous section, regular nouns have penultimate stress, and long vowels are realized only there. Suffixation with light case suffixes serves to test what kind of stress behavior a noun has. Nouns are identified as irregular when a non-penultimate long vowel does not reduce. Although such nouns are phonologically irregular in one aspect, they may be seen as otherwise conforming to the principle Weight to Stress. Another kind of irregular noun has stress lexically assigned to a syllable that does not have a long vowel, although there may be long vowels in the word that do not receive main stress and do not reduce. The word χάχαακ, χάχαасна ‘grizzly bear (nom)/(obj)’ (Ursus horribilus) is a particularly “horrible” example; it does not shift stress, it has a non-reducing long vowel, and this long vowel does not receive main stress. In the following sections, irregular nouns are considered according to properties that may help to explain their aberrant behavior. Nouns that are compounds or incorporate a productive word-forming affix are not included since additional principles are at work in such cases.

3.1. Non-native vocabulary. Borrowings are notorious among languages for having irregular properties, and so it is not surprising that a portion of the irregular nouns in Nez Perce are non-native.

(20)  
a. célmén  célmenné  ‘Chinese (nom)/(obj)’  
(= likely from English china-man)

b. kapóó  kapóoki  ‘coat (nom)/(inst)’
(= Spanish capa )

c. kótá  kótana  ‘quarter (nom)/(obj)’

d. núyee  núyeeki  ‘New Year (nom)/(inst)’

e. tímeti  timetíine  ‘Timothy hay (nom)/(obj)’

f. ?átamoo  ‘automobile (nom)’
g. lémhaay  lémhaaypa  ‘Lemhi, ID (nom)/(loc)’
h. siláyloo  ‘Celilo, OR (nom)’
i. yáqamoo  yáqaamoo  ‘Yakima, WA (nom)/(loc)’

---

7 I have analyzed the speech signal of ‘grizzly bear’ and other nouns of this kind in the UCLA Phonetics Lab and found that the perceptions are borne out by the spectrographs. The duration of the second vowel in χάχαακ is twice that of the initial vowel, but the initial vowel has the highest pitch and is slightly lengthened, the most consistent phonetic correlate of main stress in Nez Perce.
In most cases, stress is simply fixed on the syllable corresponding to the stressed syllable in the source word. (20e) is an exception as its inflected form has stress on the penult. Note also that the last three examples are also place names, and as such receive treatment under (3.3.) also.

3.2. Morphological fossils. As shown above in (2.5.), morphology can have an effect on the realization of stress (attracting or repelling). While this is clearly the case with productive morphology, it appears that several nonproductive morphological fossils may be responsible for some sets of nouns with irregular stress assignment.

The Associative or Stative case suffix -iin/-i?n, which is used as a productive case marker, is stress resisting:

(21)  
  a. χálpálpnim pisítiin  
        Gusty Wind-erg father-Assoc.  
        'Gusty Wind with her father'  
        Phinney (1934) 329:7
  
  b. kii hipapáayna wewúxye miyá’ciin  
        this arrived elk child- Assoc  
        'Now Elk arrived with his child'  
        Phinney (1934) 440:4

There are, however, two nouns (at least) that include this suffix as part of a no longer productive composition of their stems.

(22)  
  a. hímiin hímiisne  
        'wolf (nom)/(obj)'  
  
  b. púxnin’ púxni?sne  
        'shawl (nom)/(obj)'

The word for ‘wolf’ is literally ‘the one with the mouth’ (hími ‘mouth’ + associative), while ‘shawl’ is ‘the thing with the fringes’ (púxín ‘fringes’ + associative). That these formations are nonproductive is seen in the loss of the glottalization on the final consonant of ‘mouth’ and the loss of length of the initial vowel of ‘fringes.’

A second fairly clear set of cases involves what appears to incorporate a nonproductive allomorph of the locative -nwees or a remnant of it. This suffix is used productively in the formation of words as seen in (23).

(23)  
  hípnwees hípnweesne  
        'restaurant'  
        (hípt 'food' -nwees )

That this suffix is stress repelling is seen in the fact that the long vowel does not reduce and that stress is not attracted to this vowel from the stem, even when the long vowel is penultimate.

There are a number of nouns, however, that appear to form their stems with a fossil of this locative suffix that is not used productively. Aoki (1994) suggests that -ees
may be isolable from -nwees, but this is by no means clear (It does not seem to be used
to coin neologisms).

(24) a. téemées   téemeeski    ‘camas pit (inst)’
     (teemek ‘to roast underground’)

b. wéeyees   wéeyeespe   ‘dance floor (nom)/(loc)’
     (weeyece ‘to dance’)

c. ?éewtees   ?éewteesne  ‘bullet hole (nom)/(obj)’
     (?ewii ‘to shoot’)

d. wéepées   wéepéesne   ‘spookiness (nom)/(obj)’
     (wepee ‘to go into the forest’)

e. túkees    túkeespe     ‘drying rack (nom)/(loc)’

f. ?éemées   ?éemeesne   ‘menstruation (nom)/(obj)’

All of these items except the last two have related verbs from which they were derived at
some point in history. Also, they are mostly either locations or are easily related to a
location.

In a third and less certain set are four words ending in a short, stressed e/a finally
(ee/aa non-finally), and preceded by a glottalized consonant (the alternation of vowel
quality is by Vowel Harmony). This suggests the former existence of a lexically stressed
suffix -ê/ -ée.

(25) a. k’oy’ám’á    k’oy’ám’áana  ‘cougar (nom)/(obj)’

b. pixwew’é     pixwew’éene  ‘bull snake (nom)/(obj)’

c. tipl’é      tipl’éene   ‘firewood pile (nom)/(obj)’

d. tuy’é      tuy’éene    ‘blue grouse (nom)/(obj)’

There is a productive rule of glottal merger which derives a glottalized consonant from a
series of consonant and glottal stop: C? → C’.


b. ?iit’it     (<?iit + ?iit)    ‘end’

The existence of a suffix -ê would account for the glottalization of the preceding
consonant, and it would be parallel to a productive suffix -í that derives adverbials.
Aside from the forms in (25), there is no other modern evidence for a -ê, but it probably
did exist at one time.
A fourth and considerably more speculative group of examples (28) might include a fossilized form of the vocative suffix -eʔ or be motivated on analogy with it. This suffix is added to kinship terms to derive the vocative form (27).

(27) a. qalácaʔ ‘(paternal) grandpa! (voc)’
b. piláqaʔ ‘(maternal) grandpa! (voc)’
c. tóotaʔ ‘Dad! (voc)’

The words in (28) are irregular because stress does not shift to the penult in the inflected form. The first two items could conceivably have a remnant of -eʔ; animal names are used as proper names in the traditional narratives.

(28) a. tilípeʔ tilípeʔne ‘fox (nom)/(obj)’
b. tískεʔ tískεʔne ‘skunk (nom)/(obj)’
c. qeqépeʔ qeqépeʔne ‘corn husk bag (nom)/(obj)’
d. wiwiceʔ wiwiceʔne ‘log (nom)/(obj)’

The other two examples could only be related by phonological analogy. Their resemblance to the items in (27) is probably purely by chance.

When we propose that morphological fossils are responsible for irregular stress patterns, what we are really saying is that the stress patterns were present during that period when the affix was productive, and then, as productivity was lost, if the stress pattern was not regularize, then it was lexicalized as part of the word’s unpredictable nature, along with the morphological remnant. We turn now from morphological motivations to proper nouns, place names, and their stress properties.

3.3. Proper nouns and place names. Place names (30) are in most cases a special case of proper name (29), and in Nez Perce, irregular stress properties are commonly found in these nouns.

(29) a. ?óq’ọxɔc ?óq’ọxsnɔ ‘a man’s name (nom)/(obj)’
b. cîceqiy cîceqîynɛ ‘Coyote’s youngest child’
c. támimɔʔ támimɔʔpa ‘man’s name (nom)/(loc)’

(30) a. teχséhe teχséhɛnɛ ‘Bedrock Canyon (nom)/(obj)’
b. yáwwinma yáwwinmanɔ ‘Rapid River (nom)/(obj)’
c. cáky’ax cáky’axpx ‘left (nom)/(allt)’
d. lémhaay lémhaaypa ‘Lemhi, ID (nom)/(loc)’
e. siláyloo ‘Celiloo, OR’
f. yáqamoɔ yáqamoɔpa ‘Yakima, WA (nom)/(loc)’
Note that the man’s name in (29a) contrasts almost minimally with ʔoq’oχc, ʔoq’oχsna ‘ankle.’ The common noun has regular stress but the proper noun has lexical stress. It is difficult to say why these kinds of nouns have irregular stress properties more often than other nouns, but we note that unusual stress behavior is documented for proper nouns/place names in other languages.

(31) Modern Turkish

<table>
<thead>
<tr>
<th>Modern Turkish</th>
<th>Modern Turkish</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bodrüm</td>
<td>bodrumá</td>
<td>‘basement (nom)/(dat)’</td>
</tr>
<tr>
<td>bódrum</td>
<td>bódruma</td>
<td>‘Place name (nom)/(dat)’</td>
</tr>
</tbody>
</table>

In the next section, we turn to names for animals, which in some cases might actually be proper nouns.

3.4. Animal names. Most animal names in Nez Perce have regular stress. Since there are a great number of names for different kinds of animals, it is not surprising that animal names would be included in the set of irregular nouns as well. Note that in the following list, some items have regular forms depending on the dialect of the speaker.

(32) a. cílmi

| cílmi | cílmìine | ‘pine squirrel’ |
| cílmi | cílmìine | (less preferred) |

b. c’itítee

| c’itítee | c’itítee | ‘ermine (nom)/(obj)’ |
| c’itíte | c’itíte | (less preferred) |

c. qáya

| qáya | qáyana | ‘snake hawk (nom)/(obj)’ |

d. tìtewxe

| tìtewxe | tìtewxesne | ‘chiselmouth (nom)/(obj)’ |

e. qósatal

| qósatalna | ‘male mtn. goat (nom)/(obj)’ |

f. wewúkye

| wewúkylene | ‘bull elk (nom)/(obj)’ |

g. wetyétwmes

| wetyétwmesne | ‘trumpeter swan (nom)/(obj)’ |

h. ?álok’at

| ?álok’atna | ‘mountain sheep (nom)/(obj)’ |

i. qaasi?

| qaasi?na | ‘bumblebee (nom)/(obj)’ |

j. χáχasac

| χáχasana | ‘grizzly bear (nom)/(obj)’ |

k. himiin

| himiisme | ‘wolf (nom)/(obj)’ |

l. tìlipe?

| tìlipe?ne | ‘fox (nom)/(obj)’ |

m. tíske?

| tíske?ne | ‘skunk (nom)/(obj)’ |

It is possible that some of these animal terms may in fact be proper nouns. In the myths (see Phinney 1934, Aoki 1970, Aoki and Walker 1984), the animal characters are usually called by the names we find here. It might also be the case that for the Nez Perce people, animal names, which we think of as common nouns, were in some sense proper names.

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8 I am grateful to my friend Abby Kahn for this example.

9 My consultants have supplied their personal evaluations that the irregular forms are usually typical of older speakers and are “preferred.”
For some animal terms, taboo avoidance or deformation is a further possibility. Watkins (1985) has pointed out for Indo-European how words like bear and wolf have undergone change through taboo avoidance or deformation. The Indo-European word for 'bear' was something like ṛtko (c.f., Greek arktos and Latin ursus), and the word for 'wolf' something like ᵀkʷo. In Germanic, taboo avoidance resulted in complete replacement of the cognates of ṛtko by bear and bruin etc. In Latin, deformation applied to ᵀkʷo (from which English gets wolf without deformation) to produce lupus.

For the Nez Perce animal terms, it is very possible that some of these words would have been deformed or replaced for reasons of taboo avoidance. The word for wolf "the one with the mouth" seems straightforwardly to be a taboo replacement (33a). Grizzly bear seems to be a good candidate as well since this animal was and still can be a terror to poorly armed humans in the Rocky Mountains. Reasons for avoiding skunks seem fairly obvious.

(33)  a. himiin himiisne ‘wolf (nom)/(obj)’
      b. ḡaḥaaq ḡaḥaaasna ‘grizzly bear (nom)/(obj)’
      c. tilipe? tilipe?ne ‘fox (nom)/(obj)’
      d. tiske? tiske?ne ‘skunk (nom)/(obj)’

The unusual stress properties of these items may have added to the deformation that was imposed to distance them from the original word. Deformation based on stress and vowel length is clearly involved in the derivation of ‘yellowjacket wasp’ (34).

(34)  ?alatálo ‘yellowjacket wasp’
      (Not *?alatáalo) from ?aalaa ‘fire’ + taalo ‘testes’)

Given usual compound formation we expect *?alatáalo or even *?aláatalo. One of my consultants pointed out the fact that if you said ‘yellowjacket’ the first way, people would know what you meant, but that they would giggle.

3.5. Nouns with final fricative codas: χc/χs. This set of nouns is irregular because stress is expected to be on the final vowel of the word. In the examples shown in (2.2.), a final CC cluster suspended the proscription against final stress that otherwise prevents assignment of stress to the last vowel. However, a final cluster χc/χs does not confer this kind of exemption on a word.

(35)  a. cáť’oxc cáť’oxsna ‘wild hyacinth (nom)/(obj)’
      b. máć’axs máć’axsna ‘ear (nom)/(obj)’ (rare)
      c. sít’eχs sít’eχsne ‘liver (nom)/(obj)’
d. piyé̄x̄ne  
piyé̄x̄ne  
‘rawhide rope (nom)/(obj)’

e. sisté̄x̄ne  
sisté̄x̄ne  
‘crotch (nom)/(obj)’

f. ?íspēx̄ne  
?íspēx̄ne  
‘groin,’ ‘crotch (nom)/(obj)’

Since stress does shift in some or all of these examples, depending on the dialect, it appears that the nouns are regular in other aspects. The unifying aspect is the uvular fricative before another fricative/affricate (the other fricatives do not appear in such a position). This stands in contrast to the other examples in which a stop precedes a fricative/affricate. If the uvular fricative forms a complex coda with a following fricative/affricate but a stop does not, this would provide a formal explanation for the difference in the behavior of these two kinds of nouns. In the case of a word ending in χ̄/χ̄s, the preceding vowel would be part of a word final syllable, and so subject to the principle that prevents that kind of stress pattern. In the cases where ?χ̄/q̄s end the word (e.g., naco?χ̄, naco?q̄a  ‘otter (nom)/(obj)’), if the members of the cluster are heterosyllabic, then it follows that the rightmost vowel is not in a final syllable and can therefore receive main stress.

3.6. Nouns where long vowels are unstressed. These nouns are unusual in that their long vowels are expected to reduce if they do not receive stress. If they do not reduce, then stress is expected to be assigned to them because of the Weight to Stress principle. In spite of these principles, stress shifts from them to a vowel closer to the right.

(36)  
a. teemísquu  
teemísquuyne  
‘syrup (nom)/(obj)’

b. taamá̄mno  
taamá̄mno  
‘hummingbird (nom)/(obj)’

taamá̄mno  
taamá̄mno  
(regular but less preferred)

c. seewí̄s  
seewí̄sne  
‘mussel (nom)/(obj)’

seewí̄s  
seewí̄sne  
‘mussel (nom)/(obj)’

d. t’ulúluux̄n  
t’ulúluux̄ne  
‘kingfisher (nom)/(obj)’

t’ulúluux̄n  
t’ulúluux̄ne  
‘kingfisher (nom)/(obj)’

In the first two cases, stress shifts to a vowel which is then realized as long. Since Weight to Stress would be equally satisfied with stress on either long vowel, the penultimate long vowel should win by virtue of the principle that favors stress closer to the right edge (while this explains the inflected form, it does not explain the uninflected). For the other examples, it is difficult to see what the explanation would be. One possibility is that once stress has been assigned to a syllable following a long vowel, this implies that the long vowel can be ignored for further purposes of stress assignment. Note that stress never moves leftwards under inflection.
3.7. Residue. There remain a number of nouns for which there seems to be no reason—
obvious or speculative— for their irregular stress properties.

(37) a. mástaps mastáapsna ‘deaf person (nom)/(obj)’
b. χóyya?c χóyya?sna ‘javelin (nom)/(obj)’
c. ?ením’ ?ením’ne ‘winter (nom)/(obj)’
d. lilóqpililóqpnim ‘a berry (nom)/(erg)’
e. titux tituxne ‘elk thistle (nom)/(obj)’
f. mínqas mínqasna ‘orange (fruit) (nom)/(obj)’
g. tákmaat tákmaatna ‘hat (nom)/(obj)’
h. k’apác k’apácna ‘edge (nom)/(obj)’
i. wiwáyko? wiwáyko?na ‘new shoots (nom)/(obj)’

4. Conclusions. The existence of nouns with irregular stress is by no means
 calamitous for the grammar. As in any natural language, the Nez Perce lexicon is able to
 accommodate words with extra unpredictable characteristics. However, it is heartening
to see that many of the irregular nouns have in their history an explanation for their odd
 behavior. This allows us to have greater confidence in a theory that seeks to provide an
 explanation for regular stress assignment.

References

JOHN MILHAU'S 1856 HANIS VOCABULARIES: COOS DIALECTOLOGY AND PHILOLOGY

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ABSTRACT

Dr John Milhau, an army physician in Oregon after the Rogue River Wars of 1855, collected vocabularies of a number of languages of southwestern Oregon. Among these are lists in two dialects of Hanis, one of the two Coosan languages. This paper discusses Milhau's linguistic career, the documentation of the Coosan languages, and differences between the two Hanis dialects, for one of which Milhau's material is the only evidence. It also provides modern Hanis and Miluk Coos equivalents for Milhau's forms, which are reproduced in an appendix.

1. Introduction: The Coos Diaspora.

The Coos Indians lived in what is now Coos County, Oregon, south of the Siuslawan-speaking Lower Umpquas (sometimes known as Kuikshes in some ethnographic sources after the Lower Umpqua village name quuic, or as Kalawatsets from qalwec, the Tillamook Salishan word for 'southerner'), and west of speakers of Athapaskan (Tututni-Kwakiutl, Upper Coquille) or Kalapuyan (especially Yonkalla Southern Kalapuyan) languages. Coos-speaking tribes had evidently occupied much of the lower Coquille River basin until the late eighteenth century, when Upper Coquilles began to expand their territory, and the mouth of the Coquille River was still home to some Coos-speakers in the early nineteenth century.

The Coos spoke two languages. The northern two-thirds, from their border with the Lower Umpquas near South Tenmile Lake, as far as Empire (now part of the City of Coos Bay), spoke forms of Hanis, while the people living to the south of Empire, on the South Slough of Coos Bay and the mouth of the Coquille River (the g’siyax or Lower Coquille Indians), spoke forms of Miluk. The languages shared much vocabulary and most structural patterns; no phonological changes exist which serve to separate Miluk from Hanis, but a considerable amount of the basic vocabulary and certain rules of cliticization differed in the two languages, and the two languages were not mutually intelligible. The Lower Coquilles were regarded as a different tribe from the South Slough people and the other Coos, although as far as we can tell South Slough and Lower Coquille forms of speech were almost identical. This situation parallels that obtaining between the Lower Umpquas and their northern neighbors, the Siuslaws, who spoke dialects of the same language but who were different.
political entities who maintained external relations with different groups.

The period after 1851 saw the overrunning by White settlers of what had previously been territory where Indians were in the majority. Land which had belonged to local tribes since time immemorial was divided up for the benefit of White expropriators, while the original inhabitants were assigned wretched parcels of land in treaties which the United States Senate never ratified. The Indians were justifiably enraged. Clashes between Oregonian tribes (for instance the Takelmas and Chasta Costas) and well-armed White settlers had resulted in the series of attacks and skirmishes known as the Rogue River Wars, which took place in 1855. These conflicts, in which the settlers were better armed, numerically superior and therefore victorious, were to lead the deportation of the majority of coastal Oregon Indians to generally squalid camps in the northwest of the state (notably Siletz and Grand Ronde), though some of the ringleaders of the Rogue River Wars were deported to prisons in California.

The superintendent for the Coos and other tribes in the area, and the man whose task it was to negotiate the treaties on behalf of the Government, was Joel Palmer, who was appointed in the spring of 1853 under the command of General Joseph Lane. Palmer is of interest to Penutianists for his (poorly-transcribed) vocabularies of Chinook Jargon and Nez Perce (Palmer 1847: 147-157 and subsequent printings). Palmer knew that the Coos had had no part in the Rogue River skirmishes, and sought to protect them from the fury of several bands of White vigilantes who were committing atrocities against Indians in the area. The Indians' predators included the Crescent City Guard, another band of volunteers at the mouth of the Coquille River, and Benjamin Wright, the psychotic agent to the Tututnis. Wright was chiefly known for his long curly black hair, for once in his ebriety stripping the clothes off an Indian woman and chasing her through Port Orford with a bullwhip, and for collecting buckskin thongs festooned with fingers and ears of murdered Indians. (in the spring of 1856 Wright was finally cornered and slain by Tututnis, who then performed a scalp dance, with his locks as pièce de résistance; see Beckham 1977: 140-141).

Palmer's actions may have been nobly motivated — the liquidation of the Indians of coastal southwestern Oregon (which is what many Whites wanted) was only narrowly averted by the removal of the Indians — but their immediate beneficiaries were the very people whose crimes had necessitated the departure of the Coos, since the Coos exodus left huge tracts of land in southwestern Oregon available for settlement by White opportunists.
The Coos were one of the few tribes to return in any great numbers to their ancestral lands. Upon being moved up the coast (largely on foot) in 1856, they were settled on the Coast Reservation in northwestern Oregon, and by 1859 were eking out a miserable existence near Yachats and Yaquina Bay in the Alsea Agency. This grim period lasted until 1875, when the Coast Reservation was closed and most of its land thrown open to White land-grabbers. The provisions and benefits which the unratified treaties had promised the Coos (including a school) had never materialized, and they had been reduced to a fraction of their original number through starvation, disease and despair. In time, most of the Coos trickled back to the Coos Bay area and settled near their ancestral lands. Some did not; a few Miluk-speakers, including some Lower Coquilles, remained awhile at Siletz; some Coos settled near Florence, in what had been Siuslaw territory (although the Lower Umpquas had shared the same fate as the Coos, the Siuslaws had never been deported). In the early twentieth century there were individuals speaking one or other of the Coosan languages in localities more than two hundred miles north of traditional Coos territory.

2. John Milhau and his Linguistic Work.

Dr John J. Milhau was the army physician at the old Fort Umpqua, in Lower Umpqua territory, southwestern Oregon, in 1856. Little is known of his background or of his life subsequent to his time in Oregon. To judge by his name, he was of French (perhaps Huguenot) extraction, and his transcriptional practice suggests that he was a speaker of a form of English which lacked word-final or preconsonantal /r/ (Milhau used postvocalic ⟨r⟩ as a way of marking vowel length), so he was probably an Easterner.

Milhau left Fort Umpqua on or around November 21 1856, having (with one Lieutenant Stewart) rescued his successor, Dr Edward P. Volum, together with Volum’s wife, when their ship foundered and ran aground at the mouth of the Umpqua River; the ship was wrecked, and the other passengers were rescued by local Lower Umpqua Indians.

Milhau was able to see at first hand the depredations which the inhuman conditions of deportation were wreaking on the Coos, and reported about the smallpox epidemic of 1856 (reproduced in Beckham 1977: 155):

The death of an Indian with this disease throws the whole village into a state of excitement and the Indians immediately proceed to kill off all the suspected doctors and make indiscriminate slaughter of all suspected persons until the disease disappears, so that between the disease and the means taken to prevent it a large number have been buried.
The 'doctors' were Coos shamans, possibly those known in Hanis as 'ilqaxlyn, although some may have been the more powerful (and more feared) shamans, sometimes of non-Coos origin, known as mit'édexan. Some forms of curing, such as immersion in water, would have helped to propagate the disease. The impact which this tragic episode must have had on the transmission of Coos curing and religious lore, and on the demographics of the Coos population, can only be guessed at, but the effects must have been very damaging. Other diseases afflicted the undernourished Coos population at this time; prominent among these was scrofula.

In this unhappy environment Milhau was able to offer some medical help. He also took the opportunity to collect linguistic data from several tribes uprooted from southern Oregon, with whom he came into contact. Milhau was the first person to collect any data on a Coosan or Siuslawan language; in addition to his Hanis data, he collected similar wordlists in Lower Umpqua, Alsea and Upper Umpqua (one of the few sources, and one of the longer ones, for this distinctive Oregon Athapaskan language). He was not the first person to collect Upper Umpqua or Alsea material - Horatio Hale had collected data on both in 1841 (Hale 1846: 570-629), but he had not ventured into southwestern Oregon. But apart from Hale and a couple of other collectors (William Fraser Tolmie, in Scouler 1841, and Samuel Parker: Parker 1836) who had gathered wordlists from tribes living along the Coast Range of mountains, Milhau was one of the earliest collectors of linguistic data from coastal Oregon, and by the time the next period of work on Coosan and Siuslawan languages began in the 1880s, these were in their final years of use as home languages; the 1880s saw the birth of the last speakers of these languages.

Milhau used a wordlist devised by George Gibbs (who himself collected Oregonian linguistic material, for example wordlists of Yamhill Kalapuyan and Molala), which was based on the one used by Hale, which itself was based on a 180-item wordlist used and circulated by Albert Gallatin (for instance in Gallatin 1835), which itself may have had its roots in lists used by Thomas Jefferson in his endeavors to collect Indian vocabularies (see Duponceau 1836 ms). Gibbs' wordlist used 180 entries (Milhau appends a few; Gibbs was later to extend it to 211 items by adding further kinship terms and numerals). Milhau did not use any semi-phonetic script of the sort Gibbs preferred, but employed a rough-hewn English-based spelling, although with some attempts at regularization (Buckley 1988: 10). His two lists of words of the 'Coos Bay' language were apparently collected near Umpqua City in November 1856, although he does not give the name of his consultants. These vocabularies form Bureau of American Ethnology ms 191a (BAE ms 191b is a transcription of these into a more standardised orthography by George Gibbs, using macrons rather than <r> to denote vowel-length, and so on).

Milhau's vocabularies of Alsea and Lower Umpqua were used, together with other available early materials, in the preparation by Frachtenberg of
vocabularies of these languages which he appended to his text collections (Frachtenberg 1914, 1920). Frachtenberg's aim was to retrieve from these earlier materials all the words which he had not himself been able to elicit from his consultants, although he did not use these vocabularies exhaustively even in this respect. For some reason he does not seem to have used Milhau's Coos vocabularies in the preparation of his Coos Texts (Frachtenberg 1913).

The National Anthropological Archives also houses vocabularies of a similar date and type covering Yuma and Mohave which Gibbs furnished and which were apparently collected with Milhau's assistance. I have not seen these lists. Clearly Milhau was in Arizona at some point, although details of his life after leaving Fort Umpqua are lacking.


Since Milhau collected two Coos vocabularies, and since one of them refers to Coos Bay as Malukitz, it might be supposed that one of these represents Miluk Coos while the other is Hanis. This is not the case, as a comparison of the lists with modern recordings of the languages will show. There is not a single word in either of the Milhau Coos lists which points unambiguously to Miluk affiliation. Such forms as resemble those in Miluk are paralleled by forms recorded for modern Hanis.

As stated above, Milhau's data comprise the first record of Hanis Coos speech. The only other record collected at a time when the language was still being passed on to children was George Bissell's 1880s schedule of words and phrases, housed in the National Anthropological Archives. More material, including texts, was collected by Harry Hull St Clair II, a student of Franz Boas, in 1903, while in the summer of 1909 Leo J. Frachtenberg secured even more plentiful material on Hanis, for which he published texts (including those collected by St Clair) with a glossary (the only one published so far) and later a grammar, which served as his doctoral dissertation (Frachtenberg 1913, 1922).

The other scholar to collect substantial material in Hanis was Melville Jacobs (1939, 1940), although he concentrated on retrieving Miluk. Subsequent data are largely unpublished. A little Hanis material was gathered in the 1930s by Joe and Alice Maloney, who worked with Lottie Jackson Evanoff, one of the chief consultants also of John P. Harrington, who worked with her in 1941-1942. There was only one speaker of Hanis alive after 1951, Mrs Martha Harney Johnson of Florence (1886-1972), who worked with Morris Swadesh and Robert Melton in 1953, with Russell Ulan, Victor Golla and especially Jane Sokolow in 1964-1965, and with Joe E. Pierce apparently a little later (these last data were deposited at Portland State College and have subsequently disappeared).
We have extensive textual (mythological, historical and narrative) and paradigmatic material for Hanis, in addition to over two thousand words of lexicon. The chief sources of data are the collections of Bissell, Frachtenberg, Jacobs, Harrington and Sokolow, the others are minor collections although they contribute individual items to our knowledge of the language.

The identity of Milhau's and Bissell's consultants is unknown. St Clair worked largely with Tommy Hollis, also known as Tommy Miller; Frachtenberg worked with Frank Henry Drew (1871-1951), who had grown up along the Siuslaw River, and Jim Buchanan (c. 1849-1933), the latter giving the texts. Mr Drew worked a little with Jacobs, whose main consultant was Annie Miner Peterson (1862-1939). Harrington worked with Lottie Jackson Evanoff (fl. 1942), the daughter of one of the last Coos chiefs and wife of an Aleut sealhunter resident in Coos Bay; he also worked with Mr Drew and a little with Martha Harney Johnson. Thus the same few people worked with most of the investigators.

The material on Miluk Coos is largely from one person, Mrs Peterson, the woman who provided Hanis data for Jacobs. She provided many superb texts, and also some paradigmatic and much lexical material. Her native language was Hanis (she was related to Mrs Evanoff); her mother's mother had spoken Miluk and had passed it onto her granddaughter. Her Miluk data are the best and fullest that we have. The first record of Miluk, just over a hundred words and a few grammatical forms, was collected by James Owen Dorsey in 1884 at the Siletz Reservation from an old man named Coquille Johnson. St Clair collected some Miluk data from George Barney in 1903, but Frachtenberg (who collected no Miluk as far as we know) did not publish this, though he printed Dorsey's data in an appendix in Frachtenberg 1914. J. P. Harrington collected a few dozen words in 1942, some from from Lottie Evanoff, but others from Laura Hotchkiss Metcalf (1862-1961), a semi-speaker of the language who had not used it for many years (her phonology seems to be colored by English), and who also served as a resource person for Morris Swadesh and Robert Melton in 1953. The tape recording which they collected was the last recorded Miluk material.

The Hanis and Miluk material presented here is problematic with respect to transcription. The best recorder of Miluk, and the man who made the most copious records of the language, namely Melville Jacobs, did not believe in the phonemic principle (Dall Hymes, personal communication, 1994), and presented his material in a segmentally accurate but quasi-phonemic system of transcription resembling a broad but not internally regularized system of notation. Close analysis of his work shows that there are numerous instances of the same word being written in differing ways in Jacobs' texts. Essentially he wrote down what he heard on a given occasion.
Transcriptional problems in Hanis are exacerbated by the fact that the same word was not always heard identically by St Clair, Frachtenberg, Jacobs and Sokolow, and it is hard to systematize these differences.

For instance, on many occasions when Frachtenberg heard (especially) word-final /q/, other people have heard /k'/ - for example in the numerals 'six' and 'seven', Frachtenberg has /-q/ and Sokolow /-k'/, and while Frachtenberg was a painstaking observer of Coos phonetic events, his use of numerous vowel symbols (which cover what is a five-vowel system of /i e a u a/ plus length in the case of the first four) suggests that he could not always see the wood for the trees (and he was initially misled by St Clair's transcriptions, since the latter used a system of orthography which was obsolete when Frachtenberg began work). Jacobs is a much more disciplined observer, who seems to have heard the languages as being pronounced in a lenis fashion, with more deaspiration and voicing of stops, than other observers might suggest. Sokolow had the benefit of the most rigorous training in phonetics and phonological theory, although this was counterbalanced by the fact that Mrs Johnson had not used her maternal language (her mother, Jane Harney, who died in 1934, spoke no English) in nearly fifteen years.

In short, much of the detail of Hanis phonology is still guesswork, and one has to make decisions about the original shape of a word on the basis of its attestations in a couple of often widely diverging sources. (This is not the case with Miluk; since ninety-five percent of the Miluk morpheme lexicon is found mainly or exclusively in Jacobs' work, which can be phonemicized with respect to voicing of stops, the representation of uvular consonants and their separation from velars, and so on, problems only occur when one attempts to reconstruct a word which Jacobs did not record, or which sometimes contain gemination or another variable feature, and sometimes not.)

I would not wish to defend to the death all my decisions about my spelling of Hanis words. The time for a thorough overhaul of Hanis phonology (which has largely been carried out in Pierce 1971), together with a lexicon of phonemicized Hanis forms, is long overdue, and this article is not the ideal forum in which to carry out this task. I am especially uncomfortable about the distinction between /p/ and /b/, for instance in the word for 'sea' (none of these labial sounds are particularly common in Coos, incidentally, although their presence is certainly not explicable by reference to forms loaned from other languages), and to a lesser extent the distinction between other sets of voiced and voiceless stops, the recording of /q/ when it is pitted against /k'/ in differing sources, and general occurrences of voiced uvulars and labio-uvulars. As far as the vowels are concerned, I doubt that I have been completely accurate in my phonemicization of Frachtenberg's instances of <i> (usually respelt as /a/) and <e> (usually respelt as /ee/, phonetically [ɛː]). I offer the forms in these lists as
an attempt to suggest how the Hanis equivalents (and usually etyma) of Milhau's forms would have sounded like.

In short, the Miluk forms which I cite should be regarded as more reliable than the Hanis forms (which nonetheless are as reliable as I could make them). One thing which needs to be reiterated is that historical and diachronic conclusions should not be drawn from the discrepancies between Hanis and Miluk in these lists. The two languages differed considerably in lexicon (especially basic lexicon) and in certain aspects of grammatical structur; Miluk also made use of (usually word-final) voiceless nasals, /M N/, where Hanis had /m n/. Nonetheless, although a number of morphemes common to both languages assumed different shapes (for instance 'not' - Hanis '/in/', Miluk '/an/', usually shown with a voiceless nasal, thus: '/aN/'), there are no one-to-one sound-changes of any great scope which serve to set the languages apart on the order of the Siouan retention of /l/ against Lower Umpqua's merging of /l/ with /n/. There is no Grimm's Law for Miluk, and in the two languages, the morphemes are usually recognizably cognate, or, else they are completely dissimilar and have different origins (and it is impossible to say whether Hanis or Miluk is the innovating language).

The system used in writing the Hanis and Miluk words given in this paper is set below in tabular form: the values of the letters conform to those of American Phonemic notation, except for the barred form ṛ, which represents a dorsal voiceless fricative, and replaces the underdotted x.

### HANIS AND MILUK CONSONANTS

<table>
<thead>
<tr>
<th>Hanis</th>
<th>Miluk</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>[p']</td>
</tr>
<tr>
<td>t</td>
<td>t'</td>
</tr>
<tr>
<td>t₁</td>
<td>t₁'</td>
</tr>
<tr>
<td>c</td>
<td>c'</td>
</tr>
<tr>
<td>ċ</td>
<td>ċ'</td>
</tr>
<tr>
<td>k</td>
<td>k'</td>
</tr>
<tr>
<td>kw</td>
<td>k'w</td>
</tr>
<tr>
<td>q</td>
<td>q'</td>
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<tr>
<td>qw</td>
<td>q'w</td>
</tr>
<tr>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>d</td>
<td>d</td>
</tr>
<tr>
<td>dl</td>
<td>dl</td>
</tr>
<tr>
<td>dz</td>
<td>dz</td>
</tr>
<tr>
<td>j</td>
<td>j</td>
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<tr>
<td>g</td>
<td>g</td>
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<tr>
<td>gw</td>
<td>gw</td>
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<td>G</td>
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</tr>
<tr>
<td>xw</td>
<td>xw</td>
</tr>
<tr>
<td>ṛ</td>
<td>ṛ</td>
</tr>
<tr>
<td>ṛw</td>
<td>ṛw</td>
</tr>
<tr>
<td>m</td>
<td>[M]</td>
</tr>
<tr>
<td>n</td>
<td>[N]</td>
</tr>
<tr>
<td>w</td>
<td>w</td>
</tr>
<tr>
<td>y</td>
<td>y</td>
</tr>
</tbody>
</table>

### HANIS AND MILUK VOWELS

<table>
<thead>
<tr>
<th>Hanis</th>
<th>Miluk</th>
</tr>
</thead>
<tbody>
<tr>
<td>i, ii</td>
<td>e, ee</td>
</tr>
<tr>
<td>e</td>
<td>[ɛ, ɛ:]</td>
</tr>
<tr>
<td>a, a₁</td>
<td>a</td>
</tr>
<tr>
<td>u, uu</td>
<td></td>
</tr>
</tbody>
</table>
Jacobs' notation of Miluk uses geminated `/mm nn ll/`, which do not seem to occur in Hanis.

Milhau's own materials are usually of little help in unraveling the complications of Coos phonology. Even if he did mark stress with a macron over the stressed vowel, and although he did anticipate and attempt to represent the aural consequence of the glottalized `/m/` in Alsea (Buckley 1988: 16), this is mostly due to luck. Indeed Milhau's lists are of very limited use without exegesis, and even then retain many puzzles. I have only seen one other of his lists, the one for Lower Umpqua (Smithsonian Institution/National Anthropological Archive ms 957), and that in a respelt version compiled by George Gibbs; it contains a number of words which Frachtenberg (1914) does not mention and which he evidently did not extract from it for his lexicon. The importance of Milhau's Hanis lists is that one of the dialects which he recorded is phonologically aberrant from the Hanis speech recorded from all the others. There are hints in Milhau's list of some sound-changes in this dialect which the better-recorded one had not undergone.

4. A Note on Dialectal Differentiation in Hanis and Miluk.

Both Hanis and Miluk are known to have had dialects. Considering the sizeable nature of Hanis territory on the one hand, and the differentiation between the South Slough Miluks (from whom Annie Miner Peterson was in part descended) and the Lower Coquilles, this is not surprising. However, we have little hard information on the nature of dialects in Coosan beyond recognition of the major Hanis-Miluk split.

I will first discuss the dialectal divisions in Miluk. The evidence for a distinction between the speech of the South Slough Milukes and that of the Lower Coquilles is scanty, and rests on a couple of lexical items. Dorsey's material (reproduced discussed in Frachtenberg 1914: 141-149), and taken from an old man at the Siletz Reservation, is the only source of Lower Coquille Miluk that we have; all other data come from speakers with ancestral affiliations to the South Slough of Coos Bay. Some of the forms are these:

<table>
<thead>
<tr>
<th>English</th>
<th>Hanis</th>
<th>South Slough Miluk</th>
<th>Lower Coquille Miluk</th>
</tr>
</thead>
<tbody>
<tr>
<td>dog</td>
<td>q'wiyúus</td>
<td>yék'lu</td>
<td>lék'lu</td>
</tr>
<tr>
<td>coyote</td>
<td>yé'lis</td>
<td>yé'lis, yé'lis</td>
<td>c'āllik'a</td>
</tr>
</tbody>
</table>

The Hanis and South Slough Miluk form for 'coyote' is evidently Common Coosan, that is, it goes back to the ancestor language of Hanis and Miluk. The Lower Coquille form seems to be an innovation. On the other hand, the Hanis word for 'dog', which is found also in Lower Umpqua, is apparently a loan from Chinookan -kēwixá. Berman (n.d.) notes that
Jacobs' Miluk has the same words for 'musk rat' and 'skunk' which Hanis has, whereas Lower Coquille has different words: dzən, qwəlci occur in South Slough Miluk and in Hanis in opposition to Lower Coquille Miluk (rephonemicized) *ṣəs(t)l'e, *kanəs(t)l' e. One other difference obtaining between Lower Coquille Miluk and South Slough Miluk is the formation of the numerals between 'six' and 'ten'; Lower Coquille speech counted down from 'ten' while South Slough Miluk counted up from 'five', thus 'six' in Lower Coquille Miluk would be phonemicized as *dzəswəxgáiyə (compare dzəwə 'four') while Jacobs' South Slough Miluk has hič'iθgáiyə, where hič'i is 'one'.

Given the extremely slender corpus of potential contrastive forms in Miluk, there is little that can be said about dialectal differentiation, except that it existed but not to a depth which would have impeded mutual intelligibility.

Evidence for dialectal differences within Hanis is a little more plentiful. One of Milhau's vocabularies represents a Hanis dialect which is different from the speech of all the Hanis-speakers who have ever been recorded (which in general is very uniform), and in that sense we have some indication of phonological and lexical differences (but not morphosyntactic ones) between different forms of Hanis. Even so, the degree of difference between the two Hanis dialects of Milhau should not be exaggerated. Of 181 forms recorded for both dialects, 112, that is 62% of the forms, are actually identical in spelling or are functionally identical, and the vast majority can be traced in later records of Hanis. The forms which are practically identical, which show only a couple of phonemes different, or which are phonologically almost identical but which have been given under different glosses in the lists, would bring the total of congruent forms in the two dialects to between 70 and 75 percent.

Otherwise, the evidence is scanty indeed. Frank Drew, who had grown up on the Siuslaw River, and who had lived north of traditional Coos territory, had no trouble in understanding the material which Frachtenberg gathered from Jim Buchanan, who came from the Hanis village of waš'lač. The speech of Martha Harney Johnson, who lived near Florence and who had gone to school at the village of Acme, also north of traditionally Hanis territory, does not diverge from the form of Hanis documented by Frachtenberg in his grammar and texts, except that her command of Hanis morphology seems to have atrophied after years of speaking English to her husband and daughter, with concomitant disuse of Hanis. That there were different ways of speaking Hanis is alluded to by Jacobs' tantalizing remarks (in Jacobs 1939, 1940) about 'Hanis village provincialisms', and the fact that Mrs Evanoff told J. P. Harrington in 1942 that there was 'a cute way of speaking' Hanis (though who used this form, and when, is not recorded).
Some later recordings of Hanis (and the Miluk material from Mrs Peterson, who, it will be remembered, was a native speaker of Hanis) illustrate a form of vowel harmony (discussed further in Berman n.d.), by which the vowels /a, aa/ and /e, ee/ cannot occur in the same word. A rule of regressive assimilation ensures that vowel length is preserved but that the vowel in the first syllable is shifted to that of the first syllable, so that /a-e/ sequences become /e-a/ sequences, while /e-a/ vocalism shifts to /a-e/. This rule was not operative when Frachtenberg worked with Mr Buchanan and Mr Drew, but occurs in the speech of Mrs Peterson and Mrs Johnson. It is not common in the Milhau recordings, which do not show any embargo on the use of /e-a/ or /a-e/ sequences.

5. The Contents of Milhau's Hanis Vocabularies.

Milhau's Hanis wordlists contain two dialects, which are not further specified as to provenience or source, though the anonymous ascription on the top of the first page of the vocabulary (a typed version which was presumably executed between 1913 and 1939) accurately notes that the right-hand dialect is somewhat closer to the Coos variety recorded by St Clair and Frachtenberg. No names are given to the dialects; I therefore will describe the lists as being representative of dialects known as M (= Melukitz, or milugwič) in the left-hand column and A (= Anna-sitch, or háanisič) in the right-hand column, after their names for Coos Bay (that is, the inlet, rather than the city, which was known as Marshfield until 1945). Hereafter, a designation such as M134 will refer to the Melukitz form corresponding to gloss #134.

The unsystematic transcriptional habits which Milhau uses serve to make the lists look more different from one another than they really are. Milhau rarely spells out his transcriptional practices; his 〈-ar〉 represents /aa/, while his 〈-er〉 seems to do the same. His 〈-ah〉 sometimes represents /aa/, and sometimes /ee/. His forms for 'neck' suggest a use of 〈q〉 to represent /kw/, while his 〈ch〉 can sometimes be /t/, as in M21, but sometimes /x/, as in #25 and #48. He nowhere represents glottalization, and the most that one can glean from his transcriptions about the lateral affricates and uvular stops in Hanis is that although he heard and apprehended the unusual nature (to anglophone ears) of these sounds, finding a way to represent them gave him problems, and he was unable to work out a consistent spelling system, working in an ad hoc manner word by word, without using rough spelling conventions.

Examples of the types of differences between the lists are given below. Several seemingly different forms are simply the same form heard in two different ways, or the same form given two different meanings, one correct, the other often erroneous (which is not unusual when collecting wordlists; we do not know which language Milhau used with the Hanis—probably Chinook Jargon or English—so some confusion is likely).
Thus glosses #23, #50, #95, #114, #115, #116 for both A and M represent the same word although the two recordings present different appearances. In the case of the last three forms, it appears that A has a prefixed to 'that one', in the sense of 'that's red, that's a white one'. In the first example the difference between the recordings is one of vowel-length, in the next two cases we see differing apprehensions of lateral fricatives in what are the same words. The same is true of #21, 'nose', both forms of which can be identified with Hanis šuul, although the divergent spellings do not make this link clear.

Other words which show phonological differences in identical underlying stems include #2, #4, #6, #7, #19, #22, #27, #47, and #154, while M5 is the same as A3, allowing for consonant symbolism (which was lexicalized and non-productive in Hanis). Forms #2, #47 and #154 each demonstrate apocope, with the change in #2 and #154 of /-mVs/ to /-mVs/ (presumably the Melukitz form for 'woman' was pronounced something like /huumts/ or possibly /huumts/). By contrast, #47 suggests a dialectal variation between /wālwal/ and */wālwal/, one meaning 'knife' and the latter meaning 'iron' in Annasitch (form #A84), while the first syllable of the second form seems to have dropped off in #47 for Melukitz. Aphaeresis of the initial vowel is also likely in #152, the forms for 'three', which in Melukitz was apparently /psVn/, although forms for 'three' with the initial syllable /psVn/ are found in Coosan, Siuslaw, Alsea and Kalapuya; perhaps the modern Hanis form yipsan is a generalization of initial /yV-/ on numerals in parallel with yixey, yuxwé, Hanis for 'one, two'.

Other differences between the two dialects are lexical rather than phonological in nature. Some of these 'differences' are illusory. Sometimes the same stem was given in two interpretations, one for each dialect. Examples include M18 and A17, which would be accurate since Hanis ksilis 'green' covers yellow and light blue. Words with the wrong meanings attached include M3, which means 'person, people', A13, which means 'eyebrow', M124, which means 'child', and M167, the Common Coosan form for 'water'. As the vocabularies indicate, there is also extensive confusion among the kinship terms which comprise the first part of the list.

Words whose etyma are untraceable include M37, M81, M85, M99, M100 and A174 (whose Melukitz equivalent is common Coosan). These words do not occur in later Hanis sources and are not recorded in Miluk. They do not seem to be loans, and are not amenable to etymological investigation.

In this connection one may note the form for 'tortoise, turtle'. The M form strongly resembles bātki, the Common Coosan form for 'wildcat', while the A form resembles nīk'in, the word meaning 'stick, tree' and by extension 'hundred' (a metaphor found also in Hupa and Chinookan). The actual word for 'tortoise' does not seem to have been recorded for Hanis.
Possible loans are few: A108 may possibly be related to Siuslawan *hamúu’m* 'dove', or it may be a solitary attestation of a word for 'pigeon' in Hanis. M64 could just possibly be a misreading of <kla-pite>, the Chinook Jargon word for 'thread', with the term for 'iron' being glossed with the word meaning 'needle and thread', but this is not likely.

6. Conclusions.

Milhau's vocabularies do not provide much solid information about dialectal differentiation beyond a number of lexicla variations between the varieties which I have called Annasitch (the ancestor of the Hanis varieties subsequently recorded) and Melukitz. We have essentially no morphological data - verbs are usually given in an uninflected form. What we have are lexicla and phonological clues. We do not even know where the two varieties were spoken in relation to one another. The translation of Coos Bay in the list as Melukitz may be a blind, since as I have said, there are no forms exclusive to this dialect and Miluk proper which are not found in Hanis. This dialect was evidently used in an area where it had been able to develop on its own. It may be the dialect used in Empire, it may be a variety used along the Siuslaw River, or among Hanis-speakers in a predominantly Miluk-speaking environment. We do not and cannot know.

All that one can say, once the mistranslations, misreadings and typographical errors have been noted, is that Milhau's erratically-recorded data show that there was once a variety of Hanis which differed from the general form of the language which has come down to us, and this aberrant form showed a certain number of differences in lexicon, and some additional phonological rules (specifically relating to accelerated processes of vocalic syncope and apocope) which served to make it distinctive from the other 'village provincialisms'.

FOOTNOTES

* I would like to express my sincere and continuing gratitude to the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, and especially to their Cultural Resources Coordinator, Mr. Donald Whereat, without whose assistance I could not have presented and produced this paper. I would further like to thank Mr. Whereat and his family for their hospitality and many kindnesses while I was in the Coos Bay area subsequent to the presentation of this paper. I would also like to thank Troy D. Anderson, a member of the Coquille Tribe, and great-great-grandson of Laura Hotchkiss Metcalf, for sharing his Miluk data (especially a copy of Anderson 1990) with me. I wish to thank The National Science Foundation and the National Endowment for the Humanities
and through them Scott DeLancey and Victor Golla, for enabling me to participate in the Comparative Penutian Workshop, held at the University of Oregon, Eugene, immediately before the Hokan-Penutian Conference at which this paper was presented, and to Victor Golla and Catherine Callaghan for comments during the oral presentation of this paper.

1 While I was visiting the Coquille Tribal headquarters in Coos Bay in July 1994, Troy Anderson showed me a small docket of ethnological notes from Ida Ned Mecum, a Lower Coquille woman who lived in the earlier part of this century and who was ancestress to many members of the Coquille Tribe of Oregon. There was no information as to who had collected these notes, although the handwriting was not that of Melville Jacobs. These contained pen and ink illustrations and a few words (about ten) from some Native language which William R. Seaburg (on a typewritten page appended to the notes) had elucidated with references to the Hanis glossary in Frachtenberg (1913). I did not have sufficient time at my disposal to identify the forms conclusively as to their language. The forms could have been Hanis (which the Lower Coquilles are not known to have spoken, although this does not mean that some did not do so) or Miluk, in which latter case they constitute another sample of Lower Coquille speech.

2 This could possibly have been an item in the regional variety of Chinook Jargon, though it is not attested for CJ; it is perhaps significant that terms for 'dog' varied in the Chinookan dialects - thus Kathlamet had -k'út'ut for 'dog', and Wasco had itq'ucutlxlam 'dogs'- and further that one of the few Chinookan words in Chinook Jargon which we can suggest on phonological grounds that it apparently entered the pidgin through the intermediacy of white speakers rather than Native ones (as the Nootkan vocabulary did) is 'dog', k̓ámux̓, showing an unexpected White-style simplification of the original uvular fricative in Chinookan -k̓ámux̓ 'dogs'; see Boas 1911 for the forms. Alsea and Siuslaw share a form for 'dog' (Frachtenberg 1914, 1920). Perhaps dogs were rare in the area before White settlement (as may have been the case in parts of Central California) and words for 'dog' were thus commonly diffused.

REFERENCES


Duponceau, Peter Stephen. 1836 ms. [Vocabularies of various Native American languages. Manuscript in the Library of the American Philosophical Society, Philadelphia.]


# Appendix

**Milhau's Original Vocabulary Lists**

Below is a copy of a typescript of the vocabulary lists of the "Coose Bay Language" collected by Dr. John J. Milhau, November 1856 near Umpqua City, Oregon Territory. It has been made available to the author by Mr. Donald Whereat, Cultural Resources Coordinator of the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, in Coos Bay, Oregon. Milhau's original manuscript is in the National Anthropological Archives (BAE MS 191a), together with a copy in the hand of George Gibbs (BAE MS 191b). The provenience of the typescript is unknown.

<table>
<thead>
<tr>
<th>1. man</th>
<th>hat-latch or dér-metle</th>
<th>mäh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. woman</td>
<td>humetz one syllable</td>
<td>whom-miss</td>
</tr>
<tr>
<td>3. boy</td>
<td>mah</td>
<td>day-lotle</td>
</tr>
<tr>
<td>4. girl</td>
<td>guahke</td>
<td>guay-ack</td>
</tr>
<tr>
<td>5. infant</td>
<td>telookt ---- quah-lee</td>
<td>ãh-a-lagh</td>
</tr>
<tr>
<td>6. father</td>
<td>ah-que-latch</td>
<td>ah-quit-latch</td>
</tr>
<tr>
<td>7. mother</td>
<td>ah-natch</td>
<td>ah-a-natch</td>
</tr>
<tr>
<td>8. husband</td>
<td>hât-latch</td>
<td>der-mitlé</td>
</tr>
<tr>
<td>9. wife</td>
<td>ah-nah-quatçh</td>
<td>whom-miss</td>
</tr>
<tr>
<td>10. son</td>
<td>mit-que-atch</td>
<td>day-lotle</td>
</tr>
<tr>
<td>11. daughter</td>
<td>gue-altch</td>
<td>guey-at-letch</td>
</tr>
<tr>
<td>12. brother</td>
<td>puy-altch elder---</td>
<td>ah-hat-latch</td>
</tr>
<tr>
<td></td>
<td>gue-altch younger---</td>
<td>mit-low-que-atch</td>
</tr>
<tr>
<td>13. sister</td>
<td>hah-nook</td>
<td>gue-at-litch</td>
</tr>
<tr>
<td>people</td>
<td>wher-lew</td>
<td>wher-lew</td>
</tr>
<tr>
<td>15. head</td>
<td>ke-nackt</td>
<td>Schê-nack</td>
</tr>
<tr>
<td>16. hair</td>
<td>ahaah the french aa</td>
<td>ahaah</td>
</tr>
<tr>
<td>17. face</td>
<td>wunt</td>
<td>chin-ilt-chen</td>
</tr>
<tr>
<td>18. forehead</td>
<td>quo-han-nass</td>
<td>quâñ-nass</td>
</tr>
<tr>
<td>19. ear</td>
<td>qual-wah</td>
<td>whal-a-wah</td>
</tr>
<tr>
<td>20. eye</td>
<td>chôle</td>
<td>shult</td>
</tr>
<tr>
<td>21. nose</td>
<td>ghe-ass</td>
<td>ye-ass</td>
</tr>
<tr>
<td>22. mouth</td>
<td>hah-le-tah</td>
<td>hañ-le-tah</td>
</tr>
<tr>
<td>23. tongue</td>
<td>kut-zah</td>
<td>kut-zah</td>
</tr>
<tr>
<td>24. teeth</td>
<td>tsa-nacht</td>
<td>tsa-nacht</td>
</tr>
</tbody>
</table>
HANIS AND MILUK COOS EQUIVALENTS OF ENTRIES IN MILHAU'S LISTS

These are taken from materials by Jacobs (Hanis and Miluk), Frachtenberg, Swadesh and especially Sokolow (Hanis). Discrepancies in the sources between Hanis and Miluk forms (for instance in respect to glottalisation and voicing) have been preserved. Etyma are given where possible for entries in Milhau's lists if these differ from the usual glosses in Hanis.

<table>
<thead>
<tr>
<th>Hanis</th>
<th>Miluk</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] déemil</td>
<td>dāemil</td>
</tr>
<tr>
<td>[2] hūumis</td>
<td>hūumis</td>
</tr>
<tr>
<td>[3] dilul, tīllul'</td>
<td>dilūl</td>
</tr>
<tr>
<td>[4] kweis</td>
<td>kweis, kweik</td>
</tr>
<tr>
<td>[5] 'āala</td>
<td>k'ilka, hīme</td>
</tr>
<tr>
<td>[6] 'ékwlheč</td>
<td>'ēatl</td>
</tr>
<tr>
<td>[7] 'éneč</td>
<td>'ēne</td>
</tr>
<tr>
<td>[8] [ = man]</td>
<td>[ = man]</td>
</tr>
<tr>
<td>[9] t'éneč</td>
<td>hūumis</td>
</tr>
<tr>
<td>[10] diluluł (mitlkwiiyač = son)</td>
<td>k'ilka</td>
</tr>
<tr>
<td>[12] háthłeč (pūuyač=pat. uncle)</td>
<td>mitlgwila</td>
</tr>
<tr>
<td>heikwni</td>
<td></td>
</tr>
<tr>
<td>[13] 'ének</td>
<td>genhenūkwni</td>
</tr>
<tr>
<td>[14] mà; (kalālis = subjects)</td>
<td>qah</td>
</tr>
<tr>
<td>[15] xwiluw</td>
<td>sel</td>
</tr>
<tr>
<td>[16] xneč</td>
<td>hāamis</td>
</tr>
<tr>
<td>[17] 'a' a'</td>
<td>hāl</td>
</tr>
<tr>
<td>[18] wint (čińčin = eyebrow)</td>
<td>kwatńkwăn</td>
</tr>
<tr>
<td>[19] qwhánnaś</td>
<td>kwhánnaś</td>
</tr>
<tr>
<td>[20] xwilxwal</td>
<td>xwilxwal</td>
</tr>
<tr>
<td>[21] čūul</td>
<td>tlinnek</td>
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<tr>
<td>[22] yē'es</td>
<td>yēis</td>
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<tr>
<td>[23] hálum</td>
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<td>[24] qca'</td>
<td>qca'</td>
</tr>
<tr>
<td>[25] xnāx</td>
<td>nicas</td>
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</tbody>
</table>
26. neck quntz
27. arm ket-lah
28. hand kil-tsaht
29. fingers Söh-way
30. nails gläu-pet
31. body lock-e-met
32. leg {thigh gill-etch
    leg kut-lah
33. foot ha-ha-cock
34. toes SO-welt
35. bone läh-mahlt
36. heart il-lah-watch-tus
37. blood kah-eye
38. town, nah-en-te-hah
    village nah-en-te-hah
39. chief hat-hat-ter
40. warrior kow-erltz
41. friend lah-erl-il-wartz
42. house muck-a-may
43. kettle läh-ler
44. bow quah-hut
45. arrow mel-luck
46. axe che-away-hat-lut
47. knife läh-wal
48. canoe ich like the german
    for I
49. shoes key-looset
50. pipe Squah-na
51. tobacco tah-ha
52. sky kyse
53. sun te-kaltz
54. moon klo-warsee
55. star yu-mah
56. day te-kaltz
57. night quol-itcch
[26] kwanc
[27] k'íla
[28] ( = arm)
[29] súuwał
[30] súuwał tlápit
[31] tet (lúuqmíł = torso)
[32] jilée
[33] c'ilač
[34] ktla (? hak- to crawl)
[35] [ = fingers]
[36] lámak'
[37] 'ilwálčas, lúwe
[38] wátn
[39] tl'táyas
[40] hethéete
[41] tlílčiyaa 'fighter'
[42] sla
[43] yeec
[44] kwámetl
[45] pilus, xwáxatł
[46] millaq, wispáaya
[47] xátłxat
[48] wálwal
[49] 'ix, máaxmaał
[50] qolúusnił
[51] lkwen'é'en
[52] t'áha
[53] qas
[54] t'qú'śi
[55] lúuxw
[56] yúumii
[57] tík'ilc [daylight]
[58] qwetlč

zwánxwan
k'élá
( = arm)
súuweł
pqéy (= back in Hanįs)
jilé
číli
qtla
[ = fingers]
lámak'
lswé
witín
tl'táyas
hethéete
sla'á'
yeec
nit'snótł
ruuíwéel
millaq, wusbáya
tlíxtlii
wálwal
'lkúus, máaxmaał
hásamič
p'óstal
déahay
gasháys
kwel'ęes
metíjanta
yúumii
[ = sun]
xátłan
58. light  tkow
59. darkness  quol-litch
60. morning  tsi-her
61. evening  heech-tah
62. spring  
63. summer  te-slum
64. autumn  
65. winter  ky-low
66. wind  tkto-wah-sis
67. thunder  tsun-ner
68. lightning  lo-lo-weck
69. rain  kim-kim-mas
70. snow  stlalts
71. hail  qua-et-que
72. fire  chu-etz
73. water  te-hopt
74. ice  quil-lah
75. earth, land  kck-tah
76. sea  mit-sis
77. river  lock-us
78. lake  itz-clase
79. valley  kil-ar-net
80. hill, mountain  qui-atz
81. island  kle-var-litz
82. stone  quil-ley
83. salt  kar-ka-tey
84. iron  kla-pile
85. tree  tsup-oock
86. wood  tke-yah
87. leaf  pil-lart
88. bark  tze-ah
89. grass  tsark
90. pine  pah-who-yah
91. flesh, meat  tah-et
92. dog  tkoy-use
it-shire
quol-litch
au-chah-holy
tow-yah-te-to-kah
kHigh-low
tslim
hal-toe-titch
ik-kay-na-new-eh
tkto-wah-sis
tsun-ner
lov-wark
kim-met
stlah-less
qui-atle-que
chu-etle
harpt
quil-lough
klick-tah
mit-sliis
hil-lar-neck
hah-ah-lart
dtim-sit
ich-qui-ass
its-clace
quift-le-eh
mit-siltz
wal-lah-wul
nuck-qun
ich-ken
tclin-nack
tzklah
tzark
tsup-pook
tah-et
tkoy-yuse
[58] k'wléeyis
[59] [ = night] héndlas 'dark'
[60] txáyet katlésnetl
[61] k'áwa gátq'ay
[62] clímiye clímiye
[63] clím clím
[64] k'alúwiyá gelú'wiye
[65] k'álú gélu
[66] tl'wéesas gewé'si
[67] cánna cánna
[68] lúuwakw lúuwake
[69] kómkámí čísti
[70] stláahlas stláales
[71]
[72] šxwol hémelt
[73] ḱaapq ḱaap'
[74] kíllaw kw'ala, lááde
[75] tl'taa ltáyas
[76] bál'dič (míc'lis = salt) baldímis
[77] šíc'tii šíc'tii
[78] stlíhs (?) hal- "enter harbor" stlíhs
[79] démsit démíst
[80] qwáiýé'ís qwey'ís
[81]
[82] klíiyax dlá'a
[83] míc'lis lax
[84] máacels
[85] kwmenél ník'in
[86] ník'in ník'in
[87] tlínik tlínik
[88] c'xaa dzéetlis
[89] [ = leaf] [ = leaf]
[90] c'aww (jackpine) téet
[91] t'eht téet
[92] k'wiyúus lék'lu/yék'lu
<table>
<thead>
<tr>
<th>Number</th>
<th>Animal or Object</th>
<th>Pronunciation</th>
<th>Pronunciation</th>
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<tr>
<td>93</td>
<td>buffalo</td>
<td>wush-wush</td>
<td>wush-wush</td>
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<tr>
<td>94</td>
<td>bear</td>
<td>shee-mitle</td>
<td>sherr-mitle</td>
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<td>95</td>
<td>wolf</td>
<td>tklee-met</td>
<td>glee-mack</td>
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<td>96</td>
<td>deer</td>
<td>whit-soot</td>
<td>jill-lee-eh</td>
</tr>
<tr>
<td>97</td>
<td>elk</td>
<td>chil-le-eh</td>
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<td>98</td>
<td>beaver</td>
<td>te-chen-ner</td>
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<td>99</td>
<td>tortoise</td>
<td>po-te-ke</td>
<td>s-a-e-hait neh-kun</td>
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<tr>
<td>100</td>
<td>fly</td>
<td>pey-atle-qua</td>
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<tr>
<td>101</td>
<td>mosquito</td>
<td>kar-loose</td>
<td>tsi-eye</td>
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<tr>
<td>102</td>
<td>snake</td>
<td>hugh-wah-ess</td>
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<td>103</td>
<td>bird</td>
<td>klo-pay-yah</td>
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<td>104</td>
<td>egg</td>
<td>mar-ko-lah</td>
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<td>feathers</td>
<td>yackck</td>
<td>ah-ah-muh</td>
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<td>wings</td>
<td>klip-pah</td>
<td>kal-lick</td>
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<td>107</td>
<td>duck</td>
<td>whit-tah-ple-ay</td>
<td>mah-kaugh-hah</td>
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<td>108</td>
<td>pigeon</td>
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<td>klin-nass</td>
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<td>sut-lick</td>
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<td>salmon</td>
<td>kul-licit</td>
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<td>sturgeon</td>
<td>may-kah-hah</td>
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<td>112</td>
<td>name</td>
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<td>113</td>
<td>affection</td>
<td>lah-erl-il-wartz</td>
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<td>114</td>
<td>white</td>
<td>kass</td>
<td>huck-kass</td>
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<td>115</td>
<td>red</td>
<td>kle-quilt</td>
<td>tkey-quilt</td>
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<td>116</td>
<td>black</td>
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<td>tkey-lass</td>
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<tr>
<td>117</td>
<td>blue</td>
<td>key-lass</td>
<td>tkey-sullus</td>
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<tr>
<td>118</td>
<td>yellow</td>
<td>key-sul-lus</td>
<td>tkey-quilt</td>
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<tr>
<td>119</td>
<td>green</td>
<td>kah-te-kite</td>
<td>klueck-keh</td>
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<tr>
<td>120</td>
<td>great</td>
<td>ham-mus</td>
<td>h-am-mis</td>
</tr>
<tr>
<td>121</td>
<td>small</td>
<td>kysh</td>
<td>tzi-who</td>
</tr>
<tr>
<td>122</td>
<td>strong</td>
<td>ter-met-ley ham-mus</td>
<td>her-lah-tes</td>
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<td>123</td>
<td>old</td>
<td>too-mekt</td>
<td>kar-lay-eh</td>
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<tr>
<td>124</td>
<td>young</td>
<td>ol-lah</td>
<td>klar-nay-erh</td>
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<td>125</td>
<td>good</td>
<td>lur-ghe</td>
<td>lurgh-ghe</td>
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<td>126</td>
<td>bad</td>
<td>itz-tsus</td>
<td>In-taugh</td>
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<tr>
<td>127</td>
<td>handsome</td>
<td>feh-hume-meh now-wert-sen</td>
<td>nah-ar-wert-sen</td>
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<td>128</td>
<td>ugly</td>
<td>itz-tsus</td>
<td>Itz-zas</td>
</tr>
</tbody>
</table>
múusmuus (cow)
plexel
dlíimaakw
dlíimaakw
xwícxwat
xwícxwat
jíliyee
k'ic
t=číína

['ay (gnat)
peyétkwun
[ = gnat]
xuwaayas
xuwaayas
cácí
cácí
máatlaay
máatlaay
watl
westl
łpée
łpée
witlbíye

lýíik
qályeq
qályaq
mqáxa
mqáxan
tónnahs
'énθ, san
txíil- (to love)
dúuhaya
xqas
xqas
tlkwit
ltkwal
k'las
hémis
k'ánay
hémis
k'isáwas
k'isáwas
k'sálta
k'isális
hémmis
wága
k'ayé
'éekw
tímlí
tímlí
qálíx
qeeel
tl'áneeex
ğenéeç
tíyi
ğálaax
'ínta
'ánwiyán
hěwicha
hēywudzuun
nikičx 'I am...'
ijé'lees
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
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<tr>
<td>129. alive</td>
<td>ich-hume-meh</td>
<td>gläh-a-wah</td>
</tr>
<tr>
<td>130. dead</td>
<td>lah-kow-wah</td>
<td></td>
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<tr>
<td>killed</td>
<td>tso-tso</td>
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<tr>
<td>131. cold</td>
<td>kay-e-nah</td>
<td></td>
</tr>
<tr>
<td>132. warm</td>
<td>hol-loose</td>
<td></td>
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<tr>
<td>133. I</td>
<td>un-nah</td>
<td></td>
</tr>
<tr>
<td>134. thou</td>
<td>an-nah</td>
<td></td>
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<tr>
<td>135. he</td>
<td>klah</td>
<td>khah</td>
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<td>136. we</td>
<td>u-wah</td>
<td>ës-nah</td>
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<td>137. ye</td>
<td>it-sass</td>
<td>ish-e-nah</td>
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<tr>
<td>138. they</td>
<td>eye-meh</td>
<td>nück-quah</td>
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<tr>
<td>139. this</td>
<td>tay</td>
<td>day</td>
</tr>
<tr>
<td>140. that</td>
<td>tah</td>
<td>dah</td>
</tr>
<tr>
<td>141. all</td>
<td>nahnt</td>
<td>nahat goose</td>
</tr>
<tr>
<td>142. many, much</td>
<td>goose</td>
<td>nauh-aut</td>
</tr>
<tr>
<td>143. who</td>
<td>eye-meh</td>
<td>wot-toe</td>
</tr>
<tr>
<td>144. near</td>
<td>e-alk</td>
<td>ee-alk</td>
</tr>
<tr>
<td>145. to-day</td>
<td>tay-kay-sicht</td>
<td>deet-sah</td>
</tr>
<tr>
<td>146. yesterday</td>
<td>eye-kise</td>
<td>neh-quah-lay</td>
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<tr>
<td>147. to-morrow</td>
<td>nay-qual-ly</td>
<td>hāl-may</td>
</tr>
<tr>
<td>148. yes</td>
<td>eheh (a grunt)</td>
<td>yāh-high</td>
</tr>
<tr>
<td>149. no</td>
<td>in</td>
<td></td>
</tr>
<tr>
<td>150. one'</td>
<td>ya-hay</td>
<td></td>
</tr>
<tr>
<td>151. two</td>
<td>Ich-were</td>
<td></td>
</tr>
<tr>
<td>152. three</td>
<td>pis-sun-ner</td>
<td></td>
</tr>
<tr>
<td>153. four</td>
<td>hash-tetle</td>
<td></td>
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<tr>
<td>154. five</td>
<td>kah-tum-etz</td>
<td></td>
</tr>
<tr>
<td>155. six</td>
<td>high-wy-et</td>
<td></td>
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<tr>
<td>156. seven</td>
<td>ich-war-er-wet</td>
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<tr>
<td>157. eight</td>
<td>ee-wah-ah-wat</td>
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<tr>
<td>158. nine</td>
<td>ich-high-a-hat</td>
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<tr>
<td>159. ten</td>
<td>klup-a-kon-net</td>
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</tr>
<tr>
<td>160. eleven</td>
<td>ya-hay-u-kut-se</td>
<td></td>
</tr>
<tr>
<td>161. twelve</td>
<td>ich-were-u-kut-se</td>
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<tr>
<td>162. twenty</td>
<td>ee-whar-a-ker</td>
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<tr>
<td>163. thirty</td>
<td>ip-sun-ner-ker</td>
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<td>129</td>
<td>tléewa</td>
<td>dláawa</td>
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<td>'ónné</td>
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<td>134</td>
<td>'ónné</td>
<td>nèw</td>
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<td>135</td>
<td>xèke</td>
<td>'e</td>
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<td>héemé</td>
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<td>137</td>
<td>san</td>
<td>atéw</td>
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<td>138</td>
<td>léxéke</td>
<td>kuus</td>
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<td>139</td>
<td>de'éy</td>
<td>gatl</td>
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<tr>
<td>140</td>
<td>leł</td>
<td>nélč'úye 'to approach'</td>
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<tr>
<td>141</td>
<td>kuus</td>
<td>díixaaaxaaya</td>
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<td>142</td>
<td>naant</td>
<td>línskw</td>
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<td>143</td>
<td>wútú</td>
<td>'émasa</td>
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<td>144</td>
<td>'ihálx</td>
<td>en</td>
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<tr>
<td>145</td>
<td>títsha</td>
<td>in</td>
</tr>
<tr>
<td>146</td>
<td>néqxwaš</td>
<td>'án</td>
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<td>147</td>
<td>hélmi</td>
<td>yixéy</td>
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<tr>
<td>148</td>
<td>wútú</td>
<td>híc'ii</td>
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<tr>
<td>149</td>
<td>'án</td>
<td>yuxwé</td>
</tr>
<tr>
<td>150</td>
<td>en</td>
<td>'ac'úu</td>
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<tr>
<td>151</td>
<td>yipsán</td>
<td>psínł</td>
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<td>152</td>
<td>nèqxwaš</td>
<td>c'aaawé</td>
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<td>hesłč</td>
<td>c'awáxkaíye</td>
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<td>kat'ásí</td>
<td>psínlan</td>
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<td>yixeywieq</td>
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<td>'híc'ii'an</td>
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<td>t'išči a híc'ii dákwa</td>
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<td>tlapqání yoxáyqwsí</td>
<td>t'išči a 'ac'úu dákwa</td>
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<td>161</td>
<td>tlapqání 'ixweuqwsí</td>
<td>'ac'uuk'cu</td>
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<td>162</td>
<td>yixwéka</td>
<td>psínłk'íu</td>
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<tr>
<td>163</td>
<td>yipsánká</td>
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</tbody>
</table>
164. one hundred  ich-high-nick-ken  ich-high-lick-ken
165. one thousand klop-kon-nen-nick-ken klup-kon-ner-lick-ken
166. to eat wah-hiltz glow-whên
167. to drink harp shê-it-zah
168. to run clay-oy-high klo-ôh-hun
169. to dance tol-ler taûlt-zer
170. to sing may-kah-hah tqûh-lân
171. to sleep ko-yah-tes ah-kôw-skow
172. to speak kleese quo-næha
173. to see quo-nay-ah tzö-lay-ote
174. to love toe-wire tzö-tzo
175. to kill tso-tso  et-tûke
176. to sit it-sah es-tûke
177. to stand as-toe atch-ee
178. to go klahg chaw-ton
179. to come at-chey me-luck-itz
180. to walk klahg-kley-ah-klit nûw-nay-setch
a bed yah-a-kitz Te-serch-may-ah-klit-tah
a tent we-wot
Concern Bay me-luck-itz
Concern Bay Indians Anna-sitch
sea otter ghe-oow-ah

The above vocabularies were obtained from two Indians of the Concern or Kowes tribe and appear to be different dialects of the same language.

The Concern or Kowes language with many dialects was spoken by all the Indians inhabiting around Concern Bay and its immediate vicinity and also by those on Kowes River.

All these Indians have been removed from their lands on to the Reserve and the tribe now numbers about 300 all told.

John J. Milhau

Note when the same word was given for the same thing by the two Indians, it had been omitted in the 2nd Column.
[164] yixéy ník'ín
[165] tlápə́q̓ ni ník'ín
[166] tláy̕əm
[167] šáy'ən̓i, š̱íč-
[168] tlaháy
[169] t'əl
[170] kwəl̓íht [meq̓'ən "dance"]
[171] q̕áaqaq̓
[172] tl̕iiy̕iš
[173] tləw̕it
[174] dûɯwaya
[175] c'əw̕ə́ht
[176] tlúwə́q̓ac
[177] stuwuq-
[178] tl'iič-
[179] héłəq̓, č̕íi
[180] c'ə'áč.

a bed q̕átlqsə̱tl/tl'əyə̱sə̱st
a tent [cf. wiwətkwa "pillow"]
Coos Bay háanisiič
Coos Indians c̕étič máh tlta = people over there
sea otter kiyá'awa giyéwe

hič'ii ník'ín
t'íčči ník'ín
tl̕áwiy̕əm
naq̕awāc
xwítxwíxwít
megənnis, dataltálí
haas'
⁡ğ̕eeg̕l, dlíq̕w̕tim
tléis; 'iłdwa
ham̕áq
dûɯwaya/duh̕áaya
dlúgwa
stuwuq-
hántə
'ejs̕i
č̕áačay
q̕étlq’əł
The development of head marking in Eastern Miwokan: Implications for contact with Proto-Yokuts

Marvin Kramer, U. C. Berkeley

Introduction

In the Nichols typology of head and dependent marking, the modern Eastern Miwokan languages are considered to be double marked (Nichols 1992: 298). These languages use both noun cases, a dependent marking characteristic, and verbal inflection for subject and object, a head marking characteristic. Proto-Miwok appears to have been almost entirely dependent marked (Callaghan 1980), yet head marking characteristics began to develop in Proto-Eastern Miwok to the point where the modern Plains Miwok and Sierra Miwokan languages are double marked.

The Yokutsan languages are dependent marked. Dependent marking is rare in the languages of the western hemisphere, although it is common in California. The California Penutian languages, which include Yokutsan, are dependent marked. With the exception of Utian (Costanoan and Miwokan), however, they are considered to be unrelated (Golla 1994). The similarities in dependent marking between Yokutsan and Proto-Eastern Miwok therefore are due either to chance or to contact. Proto-Yokuts has roughly the same time depth as the neighboring Proto-Eastern Miwok or early Proto-Sierra Miwok. Southern Sierra Miwok and the Yokutsan languages share a preference for nominalizations, significant in that Proto-Yokuts was most likely in contact with the southern perimeter of Proto-Eastern Miwok.

Both Eastern Miwokan, represented here primarily by Southern Sierra Miwok, and Yokutsan, represented by Yawelmani Yokuts, use nominalization constructions. Differences between their constructions, namely in case assignment for passives and the treatment of direct and indirect objects, can be accounted for by the development of head marking in Eastern Miwokan. The resulting similarities present an argument for contact between two unrelated neighboring languages.

Contact and typological similarity

Interpreting the typological similarity as due to contact is consistent with archaeological evidence which indicates that the Yokutsan people were immediate neighbors with speakers of Proto-Utian, the later Proto-Miwok, and ultimately Proto-Eastern Miwok and Proto-Sierra Miwok (Moratto 1984). They have been neighbors for 3500 years, with adult learners of the language in every community due to exogamy and slavery. There was a vigorous trade between the two groups, evidence of which suggests that the Miwok were the more prestigious people. Regarding lexical similarities, such long term contact could not help but contribute borrowings and re-borrowings from different dialects at different times. The earliest borrowings would be between pre-Proto-Yokuts and Proto-Utian, with the possibility that Yokuts words could end up in Costanoan. This is an explanation for at least some of the Yokuts-Utian resemblant sets assembled by Callaghan (this volume). Regarding phonological similarity, Yokutsan and Eastern Miwokan display templatic morphology, a rare feature also found in Semitic. Differences in their templates can be accounted for by simplification, possibly due to language shift (Kramer 1995). Regarding typological similarity due to contact, the already considerable contact was intensified during a climatological disaster in 400 A.D. Cold dry conditions in the Sierras forced the Yokuts to abandon their homeland and to either assimilate or engage in warfare with their neighbors, principally the Miwok. This time is known as the 'Yokuts bottleneck' since only one of the presumed many Yokutsan languages survived. That language was Proto-Yokuts. Both Proto-Yokuts and Proto-Sierra Miwok date from this time.
Semantic and syntactic roles in nominalized passives

The Eastern Miwokan inflectional system developed first by incorporation of independent pronouns by nominalizations (see Appendix for complete paradigms). These independent pronouns can be reconstructed in Proto-Miwok and are the origin of the possessive series (C 1980:34). The nominalizations eventually became finite and 'syntactically liberated' (Givón 1995:143) as main clauses. The verbal inflections developed by analogy to the finite nominal inflections. The nominal inflections reflect semantic role, with the more agentive pronominal inflection in the possessive series and the corresponding NP in the genitive case. Patient/theme or goal roles are filled by the more patientive nominal series, with NP in the accusative case. This can be seen in the nominalized passive, where the agent, as in the active, is in the possessive series, with genitive NP, and patient/theme or goal are in the nominal series, with NP in the nominative (Southern Sierra Miwok: Broadbent 1960, Central Sierra Miwok: Freeland 1951);

(1) yuuw-ka-ʔ-ʔ-ʔ-ʔ-hi (stir-past-its-nom.-his) 'he stirred it (yesterday)' B.720
(2) šiyn-e-ʔ-ʔ-ʔ-ʔ-mok (see-pass.-our-nom.-y'all's) 'we were seen by y'all' F.34.III

The verbal inflections reflect more the syntactic roles subject and object, with the subject NP in the nominative and object or indirect object NP in the accusative. This can be seen in the absence of a verbal passive construction. Since the verbal inflections are built on analogy to the nominal inflections, the agentive possessive series supplies the subjects and the patientive nominal series supplies the objects. Eastern Miwokan promotes the patient NP to nominative in the nominalized passive, and so would presumably have promoted the patient in the verbal passive (G 1995:83). But the nominal series patient had been used as the source of the syntactic object. The prototypical Eastern Miwokan subject apparently has not completely grammaticalized the agent, retaining enough of an association with agentivity to block promotion of a patient NP corresponding to the patientive pronominal in the more transitive verbal construction while allowing it in the less transitive nominalization.

The Yokutsan verbal passive, including the passive gerundial, puts the agent in the genitive case. But the passive of the Yokuts verbal noun is agentless. The genitive case is the patient of the passive verbal noun (Yawelmani Yokuts: Newman 1944);

(3) šiil'hin naʔ 'amin 'utci-ʔ-a (saw I his stealing-acc.) 'I saw his stealing' N.20:5
(4) šiil'hin naʔ 'amin luk'uihan naʔ-ʔ-in (saw I his bury-pass.-acc.) 'I saw his being buried' N.20:7

Primary and secondary objects

The Yokutsan languages are typologically similar in many ways to Eastern Miwokan, including in the passive constructions. Generally in both active and passive, Yokutsan and Eastern Miwokan share the typology of treating the goal/indirect object of ditransitive clauses like the patient/direct object of monotransitives, or primary object patterning (Dryer 1986), putting the ditransitive P/DO in the oblique instrumental/dative. The functional motivation is that goals are almost always human, and therefore more topical than patients, allowing for a higher ranking than patients in the role hierarchy. This treatment is associated with subject/object in being linked to discourse pragmatics. On the other hand secondary object patterning, the treatment of direct objects the same in mono- or ditransitive clauses, is claimed to be associated with ergative/absolutive in that it is linked to semantic roles (D 1986:842). Verbs, as clause heads, are more likely to mark syntactic subject/object than nouns, which are more inclined towards marking semantic roles (Nichols 1992:90). It is not surprising, therefore, that Yokutsan
breaks with its subject/object inclination in the nominalized passive by treating patients the same in mono- and ditransitive clauses. The passive verbal noun uses genitive, and the passive gerundial uses nominative. Eastern Miwokan similarly breaks with subject/object in passive nominalizations, as already mentioned, by using genitive for the agent in passive as well as active. This can be summarized;

<table>
<thead>
<tr>
<th>Southern Sierra Miwok</th>
<th>Agent</th>
<th>Patient</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>verbal active</td>
<td>nom</td>
<td>acc</td>
<td>acc</td>
</tr>
<tr>
<td>verbal passive</td>
<td>---</td>
<td>inst</td>
<td>acc</td>
</tr>
<tr>
<td>nominalized active</td>
<td>gen</td>
<td>acc</td>
<td>acc</td>
</tr>
<tr>
<td></td>
<td>gen</td>
<td>inst</td>
<td>acc</td>
</tr>
<tr>
<td>nominalized passive</td>
<td>gen</td>
<td>nom</td>
<td>acc</td>
</tr>
<tr>
<td>Yawelmani Yokuts</td>
<td>nom</td>
<td>acc</td>
<td>acc</td>
</tr>
<tr>
<td>verbal active</td>
<td>nom</td>
<td>dat</td>
<td>acc</td>
</tr>
<tr>
<td>verbal passive</td>
<td>gen</td>
<td>nom</td>
<td>nom</td>
</tr>
<tr>
<td>gerundial passive</td>
<td>gen</td>
<td>acc</td>
<td>acc?</td>
</tr>
<tr>
<td>gerundial active</td>
<td>gen</td>
<td>?</td>
<td>acc?</td>
</tr>
<tr>
<td>verbal noun active</td>
<td>gen</td>
<td>nom</td>
<td>acc</td>
</tr>
<tr>
<td>verbal noun passive</td>
<td>---</td>
<td>gen</td>
<td>acc</td>
</tr>
</tbody>
</table>

Lexical integrity

The similarity between Eastern Miwokan and Yokutsan nominalized passives can be seen as a function of lexical integrity. As nouns, nominalized forms can be possessed. Possession of an active nominalization indicates the direction of transitivity is away from the possessor, and possession of a passive nominalization indicates the direction is toward the possessor. In Yokutsan, the possessed word is the nominalization and its case marking. In Eastern Miwokan, nominalizations may be possessed, but these nominalizations are more complex. They have inflections, namely patient coding, followed by case marking and the possessor itself. The possessor possesses the nominalization and its patient as one word under the scope of the case marker. Since the patient is included in the word, the possessor remains the agent, even in passives. For both Eastern Miwokan and Yokutsan nominalized passives it is their possession as words that is invariable, thus forcing the epiphenomenal typological variance.

As a consequence of the development of head marking, the possessed nominalized word in Eastern Miwokan is a VP. The possessor possesses, in a sense, the result of the interaction between the verb and its immediate constituent. The verbal preference for subject/object marking and the associated primary object pattern can prevail, since only the result is possessed. In Yokutsan, the possessed nominalized word has no bound constituent, the possessor essentially possesses the verb itself. In the active, the direction of transitivity is away from the possessor, allowing the verbal preference for primary object. But in the passive, the possessor is always the patient, precluding goal promotion, thereby forcing the nominal preference for
secondary object. The gerundials, which are not followed by case marking, appear to straddle the difference between nominal and verbal.

The differences between Eastern Miwokan and Yokutsan regarding case assignment and object patterning can be attributed entirely to the development of head marking in Eastern Miwokan; an argument in favor of contact between two unrelated neighboring speech communities.

The constraint of lexical integrity on case marking does not apply in the same way in Lake Miwok (Callaghan 1963), a Western Miwokan language. The scope of the case marking extends beyond the word to a clause;

(5) ma-húun ?i?i wájaa-hinte-n (that-panther him give-rel.-nom.) 'which the panther gives him' C. 330.2

Thus regarding the scope of case marking, Eastern Miwokan is more similar to Yokutsan than it is to Western Miwokan; another argument favoring contact between Eastern Miwokan and Yokutsan. This difference between Western and Eastern Miwokan explains the incorporation of clitic pronouns in Eastern Miwokan resulting in head marking in nominalizations.

Contact induced cliticization
'Clitic pronouns are the spontaneous response to language contact' (N 1992: 272). The drift towards head marking in Proto-Eastern Miwok began with Proto-Miwok cliticized pronouns (C 1980:36) and case markers. Cliticization is induced by contact itself, not necessarily contact with head marking languages (N 1992: 273). Induced cliticization is expected in areas of greatest diversity, namely residual zones and the periphery of spread zones. This describes the Sacramento River Delta at the time it was the homeland of Proto-Miwok and Proto-Eastern Miwok speakers. Additional contact might be expected as well, since the Delta was a major trade route between the Coast and the Sierras and beyond. There are still clitic pronominal and case markers in Lake Miwok (C 1963).

Possessive (series 1)
The possessive series is the original series in Proto-Eastern Miwok, from Proto-Miwok independent pronouns (C 1980:36). It now expresses possession of nouns and the agent of nominalizations in the subjunctive or distant past; irrealis verb forms low in transitivity (Hopper & Thompson 1980) and therefore likely to be nominalized. Forms following case are from Proto-Miwok independent pronouns. Those preceding case, which are not reconstructible in Proto-Miwok, are likely remnants of a series of relationship possessives (Freeland 1951 §22.2). These forms are the 1st person sg. -nti- and pl. -t:i-. As former relationship possessives, they would be more stative than other possessives. As 1st person markers, they are so highly animate that as statives they retained marking, whereas the 2nd and 3rd person markers were lost. The more stative forms -nti- and -t:i- occur marking agents, as expected, only when there is no overt patient marking. The more active markers -kan and -mahhi are adapted independent pronouns;

(6) cuku-nti-? (dog-my-nom.) '(it is) my dog' B.314
(7) wi?ki?a-y-hi? (going-acc.-his) '(it is) his going' B.314
(8) ?e?nu-ni-ni?-kan (chase-can-your-nom.-my) 'I can chase you.' B.314

Nominal (series 2)
This series may have replaced the older stative possessive series. This series occurs with nouns and nominalizations of the low transitivity continuative and future, as
well as recent past, and is followed by case. For nouns it is interpreted predicatively as theme:

(9) hayaapu-niʔ (chief-your-nom.) 'you are a chief'

(10) wíksi-y-niʔ (going-fut.-your-nom.) 'you will go'

In passives, the nominal series is interpreted as marking patients:

(11) šíiyičči-šak-koo-∅ (watch-cont.-their-nom.) 'they were watching'

(12) šiy-ñeʔaa-m-∅ (watch-pass.-past-our-nom.) 'we were seen'

In transitives, the nominal series marks patient in the possessive series:

(13) miciknaʔ-a-tte-y-hiʔi (do what-inf.-my-acc.-his) 'what he does to me'

Nominal possessives mark both agent and patient in the nominal series. The agent follows the patient, as in the possessive series, but precedes case as might be expected from its more stative nature. Assuming Givón's adjacency principle; 'Spatio-temporal distance in the stream of speech tends to reflect conceptual distance' (G 1995:179), the nominal series agent can be seen not so much as possessing the result of the verb phrase interaction like the possessive series agent, but more as a participant or experiencer. This may explain why the nominal series markers occur exclusively as patient markers in the other series. Nominal series markers are agentive only in the nominal series:

(14) ?enup-e-nii-teʔ (chase-past-your-my-nom.) 'I chased you'

With intransitives of series 2 and active transitives and passives of series 1 the nominal series patient/theme markers form an absolutive pattern, which is consistent with the lower transitivity of nominalizations (H & T: 254). In both active and passive the series 2 pronominal is in immediate constituency with the verb. This is not true, as already mentioned, of series 1, which is in immediate constituency with the nominalization. Example (9) with series 1 would be: hayaapu-niʔ (chief-nom.-your) 'he is' your chief'.

Case marking as predicative

Nominal series nominalizations in subordination use case marking to indicate relative tense:

(15) heniss-e-me-y (rest-past-our-acc.) 'after we rested'

(16) kawli-pa-s-y (dark-agt.-char.by'-its-acc.) '(it was)during the morning'

(17) cilenn-e-ko-ŋ (eat lunch-past-their-gen.) 'after they ate lunch'

There is a tendency in Eastern Miwokan to apply techniques of subordination to independent clauses, including the use of case marking for tense (F.§28). This may have been to avoid backgrounding while favoring nominalizations (H & T: 284) possibly involving indirect speech acts (G 1995:143). On the analogy of the other case marked tenses, nominalizations in the present were marked by ?, perhaps iconically as a presentational device. Further analogy extended the ? to nouns as a present tense predicative and marked nominative:

(18) weltu-sʔ (come from getting it-his-nom.) 'he is coming from getting it'

(19) weltuu-s-ŋ (come from getting it-his-gen.)

'he was coming from getting it'
(20) yeyiije-\(\sim\) (speaker-his-nom.) 'he is the speaker' F.15.B.3
(21) yeyiije-\(\sim\-\(n\) (speaker-his-gen.) 'he was the speaker' F.15.B.3

The nominative \(\sim\) was extended as a predicative to possessive series nouns parallel to the other cases, and to nominalizations, e.g. in the 'subjective absolute' (F.§28.2).

(22) šolluku-\(\sim\-\(m\)-maaš (bow-nom.-our) '(it is) our bow' F.23.3.A.1
(23) kalaanji-ni-nti-\(\sim\) (dance-pot.-my-nom.) 'I can dance' B.732

**Subject marking on verbs**

Nominalizations are seen to be independent finite clauses with bound pronominal marking, coding agent and patient. Finite verbs developed indexing as well by analogy to the nominalization coding. For non-passives, agentive marking on nominalizations would look like subject marking to verbs, since verbs, as clause heads, are more likely to mark syntactic subject/object than nouns (Nichols 1992:90). The resulting verbal inflections are the declarative series (series 3) and volitional series (series 4) subject markers, which can be reconstructed in Proto-Eastern Miwok (C 1980:37). It cannot be determined that in the absence of case marking they were not clitics or may not have been used anaphorically.

(24) ciliili-sii (weave-you) 'you're weaving' B.314
(25) teepa-\(\sim\) (cut-it-he) 'he cut it' B.314

**Object marking on verbs**

Verbal pronominal inflection is based partially on analogy to nominalizations. Object marking is drawn from series 2 patient markers except where -\(m\)-, '1st sg. and 2nd person involved' is used. The characteristic \(\sim\) nominative case marker follows the series 2 marker except after -\(m\)- or -\(mu\)-, '1st obj pl. and 2nd person involved', in the declarative series, and in the corresponding places in the volitional paradigm. The \(\sim\) does not occur with plural markers.

**SSM Declarative (series 3)** (based on B 1960:312-314)

<table>
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<th>3s = (\Ø)</th>
<th>1pl</th>
<th>2pl</th>
<th>3pl = (\Ø)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
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</tr>
<tr>
<td>2s</td>
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<tr>
<td>3s</td>
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<tr>
<td>1pl</td>
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<tr>
<td>1pl exc</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2pl</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3pl</td>
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</tbody>
</table>

**SSM Volitional (series 4)** (based on B 1960:312-314)

<table>
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<th>3s = (\Ø)</th>
<th>1pl</th>
<th>2pl</th>
<th>3pl = (\Ø)</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>2s</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3s</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1pl</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1pl exc</td>
<td></td>
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</tr>
<tr>
<td>2pl</td>
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</tr>
<tr>
<td>3pl</td>
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</tr>
</tbody>
</table>
Assuming that the order of morphemes represents the order of historical development, 3rd person sbj. confirms Callaghan (1980:37) that subject preceded object marking. 1st and 2nd person involve an inverse marking morpheme -mu-, where 2nd outranks 1st in animacy, as opposed to series 1. For 2nd sbj.-1st obj. in the declarative series, the direction of transitivity is correct, expressed by -mu- for the unmarked singular object, and using the expected series 2 for plural. For 1st sbj.-2nd obj. however, the direction of transitivity goes against the hierarchy. This is conveyed for 1st sg. by using a series 3 object marker, perhaps because series 3 is less closely associated with patient than series 2. For 1st pl. the order of subject and object markers is reversed, iconically promoting the higher ranking 2nd person by placing it in subject position.

Double marking in Eastern Miwokan is reflected in the analysis of its pronominal inflection. The nominal marking is concerned with semantic roles, which the verbal marking has begun to grammaticalize into syntactic roles.

**Double marking and agreement**

Subject and object pronominal inflection on the verb may be seen as the arguments, relegating nouns, nominalizations and independent pronouns to adjunct status (Jelinek 1984). Nouns and nominalizations, on the other hand, may be seen as clauses with tense and pronominal inflection, using case marking as predicators;

(26) hayaapu-hhu-ni-? (chief-past-your-nom.) 'you were a chief' B.713
(27) leeci-hhi-nti-? (cow-past-my-nom.) 'it used to be my cow' B.713

In spite of the head marking feature of pronominal inflection, the agreement and case assignment expected in dependent marking remains;

(28) naŋpa-? cīti-? (man-nom. good-nom.) 'the man is good', 'the good man' B.911
   This might be translated: 'there is a man, he is good.'
(29) miwwi-ŋ ?iwi-hhi-?-koo (Indian-gen. food-past-nom.-their')
   'the Indians' food' B.911
   This might be translated: 'it is of the Indians, it was their food.'
(30) ?enih-na-maa yawwe-s hayaapu-ɣ (make-ben.-I bow-inst. chief-acc.)
   'I am making a bow for the chief.' B.329
   This might be translated: 'I am making it for him, it is with a bow, it is for the chief'

This concord is governed not by noun class but by case marking, which relates backgrounded low transitivity clauses to foregrounded higher transitivity clauses. Thus dependent marking case marking continues to function along with head marking pronominal inflection.

**The similarity of Proto-Eastern Miwok and Proto-Yokuts**

If the development of head marking characteristics in Eastern Miwokan can be accounted for, then 1) the claims of Callaghan (1980) are supported that head marking was innovated in Eastern Miwokan rather than inherited from Proto-Miwok, and 2) the unrelated Proto-Eastern Miwok and Proto-Yokuts are seen to be similar in ways that are suggestive of contact.
Appendix: The pronominal system of Southern Sierra Miwok (B 1960, table 6).

<table>
<thead>
<tr>
<th>Sh</th>
<th>Obj.</th>
<th>Series 1</th>
<th>Series 2</th>
<th>Series 3</th>
<th>Series 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>-nti/-kan</td>
<td>-te-</td>
<td>-ma:/ø</td>
<td>-m</td>
<td></td>
</tr>
<tr>
<td>2s</td>
<td>-ny:/ -ni-</td>
<td>-t/to:-</td>
<td>-v/o/-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3s</td>
<td>-h:y/-s-</td>
<td>-s-</td>
<td>-nih</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1du.inc.</td>
<td>-t:i/-mah:i:</td>
<td>-me-</td>
<td>-tic:i:</td>
<td>-tic:i:</td>
<td></td>
</tr>
<tr>
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<td>-mYko:</td>
<td>-tokni-</td>
<td>-toksu:</td>
<td>-c:i:</td>
<td></td>
</tr>
<tr>
<td>1p exc.</td>
<td>-ko:</td>
<td>-ko:</td>
<td>-p:u:</td>
<td>-nihko:</td>
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</tr>
<tr>
<td>2s 2s</td>
<td>-ni...kan</td>
<td>-ni:te-</td>
<td>-mus:u:</td>
<td>-ni:</td>
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References


THE SAHAPTIAN INFLECTIONAL SUFFIX COMPLEX

Noel Rude
Universidad de Sonora

This paper traces the history of verb inflections in Sahaptian (Nez Perce and Sahaptin). It looks at all the component morphemes, comments on what appears to be older morphology versus what appears to be more recent innovations, and suggests possible lexical sources for the latter. Only the "inflectional suffix complex" (the term is from Aoki 1970:118) is considered. This constitutes a mix of tense/aspect/modality markers, directionals, and in Nez Perce singular and plural marking for nominative subjects.1

Paradigms are given below for both languages. In Sahaptin the inflectional suffix complex (see Table 1) includes tense, aspect (imperfective and habitual), a conditional, and singular and plural imperatives. There are also inflections as indicated which mark cislocative ("hither") and translocative ("thither") directionals, with the translocative having special palatalized forms in the Northeast (NE) dialects.

The Nez Perce forms are given in Table 2. Here the paradigm is not as regularized as in Sahaptin. Also unlike Sahaptin, the aspects and conditional forms inflect for number, for whether the subject is singular or plural. Another feature which is different in the Nez Perce paradigm is the distinction between a remote and recent past. And unlike Sahaptin which has just one conditional marker -taxnay, the Nez Perce conditional has forms which inflect for tense and some for tense and aspect. The Nez Perce habitual suffixes which are labeled "indefinite past" and "present" are perhaps similar in origin to those labeled "present" and "future" in Sahaptin, but their ranges of meaning differ as indicated.

In Nez Perce all suffixes which begin with /s/ mutate this /s/ to [c] (= [ts]) after certain verbs. In Aoki (1970, 1994) verb stems are marked "c-Class" or "VC" and "s-Class" or "VS" depending on whether this mutation does or does not occur. Swadesh (1930) was perhaps the first to notice that the cause of the mutation was a phonological process which in Nez Perce

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1 The Sahaptian verb is morphologically complex, and its closed set inflections are both prefixal and suffixal. The inflectional prefixes are pronominal, coding 3rd person subjects and objects (with both referential and agreement marking functions), and also reflexives and reciprocals. None of this is covered here. Funding for this study was provided by grants from Catedras Patrimonial Nivel II (given by Consejo Nacional de Ciencia y Tecnología, México, 1995), and from the National Science Foundation (BNS 8919577). Abbreviations are as follows: 1 First Person; 2 Second Person; 3 Third Person; ABS Absolutive; ALL Allative; BEN Benefactive; COND Conditional; CR Columbia River Sahaptin; CSL Cislocative; DES Desiderative; DIR Directive; FUT Future; HAB Habitual; HUM Human; IMP Imperative; IMPV Imperfective; IND Indicative; INST Instrument; LOC Locative; MOD Modal; N Nominalizer; n. Noun; NE Northeast Sahaptin; NHUM Nonhuman; NOM Nominative; NP Nez Perce; NW Northwest Sahaptin; OBJ Objective; OPT Optative; PF Perfect; PL/pl. Plural; PROHIB Prohibitive; PRS Present; PS Proto-Sahaptian; PST Past; RCP Recent; RDP Reduplication; REL Relative; RMP Remote; Sah Sahaptin; SG/sg. Singular; TRL Translocative; vi. Intransitive Verb; vt. Transitive Verb; vvt. Ditransitive Verb.
converts /n + s/ to [c]. In both Nez Perce and most of the Sahaptin dialects /n/ also happens to delete before /t/ as well as word finally when /a/ or /e/ precede, and thus a verb-stem final /n/ surfaces for the most part only before a vowel or velar/uvelar consonant. In this paper I follow Millstein (1991) in referring to the two different verb stems as 0-verbs and n-verbs.

In the most recently developed TAM systems, i.e. those of Creoles, Givón (1984:291f.) finds a four-way marking system, zero for perfective (punctual, completed, realis, etc.), a stative verb for imperfective (durative, incompletive, progressive, habitual, frequentative, etc.), a motion verb for irrealis (future, conditional, imperative, etc.), and a verb like ‘bin’ (Hawaii Creole from English “been”) for perfect (anterior, countersequence, lookback, etc.). For two of these, the perfective and anterior, both Sahaptian languages share remnants of an older system, i.e. *-e for perfective (which perhaps earlier simply marked the indicative) and *-s for perfect (which is an old patient nominalizer). For the other two TAM markers both Sahaptian languages share certain innovations. Both have more or less the same imperfective, except that in Nez Perce this is further elaborated by number marking, as is also the Nez Perce conditional (which also has different tense forms in Nez Perce). Both languages have innovated separate future tenses.
Table 1. Sahaptin inflectional suffixes

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2 The habitual present is -χ in NE Sahaptin.
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1. Tense

1.1. The past

The PS past *-e is likely very old and may be cognate with the Klamath indicative/declarative -a (for which see Barker 1963:41, 1964:163f). PS *-e probably had a more general declarative sense before the more recent elaboration of the tense/aspect system. Evidence for this earlier indicative/declarative status might be that *-e is frozen onto various suffixes which themselves have a more recent verbal origin, e.g. the Nez Perce applicative */-әʔini/ ‘for’ from Nez Perce /tini/ ‘give’. The element */-e/ remains frozen to the primary verb stem whatever its current tense/aspect morphology, e.g. */hani-e/ ‘make’ + INDICATIVE and */tini/ ‘give’ provide the stem */hani-e-ʔini/ ‘make for’ as in exs. 1 and 2.

1  pάanyaʔnya
   /pé-hani-ә-ʔini-e/
   3/3-make-IND-give-PST
   He made [it] for him (Nez Perce)

2  pάanyaʔnyʔ
   /pé-hani-α-ʔini-uʔ/
   3/3-make-IND-give-FUT
   He will make [it] for him (Nez Perce)

In both languages the past tense co-occurs with the aspects, as is indicated in Tables 1 and 2. In Nez Perce, however, it contrasts in the aspects with */-qa/, which marks a recent past (exs. 3, 4), and where */-e/ has come to mark a remote past (exs. 5, 6).

3  ko-sáa-qa
   go-IMPV.SG.NOM-RCP
   I was going (recent)

4  ko-qáa-qa
   go-HABL.SG.NOM-RCP
   I used to go (recent)

5  ku-séen-ә
   go-IMPV.SG.NOM-RMP
   I was going (remote)

6  ko-qáan-ә
   go-HABL.SG.NOM-RMP
   I used to go (remote)

---

3 In my underlying transcriptions of Nez Perce, vowels with the macron (e.g. /à ә ɨ ə/ derive historically from PS *a*. The particular vowel coloring in Nez Perce is completely predictable, e.g. the /ɨ/ - /ə/ contrast is determined by whether the morpheme has inherent strong vowels, /ɨ/ occurs next to a velar/uvular, and /ə/ next to a labio-velar, with /ə/ being the strong vowel equivalent of /ə/. See Aoki (1966) for Sahaptian vowel harmony, and Rude (1992) for examples and further detail on the contrast between NP /â ә ɨ ə/ and /ə o i o u/. The major difference between the two kinds of Nez Perce vowels is that the former delete in certain environments, and the latter lengthen under stress. The use of the macron follows Aoki (1970). In this paper I indicate a stressed macron vowel by underlining, e.g. NP */ʔiʔə/ put in, has inherent stress on */i/. Another feature of the orthography employed here that should be noted is the use of for the glottal stop. Word initial ? is omitted in the Sahaptin orthography. It is not omitted in the Nez Perce orthography.
Nez Perce /-qa/ also occurs alone with the copula (ex. 6). There is no remote sense in the regular past form, however (ex. 7).4

7  wêek-ê  be-PST  I was
8  wa-qa  be-RCP  I just happened to be

The Nez Perce recent past marker is probably related to the adverbial prefixes which imply suddenness and/or nonvolitionality, e.g. Sahaptin txa-, xa-, tqa-, qa- and Nez Perce /teqe-/ for which see Jacobs (1931:150) and Aoki (1994:719). Also related is the Sahaptin 2nd position probability modal =xa (Jacobs 1931:130). The Sahaptin forms show the t to be removable. The x - q contrast in the Sahaptin prefixes and the /a/ of the Nez Perce recent past are due to derivation by "diminutive" sound symbolism. Sahaptin txâna 'become, occur, happen' is *tiqe plus the directional *-(n)en 'thither', and the same *tiqe is also a probable component of Nez Perce /teqw'î/ ‘fall’ (Aoki 1994:721). Perhaps Nez Perce /tîqan/ 'lie on one's back' (Aoki 1994:1069) is a stativized form of the same basic verbal element, i.e. *qe ‘fall’. Both /tî-/ and /-n/ are old derivational elements, as the *t- of *tiqe is as well. It is the 'suddenly' sense of 'fall' which would have lended itself to development into the recent past /-qa/ in Nez Perce. The 'probability' sense of the Sahaptin 2nd position modal enclitic =xa would also derive from this notion of suddenness or inadvertent occurrence inherent in 'fall'. See also the comments below on the habitual marker *-xan/*-qan.

1.2. The present perfect

In PS the present perfect was marked by *-§. The similarity of this morpheme to a Sahaptian patient nominalizer *-§ matches the use of the past participle in the English perfect.5 In combination with no aspirational marker, *-§ has a present relevance sense, as illustrated in ex. 9 from Nez Perce (where PS *§ and *s were merged). Ex. 10 contrasts the active nominalizer /-t/, and 11 the past tense.

9  hips 10  hipt
/hîpi-s/  /hîpi-t/  I have just eaten (Nez Perce)  eating (Nez Perce)
  eat-PRS  eat-N

---

4 The copula has two allomorphs, *we before a vowel and *wek before a consonant. In Sahaptin *wek is palatalized before *-ê, e.g. hwechä 'he/she/it was'.

5 For examples of this nominalizer in Sahaptin, see Jacobs (1931:216). It is less productive in Nez Perce, but examples can be found, e.g. NP tîm'es 'book, paper' (cf. /tîm'en/ 'mark, write'). Not to be confused here is the purpose nominalizer, Sahaptin -ês and Nez Perce /-tes/. The most productive patient nominalizers are -i in Sahaptin and /-i7em/, /-i7is/- in Nez Perce (with [y] inserted after i-stems and [?] after other vowel stems, see Aoki 1994:186).
11  hápe  
    /hipi-e/  
    eat-PST  
    I ate (Nez Perce)

Nez Perce /s/ and /t/ both delete word finally when /n/ preceeds, and so n-verbs appear to suffix zero in the present perfect as also in nominalizations, e.g. 12. The n of n-verbs also surfaces in the past (ex. 13).

12  héekin  
    /hekîn-s/  or  /hekîn-t/  
    see-PRS  
    see-N  
    I have just seen;  
    seeing (Nez Perce)

13  héexne  
    /hekîn-e/  
    see-PST  
    I saw (Nez Perce)

N-verbs which are a- or e-stems delete both the /n/ and the final /s/ or /t/, e.g. 14 (cf. 15 where the stem final /n/ surfaces before a vowel).

14  wîhne  
    /wihnen-s/  or  /wihnen-t/  
    leave-PRS  
    leave-N  
    I have just left;  
    leaving (Nez Perce)

15  wîhnene  
    /wihnen-e/  
    leave-PST  
    I left (Nez Perce)

In Nez Perce /-s/ does not co-occur with the directionals. This may be for phonological reasons (not completely clear at this time) and/or because of skewing by reanalysis. I put them in the underlying forms in exs. 16 and 17, though I know of no phonological process to delete them.

16  kúum  
    /ku-m-s/  
    go-CSL-PRS  
    I have just come (Nez Perce)

17  kúuki  
    /ku-kik-s/  
    go-TRL-PRS  
    I have just gone on (Nez Perce)

The present perfect -š surfaces in all the Sahaptin dialects before an enclitic, e.g. before =naš ‘I/me’ in 18.
18  wiyañawi-š=naš
    arrive-PF=1SG
    I have just arrived (Sahaptin)

Sahaptin -š also survives everywhere after the cislocative (exs. 19, 20, 21) and translocative
directionals (exs. 22, 23, 24).

19  i-wína-m-š
    3NOM-go-CSL-PRS
    He has just come (Sahaptin)

20  i-wína-ša-m-š
    3NOM-go-IMPV-CSL-PRS
    He is coming (Sahaptin)

21  i-wína-xa-m-š
    3NOM-go-HAB-CSL-PRS
    He comes (Sahaptin)

22  i-wína-kík-š
    3NOM-go-TRL-PRS
    He has just gone on (Sahaptin)

23  i-wína-ša-yk-š
    3NOM-go-IMPV-TRL-PRS
    He is going on (Sahaptin)

24  i-wína-xa-yk-š
    3NOM-go-HAB-TRL-PRS
    He goes on (Sahaptin)

In NE Sahaptin the translocative plus the perfect -š is realized as -číš, e.g. 25, 26, 27.

25  i-wína-čí-š
    3NOM-go-TRL-PRS
    He has just gone on (NE Sahaptin)

26  i-wína-ša-čí-š
    3NOM-go-IMPV-TRL-PRS
    He is going on (NE Sah)

27  i-wína-xa-čí-š
    3NOM-go-HAB-TRL-PRS
    He goes on (NE Sahaptin)

Note that although the present marker co-occurs with the directionals (exs. 19 through 27 above),
it does not co-occur with the aspect markers, e.g. /-ša-š/ equals -ša (ex. 28) and /-šan-š/ equals
-ša (ex. 29).

28  i-wína-ša
    3NOM-go-IMPV
    He is going (Sahaptin)

29  i-wína-xa
    3NOM-go-HAB
    He goes (Sahaptin)

The present -š deletes on all Sahaptin verbs in final /an/. There is, however, no 0- versus n-verb
contrast for a-stems in Sahaptin. Sahaptin a-stems are derived historically from *a-stems (ex. 30),
*e-stems (ex. 31), *an-stems (ex. 32), or *en-stems (ex. 33). Here only Nez Perce preserves the
0- versus n-verb distinction, i.e. the past /-e/ takes the form -ya/-ye after the former and -a/-e after the latter.

30  PS *a-stem  
a.  i-wapáatan-a  
3NOM-help-PST  
He helped (Sahaptin)  
b.  hi-wapáayata-ya  
3NOM-help-PST  
He helped (Nez Perce)  

31  PS *an-stem  
a.  i-támyan-a  
3NOM-hit-PST  
He hit (Sahaptin)  
b.  hi-támayan-e  
3NOM-hit-PST  
He hit (Nez Perce)  

32  PS *e-stem  
a.  i-tiyán-a  
3NOM-laugh-PST  
He laughed (Sahaptin)  
b.  hi-tiyé-ye  
3NOM-laugh-PST  
He laughed (Nez Perce)  

33  PS *en-stem  
a.  i-wínan-a  
3NOM-go-PST  
He went (Sahaptin)  
b.  hi-wihnen-e  
3NOM-leave-PST  
He left (Nez Perce)  

Nez Perce /-s/ is preserved in all PS 0-verbs (exs. 34a, 35a), whereas /n + s/ gets deleted in n-verbs (exs. 34b, 35b).

34  a.  PS *a-stem  
hiwapáayatas  
/hi-wapáayata-s/  
3NOM-help-PRS  
He has just helped (Nez Perce)  
b.  PS *an-stem  
hitáamyá  
/hi-támyan-s/  
3NOM-hit-PRS  
He has just hit (Nez Perce)  

35  a.  PS *e-stem  
hitiyées  
/hi-tiyé-e-s/  
3NOM-laugh-PRS  
He has just laughed (Nez Perce)  
b.  PS *en-stem  
hiwihne  
/hi-wihnen-s/  
3NOM-leave-PRS  
He has just left (Nez Perce)  

Having reanalyzed all *a- and *e-stems as an-stems, Sahaptin marks the present perfect as zero for all these verbs, e.g. 36a & b and 37a & b.

36  a.  PS *a-stem  
i-wapáata  
3NOM-help  
He has just helped (Sahaptin)  
b.  PS *an-stem  
i-támya  
3NOM-hit  
He has just hit (Sahaptin)
37 a. PS *e-stem
    i-tiya
    3NOM-laugh
    He has just laughed (Sahaptin)
b. PS *en-stem
    i-wína
    3NOM-go
    He has just gone (Sahaptin)

Sahaptin i- and u-stems, however, still retain their 0- versus n-verb status. Those that are 0-verbs suffix -ya in the past (exs. 38b, 39b), and zero in the present perfect (exs. 38a, 39a).

38 a. Present perfect
    i-ʔaní
    3NOM-make
    He has made [it] (Sahaptin)
b. Past
    i-ʔaní-ya
    3NOM-make-PST
    He made [it] (Sahaptin)

39 a. Present perfect
    i-kú
    3NOM-do
    He has done [it] (Sahaptin)
b. Past
    i-kú-ya (CR: pa-kwí-ya)
    3NOM-do-PST
    He did [it] (Sahaptin)

In CR Sahaptin i- and u-stems that are n-verbs are treated similarly, i.e. -a marks the past (exs. 40b, 41b) and zero the present perfect (exs. 40a, 41a). In un-stems the n is often deleted in the perfect (ex. 41a).

40 a. Present perfect
    pa-wxín
    3PL.NOM-lose
    They have lost [it] (CR Sahaptin)
b. Past
    pa-wxín-a
    3PL.NOM-lose-PST
    They lost [it] (Sahaptin)

41 a. Present perfect
    pa-tmíyu(n)
    3PL.NOM-plan
    They have planned (CR Sahaptin)
b. Past
    pa-tmíyun-a
    3PL.NOM-plan-PST
    They planned (Sahaptin)

NW Sahaptin, however, has innovated a special form -a for the present perfect of i- and u-stems that are n-verbs. These are treated as a special kind of i- or u-stem in which the past is marked with -na (ex. 42b, 43b) and the present perfect with -ya (ex. 42a) or -wa (ex. 43a).  

42 a. Present perfect
    pa-ʔámtkwi-ya
    3PL.NOM-overtake-PF
    They have overtaken
    (NW Sahaptin)
b. Past
    pa-ʔámtkwi-na
    3PL.NOM-overtake-PST
    They overtook
    (NW Sahaptin)

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*For similar examples of the in-stem ámtkwína 'overtake' see Jacobs (1929:230:1, 222:11), and for the un-stem ʔíč’tán 'sleep' see Jacobs (1929:206:19-20, 205:12).
43  a. Present perfect  
   *pa-nché'u-qa*
   3PL.NOM-sleep-PF
   They have just gone
to sleep (NW Sahaptin)

43  b. Past  
   *pa-nché'ú-na*
   3PL.NOM-sleep-PST
   They went to sleep
   (NW Sahaptin)

In Nez Perce the present /-s/ survives on i- and u-stems that are zero verbs (exs. 44a, 45a), but not on n-verbs (exs. 44b, 45b). Here, however, the /n/ is lost on un-stems (45b).

44  a. i-stem  
   *háánis*
   /hání-s/
   plan-PF
   I have made [it] (Nez Perce)

44  b. in-stem  
   *wiqiín*
   /wíqín-s/
   lose-PF
   I have lost [it] (Nez Perce)

45  a. u-stem  
   *kúús*
   /ku-s/
   go-PF
   I have gone (Nez Perce)

45  b. un-stem  
   *timmiyú*
   /timmiýun-s/
   plan-PF
   I have planned (Nez Perce)

The validity of the 0- versus n-verb analysis of these i- and u-stem verbs is shown by the past tense forms in exs. 46, 47.

46  a. i-stem  
   *haniýa*
   /hani-e/
   plan-PST
   I made [it] (Nez Perce)

46  b. in-stem  
   *wiqiíne*
   /wíqín-e/
   lose-PST
   I lost [it] (Nez Perce)

47  a. u-stem  
   *kúye*
   /ku-e/
   go-PST
   I went (Nez Perce)

47  b. un-stem  
   *timmiýune*
   /timmiýun-e/
   plan-PST
   I planned (Nez Perce)

Nez Perce n-verbs that are C-stems delete the present perfect /-s/, as in 48b, whereas they retain /-s/ when they are 0-verbs, as in 48a.

48  a. 0-verb  
   *hiíwéeks*
   /hiíhiwé-s/
   3NOM-dream-PF
   He has dreamed (Nez Perce)

48  b. n-verb  
   *biʔyaʔaqin*
   /biʔyiʔaʔqín-s/
   3NOM-find-PF
   He has found [it] (Nez Perce)
In NW Sahaptin (at least in Jacobs' recorded Klikitat texts), the present perfect -š is preserved on both types of consonant stem, e.g. 49a and 49b.

49  a. 0-verb
 i-ʔwáč-š
 3NOM-dream-PF
 He has just dreamed (NW Sahaptin)

 b. n-verb
 i-ʔyáx-š
 3NOM-find-PF
 He has just found [it] (NW Sahaptin)

In CR Sahaptin all C-stems look like n-verbs in the present perfect: -š is lost and -in has been generalized as a kind of present perfect marker for both 0- and n-verbs, e.g. ex. 50.

50  a. 0-verb
 i-ʔwáčin
 3NOM-dream
 He has just dreamed (CR Sahaptin)

 b. n-verb
 i-ʔyáxin
 3NOM-find
 He has just found [it] (CR Sahaptin)

Jacobs (1931:206) cites -in as a NE suffix, with the comment that it “is important and unfortunately very much in doubt.” His examples, however, make it clear that as in CR Sahaptin, this is simply the n of n-verbs extended to mark the perfect for all consonant stems, whether n-verb (51b) or 0-verb (51a).

51  a. 0-verb
 i-wuwákin
 3NOM-have.nightmare
 He has just had a nightmare

 b. n-verb
 i-láxwíixín
 3NOM-be.warm
 It has just gotten warm

(Jacobs 1931:206)

As always, however, the perfect -š resurfaces before an enclitic (ex. 52).

52  áw-iyáxín-š=naš=ta áw
 3ABS-find-PF=1SG=MOD now
 I may have found it now (NE, Jacobs 1931:133)

In CR Sahaptin, probably NE Sahaptin also, the 0- versus n-verb distinction survives in the past tense, e.g. 53.

53  a. 0-verb
 i-ʔwáč-a
 3NOM-dream-PST
 He dreamed (CR Sahaptin)

 b. n-verb
 i-ʔyáx-n-a
 3NOM-find-PST
 He found [it] (CR Sahaptin)

For at least some speakers of Yakima (NW Sahaptin) this distinction seems to be breaking down. Some speakers find either -a or -na an acceptable past marker for all consonant stems. There also seems to be some confusion over the 0- vs. n-verb status of C-stems in Jacobs' Klikitat texts. For
example, in Jacobs (1929:176:18) and (1929:208:21) we see ?yáxín ‘find’ (clearly an n-verb in CR Sahaptin, cf. also Nez Perce /?iyáqín/ ‘find’), treated as an n-verb, but in Jacobs (1929:185:8) and (1929:208:19-20) we see it treated as a 0-verb.

1.3. The future

The Sahaptin future -ta clearly involves a reanalysis of -ta (PS *-ten) ‘go for a purpose’, which is itself probably the nominalizer *-t plus *hen, go. That we should reconstruct this verb (i.e. *hen, go) with initial *h is suggested by the fact that in Sahaptian all words begin in a consonant, and that an initial glottal stop would have glottalized the nominalizer *-t in Nez Perce. Though *hen does not survive as a primary verbal root, it is to be found in the directional *-en, motion thither.7 Compare also Nez Perce /henimn/, not go, which, if derived from *hen, go, and *-im, hither, confirms the initial *h of our hypothetical verb ‘go’. Compare also Klamath en, go, which always has a classificatory prefix (Barker 1963:129). The ‘go for a purpose’ and future functions of Sahaptin -ta may co-occur, e.g. 54.

54    i-tkwáta-ta-ta
     3NOM-eat-go-FUT
   He will go eat, he’s gonna go eat  (Sahaptin)

The origin of the Nez Perce future -u? is perhaps not quite as clear. Aoki (1994:821) lists a directive suffix -u? ‘to, toward, against’ which is restricted to a very few verbs, and which Aoki suggests might be a form of the directive /-úu/ (from *-éwe, cf. the NW Sahaptin directive -áwá, for which see Rude 1991b). This highly restricted directive has the same form as the Nez Perce future, it could represent the same source. But it transitivizes a motion verb with the sense ‘toward a direct object’. The future derives from the metaphor of ‘notion toward the action’, and would thus represent a separate development. This directive -u?, however, is interesting in that underlingly it appears to have the form /-?u/, and by regular phonological processes of vowel assimilation and deletion (and vowel harmony) yields the forms in 55 and 56.

55    ?átó?sa
    /?áti-?u-s-en/
     exit-DIR-IMPV-SG.NOM
   I am exiting toward you  (Aoki 1994:977)

56    hicó?sa
    /híca-?u-s-en/
   climb-DIR-IMPV-SG.NOM
   I am climbing after you  (Aoki 1994:821)

A similar analysis lets us unite as allomorphs two intensifier enclitics listed separately in Aoki 1994, e.g. -u? on page 821 and -?u on page 1102, e.g. as in exs. 57, 58.

7 Sahaptin *-en is also the likely source of the NP objective case suffix *(n)en (see Rude 1991a).
57  kínik’ú ‘surely from this’ (from /kínik=ʔu/)

58  kíimuʔ ‘surely these’  < /kimuʔ=ʔu/ by Final Vowel Deletion
       < /kíme=ʔu/ by Vowel Assimilation

The Nez Perce future also appears to be underlyingly /ʔu/. This is suggested by the fact that when it is suffixed to a stress neutral verb stem, as in ex. 59, stress is word final. Root final vowels delete word finally in words of three or more syllables in Nez Perce, and Nez Perce has penultimate stress except when there are morphemes with inherent stress, e.g. compare exs. 60 and 61.

59  hipúʔ ‘I’ll eat’  < /hipúʔ=ʔu/ by Final Vowel Deletion
       < /hipíʔ=ʔu/ by Vowel Assimilation
       < /hipíʔ=ʔu/ by the Penultimate Stress Rule

60  hipíse  61  hípe
       /hipíʔ-s-en/
       eat-IMPV-SG.NOM
       I am eating (Nez Perce)

But the future does not attract stress in the same way that the directive -uʔ does. The future -uʔ attracts stress only when no other morpheme in the word has inherent stress (ex. 59), the directive -uʔ attracts stress even away from a stressed root, as in 55 above. Compare the same stressed root /ʔátí/ with the future in exs. 62, 63. And after a regular vowel stem (not after /ʔ/) the future takes the form -yuʔ / -yoʔ by vowel harmony) (ex. 64), the vowels do not assimilate as in 56 above. All this does not preclude an earlier identity /ʔ-ʔu/ for both the directive and future. But it does indicate a certain amount of reanalysis if they are from the same source morpheme.

62  ?áatoʔ  63  ?áatoʔkom
       /ʔátíʔ-ʔu/
       exit-FUT
       I will go out (Nez Perce)

8 Compare Nez Perce títunità and Sahaptin twáti, both ‘shaman’. That Nez Perce preserves the final vowel underlyingly (e.g. /twáti/) is evident from the oblique cases (e.g. objective títunitàe) where /ʔ/ surfaces.

9 All roots appear to have had morpheme inherent stress in Proto-Sahaptian. Sahaptin preserves this where Nez Perce does not, e.g. Sahaptin aní ‘make’ as opposed to Nez Perce /hání ‘make’ (which is without inherent stress). Nez Perce roots which have inherent stress always have it on the same syllable as their Sahaptin cognates, e.g. Nez Perce /týʔe ‘laugh’, Sahaptin títya ‘laugh’. Stress assignment does not always apply before vowel deletion, however. Compare háhám ‘men’, which is underlyingly /ha-hámə/. But /hámə/ ‘man’ does have inherent stress, and so háhám probably represents reanalysis. There are also a few exceptions to the root final vowel deletion rule, e.g. Nez Perce títilha ‘crawfish’, títúrynə ‘tail’, títékásal ‘many, much’, títíme ‘heart’, mác’éye ‘ear’, kilkéye ‘service berry’.
hicayo?  
/hica-u?/  
climb-FUT  
I will climb (Nez Perce)

Whatever the source of the Nez Perce future marker -u?, earlier on this morpheme probably simply functioned as ‘to’ in concert with the verb for ‘go’, as in English “gonna” from “going to”. Since the cislocative future is -u7kum, i.e. -u7 plus /ku-/m/ ‘come’ (/ku/ ‘go’ plus the cislocative /-m/), it seems safe to assume that the noncislocative future originally also contained /ku/ ‘go’, e.g. as -u7ku and that ku later dropped off.

2. The aspects

As is common in the history of many languages, the Sahaptian aspectual markers probably began their career as auxiliary verbs (cf. “be”, “keep”, “used to”, etc., in English). That the tense markers attach directly both to a verb stem (exs. 65, 66) as well as to the aspect markers (exs. 67, 68) suggests this verbal origin, i.e. as verbal auxiliaries they took the same tense markers as regular verbs.

i-winan-a  
3NOM-go-PST  
He went (Sahaptin)

i-wína-ta  
3NOM-go-PST  
He will go (Sahaptin)

i-wína-šan-a  
3NOM-go-IMPV-PST  
He was going (Sahaptin)

i-wína-ša-ta  
3NOM-go-IMPV-FUT  
He will be going (Sahaptin)

In the same way the directionals *-im and *-kik, which attach directly to a verb stem (exs. 69, 70), also suffix directly to the aspect markers (exs. 71, 72), which suggests a verbal origin for the aspect markers and an older grammaticalized status for the directionals.  

hikutum  
/hi-ku-im/  
3NOM-go-CSL  
He has just come (Nez Perce)

hikúuki  
/hi-ku-ki/  
3NOM-go-TRL  
He has just gone on (Nez Perce)

hikuséenm  
/hi-ku-sen-im/  
3NOM-go-IMPV-CSL  
He is coming (Nez Perce)

hikuséenki  
/hi-ku-sen-ki/  
3NOM-go-IMPV-TRL  
He is going on (Nez Perce)

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10 Berman (1993) points out that the Molala cislocative was also marked by an -m, as well as probably also the Cayuse cislocative. Takelma and Kalapuya, which are prefixing languages, have ‘hither’ prefixes with m, e.g. Takelma me7- (Sapir 1922:88) and Kalapuya ma- (Jacobs 1945:215:16).
Penultimate stress in Nez Perce is never assigned to the translocative /-kik/, e.g. 73, 74. Penultimate stress has full access, however, to the Nez Perce aspect markers, as can be seen in exs. 71, 72 above. It is not clear why /-kik/ has this peculiarity. Perhaps it preserves some earlier prohibition against stressing grammatical morphemes (perhaps this is a universal tendency as grammaticalization progresses). If so, then this might indicate the more recent development of the aspect markers and a greater age for the translocative.

73 kúukikê
/ku-kik-e/
go-TRL-PST
I went on (Nez Perce)

74 kusesênkê
/ku-sen-kik-e/
go-IMPV.SG.NOM-PST
I was going on (Nez Perce)

Another feature of the aspect markers, at least those in Nez Perce, is that they have different forms for whether the subject is singular or plural. The fact that they do not also mark person suggests a suppletive pattern, common in many Native American languages, where intransitive verbs have different forms depending on whether the subject is singular or plural (number suppletive transitive stems differ depending on whether the object is singular or plural). Such verbs are quite common in Klamath (e.g. hod ‘run (sg.)’, din ‘run (pl.)’, dos ‘run (a few)’, see Barker 1963). Though not as common in Sahaptian, there are, especially in Nez Perce, various adverbial prefixes which are probably verbal in origin and which indicate a plural subject, e.g. /tél-/ ‘gallop (pl.)’ (Aoki 1994:707), /țiye/- ‘run (pl.)’ (Aoki 1994:1094), /țiyele/- ‘fly (pl.)’ (Aoki 1994:1094). Without a co-occurring plural marker these generally indicate group action (ex. 74), with a plural marker the action is more dispersed (ex. 75).

75 hi-téél-ixn-e
3NOM-gallop.PL-move-PST
They galloped (as a group) (Aoki 1994:362:14)

76 hi-pe-téél-ixn-e
3NOM-PL.NOM-gallop.PL-move-PST
They galloped (as individuals) (Aoki 1994:362:14)

For these there are alternative adverbial prefixes (e.g. /qûqu-/ ‘gallop’, /wîlî-/ ‘run’, /wee-/ ‘fly’) which without a plural marker indicate singular action (exs. 77, 78).

77 hi-qqu-liixn-e
3NOM-gallop-move-PST
He galloped (Nez Perce)

78 hi-pe-qqu-liixn-e
3NOM-PL.NOM-gallop-move-PST
They galloped (Nez Perce)
2.1. The imperfective

The imperfective is marked by *-šen in both Sahaptian languages. It regularly occurs with stative verbs (ex. 79a, 80a), and with nonstative it marks the progressive (ex. 79b, 80b).

79  a  i-q'ínu-ša  b  i-tkwáta-ša
    3NOM-see-IMPV  3NOM-eat-IMPV
    He sees (Sahaptin)  He is eating (Sahaptin)

80  a  hekícé  b  hipísí
    /hekícé-sen/
    see-IMPV.SG.NOM
    I see (Nez Perce)
    /hipísí-sen/
    eat-IMPV.SG.NOM
    I am eating (Nez Perce)

Cross-linguistically the most common source for the imperfective/progressive is the metaphor of being *located* in time. This may be realized with a simple locative construction plus ‘be’ (the source of the English progressive), or a locational verb like ‘stay’ (Givón 1984:291). For the Sahaptian imperfective *-šen, one thus suspects a connection with the directional *-če ‘on, upon’ (which is often applicative in that the goal is or becomes a grammatical object). Its Sahaptin form is *-ša (-ásə with frozen indicative, Jacobs 1931:196, 200), and in Nez Perce it occurs as /-ce/, cited in Aoki (1994) as /-ce/ ‘on behalf of’ on page 13, and as /-likécé/ ‘on, upon, on top of’ on page 370 (with removable /-lik/ ‘do, act’, Aoki 1994:368, and frozen indicative /-e/). The only trouble here is that, according to the Sahaptian sound correspondences outlined in Aoki (1962), for which see 81 below, the locative morpheme reconstructs as *-če, whereas the imperfective is *-šen.

81  Some Sahaptian correspondences according to Aoki (1962)

<table>
<thead>
<tr>
<th>PS</th>
<th>Sahaptin</th>
<th>Nez Perce</th>
</tr>
</thead>
<tbody>
<tr>
<td>*č</td>
<td>ˢ</td>
<td>c</td>
</tr>
<tr>
<td>*c</td>
<td>ˢ</td>
<td>c</td>
</tr>
<tr>
<td>*š</td>
<td>ˢ</td>
<td>s</td>
</tr>
<tr>
<td>*s</td>
<td>ˢ</td>
<td>s</td>
</tr>
</tbody>
</table>

It is possible that the Sahaptian imperfective was originally *-čen, which would give it its present form in Sahaptin, i.e. *-ša(n), and that /-cen/ was actually its earlier form in Nez Perce. In Sahaptin ˢ productively alternates with a sound symbolic s, and in texts one regularly encounters the imperfective in its diminutive *-ša(n) form. In Nez Perce the nondiminutive counterpart of c is s, and if the original form of the imperfective was /-cen/ in Nez Perce, it may be that it was everywhere reanalyzed to a nondiminutive form /-sen/ (ex. 83), except on n-verbs where /c/ has been phonologically preserved (ex. 82).
Now based on the most common cross-linguistic source for the imperfective, and considering PS *-če ‘on, upon’ as a cognate of the Sahaptian imperfective, we should assume an old auxiliary verb *če ‘be on, upon’ or maybe ‘sit’. This looks precisely like the Klamath čv-‘sit (sg.)’ (Barker 1963:67), which even matches perfectly the suppletive singular subject preserved in Nez Perce. Aoki (1963) finds three different Sahaptian correspondences which match Klamath č (see 84 below). The first (š - s) fits the correspondence found in the Sahaptian imperfective, Sahaptin -ša(n), Nez Perce /-sen/, but not if we assume an earlier PS *-čen with Sahaptin -ša(n) and Nez Perce /-cen/ (see 80 above). If there is no way around these correspondences, and if we still want to relate the Sahaptian directional, then we will have to assume that the Nez Perce /-ce/ ‘on, upon’ was derived via diminutive sound symbolism. Note also the alternative Nez Perce forms even with diminutive glottalization, /-c’e/ ‘on, upon’ (Aoki 1994:66), and strong vowel, /-c’a/ ‘on, upon’ (Aoki 1994:58).

84 Sahaptian correspondences matching Klamath č (Aoki 1963)

<table>
<thead>
<tr>
<th>Klamath</th>
<th>Sahaptin</th>
<th>Nez Perce</th>
</tr>
</thead>
<tbody>
<tr>
<td>č</td>
<td>š</td>
<td>s</td>
</tr>
<tr>
<td>čč</td>
<td>s</td>
<td>c</td>
</tr>
<tr>
<td>čč</td>
<td>č</td>
<td>c</td>
</tr>
</tbody>
</table>

The *individuative* status of our hypothetical *če or *š(e)n* ‘sit sg.’ may also be reflected in the Sahaptin pronominal enclitic =ša ‘alone’ (Jacobs 1931:256). Here the s is likely the sound symbolic derivative of š, since =ša initiates diminutive symbolism in the whole word, e.g. ilk=ša ‘I alone’ (cf. činka ‘I’). Thus =ša points to a source *š(e)n*, which if the same ‘sit sg.’ would mean ilksa ‘I alone’ originated naturally as ‘I sit sg.’ or ‘I sit alone’. That plural pronouns also take =ša (e.g. plak=ša ‘they alone’) only means generalization throughout the paradigm of the individuative sense of *š(e)n*.

For the Nez Perce imperfective plural /-sik/, one is tempted to consider the possibility that Nez Perce /siks/ ‘nest’ (Aoki 1994:638) is a nominalization of an earlier /sik/ ‘sit (pl.)’. Klamath čii ‘stay, live, dwell’ (Barker 1963:77) is likely related to Klamath čv- ‘sit (sg.)’, and though it preserves no plural sense, it may have originally had such a sense and may be connected to the Nez Perce imperfective /-sik/, /-sin/.

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11 Sound symbolism is ubiquitous in Sahaptian, for which see “Addenda I” at the end of this article. There are many examples within Sahaptian where /is/ alternates with /č/, and where plain obstruents correspond to ejectives. Aoki (1994:60), for example, suggests that /čásin/ ‘spread out (e.g., of feather, tail), sprinkle (of water)’ is “probably phono-symbolic in basic form and related to” /čásin/ ‘scatter’ (Aoki 1994:10).

12 According to Millstein (1990a), however, Sahaptin siks, friend, pal, partner (NP /siks/ also has these meanings) is “from Chinook Jargon, ultimately from Chinook language”.
2.2. The habitual

The habitual/frequentative is marked in Nez Perce by separate morphemes depending on whether the subject is singular or plural, /-qan/ or /-tu/ if singular and /-e7nik/ if plural. It is thus probable that these morphemes, just as was hypothesized above for the imperfective/progressive, derive from number suppletive verbal auxiliaries. Nez Perce /-qan/ and Sahaptin -xan may be related to Nez Perce /ʔeqan/ ‘lie on the back, be supine’ (Aoki 1994:1069). And if Klamath sq’ol ‘lie down (sg.)’ (Barker 1963:391) is cognate, it would preserve the notion of singular subject. The /ʔi/- is removable from the Nez Perce verb, and the /s/- probably is from the Klamath. The PS *a - Klamath o and PS *n/*l - Klamath l correspondences are already attested in Aoki (1963), and sound symbolism might explain the Sahaptin ʔ - Nez Perce q - Klamath q’ anamoly. See also comments on the Nez Perce recent past marker /-qa/ in section 1.1. above.

If we subtract from the Nez Perce plural subject /-e7nik/ the frozen indicative /-e/ and a plural /-ik/, the latter perhaps on analogy with the plural imperfective /-sik/, then we are left with what looks like the Nez Perce verb /ʔin/ ‘lie, lie down, be lying down’ (Aoki 1994:1005). And here one wants to connect Klamath loʔal ‘pl. lie’ (Barker 1963:222). Though this looks like a reduplicated stem, perhaps a doubly reduplicated *ʔol, Barker notes that it cannot be “descriptively” so analyzed. But this could simply be a matter of reanalysis. Perhaps related is the Klamath ‘pl. objs.’ classifier ?i- (Barker 1963:32).

The singular indefinite past /-q/ is probably a reduced form of /-qa/, which is the form /-qan/ would take word finally, and which is suggested by the fact that words in /-q/ show strong vowel harmony the same as words in /-qan/, e.g. 85 and 86.

85 hikóox
   /hi-ku-qa/
   3NOM-do-HAB.PRS
   It keeps doing
   (Phinney 1934:366:6)

86 hiwyankaaxńóox
   /hi-wíyenskektín-úu-qa/
   3NOM-aim bow-DIR-HAB.PRS
   He keeps aiming his bow at
   me (Phinney 1934:140:12)

There is also a process in Nez Perce which deletes final vowels in words of three or more syllables, e.g. háama ‘man’, but with reduplication we get háhám ‘men’ (from the trisyllabic /ha-hama/). Compare also the Northeast Sahaptin present habitual/frequentative -x, which elsewhere is -xa (Jacobs 1931:204).

The initial element of the singular present /-tetu/ probably derives from an old Sahaptian verbal root *te ‘stand’, e.g. /te/ in Nez Perce (Aoki 1994:701) which occurs in /ʔisęte/ ‘stand with a load’ (cf. /ʔisęp/ ‘carry a load’, /ʔisępík/ ‘walk with a load’, /ʔisępen/ ‘bring in game’). In Sahaptin this *te occurs in pátá (sg.), ptá (pl.) ‘stand up, stick up (of inanimate objects)’ (from Millstein 1991a).

There is also an old Sahaptian verbal root *tu which probably meant ‘stand (sg.)’. It occurs in Nez Perce as an irregular inflectional suffix which combines the notions of “singular subject” and “stative” (Aoki 1994:790). The plural equivalent is /-tn’ix/. Sahaptian *tu is also a
component of certain Sahaptin verbs which similarly lack dynamic aspectual forms, i.e. there is only a stative present -tun (-tuwə in NW Sahaptin) and stative past -tuna. Though Sahaptin -tun does not imply a singular subject, it does co-occur with other number suppletive elements, e.g. pátun (sg.) and ptún (pl.) 'sit (of inanimate objects)'. Sahaptian *tu is also a component of Sahaptin nisátun 'live' (Jacobs 1929:176:19), túti 'stand', and the transitivized stems pátuk (sg. object) and ptúk (pl. object) 'set up, set out'. The verb *wewtuk 'camp overnight' occurs in both languages and probably contains this element. For a possible Klamath cognate, see Klamath tγγγγ- 'stand (sg.)' (Barker 1963:405), perhaps also din 'lie (animal)' (Barker 1963:117).  

For a comparison of the Nez Perce stative /te/ and /tu/ forms, see Table 3 below (Aoki 1994:1033 provides a paradigm of a /-te/ verb).

<table>
<thead>
<tr>
<th></th>
<th>*te forms</th>
<th>*tu forms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remote</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singular</td>
<td>tecene</td>
<td>tune</td>
</tr>
<tr>
<td>Plural</td>
<td>tecine</td>
<td></td>
</tr>
<tr>
<td><strong>Recent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singular</td>
<td>taqa</td>
<td>toqa</td>
</tr>
<tr>
<td>Plural</td>
<td>tiʔniqa</td>
<td></td>
</tr>
<tr>
<td><strong>Indefinite Past</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singular</td>
<td>tene</td>
<td></td>
</tr>
<tr>
<td>Plural</td>
<td>tene</td>
<td></td>
</tr>
<tr>
<td><strong>Present</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singular</td>
<td>te</td>
<td>tu (translocative -tunki)</td>
</tr>
<tr>
<td>Plural</td>
<td>tiʔnix</td>
<td>tʔnix</td>
</tr>
<tr>
<td><strong>Future</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singular</td>
<td>tenuʔ</td>
<td></td>
</tr>
<tr>
<td>Plural</td>
<td>tenuʔ</td>
<td></td>
</tr>
<tr>
<td><strong>Imperative</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singular</td>
<td>-teeʔnimtx (cislocative)</td>
<td></td>
</tr>
<tr>
<td>Plural</td>
<td>-teeʔnimtx (cislocative)</td>
<td></td>
</tr>
</tbody>
</table>

13 Perhaps related are the Klamath interrogative dat ‘where?’ and locative noun case marker -dat (Barker 1963:126).
3. The conditional

The Nez Perce present conditional *-ax suffixes to 0-verbs that have been nominalized by -t (ex. 87), and to n-verbs without -t (ex. 88). This /-t/ was likely present in both cases and simply deleted phonologically (or historically) in the latter (see ex. 12 above).

87  hiwat’aax
    /hi-we-t-ʔaq/
    3NOM-be-N-COND.PRS
    It would have been  (Aoki 1970:114)

88 ʔaakin’aax
    /ʔe-hekin-ʔaq/
    3ABS-see-COND.PRS
    I would have seen him  (Aoki 1970:123)

The Sahaptin conditional -taxnay is a large enough morpheme that it ought not be too old and its derivation should be more or less transparent. There is no immediately discernable source in Sahaptin, however, and so it is likely that the -tax portion of this suffix is cognate with the Nez Perce conditional present /-t’aq/. Though /-ʔaq/ glottalizes the /-t/ in Nez Perce, this should not be expected in Sahaptin.¹⁴ The source of the remaining -nay portion of the Sahaptin conditional is probably n plus the past -a (see comments below), though it is not clear why this takes the form -nay in NW Sahaptin, -na NE and CR, and -ni Taytnapam or Upper Cowlitz (another NW dialect, see Jacobs 1931:206). The *ʔaq or *ʔax element is probably related to the nominal enclitic of the same form, e.g. the Nez Perce “optative” /-ʔaq/ (Aoki 1970:59), ex. 89 below, and the Sahaptin =aax ‘wish, desire, hope’ (Jacobs 1931:129), ex. 90, and to the Nez Perce verbal desiderative /-ʔaq/ ‘try, strongly wish’ (ex. 91). The desiderative meaning of these nominal and verbal elements thus suggests their verbal origin (‘want, wish, desire’), which would also represent the source of the Sahaptin conditional *-ʔaq.¹⁵

¹⁴ Note how the purpose nominalizer /-es/ similarly suffixes to 0-verbs with /-t/ in Nez Perce and causes glottalization, e.g. kúnt’es /ku-t-ʔes/ ‘in order to go’ (Aoki 1994:88), but that the /-t/ is always missing on n-verbs, e.g. t̓ím’en’es /t̓im’en-ʔes/ ‘in order to write, for writing, a pen’ (Aoki 1994:87). In Sahaptin the same purpose nominalizer suffixes to both types of verb stem with -t, and in neither instance does the t glottalize, e.g. ʔəktəl ‘in order to enter’ (kt ‘enter’ is a 0-verb) and wiyəlintaš ‘in order to travel around’ (an n-verb). Both Sahaptin examples are cited from Millstein (1990b).

¹⁵ There seems to be no readily identifiable potential cognate in Klamath. Barker (1963) lists only one such verb, san’asWawll ‘want, desire, wish’. It is large enough that one suspects a recent development. Barker (1963:348) suggests that the initial sa- may be the reflexive, and Wawll looks suspiciously like the Nez Perce wewlulq ‘want, desire, wish’ (already compared in DeLancey et al 1988:217). And according to DeLancey et al (1988:204), “[T]here is some evidence to suggest that postvocalic back fricatives [in Sahaptin] correspond to vowel length in Klamath”. It is thus possible that Klamath san’asWawll contains an ?aa element that is cognate with Sahaptin *ʔaq.
Sahaptin has but the one conditional (see Table 1), whereas Nez Perce has two conditionals (Table 2), the present conditional -?aq just discussed above, and a past conditional -o?qa. This past conditional is obviously constructed from the future -u? and recent past -qa, which suggests an origin as a counterfact conditional. According to Givón (1990:831), "counterfact clauses tend to be marked, cross-linguistically, by a combination of two semantically conflicting verbal inflections:

(a) A prototypical realis operator, such as past, perfective or perfect; and
(b) A prototypical irrealis operator, such as future, subjunctive, conditional or a modal."

The counterfact status of -o?qa seems to have weakened and not apply in every example, however, e.g. compare 92 and 93 below.16

92 c'ala?i hi-páayn-o?qa ?ipi watiisx,
if 3NOM-arrive-COND 3SG.NOM yesterday

kaa ?a-axn-6?qa
and 3ABS-see-COND
If he had come yesterday, I would have seen him (Aoki 1970:114)

93 ?a-kiyó-yo?qa c'ala?i hi-tan’wáa-yo’qa
3ABS-marry-COND.PST if 3NOM-propose-COND.PST
I would marry him if he proposed (Aoki 1978:63[11]:20)

---

16 For the first example Aoki notes that -?aq/ may be substituted in either the first or second clause without a change in meaning. Aoki also suggests that there is no change in meaning when -?aq/ marks both clauses, but perhaps such a construction would better be translated such that a degree of probability exists, e.g. 'If he came yesterday I might have seen him'.

Sahaptin counterfactual conditionals mark both verbs with the conditional (ex. 94), whereas irrealis conditionals have the future in both clauses (ex. 95).

94 iníisiert naš wa-taxni ana=ku čáw i-lú-taxni
house=1SG be-COND REL=and NEG 3NOM burn-COND
I would have had a house had it not burned (Jacobs 1931:206)

95 páyš=nam á-tkwata-ta ku=nam la?ák á’iyáwi-ta
maybe=2SG 3ABS eat-FUT and=2SG maybe die-FUT
If you eat it you might die (CR Sahaptin)

Irrealis conditionals in Nez Perce also most often occur with both verbs in the future (ex. 96).

96 c’alawi ?ée tałc wilelikín-u?
if 2SG NOM FUT run.away-FUT

méetmet ?ile-wiyun-úu-yu?-kum héeñek’u?
do not loudly-cry DIR-FUT CSL again
If you run away, do not loudly beseech me again
(Phinney 1934:7:16-17)

Both Nez Perce conditionals also serve as simple irrealis modals, often with an abilitative sense (exs. 97, 98). The same applies to the single Sahaptin conditional (ex. 99).

97 kaa nek-s-fix ?imé ?éeţx wi-s-fix
and think IMPV-PL NOM 2PL NOM 2PL be IMPV-PL NOM

ci-cikaw’is kaa ?éeţx ?e-pe-x-yó?qa
RDP powerful and 2PL 3ABS PL NOM do-COND
And we think you are very powerful and you can could do it (Phinney 1934:400:9-10)

98 ?itúu-ne pán-ko-t’-až
what OBJ 3/3 do N-COND PRS
What could she do? (Phinney 1934:114:7)

99 áw=nan miš-knik ku=nan wínp-ata-taxnay ilkwiš
now=1PL what INST and=1PL get go COND fire
Now with what can we get the fire? (Jacobs 1929:175:6-7)

Aoki (1994:974) notes that /-7aq/ occurs in prohibitive clauses, e.g. 100. The future is also very common in such constructions (ex. 101).

100 kaa wéetmet wiýáa-q’ilaw-n’až
and PROHIB going along look back COND PRS
And don’t look back while going along (Aoki 1994:974)
101 méetmet máwa q’iilawn-o?  
PROHIB when look.back-FUT  
Do not ever look back (Phinney 1934:275:6)

Both Nez Perce conditionals co-occur with the imperfective. Aoki (1970:114) describes one instance where the imperfective plus */-taw/ is used “to ask a rhetorical question” (ex. 102).

102 mine 7ée paaláy-c-an’-ax  
where you run.away-IMPV-SG.NOM-COND.PRS  
Where do you get away? There is no place to run away to (Aoki 1994:974, Aoki and Walker 1989:185:53)

An example of the conditional */-o?qa/ with the imperfective is hiwșiinoʔ qa ‘they would be’ in 103 below.

103 c’alwi páaxa-ti-px meqšéem-ne pəa-yawnan-oʔ qa  
if five-NHUM-ALL mountain-OBJ 3/3-cross.over-COND  
If he had crossed the fifth mountain

q’oʔ yox kíne ʔéeleyn-pei  
indeed that this.LOC west.country-LOC  
then in this country indeed

hi-w-s-iin-oʔ qa  kúnk’uʔ-ʔayn ʔóykala  
3NOM-be-IMPV-PL.NOM-COND always-BEN all  
they would be living for all time

yox ka hiʔnakix-c-in-m-qa  
that REL 3NOM-bring-IMPV-PL.NOM-CSL-RCP  
those (game animals) which he was bringing (from the East Country) (Phinney 1934:75:5-7)

4. Imperatives

The Sahaptian imperative */-k is shared by both languages, e.g. Sahaptin (ex. 103) and Nez Perce (ex. 104).

104 át-k  
exit-IMP  
Go out! (Jacobs 1931:208)

105 ?áatx  
/ʔátiʔ-k/  
exit-IMP  
Go out! (Aoki 1994:188)
Nez Perce /-k/ deletes on all n-verbs (exs. 106, 107, 108).

106  hin  107  ?ehékin
/hín-k/  /ʔe-hekín-k/
say-IMP  3ABS-see-IMP

108  wiskeʔéyn  109  ?ipsqilehne
/wískeʔéyn-k/  /ʔipsqilehne-k/
travel-IMP  walk.down-IMP
Take a trip! (Aoki 1994:215:18)
Walk down! (Aoki 1970:117)

The /n/ also deletes after back or low vowels (exs. 109, 110).

110  timmiyu  110  timmiyu
/timmiyun-k/  /timmiyun-k/
figure.out-IMP  figure.out-IMP
Figure [it] out! (Aoki 1994:744:27)

Note also the behavior of k-stems:

111  ?ew’niix  112  kúy
/?ew’niix-k/  /ku-i/
3ABS-place-IMP  go-IMP

Nez Perce has a special imperative /-i/ for V-stems which are 0-verbs (exs. 112, 113, 114, 115). This imperative may be cognate with the Klamath imperative singular -i (Barker 1963:174).

113  wéecey  114  haniii
/wéece-i/  /hani-i/
2 ride-IMP  make-IMP

115  ?ew’niit  116  ?ew’nii
/ʔew’niiti/  /ʔew’ni-i/
3ABS-give-IMP  3ABS-give-IMP
Give him [something]! (Aoki 1994:1036:29)

In both languages the imperative is pluralized by *-t (exs. 116, 117). In Warm Springs, one of the CR dialects of Sahaptin, the imperative plural takes the form -ti (ex. 118), which probably preserves the same old imperative *-i which occurs on V-stems in Nez Perce and serves to mark the imperative singular in Klamath (see above).
116 tkwáta-t-k
eat-PL-IMP
Eat! (Sahaptin)

117 hipítx
/hipí-t-k/
eat-PL-IMP
Eat! (Nez Perce)

118 tkwáta-t-i
eat-PL-IMP
Eat! (Warm Springs)

This -tk complex also pluralizes the Nez Perce indeclinable pronoun ʔée ‘you (sg.)’, e.g. ʔétex ‘you (pl.)’. This pluralizing -t is probably cognate with the -ad/ or -at element which pluralizes Klamath personal pronouns (119 below). ¹⁷

119 Klamath personal pronouns (Barker 1962:239)

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>ni</td>
<td>naať</td>
</tr>
<tr>
<td>2nd person</td>
<td>ʔəi</td>
<td>ʔaat</td>
</tr>
<tr>
<td>3rd person</td>
<td>bi</td>
<td>baat</td>
</tr>
</tbody>
</table>

¹⁷ Nez Perce has one other indeclinable pronoun, kíye ‘we, us (inclusive of hearer)’, which is made exclusive by -k/, e.g. kíye ‘we, us (exclusive of hearer)’ or ‘I, me’. This exclusive -k/ is the same as the exclusive pronominal enclitic (see Aoki 1970:129f., 1994:187). Here we might consider the possibility of a connection to the Klamath 1st person hortative -eck ‘let me ...’ (Barker 1963:126:32), and ask if perhaps such a sense could have been extended in Sahaptin to ‘let me have you ...’. Sometimes Sahaptin =maʔ ‘I acting on you’ (which contains the equivalent Sahaptin exclusive element =ʔ) appears in imperative constructions, so perhaps it is not totally out of line to imagine marking the speaker in imperatives.
References


ADDENDA I. SOUND SYMBOLISM

Besides regular sound change, one finds examples within Sahaptian where the sounds joined by the lines in the consonant chart below are related by sound symbolism. This excludes, of course, the aspirated series which Sahaptian does not have (but which Klamath does and where there is evidence of the same relatability by sound symbolism).

\[
\begin{array}{ccccccccccc}
  p & t & \lambda & - & c & - & k & - & k^w & - & q & - & q^w & ? \\
  | & | & | & | & | & | & | & | & | & | & | & | \\
  p^h & t^h & \lambda^h & - & c^h & - & c^h & k^h & - & k^w & - & q^h & - & q^w \\
  | & | & | & | & | & | & | & | & | & | & | & | \\
  p' & t' & \lambda' & - & c' & - & c' & k' & - & k^w & - & q' & - & q^w \\
  | & | & | & | & | & | & | & | & | & | & | & | \\
  ñ & - & s & - & s & x & - & x^w & - & x & - & x^w & - & h \\
  | & | & | & | & | & | & | & | & | & | & | & | \\
  m & n & - & l \\
  | \\
  w & - & y \\
\end{array}
\]

The Proto-Sahaptian vowel system is reconstructible as given below. In it vowel harmony related *u - *o and *e - *a, and two varieties of *i which are realized in Nez Perce as /i/ - /\i/. In addition, the vowel *i alternated in an ablaut system with *ee/*aa and *ii (see Jacobs 1931:140). I believe that Sahaptian vowel harmony was originally the vocalic part of the more general sound symbolism so prevalent in Sahaptian and also areally. Though vowel symbolism later became automatic, the strong vowels are still diminutive in Nez Perce. And every sound symbolic alternation in Sahaptian is either a more or a less harmonic “across the board” feature. The *n - *l and *s - *s alternations are closer to the vocalic alternations in that they are pretty well assured by the symbolic status of the word. Within a word every *n tends to change to *l and every *s to *s, whereas in the same word *m is less likely to change to *w even though this is an attested sound symbolic alternation in both languages.

\[
\begin{array}{ccc}
  i & i & u \\
  | & | & | \\
  o \\
  e & - & a \\
\end{array}
\]

In historical linguistics there is always the tendency to reconstruct too many sounds. Initially, at least, Proto- Inventories will tend to be large enough to accommodate every observable alternation,

---

\[18\] That this latter alternation already existed in Proto-Sahaptian is suggested by the fact that the weak variety of *i caused palatalization in Sahaptin (e.g. Sahaptin čñmt‘ ‘new’, Nez Perce /kñmti/ ‘new’), whereas the strong variety did not (e.g. Sahaptin tñnf ‘twist, intertwine, roll together’, Nez Perce /takálnay/ ‘exchange, trade’, Sahaptin tk’n ‘watch’, Nez Perce /ták’ñm/ ‘watch’). But the derivational role played by sound symbolism sometimes skews this pattern, e.g. Sahaptin čłáy ‘dried salmon’ probably derives from a weak vowel variety of Nez Perce /k’ällay/ ‘dog salmon’.
and thus the more daughter languages there are, the larger will be the sound inventory. Penutian is notorious here, with its seemingly sporadic correspondences across so many potentially good cognate sets. Some of this obviously represents borrowing. But if the field is ever to be put on a more solid footing, Penutianists must confront this issue. If we are going relate the California and Oregon languages, we will have to ask ourselves whether the larger sound inventories that we find in the north better represent the Proto-language (with simplification having taken place in the south), or whether the earlier sound inventory looked more like a California language, that perhaps it was in the north, in contact with richer sound systems and a more productive sound symbolism, that the Oregon languages came to look more like Pacific Northwest languages. This would not have to imply a northward migration, just that those languages which remained in contact with the richer sound systems experienced the greater development. If we were to reconstruct a Proto-Penutian sound inventory something like that given below, sound symbolism would certainly allow for each phase of expansion in the Oregon languages. More likely the actual situation in Proto-Penutian, if such a language ever existed, was a compromise somewhere between the extremes suggested by the two sound inventories I have charted.

\[
\begin{array}{ccccccc}
p & t & ç & k & ? & i & i & u \\
s & s & x & h & & & \\
m & n & & & a \\
w & y & & & & & \\
\end{array}
\]

Borrowing and influence can penetrate at many levels, vocabulary being the most obvious. And borrowing, along with pure chance, seems to be the currently most popular way to dismiss similarities. But areal influence is not always just an easy answer to similarity in vocabulary. Sometimes, as in our case, it can explain why similar vocabulary was NOT borrowed. Recognition of the areal influence of sound symbolism and the rich inventory of sounds this implies suggests that we might be able to discern more inherited Penutian vocabulary in all our languages.

This should not imply that for us anything goes, that in our field there are no regular sound correspondences. But it does mean that we need more detailed studies of sound symbolism in all our languages, of each particular alternation pattern and its semantic/derivational/functional motivations.
ADDENDA II. FORMATIVES OF SAHAPTIAN VERB SUFFIX INFLECTIONS

*ʔin. Together with /-ik/ and the frozen indicative /-e/, this element forms the plural habitual in Nez Perce, e.g. /-ʔnik/. The probable source is the Sahaptian verb *ʔin ‘lie’, but it has no inherent sense of plural subject. For this we might compare the Klamath classifier ʔi- ‘pl. objs.’ (Barker 1963:32), and perhaps also Klamath ʔol’al ‘pl. lie’ (Barker 1963:222).

*ʔaq. With nominalizer *-t, forms the present conditional in Nez Perce, as well as the tax element of the Sahaptin conditional, /-taxnay/. As a verbal auxiliary, Sahaptian *ʔaq probably originally meant ‘want, wish, desire’, which is the meaning preserved in the Sahaptian nominal enclitic *ʔaq.

*ʔu. Future tense in Nez Perce, also a component of past conditional -oʔqa in Nez Perce. Probably related to a Nez Perce directive -ʔu?, and probably originally took the form -uʔku, which now survives only with the cisolocative.

*e. Past tense, perfective aspect. Also marks past in aspects, remote in Nez Perce. Frozen on to various verbal suffixes. May be very old in Sahaptian, cf. for example the Klamath indicative/-declarative -a (Barker 1963:41, 1964:163f).

*i. Imperative. Only on vowel stems in Nez Perce, and with plural imperative in Warm Springs, e.g. -ti. Probably very old, e.g. compare the Klamath imperative singular -i (Barker 1963:174).

*k. Imperative.

*kik. Translocative directional. Also takes the forms *-ki and *-ik, depending on morphophonemic environment. Palatalized in NE Sahaptin, e.g. -čč-

*m. Cisolocative directional. Probably very old. There are suffixal -m cisolocatives in Molala and Cayuse (Berman 1993), and prefixal cisolocatives m- in Kalapuya (Jacobs 1945:215:16) and Takelma (Sapir 1922:88). The probable ultimate source for these morphemes would be a verb ‘come’.

*n. Very common stem final element in Sahaptian. Used derivationally.

*ʔqa. Recent past, only in Nez Perce. Together with the future forms the past conditional, e.g. -oʔqa, -oʔkomqa with cisolocative. Probably related to other Sahaptian morphemes which imply suddenness, unexpectedness, involuntary action, and which probably derive from an older root meaning ‘fall down’. Probably related to the habitual *-xan/*-qan.

*ʔ. Present perfect. From a patient nominalizer *-ʔ.

*ʔen. Imperfective aspect. Singular nominative in Nez Perce. Cognancy with Klamath ġv- ‘sit (sg.)’ (Barker 1963:67) would indicate the singular subject meaning was inherent in the original verbal source for this auxiliary, and that *-ʔen subsequently lost this feature in Sahaptin.
*šik. Imperfective plural nominative, only in Nez Perce. Takes the form /-sin-/ before other suffixes. Probably *šik or perhaps *sik represents an early suppletive auxiliary meaning 'sit (sg.)'. Compare Nez Perce /sikis/ 'nest' (Aoki 1994:638), which may be a nominalization, and Klamath čii 'stay, live, dwell' (Barker 1963:77).

*t. Nominalizer. With *-aq, forms the present conditional in Nez Perce, and the tax element of the Sahaptin conditional.

*t. Pluralizer for the imperative. Probably a very old morpheme. Compare, for example, the /ad/ element on the Klamath plural personal pronouns, /naad/ 'we' vs. /ni/ 'I', etc. (Barker 1962:239).

*te. Future tense only in Sahaptin. Obviously an extension of Sahaptian *-ten, go for a purpose, which was originally the nominalizer *-t plus *hen, go. Cf. also Klamath en, go.

*ten. Together with /-tun/ this auxiliary element forms the present habitual singular nominative in Nez Perce, e.g. -tetu, and with /-tinik/ the Nez Perce present habitual plural nominative, e.g. -te?nix. From Sahaptian *ten, stand.

*tun. From a Sahaptian verb *tun which probably originally meant 'stand (sg.)'. With /-te/ this forms the singular present habitual in Nez Perce, e.g. -tetu. If a cognate, Klamath tg-y- 'stand (sg.)' (Barker 1963:405) would preserve the earlier singular sense.

*xan. Habitual aspect. Singular nominative in Nez Perce. Probably related to the Nez Perce /ʔiqan/, lie on the back, and also an older Sahaptian element *xa/*xe/*qa/*qe which probably meant 'fall, drop’, and which would be more directly the source of the recent past marker in Nez Perce (see *qa above). Here the habitual meaning would have derived from the more stative notion inherent in 'be lying down'. The singular subject of the Nez Perce auxiliary may be preserved in the Klamath sq’ol 'lie down (sg.)' (Barker 1963:391).
ADDENDA III. SAHAPTIAN VERB STEM CLASSES

The following is a list of Proto-Sahaptian verbs classified as to stem type. The reconstructions are based on Aoki (1962) and Rude (1992). The Nez Perce underlying forms are based on Rude (1992). In order to complete the list, several forms are cited as hypothetically Proto-Sahaptian when they are attested in only one language, usually Nez Perce for the rarer vowel stems. The list is not intended to be complete, however. The Sahaptin verbs are not guaranteed to be current in all dialects with the same meaning and form, though I have mentioned variants of which I am aware.

Part 1. Vowel stems, 0-verbs

a-stem


*hiča. vi. Climb. NP/híca/ vi. ‘climb’.

*wapáyata. vt. Help. Sah wapáata, NP/wapáyata/. This is *wepé-, with the hand, plus *yata. See Aoki (1994:939).

e-stem

*ʔíte. vt. Put in. Sah ñta(a), NP /ʔíte/.

*-če. vt. Be on, upon. Sah -ša, NP /-če/.

*-pe. vi. Move into brush. Sah -pa, NP /-pe/.

*šíšíʔe. vi. Freeze. Sah šíšá, NP /šíč’e/.

*téwe. vt. Pierce, skewer, roast, broil. Sah táwa, NP /túua/.

*tiy’e. vi. Laugh. Sah tiya, NP /tiy’e/.

*wé. vi. Be. Sah wá, NP /we/. *wek before a vowel.

*wéte. vt. Beat, whip. Sah wát’a, NP /we’té/.. Contains *we-, with an implement, and *t’e.

*wéyeč’e. vi. Dance. wáaša, NP /we(y)eč/.. Probably *weyé-, with rapid movement, plus *če, be upon.
i-stem

*ʔúyi. vt. Begin, start. Sah úyi, NP /ʔúyi/.

*hani. vt. Make. Sah aní, NP /hani/.

*hiko. v. Verbalizer, derives verbs from nouns. Sah -i, NP /-hi/.

*hinewi. vt. Try, test. Sah ínawi, NP /hinewi/.

*hétewi. vt. Esteem, value, honor, admire, love, like. Sah átawi, NP /hétewi/.

*mi. vt. Do, treat. Sah mí.

*náq'i. vi. Finish. Always attached to another verb or prefix, e.g. the transitivizer *hi-. Sah ínaq'i, NP /hinaq'i/.


*péxwi. vtt. Steal from, rob. Sah páxwi, NP /péxwi/.


*tamánwi. vt. Decree, ordain. Sah tamánwi, NP /tamálwi/.

o-stem

I am aware of no examples of o-stems, but u-stems of course become o-stems by vowel harmony, e.g. NP kosáaqqa /ku-sen-qa/, I was going.

u-stem


Part 2. Vowel stems, n-verbs

an-stem

*(ʔi)pitiyan. vt. Sah pítya, spear. NP /ʔiptâyan/, stab (with a knife). Probably contains *(ʔi)p-,
with the hand.


*wáwyan. vt. Hit, whip, beat. Sah wáwya, NP /wáwyan/. Contains *wéw-, striking, making
contact.

en-stem

NP /ʔinéhnen/, carry. Sah wána, flow. NP /welen/, flow. *-ten, go for a purpose. Sah -ta, NP
/-ten/. Likely the nominalizer *-t plus *hen.


*šiw’en. vt. Fail to recognize, not notice. Sah šíwa, NP /šiw’en/.

*(ʔi)šiwén. vt. Skin, butcher. Sah šúwa, NE šúwa, /ʔisíwen/.


*téw’yen. vi. Live, stay, reside, dwell. Sah táwya, NP /téw’yen/.


*tiwen. vi. Smell, stink. Sah tíwa, NP /tiwen/.

in-stem

*k’eʔiin. vt. Peek in at, spy on. Sah k’iin, NP /k’eʔiin/.

*knknin. vi. Go around, move around, rotate. Sah uknín, NP /lkilín/.

*win. vi. Cry, weep, moan, wail. NP /win/.

*q’ín. vi. Adhere, stick. Sah q’ín, NP /q’in/.

*skilín. vi. Turn, return. Sah CR skilín, NE sklin, NW slín, NP /cikilín/.
*wixín (also *wexin, *wexin, etc.). vb. Throw away, remove, lose, toss, shed, put down, lay down, loosen. Sah wixín, wiqín, NP /wiqín/, /wiqín/, /weqín/.

on-stem

NP /néon/. vb. Go gather (grass, firewood, tepee poles, moss, pitch, etc., "but not food items such as salmon, and camas", Aoki 1994:493).

un-stem

*himyun. vb. Call or designate as a relative. NP /himyun/.

*mún. vb. Call, invite, summon. NP /mún/.

*timmiyun. vi. Deliberate, decide, plan, scheme, figure out. Sah tmiyun, NP /timmiyun/.


Part 3. Diphthong stems (all are n-verbs)

awn-stem

*skáwn. vb. Fear, be afraid of. Sah skáwn, NP /cikáwn/.

ewn-stem

*síséwn. vi. Drip, leak. NP /síséwn/.

iwn-stem

*iíwn. vi. Urinate. NP /iíwn/.

iwn-stem

*iíwn. vi. Burn. Sah iún, NP /iíwn/.

*q’ilíwn. vi. Turn the head around, look back. Sah q’íun, see (NW, CR only). NP /q’iláwn/, turn the head around, look back.

ayn-stem

*páyn. vi. Appear, arrive. NP /péyn/.
eyn-stem

*himéyn. vt. Suspect, blame, accuse. NP /himéyn/.

oyn-stem

*hoyn. NP /-hoyn/ (reflexive), exercise, get in shape, train, condition.

*po7óyn. vi. Snow. Sah púuyn, NE pu7úyn. NP /pohoyyn/, snow, fine snow (n.).

uyn-stem


*wúyn. vi. Escape, flee. NP /wuyn/.

iyn-stem

*p’iyn. vi. Drain, seep. Sah p’in, NP /p’áyn/.

*tk’iyn. vt. Watch, look at. Sah tk’in, NP /ták’áyn/.

*tknýn. vt. Sah tknín, twist, roll (strands together), NP /tákáláyn/, exchange, trade.

*tonýn. vi. Go upriver, go upstream. Sah túnín, NP /toláyn/.

Part 4. Consonant stems, 0-verbs

*?áč. vi. Enter, go in. Sah áś, NP /?áči/.

*?át vi. Exit, go out. Sah át, NP /?átí/.

*?áyx, *?íx. vt. Wash. Sah íx, NP /?ayq/. The Nez Perce verb occurs only with /wepé-, with the hand. (Aoki 1994:982)


*hip. vt. Eat. NP /hipí/.

*-k. v. Common derivational element. Derives verbs from adjectives, transitivizes some verbs, and co-occurs with certain adverbal prefixes. (Jacobs 1931:196; Aoki 1970:99)
*nék. vt. Think. NP /nek/. Perhaps a metaphoric extension of *nék, carry, which never occurs stem finally in Sahaptian.


*A’ik. vt. Break, split, cut. Sah A’ik, NP /c’āk/. In both languages this root occurs only with an adverbial prefix.

*wewtuk. vi. Camp overnight, stay the night. Sah NW wawtkw, NE, CR wawtuk, NP /wewtuk/. Probably contains the element *tun, sit, and stem final *-k.

*wek. vi. Be. Allomorph of *we, be, which occurs before a vowel. Sah wač-, NP /wek/.


Part 5. Consonant stems, n-verbs

*?in. vi. Lie, lie inanimately. Sah in (Jacobs 1929:181:6-182:1; 186:3; 214:8), NP /?in/.


*hēkin. vt. See. NP /hekín/. Sah áčaš, eye, is a derivation via the purpose or instrument nominalizer -aš. NE túukin, see, is probably connected via some adverbial prefix *tew-.

*hēšin. vi. Breathe. Sah hášin, NP /hésin/. The Sahaptin word may be borrowed from Nez Perce, which would account for the preservation of *h and the long vowel.

*hin. vt. Say, tell. Sah ìmn, NP /hín/. The double n-verb status in Sahaptin (i.e. the n does not delete before s or t) is probably due to reanalysis based on the fact that in Sahaptin this verb is generally realized phonetically (especially after a prefix) as a syllabic n, i.e. [?n] as in pá?ína [pá.?n.na], he was told by him. Compare áwna [táwina] or [táwana], told him.

*híšin. vtt. Win (from). Sah íšin, NP /hisin/.


*šúkin. vt. Know, find out. Sah šúkin, NP /sukin/.
REATTACHING TSIMSHIANIC TO PENUTIAN

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0. ABSTRACT. More than 75 years after Sapir first suggested it, the affiliation of Tsimshianic to the "Penutian phylum" can finally be substantiated, thanks to progress in the description of the Tsimshianic languages in the last two decades, including work towards reconstructing the proto-language. The systematic study of phonological and morphological patterns shows that Tsimshianic shares a common structural and lexical core with a number of the Penutian languages, especially those of the Pacific Northwest. It is likely that further research in this area will help establish both the internal and external boundaries of the "phylum", which are still in debate.

1. INTRODUCTION: In his 1921 article, A characteristic Penutian form of stem, Sapir made public an idea he had been entertaining for several years, by suggesting that

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1 The word Tsimshianic was coined in Tarpent 1983 because of the ambiguity of the term "Tsimshian", used by Boas and his successors to refer to the linguistic group comprising both Coast Tsimshian ("Tsimshian proper") and Nisqa'a ("Niska", Nisga'a, Nisga'a), which have been shown to be separate languages rather than dialects of a single language (Rigsby&Dunn). Coast Tsimshian (CT) is a member of the Maritime Tsimshianic branch, along with the almost extinct Southern Tsimshian (ST, locally called Sgūū̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱̱
"Tsimshian", which is unrelated to its British Columbian neighbours, might be "a detached Northern offshoot" of the Penutian languages of California and Oregon, and he declared himself "fairly sanguine" that this relationship "can be demonstrated". Almost 75 years later, this hypothesis is still "the weakest link in the chain" (Hymes) as no such demonstration has been adduced. The Penutian group has been variously enlarged since Sapir’s article (e.g. proposals by Swadesh, Whorf), but its boundaries have remained ill-defined, and the nature of the relationship (genetic or not) between the various language groups that compose it is itself in doubt. The "phylum" includes languages with considerable typological variety in spite of some widespread features, and the common lexical fund is considered very small (Silverstein 1979). Geographically, the languages of the group are interspersed with others belonging to different families (Salishan, Athapascan, Hokan, Uto-Aztecan), so that there is a strong likelihood of large-scale borrowing and areal phenomena confusing the possible genetic picture.

If Tsimshianic could indeed be demonstrated to belong to the group, it would provide a very important contribution: its location hundreds of kilometers from the nearest Penutian subgroup (Chinookan), separated from it by the long-established Salishan family, means that common features would be likely to reflect genetic relationship rather than areal borrowing, and this common core would probably be at a considerable time-depth. Thus a demonstrably affiliated Tsimshianic could provide valuable clues to the structure of the presumed Penutian ancestor, in addition to the historical implications which interested Sapir.

Sapir did not publish his evidence, which consists mostly of notes scattered in the margins of grammars (Golla, ed. 1990). A few attempts at proving this relationship were made by non-Tsimshianists (Hymes 1956, DeLancey/Genetti/Rude 1988 [DGR]), relying on secondary sources for their Tsimshianic data. Lacking in-depth morphological and lexical knowledge of Tsimshianic, as well as reproducing

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3 Quotation marks indicate a term or a spelling that was previously current but is no longer used or recommended. In particular, I use "Tsimshian" with quotation marks when referring to the work of Boas, Sapir and others who use the word where I use Tsimshianic, and Tsimshian without quotation marks to refer specifically to the Maritime speech varieties, spoken by Tsimshian people.

4 as well as by languages of the Kwakiutlan group, of more recent implantation on the mainland. Sapir felt that "Tsimshian" was "probably profoundly influenced by ... Mosan" (italics mine), but this statement was never substantiated. Kwakiutlan is profoundly different from Tsimshianic (confirmed by Emmon Bach, p.c.) in spite of their close geographical proximity at present and what Sapir recognized as "some obvious borrowings". Similarities appear to be greater with Salishan, and might be due to an early period of contact, cf below end of 5.3.

5 Sapir had done some fieldwork on the occasion of a visit by a Nisga'a delegation to Ottawa in 1910 (leading to two articles on Nass River terms of relationship and Nass River society), but his comparative data derived mainly from Boas's 1911 "Tsimshian" grammar and two volumes of Tsimshian Texts (the 1902 volume in Nisga'a, the 1916 volume in CT). Unless some of Sapir's notes were destroyed, his evidence (as published in Golla, ed. 1990) consists only of 55 lexical and grammatical items, of which no more than 13 appear plausible. Some of the notes appear to have been entered from memory, as there are a number of errors and some references cannot be traced.
errors or misunderstandings deriving from the sources, those attempts were at best unconvincing to a Tsimshianist. As in the case of Haida and Na-Dene, Sapir's hunch about "Tsimshian" and Penutian seemed very doubtful; it seemed to me that one could have made an equally good case for Uto-Aztecan, or even Indo-European! However, when I reviewed the literature which had been available to Sapir (the grammars in HAIL I and II), I discovered some intriguing resemblances with Takelma in a set of initial consonant correspondences (Tarpent 1990b) as well as in some of the morphological features. Further research in a variety of Penutian languages now suggests that Sapir, who had written a detailed grammar of Takelma, and worked on Chinookan, was right in adding "Tsimshian" to the list, and that resemblances between Tsimshianic and a number of Penutian languages, especially those of the Northwest, are such that genetic relationship is the most likely explanation. The Tsimshianic limb, precariously dangling for so long, can now be firmly attached to the Penutian tree.

2. PROBLEMS AND METHODS: The problem of demonstrating the affiliation of a single small family to a grouping of several different families, is related, but not identical, to the problems of language classification and of proto-language reconstruction; all are problems in comparative linguistics. Whether one deals with a small, obvious family such as Tsimshianic, or a far-flung group such as Swadesh's proposed Macro-Penutian, the basic principles of comparative linguistics are the same: systematic comparison of phonological and morphological patterns can be done with any definable group of languages. The goal, and crowning achievement, of comparative linguistics is reconstruction of the proto-language of a large and varied group, but this goal is not always achievable, and even where it is, it is not reached at once, but by a series of steps, as the pieces of the giant puzzle are patiently assembled. That some pieces may never be found, so that the puzzle cannot be completed, does not mean that many or even most of the available pieces cannot be fitted into a plausible pattern.

If resemblances between Tsimshianic and any Penutian languages were "inspectionally obvious", there would not be any doubt about the relationship. The problem arises because while there are in some cases general resemblances which give a sense of familiarity, there are very few obvious resemblances of detail, and those are too isolated to appear conclusive to an observer who is not already determined to find them significant (eg because of faith in Sapir). At first, the only Penutian language which struck me as showing some likelihood of being remotely related to Tsimshianic was Takelma, the one that Sapir knew best. Chinook, geographically the least distant, appeared very alien in spite of, oddly, a sharing of

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6 Some examples of superficially plausible resemblances which do not stand up to morphological analysis were given in Tarpent 1990b. As a result of the present research, however, I have been able to reevaluate the data presented by Hymes and DGR: in spite of a high proportion of errors, many of the individual forms they quote do provide good evidence, though in most cases I would not pair them in the same way as those authors.

7 cf fn. 9, 12, and also section 5.4. below.

8 eg while browsing through the HAIL I was often struck with some vague, general similarities with Takelma and Coos, while the grammars of Kwakiutl, Haida or Tlingit obviously described completely different language structures, to say nothing of the grammars of more geographically distant languages contained in those volumes.
pronomes;9 Coos looked at first sight more familiar, but this seemed to be due mostly
to a similar phonological structure, as well as to the use of articles reminiscent of
the Nisqa'a "connectives".10

In order to demonstrate affiliation to a group, it might be sufficient to
demonstrate affiliation to one member of the group, but the likelihood of affiliation
is greatly strengthened if it can also be demonstrated with other members of the
group. Given the geographical situation, it would have been highly unrealistic, and
very suspicious, for Tsimshianic to have a special relationship with Takelma but not
with languages considered related to Takelma. Therefore, I attempted to compile
systematic comparative data, phonological/lexical and morphological, with as many
Penutian languages as possible: in addition to the grammars of Chinook, Coos,
Maidu, Siuslaw and Takelma, to which Sapir had had access, I used data from Alsea,
Klapuyu, Klamath, Miwok, Molale, Nez Percé, NSahaptin, Wintu, and Yokuts11 (the
quantity and quality of data available is extremely variable, and for a few of the
languages the modern researcher is not in a much better position than Sapir).

At the same time, there did not seem to be any such thing as a typical Penutian
language, or an agreed-upon list of typical features, to which Tsimshianic could be
systematically compared: Sapir's "characteristic ... form of stem" applies chiefly to
the earlier California grouping, and is most un-Tsimshianic; his capsule description
of Penutian as one of the six superstocks is very general, and some of the features do
not apply to Tsimshianic (tense, case), nor to all the other languages.12 But since
any demonstrable relationship would be of ancient date, and depend on features also
present in Tsimshianic, the oldest reconstructible layer of Tsimshianic (eg Tarpent
1990a, 1994) could offer clues about what to look for in other Penutian languages. In
other words, not knowing quite what Penutian features I should look for in
Tsimshianic, I could at least look for old Tsimshianic features in Penutian.

The following sketch of Tsimshianic structure, drawing on work in progress on
Proto-Tsimshianic reconstruction,13 as well as on contemporary descriptions,

9 see below 4.2.3. The sharing of 1S n-, 2S m-, with a number of Penutian
languages did not seem to be crucial as a proof of affiliation since those pronouns
are not in all Penutian and they also occur in other families such as Uto-Aztecan.
10 Boas' term for clitics which link together members of some phrases. The most
common in Nisqa'a, =L, which has some article-like properties, is similar to Coos 1e
as well as to some Salishan articles.
11 Where possible I familiarized myself with the grammar of each language before
consulting a dictionary, in which I studied the main body of data in the language
before rechecking with the English index. The comparative data were first compiled
in separate lists, eg Tsimshianic/Takelma, Tsimshianic/Yokuts, etc. within which the
forms were organized according to consonant correspondences, mostly initial. The
data shown in Appendix 2 all participate in sets of correspondences that apply to
several pairs or groups of forms.
12 The description of "Aztec-Tanoan", which is very similar to that of Penutian,
could be as least as applicable to Tsimshianic, since it mentions reduplication and
noun-incorporation which are not in the Penutian description.
vocalism, are still tentative (see appendix 1). For information on the contemporary
emphasizes points which are, or have been considered, relevant to Penutian comparison.

3. BASIC FEATURES OF TSIMSHIANIC PHONOLOGY AND MORPHOLOGY.

3.1. ROO TS.

3.1.1. Root consonants:
- The basic root is CVC, with optional extra-syllabic consonants, hence (C)CVC(C).
- Among CVC roots, the initial C- often carries lexical meaning, eg **ts-coming to an end,**14 hence also diminishing, disappearing, insubstantial, etc, as in N tsí:p to evaporate, melt away, vanish, tslí:k to thaw, melt into liquid, tsá thin, wispy clouds, ST tsán fog, vapour, etc; the final -C is also sometimes glossable, so that in both cases there are semantically related series of words sharing an initial or final consonant. The fact that the (unproductive) plural prefix l- replaces the initial C in some old stems beginning with q, k, h, or y, suggests that originally the root was analyzable as *C-VC or *C-V-C.
- Initial clusters: some clusters are due to extrasyllabic 'augments' (C-CVC); historically secondary clusters (esp tC-) are due to the loss of the root vowel in the presence of a stressed suffix: thus *CVC2+VC3 > CVC2VC3; hence some CVC2VC3 types may go back to a CVC root. Similarly some initial glottalized C's may result from an extrasyllabic ? (cf PTsim distinguished labialized *?w from an initial sequence *?w)15.
- tentative Proto-Tsimshianic (PTsim) consonant inventory:

<table>
<thead>
<tr>
<th>p</th>
<th>t</th>
<th>ts</th>
<th>k</th>
<th>kw</th>
<th>q</th>
<th>qw</th>
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<td>L</td>
<td>s</td>
<td>x</td>
<td>xw</td>
<td>X</td>
<td>(Xw)</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>n</td>
<td>l</td>
<td>y</td>
<td>w</td>
<td>h</td>
<td>hw</td>
</tr>
</tbody>
</table>

- notes: The modern Tsimshianic languages have no labialized postvelar series (note PTsim *Cw < **CVw at least in some cases) and it is not yet clear whether PTsim had one or two labialized fricatives, or even only hw; L = barred l (voiceless fricative); N, G have a tl' from t' + L or L + ?; CT has only X, others have x, xw, X; the glottalized resonants probably did not exist in PTsim, but were later derived from contact with ?, as some modern instances are. CT and ST also have glides ù and ū',16 the central, unrounded counterparts of w and w'. Plain stops are usually allophonically voiced before vowels.

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languages, see especially Dunn 1978, 1979a,b (Coast Tsimshian, Southern Tsimshian), Rigsby 1986 (Gitksan), Tarpent 1989b (Nisqa'a ), 1992 (Southern Tsimshian).
14 cf also root **tséq in Appendix 2, example 2.
15 note this means that initial preconsonantal ? (resulting in a glottalized initial) may have been a morpheme.
16 For technical reasons I use these symbols here for semi-vowels as well as vowels. Dunn writes the semi-vowels as unlaute w's.
- The N,G reflex of PTsim initial *p' is *m' (N,G initial p' occurs only in borrowings from CT), but CT, ST initial m' in some roots seems to be original, a reflex of *m' or perhaps **m-

3.1.2. Root vowels: (cf table of Tsimshianic vocalic correspondences in appendix 1)  
- N, G have i, e, a, o, u long & short\(^{17}\), plus unstressed ð; ST, CT have a much more complex system including in addition ñ, ñ: (high/mid central), and A (low central), as well as several diphthongs. The ancestor of N and G (Proto-Interior-
Tsimshianic or PIT) had 3 vowels *e, *a, *o (Tarpent 1983) which can perhaps be traced back to an earlier 2-vowel system with **ê [here written **e] and **a.
- Many CVC roots show vowel-alternation of length and/or quality, traceable to 
*CVC and *CVHC, eg N CaC/Ca:C from *CaC/*CaHC, CaC/CiC from *CeC/CeHC (Tarpent 1990a); the infix H (a phonetically undefined vocalic element, probably a ð-glide) added imperfective meaning. The interplay of original vowel, H, and surrounding consonants results in a great variety of vowel correspondences.

3.1.3. Stress: in most cases, stress is on the root, or on a stressed suffix, but many older forms show stress on the penultimate syllable (Tarpent 1994), regardless of morphological status (3.2.1, fn. 19, 21).

3.2. STEM-FORMATION.

3.2.1. REDUPLICATION: Although the modern Tsimshianic languages appear superficially to have several distinct patterns of reduplication, these patterns are reducible to two basic types: C (intensive, repetitive, durative) and CVC (multiple actions, action on multiple objects), the latter found in all periods including the earliest reconstructible level (Tarpent 1983); the older stress type is CV'C)CVC, modern CVC)CVC (cf 3.1.3.).

3.2.2. AFFIXATION.\(^{18}\)  
- prefixes: there are only a few grammatical prefixes: old plural lð- (from *l- or *leh-)\(^{19}\), 20, nð- (from *neh-) reciprocal (with transitive verbs, kin

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\(^{17}\) Rigby 1986 uses only l, a, u for the short vowels of Gitksan, and such a system is also defensible for Nisq'a because of the mostly complementary distribution of short l/e and u/o, but I find a 5-vowel system easier and more economical for describing some of the morphophonemics. The 5 long vowels contrast in most positions.

\(^{18}\) In citing morphemes, I use mostly the N form, which is usually the closest to the proto-language in terms of consonants, especially final ones, so that the morphological structure is clearest in N, especially for the suffixes. In most cases G forms can be derived from cognate N forms, so I only quote G forms where the G contribution is significant. In Tsimshian final *kw is usually delabialized.

\(^{19}\) stressed in some archaic forms. This prefix is used only with intransitive stems, referring to actions performed by individuals or states affecting them (eg body functions, positions, motions, etc). The meaning is probably at the same time but separately.

\(^{20}\) This morpheme is definitely a prefix, although Sapir referred to it as "prefixed and infixed -l, -l for plural verbs" (letter to Kroeber, cf fn. 2): the confusion is understandable because this (old) prefix occurs directly preceding the root, and the
terms) (these two prefixes normally cooccur with suffix -T, see frames below); old prefix nə- (from *neh-)
21 frozen on senior kin terms,22 eg *nə-*tsêlts' > N nilts'itlits' grandmother (address N tsêlts'); ʔa- spontaneously, without apparent reason or agency, Jussive N kwln-; locational prefixes *qə-, *kə-, *kə-. Another plural prefix qa- seems to have been originally a collective but now indicates mostly distributive possession.23

There are a few productive lexical prefixes: all ʰə- to make, prepare, process ..., ha- instrument for ..., ka- most ..., ʔn- > N ʔan-, ST ʔn-, CT ʰə- cause, means of .... Lexical proclitics, clearly a more recent layer, indicate mostly location and direction. (Many morphemes labelled 'proclitics' by Boas are actually prefixes or particles).

- suffixes: (note that suffixes are never full CVC syllables): suffixes are especially important in the formation of predicative forms (divided into transitives and non-transitives, the latter including intransitive verbs, nouns and adjectives). There is no tense or case; Person is the only true inflection.

- old stressed suffixes of shape -V'C were probably originally intransitive or nominalizing; especially *-ẽHs > ST, CT -fs, N -fs; *ẽH > all -ə;
- newer predicative suffixes are mostly consonantal; most common are medio-passive (very general) -T,24 and -tkw,25 the latter used also in some possessive constructions; -s is currently an allomorph of -tkw but may have had a different meaning in earlier times; causative -ʔn, completive -ʔ (both transitive), antipassive (also nominalizing) -ʔs (all three including an older suffix

resulting plural stem can itself be preceded by other prefixal suffixes, such as ʔa- (see below), as in N ʔa-sk'l to be abnormal, ugly, pl. ʔa-lə-sk'l-T > ʔallsk'l (with suffix -T completing the plural frame lə-...-T)(see below). The example quoted by Sapir (in the same letter) as "ayaluwa "to shout" < ayawa" is atypical: the singular ʔayawá:/ʔayawá: is an interjection expressing sorrow, used as a stem for a verb, thus N ʔayawá:-tkw to scream, wail, etc. (animal) to utter its cry; the plural is formed by treating the unstressed sequence ʔaya as a prefix similar to the genuine prefix ʔa- and the stressed sequence wá: as a stem, thus the N plural ʔaya-lə-wá:-T > ʔayaluwá:t.

21 stressed in some archaic forms. This prefix indicating reciprocity is parallel in form and function to the plural prefix, which indicates separateness.
22 except in vocative use, exactly as in Yokuts, cf. YokYaw nI-bec' older brother.. This prefix was identified by Sapir with "Pentutian first person *n-" (cf below pronouns). This is likely to be correct, since some other Pentutian languages have a 2S or 3S prefix frozen on kin terms. Alternately, the source might be the reciprocal prefix. The Tsimshian particle (not prefix) nəh, na, nə indicating alienable possession has also been suggested as a source (Silverstein 1969, Tarpent 1986), but this is probably incorrect: the primary meaning of this particle, is remoteness, hence its use to indicate also Past; in both meanings this particle corresponds to N Li (which is used less frequently).
23 old-collective meaning: N qa-Lâg's its /their claws (= set(s) of claws); present distributive meaning: N qa-k'u:tâts'-tl't their coats (each has one coat).
24 A morpheme usually realized as /t/ but with other phonologically conditioned allomorphs. It is also used as an adjectival suffix. Some correspondences N -T, Tsimshian -tə suggest that at least some uses of -T go back to PTsim -təh.
25 delabialized in Tsimshian; probably from a combination *-t-kw as -kw also exists as a non-productive suffix; in -tkw the /t/ is lost after obstruents.
* - ?), often followed by -T or -tkw. Many others are identifiable but not productive, eg -m, -L(kw) temporary (?). Many words include 2 or 3 such consonantal suffixes as newer formations build on existing words. Among -VC shaped suffixes (unstressed) is detransitive *-o? > N -a? (which glottalizes preceding obstruents), ST, CT -a.

- a linking or attributive suffix -m occurs between members of some phrases, eg N kámk-m ?áks hot water (hot-m water), or compounds, eg N hó:pix-m qán wooden spoon (spoon-m wood) and also in some compound nouns and verbs. See Pronouns below (3.3.) for personal suffixes.

- a final extra-syllabic consonant sometimes appears to be a 'frozen suffix' (Sapir's term in Takelma), to which it may be possible to assign a meaning: eg *-q often has to do with the mouth, *-p may mean permanently, in one place (cf Appendix 2, V); a final glottalized C often seems to result from final -C + *-? suffix or augment.

- frames: (= set prefix/suffix combinations) usually with suffix -T or -(t)kw, eg plurals and reciprocal t'O-...-T and nd-...-T respectively (see prefixes above), qa-...-tkw indicating kin collective possession, and a variety of prefixes or proclitics as a first element: N kwilks-...-tkw to... oneself (animate subject), qa-...-tkw to... by itself (inanimate subject), Yu-...-tkw to have (a)... on oneself, to be in charge of, kit- (?an)-...-tkw to go somewhere else in order to... 27, his-...-tkw to pretend to..., to... for fun. 28

3.2.3. COMPOUNDING: compound nouns, adjectives and (incorporating) verbs are plentiful and there are very productive processes for their formation. Object-incorporation also occurred in P Tsim: basically verb+noun > intransitive verb. In older forms (not immediately recognizable as compounds) the noun could be either a direct or a locational object (eg N má:ks- put in water (eg net) > wash (clothes) from *máq- ?éks put-water ); in modern forms, a location cannot be incorporated.

3.3. PRONOUNS.
- ergative clitic pronouns: 1S nā, 2S mā, 1P tōp, 2P mā ... sām (may be separated by other morphemes), 3T, precede the verb.
- personal suffixes are used in all other cases (eg possession, object, intransitive subject): 1S ST, CT -u, N, G -y' < *-weHh, 2S -n, 1P *-m', 2P *-sām', 29, 3T: the latter is unmarked for number in Tsimshianian for all references, and in N, G for non-humans. For humans, N, G have a plural suffix -tlt which I interpret as *-teHh-t, where *-teHh is an old suffix surviving as N Impersonal -ti:, with a counterpart *-teh surviving in a few exclusively plural forms, eg ST qá:wt-tl, N qó: -ta,

26 eg N nǐье? grandfather , qa-nǐье?-tkw-m' our grandfathers.
27 the sequence -?an occurs in modern forms but is absent from older ones, eg N kit-wil-tkw warriors, war party vs. kit-?an-t'ā:-tkwto go stay in another house (temporarily).
28 In the CT, ST equivalent the prefix is sīs-, considered by Rigsby to be original, with a change s > h in N, G (p.c.). But such a change is not attested anywhere else in Tsimshianic.
29 1P and 2P suffixes end in glottalized m' in N, G but ST and CT have lost glottalization here.
to be all gone. The personal suffixes are also used with special bases for independent and indirect pronouns. In addition, there is a Relative/Agentive suffix -d't used with intransitive verbs.

4. CORRESPONDENCES WITH OTHER LANGUAGES.

4.1. ROOTS.

4.1.1. Searching for roots: Any language distantly related to Tsimshianic can be expected to show resemblances in the area of root- and stem-formation, more than with affixes, except those belonging to the oldest layer. Identifying the root among strings of morphemes in an unfamiliar language can be very difficult: in Chinook, for instance, the root is often the least conspicuous part of a polymorphemic word. A clue to the identification of the root is reduplication, an extremely important process in Tsimshianic, and a feature present in some measure in the majority, if not all, of the Penutian languages: since at the oldest PTsim level, reduplication affects only the root, that part of a complex word which shows reduplication can be assumed (at least tentatively) to be the root. Tsimshianic CVC roots can occur with a following consonantal augment or 'frozen suffix': in a related language, we can expect the same root to occur either with this same augment, with a different one (or more), or plain. Tsimshianic CVC roots can be reduced to CC if followed by a stressed suffix: initial CC clusters may be found separated by a vowel in other languages in which the full root occurs; conversely, CVC roots may correspond to CC clusters in other languages. Of course, the more root material shows similarity, the more likely it is to represent a genuine correspondence, but since there is evidence that the PTsim root was analyzable at least as C-VC, even similarities limited to the initial consonant may be considered as additional material in some cases.

4.1.2. Identifying potentially cognate roots: As the lexical meaning is carried mostly by the initial consonant of a Tsimshianic root, data from other languages have been assembled and classified primarily according to similarity with Tsimshianic root-initial consonants, associated with similarity of meaning. For a preliminary listing, similarity was defined as same place of articulation, e.g. labial, dental, regardless of manner. This is not "schematized phonology" (Silverstein 1979:678): the fact that changes in manner, e.g. voicing, glottalization, are meaningful features in many Penutian languages (e.g. they play an important morphological role in Takelma) means that they, like any other morpheme, can be abstracted in a preliminary search for roots. I emphasize the word "preliminary": one has to start somewhere. As for vowels, I can do no better than to quote DGR:

30 Tarpent 1983. cf fn 24 about -T: it is perhaps significant that -T is the suffix in frames with plural or reciprocal prefix.
31 eg for Nisqa'a three distinct periods can be identified, based largely on reduplicative plural patterns. In the oldest period, reduplication affects only the CVC root, in later periods it affects more and more morphological material (Tarpent 1983, 1994).
32 Much of the data collected by Sapir, Hymes and DGR involves forms which share only that kind of partial similarity, which I did not find credible at first. Replaced in the context of root structure, many of them may be acceptable, in addition to more definite resemblances involving full roots. cf appendix 2, IV.
The attested existence of syncope, epenthesis, and partial or pervasive vowel harmony in some or all of the languages makes equating the presence or absence, and to some extent the identity, of vowels across languages quite challenging; and it will be difficult to make much progress on this front until we have been able to establish likely cognate sets on the basis of consonant correspondences.

When potential cognates are classified and subclassified according to phonological categories, rather than according to what the linguist perceives as similar meaning, it is easy both to notice regular correspondences, and to cull out forms which do not fit these regularities, however likely those 'duds' seemed at the beginning: for instance, an apparent correspondence m/m will probably need to be weeded out if it is alone against a whole series showing a regular correspondence m/p. In addition, gaps in expected correspondences are also very noticeable in a classification based on phonology, and their presence can lead to a search in other directions: for instance, my initial Tsimshianic/Takelma list (1990b) listed correspondences in manner (eg stop/stop) for every place of articulation except palatal; it turned out that for palatals the correspondence is stop/fricative, a possibility I had not considered at first. Once the more obvious, near-identical matches have been identified, searches can be directed toward likely correspondences due to common processes such as fronting of uvulars, delabialization, palatalization and affrication of velars, assimilation of palatals or dentals, etc. The sample data below, then (in appendix 2), are not based only on first impressions, but have been subjected to several "rounds" of language-by-language comparison.

4.1.3. Root and stem formation: The patterns C-VC and *CVC-V'C > CC'VC are both very common; also common are extra-syllabic initial augments and vowel alternation within roots (ablaut); in Alsea, Chinook, Coos the root is often reduced to CC because of stress on the prefix; consonantal 'frozen suffixes' are also common, often involving the same consonants as in Tsimshianic. The alternations of vowel-length, as well as the loss of unstressed vowels, found in basically CVCVC roots/stems in Alsea, Wintun, Miwok, and others, are all compatible with the basic PTsim stem patterns *CVC-VC, *CVHC-VC, *CVC-VHC, *CVHC-VHC, since one of the effects of H is vowel lengthening (cf 3.1.2. and Appendix 1). Lexically, many roots or portions of roots (initial or final) are shared throughout Penutian (see appendix 2 for a small sample); the Northwest languages have a larger portion of corresponding full roots, with similar range of meanings. In a number of cases, forms in other languages have helped to reconstruct proto-Tsimshianic forms or to choose between alternate proto-forms.

4.2. MORPHOLOGICAL PROCESSES.

4.2.1. Reduplication: Both partial (initial consonant) and full (CVC) reduplication, the two basic types in Tsimshianic, are found in most of the languages considered, although the nature and function of reduplicating patterns varies greatly from one language to another. In languages where reduplication plays a major role, as in Takelma, there are very complex patterns, which seem to be elaborations on the two basic types. For instance, in Chinook and Takelma we find instances of full reduplication CVC(CVC as in Tsimshianic, but also CVC')CVCV from a stem *CVC-V' (compatible with PTsim *CVC-V'h), and CVCV')CVC reflecting loss of a final unstressed vowel, together with other secondary morphophonemic variations: eg root *qwēl found in many languages: roll, round, round object: eye, egg, etc
(Appendix 2, III): Chinook i-qwe:'l)qwe:owl (probably < eyes: full reduplication of root, with archaic stress on first syllable),-qulá:'ula egg (full reduplication of *qwel-á:, with regular q > ʔ and reduction of unstressed syllables).

4.2.2. Affixes and clitics: In languages related to Tsimshianic we are likely to find resemblances with old, unproductive, rather than newer, productive affixes, but determining the age of an affix can be difficult, so that this criterion is not fully reliable. Nevertheless, similarity is expected with the grammatical affixes rather with those likely to be more recent (eg the many lexical proclitics). Most Tsimshianic grammatical affixes are suffixes consisting of one or more consonants, but a few grammatical prefixes, consisting originally of a whole syllable, could have been independent clitics in the past: therefore the same formatives may be considered even though they occur as prefixes in one language, suffixes in another. The following is a partial list (cf 3.2.2.):

- The Tsimshianic locational prefixes *qə-, *kə-, *k- which form locational nouns and adverbs (eg behind, upriver, etc) have almost identical counterparts in several languages:

<table>
<thead>
<tr>
<th>PTsim</th>
<th>Tsim</th>
<th>Al</th>
<th>Co</th>
<th>Slu</th>
<th>Tak</th>
</tr>
</thead>
<tbody>
<tr>
<td>*qə-</td>
<td>qa-</td>
<td>qa-</td>
<td>qa-</td>
<td>qa-</td>
<td>kə-</td>
</tr>
<tr>
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<td>qi-</td>
<td>yi-</td>
<td>qi-</td>
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<td>x/-ltc/-ts-</td>
<td>x/-ltc/-ts-</td>
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</tbody>
</table>

- The Tsimshianic prefixes *leh- plural and *neh- reciprocal correspond to suffixes in other languages: dual/plural -l-, reciprocal or reflexive -n- occur in several languages eg Al -l (eg yo:l pl of yəa to speak), Win -le- pronominal plural suffix -l dual; Tak -an- reciprocal, Coos -ən: one another, -ini: mutual kin, (Sapir).

- Some frames also occur in other languages: eg in Maidu hekotto to cut self, to break, crack of itself, he-...-to corresponds exactly to the Tsimshianic structure *ʔa-...-tkw (difficult to express in English but corresponding exactly to French inanimate reflexives); qa-...-tkw indicating kin collective possession has been compared to Klamath se...-l-tko 'to be related as ...s' (DGR), which can also be paralleled with nə-...-T to be related as ...s, to be ...s to each other (eg sisters, etc).

33 Sapir's notes comparing "Tsimshian" with Chinook, Coos, Siuslaw ("Lower Umpqua") and Takelma include this sort of equation, which I found unacceptable at first, but which seems justified at least for the plural and reciprocal prefixes.

34 cf also Km ha- and hl- in words such as here, there, and other adverbs.

35 Wintu also uses a reduplicated form of this suffix as -VIVV(h)a to indicate disparity of subject: many separately to ...

36 eg N ʔa-qɑ́q-s (-s is allomorph of -tkw after Velar) = Fr s'ouvrir (lit. to open oneself), Eng to open (spontaneously, eg a door); although not reflexive in English, such meanings are expressed by formal reflexives in many languages (Tarpent 1989a).
- Stressed suffixes practically identical to Tsimhianic ones occur in Alsea, Coos, Siuslaw, etc., often causing reduction or loss of the original root vowel: ex. *-ēHs > ST, CT -ī:s, N -ī:s intransitives and resultative nouns: Al -ī:s, Siu -īːśi, Co -ī:s nominal, Win -ī:s; Tsim *-ēh > all -ā nominal: Al -ā:, Siu -ī: nominal.
- Consonantal suffixes: the ubiquitous Tsimhianic suffix *-tkw is matched in some of the other languages (cf DGR: Klamath -dg- or -tko; also Chin -tk, Mai -to, MiBo -tak). The almost as ubiquitous -t, which among other things is adjetival, has counterparts in Al, Siu, Tak adjectival -t. Causative *-n (3.2.2.) has counterparts in (among others) Tak -(a)n causative, Co -en: to make sthg ... (both in Sapir), and Miwok causative suffixes also in -n-. Attributive -m, temporal -m are both widely shared, eg for the latter: N má:tim winter, (cf má:kws snow on ground), kwó:ym spring, kwanim continually: Chin kuayam summer, gwa:nSEM always (Hymes); cf also Km llo:m'll season, time of ... (suffix), Co -ime:x suffix forming adjectives of time, Tak -imikli suffix forming adjectives from temporal adverbs.

4.2.3. Pronouns: (cf 3.3.): the Tsimhianic Ergative-pronominal system is closest to the Chinook pronominal system, but there are resemblances in several other languages: IS nā, 2S mā have very common though not universal counterparts; for 2P, Tsimhianic separates the two components in mā:sa:m, which Hymes 1956 compares to Chinookan m-sa:, mis-a, mis-um as well as to "Maidu min-sdm"37, and there are similar forms in other languages as well: Kal 2P mitti, mati:; MIB 2D mikkos, 2P mikk; Yok 2D ma'ak.'

4.2.4. Compounding: Some forms in other languages (eg Chinook, Takelma) suggest an old pattern of V+N object-incorporating compounds similar to that in Tsimhianic.

5. PENUTIAN VIEWED FROM THE NORTH.

5.1. Re-attaching Tsimhianic--to what?: I hope to have shown that there is ample evidence (although not often obvious) substantiating Sapir's hunch about the affiliation of Tsimhianic to the Penutian group. I have found lexical-phonological as well as structural resemblances with Tsimhianic in all the Penutian languages I have been able to consider, in spite of the great differences in the languages themselves and in the quantity and quality of materials that I was able to consult. These resemblances are strongest with the Northwest languages, without indicating a special relationship with any single one of them. That I first noticed resemblances with Takelma rather than other languages mentioned by Sapir is probably due in large part to the the quality of the documentation available: Sapir's grammar of Takelma is much more insightful and contains much more material than Frachtenberg's grammars of Coos and Siuslaw.

Sapir's 1921 classification of Penutian languages followed a South-North axis, from the original (California) Penutian group to "Tsimhian". As Chinook was the closest neighbour to Tsimhianic, it was natural to think that geographical proximity (relatively speaking) was matched by structural similarity. As mentioned above, apart from the pronouns the resemblance with Chinook was anything but obvious to me when I started my investigation of the subject, and while my further research does strongly support the hypothesis of relatedness, no single language

37 Mai m: subjective, min objective take suffixes -sa:m dual, -se:m plural (Dixon).
now appears especially close to Tsimshianic, at least in the present state of knowledge.

5.2. A Northwest subgroup: Instead, roots, stem-formation, affixes and clitics, and many other structural and lexical resemblances tentatively define a Northwest group including Tsimshianic, Chinookan, Alsea, Siuslaw, Coos and Takelma. One of the most obvious characteristics of this group, in spite of quite considerable internal differences, is its conservative phonology, especially in the northernmost members Tsimshianic, Chinookan and Alsea (e.g. preserving uvulars and even labio-uvulars, with tolerance of heavy consonant clusters): some initial clusters are found only in Alsea, Chinook and ST (the latter maintains initial consonantal contrasts which have merged in the rest of Tsimshianic). But this shared conservatism is not enough at this point to postulate a northern subgroup, especially since Alsea is so little-known. Chinookan does have strong resemblances with Tsimshianic in its root and stem structure and its consonantal phonology, but these similarities do not extend to the very different prefixal system. Sapir thought of Chinook as evolved from "a broken-down form of Penutian", the latter resembling Coos and Takelma, but there is nothing 'broken-down' about the archaic phonology and the old morphological core of root- and stem-formation, which are firmly in place.

Judging from resemblances with Tsimshianic, the Northwest group includes Takelma but not Kalapuya, which is structurally quite different (e.g. reduplication is a major process in Takelma, with several subpatterns, but plays a negligible role in Kalapuya); most of the vocabulary items shared between those two languages are also found in others. In phonology and morphology Takelma seems to be transitional between COP and Yok-Utian, while Kalapuya might be more appropriately linked with Molale.

5.3. Geographical factors and historical speculations: The geographical distribution of the Penutian languages is strongly correlated with that of bodies of water, especially rivers, and some of the relationships between the languages are understandable if one takes into account this geographical factor (this is true whether differences between the various families are explainable mostly in terms of internal evolution alone or should take into account possible substrata).

The Northwest group includes the most phonologically conservative of the Penutian languages (Tsimshianic, Alsea, Chinookan); the languages of this group

38 eg ST xwán deer, wán to sit (pl), all others wán for both meanings; N sq'an-, G sqa'n-, CT sXan-, ST tsXan...bush, ...plant, support for ... (bound root), < PTsim *tsq'an; all ts'áp tribe, people < PTsim *ts'ép, but N ts'ép bone, ST tx'á:yp < PTsim *tk'éHh-p.

39 Sapir 1921 classified the "Oregon" languages as 1. Takelma, 2. COP (Coos, Siuslaw, "Yakonan" = Alsea), 3. Kalapuya." Takelma and Kalapuya were brought together by Frachtenberg and later Swadesh, on purely lexical criteria, ignoring the morphology (see next footnote).

40 cf independently Silverstein 1979: "It appears to me from a survey of Molale data that ... it will probably be more directly related to Kalapuya-Takelma" [than to the Plateau languages] (p. 679), even though he doubts "whether ... there is" between Kalapuya and Takelma "the kind of exclusivity that would justify Swadesh's label 'Takelman'" (p. 678).
share basic patterns of root- and stem-formation which appear to be of ancient date. This group therefore may represent the most archaic stage, surviving in isolated areas (estuaries) along the North Pacific coast (British Columbia, Oregon). The mixed character of Chinookan correlates with its situation in a major estuary resulting from the confluence of the East-West-flowing Columbia and the South-North-flowing Willamette, both important routes (note that Kalapuya and Molale are situated along that South-North axis, while the Rogue River, home of Takelma, flows West). The Plateau languages to the East (actually spread out from the upper Columbia River) are morphologically characterized by the cooccurrence of multiple 'roots', but those 'roots' themselves are similar to the Northwest roots and stems. The much simpler phonology and the morphological restructuring in the more Southern languages may characterize the most dynamic area (formerly considered "Core Penutian"): indeed the Penutian languages are considered to have moved from North to South into California along yet another river valley (Whistler 1977). On the other hand Klamath, centered on a lake, was in a position to develop quite idiosyncratically.

It is possible then that the 'cradle' of these languages was around the mouth of the Columbia (cf DeLancey), from where people first migrated both North (> Tsimshianic) and South (> COP) along the Pacific coast; inland extensions East and South, up river valleys, may have involved language replacement rather than, or together with, people migration. The Skeena estuary, ancestral home of the Tsimshians, is a long way from the Columbia, but we need not assume a single migration directly from one river to the other: there may have been in the past other settlements on the coast, which were later absorbed into the surrounding Salishan or Wakashan domains. Some resemblances between Tsimshianic and Salishan, which are not presently contiguous, suggest that they were once neighbours but were cut off by the expansion of Kwakiutl on the mainland, just as Kwakiutlan expansion cut off Bella Coola from its Salishan congener: under those circumstances, small pockets of pre-Tsimshianic speakers would probably have been absorbed by one or the other of the competitors.

5.4. **Beyond Penutian**: The southern boundaries of the Penutian group are not fully agreed-upon. Further, research in the common characteristics of Penutian, structural and lexical, should help in deciding its boundaries as well as its relationships, if any, with other phyla such as Hokan or Uto-Aztecan.

Long before I became seriously interested in the affiliation of Tsimshianic, I was often struck with a feeling of familiarity whenever I encountered data from some Uto-Aztecan languages such as Hopi or Nahuatl. Sapir's 1929 description of Penutian did not seem very applicable to Tsimshianic, but that of "Aztec-Tanoan" appeared much more to the point (the problem of geographical distance applied to both groups). The descriptions of the same phyla in recently published lecture notes by Sapir have much more in common (eg both mention reduplication): Sapir thinks that Aztec-Tanoan is "mixed" in structure, and his final comment is: "impresses me as old Penutian strongly overlaid by Hokan" (Golla, ed. 1990:85-86).

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41 cf fn. 1.
42 even though the navigational prowess of the coastal tribes does not allow us to rule out such a migration.
43 these include some features of syntax and a few borrowings.
In order to evaluate this statement, and proposed extensions of the Penutian domain (Macro-Penutian) that may have been based on it, it is essential to establish the characteristics of "old Penutian": I believe that many of them will be very close to the characteristics of Proto-Tsimshianic.

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APPENDIX 1

PROTO-TSIMSHIANIC RECONSTRUCTION (in progress) (Includes most vowel correspondences)

<table>
<thead>
<tr>
<th>Proto-Tsimshianic</th>
<th>Nisqa’a</th>
<th>Gitksan</th>
<th>SouTsim</th>
<th>CoastTsim</th>
</tr>
</thead>
<tbody>
<tr>
<td>*sáh</td>
<td>day</td>
<td>sá</td>
<td>sáh</td>
<td>sáh</td>
</tr>
<tr>
<td>*t’áHh</td>
<td>sit, stay (sg)</td>
<td>t’a:</td>
<td>t’a:</td>
<td>t’a:</td>
</tr>
<tr>
<td>*yáHh</td>
<td>to go, walk (sg)</td>
<td>yé:</td>
<td>yé:</td>
<td>yé:</td>
</tr>
<tr>
<td>*káw</td>
<td>to be moored</td>
<td>kyó:</td>
<td>kyó:</td>
<td>kyó:</td>
</tr>
<tr>
<td>*táHw</td>
<td>ice, freeze, be frozen</td>
<td>tá:w</td>
<td>tá:w</td>
<td>tá:w</td>
</tr>
<tr>
<td>*yéi</td>
<td>to turn around</td>
<td>-yé:l</td>
<td>-yé:l</td>
<td>-yé:l</td>
</tr>
<tr>
<td>*kéHn</td>
<td>to give food to s.</td>
<td>gín</td>
<td>gín</td>
<td>gín:n</td>
</tr>
<tr>
<td>*qéHn-X</td>
<td>path, road; tree to fall</td>
<td>qínX</td>
<td>qínX</td>
<td>qáyna</td>
</tr>
<tr>
<td>**tóX &gt; *tóX</td>
<td>to lie, be (pl inanim)</td>
<td>tóX</td>
<td>tóX</td>
<td>tó:</td>
</tr>
<tr>
<td>*séHq</td>
<td>to be sharp (&lt; cold)</td>
<td>sáq</td>
<td>sáq</td>
<td>sáX</td>
</tr>
<tr>
<td>*séHq-s</td>
<td>to be sharp (pl)</td>
<td>sáq:saq</td>
<td>sáq:saq</td>
<td>sáq:saq</td>
</tr>
<tr>
<td>*séHq-hq</td>
<td>stay awake, wake early</td>
<td>sécq</td>
<td>sécq</td>
<td>só:yX</td>
</tr>
<tr>
<td>*héHh-tkw</td>
<td>to stand</td>
<td>hítkw</td>
<td>hítxw</td>
<td>há:ytk</td>
</tr>
<tr>
<td>*kéw</td>
<td>to take s.</td>
<td>gu:</td>
<td>gu:</td>
<td>gá:w</td>
</tr>
<tr>
<td>*qéw-</td>
<td>to be assembled</td>
<td>qó:-</td>
<td>qó:-</td>
<td>qá:w-</td>
</tr>
<tr>
<td>*heHw</td>
<td>to say, feel, sthg. said</td>
<td>hí</td>
<td>hí</td>
<td>há:ú</td>
</tr>
<tr>
<td>*t’ÉHw-s</td>
<td>to hit, push s.</td>
<td>t’ís</td>
<td>t’ís</td>
<td>t’ú:s</td>
</tr>
<tr>
<td>*qéHw-s</td>
<td>hair</td>
<td>qí:</td>
<td>qí:</td>
<td>qá:üs</td>
</tr>
<tr>
<td>*t’ékw</td>
<td>to twist s.</td>
<td>t’a:kw</td>
<td>t’a:kw</td>
<td>t’a:k</td>
</tr>
<tr>
<td>~*t’ÉHkw-?</td>
<td>&gt; navel</td>
<td>t’ük’w</td>
<td>t’ík’w</td>
<td>t’í?ik</td>
</tr>
<tr>
<td>*wéh</td>
<td>name (&lt; being?)</td>
<td>wá</td>
<td>wá</td>
<td>wá:</td>
</tr>
<tr>
<td>*wéHl</td>
<td>to be, do, act</td>
<td>wíl</td>
<td>wíl</td>
<td>wá:l</td>
</tr>
<tr>
<td>~? -wéh</td>
<td>to get, obtain, find</td>
<td>w’á</td>
<td>w’á</td>
<td>w’:a</td>
</tr>
<tr>
<td>*kwéHp (*kwép)</td>
<td>to eat s.</td>
<td>kíp</td>
<td>(kúp)</td>
<td>kAp</td>
</tr>
<tr>
<td>*skwéHh</td>
<td>to lie, be (sg inanim)</td>
<td>skí</td>
<td>skí</td>
<td>skú:</td>
</tr>
<tr>
<td>*lékw</td>
<td>firewood</td>
<td>lákw</td>
<td>lákw</td>
<td>lá:k</td>
</tr>
<tr>
<td>*kwéHkw-s-</td>
<td>*jump &gt; wake</td>
<td>g(y)úkwskw</td>
<td>gúxwsxw</td>
<td>gAkSk</td>
</tr>
<tr>
<td>*qwéts</td>
<td>to cut s.</td>
<td>q’úts</td>
<td>q’úts</td>
<td>q’óts</td>
</tr>
<tr>
<td>*qwéHl-kw</td>
<td>to wind around s.</td>
<td>qíkw</td>
<td>qíkw</td>
<td>qá:ulk</td>
</tr>
</tbody>
</table>
APPENDIX 2

SOME EXAMPLES OF ROOT CORRESPONDENCES

The following is a small sample illustrating the types of root correspondences found between Tsimshianic and various Penutian languages. The examples are based on a series of lists comparing Tsimshianic forms one-to-one with those in other languages, eg Tsimshianic/Chinook, Tsimshianic/Miwok, etc. Initial consonant correspondences are documented as regular within each of these language pairs, even though they may not be the only ones occurring. *S = noted by Sapir as evidence for a "Tsimshian"-Penutian connection.

I. FULL ROOT shared with other languages (= correspondences with both root consonants):

Example 1: **wel (roots may occur with or without infixed H, cf 3.1.2.)

1) **welh > N wil, S, C waal to be, do, act, etc ; esp. to do deeds of war > N hawil, S, C hawá:l arrow (ha- instr pfx); N kit-wil-tkw, S, C gitwaaltk war-party, warriors lit. to go away to "do" (frame kit-...tkw to move, travel, in order to ...); also N wilá:kw, S wilá:kw to treat, handle s. a certain way (esp to do harm to sbdy);
   Cb wil- to fight, eg üx weElá:ní they two fight (-á:ní reciprocal suffix);
   Tak wulX enemy; wilaw arrow;
   Km {wél} kill, slay (pl)

2) *welx > N, ST wálx, CT wáli to carry s. on o.'s back; *welh-q > N wílq to transport s.pl., older N wíls, S, C wá:lx to walk, go (pl) (lit to be transported, to transport self)
   Al wíl- to arrive, come to stop ; wul- to come, end ; wulí:s arrival, year ;
   Ch -wulXt [verb] motion up (Boas 592) [rather idea of 'transportation' ?]:
   eg a-n-o:-tct-wulXt I travel up in canoe [lit. I am transported on water ??]
   Mol (k)wála?ya- to arrive
   Tak wíli to travel, wíli-/wíli- to go, run
   Mai welé- to run
   Km {wíxe} run (few; four-legged animal)
   Win wánx, wána: to be, move in a direction (note common ln interchange)
   Mins wámn- to move; move away; move up; change residence
   Ýok wíli - wíli: to do, act ; wálxo:- to pass sthg (a house, etc)

3) *welh-p > N wilp, ST, CT waalp house (-p augment, see V. below)
   Ch Kath. we:lX country ; Chin e:"Ixam town , ìe:è: (< ìIXe:è) country
   (initial w- lost except in Kath; augment -X)
   Tak willí [DK] house
   Mins wáll: ground, dirt; down; world; area, place; country; out; outside

II. Both FULL and REDUCED (= vowelless) root shared

Example 2: **tseq to come to an end, an edge, a limit, an obstacle, a stop, etc (cf **ts-, 3.1.1.)

A. Full root: **tseq > *tsóq > N tsóq, ST, CT tsóX to camp, stay, live (at a place) (= come to a rest); *tseq-m > N tsaqam= coming ashore (proc); **tseq-eh > N tsaxa= across = going all the way over (proc); *tséHq-x-? > N tsì:y thwart (in canoe)
Ch c^axai thwart

B. Reduced root + various suffixes or formatives: *tsq-ékw > ST tsXákw-T to bring s. ashore (eg people or goods brought by boat); *tsq-eh (??) > ST tsXa=, N sqa= across = in the way, creating an obstacle (proclitic), hence ST tsXa'n'i:s, N sqan'isT mountain

AI tsqal-, tsqew (etc.) to approach
tsqaMl' to come to an end; tsqaml'is: foggy, tsqamlais: fog (cf also *ts- in 3.1.1.)
tska:l'itsi mountain (cf no q before i; k. instead)

Cq tsqéfýix- to be in edgewise position

Example 3: **t'ekw moving in a circle: twisting, coiling, whirling, etc

A. Full root: *t'ékw > N t'ák, ST, CT t'ák to twist sthg; *t'éHkw-?, N t'ük'w, G t'lk'w, ST t'lik, CT t'lik navel (prob < umbilical cord)

Km t'og-s /t'os/ navel

Mai beték navel

B. Reduced root + suffix: **t'ekw-éh > *tk'weh=, N tk'u=, G tkwi=, ST, CT tXu= around, moving in a circle (proclitic)

Cq t'l:W- to coil

Tak t'gey- '(a)round' ('base' for many derivatives noticed by Sapir e.g. al-t'geypx it rolls; t'gly-al-x- tears roll down one's face, etc)
t'gwa:aI to run about, whirl past (S), eg ba:-i:t'gwata:ala'lx (they) run about

Mai -tlbil- to wind around

Win kuy-, kuy:ra to roll, go around
t'l'w- curl, TEp- roll, flip, twist, turn over, etc

Mib tülulp to be whirling s., to swing s. around; (note root-final in -1, cf below IV.C.)
t'u1ia to be walking around s.; tu'llila hoop, wheel, sthg round;

NP [for possible NP correspondences see below IV.C.]

III. REDUCED (= vowelless) root only in Tsim, full root exists in other languages:

Example 4: *tq'-> N tq-, q-, ST, CT tX- flat > applied against sthg; N tq'átkw to crawl on all fours, lit to flatten oneself; *tq'át-> N [t]q'átX to patch s., [t]q'até: to apply patches.
The shape tq' suggests older root **t'Vq: roots t'eq/t'aq/tq'() exist in other languages:

1) N [t]q'al=, ST, CT tXal= flat against, applied right against, added to, sticking to, etc.

Cq tqaI- to put a belt on, tqaI- to put around (= flat against a rounded object?)
tqanl- to strike [w. sthg flat?] (= to club).

Tak t'gent= to put about one's middle (eg a belt? > flat against body)

NP t'i:qahalk to join, add, extend (root ti:q)

AI tqe:k- paint, tqaU:l'ts' pitch

Si t'quts- paint, q'á:i:L pitch

Km ni'tak' be stuck together, glued

Mai dák' stick, get stuck; glue, sticky substance

2) stem t'qal + suffix *-ehh > -iktike > N t'q'ali=, ST, CT tXali= (direction, motion) upstream (proclitic) (= prob. 'sticking to' the river [when going inland]):
AI tó:qwi upstream
Si tu:qyáau: upstream
Ch ṭa:qai-c^ upstream

3) probably related stem: "t’áX^-? > N t’á?, ST, CT t’áa to slap, clap (could be from
**t’aq-h-^ ???)

Ch t’leEq, t’le’qtEq to slap
Mib tá(?)^aj to be slapping, tá?qat.i to slap s. (perf.)

IV. FULL and PARTIAL ROOTS: correspondences are found with whole root CVC and both its
elements C- and -VC:

Example 5: "qwél rounded shape, rolling motion: In many Pen languages the two elements
*qw- and *el are separately associated with rounded shape or circular motion.

A. FULL root **qwél: *qwél > N qúl (water, people) to run, (sand, etc) to spill; *qwéHl > ST
qáłúk, N gíkw to wind, wrap s. around sthg (eg scarf around head); orig. pl. N lílkw
(w. pl. l- replacing initial q-) > to lace s., eg shoes (= orig. to wrap [laces] around
leggins) ;

1) general meaning of rolling, tuming, twisting, wrapping, to be round, etc

Al q’á:lp- roll , q’a:q’tpaw ball (redup)-(p augment, see V. below)
Qb kwíl-to roll , kwílElíáini: [ocean] continually rolling
we:LT-, wi:LT- to twist
Tak -kal-p/-kelap- twist (thread) by rolling , -kel-k twirl fire-drill, drill (for fire)
khálalxál roll (dust or ashes) over, kelkal fabulous serpent that squeezes people to
death [by winding itself around them] (DK)
Kál San willwlu: round
plík to roll along (tr.), plíkpat to roll (tr),
NP Xule roll, q’t:law to turn
hú:xele roll, as a ball or wheel (cd be a form of redup??)
lik’oli: wrap up, lok’ó:ll to wrap up, bundle up, roll up, curl up
NS -qálá- to roll, -xwí- , -xwó:- ring, encircle, -q’óli- to bend
Mai kóil to roll, kól- to rotate, ma-kulu wrist (< hand-turn ?)
Mib póolo to be round, spherical; Mics wi:la- to turn
Win -bil- to turn ; -pwi’li- to roll
hawal (string) to be wound, hawi:la to go round and round

2) meaning associated with rounded objects:

a) rolling objects, objects subjected to rolling motion:

AI tskó:tltsko:lau: hoop, wheel (augment ts-, redup + suffix)
Ch L-qula:"?ula egg (reduced root [qwí] + stressed suffix, then reduplication);
q > ? is normal in Chin)
(Ch) Wsh -qlu:lau "smooth, water-worn stones" (redup < *-qluqlu with loss of q)
Wsh -klu:lau-kS "seeds", -klu:lausk^ "smooth, water-washed stones, gravel"
Mib púulu egg;
b) **-el** associated with **circular motion, rounded objects**

a) **-el round, circular motion** as in *qw-*el above, also *y-*el > N yái- turn around, *h-*el > N halhál spinning top; used as formant:

- **-il** around formant in many stems eg likilí: likilí: to go around, move around, roll, rotate, move in a circle, place in a circle; likilí: (used adverbially) in a circle, all around

- **-li** turn, around "It is fairly clear that -li- while never appearing independently, is compounded w a number of elements that precede it; thus, -Xwil-, -sli-, -skli-, -tsli-, -t'skli- and others, each seemingly an old and compact root unit."  
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- **-lali-** in áXalal állo in it is rolling along, auXalalátamika it rolled down hill

*-*hI in *-l-hI-p (w. pl. prefix; -p augment, see below V.) > N lícip- eg lícip'in to roll, spin sthg (eg a ball) (-?n- causative), ?antk'ulícipskw whirlpool (?antk'-u-lícip-3x-s-kw place of-around-roll-?-?-?)

- **-lp** to encircle

- **-lp ci:** hoop, circle; ball, spherical object (like a rock)

- **-lp ci:** to be in a circle; to rotate (intr.), turn about an axis

[ci-, cl: may correspond to *tk'weh around, etc cf ex. 3--no NP examples there]
Mib túulup to be whirling s., to swing s. around;

b) **-el > *éel rounded object esp. eye > surroundings and functions of the eye

**ts?éel? > N ts’el’ eye(s), face, ST ts’el’ face (*ts’ in, into);
**wel-éél, ST will:i’ eye(s); **leky-éél > ST ligl’i, N ligl’ eye brows;
CôMl hel face
NP sìfu eye, sîliméq matter of the eye (s- augment or root-initial, cf *ts’- ?)
sîlé:w- see, sîlé:w look, appear
Mai hi’ni eye (n/l interchange)

c) metaphorical meaning: outer-directed inner motion, eg eyes looking, mouth speaking (= direction of attention ?)

- prefix = direction of sight

Ch -?El- eg -?El-kEl, Wsh -GEl-kEl to see
CôH Lix:i’tnt he examined it prob from *?al-xi:nt
Tak a1- (= ?al-) eye, face "used to indicate direction of sight";
eg al-xi:klika he looked around, al-xi:xi he saw me
Win (-) ?el(-) in, toward, etc.; ?il- to put, set in indicated direction

- stems: *?é1-q-?l > N ?álq’al to watch, be a spectator;
**?El-u: > ?alu: visibly, in plain sight, plainly (proclitic)
all **?él-k-?x > ?ákax to speak, speech, language, word;

Al lix- look in, peek;
CôH llix look;
Km ?a:la:Ya show, point out
Win ?aL-, ?aLa, ?aLma to watch
Pat hin-pa to find (n/l interchange)
Miss hal-pa > to watch, find, hunt
Mib ?éllì to be looking; ili to be looking for s.

d) root-final becomes root-initial: Note that if this final element is associated with an initial C such as h or ?, the addition of a stressed suffix to the resulting root hel or ?el may cause loss of the consonant as well as the vowel, thus for instance *?el-V’ > IV’. The following examples, which have meanings similar to those of *qwel and *qw-, are instances of this process, with reduplication:

Ch lo:’lo: round (< *-el-ó-)
Kál Tf lu:lu round
Mot lu:lc egg (-c suffix)
Km llo:lp eye (-p augment, see V. below)

2) Homophonous half-root **-el fire, burn, etc (note this could have the same origin because of the old method of drilling for fire, but the meaning is different enough to warrant a separate category):

a) as root-final: (note ST ?aláh, N ?alá smokehole could be from this or the preceding root)
**kew-él > *kwél-, ST, CT gwalk to burn , N gwálkw to be dry ; **m-él > N málkw-T to throw/put s.(sg)[us. not wood] into a fire (**m- cf máq put )

NP ?lile fire, light, heat ; ?ilé:yq to become hot ; ?ilíw, lw to burn, ?ilíw fire, flame, ?ilíy:ye because of heat or smoke ; ?ilp, ?ilp’ilp to be red ; ?ilspburn
?á:la fire; “hell”; ?á:lik to build a fire, light a fire
(similar forms in other lgs too)

- forms corresponding to *kwel-

Gb Lkwil to burn (augment L- )
CoM kwile?es MS, qwil?es MJ sun ;
Ch o:klwe:lak dried salmon (stem -klwel- )
Tk gùl-k! blaze, glow
Kal Sa kwál, TG kwálwai to burn , TG kwál:ank ashes (HB)
Costa colko black

- forms corresponding to **kew-el- > palatalization

Gb c’wil- to burn , tclwäl fire
Tak al-pil:ts.îlulù-kl- -ts.îlul-kl- set fire to
Klm c’wilc’wil?i shining
Win c’lh-, c’lhel to be dried up (food, dead animal)

b) final C as root-initial (**-el-V’ > "IV", cf section above): **-el-*ékw > *lékw > N lákw, ST, CT lák firewood

NP lâqeyt small branches of black pine, burns well
lexlê:qs weeds; straw; chaff, bits of straw to start fire, kindling
[last meaning is prob. original]
Mi lakâh dry cottonwood, firewood (< CC, p.c.)

V. AUGMENT or frozen suffix, added to root.

Example 6: -p in one place, into place, (in some cases) permanently, repeatedly ??

*wéHl-p > N wlp, ST, CT wá:l house, *l-éHl-p to roll , (w. pl. prefix) > N lîp-(IV.C.1.a. above), *lêt-p > N láp to shave sthg (wood, eg in carving, hollowing out bowl, etc) , *qaK-p (where K = a Velar or Uvular) > N, ST qà:-p to scratch sthg (eg insect bite), *ták-p > all tá:p to pound on, hammer sthg (eg a nail) , etc

Al q’á:lp- roll , q’a:q’paw ball (redup)
Tak -kal-p/-kelap- twist (thread) by rolling
NP clíp to encircle
clipIk:lp hoop, circle; ball, spherical object (like a rock)
clílp to be in a circle; to rotate (intr.), turn about an axis
Km lîlp eye
Mib túulup to be whirling s., to swing s. around ; (note root-final in -l, cf above IV. C.)
Valence Arithmetic in the Tolkapaya Lexicon

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In this paper, I survey some aspects of verb stem morphology in the Tolkapaya (Western) dialect of the Yuman language Yavapai, which is spoken in central Arizona. I focus on the arithmetic effect of two stem-forming suffixes, -o and -v, which respectively add and subtract arguments, increasing or decreasing the valence of the verb to which they are suffixed.¹

1. Verb stem formation in Tolkapaya

1.1. Tolkapaya words and stems. The canonical Yuman word shape (Langdon 1970) is

(1)  C- C- C- ... (C)V(â) (C) -C ...

—the underlined root (whose vowel is stressed) is the minimal word, but many words include derivational and/or inflectional prefixes and suffixes, represented here by "C". ("Schwas" are added to break up most resulting consonant clusters, according to language-specific rules, such as those discussed for Yavapai by Shaterian 1983.) In a departure from this schema, Tolkapaya roots must include an onset consonant (Munro 1982), and thus are minimally CV or CVC.

Stems, as I will use the term, are words without inflectional morphology. Verb stems are identifiable as follows: a stem may occur alone with no affix other than absolutive -i (when phonologically appropriate, as explained below);¹ such an absolutive verb stem may be translated either with a bare infinitive or with a third-person subject (and, when appropriate, a third-person object) and neutral non-future tense.³

¹ I thank my teacher, Molly Fasthorse, who has taught me almost everything I know about Tolkapaya, the other Yumanist scholars whom I cite, and everyone who has worked on Tolkapaya with me over the years. I am also grateful to the members of the UCLA American Indian Seminar and the participants in the 1994 Holan-Penutian Workshop in Eugene for their helpful comments and to Marion Bond for her especially useful input. Munro and Fasthorse (in preparation) constitutes the data base from which most of the material discussed here is taken.

³ The useful term "absolutive" is due to Hardy (1979), who gives fuller descriptions of the meaning and use of most of the Tolkapaya morphemes I describe here. As the discussion should make clear, Tolkapaya absolutive endings have no connection with ergativity.

Consonant-final noun stems similarly may carry an absolutive suffix, in this case -a (Hardy 1979), incidentally, but the occurrence of this morpheme is unpredictable. Many consonant-final noun stems may be pronounced without absolutive -a, some may be pronounced either with or without -a (in which case Ms. Fasthorse identifies the pronunciation with -a as belonging to some other Yavapai dialect), while still others must always have -a. This matter deserves further study, but at present the occurrence of nominal absolutive -a following consonant-final stems does not appear to be either phonologically or semantically conditioned.

³ Neutral non-future tense corresponds to English present or past tense without any special aspectual modification (though occasionally a progressive translation might be used in the present). It may be useful to note the differences between a verb plus absolutive -i and a verb with the most common tense/aspect/modal suffix, -ma. Both can receive the neutral non-future translation, but -i verbs (though not -ma verbs) can also be translated as citation forms or "names" of verbs (corresponding roughly to English infinitives). Verb-plus-ma is somewhat more common in the neutral non-future than verb-plus-i.

Absolutive verbs may have a third-person translation because, though subjects of other persons are indicated with prefixes, there is no morphological prefix in the third person. With the second-person m- subject prefix,
The absolutive suffix -i follows any consonant-final verb stem in the absence of (other) inflectional endings.\(^4\) It does not appear with vowel-final stems, which are otherwise identical in usage, however, and thus should also be considered absolutive forms. Any suffix that conditions the appearance of -i may be considered stem-forming (and, I would argue, derivational). (2) below is an example of a vowel-final verb stem in the (unsuffixed) absolutive form, while (3) is a consonant-final verb stem, which must be followed by the absolutive suffix -i.\(^5\)

(2) \(\acute{u}u\) 'to see', 'He sees it'
    \[\text{see}\]

(3) \(\acute{y}d\text{am}-i\) 'to go', 'He goes'
    \[\text{go-abs}\]

(All semantic types of verbs — transitive, intransitive, active, stative, and so on — are inflected similarly in Tolkapaya.) (4) below presents three derived stems containing the consonantal derivational suffixes -ch (plural subject) and -k (proximate).\(^7\) Although the verb root to which they are added is vowel-final, the whole stem is consonant-final, so once again absolutive -i must be added after the derived stem to produce a pronounceable Tolkapaya word.

(4a) \(\acute{u}u-ch-i\) 'to see [pl]', 'They see it'
    \[\text{see-pl-abs}\]

(4b) \(\acute{u}u-k-i\) 'to see [prox]', 'He comes here to see it'
    \[\text{see-prox-abs}\]

(4c) \(\acute{u}u-k-ch-i\) 'to see [prox pl]', 'They come here to see it'
    \[\text{see-prox-pl-abs}\]

However, the incomplete utterance (5) is a verb with the same-subject switch-reference suffix -k, an inflectional suffix occurring on verbs of complex sentences whose subjects are the same as some higher (usually immediately following) matrix verb. In contrast to the proximate suffix -k, the same-subject subordinator -k may occur word-finally.\(^7\)

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\(^4\) As the parentheses suggest, I regard it as most whether -i should be considered "inflectional".

\(^5\) All citations in this paper are presented in the practical orthography for Tolkapaya used in Munro and Fasthorse (in preparation), which is based on that used by Hardy (1979). Verb stems defined with English infinitives are given exactly as they would be listed in the dictionary, except that the dictionary does not use hyphens between morphemes. Hyphens are used in the practical orthography to separate sequences of sounds that could be confused with digraphs (thus, k-w means a sequence of k plus w, while kw is a unit); in the examples below, such hyphens are replaced with equals signs.

\(^6\) The abbreviations used in this paper include abs = absolutive, minus = minus argument, nom = nominative, obj = object, pl = plural, plus = plus argument, prox = proximate, ss = same subject, tns = neutral tense. 1, 2, and 3 indicate persons.

\(^7\) Yuman plural formation is idiosyncratic and lexical, as shown originally by Langdon for Diegueño (e.g. 1970); -ch generally indicates plural subject, but does not occur on all verbs with plural subjects, since many verbs have irregular plurals, primarily involving unexpected changes in vowel length. -K is a directional suffix normally indicating that the action in question is performed in the direction or vicinity of the speaker; it also has less literal uses. For more about the meaning of the stem-forming suffixes, see section 1.3 below.

\(^8\) Same-subject -k may optionally be followed in some (though not all) constructions by an augment vowel -a.
(5) 'ðu-ki... 'He sees it and he...'

The occurrence of absolutive -i in the (4b) but not (5) shows that the proximate directional suffix -k is stem-forming, but that the same-subject switch-reference suffix -k is not.

Verb stem formation is lexical and thus subject to typical derivational idiosyncracies: affixation of a stem-forming prefix or suffix may cause unexpected phonological changes in a root, stem and affix may combine in unexpected ways, derived meanings may vary unexpectedly, and such affixations may not be fully productive. In the remainder of this section, I briefly survey Tolkapaya stem-forming morphology.

1.2. Stem-forming prefixes. The discussion above covers only the identification of stem-forming suffixes. There are also stem-forming prefixes, which follow the inflectional person prefixes ' (first person) and m- (second person) (and other prefixes indicating subject-object combinations; cf. Hardy 1979). I will consider any prefixes between the root-initial consonant and these pronominal prefixes to be stem-forming by definition. Most such prefixes are consonants, though a few prestress vowels also occur. Most of these prefixes are very far from productive, and I will not discuss them further here. (There are also proclitics, which precede the pronominal prefixes; in procliticized verb stems cited below, a * conventionally separates the proclitic from the rest of the stem. Tolkapaya proclitics have an interesting status, since their meaning is generally derivational, though they occur outside of inflection, but I will not consider them further here.)

1.3. Stem-forming suffixes. There are five important stem-forming suffixes, two of which were exemplified in (4) above. Plural subject -ch, as mentioned, is reasonably productive, but does not occur with all verb stems. Proximate -k and distal -m generally indicate actions directed respectively toward and away from the speaker or some point of reference. The use of minus-argument -v and plus-argument -o are described later in this paper.

The five Tolkapaya stem-forming suffixes occur in the following order:

(6) VERB -k (proximate) -v -ch -o
ROOT -m (distal) (minus) (plural) (plus)

The proximate and distal suffixes generally do not cooccur. It is relatively rare to find combinations of more than two of the above suffixes, but a number of combinations of three of them have been recorded, always in the above order.

* Some discussion of the Tolkapaya derivational prefixes is provided by Shaterian (1983) and Bond (1995), following the analysis of the corresponding Diegueto prefixes in Langdon (1970). Many of these prefixes have "instrumental" meanings — for instance, the ch- prefix on the verb chhyi 'whistle' in (7) means 'with the mouth'.

a The only productive inflectional proclitics I know of are plural subject pa-a- and the subordinator nya- 'when', that occurs on the verbs of some switch-reference-marked clauses. Most proclitics are lexically included with particular verb stems, many of which do not occur alone.

b A few verb stems end in a cluster of a consonant (presumably stem-final) plus a consonant other than k, m, v, or ch, indicating that the language may once have had other stem-forming consonantal suffixes. No verb stem ends in any unstressed vowel other than (absolutive) -i or (plus) -o, however.

A Many Yuman languages have another common -v derivational suffix used in plural formation. I have found no trace of such a suffix in Tolkapaya (there are, of course, verbs whose plural stems include a suffix -v, but in every case that same suffix also occurs in the non-plural stem).
2. Tolkapaya -o: Add an Argument

The -o suffix is added to Tolkapaya verbs to license an additional argument in the clause, increasing the valence of that clause by one. Verbs formed with the plus-argument suffix -o have two quite distinct meanings, applicative and causative. (The suffix becomes -wo after vowels, as described by Hardy 1979: 25.)

2.1. Applicative -o. The meaning of an added applicative argument licensed by -o is analogous to that of datives in more familiar languages; the -o argument is often a benefactive. Thus, for example, the verb exemplified in (7a) is intransitive; it has only one argument, the subject. The verb in (7b), however, is transitive: because of the addition of -o to the stem, it takes an additional argument, which behaves syntactically like any other object:

(7a) 
'chñuy-i. 'I whistle'
1-whistle-abs

(7b) 
'chñuy-o. 'I whistle at him'
1-whistle-plus

Since there is no prefix to indicate a third-person singular object, (7a) and (7b) are inflected identically. But chñuyo 'whistle at' may appropriately take object prefixes (8ab), while chñuyi 'whistle' may not (8cd):

(8a) 
Ny-chñuy-o. 'He whistles at me'
3>1-whistle-plus

(8b) 
Paa-'chñuy-o. 'I whistle at them'
pl.obj-whistle-plus

(8c) 
*Ny-chñuy-i.
3>1-whistle-abs

(8d) 
*Paa-'chñuy-i.
pl.obj-1-whistle-abs

Some examples of other intransitive verbs which can be used with -o are given in (9), along with the meanings of the derived -o verbs. As the translations suggest, the exact interpretation of the applicative argument added with -o is not predictable, but must be marked for each verb. Further, not all intransitive verbs may be used with applicative -o:

(9) 
chñuy-i 'to tell a lie'; chñuy-o 'to tell a lie for'
mat*kipuy-i 'to be ashamed'; mat*kipuy-o 'to be ashamed for, be ashamed of'

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19 As noted in section 1.2, proclitics that are lexically included in a verb stem are followed by * in the listing of that stem, to indicate the position of pronominal prefixes. Thus Mat*kipuyi means 'I am ashamed'.

Sáli klúkí and yú wńúh 'I contain non-agreeing syntactically incorporated body part words (sáli means 'hand', yú means 'eye').

Complex expressive verbs (Langdon 1977) like 'to wink' and 'to make a grab' contain I 'say. Only I 'say' is inflected for these verbs: thus Yú wńúh 'I means 'I wink'.
sád kl'úk-i 'to raise one's fist'; sád k|l'úk-o 'to raise one's fist against'
swádar-i 'to sing'; swádar-o 'to sing for'
v|máč'h 'i to make a grab'; v|máč'h 'wo to make a grab for, make a grab at, catch, grab'
wá*chá 'to be careful'; wá*chá-wo 'to be careful about, watch out for'
wá|s-i 'to beckon'; wá|s-o 'to beckon to'
yú vrrlīh 'i 'to wink'; yú vrrlīh 'wo 'to wink at'

The same suffix may also add an applicative argument to a transitive verb like the ones exemplified in (10). Once again, although the meaning of the added argument is generally benefactive, its interpretation varies lexically:

(10) 'óoy-i 'to bring'; 'óoy-o 'to bring for, bring to'
chkyá|t-i 'to cut'; chkyá|t-o 'to cut for'
cchhül-i 'to wash'; cchhül-o 'to wash for'
kká|v-i 'to buy'; kká|v-o 'to buy for'
qáw-i 'to break (something)'; qáw-o 'to break (something) of (someone)'s'
thé 'to sift'; thé-wo 'to sift for'
thée 'to be generous with'; thée-wo 'to lend'
yó 'to get'; yó-wo 'to get for'

2.2. The second use of plus-argument -o is in the formation of causative verbs. (11) presents some intransitive verbs which are causativized with -o:

(11) 'hán-i 'to be good'; 'hán-o 'to make (something) good'
'út-i 'to boil (intr.); 'út-o 'to boil (tr.)'
chhlá 'to burp'; chhlá-wo 'to burp (a child)'
hwa*|dáv-i 'to be jealous (of a woman)'; hwa*|dáv-o 'to make (a woman)
jealous'
lá|v-i 'to be many'; lá|v-o 'to do to many'
mk=yúl-v-i 'to wear pants, put on pants'; mk=yúl-v-o 'to put pants on (someone)'
mshée 'to be afraid of'; mshée-wo 'to warn (someone) about'
rav-i 'to hurt (intr.); rav-o 'to hurt (tr.)'
smdá 'to sleep'; smdá-wo 'to make sleep'
tív-i 'to be pregnant'; tív-o 'to get (someone) pregnant'
'úm-i 'to be not'; 'úm-o 'to say no to'
vhlík 'i 'to tip over (intr.); vhlík 'wo 'to tip over (tr.)'
vrrwrrf 'i 'to wag (of a tail); vrrwrrf 'wo 'to wag (one's tail)'

The interpretation of the added argument licensed by causative -o is different from that of the added argument licensed by applicative -o. The added applicative argument is an object, and the same subject performs the action whether or not -o is used (as shown by (7a-b)). This is not true with causative -o verbs, however:

(12) 'chhlá. 'I burp'
1-burp

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44 'Of...' in parentheses following the definition of a verb specifies a possible subject of that verb. Thus, hwa*|dáv is an intransitive verb meaning 'to be jealous' whose subject must be a woman.
(13a)  'chhlū-wo. 'I burp him'
        1-burp-plus

(13b)  Ny-chhlū-wo 'He burps me'
        3>1-burp-plus

(12) and (13a) are both inflected with first-person subject ‘-. In (12), the first person subject is the burper, but in (13a), the burper is the object. In (13b), a first-person burper must be indicated with an object prefix, since the one who burps is the object of the causative verb chhlu-wo 'to (make) burp'.

The plus-argument -o suffix may also form causatives of transitive verbs, although this is somewhat less common:

(14)  'úu 'to see, look at'; 'úu-wo 'to show to'
        mda 'to eat'; mda-wo 'to feed to'
        spó 'to know'; spó-wo 'to introduce to, to teach to'
        thlí 'to drink'; thlí-wo 'to make (someone) drink'
        wa*simyé 'to worry about'; wa*simyé-wo 'to make (someone) worry about'

In Yuman, direct (patient) and indirect (oblique) objects can each be marked with the same object agreement prefixes whose use was exemplified in (8), though only one object may be marked per clause. With some ditransitive verbs, such as éé 'to give', the agreeing object is virtually always the non-patient:

(15)  Ny'-éé 'He gives it to me'; (rare or nonexistent) '?He gives me to him'
        3>1-give:to

With other ditransitive verbs (many of which are derived by the affixation of -o), however, either object may be indicated with an object prefix:

(16)  Ny'-úu-wo 'She shows me to him', 'She shows him to me'
        3>1-see-plus

Restrictions on which object arguments can be indicated with verb agreement in Tolkapaya deserve further study.15

2.3. Previous analysts have agreed on calling -o an applicative morpheme,16 but differ in their analysis of data like those presented in 2.1-2.2.

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15 Sentences with two non-third-person objects (such as 'He shows me to you') are regarded as hard to translate, and are avoided by Yavapai speakers.

There is at least one apparently transitive Tolkapaya verb for which Ms. Fasthorse allows no object agreement, vwl 'to resemble, look like':

Mda 'vwl-ма. 'I look like you'
you 1-resemble:ins

With vwl, an object pronoun must be used to specify the object. (Normally object pronouns are mildly emphatic and can be omitted; with most verbs, object agreement is normally required.)

16 For me, this term normally refers to a non-subject, generally a semantic oblique, and that is the way I use it here (in reference to the use of Tolkapaya -o discussed in section 2.1). The other authors whose analyses I review in section 2.3 have a broader understanding of this term, as shown in the quotation from Hardy (1979) below.
Shaterian (1983) only refers to -o as "applicative", but also cites causative examples (1983: 127-28).

Ichihashi-Nakayama (1994), discussing the closely related language Hualapai,7 which has quite similar phenomena, offers an explanation for the varying interpretations of "applicative" -o: "All the verbs [in the applicative group]...express a volitional action and take an agentive subject. When the applicative morpheme attaches to these verbs, the derived constructions express a benefactive-type relation. The verbs listed in [the causative group],..., on the other hand, express a psychological state or emotion and take an experiencer as the subject. Applicative constructions with these verb roots yield a causative meaning. The interpretation of an applicative construction does correlate with the semantic type of the verb root" (1994: 7). While this description works for most but not all of the Hualapai verbs Ichihashi-Nakayama cites, it seems inadequate to explain even the small sample of the Tolkapaya verbs above. Several of the applicative-interpretation base verbs in (9) and (10) above appear not to take volitional agentive subjects (the best example is probably 'to be ashamed'). Further, many of the causative-interpretation base verbs in (13) or (16) do not express psychological states or emotions. If we extend Ichihashi-Nakayama's characterization of the causative-interpretation bases to include verbs with other types of non-volitional subjects, we can bring in 'to burp', 'to be pregnant', 'to see', and 'to wear pants' (though not 'to look at' or 'to put on pants', which are clearly volitional), but there seems to be no way to accommodate meanings like 'to eat' and 'to drink' within this analysis. I do not know enough about the Hualapai lexicon to judge how well Ichihashi-Nakayama's proposal works for that language as a whole, but it seems wrong for Tolkapaya (though quite possibly some semantic phenomenon like that she describes was originally more productive).

Hardy (1979: 24) writes: "The applicative suffix -(w)di indicates the presence in the sentence of an additional argument on the verb....The meaning conveyed is either causative...or benefactive." She continues (1979: 27): "The choice of a causative or of a benefactive sense is determined by the context and the semantics of the verb." Hardy's reference to semantics may well anticipate Ichihashi-Nakayama's suggestions, though Hardy does not discuss this further. The mention of context probably refers to data like those I present in the next section, which would be even more difficult to reconcile with Ichihashi-Nakayama's claims, if her analysis were applied to Tolkapaya.

2.4. With a number of Tolkapaya -o verbs, the added argument may be interpreted as either a causative subject or an applicative object. Some of these are listed in (17):

(17) 
'ar*yé 'to be happy'; 'ar*yé-wo 'to make (someone) happy'; 'to be happy for (someone)'
 ich*wlųy-i 'to be rich'; ich*wlųy-o 'to make (someone) rich'; 'to get rich for (someone)'
 iipár-i 'to learn'; iipár-o 'to teach'; 'to learn for'
 mři 'to cry'; mři-wo 'to make cry'; 'to cry for'
 pl 'to die'; pl-wo 'to kill; give up for dead'; 'to die for'
 taarhdáar-i 'to work'; taarhdáar-o 'to make work'; 'to work for'
 tpáth-i 'to touch'; tpáth-o 'to make touch', 'to touch with; touch for'
 vchonyk 'l'-to jump'; vchonyk 'l'-wo 'to make jump'; 'to jump for'

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7 The Pai branch of the Yuman language family includes the Paipai language of Baja California and the Northern Pai group, composed of the languages Yavapai, Hualapai, and Havasupai. Of these, Hualapai and Havasupai are very closely related (probably best considered culturally distinct dialects of a single language).
vpf 'l' to faint'; vpf 'l-wo' to make faint'; 'to faint in order to impress, play dead for'

In each case, the derived -o verb may be interpreted either as a causative (with its subject causing the event or state named by the base verb) or as an applicative, with the grammatical relations of the base verb preserved unchanged and an added semantic oblique. As Hardy notes, in such cases only context can determine what sense the speaker intends.

Singular and plural sentences using one of the above sets of verbs, derived from pф 'to die', illustrate some interesting consequences of these facts.

(18a)  
'pф-l. 'I die'  
1-die

(18b)  
'pф-wo. 'I die for him'  
1-die-plus

(18c)  
'pф-wo. 'I kill him, I give him up for dead'  
1-die-plus


pф 'to die' is a Tolkapaya verb which has an irregular ablauted plural, půuy-i. The derived verb pф-wo, formed with the add-argument suffix, can have either an applicative ('to die for') or a causative ('to kill', 'to give up for dead') interpretation. Under the applicative interpretation, the subject is the one who dies, so when that subject is plural, the plural stem půuy-i is appropriately used with the -o suffix. Under the causative interpretation, however, the subject is no longer the one who dies, so the use of the plural stem půuy-i is apparently no longer appropriate; in this reading, pф-wo is pluralized with the regular plural suffix -ch.19

Two other Tolkapaya plus-argument verbs that can be interpreted as either applicative or causative provide some insight into how the different causative and applicative meanings might be conflated in some cases. The verbs in (19) are derived from the auxiliaries 'l' to say' and wф 'to do'. In each case, the plus-argument verb means 'to teach by demonstration' — but is this an applicative concept, 'to say [or do] (something for someone, in order to teach him)' or is it a causative concept, 'to make (someone) say [or do] (something, by demonstrating it)'? In this case, the distance between the two uses seems less great.

(19)  
'l' to say'; 'wф to teach (someone something, especially by demonstration)'  
wф 'to do'; wф-o to teach (someone something, especially by demonstration)'

2.5. Given the data in the last section, it seems impossible to propose any simple characterization of the semantics of particular verbs which determines whether their derived -o verb

18 'To give up for dead' certainly is not a standard causative of 'to die'. In both cases, though, the added subject argument is not the person who dies, and it is in that sense that I subsume both under the general term 'causative'. Incidentally, pф-wo is not the most common way to say 'to kill' in Tolkapaya. The usual word for 'to kill' is nэh-i, a lexically simplex verb.

19 As noted by Lynn Gordon and Heather Hardy, when plural -ch is added to a plus-argument verb formed from a vowel-final stem with the suffix -wo, -ch intervenes between the w and o of the suffix. I interpret this interesting fact as suggesting that -ch prefers to follow a consonant-final stem if possible.
will be applicative or causative. The meaning (or meanings) of the derived verb must be lexically specified. This is consistent with the fact that -o is a derivational (stem-forming) morpheme, and with certain other facts about its use.

For one thing, there are Tolkapaya verbs ending in -o which have no associated non-o verb, such as

(20) léeko 'to stick out one's tongue at'

The meaning of this verb is consistent with an applicative interpretation of -o added to a base verb léek-i 'to stick out one's tongue'. But that verb does not exist in Tolkapaya.

We have already seen that the meaning of a derived -o verb is unpredictable, even without the complication of applicative vs. causative interpretation. ('To give up for dead' is not a normal causative of 'to die', for example, and the range of semantic applicatives added in the verbs in (9-10) is quite broad.) This too is consistent with derivational morphology. A further point is that with some verbs the addition of -o apparently has no semantic effect: in cases like the following, -o is added to already transitive verbs with no change in meaning:

(21) 'èe 'to give to'; 'èe-wo 'to give to'
  ilimá 'to dance'; ch-ilimá 'to make (a baby) dance'; ch-ilimá-wo 'to make (someone) dance'
  val*schá 'to extend credit to (someone) for'; val*schá-wo 'extend credit to (someone) for'

2.6. There is a final way in which the uses of -o described here seem odd from a comparative Yuman point of view. The well-known Yuman morpheme used to derived causative verbs is not a suffix -o, but rather a prefix, t-, which also occurs in Tolkapaya examples like

(22) 'rùuy-i 'to be hot'; t-'rùuy-i 'to heat'
  kùup-i 'to have venereal disease'; t-kùup-i 'to give (someone) venereal disease'
  làth-i 'to crack (of an egg)'; t-làthi 'to be cracked (of an egg)'
  nyùr-i 'to have a design, be printed'; t-nyùr-i 'to write'

Pairs like these certainly show that causative t- is well-established in Tolkapaya. However, it seems to be less productive in modern Tolkapaya than -o is, occurring on fewer causative verbs and on a semantically narrower range of base verbs. (11) above presents a number of causative verbs which would have been expressed with t- in other Yuman languages, but which in Tolkapaya are expressed with -o:

3. Tolkapaya -v: Subtract an Argument

While the Tolkapaya stem-forming suffix -o has the effect of adding an argument to the proposition expressed by the unsuffixed stem, increasing the valence of that stem by one, the stem-forming suffix -v has the opposite effect: it decreases the valence of the unsuffixed stem by one, in several different ways.

3.1. The well-known effect of -v is to form passive, middle, or reflexive verbs from originally transitive verbs. For example, corresponding to the transitive verb in (23), the derived verb with the -v suffix in (24) may have any of three translations:
(23a)  chthul-i 'to wash'

(23b)  '-chthul-i 'I wash him', 'I wash it'
       1-wash-abs

(24a)  chthul-v-i 'to be washed; to be washable; to wash oneself'

(24b)  Hamany-che chthul-v-i 'The child is washed'
       child-nom wash-minus-abs

(24c)  Yare-che chthul-v-i 'The dress is washable (The dress washes)'
       dress-nom wash-minus-abs

(24d)  Hamany-che (yeem) chthul-v-i 'The child washes himself'
       child-nom (self) wash-minus-abs

A -v verb may have a passive interpretation, as in (24b); a middle interpretation, as in (24c); or a reflexive interpretation, as in (24d). (A reflexive interpretation is often easiest in sentences that include yeem 'oneself', but this word is often omitted from reflexive sentences. When it is present, however, only the reflexive interpretation is possible.) Although the meanings of these three types of sentences are different, they share the feature that the entity that gets washed (thus, the semantic object of a transitive sentence like (23b)) is the subject of the -v verb (and is thus marked nominative, like a typical Tolkapaya subject.)
Moreover, none of these sentences contains an agent distinct from this semantic object (and no agent can be added to them).

As the similarity of the sentences in (24b-d) suggests, Tolkapaya -v verbs may often have more than one interpretation. It is not true, however, that all Tolkapaya -v verbs may have all three interpretations illustrated in (24). Here are examples of some more Tolkapaya transitive verbs and the -v lose-an-argument verbs derived from them. After the translation of each -v verb, I have put P, M, and/or R in parentheses, to indicate the interpretation of the -v verb as passive, middle, and/or reflexive:

(25)  'uu 'to see'; 'uu-v-i 'to be visible' (M)
       chhir-i 'to cut (someone's) hair'; chhir-v-i 'to cut one's hair' (R)
       chk=wadr-i 'to laugh at'; chk=wadr-v-i 'to be funny [i.e. laughable], to laugh at
          oneself' (M, R)
       chkyd-i 'to cut'; chkyd-v-i 'to be cut' (P)
       krkó 'to tie, knot'; krkó-v-i 'to be tied, knotted' (P)
       mshée 'to be scared of'; mshée-v-i 'to be fierce' (M)
       néh-i 'to kill'; néh-v-i 'to be killed, to kill oneself' (P, R)
       qdav-i 'to break'; qdav-v-i 'to be broken' (P)
       s=hlak-i 'to take by the handle'; s=hlak-v-i 'to have a curved handle' (M)
       spó 'to know'; spó-v-i 'to be known, be famous' (P, M?)

* Tolkapaya has an accusative nominal case system in which nominatives have a -ch or -che suffix and accusatives are unmarked. The only type of simple (?) sentence in which Tolkapaya subjects are not marked nominative is predicate nominal sentences (see Munro 197x).
* Passive sentences could of course be said to contain a semantic agent, but that agent is not distinct from the patient. (Langacker and Munro (1975) provide some discussion of the implications of this view of passive for Yuman.) Tolkapaya -v passives are strictly intransitive.
thirl 'to be scared of'; thirli-v-i 'to be scary' (M)
wa*kmol-l 'to pity'; wa*kmol-v-i 'to be pitiable' (M)
yur-i 'to enter'; yur-v-i 'to be enterable' (M)

3.2. It does not seem too easy to predict which interpretation of -v will be chosen for a given derived verb, aside from the fact that a verb that takes only inanimate objects like 'to enter' would not be likely to assume a reflexive interpretation. In the literature -v is generally referred to as "passive" or "mediopassive". Shaterian (1983) provides no discussion of the meaning of the morpheme, but Hinton (1972, for Havasupai), Hardy (1979), and Yamada (1979) each propose a unitary explanation for the suffix.

Hinton (1972) writes about Havasupai that "...the /-v/ suffix...has two possible meanings: (1) that the topic of the sentence is in a state resultant from an action; and (2) that the topic of the sentence performed the action reflexively..." (She does not describe a middle use of the suffix, which perhaps does not exist for Havasupai.) After some argument, however, she concludes that "the suffix /-v/ does not mean two different things after all. It means only one thing: the internal condition of x is changed by the action of the verb."

Hardy (1979: 30-32) writes: "Suffixed to active verbs, ... -v derives a verb that describes the quality of being in a state resulting from a previous action...However, with stative verbs...-v suffixation describes the subject noun as being in a state as a (potential) goal of another verb....With both active and stative verbs the -v construction predicates an attribute of the noun."

Yamada (1979: 36-39) writes: "The majority of verbs which convey a passive meaning when affixed with -v are those which are active, more highly transitive verbs [in the sense of Hopper and Thompson 1979]...while those verbs which possess less predictable, more idiosyncratic meanings when affixed with -v tend to be stative, cognitive, or less transitive...The -v suffix then, whether affixed to an active or to a stative verb may be described as serving the unitary function of lowering the transitivity (or reducing the degree of valence) of that verb....The less transitive the verb, the more stative the verb+v form will be...The -v morpheme then, appears in a variety of constructions. Structures featuring -v verbal suffixes are linked in that all contain subject-marked NPs which are non-agentive and are affected by the action of the verb."

My own judgment, in the light of data like those in (25), is that while each of the semantic characterizations presented surely contributes to our understanding of the morpheme, each proposal is subject to some counterexamples. Surely 'to take by the handle' is an active verb, but its -v derivative does not have a passive meaning. Both Hardy and Yamada seem to confute the passive and reflexive meanings (though it was these that Hinton sought to tease apart), perhaps because these are so often treated similarly cross-linguistically. How, though, do reflexive verbs "predict an attribute"?

There are also -v verbs that seem to share the same sort of detransitivization, but where the semantics are more obscure, such as

(26) wîf 'to do, do for'; wîf-v-i 'to dress oneself, get dressed, wear clothes' (R)

Further, as I will show below, other uses of -v do not fit these characterizations at all. 23

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23 Shaterian (1983: 107) notes an additional use of -v that is not relevant to the topic of this paper, since it involves the derivation of denominal "attributive" verbs. Somewhat like English -ed in winged or footed, -v iforms
3.3. Although the three meanings of minus-argument -ν discussed in sections 3.1 and 3.2 above are semantically disparate (as shown by the concerns raised by Hinton, Yamada, and Hardy), the derived -ν verbs are similar in that their subject always corresponds to the object of the base verb to which -ν is added. The agent of the base verb in each case is not expressed as a separate argument.

A second, previously unreported class of uses of -ν that shares this minus-argument feature is different in that the subtracted argument is not the agent, but rather a non-subject. Thus, for example, the base verb in (27a) is transitive — it has two arguments. The derived -ν verb in (27b) is intransitive — it has the same subject as (27a), but no grammatical object:

(27a)  
Heather-che 'wli thee 'Heather is generous with money'
Heather-nom money be:generous:with

(27b)  
Heather-che thee-ν-i 'Heather is generous'
Heather-nom be:generous:with-minus-abs

Derived -ν verbs like those in (27b) and (28), then, are antipassives — intransitives whose subjects are the same as those of the corresponding transitives, but that do not contain a grammatical object:

(28)  
hanák-i 'to have (a necklace) on'; hanák-ν-i 'to be wearing a necklace (intr.)'
hapln-ν-i 'to win (intr.)'
lwē 'to marry (a woman)'; lwē-ν-i 'to be married (of a man)'
nyhamli-i 'to marry (a man)'; nyhamli-ν-i 'to be married (of a woman)'
rrē 'to play with'; rrē-ν-i 'to play'
s'hån-i 'to admire'; s'hån-ν-i 'to be proud'
svō 'to wait for'; svō-ν-i 'to wait'
thiplir-i 'to be hard on'; thiplir-ν-i 'to be strong (of a person)'
tsmdach-i 'to dream about'; tsmdach-ν-i 'to dream (especially in a religious way)'
wa*myē 'to feel bad about'; wa*myē-ν-i 'to feel bad'

Exactly the same relationship holds in (29) between ditransitives and derived -ν verbs that are transitives missing one of the non-subject arguments of the base verb:

(29)  
khličh-i 'to steal (something) from (someone)'; khličh-ν-i 'to steal'
knä 'to blame for' (to tell (something, i.e., a misdeed) on); knä-ν-i 'to tell (something)'
kvda 'to ask (someone) for (something)'; kvda-ν-i 'to pray, ask for (something)'
thmda 'to borrow from'; thmda-ν-i 'to borrow'

This group of examples shows that a derived -ν verb need not be intransitive.
I have argued that the minus-argument verbs in this section are different from those exemplified in section 3.1 in that these involve the loss of a semantic non-subject, while the first group involve the loss of a semantic object. The derived reflexive verbs described in section 3.1 might be seen as a problem for this description. A reflexive sentence certainly has fewer distinct arguments (in the sense of Langacker and Munro 1975) than the corresponding non-reflexive transitive — but one might equally well view either the original subject or the original object as the missing argument. I have chosen to treat reflexives together with passives and middles for several reasons: first, the same Tolka paya -v verb often has all three interpretations, or a reflexive interpretation combined with one of the other two, but I have found no cases where a -v verb has both a reflexive and an antipassive sense. Second, it is cross-linguistically common for passives and middles to be expressed similarly to reflexives, but less common, I think, for reflexives to pattern with antipassives. Finally, in treating the reflexives together with the passives and middles, I followed the lead of the earlier analysts quoted in section 3.2. Nonetheless, though, whether reflexives are seen as more similar to the passive/middle group or to the antipassive group, or as somewhere in between, they share with both groups the minus-argument feature of -v.

3.4. The Tolka paya lexicon also includes some anomalous lexical occurrences of -v. For instance, there are verbs that include a -v suffix\(^\text{a}\) for which there is no corresponding non-v verb, in which case we may perhaps assume loss of an original transitive base:

\[(30) \quad \text{háachv-i 'to melt (intr.), to be melted'}\]

In cases like those in (31) both the base and the -v verb are intransitive, and there is no apparent argument loss:

\[(31) \quad \text{kisk-i 'to slip and fall'; kisk-v-i 'to be slippery'}\]
\[\text{mat*iipty-i 'to be ashamed'; mat*iipty-v-i 'to be shameful'}\]

In these cases, it seems possible that the meaning of the base verb has independently detransitivized: if the bases here meant 'to slip and fall on' and 'to be ashamed of', there would be nothing odd about these pairs, since the -v verbs could be seen as middle interpretations of the original verb.

Another anomaly involves cases like those in (32). Here again there is no obvious argument loss, but in contrast to the cases in (31), the meanings of the base and derived verbs are very similar. In these cases it may also be the case that the meaning of the base verb has shifted, but it is less clear exactly how:

\[(32) \quad \\
\text{há thpúy-i 'to swim (in water)'; há thpúy-v-i 'to be bathed, to take a bath'}\]
\[\text{chpúy-i 'to tell a lie'; chpúy-v-i 'to fail to tell the truth'}\]

Finally, pairs of -v and non-v verbs like those in (33) have exactly the same meanings:

\[\]

\(^{a}\) The best known cases of passive/middle/reflexive similarity is probably the Spanish se construction. English transitive verbs used intransitively may have a variety of interpretations: for instance, a sentence like The man
washes can be interpreted either with an unspecified object (antipassive) or reflexively, while a sentence like The
dress washes (well) has a middle interpretation.

\(^{b}\) I assume (following Langdon's model of Yuman stem structure in (1)) that in cases like (31) that the -v of the
stem must be a suffix, because there can be only one stem consonant after the stem vowel.
(33)  

\[
\text{chnyúlk-}\text{i}, \text{chnyúlk-}\text{v-}\text{i} \ '\text{to be a hollow cylinder'} \\
\text{thúny-}\text{i}, \text{thúny-}\text{v-}\text{i} \ '\text{to be soft'}
\]

The meanings of the verbs in (33) are somewhat different from those of most of the -v verbs we have seen earlier: their meanings seem unrelated to any action or event, but are purely descriptive. This suggests that speakers may have interpreted the stative quality of many of the derived -v verbs in section 3.1 (as discussed by the earlier analysts quoted in section 3.2) to suggest that -v might be a general suffix for stative verbs.\(^3\)

4. Combinations of -v and -o

As shown in (6), a -v suffix is closer to the verb root than the -o suffix, but this linear order appears not to reflect derivational order consistently. Thus, some -v-o combinations appear to reflect the derivational order base > base-v > base-v-o, while others reflect the order base > base-o > base-v-o.

In (34), for example, the meaning of an original transitive or ditransitive base has an argument subtracted through the suffixation of -v, and then an applicative argument is added through the subsequent suffixation of -o.

(34)  

\[
\text{knáa} \ '\text{to blame for'} (i.e. 'to tell (something, i.e. a misdeed) on'); \\
\text{knáa-}\text{v-}\text{i} \ '\text{to tell (something)}'; \text{knáa-}\text{v-}\text{o} \ '\text{to tell to}' \\
\text{kváa} \ '\text{to ask (someone) for (something)}'; \text{kváa-}\text{v-}\text{i} \ '\text{to pray, ask for (something)}'; \\
\text{kváa-}\text{v-}\text{o} \ '\text{to pray for'} \\
\text{s'hná-}\text{i} \ '\text{to admire}'; \text{s'hná-}\text{v-}\text{i} \ '\text{to be proud}'; \text{s'hná-}\text{v-}\text{o} \ '\text{to be proud of'}
\]

The reverse derivation is not possible in these cases. There is no intervening even-more-transitive -o verb from which the -v verbs could be derived, and it is not clear what its semantics would be if it did exist.

The examples in (35), however, appear to support the reverse derivation. In these examples, an original base transitive verb may be suffixed with either -v (forming an intransitive middle) or -o (forming a three-argument causative). The -v-o verb is, again, a transitive. Although it could possibly be seen as a causativized version of the derived middle, its meaning in both cases seems closer to that of the -o causative, of which it seems to be an antipassive:

(35)  

\[
\text{'\text{úu} \ 'to see'}; \ '\text{úu-}\text{v-}\text{i} \ '\text{to be visible}'; \ '\text{úu-}\text{wo} \ '\text{to show to}'; \ '\text{úu-}\text{v-}\text{o} \ '\text{to show (something)}' \\
\text{mshée} \ '\text{to be scared of}'; \text{mshée-}\text{v-}\text{i} \ '\text{to be fierce}'; \text{mshée-}\text{wo} \ '\text{to give a warning about (something) to}'; \text{mshée-}\text{v-}\text{o} \ '\text{to give a warning about'}
\]

5. Conclusion

Previous analyses of Yavapai and the closely related languages Hualapai and Havasupai have concentrated on explaining different semantic interpretations of the valence suffixes -v and -o, consequently failing to note the remarkable parallelism in the use of these suffixes. -v and -o function to subtract and add arguments to the verb stems on which they appear, and in each case the subtracted or added arguments may be either semantic subjects or objects.

\(^3\) Probably the existence of the attributive -v suffix described in footnote 18 helps facilitate this idea.
The effects of -ν and -ο affixation are contrasted in the diagram below; the "affected argument" referred to is the one that is added or subtracted in this valence changing process.

\[
\begin{array}{ll}
\text{Affected argument} & \text{-ν (subtract argument)} \\
\text{is a semantic subject} & \text{middle, passive, reflexive} \\
& \text{(semantic subject of original verb subtracted)} \\
\text{Affected argument} & \text{-ο (add argument)} \\
\text{is a semantic object} & \text{causative} \\
& \text{(new [higher] causer subject added)} \\
\end{array}
\]

Because I have access to a broader range of lexical data than was available to any previous analyst considering these questions, my conclusions regarding the feasibility of predicting the interpretation of a given instance of -ν or -ο are less sanguine than those of the previous analysts I have cited. There seem to be counterexamples to every proposal that has been made, and I honestly do not think that at this time one can predict the semantics of a -ν or -ο verb from the semantics of the base verb, although all the generalizations these earlier scholars have suggested are valuable in suggesting more likely interpretations.

References


* I think this is indisputable. Hinton's paper was written early in her analysis of Havasupai (though she has since gathered considerable lexical data). Although Hardy and Yamada were very experienced with Tolkapa, neither of them had attempted a large lexical study. Ichihashi-Nakayama's study appears to be based on quite a limited corpus. Shaterian controls a large body of Yavapai lexical data, but he presents no analysis of the distribution of -ν or -ο comparable to those of the other analysts.

* It would certainly be interesting to try to test the productivity of these interpretations. Unfortunately, it is difficult to see how to test productivity in a threatened language that does not seem to be expanding its lexicon.
Report on the Special Hokan Session in Albuquerque, July 1995

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During the recent Hokan-Penutian Languages Workshop held at the University of New Mexico in July 1995, we organized a special half-day session devoted to discussion of the present status of the still controversial Hokan stock. Participants were asked to share their thoughts on this topic and to supply handouts for distribution at this meeting dealing with such topics as sources of data (published and unpublished) on their language(s) of expertise, and information on pronominal reference and agreement, as well as case systems and expression of grammatical relations.

Several people submitted information for distribution at the meeting, especially some who could not attend. A lively discussion took place on some aspects of which are summarized below.

While many questions remain to be answered on the constitution of Hokan (not to mention whether there is in fact such a grouping), there seems to be a consensus that the Hokan hypothesis is a fruitful one. Among the many languages that have been proposed as belonging to Hokan, there are various degrees of plausibility concerning their membership in the stock. Using the phrasing often heard during the meeting, we propose that "If there is a Hokan", then the following languages should be included:

Karuk, Chimariko, Shasta, Achomawi-Atsugewi, Washo, Yana, Pomoan, Esselen, Salinan, Yuman-Cochimí, Seri, Chontal.

Chumash at this point is considered doubtful, an unfortunate situation since it reduces even more the number of true language families where serious work of reconstruction has been and will be done. Coahuiltecan is not a true language family, the languages are extinct and the documentation sparse. Subtiaba-Tlapamec is now believed to be Otomanguean, and Jicaque is not well enough documented in the published literature to be included in the core at this point. For those interested in Jicaque, we append to this report a bibliography including some relevant unpublished material by Lyle Campbell.

Note that the only clear sub-groups at this point are Yuman-Cochimí and Achomawi-Atsugewi; none of the other proposed subgroups have been validated.

Langdon informally suggested a north-south chain of Hokan languages sharing a number of grammatical and lexical characteristics to be further investigated, consisting of Pomoan, Yuman-Cochimí, Seri, and Oaxaca Chontal.

While more work on all Hokan languages still spoken is obviously to be encouraged, much philological interpretation also remains to be done on extinct languages. Golla reports that Howard Berman has organized the Chimariko fieldnotes of Sapir for inclusion in a forthcoming volume of the Collected Works of Edward Sapir; the Harrington material on Chimariko remains to be organized and analyzed. Many believe that Chimariko is very important for the understanding of Hokan; in particular, Oswalt presented results of the method he has been developing for measuring similarities between pairs of Hokan languages. Pairings of Chimariko with Yuman languages and with Proto-Western Pomoan are among the most promising. See Oswalt’s paper detailing his method in the Proceedings of the 1978 Hokan-Penutian Languages Workshop; exact reference to this volume can be found in the Bibliography of the Yuman Languages below under Redden, Ed.

Hinton reports there is some hope for a Yana grammar in the not too distant future.

Information on pronominal reference and case systems led to some interesting observations:

1. The northernmost Hokan languages have the most complex pronominal systems; is this an areal feature? This is a problem which might be amenable to internal reconstruction.

2. Except for Pomoan and Yuman, Hokan languages do not have case markers; Washo has some
marginal case features. This suggests that case markers may not be a feature of Proto-Hokan. The origin of case markers in Pomoan and Yuman would be an interesting topic for research.

3. Yana and Karuk have inverse markers, which does not appear to be a Hokan characteristic, and may have arisen by contact with and diffusion from Wiyot and Yurok.

4. Washo and some Yuman languages share a plural object prefix of the shape pa-; while this appears to be a recent development in Yuman, other interpretations need not be ruled out.

Marlett and Moser have compiled an impressive contribution on Seri to the forthcoming Intercontinental Dictionary Series, a version of which is included below.

The following materials are appended to this report in the following order:

1. Bibliographical information:

Selected bibliography of recent works relevant to Hokan, by Jacobsen and Langdon.
Publications concerning Washo and Hokan, by Jacobsen.
Bibliography of the Yuman Languages, by Langdon.
Seri Bibliographical Items, Post 1980, by Marlett.
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2. Information on pronominal reference and case:

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We hope to continue discussion of Hokan topics at the 1996 Hokan-Penutian Languages Workshop.
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This bibliography contains what I believe to be a complete list of publications on Yuman languages, as well as some unpublished material in the Yuman Archives of the Department of Linguistics at UCSD. It also includes some though not all ethnographic works on Yuman peoples; decisions on what to include in this category have been somewhat arbitrary. A bibliography of old word lists on Yuman languages obtained on microfilm from the Smithsonian is appended. Additions and corrections will be gratefully accepted.

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WORDLISTS ON YUMAN LANGUAGES FROM SMITHSONIAN

In Yuman Archives, UCSD

The numbers identifying the manuscripts are the Smithsonian manuscript numbers, dates at which the material was collected often not available. The number of pages is based on the hardcopy from the microfilm and does not necessarily reflect the number of pages of the original manuscript.

Bartlett, J.R.
1044 nd Dieguina, 6 pp. [lipay Diegueño].
1108 nd Comparison of Bartlett’s Diegueño vocabularies of San Diego and Los Angeles [both vocabularies are lipay Diegueño], and his Yuman-Cuchan vocabularies, 12 pp.
1117 nd Diegeno (Los Angeles), copied in ms 1108, 6 pp.
1120 nd Kutchan = Yuma or Cuchan [similar to Whipples’s], copied by Gibbs, 6 pp.
1131 nd Maricopa: Coco Maricopa, copied by Gibbs, 6 pp.

Bennett, Lt. Col. Clarence E.
1121a,b,c 1864 Yuma, Ft. Yuma, CA. a) Yuma vocabulary, 20 pp; b) copy of a), 7 pp.; c) a comparative vocabulary including a copy of a), a Cocopa list perhaps of Bartlett, and a Yuma list of Gabb [but no copy of Gabb’s list was found in ms 1121; perhaps it is the Gabb Yuma list in 1115 below.]

Corbusier, William H.
2071 nd Hamokaba [Mohave], contains words, paradigms, sentences, 25 pp.
2933 1925-6 Kachan (Kuchan) or Homkwachin. Yuma Indian words, phrases and sentences and 'How Whets-a-Whets went up to the fourth heaven.' Typed manuscript, 29 pp.

Cushing, F.H and H.W. Henshaw
3436 1883/84 Comparative vocabularies of Havasupai (Cushing) and Santa Catalina Paipai (Henshaw), 11 pp.
Engelhardt, Rev. Zephyren
1138 1886 Yumas or Kutchan. Vocabulary in Powell's Intro. 54 pp filled.

Gabb, W.M., J.R. Bartlett and J.S. Helmsing
1159 1876 Comparative vocabularies of H'taam (Tomaseño Diegueño), by Gabb, Coco-Maricopa by Bartlett, and Kutchan by Helmsing (copied by Gibbs?) from original wordlists, 12 pp.

Gabb, W.M.
1115 1867 Comparative vocabularies of H'taam (Tomaseño Diegueño) and Yuma, 9 pp.

Gibbs, George
1042a-b 1863 a) Mohave wordlist elicited from Chief Iritaba by Gibbs, 4 pp.; b) comparative vocabularies of Mohave (Gibbs from a), Yuma (Bartlett), and Digano [Diegueño] (Mowry), 12 pp.

Gibbs, George, et al
96? nd Comparative vocabularies of Hum-mock-ha-va (Mohave) by Heinzelman [see Heinzelman 1136 nd], Mohave by Mowry, and Mohave by Gibbs 12 pp.

Gibbs, George, John J. Milhau and Lt. Sylvester Mowry

Haller, G.
1208 1861 Notes concerning astronomical terminology of the Mohave Indians, information from Chief Iretabah, 6 pp.

Harrington, J.P.
3900 nd Notes on the origin of the names Walapai and Yavapai. 7 pp.

Haverstick, J.E.
1045 1894 Mohave sentences and phrases, 6 pp.

Heinzelman, Major S. P.
1136 nd Hum-mock-ha-va [Mohave], 6 pp. [Copied by George Gibbs.]
Heintzelman, Major S.P. and E. T. Peabody
1133 1854 Cocopa vocabulary copied by George Gibbs to which some words collected by Peabody (1866) were added, 6 pp.

Helmsing, J. S.
1125 1876 Vocabulary of M'mat (Cutchan) 10 pp.

Henshaw, H. W.
1105 1884 Diegueño at San Raphael del Real Castiño, Lower California, 31 pp partially filled.
1143 1882-83 Mesa Grande and Santa Isabel Diegueño, 60 pp. partially filled.
1145 1884 Diegueño, San Diego, 52 pp. Powell Schedules, partially filled.

Henshaw, H. W.
1128 1884 Paipai vocabulary, ca. 76 pp.

Loew, Oscar
819-b nd Comparative vocabularies of Mohave, Southern Paiute and Kawia, 14 pp.
819-c 1874/75 Mohave sentences, personal names, names of constellations, and other notes on the Mohave language, 9 pp.

McGee, Dr. W. J.
1546a-b 1900 Cocopa vocabulary (copied by Gatchett) 31 pp.

Mowry, Sylvester (Lt.)
1126 nd Diegano, 6 pp.

Mowry, Sylvester (Lt.), and Major S. P. Heintzelman
1135 nd Mohave, 9 pp. [Copied by George Gibbs including Gibbs’ vocabulary side-by-side.]

Parker, J. C.
1137 1876 Santo Tomas Mission Indians, Baja California, 19 pp. [Tiipay] (Contains notes identifying some forms as Kilwa.)

Powell, Major J. W.
1498 1873 Ha-muk'-a'ha'va "Mo-ja'ves". Las Ve'-gas Valley, 4 pp.

Ruby, Charles
1118 1886 Mohave vocabulary, collected from Lyon Jim at Fort Mohave, 2 pp.

Stevenson, Mathilda Coxe
1114 1885 Avesú-Pai [Havasupai] vocabulary, 7 pp. [Copy in Gatschet’s hand, was also published by Gatschet in Zeitschrift für Ethnologie 214:5-10 (1892).]

Stone, Col. Charles P. et al.
?? 1866 Notes on the Indians of Lower California, with Cocopa vocabulary and some words in Nevome (Opata), 21 pp.

Syke, ??
4725 1897 Mohave vocabulary, 3 pp. [Copied in typewritten form (2 pp.) in 1900]. Found among papers of J. P. Harrington.

Ten Kate, Dr. Hermann
1134 1888 German-Maricopa vocabulary, 11 pp.

Thomas, General George H.
1107 1868 Vocabulary of the Kuchan [Yuma] dialect of the Yuma linguistic family, 8 pp.

Turner, W. W.
T95x nd Cocopa, Yuma, and Mohave vocabularies (also some words in Papago, Pima, Apache), 14 pp.

??
3797 nd Mohave vocabulary, 2 pp.

??
1627 Two vocabularies of 180 words: Dieguina [lipay Diegueño] language of California, one with English glosses (pp.77-81 of longer work) and one with Spanish glosses (pp.77-81 of longer work), both copied in the same hand, perhaps Gibbs.

??
1627 ?? Los Angeles Indians, Diegeno tribe, 7 pp. [Spanish-lipay Diegueño.]


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BILOGRAPHY OF OAXACA CHONTAL (Tequistlatecan)
Viola Waterhouse (SIL) and Margaret Langdon (UCSD)

HIGHLAND CHONTAL

Belmar, Francisco 1900 Estudio de el chontal. Oaxaca. [Detailed Latin style grammar of Chontal of Sta. Marí a Ecatepec, with 10 verb conjugations and 10 noun declensions, vocabulary, and phrase lists, lists of villages, historical data, and an attempt to show Náhuatl affiliation. Some older religious material included in different notation.]


------ 1967 Highland Chontal phonemics. Anthropological Linguistics 9.4.26-32. [Standard SIL type description of phonemes, including levels.]

------ 1967 Highland Chontal phrase syntagmemes. IJAL 33.282-86.

------ 1968 Highland Chontal clause syntagmemes. Linguistics 38.77-83.


Turner, Paul R. and Shirley Turner 1971 Chontal to Spanish-English, Spanish to Chontal Dictionary. Tucson: The University of Arizona Press. [Extensive dictionary with drawings of pertinent entries by second author, with Chontal entries, Spanish and English glosses, illustrative sentences and grammatical classification. Separate listing of Spanish entries with Chontal glosses. Includes appendices: grammar sketch, map of the area, historical sketch with data about towns from Francisco del Paso y Troncoso, ed. (1905) Papeles de Nueva España I. IV; body parts, kinship charts, numerals, calendar, and bibliography. Based on speech of San Matí as Petacaltepec, some variants from other towns.]

Parrott, Muriel and Viola Waterhouse 1970 Diccionario de la Sierra Chontal. Cherán, Mich. México. Spanish to Chontal only. [Partial vocabulary of selected items from Santo Tomás Teipan and Santa Marí a Ecatepec, including illustrative sentences and lists of place names, flowers, and numerals. Names of authors not given in volume.]

------ 1975 Well-formed narrative in Highland Oaxaca Chontal (Hokan). IJAL 41.148-54. [Free translation of Highland Chontal tale, narrative features, analysis of episodes and paragraphs, Chontal text and literal translation.]

Waterhouse, Viola and Muriel Parrott. 1975 Notes on Highland Oaxaca Chontal (Hokan) nominaliza-
tion. IJAL 41:155-57. [Preliminary study of formation of nouns from verb forms.]

----- 1980 Chontal de la sierra. Archivo de lenguas indígenas de México. México: Centro de Investigación para la Integración Social. [Part of a series of studies of selected languages in set format of phonology (including texts), morphophonemics, syntax and lexicon in the form of elicited sentences.]

----- n.d.ms First comes first in Highland Chontal. [First person singular object prefix replaces subject person markers in Highland Chontal.]

----- n.d.ms Glossing of some texts for SIL archives. [in preparation]

LOWLAND CHONTAL

Pimentel, Francisco 1874-75 Cuadro descriptivo y comparativo de las lenguas indígenas de México, o tratado de filología mexicana. México. II.303-05,489. [Cites brief word list from San Miguel Ecatpec, a Highland town where a Lowland language is spoken, to prove non-Mayan affiliation of Chontal.]

Waterhouse, Viola 1949 Learning a second language first. IJAL 15.106-09. [Children are taught Spanish first, learn LC when they grow up. Some baby words are formed on LC roots. Spanish use causes replacement of Chontal c by s in some idiolects, giving morphophonemic problems.]

----- 1949 Oaxaca Chontal: sentence types and text analysis. México Antiguo 7.229-314. [Preliminary study of simple sentences in terms of verb, noun, or particle predicates, and complex sentences made from combinations of simple ones, with analyzed short text.]

----- 1957 Two Oaxaca Chontal words. IJAL 23.244-45. [Possible derivation of two perplexing words.]


----- 1962 The Grammatical Structure of Oaxaca Chontal. Indiana University Research Center in Anthropology, Folklore, and Linguistics Publication 19, supplement to IJAL 28.2. [Based on 1958 Ph.D. dissertation, University of Michigan. [Grammar on tagnomic model, with 4 classes of independent sentence (syntagmeme) types and 2 dependent types with formulas and examples, tagmeme classes, morpheme classes (following Voegelin's numbering system), phonemes, and annotated bibliography giving more sources and other information.]


----- n.d.ms Vocabulary (Spanish-Chontal) and texts for SIL archives. [Field work done with May Morrison, data for computer by Waterhouse, computer work by SIL Linguistics Department staff member Ramona Millar.]


Waterhouse, Viola and May Morrison 1950 Chontal phonemes. IJAL 16.35-39. [Phonemes of Lowland Chontal. Presents charts of contrastive consonant classes: obstructs and resonants, lists of words showing distribution of single consonants, lists of consonant clusters, examples of vowels and prosodic phonemes of stress and length, intonation patterns without examples.]
CHONTAL OF TEQUISISTLAN (Tequistlateco)

de Angulo, Jaime and L. S. Freeland 1925 The Chontal language (dialect of Tequisistlan). Anthropos 20:1032-52. [Detailed study on European model based on limited data, probably obtained from a female speaker in Oaxaca City, due to unsettled conditions in rural areas. Includes brief texts. Shows distinct differences from both HC and LC (see Waterhouse 1985 below).]

COMPARATIVE STUDIES


Kroeber, A. L. 1915 Serian, Tequistlatecan, and Hokan. University of California Publications in American Archaeology and Ethnology 11:279-90. [Comparative word lists for demonstration that Seri and Oaxaca Chontal are Hokan.]

Turner, Paul R. 1967 Seri and Chontal (Tequistlateco). IJAL 33:235-39. [Attempt to show that Chontal and Seri and not related so can’t both be Hokan.]

----- 1969 Proto Chontal phonemes. IJAL 35:34-37. [Postulates proto phonemic system based on comparison of present systems.]


----- 1985 Counting in Oaxaca Chontal. IJAL 51:237-40. [Rectifies omission of numerals from 1962 Lowland Chontal grammar but also adds comparable Highland Chontal forms, and Tequistlateco forms wherever possible.]

----- 1985 True Tequistlateco. IJAL 51:612-614. [Shows that Chontal spoken in Tequisistlan was distinct from both Lowland and Highland Chontal but closer to Lowland. Based on data from de Angulo and Freeland (1925). A few words were also collected by Waterhouse from an elderly couple in 1959. Language now extinct.]

Waterhouse, Viola and Muriel Parrott. 1978 Oaxaca Chontal noun inflection and classification. Occasional Papers on Linguistics 2.54-66, James R. Redden, ed. (Department of Linguistics, Southern Illinois University at Carbondale.) [Highland Chontal noun classes based on crosscutting lexical criteria of animate versus inanimate, and phonological criteria of free or bound, and consonant or vowel initial; Lowland Chontal has retained only phonological criteria and simplified prefixal system.]

----- n.d.ms Person-marking in Oaxaca Chontal. [Both Highland and Lowland Chontal distinguish 2 types of verbs with single participants, other types with 2 or 3 participants, but differ in expression of actor. Single participant verbs distinguish between subject as actor and subject as undergoer. The latter are expressed by object suffixes.]
BIBLIOGRAPHY OF JICAQUE
Margaret Langdon and William H. Jacobsen, Jr.

Campbell, Lyle

Campbell, Lyle and David Oltragge

Conzemius, Edward

Dennis, Ronald K. and Ilah Fleming

Dennis, Ronald, Margaret Royce de Dennis and Ilah Fleming

Fleming, Ilah and Ronald K. Dennis

Greenberg, Joseph H. and Morris Swadesh

Lehmann, Walter

Oltragge, David F.

Oltragge, David F. and Judith Oltragge

Oltragge, Judith A. de and Helen Neuenwander

von Hagen, V. M.
Karuk Pronouns  
Monica Macaulay  
Department of English  
Purdue University

I. Karuk Pronominal Affixes

Bright (1957) treated the Karuk pronominal affixes as marking subject and object simultaneously. I argue (Macaulay 1992) that they mark just one participant, with the choice of participant marked (subject or object) based on a person hierarchy. I will present Bright’s analysis first, then mine.

A. Bright (1957)

There are three sets of affixes which are used depending on the mood or polarity of the sentence: optative (Bright calls it “imperative”), positive, and negative. Table 1 gives all of the affixes (as Bright analyzed them); Tables 1.1–1.3 break them down by series. Some comments:

- In Tables 1 and 1.1–1.3, the heading “3SG/vi” means that the forms in that column are used with transitive verbs when there is a third person singular object (and any person/number of subject), or with intransitive verbs with the subject determined by row. (For example, under Bright’s analysis, kán- is used in optative mood for a 1st person singular subject acting on a 3rd person singular object, or for an intransitive verb with 1st person singular subject.)

- The acute accents over dashes indicate a particular type of accent shift in the stem to which the affix is added.

<table>
<thead>
<tr>
<th>OBJ</th>
<th>3SG/vi</th>
<th>3PL</th>
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TABLE 1.1: OPTATIVE PRONOMINAL AFFIXES

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TABLE 1.2: POSITIVE PRONOMINAL AFFIXES

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TABLE 1.3: NEGATIVE PRONOMINAL AFFIXES

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</tbody>
</table>

B. Macaulay (1992):

As mentioned above, in my 1992 paper I argued that these affixes really only mark ONE participant. Choice of participant marked is governed by the following person hierarchy: 2PL > 1 > 2SG > 3. The separation of second person into singular and plural (flanking first person on the hierarchy) has always bothered me—it just seems implausible—but the evidence supports it.

The lone suffix is not, strictly speaking, a member of the set of pronominal affixes; it's an inverse marker. So, for example, ?i- marks a second person subject (positive polarity), and ?i/-ap a second person object (also positive polarity).
The system is somewhat messy, but it strikes me as far more learnable analyzed this way than under the prior analysis. The main areas where there are problems are 1st person (in all series), and third person (primarily in the negative). In first person, all of the paradigms contain more than one prefix, based on the person and/or number of the other participant. In the third person negative, it is unclear whether the interaction which Bright gave as third plural acting on third plural marks subject or object under my reanalysis. (Although, see below.)

The cells which are shaded in the tables below are cases where the prefix (plus inverse marker in some cases) violates the hierarchy. That is, the lower ranking participant is marked, rather than the higher ranking participant. (I treat these as exceptional cases where two participants are marked instead of one.)

Karuk person hierarchy: 2PL > 1 > 2SG > 3

<table>
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<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>kán- (3 OBJ)</td>
<td>nú-</td>
</tr>
<tr>
<td></td>
<td>nū- (2SG OBJ)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ø-</td>
<td>ki:k-</td>
</tr>
<tr>
<td>3</td>
<td>kám-</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ná- (SG SUBJ)</td>
<td>kín-</td>
</tr>
<tr>
<td></td>
<td>kaná- (3PL SUBJ)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kaná- (2PL SUBJ)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>?i/-ap</td>
<td>ki:k/-ap</td>
</tr>
<tr>
<td>3</td>
<td>kun-</td>
<td>kín-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ni- (3 OBJ)</td>
<td>nú-</td>
</tr>
<tr>
<td></td>
<td>nu- (2SG OBJ)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>?i-</td>
<td>ku-</td>
</tr>
<tr>
<td>3</td>
<td>?u-</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ná- (3 OBJ)</td>
<td>kín-</td>
</tr>
<tr>
<td></td>
<td>kín- (2SG OBJ)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3PL SUBJ)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2PL SUBJ)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ø/-ap</td>
<td>Ø/-ap (?)</td>
</tr>
<tr>
<td>3</td>
<td>kun-</td>
<td>Ø/-ap (?)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ná- (SG SUBJ)</td>
<td>kín/-ap</td>
</tr>
<tr>
<td></td>
<td>kaná/-ap (3PL SUBJ)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kaná/-ap (2PL SUBJ)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ø/-ap</td>
<td>ki:k/-ap</td>
</tr>
<tr>
<td>3</td>
<td>kun-</td>
<td>Ø/-ap (?)</td>
</tr>
</tbody>
</table>
Postscript: In work in progress (Macaulay 1994, 1995), I have finally found good evidence that the third person pronounal prefixes kun and kin both mark objects. (I wasn’t sure at the time of my 1992 paper.) Specifically:

kun: third person singular object (positive, negative, optative)

kin: third person plural object (positive, optative)

II. Independent Pronouns  (Bright 1957, Lexicon)
(There are no case distinctions.)

<table>
<thead>
<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ná:</td>
<td>nū:</td>
</tr>
<tr>
<td>2</td>
<td>?i:m</td>
<td>?i:mkun</td>
</tr>
<tr>
<td>3</td>
<td>ṭi:m</td>
<td>ṭu:mkun</td>
</tr>
</tbody>
</table>

III. Possessive Pronominal Prefixes  (Bright 1957:56)

<table>
<thead>
<tr>
<th>PERS</th>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>nani-</td>
<td>nani-</td>
</tr>
<tr>
<td>2</td>
<td>mi-</td>
<td>mi-</td>
</tr>
<tr>
<td>3</td>
<td>mu-</td>
<td>mu-</td>
</tr>
</tbody>
</table>

* Note Bright’s footnote 1, p. 56: “mikun- and mukun- are obviously analyzable into mi- ‘thy’ and mu- ‘his’ respectively, plus an element -kun- Plural. With these morphemes may be compared ?i:m ‘thou’, ṭi:m ‘he’, and the -kun of ṭi:mkun ‘you’, ṭu:mkun ‘they’. Cf. also kun ‘they’, a verbal prefix.”

BIBLIOGRAPHY: WORKS CITED
AND OTHER PAPERS BY MM ON KARUK


WASHO PRONOUNS

William H. Jacobsen, Jr.

Prefixes and their reconstructions:

<table>
<thead>
<tr>
<th>_V</th>
<th>_C</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>subject and possessor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (&gt; 3)</td>
<td>le-</td>
<td>di-</td>
</tr>
<tr>
<td>2 (&gt; 3)</td>
<td>m-</td>
<td>?um-, ?im-</td>
</tr>
<tr>
<td><strong>subject</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>imperative (&gt; 3)</td>
<td>ge-</td>
<td>ga- ~ ge-</td>
</tr>
<tr>
<td><strong>possessor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>absolutive</td>
<td>d-</td>
<td>da- ~ de-</td>
</tr>
<tr>
<td>3 unexpressed</td>
<td>t-</td>
<td>da- ~ de-</td>
</tr>
<tr>
<td>subjective</td>
<td>g-</td>
<td>git-, gik-</td>
</tr>
<tr>
<td><strong>subject and object and possessor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3 &gt;) expressed</td>
<td>?-</td>
<td>Ø-</td>
</tr>
<tr>
<td><strong>subject &gt; object</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 &gt; 1</td>
<td>?l- (l')</td>
<td>la- ~ le-</td>
</tr>
<tr>
<td>3 &gt; 2</td>
<td>?m- (m-)</td>
<td>ma- ~ me-</td>
</tr>
<tr>
<td>3 &gt; 3 unexpressed</td>
<td>k-</td>
<td>ga- ~ ge-</td>
</tr>
<tr>
<td>2 &gt; 1</td>
<td>le-m-</td>
<td>le-m-</td>
</tr>
<tr>
<td>1 &gt; 2</td>
<td>mi-le-</td>
<td>mi-</td>
</tr>
<tr>
<td>3 &gt; indefinite</td>
<td>—</td>
<td>ba- ~ be-</td>
</tr>
<tr>
<td>1 &gt; indefinite</td>
<td>—</td>
<td>di-ba- ~ di-be-</td>
</tr>
<tr>
<td>2 &gt; indefinite</td>
<td>—</td>
<td>?um-ba- ~ ?um-be-</td>
</tr>
<tr>
<td>imperative &gt; indefinite</td>
<td>—</td>
<td>ga-ba- ~ ge-be-</td>
</tr>
<tr>
<td>1 &gt; reflexive</td>
<td>di-kM-, di-M-</td>
<td>di-gum-</td>
</tr>
<tr>
<td>2 &gt; reflexive</td>
<td>mi-kM-, ?u-M-</td>
<td>mi-gum-</td>
</tr>
<tr>
<td>imperative &gt; reflexive</td>
<td>ga-kM-, ga-M- ~ ge-kM-, ge-M-</td>
<td>ge-gum-, ~ ga-gum</td>
</tr>
<tr>
<td><strong>subject &gt; object and possessor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 &gt; reflexive / impersonal</td>
<td>M-, gukM-, guM- gum-, gir-</td>
<td>&lt; *km- &lt; *k-m-</td>
</tr>
</tbody>
</table>
Independent pronouns:

|          | singular | dual  | plural |< |
|----------|----------|-------|--------|<|
| 1 exclusive | lé'      | léši  | léw   | *na-f |
| 1 inclusive | léšši  | léwhu |        |<|
| 2         | mf'      | mfši  | mfw   | *m-f |
| 3 subjective | gf'     | gfši  | gfw   | *k-f |
| 3 objective | gé'    | géši  | géw   | *ka-f (*k-f-a) |

This listing of Washo pronominal prefixes and independent pronouns is essentially the same as that given in Jacobsen 1977:56-57, which should be consulted for further exemplification and explanation, especially of the reconstructions, and can be backed up with Jacobsen 1979 and 1980:214-217. The main difference is that I have added here the four prefix rows containing ba- ~ be-, reconstructable as *pa-, marking an indefinite object. This was described in Jacobsen 1964:490-491, 547-550. It is usually associated with operations that would be applied to a large number of individual items, and thus has a meaning close to ‘plural object’. In Jacobsen 1977:68-69, I made some comparisons of pronominal morphemes among Washo, Karok, and Yuman, and this included one between Karok -ap indicating plurality and pa- of the Yuman Pai languages indicating plural object. Much more recently I realized that this Washo prefix might also be compared. The comparison to Yuman seems the more likely, as the forms and prefixal distribution are the same, and since we now learn from Monica Macaulay’s sophisticated analysis that Karok -ap is better regarded as an inverse marker. In any case, this is quite comparable to the Washo reflexive prefix, being a sort of inner layer object (albeit sometimes occurring on intransitive verbs), forming a stem which is regularly inflected like an intransitive verb.

REFERENCES


Proto-Yuman

Margaret Langdon

Proto-Yuman pronominal prefixes on verbs:

- first person subject/2nd person object *n'y-
- first person subject/(3rd person object) *2-
- second person subject/first person object *2m'm-
- second person subject/(third person object) *m-
- third person subject/first person object *n'y
- third person subject/second person object *m-
- third person subject/(third person object) zero

Proto-Yuman independent pronouns:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*m'y-a:</td>
</tr>
<tr>
<td>2</td>
<td>*ma:</td>
</tr>
</tbody>
</table>

Proto-Yuman case markers on nouns:

<table>
<thead>
<tr>
<th>Case</th>
<th>Markers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>*-č</td>
</tr>
<tr>
<td>Object</td>
<td>*zero</td>
</tr>
<tr>
<td>Instrumental, comitative,</td>
<td></td>
</tr>
<tr>
<td>directional (toward, through, by way of, etc. depending on the language)</td>
<td>*-m</td>
</tr>
<tr>
<td>Directional/locative (from, out of, at, in, on depending on the language)</td>
<td>*-k</td>
</tr>
<tr>
<td>In, into</td>
<td>*-l'y</td>
</tr>
<tr>
<td>At, in, on</td>
<td>*-i</td>
</tr>
</tbody>
</table>

Proto-Yuman Word order:

Fairly strictly SOV
Sketch of Yavapai (especially Tolkapaya)
Pamela Munro, UCLA

0. Introduction

Yavapai is a language of the Northern Pai branch of the Yuman language family spoken in central Arizona. The language shows considerable dialect diversity: all examples here are from the Tolkapaya (Western) dialect. (Most of my data are from Molly Fasthorse, a speaker and collaborator I have worked with for almost 20 years, both in Los Angeles and on the Fort McDowell Reservation in Arizona. I am grateful to her, to Margaret Langdon, and to the other Yavapai specialists named in section 1 for their input into my analysis of Yavapai.)

This brief sketch was prepared at the request of Margaret Langdon and William H. Jacobsen, Jr., for comparison of Yavapai with other Hokan languages. It contains a survey of bibliography (section 1), pronominal reference and agreement (section 2), case marking and grammatical relations (section 3), and some other verbal inflection (section 4). Section 5 gives the abbreviations used.

I have not attempted here any description of Yavapai phonology or phonetics; they follow a standard Yuman pattern. (As is typical, for example, words include many underlying consonant clusters which are resolved by the phonology.) All data in this sketch are presented in the practical orthography of Munro and Fasthorse in preparation (1.3).

1. Annotated semi-bibliography

1.1. Important widely available sources

Kendall, Martha B. Selected Problems in Yavapai Syntax: The Verde Valley Diealect, New York: Garland, 1976. In a revision of her Indiana University dissertation, Kendall provides a clear outline of the syntax of this dialect and discussion of several syntactic problems.


Shaterian, Alan W. Yavapai Phonology and Dictionary, UC Berkeley Ph.D. dissertation, 1983. Shaterian presents a thorough study of the phonetics of Yavapai, incorporating material from all dialects. He includes a sketch of the morphology and extensive lexical material.

1.2. Other published sources

Published literature on Yavapai includes work on syntax and morphology by Sandra Chung, Bonnie Glover, Lynn Gordon, Hardy, Kendall, and Jeni Yamada; on phonology and phonetics by Munro, Shaterian, and Kimberly Thomas; as well as texts (by such native speakers as Molly Fasthorse). Yavapai data are also included in a number of works on comparative Yuman.

1.3. Other unpublished sources

The major unpublished source other than the dissertations by Hardy and Shaterian is my dictionary of Tolkapaya Yavapai (in progress, co-authored with Molly Fasthorse). The dictionary

179
now includes over 3500 Yavapai entries, with English definitions, etymologies, usage information and examples, and morphological analysis. When complete, it will include a full English index, a list of roots, and a detailed introduction. We currently hope to submit the dictionary for publication within a year.

2. Pronominal reference and agreement

2.1. Citation forms of the Tolkapaya independent pronouns are as follows:

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>first person</td>
<td>'nyá</td>
<td>'nyáchva</td>
</tr>
<tr>
<td>second person</td>
<td>máa</td>
<td>máchva</td>
</tr>
</tbody>
</table>

Demonstratives are used as third person pronouns. See (3) below re case marking.

2.2. The pronominal agreement system is an entirely typical Yuman system, with considerable homophony (puzzling to linguists, but rarely if ever a problem for speakers). Prefixes expressing combinations of subject and object person are obligatorily used on Tolkapaya transitive main verbs. In the chart below, subject persons are listed vertically and object persons horizontally.

<table>
<thead>
<tr>
<th>object</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>subject</td>
<td>1</td>
<td>ny-</td>
<td>'-'</td>
</tr>
<tr>
<td>2</td>
<td>'m-</td>
<td></td>
<td>m-</td>
</tr>
<tr>
<td>3</td>
<td>ny-</td>
<td>m-</td>
<td>(zero)</td>
</tr>
</tbody>
</table>

Thus, for example, first person subject > third person object is expressed with '–, and second person subject > first person object is expressed with 'm-. Here are some examples using verbs in the neutral "absolutive" form (a bare stem, suffixed with -i if consonant final):

"úú    'I see him'  
M'úú   'You see him' 
'm'úú  'You see me'  
Ny'úú  'I see you', 'He sees me'  
'úú    'He sees him'  

Masculine third person translations are used for convenience only; there is no gender in Yavapai.

Intransitive sentences use the third person object prefixes in the right column above:

'swári   'I sing'  
Mswári   'You sing'  
Swári    'He sings'  

There is no class of adjectives in Yavapai. Adjectival verbs inflect just like other intransitive verbs:

'háni. 'It's good', 'He's good'
'háni. 'I'm good'
M'háni. 'You're good'

Reflexive sentences are grammatically intransitive, using these same prefixes. (Reflexive sentences include either the invariant reflexive morpheme yéem or the lose-an-argument verb suffix -v or both.)

Tolkapaya has no imperative subject prefix. Imperatives are indistinguishable from other second-person subject absolutive verb forms (like those in these examples; see section (4)). Thus M'úu also means 'Look at him', 'm'úu is 'Look at me', and Mswáari is 'Sing'.

2.3. The subject-object agreement prefixes in (2.2) indicate person only, not number. Number agreement is indicated elsewhere in the verb word. Such agreement is generally, though not absolutely, required on main verbs, particularly with animate arguments.

Plural (i.e. non-singular) object agreement is indicated by a proclitic paa- which is initial in the verb word:

Paa'úu. 'He sees them'
Paam'úu. 'You see them', 'He sees you all'
Paa'am'úu. 'You see us'
Paaný'úu. 'I see you all', 'He sees us' etc.

Paa- is generally required with human plural objects. Its use with other animate plural objects and with inanimate plural objects is more sporadic.

Plural subjects are indicated by a modification of the verb stem. The regular plural subject morpheme is a suffix -ch:

'úuchi. 'They see it'
Paa'úuchi. 'They see us'
'úuchi. 'We see it'
Paaný'úuchi. 'We see you all', 'They see us'
Mswáarchi. 'You all sing' etc.

Subject number marking is lexical, however; not all verbs use -ch. Many verbs have irregular or suppletive plural subject forms. A few verbs show a distinction between singular, dual, and triplural (three or more) subject forms.

Many verbs also have lexically marked plural object forms or "plural action" forms showing intensity or repetition. Plural object paa- is used (as described above) even when a verb has a lexical plural object form. No systematic distinction between collective and distributive plural subject or object has been observed.

2.4. The same prefixes used to show intransitive subjects show possessors on nouns:

'yá 'my mouth'
myá 'your mouth'
yá 'his mouth'
(Possessed nouns with first and second person possessors often include a proclitic pronoun, and typically are followed by demonstrative suffixes. Thus a fuller way to express 'my mouth' would be nya'yáva, with proclitic (reduced) nya- 'me' and the proximate demonstrative -va.)

Many alienable possessed nouns include a possessive prefix ny-, which replaces a stem-initial ' in the unpossessed form:

\[
\begin{align*}
\text{'wá} & \quad \text{'house'} \\
\text{nywá} & \quad \text{'his house'} \\
\text{'nywá} & \quad \text{'my house'} \\
\text{mnywá} & \quad \text{'your house'}
\end{align*}
\]

Most Yavapai nouns do not distinguish singular and plural. Possessed nouns show a distinction between singular and plural possessor analogous to the singular-plural subject distinction described in (2.3) above through the suffixation of -ch (sometimes accompanied by other irregular changes, such as the change of the length of the stem vowel in this example):

\[
\begin{align*}
\text{nywáachá} & \quad \text{'their house'} \\
\text{mnywáachá} & \quad \text{'you all's house'}
\end{align*}
\]

(The nouns in this section are in the absolutive form, which includes an -a suffix on nouns with a consonantal non-case suffix and many other consonant-final lexical stems. Whether or not -a is added to consonant-final stems varies dialectally; Tolkapaya typically adds fewer such -a's than some other dialects.)

While marking of possession on alienables is essentially obligatory, in a number of expressions a body part object shows no possessive marking:

\[
\begin{align*}
\text{Yúu m-chthul-i} & \quad \text{'You wash your face'} \\
\text{face 2-wash-abs}
\end{align*}
\]

3. Case marking and grammatical relations

Tolkapaya has a typical Yuman case system, with five marked nominal cases. In addition, the unmarked form has clearly defined syntactic uses, so it is reasonable to describe Tolkapaya as having six syntactic cases.

3.1. Nominative case is indicated by a -ch or (more commonly) -che suffix. This case is used on subject nouns and pronouns. Its use is required on all types of subjects, regardless of the transitivity, stativity, etc., of the sentence or of the animacy, agency, etc., of the subject:

\[
\begin{align*}
\text{Vqf-v-che úú} & \quad \text{'The woman (here) sees it'} \\
\text{woman-prox-nom see}
\end{align*}
\]

\[
\begin{align*}
\text{Vqf-h-che swáar-i} & \quad \text{'The woman (there) sings'} \\
\text{woman-dist-nom sing-abs}
\end{align*}
\]

\[
\begin{align*}
\text{Vqf-che swáar-i} & \quad \text{'The woman sings', 'A woman sings'} \\
\text{woman-nom sing-abs}
\end{align*}
\]
'wá-che 'hán-i. 'The house is good'
house-nom be:good-abs

(Transitive examples are in 3.2 below.) As these examples suggest, demonstrative suffixes often occur on nouns in sentences, especially definites.

As illustrated by the examples in (2.2)-(2.3) above, inflected verbs may be used as complete one-word sentences. However, appropriately case-marked pronouns are often added to sentences, especially for emphasis or clarification:

'nyá-che ny-úu. 'I see you'
me-nom 1>2-see

Máčhv-che m-swáar-ch-i. 'You all sing'
you:pl-nom 2-sing-pl-abs

As these examples suggest, appropriate verb agreement for subject and object is required even in the presence of overt pronouns. (Tolkapaya is thus a pro-drop language.)

Predicate nominals in Yavapai are suffixed with -v-ch yú:

'wá-v-ch yú. 'It's a house'
house-prox-nom be

The yú in this sequence is clearly the verb yú 'be' (used as an auxiliary and as a main verb in locational sentences), but it has relatively weak stress in this construction, and is not pronounced separately. It does inflect, however:

Vqí-v-ch m-yú. 'You're a woman'
woman-prox-nom 2-be

The demonstrative -v is required on almost all predicate nouns in this construction, and the -che form of the nominative is never used.

3.2. Nouns are unmarked in citation form (as in the examples in (2.4)).

This same unmarked form is used for transitive objects:

Vqí m-úu. 'You see a woman'
woman 2-see

Vqí-v-a -'úu. 'I see the woman (here)'
woman-prox-abs

Vqí-v-che 'wá-h-a -úu. 'The woman (here) sees the house (there)'
woman-prox-nom house-dist-abs see

'nyá ny-úu. 'He sees me'
me 3>1-see

There is no other accusative case marking. (Thus, Tolkapaya violates one of Greenberg's original universals.) As before, demonstrative suffixes may appear on unmarked nouns, with absolutive -a
added to consonant-final forms as described in (2.4) above. Non-case-marked pronouns may optionally appear to clarify or emphasize first or second person objects, but are not required.

Unmarked nouns are also used for possessors:

\[ \text{Vqf ny-wá 'the woman's house'} \]
\[ \text{woman poss-house} \]

Case marking appears on the final element of a complex noun phrase, such as a possessed noun phrase:

\[ \text{Vqf ny-wá-v-che 'hán-i. 'The woman's house (here) is good'} \]
\[ \text{woman poss-house-prox-nom be:good-abs} \]

Unmarked noun forms are also generally used for subjects of nominal predicates:

\[ \text{Vqf ksyé-v-ch yú. 'The woman is a doctor'} \]
\[ \text{woman doctor-prox-nom be} \]

Occasionally speakers use nominatives for these subjects, however:

\[ \text{Vqf-che ksyé-v-ch yú.} \]
\[ \text{woman-nom doctor-prox-nom be} \]

Finally, speakers occasionally use unmarked forms in place of the marked non-subject case forms described in 3.3-3.6 below. Conditions under which this variation occurs warrant further study.

3.3. An -l suffix indicates a locative argument:

\[ \text{Vqf-v-che 'wa-v-l swáar-i. 'The woman (here) sings in the house (here)'} \]
\[ \text{woman-prox-nom house-prox-loc sing-abs} \]

3.4. An -m or (more rarely) -me suffix can have two meanings. It may indicate a 'with' (either instrumental or comitative) argument:

\[ \text{Vqf-v-che myd-l-a 'hkwá-m chkyá-t-i.} \]
\[ \text{woman-prox-nom bread-ABS knife-with cut-ABS 'The woman (here) cuts the bread with a knife'} \]

(This example contains three separate nouns. Few Yavapai clauses, if any, exhibit a higher NP density.) Alternatively, -m may be used as a directional suffix, generally translated into English with 'from' or 'by':

\[ 'wá-h-m '-yáam-i. 'I go from the house (e.g....to the tree)', 'I go by the house' \]
\[ \text{house-dist-m 1-go-abs} \]

3.5. A -k suffix indicates another type of directional argument, apparently emphasizing the endpoint of a motion.

\[ 'mát-k nál-i. 'It falls to the ground' \]
\[ \text{earth-k descend-abs} \]
Some uses of -k seem to be lexically specified:

’hát-k ’-wá. ’I ride horseback’
horse-k 1-sit

And in some cases, speakers report no difference between -k and -m (though further study might reveal usage differences):

’wá-h-k/m ’-ná-li. ’I get off at the house’
house-dist-k/m 1-descend-abs

3.6. A fourth oblique case marker, -e, expresses directed motion:

’wá-h-e ’-yáam-i. ’I go to the house’
house-dist-to 1-go-abs

3.7. As the examples above show, Yavapai uses SOV word order, and non-subject case-marked nouns generally occur in the object position, between the subject and the verb. Any non-subject noun may be preposed before the subject, and any noun may be postposed, but such variant words orders are extremely rare.

Yavapai has no syntactic passive or other relation-changing rules. Agentless passives can be expressed either by a sentence with an unspecified plural subject, or with a verb containing the derivational lose-an-argument -v suffix:

Yúre cthúl-ch-i. ’They washed the dress, The dress was washed’
dress wash-pl-abs

Yúre-ch cthúl-v-i. ’The dress was washed, The dress is washable’
dress-nom wash-lsarg-abs

4. Some other verbal inflection

4.1. All the verbs in the examples above include "absolutive" -i (zero following vowels). This form is used for citation forms of verbs, for imperatives, and for a neutral non-future.

The other simple non-future form has a suffix -ma. In simple sentences, this form generally is equivalent to the absolutive form (and it is more commonly used). Thus, for example, the last example above could be restated as

Yúre-ch cthúl-v-ma.

-Ma is not used on citation forms or in imperatives, however.

4.2. Yavapai subordinate clauses of almost all types are marked for switch-reference, showing whether the subject of the marked subordinate clause has the same or a different subject from some higher reference clause, usually but not always the immediately following clause. The same-subject suffix is -ka (or -k), and the different-subject suffix is -me (or -m):
Chcẖ-ch mán-ka hamány yúu chthúl-o-ma.
mother-nom rise-ss child face wash-app-tns
'The mother got up and washed the child's face'

Chcẖ-ch mán-me hamány-che yúu chthúl-o-ma.
mother-nom rise-ds child-nom face wash-app-tns
'The mother got up and the child washed her [e.g. the mother's] face'

Switch-reference is marked even when the presence of pronominal inflection would seem to render it redundant:

M-mán-ka yúu m-chthúl-ma. 'You got up and washed your face'
2-rise-ss face 2-wash-tns

'-mán-me yúu 'm-chthúl-o-ma. 'I got up and you washed my face'
1-rise-ds face 2>1-wash-app-tns

4.3. Yavapai has a large number of auxiliary constructions in which a main verb is followed by an auxiliary. The existential auxiliary construction, for example, can be used to specify an incompletes or completed action. In this construction, the lexical verb is followed by same-subject -k. The auxiliary is wi 'do' (for active transitive verbs), yú 'be' (for non-active or intransitive verbs), or 'i 'say' (for communication verbs). Both main verb and auxiliary are marked for person, although only the main verb is marked for number, and object prefixes appear only on the main verb. The auxiliary is suffixed with -m (for incompletive — note that wi-m becomes wúm) or -ny (for completive):

'-swáar-k '-i-m. 'I sing'
1-sing-ss 1-say-inc

'-swáar-k '-i-ny. 'I sang'
1-sing-ss 1-say-comp

A variety of other auxiliary constructions are used to express such disparate ideas as negation, future, progressive, and numerous adverbal, aspectual, and modal concepts.

5. Abbreviations used in the examples above include 1 = first person, 2 = second person, abs = absolutive, app = applicative, comp = completive, dist = distal demonstrative, ds = different subject, inc = incompletion, loc = locative, lsarg = lose-an-argument, nom = nominative, pl = plural, poss = possessed noun prefix, prox = proximate demonstrative, ss = same subject, tns = tense (-ma suffix).
Summary of Seri Pronominal Reference and Agreement

Stephen A. Marlett
SIL and the University of North Dakota

Independent pronouns (caseless) are rarely used. They do not distinguish number.
Verbs reference subject, direct object, and indirect object (the latter includes a very broad range of semantic roles). There is distinct morphology for all three types of reference, but no more than two person prefixes ever occur at one time on the verb (an interesting morphology twist). Subject and direct object reference includes person and number, but indirect object reference includes only person. Third person subject and direct object agreement is not overt, but when both are third person a special prefix appears on the verb.

<table>
<thead>
<tr>
<th>Indirect Object</th>
<th>Direct Object</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s ?m-</td>
<td>?im-</td>
<td>?- (tr.), ?p- (intr.)</td>
</tr>
<tr>
<td>1p ?aši-</td>
<td>?a-</td>
<td></td>
</tr>
<tr>
<td>2s ma-</td>
<td>ma-</td>
<td>m-</td>
</tr>
<tr>
<td>2p maši-</td>
<td>ma-</td>
<td></td>
</tr>
<tr>
<td>3 ko-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The verb stem indicates agreement in number with the subject (via stem changes and suffixes).

Body part nouns, relational nouns (for indicating position), and kinship nouns carry person prefixes to indicate possessor. The prefix set for kinship nouns is distinct from the "standard" set except in first person.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Kinship</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ?i-</td>
<td>?i-</td>
</tr>
<tr>
<td>2 mi-</td>
<td>ma-</td>
</tr>
<tr>
<td>3 i-</td>
<td>a-</td>
</tr>
<tr>
<td>Unposs.</td>
<td>?a-, ?ap-</td>
</tr>
</tbody>
</table>

There is no morphological case on nouns.
Word order is fairly strict (SOV).
Oaxaca Chontal (Tequistlatecan) Pronominal Reference
Viola Waterhouse and Margaret Langdon

Highland

Independent pronouns

<table>
<thead>
<tr>
<th>Person</th>
<th>1s</th>
<th>2s</th>
<th>1p</th>
<th>2p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>iyá?</td>
<td>imá?</td>
<td>iyák'</td>
<td>imá?</td>
</tr>
</tbody>
</table>

Non-past Subject Allomorphs

<table>
<thead>
<tr>
<th>Person</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set: 1a</td>
<td>ga-</td>
<td>do-</td>
<td>di-</td>
<td>al-</td>
<td>dol-</td>
<td>dí-</td>
</tr>
<tr>
<td>2a</td>
<td>gi-</td>
<td>day-</td>
<td>di-</td>
<td>li-</td>
<td>duli-</td>
<td>dl-</td>
</tr>
<tr>
<td>3a</td>
<td>gu-</td>
<td>do-</td>
<td>du-</td>
<td>lu-</td>
<td>dulu-</td>
<td>du-</td>
</tr>
<tr>
<td>4a</td>
<td>ga-</td>
<td>da-</td>
<td>de-</td>
<td>la-</td>
<td>dula-</td>
<td>de-</td>
</tr>
</tbody>
</table>

Past Subject Allomorphs

<table>
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<tr>
<th>Person</th>
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<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set: 1b</td>
<td>ay-</td>
<td>o/u-</td>
<td>i-</td>
<td>al-</td>
<td>ol-</td>
<td>i/i-</td>
</tr>
<tr>
<td>2b</td>
<td>ni-</td>
<td>mi-</td>
<td>i-</td>
<td>li-</td>
<td>oli-</td>
<td>l-</td>
</tr>
<tr>
<td>3b</td>
<td>nu-</td>
<td>mu-</td>
<td>u-</td>
<td>lu-</td>
<td>ulu-</td>
<td>u-</td>
</tr>
<tr>
<td>4b</td>
<td>ne-</td>
<td>me-</td>
<td>e-</td>
<td>la-</td>
<td>ula-</td>
<td>e-</td>
</tr>
</tbody>
</table>

Object pronominal affixes

<table>
<thead>
<tr>
<th>Person</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>al-, li-, lu-, la-</td>
<td>-órka?</td>
</tr>
<tr>
<td>2</td>
<td>-o?</td>
<td>-ólwo?</td>
</tr>
<tr>
<td>3</td>
<td>-ø</td>
<td>-ola?</td>
</tr>
</tbody>
</table>

Possessive prefixes on nouns

| ay, ayb, ayn | ‘my’ | al, aib, al | ‘our’ | Essentially the same as Highland |
| o, ob, om | ‘your’ (sg) | ol, ob, ul/unl | ‘your’ (pl) |
| i, ib, ø | ‘his, her, its’ | il, ib, il | ‘theirs’ |

NOTES:

Nouns are not marked for case.

Even when there are possessive prefixes, nouns take an initial prefix l- or l- ‘definite article’.

In Highland Chontal, the four allomorphs (1a-4a) of subject prefixes and the four allomorphs of the first person singular object prefix are conditioned by the class of the verb stem that follows. There is some evidence (as given in Richter 1982) that arbitrary verb classes may not be necessary if 1a occurs before consonant-initial stems, and the vowel of 2b-4b is analysed as stem initial.

Word order is mostly VSO, but fairly free.

Information for Highland is from Turner and Turner 1971.
01. The Physical World in Its Larger Aspects

01.100 world; mundo
?ant

01.210 earth, land; tierra=superficie no ocupada por el mar
?ant

01.212 earth=ground, soil; tierra=materia de que se compone el suelo
?ant, ?ant

01.213 dust; polvo
'xo̱e̱m̲a̱n̲a̱

01.214 mud; lodo, barro
--------

01.215 sand; arena
?amt kōXp

01.220 mountain, hill; montaña, loma, colina
?ast

01.222 cliff, precipice; risco, barranca, precipicio
šāx

01.230 plain, field; llanura, sabana, campo
--------

01.240 valley; valle
?ast kī? 'ikot

01.250 island; isla
?ant 'Xapa 'imak kīx

01.260 mainland; continente
?ant tākox

01.270 shore; ribera, playa, costa
'Xapa i'tī́ɫ

01.280 cave; cueva
šāx

01.310 water; agua
?aX

01.320 sea; mar
'Xapa

01.322 calm (of sea); bonancible, calmo (mar)
-6Xp

01.323 rough (of sea); borrascoso, agitado (mar)
-opatx

01.324 foam; espuma
?a'tasim

01.329 ocean; océano
'Xapa

01.330 lake; lago
?aX kākox

01.340 gulf, bay; golfo, bahía
i'nōk'w

01.341 lagoon; laguna
--------

01.342 reef; arrecife
Xatx

01.343 headland, point; punta
?ant 'iyat

01.350 wave; ola
?opatx

01.352 tide; marea
--------
01.353 low tide; bajamar, marea baja
'xox k"kotix

01.354 high tide; pleamar, marea alta
Xapa k pokatox

01.360 river, stream, brook; río, torrente, arroyo
?asox; ?ant ipaX

01.362 whirlpool; remolino
Xapa tof kpot

01.370 spring, well; pozol
?ant 'iot ?aX

01.380 swamp; pantano
?ant ko nopix

01.390 waterfall; cascada
---------

01.410 woods, forest; bosque, selva
---------

01.420 tree (cf. 08.600); árbol
'?a? ?ant 'kiti

01.430 wood; madera
'?a? a

01.440 stone, rock; piedra, roca
?ast

01.450 earthquake; terremoto, temblor de tierra
?ant i 'silixim; ?ant yakwš

01.510 sky; cielo
'a'mima

01.520 sun; sol
ša?

01.530 moon; luna
'šaX

01.540 star; estrella
'šox

01.550 lightning; relámpago
'xanx

01.560 thunder; trueno
Inx

02. Mankind: Sex, Age, Family Relationship

02.410 son; hijo
-säk; 'Ikat

02.420 daughter; hija
-šäk; 'Ikat

02.430 offspring (son or daughter); hijo o hija
(término que sirva para referirse indiscriminadamente tanto a uno como a otra, prole)
'Ikat; 'yäsš

02.440 brother; hermano
---------

02.444 older brother; hermano mayor
-šäk; -mäk

02.445 younger brother; hermano menor
-ašš; -ašă

02.450 sister; hermana
---------

02.454 older sister; hermana mayor
-päk; -šäk

02.455 younger sister; hermana menor
-köme; -atkš

---

13 'xox k"kotix/: Xox ko-k-ötix/ 'land (seen from sea) 3.I.O.-NOMZR.-dry'.
14 Xapa k pokatox/ Xapa k pokatox/ 'sea NOMZR.-full.PL.'
15 ?ant ipaX/ ?ant i-Ø-apšx/ 'land 3.POS.-NOMZR.-tear'.
16 Xapa tof kpot/ Xapa tof k-pot/ 'sea away NOMZR.-spin'.
17 ?ant 'iot ?aX/ ?ant i-apot ?aX/ 'land 3.POS.-below water'.
18 ?ant ko nopix/ ?ant k-o-nopix/ 'land NOMZR.-UNSPECIFIED.OBJ.-make.sink'.
19 '?a? ?ant 'kiti/ '?a? ?ant k-iti/ 'plant land NOMZR.-established'.
sibling: hermano, hermana

02.456 o' yakx

02.458 twins; gemelos, mellizos

02.460 grandfathers; abuelo

02.461 old man; anciano, viejo (sust)

02.470 grandmother, abuela

02.471 old woman; anciana, vieja (sust)

02.480 grandson; nieto

02.490 granddaughter; nieta

02.510 uncle; tío

02.511 mother's brother; tío materno,
hermano de la madre

02.512 father's brother; tío paterno, hermano
del padre

02.520 aunt; tía

02.521 mother's sister; tía materna, hermana
de la madre

02.522 father's sister; tía paterna, hermana
del padre

nephew; sobrino (tomar en cuenta si
hay distinciones como hijo de
hanomn/hijo de hermana)

02.530 -āk, -ak'a?ax, -apxas,
-htaš; -tka?ax, -sōk

02.540 niece; sobrina (tomar en cuenta si
hay distinciones como hijo de hermano/hijo
de hermana)

same as 2.530

02.550 cousin; primo, prima (tomar en cuenta si
se diferencian primos paralelos de
primos cruzados)

ámo o' yakx

02.560 ancestors; antepasados

?antX 'mokat

02.570 descendants; descendientes

'iyat k'kōkp

02.610 father-in-law (of a man); suegro (de
hombre)

-ā'kākt ktm

02.611 father-in-law (of a woman); suegra (de
mujer)

-kēpeš

02.620 mother-in-law (of a man); suegra (de
hombre)

-ā'kākt kmām

02.621 mother-in-law (of a woman); suegra (de
mujer)

-kēmaš

son-in-law (of a man); yerno (de
hombre)

-ka'kam

02.630 son-in-law (of a woman); yerno (de
mujer)

-ka'kam

30 /o' yakx/: /i-o-yakx/ '3.POS.-
nomzr.-call.sibling'.

31 /a' ti'okx/: /i-ti-o-yakx/ '3.POS.-
nomzr.-call. twin'.

32 /-aaš/ 'father's father'; /-aaš/
'mother's father'.

33 /-amaš/ 'mother's mother'; /-amaš/
'father's mother'.

34 /-kasaš/ 'man's son's child'; /-kasaš/
'woman's daughter's child'; /-kāk/
'woman's son's child'.

35 /-kasaš/ 'man's son's child'; /-kasaš/
'woman's daughter's child'; /-kāk/
'woman's son's child'.

36 /-s̄i/, is used less than /-s̄i/.

37 /-tma?ax/ 'older brother of father';

38 /-ntak/ 'younger sister of mother'.

39 /-ūk/ 'child of sister of man';

40 /ā'kēkt ktm/: /ā'kēkt ktm/ 'parent-in-law male'.

41 /i-ayat ko-k-āt/ 'base toward-nomzr.-move.pl'.

42 /'iyat k'kōkp/: /i-ayat

43 /-ā'kēkt ktm/: /ā'kēkt ktm/ 'parent-in-law male'.

44 /-ā'kēkt kmām/: /ā'kēkt kmām/ 'parent-in-law female'.
02.640 daughter-in-law (of a man); nuera (de hombre)
-kamash
02.641 daughter-in-law (of a woman); nuera (de mujer)
-kamash
02.710 stepfather; padrastro\textsuperscript{45}
kiko'mikat ktm\textsuperscript{46}
02.720 stepmother; madrastra\textsuperscript{46}
kiko'mikat km\textsuperscript{46}
02.730 stepson; hijastro
-ko'mik\textsuperscript{46}
02.740 stepdaughter; hijastra
-ko'mik\textsuperscript{46}
02.750 orphan; huérfano, huérfana\textsuperscript{47}
'patiX koit
02.760 widow; viuda\textsuperscript{48}
m\textsuperscript{48} km\textsuperscript{48} i'?omak ki?
02.770 widower; viudo\textsuperscript{49}
ktam i'?omak ki?
0.810 relatives, kinsmen; parientes, parentela\textsuperscript{50}
-šmlyat; 'i?á o'koa; 'Xika ki'?in ka'yaXi
02.820 family; familia
?a'm\textsuperscript{46}n
02.910 I; yo
'?a
02.920 you (singular); tú, usted
'tma
02.930 he/she/it; él, ella, ello\textsuperscript{51}
'\textsuperscript{51}a
02.940 we; nosotros, nosotras
'?a

\textsuperscript{45} /kiko'mikat ktm/: /k-iko'mikat ktm/ 'NOMZR.-be.stepparent.to male'.
\textsuperscript{46} /kiko'mikat km\textsuperscript{46}/: /k-iko'mikat km\textsuperscript{46}/ 'NOMZR.-be.stepparent.to female'.
\textsuperscript{47} '/patiX koit/: /patiX k-oit/ '??? NOMZR.-go'.
\textsuperscript{48} '/km\textsuperscript{48}m i'?omak ki?:/ /km\textsuperscript{48}m i'?omak k-i?/ 'woman alone NOMZR.-be'.
\textsuperscript{49} '/ktam i'?omak ki?:/ /ktam i'?omak k-i?/ 'man alone NOMZR.-be'.
\textsuperscript{50} '/i?á o'koa/: /i-\textsuperscript{50}-a? a i-ok-o-a/ '3.POS.-NOMZR.-have 3.POS.-NOMZR.-know'; '/Xika ki'?in ka'yaXi:/ /Xika ki'?in k-\textsuperscript{50}-yaXi:/ 'things 3.POS.-corca NOMZR.-AUG.-be.measured'.
\textsuperscript{51} '/a/': only used pejoratively, and very rare; typically a demonstrative pronoun such as /t1X/ 'that one' is used.

02.941 we (inclusive); nosotros, nosotras (inclusivo)
--------
02.942 we (exclusive); nosotros, nosotras (exclusivo)
--------
02.950 you (plural); ustedes
'tma
02.960 they; ellos, ellas
--------

03. Animals

03.110 animal; animal\textsuperscript{52}
\textsuperscript{52} /šIX kkam/: /šIX k-kam/ 'thing NOMZR.-alive'.
03.120 male (adj); masculino, macho
ktam
03.130 female (adj); femenino, hembra
km\textsuperscript{46}m
03.150 livestock; ganado
--------
03.160 pasture; pradera, potrero
--------
03.180 herdsman; pastor, vaquero\textsuperscript{53}
\textsuperscript{53} # 'yakya\textsuperscript{53}
03.190 stable, stall; estable
--------
03.200 cattle (bovine); ganado (bovino)\textsuperscript{54}
?\textsuperscript{54}n
03.210 bull; toro\textsuperscript{55}
\textsuperscript{55} /šIX 'kô?a ktm/
03.220 ox; buey
'iyas
03.230 cow; vaca\textsuperscript{56}
\textsuperscript{56} /šIX 'kô?a
03.240 calf; becerro, ternero
--------
03.250 sheep; oveja (término para referirse a ambos sexos indiferenciadamente)\textsuperscript{57}
\textsuperscript{57} # kâ\textsuperscript{57}
03.260 ram; carnero, morueco
--------
03.280 ewe; oveja
--------

\textsuperscript{52} /šIX kkam/: /šIX k-kam/ 'thing NOMZR.-alive'.
\textsuperscript{53} From Spanish vaquero.
\textsuperscript{54} Probably onomatopoeic.
\textsuperscript{55} /šIX 'kô?a ktm/: /šIX k-\textsuperscript{55}?a ktm/ 'thing NOMZR.-cry male'.
\textsuperscript{56} /šIX 'kô?a/: /šIX k-\textsuperscript{56}?a/ 'thing NOMZR.-cry'.
\textsuperscript{57} From Spanish cabra.
03.290 lamb; borrego, cordero
# kāż 't?äkæ
03.320 boar; jabali, puerco montés
šIX kik's, štIX 'ina kik's
03.340 sow; cerda, puercu
---------
03.350 pig; cerdo, puerco
šIX ?a'kapXom
03.360 goat; cabra
# 'säšō
03.370 he-goat; chivo, macho cabrío
---------
03.380 kid; cabrito
---------
03.410 horse (equine); caballo
# kāy
03.420 stallion; caballo padre, semental
---------
03.440 mare; yegua
---------
03.450 foal, colt; potro, potrillo
---------
03.460 ass, donkey; asno, burro
# '?o?řa; šIX 'ina kōskį;
šIX ya'koso 'kaïxax
03.470 mule; mulo, mula
# '?a'mōřa, šIX ?ant 'kōtōX
03.500 fowl; ave (de corral)

03.520 cock, rooster; gallo
# 'tōtař ktam
03.540 hen; gallina
(same as 3.550)
03.550 chicken; pollo
# 'tōtař
03.560 goose; ganso
'i'koixak
03.570 duck; pato
Species: 'gąię, kē, kōńk, 'xa'toskį'
03.580 nest; nido
'imæ
03.581 bird; ave, pájaro
šIK
03.582 seagull; gaviota
?onk
03.584 eagle; águila
Species: šąp, 'koša 'kōśiit
03.585 hawk; gavián, halcón
Species: 'sīmæn, ko'išō, 'sipox
03.586 vulture; buitre
Species: 'nàpXa, ko'kīmat
03.591 bat; murciélagos
'sēnéš sat
03.592 parrot; loro
šāž, k'žaš
03.593 crow; cuervo
'?anax
03.594 dove; paloma
ko'yošo
03.596 owl; lechuza, búho
Species: 'nōkæn, kãmx', sa?,
tox'kitakx, ?ant ano 'kama,
'?a?ša i'tišX kōx', i'tāšt
ta'xiš

65 '/tōtař ktam/: /tōtař ktam/
'chicken male'. /tōtař/ is a loanword
from Yaqui.

66 /tōtař/ is a loanword from Yaqui.

67 /'onk/: Probably onomatopoetic.

68 /'koša 'kōśiit/: /koša k-o-a?iit/
'high NOMZR.-UNSPECIFIED.OBJ.-eat'.

69 /'sēnéš sat/ is a species of moth.

70 Probably onomatopoetic.

71 /kāmæ': /k-ax': 'NOMZR.-hunt';
?ant ano 'kama/: /?ant ō-anó
k-ama/, 'land 3.POS.-in NOMZR.-live';
'/?a?ša i'tišX kōx'/: /?a?ša
i'tišX k-o-aX'/ 'plant 3.POS.-penis
NOMZR.-UNSPECIFIED.OBJ.-defecate';
/i'tāšt ka'xiš/: /i-tāšt
03.610 dog; perro
?aXš

03.614 rabbit; conejo
'?apXa, ?ž, 'tăpož

03.620 cat; gato
šix ka'năo

03.622 opossum; zarigüeya
-----

03.630 mouse, rat; ratón, rata
Species: šix 'tāsax ańo kix, Xpos, ka'sōʔo, šix ko'köl

03.650 fish; pescado
šix 'kəm

03.652 fin (dorsal); aleta (dorsal)
-yaxAX, -yaśim; -yəsən

03.653 fishscale; escama
-yəsən

03.654 gill; agalla
-ams

03.655 shell; concha, valva
'?axw' i 'naįi

03.661 shark; tiburón
'?akat

03.662 porpoise; delfín
takx

03.663 whale; ballena
šix ?apX kōm; '?akim

03.664 stingray; raya, pastinaca
ka'mäina; ka'matni; kotx

k-ā-xiš/ '3.POS.tooth NOMZR.-AUG.-painful'.
72 /?aXš/: /?a-axš/ 'ABS-pet'.
73 /?apXa/ 'cotton-tail rabbit'; /?ž/ 'white-sided jackrabbit'; /tə/ 'black-tailed jackrabbit'.
74 /šix ka'năo/: /šix k-a'năo/ 'thing NOMZR.-meow'.
75 /šix tāsax ańo kix/: /šix tāsax ø-anô k-ix/ 'thing rat's nest' 3.POS.-in NOMZR.-sit'; /šix ko'köl/: /šix k-o-köl/ 'thing NOMZR.-UNSPECIFIED.OBJ.-carry.in many.trips'.
76 /šix 'kəm/: etymologically from /šix k-ka'm/ 'thing NOMZR.-alive'.
77 /-yaśim/ 'fin of edible fish'; /-yəsən/ 'fin of sea lion'.
78 /?axw' i 'naįi/: /?axw' i-naihift/ 'clam 3.POS.-skin'.
79 /?akim/ is archaic. /šix ?apX kōm/: /šix ?apX k-ōm/ 'thing outside NOMZR.-lie'.
80 /ka'matni/: etymologically related to /-a'matnott/ 'give electric shock'.

03.665 freshwater eel; anguilla de agua dulce
-----

03.710 wolf; lobo
'Xakox

03.720 lion; león
'xašox; 'tonom

03.730 bear; oso
-----

03.740 fox; zorro
Xás

03.750 deer; venado, ciervo
?ap; '?apam

03.760 monkey; mono
# 'mōnə

03.770 elephant; elefante
-----

03.780 camel; cameló
-----

03.810 insect; insecto
-----

03.811 louse; piojo
?-ask; -ai

03.812 nit (louse egg); liendre
?ai i 'Xak

03.813 flea; pulga
?axš ɪ

03.814 centipede; ciempiés
Species: kšipX kílité, koašx

03.815 scorpion; alacrán
Species: šix paix ańo kōm, koa'Xak, šix ko'kašx

03.816 cockroach; cucaracha
'Xapix ańo kōm

03.817 ant; hormiga
'kōtax

81 /'xašox/ 'mountain lion'; /'tonom/ 'African lion'.
82 /?ap/ 'muledeer'; /?apam/ 'white tailed deer'.
83 From Spanish mono.
84 /-ask/ 'white louse'; /-ai/ 'black louse'.
85 /?ai i 'Xak/: /?ai i-Xak/ 'black.louse 3.POS.-louse.egg'.
86 /?axš ɪ/: /?a-axš i-ai/ 'ABS-pet 3.POS.-black.louse'.
87 /šix paix ańo kōm/: /šix paix ø-anô k-ōm/ 'thing driftwood 3.POS.-in NOMZR.-lie'; /šix ko'kašx/: /šix k-o-kašx/ 'thing NOMZR.-UNSPECIFIED.OBJ.-tie.REP'.
88 /'Xapix ańo kōm/: /'Xapix ø-anô k-ōm/ 'reed 3.POS.-in NOMZR.-lie'.

03.818 spider; araña
Species: koiš, ?ant kā́ł
03.819 spider web; telaraña
koiš İme; konšait
03.820 bee; abeja
# pa'nā́ł k'kam; ?ant ano k'ka?
03.821 beeswax; cera de abeja
# pa'nā́ł ano ya'mäxl
03.822 beehive; colmena
# pa'nā́ł İme
03.823 wasp; avispa
Species: ?aX kā́tx", sā́ix pti im'mäktim, kisx İxš
03.830 fly; mosca
Species: 'Xkōmox, 'kopni an 'kinex
03.831 sandfly (midge); jején
šIX ko'k'ösí
03.832 mosquito; zancudo, mosquito
košamška'mäk"ž, šIX ko'k'ösí
03.840 worm; lombriz, gusano
po'tá

04. Parts of the Body; Bodily Functions and Conditions

04.110 body; cuerpo
-asox
04.120 skin, hide; piel, cutis, pellejo
-naiž
04.130 flesh; carne
-pΧasi
04.140 hair (head); cabello, pelo
-šit
04.142 beard; barba
-təms
04.144 body hair; vello (del cuerpo)
-ana
04.145 pubic hair; pelo público
-amas

89 /?ant kā́ł/: /?ant kā́ł/ 'land youngest child of pregnant woman'.
90 /koiš İme/: /koiš i-ēma/ 'spider.(species) 3.POS.-home'.
91 /pa'nā́ł k'kam/: /pa'nā́ł k-kam/ 'honey NOMZR.-alive'; /?ant ano k'ka?: /?ant 0-an k-Ca?/ 'land 3.POS.-in NOMZR.-make.sound'. From Spanish para.
93 /pa'nā́ł İme/: /pa'nā́ł i-ēma/ 'honey 3.POS.-home'. From Spanish para.
94 /?aX kā́tx": /?aX kā́tx"/ 'water ???'; /sā́ix pti im'mäktim/
/sā́ix pti i-m-Caktim/ 'wasp together NOMZR.-NEG-do'; /kisx İxš/: /k-ısx i-aXš/ 'NOMZR.-dim 3.POS.-pet'.
95 /'kopni an 'kinex/: /kopni 0-an k-imän/ 'bumblebee 3.POS.-in NOMZR.-empty'.
96 /šIX ko'k'ösí/: /šIX k-okos-asi/ 'thing NOMZR.-UNSPECIFIED.OBJ.-drink'.
97 /košamška'mäk"ž/: the part /ak"ž/: means 'big.PL. '; /šIX ko'k'ösí/: /šIX k-okoso-asi/ 'thing NOMZR.-UNSPECIFIED.OBJ.-drink'.
98 /šIX anX"'kā́ltim/: /šIX anX" k-ā́ltim/ 'thing much NOMZR.-do'.
99 /šIX ?aX ano kİx/: /šIX ?aX 0-an k-İx/ 'thing water 3.POS.-in NOMZR.-sit'.
100 /'Xapa ano '?épni/: /'Xapa 0-anо k-İx/ 'sea 3.POS.-iguana'; /'Xapa ano 'päsä'/ /'Xapa 0-anо päsä/ 'sea 3.POS.-in gila.monster'.
101 /šIX ʔaʔat k"kİx/: /šIX ʔaʔat ko-k-İx/ 'thing plant-PL 3.IO.-NOMZR.-sit'.
04.146  dandruff; caspa
?aat'it an yaski
04.150  blood; sangre
?a't
04.151  vein, artery; vena, arteria
?a't k'i? ano 'yañin
04.160  bone; hueso
-atak
04.162  rib; costilla
-åśax
04.170  horn; cuerno
-tamañka
04.180  tail; cola
-åp, -åpax'
04.190  back; espalda
-pokx
04.191  spine; espinazo, columna vertebral
'itak ?ant kōm, i'pokx 'itak
04.200  head; cabeza
-tit
04.201  side of head, temple; sien
-tamx
04.202  skull; calavera
-åt'ënokox
04.203  brain; cerebro, sesos
-åt'ënõš
04.204  face; cara
-yän
04.205  forehead; frente
-åšk
04.207  jaw; mandíbula
-taka
04.208  cheek; mejilla
yën kipk'
04.209  chin; barbilla, mentón
-ta'ënokni
04.210  eye; ojo
-ato
04.212  eyebrow; ceja
-ato'kams

04.213  eyelid; párpado
'ito i'naiñ, 'ito 'ipak
04.214  eyelash; pestaña
'itox ipš
04.215  blink; parpadear
-oaXüim
04.220  ear; oreja
-asña
04.221  earlobe; lóbulo (de la oreja)
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04.222  earwax; cerumen, cera del oído
-stitX i'?isk
04.230  nose; nariz
-åp
04.231  nostril; ventana de la nariz
-åpñix
04.232  mucus (nasal); moco
-ønæ
04.240  mouth; boca
-ata, -tän
04.241  beak; pico
-åp
04.250  lip; labio
-ta'mox; -ta'kops
04.260  tongue; lengua
-åpš
04.270  tooth; diente
-täst
04.271  gums; encías
-täst iti ihom
04.272  molars; molar, muela
-täst Xapx
04.280  neck; cuello
-yáp
04.281  nape of neck; nuca
-tXaí

102 /?aat'it an yaski/: /?aat Ø-an i-y-åsk/ 'ABS.-head 3.POS.-in 3.POS.-NOMZR.-gray'.
103 /-åpax'/ 'tail of fish'.
104 /'itak ?ant kōm/: /i-atak ?ant k-åm/ '3.POS.-bone down NOMZR.-lie';
/i'pokx 'itak/: /i-pokx i-atak/ '3.POS.-back 3.POS.-bone'.
105 Compare 04.200.
106 Compare 04.200.
107 /yën kipk'/: /i-yën k-ipk'/ '3.POS.-face NOMZR.-thick'.
108 /'ito i'naiñ/: /i-ato i-naiñ/ '3.POS.-eye 3.POS.-skin'; /'ito 'ipak/: /i-ato i-apak/ '3.POS.-eye 3.POS.-behind'.
109 /'itox ipš/: /i-atox i-apš/ '3.POS.-eyes 3.POS.-eyelash'.
110 /-stitX i'?isk/: /-stitX i'?isk/ 'ear 3.POS.-NOMZR.-rustle'.
111 /-tän/ 'interior of mouth'.
112 /-ta'mox/ 'lower lip'; /-ta'kops/ 'upper lip'.
113 /-täst iti i?om/: /-täst i-at i-å-åm/ 'tooth 3.POS.-base 3.POS.-NOMZR.-tie'.
114 /-täst Xapx/: /-täst Xapx/ 'tooth ?i?'.
04.290 *throat; garganta*  
-apos, -ápnx

04.300 *shoulder; hombro*  
-slíax

04.301 *shoulderblade; escapula, omóplato*  
-nsítxk

04.302 *collarbone; clavícula*  
-ʔänxʷ

04.310 *arm; brazo*  
-anoí, -akʷs -yäpX, -slík, -šaʔíxʷ

04.312 *armpit; sobaco, axila*  
-škapX³a

04.320 *elbow; codo*  
-akʷs i'mašxix

04.321 *wrist; muñeca*  
-ya'nopx it

04.330 *hand; mano*  
-anoí

04.331 *palm of hand; palma de la mano*  
-šítk, 'inoí kí? šíš

04.340 *finger; dedo*  
-anoí

04.342 *thumb; pulgar*  
-anoíškox

04.344 *fingernail; uña*  
-nóšx

04.345 *claw; garra*  
-nóšx

04.350 *leg; pierna, pata*  
-toá, -apiax, -apot

04.351 *thigh; muslo*  
-tákXim

04.352 *calve of leg; pantorrilla*  
-apiax, -apot

04.360 *knee; rodilla*  
-áškík

04.370 *foot; pie*  
-toá

04.371 *ankle; tobillo*  
-yäkX³

04.372 *heel; talón*  
-nša⁺

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04.374 *footprint; huella*  
-ʔmiʔa

04.380 *toe; dedo del pie*  
-toá

04.392 *wing; ala*  
-aksx, -yäpX

04.393 *feather; pluma*  
-ana, -yaʔpana

04.400 *chest; pecho*  
-apiaš, -aták

04.410 *breast (of woman); teta*  
-amt

04.412 *nipple, teat; pezón*  
-amt iʔtán

04.420 *udder; ubre*  
-amaX

04.430 *navel; ombligo*  
-tóšx iʔtíp

04.440 *heart; corazón*  
-amoš

04.441 *lung; pulmón*  
-askt

04.450 *liver; hígado*  
-ayás

04.451 *kidney; riñón*  
-yaʔtótX²

04.452 *spleen; bazo*  
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04.460 *stomach; estómago*  
ano -yaʔit

04.461 *intestines, guts; intestinos, tripas*  
-tóšx

04.462 *waist; cintura*  
-atx

04.463 *hip; cadera*  
-ašniʔpatx

04.464 *buttocks; nalgas*  
-atX

04.470 *womb; matriz, vientre*  
-an -ʔikto

04.490 *testicle; testículo*  
-atk

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115 /-yäpX/ is archaic.
116 /-akʷs i'mašxix/- is archaic.
117 /-ya'nopx it/ is archaic.
118 /'inoí kí? šíš/ is archaic.
119 /-ʔmiʔa/ is archaic.
120 /-amt iʔtán/ is archaic.
121 /-tóšx iʔtíp/ is archaic.
122 /ano -yaʔit/ is archaic.
123 /an -ʔikto/ is archaic.
04.492 penis; pene  
-atišX, -atX'wít

04.510 breathe, breath; respirar, aliento  
-ásX

04.520 yawn, gape; bostezar  
-ášX

04.521 hiccup; hipar, tener hipo  
-i't

04.530 cough; toser  
-ášX

04.540 sneeze; estornudar  
-á?šX

04.550 perspire; sudar  
-i'?amax

04.560 spit; escupir  
-atp

04.570 vomit; vomitar  
-atXw

04.580 bite; morder  
-kaXox, -kašni, -katXw, -kat

04.590 lick; lamer  
-apš

04.591 dribble; babear  
-išaka

04.610 sleep; dormir  
-šm

04.612 snore; roncar  
-šXniš

04.620 dream; soñar  
-mōši

04.630 wake up; despertarse  
-akaX, -aš

04.640 break wind; ventosear, peer  
-atX

04.650 urinate; orinar  
-i'pni, -šta

04.660 defecate; defecar, cagar  
-axw

04.670 have sexual intercourse; tener relaciones sexuales  
-Ix -aštam

04.680 shiver; temblar  
-IXpXax, -XapXw, -Xapšk

04.690 bathe; bañar(se)  
?aX ano -ašim

04.710 beget (of father); engendrar  

04.720 born (to be); nacer  
-patšk

04.730 pregnant; embarazada, preñada  
šIX is'Xän no -i'? / -Iškat, -yaša

04.732 conceive; concebir  

04.740 live, living, life; vivir, vivo, vida  
-kam

04.750 die, dead; morir, muerto  
?akX -mš?; i'mišša -?a

04.751 drowned: ahogado  
'Xapa ki? ?akX -mš?

04.760 kill; matar  
-akš

04.770 corpse; cadáver  
šIX ?akX kmš?

04.780 bury (the dead); sepultar  
mišš X akš -a?

04.790 grave, tomb; tumba  

04.810 strong, mighty, powerful; fuerte, poderoso  
-aišaX

04.820 weak; débil  
-mo'tomn

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128 /šIX is'Xän no -i'?/: /šIX i-šśen 0-an 0-?/: 'thing 3.POS.-womb 3.POS.-in be'; /yaša/ is used about animals.

129 /?akX -mš?: 'somewhere not.exist'; /i'mišša -?a/: /i-0-mišša -?a/: '3.POS.-NOMZR.-bad be'.

130 /'Xapa ki? ?akX -mš?: /Xapa ki? ?akX -mš?/: 'sea the somewhere not.exist'. The verb in this expression requires the prefix /ko-/ '3.IO.'.

131 /šIX ?akX kmš?: /šIX ?akX k-mš?: 'thing somewhere NOMZR.-not.exist'.

132 /mišš X akš -a?/: 'well somewhere put'.


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04.830 well, health: sano, salud
mišx ?akX -yäno

04.840 sick, sickness; enfermo, enfermedad
-mo'käpæ

04.841 fever; fiebre
ika'matx

04.842 goiter; bocio, coto
-----

04.843 cold (catarrh); catarro
?a'itæp 'ko'a (tener)

04.850 wound, sore; llaga, herida
šIX ?a'náił it ?apX kIX

04.852 bruise; contusión, magulladura, cardenal
anX' ika koït

04.853 swelling; hincharón
-pætæ (hinchado)

04.854 itch; comezón, picazón
-simta (hormigoso)

04.855 blister; ampolla
?ax kpoxt

04.856 boil (noun); furúnculo, forúnculo
iki?i'kai

04.857 pus; pus
-täp

04.858 scar; cicatriz
ika'mapX

04.860 cure, heal; curar
-ata

04.870 physician; médico
šIX ?apsX 'käi-tim

04.880 medicine, drug; medicina, remedio
šIX Ix k'ix'i?Ipa

04.890 poison; veneno
i'koanx

04.910 tired, weary; cansado
'IXax ki? -inæx

04.912 rest; descansar
?ant -oka

04.920 lazy; perezoso
IXk -ama

04.930 bald; calvo
is'Xap -mišx

04.940 lane; listado
-----

04.950 deaf; sordo
imo'kæ

04.960 mute; mudelo
i'maitom

04.970 blind; ciego
-?ak

04.980 intoxicated; ebrio, borracho
-mo'šimæ

04.990 naked, bare; desnudo
-i'ìnæx

05. Food and Drink; Cooking and Utensils

05.110 eat; comer
-a?it

134 /mišx ?akX -yäno/: /mišx ?akX -i-yäno-o/ 'well somewhere with-face-???'.

135 /ika'matx/: /i-ø-ka-matx/
3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-hot'.

136 /a'itæp 'ko'a/: /a-tæp ko-?-a/
ABS.-mucous 3.IO.-NOMZR-be'.

137 /šIX ?a'náił it ?apX kIX/: /šIX ?a'náił i-atì ?apX k-1x/ 'thing
ABS.-skin 3.POS.-on outside NOMZR.-sit'.

138 /anX' ika koït/: /anX' i-k-a
k-oi/ 'much 3.POS.-NOMZR.-be
NOMZR.-blue/green'.

139 /aX kpoxt/: /aX k-poxt/ 'water
NOMZR.-full'.

140 /iki?i'kai/: /i-ka-i'kai/
3.POS.-UNSPECIFIED.SUBJ.-have.skin.eruption'.

141 /ika'mapX/: /i-ø-ka-mapX/
3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-burst'.

142 /šIX ?apsX 'käitim/: /šIX ?apsX k-äitim/ 'thing ?? NOMZR-do-REP.'

143 /šIX Ix k'ix'i?Ipa/: /šIX i-ak
ko-i-?-Ipa/ 'thing 3.POS.-side 3.IO.-3.POS.-NOMZR.-good'.

144 /i'koanx/: /i-ø-koanx/ 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-poisonous'.

145 /'IXax ki? -inæx/: /i-ø-aiXax
ki? -inæx/ '3.POS.-NOMZR.-strong the
empty'.

146 /?ant -oka/ 'down rest'.

147 /IXk -ama/: /i-akk -ama/
3.POS.-strength used.up'.

148 /is'Xap -mišx/: /i-sXap -mišx/
3.POS.-top clean'.

149 /imo'kæ/: /i-m-o'kæ/ 'NOMZR.-NEG.-bear.well'.

150 /i'maitom/: /i-m-aitom/
'NOMZR.-NEG.-talk'.
05.120 food; comida
?apa\'it
05.121 cooked; cocinado
------
05.122 raw; crudo
-is
05.123 ripe; maduro
-mam
05.124 green, unripe; no maduro, verde, tierno (frutas)
------
05.125 rotten; podrido
-as\'a
05.130 drink; beber
-as\'i
05.140 hunger; hambre
ps\'ak -oxi
05.141 famine; hambruna
------
05.150 thirst; sed
?ama\'atx -oxi
05.160 suck; chupar
-ap\'i\'ak, -apis
05.180 chew; masticar
-kanax
05.181 swallow; tragar
-am
05.190 choke; asfixiar, atragantarse
-ap\'ak
05.210 cook; cocinar
-a\'ama, -a\'sto\'ok, -asnix
05.220 boil (vb); hervir
-\'ox\'atx\'oxi
05.230 roast, fry; asar, freir
-a\'amakat, -as\'ni
05.240 bake; hornear
------
05.250 oven; horn\'o
an ika\'simet
------
05.260 pot, cooking vessel; olla
?amkano\'in
05.270 kettle; marmita, caldera
?amkano\'in
05.280 pan; cacerola, cazuela
# 'anim kix kipa
05.310 dish; fuente
\'sik iti i\'k\'\'o\'it
05.320 plate; plato
\'sik iti i\'k\'\'o\'it
05.330 bowl; taz\'on
\'sik itiika\'tap\'x
05.340 pitcher, jug; pichel, jarro
------
05.350 cup, drinking vessel; taza, copa
# t\'asa
05.360 saucer; platillo
------
05.370 spoon; cuchara
# yam? a\'ax\'u
05.380 knife; cuchillo (para cortar comida)
# 'anim
05.390 fork; tenedor
# 'anim kin\'la\'ak
05.391 tongs; tenazas
\'sik i\'a\'ka\'sinot
05.410 meal; comida
------

151 /\'apa\'it/: /\'-ap-a\'it/
NOMZR.-PAS.-eat.
152 /ps\'ak -oxi/ 'hunger die'.
153 /\'ama\'atx -oxi/ 'thirst die'.
154 /a\'ama, /-a\'ama/ 'AUG.-ripe'; /-asnix/ 'cook as stew'; /-a\'sto\'ok/
'cook with water'.
155 /a\'amakat/ /-a\'amakat/ 'AUG.-warm-???'.
156 /an ika\'simet/: /\'o-ano
i\'-\'o-\'-a\'simet/ '3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-
AUG.-bread'

157 /'anim kix kipa/: /'anim k-IX
k-i-\'apa/ 'metal NOMZR.-convex
158 /\'sik iti i\'k\'\'o\'it/: /\'sik i-ati
i\'-\'o-ka-o-a\'it/ 'thing 3.POS.-on
3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-
UNSPECIFIED.OBJ.-eat'.
159 /\'sik iti i\'k\'\'o\'it/: /\'sik i-ati
i\'-\'o-ka-o-a\'it/ 'thing 3.POS.-on 3.POS.-
NOMZR.-UNSPECIFIED.SUBJ.-
UNSPECIFIED.OBJ.-eat'.
160 /\'sik itiika\'tap\'x/: /\'sik i-ati
i\'-\'o-ka-tap\'x/ 'thing 3.POS.-on 3.POS.-
NOMZR.-UNSPECIFIED.SUBJ.-
UNSPECIFIED.OBJ.-sit-on'.
161 From Spanish taza.
162 /yam? a\'ax\'u/ 'metal clam'. (The word for 'metal' occurs in a slightly reduced form in this
expression.) Compare 9.670.
163 Compare 9.670.
164 /'anim kin\'la\'ak/: /'anim
k-in\'la\'ak/ 'metal NOMZR.-with-fingers'.
Compare 9.670.
165 /\'sik i\'a\'ka\'sinot/: /\'sik
i\'-\'a\'ka\'sinot/ 'thing 3.POS.-
NOMZR.-PAS.-bit-??'.
breakfast; desayuno
lunch; almuerzo
dinner; comida (principal del día)
supper; cena
peel; pelar
sieve; cribar, colar, cernir
scrape; raspar, rallar
sir, mix; batir, mezclar
bread; pan
dough; masa
knead; amasar
meal, flour; harina
crush, grind; machacar, moler
mill; molino
mortar; mortero
pestle; mano de mortero
soup, broth; sopa, caldo
vegetables; verduras, hortalizas, legumbres
bean; frijol, poroto
fruit; fruta
bunch; racimo
nut; fruto seco de cáscara dura que contiene una semilla comestible (como la nuez, la avellana, la almendra, etc.)
oil; aceite
grease, fat; grasa, manteca
salt; sal
06. Clothing; Personal Adornment and Care

06.110 put on (clothes); vestirse
-aakažka

06.120 clothing; ropa
?aaakažka

06.130 tailor; sastre
-----

06.210 cloth; tela
-tai

06.220 wool; lana
# kāf ina

06.230 linen; lino
-----

06.240 cotton; algodón
mōx

06.250 silk; seda
-----

06.270 felt; fieltro
-----

06.280 fur; pelliza, piel de mamífero usada como prenda de vestir
šix i'naiž

06.290 leather; cuero
šix i'naiž a'mama

06.310 spin; hilar
-ansāx

06.320 spindle; huso
i'kōnāx

06.330 weave; tejer
ptā -a'šāsinot

06.340 loom; telar
-----

06.350 sew; coser
-šāpīm

06.360 needle; aguja
# 'anim 'kosi

05.820 pepper; pimienta
ko'kā kōpož

05.821 chili pepper; chile, ají
ko'kā

05.840 honey; miel
pa'našt

05.850 sugar; azúcar
'Xika an i'kāi, 'Xika 'koatx

05.860 milk (noun); leche
-ant

05.870 milk (vb); ordeñar
im -tiXp

05.880 cheese; queso
kīš

05.890 butter; mantequilla
-----

05.900 beverage; bebida
'Xika kīmx

05.910 meal; aguamiel
-----

05.920 wine; vino
i'mam ?a'māx

05.930 beer; cerveza
?a'māx ka?'tasin

05.940 fermented drink; bebida fermentada
?a'māx

05.970 egg; huevo
i'pāx

05.971 egg yolk; yema (de huevo)
ya'masōx

181 /ko'kā kōpož/: /ko'kā kōpož/ 'chili NOMZR.-black'.
182 /'Xika 'koatx'/: /'Xika k-otx'/ 'things NOMZR.-sweet'; /'Xika an i'kāi/: /Xika an i-Ø-ka-āi/ 'things 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-do'.
183 From Spanish queso.
184 /'Xika kīmx/: /'Xika k-imx/ 'things NOMZR.-clear'.
185 /i'mam ?a'māx/: /i-mam ?a-māx/ '3.POS.-NOMZR.-ripe ABS.-liquor'.
186 /?a'māx ka?'tasim/: /?a-māx k-a?'tasim/ 'ABS.-liquor NOMZR.-foamy'.
187 /i'pāx/: /i-āpāx/ '3.POS.-egg'.
188 Related historically to the root for 'yellow', /-masōx/.

189 /?aaakažka/: /?a-aakažka/ 'ABS.-clothing'.
190 /kāf ina/: /kāf i-ana/ 'sheep 3.POS.-fur'.
191 /šix i'naiž/: /šix i-naiž/ 'thing 3.POS.-skin'.
192 /šix i'naiž a-ā-ā-mama/: /šix i'naiž a'mama/ 'thing 3.POS.-skin NOMZR.-PAS.-AUGMENT-ripe'.
193 /i'kōnāx/: /i-Ø-ka-o-anšx/ '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-spin. thread'.
06.370 awl; lezna, punzón\(^{195}\)
pak; šix i'køp; šix
i'ka'kaptX\(^{\prime}\)
06.380 thread; hilo\(^{196}\)
iko'šaptilm
06.390 dye; teñir\(^{197}\)
ano -xit
06.410 cloak; capa
------
06.411 poncho; poncho, sarape, capote
------
06.420 woman's dress; vestido\(^{198}\)
koix ?ap'nait
06.430 coat; abrigo, saco\(^{199}\)
?a'phičx
06.440 shirt; camisa\(^{200}\)
'kamiš
06.450 collar; cuello\(^{201}\)
'kamiš yāp i'nait
06.460 skirt; falda, enagua
-pnait
06.461 grass-skirt; falda de hierbas
------
06.480 trousers; pantalones\(^{202}\)
an i'kitx
06.490 stocking, sock; media, calcetín\(^{203}\)
an i'kipilič

\(^{195}\) /pak/ is archaic; /šix i'køp/: /šix i-Ø-ka-o-ap/ 'thing 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-sew'; /šix i'ka'kaptX/ /šix i-?-a?-kaptX/ 'thing 3.POS.-NOMZR.-PAS.-AUG.-punctured'.

\(^{196}\) /iko'šaptilm/: /i-Ø-ka-o-šaptilm/ '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-sew'.

\(^{197}\) /ano -xit/: /Ø-ano -xit/ '3.POS.-in throw'.

\(^{198}\) /koix ?ap'nait/: /koix ?a-pnait/ 'high ABS.-skin'.

\(^{199}\) /?a'phičx/: /?a-phičx/ 'ABS.-coat'.

\(^{200}\) From Spanish camisa.

\(^{201}\) /'kamiš yāp i'nait/: /kamiš i-yāp i-nait/ 'shirt 3.POS.-neck 3.POS.-skin'.

\(^{202}\) /an i'kitx/: /Ø-ano i-Ø-ka-i-atx/ 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-with-lower.body'.

\(^{203}\) /an i'kipilič/: /Ø-ano i-Ø-ka-i-apist'/ 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-with-lower.legs'.

06.510 shoe; zapato\(^{204}\)
# pa'satóx
06.520 boot; bota\(^{205}\)
?a'tāmt 'Xapa kom ȍ k'wi'pa?
06.540 shoemaker, cobbler; zapatero
------
06.550 hat, cap; sombrero, gorro\(^{206}\)
# -a'nam
06.570 belt, girdle; cinturón, faja\(^{207}\)
itx 'I'kikim
06.580 glove; guante\(^{208}\)
an i'kinoč
06.590 veil; velo
------
06.610 pocket; bolsillo\(^{209}\)
an iki'?ásox
06.620 button; botón\(^{210}\)
šix iti iko'kāix
06.630 pin; alfiler\(^{211}\)
# 'kamiš iki k'wi'pašx
06.710 ornament, adornment; ornamento (personal)
------
06.720 jewel; joya
------
06.730  ring (for finger): anillo, sortija
't?anoŋ ʔa'kǎiX
06.740  bracelet; brazalete, pulsera
't?anoŋ ʔa'kǎiX ʔa'na nopx it k'kix
06.750  necklace; collar
?a'papxk, 'Xika kōxp
06.760  bead; cuenta, chaquira, abalorio
ʔa'ntəšx ʔakakomot
06.770  earring; arete
-sit
06.780  headband, headress; cinta (para la cabeza), tocado
ʔiX iʔt ʔa'pakaX
06.790  tattoo; tatuaje
?a'pa新加
06.810  handkerchief, rag; pañuelo, trapo
# toʔa, ʔa'taiktim
06.820  towel; toalla
ʔiX ʔa'yən ik i'pamt
06.910  comb; peine
'ta'naŋ ʔa'sai, ʔiX i'kakakim

212  '/ʔanoŋ ʔa'kǎiX:/ ʔa'anoŋ ʔa-ʔ-ʔa'kǎiX  'ABS.-hand NOMZR.-PAS.-put'.
213  '/ʔanoŋ ʔa'kǎiX ʔa'na nopx it k'kix:/ ʔa'anoŋ ʔa-ʔ-ʔa'kǎiX ʔa-ya'na nopx i-at ko-k-1x/  'ABS.-hand NOMZR.-PAS.-put ABS.-fist 3.POS.-base 3.IO.-NOMZR.-sit'.
214  '/ʔa'papxk,  'Xika kōxp:/ ʔa'papxk/  'NOMZR.-PAS.-string',  'Xika kōxp/  'things NOMZR.-white'.
215  '/ʔa'ntəšx kakañomot:/ ʔa'ntəšx  'mud NOMZR.-give.wife'.

Regarding the first part, see 01.214. The second part involves an archaic verb.

216  '/ʔiX iʔt ʔa'pakaX:/ ʔiX i'-a-ʔ  'ABS.-head 3.POS.-NOMZR.-PAS.-leave'.
217  '/ʔa'pa新加:/ ʔa'p-a skeptical/  'NOMZR.-PAS.-tattoo'.
218  /toʔa/ is from Spanish toalla.  /ʔa'taiktim/ is etymologically 'rag piece.of'.
219  '/ʔiX ʔa'yən ik i'pamt:/ ʔiX ʔa-yən ik i'-p-Int/  'thing ABS.-face 3.POS.-with 3.POS.-NOMZR.-PAS.-rub'.
220  '/ʔa'naŋ ʔa'sai, ʔiX i'kakakim:/ ʔa'naŋ ʔa'sai/  'plant brush' (ʔa'naŋ has sense of 'wood' here); ʔiX  'ABS.-head 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-sweep'.

06.920  brush; cepillo
ksai
06.921  braid; trenza
ʔa'it ʔa'kəaX
06.930  razor; navaja de afeitar
ʔa'tams i'pamX
06.940  ointment; ungüente
ʔiX ik k'iko'naXs
06.950  soap; jabón
i'kəaX
06.960  mirror; espejo
# ann an i'kixim

07. Dwelling, House, Furniture

07.110  dwell, live; habitar, vivir
-ama
07.120  house; casa
ʔa'ko, -əmə
07.130  hut; choza
ʔa'ko ʔa'ʔaməa
07.131  garden-house; casa de huerta, granja
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07.140  tent; toldo
ika'?əməa? ʔa'ko
07.150  yard, court; patio
-----

221  '/ʔa'it ʔa'kəaX:/ ʔa'it i'-ʔa'kəaX  'ABS.-head 3.POS.-NOMZR.-braid'.
222  '/ʔa'tams i'pamX:/ ʔa'tams i-ʔ-ʔa'kəaX  'ABS.-head 3.POS.-NOMZR.-PAS.-scrape'.
223  '/ʔiX ik k'iko'naXs:/ ʔiX i'ak ko-i-ka-o-naXs/  'thing 3.POS.-side 3.IO.-3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-rub'.
224  '/i'kəaX:/  i-ʔ-ka-aX  '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-clean'.
225  /ʔa'ko/ is related to /-ʔəko/ 'make house'; (irregular) absolutive form; possessed stem is -ʔa'ko/.  -əmə/ is 'home'.
226  '/ʔako? ʔa'ʔaməa:/ ʔako? ʔa-ʔ-ʔaməa/  'house NOMZR.-PAS.-AUG.-curve.down.PL.-
227  /i'ka'?əməa? ʔako/:  i-ʔ-ka-aʔ-əməa? ʔako/  '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-
AUG.-move.slowly (tarp) house'.

228  /ika'?əməa? ʔako/:  i-ʔ-ka-aʔ-əməa? ʔako/  '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-
07.160 men's house; casa de los hombres

07.170 cookhouse; cocina (lugar)

07.180 meeting house; casa de reunión

07.210 room; cuarto\textsuperscript{229}
\textit{Ik k"a'kānim} \textsuperscript{229}

07.220 door, gate; puerta\textsuperscript{230}
?a'\textit{mat}, ?ākō i\textit{a'}poin, ?a'?ōt

07.221 doorpost, jamb; jamba de puerta, larguero

07.230 lock (noun); cerradura\textsuperscript{231}
?a'?ōt iki k"i'akaiskan

07.231 latch, door-bolt; cerrojo, pasador, pestillo

07.240 key; llave\textsuperscript{232}
?a'?ōt i\textit{a'}kapt\textit{X}w

07.250 window; ventana\textsuperscript{233}
?ant an ika'\textit{yēno} ?ant an iko'kō̂?

07.260 floor; suelo\textsuperscript{234}
?ant, ?ant i'?\textit{Ipi

07.270 wall; pared, muro\textsuperscript{235}
?āk

07.310 fireplace; hogar, fogón

07.320 stove; estufa, hornillo\textsuperscript{236}
# ?a'saiti šIX k"a'kā'mama

07.330 chimney; chimenea\textsuperscript{237}
?am'kāXat ano 'ni?a

07.370 ladder; escalera\textsuperscript{238}
šIX iti k"i'kipaXim

07.420 bed; cama\textsuperscript{239}
?am?am iti 'ikom

07.421 pillow; almohada\textsuperscript{240}
i\textit{kī'iti

07.422 blanket; frazada, cobija\textsuperscript{241}
sa'\textit{rāpi, šIX i'kā'k\textit{t}im

07.430 chair; silla\textsuperscript{242}
?am?am iti i'kikolim

07.440 table; mesa\textsuperscript{243}
?am?am iti i'kō̂'itim

07.450 lamp, torch; lámpara, antorcha\textsuperscript{244}
# kon'tīf 'kanox, 'ʔēkox

\textsuperscript{229} /Ik k"a'kānim/: /Ik k"a'kānim/ 'beside 3.IO.-NOMZR.-closed'.

\textsuperscript{230} /?ākō i\textit{a'}poin/: /?ākō i'-a'poin/ 'house 3.POS.-NOMZR.-close'.

\textsuperscript{231} /?a'?ōt iki k"i'akaiskan/: /?a'?ōt i-aki ko-i?-ak-aiaskan/ 'entrance 3.POS.-with 3.IO.-NOMZR.-AUG.-hard'.

\textsuperscript{232} /?a'?ōt i\textit{a'}kapt\textit{X}w/: /?a'?ōt i'-a'kapt\textit{X}w/ 'entrance 3.POS.-NOMZR.-AUG.-punctured'.

\textsuperscript{233} /?ant an ika'\textit{yēno}/: /?ant 0-ano i-0-ka-yēn-o/ 'land 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-face-?'; /?ant an iko'kō̂?o/: /?ant 0-ano i-0-ka-ok-o-a0/ 'land 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-see'.

\textsuperscript{234} /?ant i'?\textit{Ipi}/: /?ant i?-\textit{Ipi}/ 'land 3.POS.-NOMZR.-??.

\textsuperscript{235} /tāk/: /i-āsk/ '3.POS.-front'.

\textsuperscript{236} /?a'saiti šIX k"a'kā'mama/: /?a'saiti šIX ko-k-ā'mama/ 'gasoline thing 3.IO.-NOMZR.-AUG.-ripe'. From Spanish aceite.

\textsuperscript{237} /?am'kāXat ano 'mi?a/: /?am'kāXat ō-ano mo-ə-aa/ 'fire 3.POS.-in toward-NOMZR.-move'.

\textsuperscript{238} /šIX iti k"i'kipaXim/: /šIX i-ati ko-i?-ka-IPA\textit{Xim}/ 'thing 3.POS.-on 3.IO.-3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-go.up.ITER.'.

\textsuperscript{239} /?am?am iti 'ikom/: /?am?am i-ati i-0-ka-0m/ 'plant 3.POS.-on 3.POS.-NOMZR.UNSPECIFIED.SUBJ.-lie'.

\textsuperscript{240} /i\textit{kī'iti}/: /i-0-ka-i'iti/ '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-have.long.hair'. /-\textit{iti}/ is 'hair of head, head'.

\textsuperscript{241} /šIX i'kā'k\textit{t}im/: /šIX i-0-ka-\textit{ak}t\textit{im}/ 'thing 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-cover'.

\textsuperscript{242} /?am?am iti i'kikolim/: /?am?am i-ati i-0-ka-ikolim/ 'plant 3.POS.-on 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-sit.down.ITER.'.

\textsuperscript{243} /?am?am iti i'kō̂'itim/: /?am?am i-ati i-0-ka-o-a0?itim/ 'plant 3.POS.-on 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-eat.ITER.'.

\textsuperscript{244} /kon'tīf 'kanox/: /kon'tīf k-anox/ 'ʔ? NOMZR.-burn'. From Spanish linterna and/or candelita.
07.460 candle; vela
# kon'tiʃ i'mataX
07.470 shelf; repisa
07.480 trough; bates, artesa
an ?aX k'i'käs
07.500 roof; techo
't?ako is'Xap, 't?ako ki?
'i yat
07.520 thatch; techo de paja u hojas
07.530 ridgepole; cumbreña
07.540 rafter; cabrio, cercha (cualquiera de los maderos paralelos que soportan el techo)
07.550 beam; viga
't?ako iti yaipx, 't?ako i'a?išax
07.560 post, pole; poste
't?a?e ?ant ?a'nip
07.570 board; tabla
# ?oko'
07.580 arch; arco
07.610 mason; albañil
07.620 brick; ladrillo
# ?a'sämt ?a'mama
07.630 mortar; argamas
07.640 adobe; adobe
# ?a'sämt
08. Agriculture, Vegetation
08.110 farmer; labrador, agricultor
08.120 field (for cultivation); campo (de cultivo), labranza
08.130 garden; huerta, jardín
08.150 cultivate, till; cultivar, labrar
-ík
08.160 fence; cerca, valla
?ant ?a'käkp, ?ant ?a'säin
08.170 ditch; zanja
?ant kašX
08.210 plow; arar
?ant -kaskaX
08.212 furrow; surco
08.220 dig; excavar, cavar
-ap
08.230 spade; laya
08.240 shovel; pala
šIX ?ant i'كا'säx
08.250 hoe; azadón, azada
08.260 fork; horqueta

245 /kon'tiʃ i'mataX/: /kon'tiʃ i-m-ataX/ 't? NOMZR.-NEG-go'. From Spanish hínterna and/or candela.
247 /'t?ako is'Xap/: /'t?ako i-sXap/ 'house 3.POS.-top'; /?'t?ako ki? 'i yat/: /'t?ako ki? i-ayat/ 'house the 3.POS.-end'.
248 /'t?ako iti yaipx/: /'t?ako i-atí i-y-aipx/ 'house 3.POS.-on 3.POS.-NOMZR.-AUG.-be.crossways'; /?'t?ako i?a'šišax/: /'t?ako i-ʔ-ʔ-išax/ 'house 3.POS.-NOMZR.-AUG.-rounded.up'.
250 From Uto-Aztecan word for pine. Compare Yaqui woko.
251 /?a'sämt ?a'mama/: /?a-ʔ-ʔ-a'sämt ?a-ʔ-ʔ-a-mama/
252 /?a'sämt/: /?a-ʔ-ʔ-a'sämt/ 'NOMZR.-PAS.-AUG.-adobe NOMZR.-PAS.-AUG.-ripe'. Compare 07.640.
254 /?ant kašX/: /?ant k-ašX/ 'land NOMZR.-torn'.
255 /?ant -kaskaX/: /?ant -kaskaX/ 'land divide.ITER'.
256 /šIX ?ant i'كا'säx/: /šIX ?ant i-ʔ-a'säx/ 'thing land 3.POS.-NOMZR.-scoop'.
08.270 rake; rastro, rastrillo
chant i'ata'míšx kín'ťaš
08.310 sow; sembrar (esparciendo las semillas)
-ošxk
08.311 seed; semilla
-a?ik
08.320 mow, reap; segar, cosechar
-Åpo
08.330 sickle, scythe; hoz, guadaña
---
08.340 thresh; trillar, desgranar
---
08.350 threshing-floor; era, lugar para trillar
---
08.410 crop, harvest; cosecha, siega
---
08.420 grain (barley, oats, etc.); grano
---
08.430 wheat; trigo
'kaštaš
08.440 barley; cebada
---
08.450 rye; centeno
---
08.460 oats; avena
'kaštaš ?a'x'asipox
08.470 maize, corn; maíz
?apx't
08.480 rice; arroz
'Xika 'kôsotox
08.510 grass; hierba, pasto, zacate
ko'në
08.520 hay; heno, paja de heno u otros forrajes
'kaštaš 'inaž
08.530 plant (noun); planta
'?a?ë
---
---
08.531 plant (vb); plantar, sembrar
-Tk
08.540 root; raíz
-Xai
08.550 branch; rama
-ëxwa, -atak
08.560 leaf; hoja
-astx
08.570 flower; flor
-yapx't
08.580 tree; árbol
'?!a?ë, '?a?ë?ant 'kiti
08.610 oak; roble
---
08.620 beech; haya
---
08.630 birch; abedul
---
08.640 pine; pino
---
08.650 fir; abeto
---
08.660 acorn; bellota
---
08.670 vine; enredadera, bejuco, liana
'?a?ë an ko'kóimax
08.680 tobacco; tabaco
'?apis kopX't
08.690 smoke (tobacco); fumar
-apis
08.691 pipe; pipa
'Xapix an i'kópis
08.720 tree stump; tocón
'?a?ë it
08.730 tree trunk; tronco
'?a?ë it
---
---
262 /yapX't/: /i-y-opX't/ '3.POS.-NOMZR.-loose'.
263 '/?a?ë?ant 'kiti/: '/?a?ë?ant k-ití/ 'plant land NOMZR.-connected'.
264 '/?a?ë an ko'kóimax/: '/?ë?ë ò-an k-o'koimax/ 'plant 3.POS.-in NOMZR.-???'.
265 '/?apis kopX't/: '/?apis k-opX't/ 'tobacco NOMZR.-loose'.
266 '/Xapix an i'kópis/: '/Xapix ò-an i-ò-ka-o-apis/ 'reed 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.OBJ.-suck'.
267 '/?a?ë it/: '/?a?ë i-at/ 'plant 3.POS.-base'.
268 Compare 08.720.
09. Miscellaneous Physical Acts and Those Pertaining to Special Arts and Crafts, with Some Implements, Materials, and Products; Other Miscellaneous Notions

09.110 *do, make; hacer*
-áí, -ātím, -a?

09.120 *work; trabajar*
-a'tikpan

09.140 *bend; encorvar, doblar*
-a' tāmn

09.150 *fold; plegar*
-a' tāo

09.160 *tie; bind; amarrar, atar*
desatar
-a' tīx

09.161 *untie; desatar*
a-pātkx

09.180 *chain; cadena*
# amn a' koaśx

09.190 *rope, cord; cuerda, soga*
pōsx

09.192 *knot (noun); nudó*
i-a'phiś

09.210 *strike (hit, beat); golpear*
-nip, -āqk

09.211 *pound with fist; machacar con el puño*
y'a' npox kix a-atapx w

09.220 *cut; cortar*
-i-k'tim, -a'sīx

---

08.740 forked branch; rama bifurcada, horqueta de árbol
"?a?e ka'tāmxk

08.750 *bark; cortez *
"?a?e i'naiṭ, "?a?e
i-as' naįk

08.760 *sap; savia*
"?a?e ix, kspīx

08.810 *palm tree; palma, palmera*
šamīx

08.820 *coconut; coco*
-----

08.830 *citrus fruit; fruta cítrica*
-----

08.840 *banana tree; mata de banano, mata de guineo, mata de plátano*
-----

08.850 *banyan; baniano*
-----

08.910 *sweet potato; camote, batata*
-----

08.912 *yam; ñame*
-----

08.920 *tapioca, manioc, cassava; mandioca; yuca*
-----

08.930 *gourd; planta cucurbitácea, calabaza Xam

08.931 *pumpkin, squash; ayote, zapallo, calabaza*
-----

08.940 *bamboo; bambú*
-----

08.941 *sugar cane; caña de azúcar*
"Xapīx k'koatxw

08.960 *fish poison (root); barbasco*
-----

08.970 *nettle; ortiga*
-----

08.980 *mushroom; hongo, seta*
?amt ūtīsX, "?a?e i'yas, tīk kā'oiṭ

---

269 "?a?e ka'tāmxk: "?a?e k-a'tāmx/ 'plant NOMZR.-forked'.
270 "?a?e i'naiṭ/: "?a?e i-naiṭ/ plant 3.POS.-skin; "?a?e i-as'naįk/ / plant 3.POS.-rough.bark'.
271 "?a?e iX/: "?a?e i-aX/ 'plant 3.POS.-liquid'.
272 "Xapīx k'koatxw/ /Xapīx k-oatxw/ 'reed NOMZR.-sweet'.
273 "?amt ūtīśX/: /?amt i-o-atiśX/ /breast 3.POS.-NOMZR.-
09.221 cut down; tumbar, talar
-xit
09.222 chop, hew; tajar, picar
-kakx
09.223 stab; herir con arma punzante, apuñalar
# 'anim -nip
09.230 knife; cuchillo
# 'anim
09.240 scissors, shears; tijeras
iko'kšyax
09.250 ax; hacha
'?m? i'pakotim
09.251 adze; azuela
-----
09.260 break; quebrar
-apxʷ̈i̇m
09.261 broken; quebrado
-apxʷ̈i̇m
09.270 split; hender, partir
-kaśx
09.280 tear; romper, rasgar
-kaśx
09.290 flay, skin; desollar
i'naįį ki? -a'košx
09.310 rub, wipe; frotar, limpiar o secar (frotando)
i'takš -naNš
09.320 stretch; alargar, estirar, tender
-a'?atoX
09.330 pull; tirar, jalar
-a'phįto
09.340 spread out; extender, esparchir
-a'pätxk
09.341 hang up; colocar
'kořa -kai
09.342 press; hacer o ejercer presión
-tı̯pxʷ̈k
09.343 squeeze, wring; apretar, estrujar, exprimir
-tı̯Xp
09.350 pour; vaciar, verter, derramar(se)
-átXk
09.360 wash; lavar
-o'naśX, -panim
09.370 sweep; barrer
?ant -asakim
09.380 broom; escoba
?ant i'pasakim
09.422 tool; herramienta
šÍX 'oaktım
09.430 carpenter; carpintero
-----
09.440 build; edificar, construir
-a'kó
09.460 bore; perforar, horadar
-kapťxʷ
09.461 hollow out; ahuecar
an -kaśx, -a'?oxwš
09.480 saw; serrucho, sierra
'?m? i'pašX, # anm i'pašX

282 /*anim -nip/: /anim -nip/ 'metal hit'. Compare 9.670. The verb in this expression requires the prefix /ko- '/3.10/.'
283 From Uto-Aztecan; compare 09.670.
284 This word is derived in some irregular way from the root /-aśX/ 'cut'.
285 /*?m? i'pakotim/: /?m? i-ö-p-akotim/ 'plant 3.POS.-NOMZ.-PAS.-cut.REP.'
286 /i'naįį ki? -a'košx/: /i'naįį ki? -ąk-o-ai̇X/ '3.POS.-skin the AUG.-UNSPECIFIED.OBJ.-leave'. The verb in this expression requires the prefix /ko- '/3.10/.'
287 /i'takš -naNš/: /i'takš -naNš/ '3.POS.-top rub'. The verb in this expression requires the prefix /ko- '/3.10/.'
288 /-a'?atoX/: /-a'?atoX/ 'AUG.-extended'.

289 /-a'phįto/: /-a'-phįto/ 'AUG.-stand.up'.
290 /-a'pätxk/: /-a'-pätxk/ 'AUG.-open'.
291 /*kořa -kai/: /kořa -kai/ 'high put'.
292 /*ant -asakim/: /ant -asakim/ 'land brush'.
293 /*ant i'pasakim/: /ant i-ö-p-asakim/ 'land 3.POS.-NOMZ.-PAS.-brush'.
294 /šÍX 'oaktım/: /šÍX i-o-Caktım/ 'thing 3.POS.-NOMZ.-do'
295 /an -kaśX/: /ö-ano -kaśX/ '3.POS.-in divide'; //a'?oxwš/: /-a'?-oxwš/ 'AUG.-convex'.
hammer; martillo

nail; clavo

glue; cola (adhesivo)

smith; blacksmith; herrero

forge; fragua

anvil; yunque

cast (metals); fundir

gold; oro

silver; plata
copper, bronze; cobre, bronce

iron; hierro

lead (noun); plomo

tin, tinplate; estano

potter; alfarero

mold (clay, etc.); moldear

clay; arcilla

glass; vidrio

weave, plait; tejer, trenzar

basket; cesto, canasto, canasta

mat; estera, petate

rug; alfombra

netbag; bolsa de malla

fan (noun); abanico

fan (vb); abanicar

carve; esculpir

sculptor; escultor

statue; estatua

chisel; escoplo, cence

paint (noun); pintura

paint (vb); pintar

mold (clay, etc.); moldear


metal kōsot'. Compare 9.670.

metal kōsot'. Compare 9.670.

metal kōsot'. Compare 9.670.

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metal kōsot'. Compare 9.670.

metal kōsot'. Compare 9.670.

metal kōsot'. Compare 9.670.
10. Motion; Locomotion, Transportation, Navigation

10.110 move; mover312
-a'sľixim
10.120 turn over; dar(se) vuelta (hacia el lado opuesto)313
iki -kāix
10.130 turn around; (hacer) dar vuelta(s), girar314
toľ -pot
10.140 wind, wrap; ovillar, devanar, envolver315
ano -φain
10.150 roll; (hacer) rodar, arrollar, enrollar316
-a'masix
10.160 drop (vb); dejar caer317
-xit, ?ant -akatX, -apX
10.170 twist; torcer318
-a'poľin
10.210 rise; subir, ascender319
-IPA
10.220 raise, lift; elevar, alzar, levantar320
-a'?otitoľ, 'koža -a'?išax
10.230 fall; caer321
-a'xit
10.240 drip; gotear, escorrir
-ITk
10.250 throw; lanzar, echar, tirar
-ašXk
10.252 catch (ball); atrapar (p.e., una bola)
-IPXK

312 /-a'sľixim/: /-a'sľixim/
'AUG.-move'.
313 /iki -kāix/: /i-aki -k-aix/
'3.POS.-with AUG.-flap'.
314 /toľ -pot/: /toľ -pot/ 'away ??'.
315 /ano -φain/: /Ø-ano -φain/
'3.POS.-in tie'.
316 /-a'masix/: /-a'masix/
'AUG.-roll'.
317 /?ant -akatX/: /?ant -akatX/
'down leave'.
318 /-a'poľin/: /-a'poľin/
'AUG.-closed'.
319 This verb requires the prefix /ko-/ '3.IO.'.
320 /a'?otitoľ/; /-a'?otitoľ/
'AUG.-be.raised.up'; '/koža
-a'?išax/; '/koža -a'?išax/
'high lift'
321 Etymologically from the passive of 'drop'; see 10.160.

10.260 shake; sacudir, menear322
-a'?ōXot
10.320 flow; fluir, correr
-īmāx
10.330 sink; hundir(se)323
ano -oīt
10.340 float; flotar324
?aXa -īka, -mapk'
10.350 swim; nadar
-akat
10.351 dive; zambullirse325
ano -oīt
10.352 splash; salpicar326
?aX -Inlim
10.360 sail; navegar327
-a'?ēmāx
10.370 fly (vb); volar
-kap
10.380 blow; soplar
-apXox
10.410 creep, crawl; arrastrarse, serpear, gatear
-atoām
10.412 kneel; arrodillarse
?ant -iφik
10.413 crouch; agacharse, ponerse de cuclillas328
?ant i狐月 -ōm
10.420 slide, slip; resbalar(se), deslizar(se)329
-o'miXoš
10.430 jump, leap; saltar, brincar
-kap, -koxp

322 /-a'?ōXot/: /-a'?ōXot/
'AUG.-fall.off'.
323 /ano -oīt/: /Ø-ano -oīt/
'3.POS.-in touch'.
324 /?aXa -ika/: /?aXa -ika/ 'water
float'.
325 /ano -oīt/: /Ø-ano -oīt/
'3.POS.-in touch'. The verb in this expression requires the prefix /ko-/
'3.IO.'.
326 /?aX -Inlim/: /?a-aX -Inlim/
'ABS.-liquid throw.liquid'. The verb in this expression requires the prefix /ko-/
'3.IO.'.
327 /-a'?ēmāx/: /-a'?ēmāx/
'AUG.-move.slowly'. This verb requires the prefix /ko-/ '3.IO.'.
328 /?ant i狐月 -ōm/: /?ant i-ǣkX
-ōm/ 'down 3.POS.-near lie'.
329 This verb requires the prefix /ko-/ '3.IO.'.
10.431 kick; patar
   -nifas
10.440 dance; bailar
   -oit
10.450 walk; caminar
   -ataX
10.451 limp; cojear
   ----- 
10.460 run; correr
   -panšX
10.470 go; ir
   -ataX
10.471 go up; subir
   -ipax
10.472 climb; trepar
   -ipax
10.473 go down; bajar
   ?ant -ap
10.474 go out; salir
   ?apX -oit
10.480 come; venir
   mo - a
10.481 come back; volver, regresar
   mo - In, -änpx
10.490 go away, depart; irse, marcharse
   nt - a
10.491 disappear; desaparecer
   'ipak -aškim
10.510 flee; huir
   -oxos
10.520 follow; seguir
   -āit, 'ipak -āo
10.530 pursue; perseguir
   -āit
10.550 reach, arrive; llegar
   -ap
10.560 approach; acercarse
   'iki -In
10.570 enter; entrar
   -aškim
10.610 carry (bear); llevar, cargar
   -āši
10.612 carry-in-hand; llevar en la mano
   ----- 
10.613 carry-on-shoulder; llevar a la espalda/en el hombro
   -sanX
10.614 carry-on-head; llevar sobre la cabeza
   -ip
10.615 carry-under-arm; llevar bajo el brazo
   -a'sämpX
10.620 bring; traer
   -amXk
10.630 send; enviar, mandar
   'iki -āka
10.640 lead (vb); guiar
   'āsha -kai
10.650 drive; conducir
   -a'kataX
10.660 ride; montar
   ----- 
10.670 push, shove; empujar
   -etoX
10.710 road; carretera
   '?ā'ōo
10.720 path; camino, senda
   -ya '?ā'ōo
10.740 bridge; puente
   ----- 
10.750 carriage, wagon, carr; coche (de caballos), carruaje, carreta
   '?a?a? ant -māsix

330 This verb requires the prefix /ko-/ '3.IO.'.
331 This verb requires the prefix /ko-/ '3.IO.'.
332 /?ant -ap/: /?ant -ap/ 'down stand'.
333 /?apX -oit/: /?apX -oit/ 'outside touch'.
334 /mo - a/: /mo - a/ 'toward move'.
335 /mo - In/: /mo - In/ 'toward return'.
336 /nt - a/: /nt - a/ 'away move'.
337 /'ipak -aškim/: /'ipak -aškim/ '3.POS.-back enter'. The verb in this expression requires the prefix /ko-/ '3.IO.'.
338 /'ipak -āo/: /'ipak -āo/ '3.POS.-back pass.by'.
339 /'iki -In/: /i-aki -In/ '3.POS.-with return'.
340 This verb requires the prefix /ko-/ '3.IO.'.
341 /'iki -āka/: /i-aki -āka/ '3.POS.-with send'.
342 /?'āsha -kai/: /?'āsha -kai/ '?? put'.
343 /-a'kataX/: /-āk-ataX/ 'AUG.go'.
344 /?'a?a? ant -māsix/: /?'a?a? ant -māsix/ 'plant land roll'.


11. Possession, Property, and Commerce

11.10 have; tener

11.120 own, possess; poseer, tener

11.130 take; tomar, coger

11.140 seize, grasp; agarrar, asir, coger

11.150 hold; tener (en mano), sostener

11.160 get; tener (en mano), obtener

11.170 keep, retain; conservar, retener

11.180 thing; cosa

11.210 give; dar

11.220 give back; devolver

11.240 preserve, look after; preservar, proteger

11.250 save, rescue; salvar, rescatar

11.270 destroy; destruir

10.760 wheel; rueda

10.770 axle; eje

10.780 yoke; yugo

10.810 ship; buque, barco

10.830 boat; bote

10.831 canoe; canoa

10.832 outrigger; batanga

10.840 raft; balsa

10.850 oar; remo

10.851 paddle (noun); remo corto

10.852 row (vb); remar

10.860 rudder; timón

10.870 mast; mástil

10.880 sail (noun); vela

10.890 anchor; ancla

10.910 harbor, port; puerto

10.920 land (vb); desembarcar

/aXox ?ant -pam/
11.280 harm, injure, damage; dañar, herir

11.300 seek, look for; buscar

11.320 find: encontrar, hallar

11.330 lose; perder

11.340 release, let go; soltar

11.430 money; dinero

11.440 coin; moneda

11.510 rich; rico

11.520 poor; pobre

11.530 beggar; mendigo

11.540 avaricious; stingy; avaro, mezquino

11.610 lend; prestar

11.620 borrow; tomar prestado

11.630 owe; deber

11.640 debt; deuda

11.650 pay (vb); pagar

11.660 account, reckoning; cálculo, cuenta

11.690 tax; tribute; impuesto, tributo

11.770 hire; alquilar, emplear

11.780 wages; salario, sueldo

11.790 earn; ganar (dinero)

11.810 buy; comprar

11.820 sell; vender

11.830 trade, barter; trocar

11.840 merchant; comerciante

11.850 market (place); mercado

11.860 store, shop; tienda, almacén

11.870 price; precio

11.880 dear (costly, expensive); caro

11.890 cheap; barato

11.910 share (distribute); repartir

11.920 weigh; pesar

362 /i'xāpto/ -āi/; /i'xāpto/ -āi/

364 /sīx·sīx/ -sīx -āi/

365 /akX/ -akatX

366 /tom/ 'kaiskan:

367 /'kimosim/:

368 /'imōs -ēpīt/

369 /-āi/; /'thing a elsewhere do'. The verb in this expression requires the prefix /ko-/ '3.IO.'.

376 /-āmotat/ 'AUG-heavy'.

word is etymologically related to the verb /-āsh/ 'tie up'.

371 /i'kāp/ /i-ō-ka-āp/ '3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-pay'.

372 This verb requires the prefix /ko-/ '3.IO.'.

373 The verb in this expression requires the prefix /ko-/ '3.IO.'.

374 /'a-ā' ka'koX/ /a-ā' -aā' ka'koX/ 'NOMZR.-PAS.-own NOMZR.-take.care.of'.

375 /'a-ā' -aā' ka'koX/ /a-ā' -aā' ka'koX/ 'NOMZR.-PAS.-own NOMZR.-take.care.of'.

376 /-āmotat/ /-āmotat/ 'AUG-heavy'.

363 /'akX/ -akatX/ /'akX/ -akatX/ 'somewhere leave'.

364 The verb /-āf/ requires the prefix /ko-/ '3.IO.'.

365 From Spanish tomar.

366 /tom/ 'kaiskan:

367 /'kimosim/:

368 /'imōs -ēpīt/
<table>
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<td>12.010 after; después</td>
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<tr>
<td>12.011 behind; atrás, detrás -apak</td>
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<td>12.020 beside; al lado de İkp</td>
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<tr>
<td>12.030 down, below; abajo, debajo -mokż</td>
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<tr>
<td>12.040 before; delante, antes de -ya'nİkp</td>
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<tr>
<td>12.041 from; delantero, anterior ya'nİkp</td>
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<td>12.050 inside, in; adentro, dentro -ano</td>
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<td>12.060 outside; afuera, fuera ?apX</td>
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<td>12.070 under; debajo de, bajo (prep) -mokż</td>
</tr>
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<td>12.080 up, above; arriba, encima -a'ti, -takż, 'koža, ko'łakp</td>
</tr>
<tr>
<td>12.110 place; lugar, sitio ?ant</td>
</tr>
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<td>12.120 put; poner -å'ka</td>
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<td>12.130 sit; sentar(se) -tx</td>
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<td>12.140 lie down; acostarse, echarse -öm</td>
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<td>12.150 stand; poner(se) de pie -fıt</td>
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<td>12.160 remain, stay; quedá -a'ti'käľ</td>
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<td>12.170 remains, left overs; sobras</td>
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<td>12.210 collect, gather; recoger, reunir</td>
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<td>12.212 pick up; recoger</td>
</tr>
<tr>
<td>12.213 pile up; amontonar -aşxk</td>
</tr>
<tr>
<td>12.220 join, unite; juntar</td>
</tr>
</tbody>
</table>

| 12.230 separate; separar, aparta -ptä -äkatX, ptä -a'koiX |
| 12.232 divide; dividir -kaskax                     |
| 12.240 open; abrir -a'pätxk, -kaptXw               |
| 12.250 shut, close; cerrar -a'poin, iki -änim  |
| 12.260 cover; cubrir -änim, -āpšim, -ap'Xaši       |
| 12.270 hide, conceal; esconder -isXw               |
| 12.310 high; alto koİX                             |
| 12.320 low; bajo ?ant                             |
| 12.330 top; cima -sxap                            |
| 12.340 bottom; fondo -?it, -tis, -apot            |
| 12.350 end; extremo (de una superficie), final (por exemplo, de un camino) -iti 'k'kiyat |
| 12.352 pointed; puntiagudo -iki -ösoň            |
| 12.353 edge; borde, orilla, margen -täs            |
| 12.360 side; lado, costado -šakp, -?ışk           |
| 12.370 middle, center; medio, centro -anak, -mošıt |
| 12.410 right (side); derecha -inoţ 'ąpa İkp ak    |

---

377 Etymologically from 'face side.of'.
378 /-å'ka/; /-å-a?ka/ 'AUG.be.located'.
379 Etymologically from passive of /-kaiž/ 'leave'.
380 /ptä iti akim/: /ptä i-ati akim/ 'together 3.POS.-on put'.
381 /ptä -äkatX/: /ptä -ä-akatX/ 'together AUG.-leave'; /ptä -a'koiX/: ptä -a-k-o-aX/ 'together AUG.-UNSPECIFIED.OBJ.-leave'.
382 /-a'pätxk/: /-a-pätxk/ 'AUG.open'; /-kaptXw/: /-k-aptXw/ 'AUG.punctured'.
383 /-a'poin/: /-a-poin/ 'AUG.-closed'; /iki -änim/: /i-aki -änim/ '3.POS.-with cover'.
384 /'iti 'k'kiyat/; /i-ati ko-k-iyat/ '3.POS.-on 3.IO.-NOMZR.-end'.
385 /'iki -ösoň/: /i-aki -ösoň/ '3.POS.-with narrow'.
386 /'inoţ 'ąpa İkp ak/: /i-anoţ āpa i-åkp ak/ '3.POS.-hand true 3.POS.-side the'.
12.420 left (side); Izquierda
i'sitk 1kp

12.430 near (adv); cerca
?an'taX?; 1kX

12.440 far (adv); lejos
'amo, taX

12.450 east; este, oriente
sä? ki? 'k'ontita an 'iskim ki? 1kp

12.460 west; oeste, poniente
sä? ki? kon'tita an 'iskim ki? 1kp

12.470 north; norte
?ai '?ano 'moka ki? 1kp

12.480 south; sur
Xnai 1kp

12.530 grow; crecer
-äkp

12.540 measure; medir
-apit

12.541 span, fathom; braza (medida)
-----

12.550 large, big; grande
-äkox

12.560 small, little; chico, pequeño
-isit

12.570 long; largo
-ak'ax

12.580 tall; alto
-ak'ax

12.590 short; corto
-šox

12.610 wide, broad; ancho, amplio
-apit

12.620 narrow; angosto, estrecho
-ösot

12.630 thick (in dimension); grueso
-i'pX, -sop

12.650 thin (in dimension); delgado
-XatkaX

12.670 deep; profundo, hondo
-yait

12.680 shallow; bajo, poco profundo
-----

12.710 flat; plano
-xip

12.730 straight; derecho, recto
-omtX?

12.740 crooked; torcido
-nok?, -noX, -änšX

12.750 hook; gancho
-----

12.760 corner; esquina, rincón
k'w'i?ín

12.770 cross; cruz
'?am? 'a'sošX

12.780 square; cuadrado
-i'sitkXox

12.810 round; redondo
-toknix, -patīx, -kō

12.820 circle; círculo
?a'moIx

12.830 sphere, ball; esfera, pelota, bola
šiX ko'ka?t

12.840 line; línea
?ant ?a'sitoX

12.920 like, similar; semejante
Xa? 'XaI, -mis

12.930 change; cambiar
Ix -a'paka

387 /i'sitk 1kp/: /i-sitk i-äkp/ '3.POS.-left.arm 3.POS.-side'.


390 /?ai '?ano 'moka ki? 1kp/: /?ai ?ano mo-k-a ki? i-äkp/ 'air desert toward-NOMZR.-move the 3.POS.-side'.

391 /Xnai 1kp/: /Xnai i-äkp/ 'southwind 3.POS.-side'.

392 The verb in this expression requires the prefix /ko-/ '3.IO.'.

393 /'?am? 'a'sošX/: /'?am? 'a-ä?-šošX/ 'plant NOMZR.-PAS.-AUG.-cross'.

394 Probably related to the word /-as?a/ 'ear'.

395 The verb /-kō/ requires the prefix /ko-/ '3.IO.'.

396 /?a'moIx/: /?a'moIx/ 'NOMZR.-PAS.-AUG.-encircled'.

397 /šiX ko'ka?t/: /šiX k-o'ka?t/ 'thing NOMZR.-bounce'.

398 /?ant ?a'sitoX/: /?ant ?a-ä?-sitoX/ 'land NOMZR.-PAS.-make.line'.

399 /Ix -a'paka/: /Ix -ä-paka/ 'elsewhere AUG.-be'.

390 Probably related to the word /-as?a/ 'ear'.
13. Quantity and Number

13.000 zero, nothing; cero, nada
?ant ?a'patix

13.010 one; uno 'tašo

13.020 two; dos -òkx

13.030 three; tres -apxa

13.040 four; cuatro -sòx"k

13.050 five; cinco -oîtom

13.060 six; seis i'snàp -àšox

13.070 seven; siete tomkox -I?

13.080 eight; ocho -sòxàkam

13.090 nine; nueve ksoi -?anî

13.100 ten; diez -?anî

13.110 eleven; once t?anî 'tašo -I?

13.120 twelve; doce t?anî 'tòkx -I?

13.130 fifteen; quince t?anî 'tòitom -I?

13.104 twenty; veinte i'?anî -òkx

13.105 hundred; ciento, cien i'?anî -?anî

13.106 thousand; mil

13.107 count; contar -asX

13.140 every, all; cada uno, todos ïx kàp 'tašo, 'iti k?i'yaX

13.150 much, many; mucho -atXö, anXw

13.160 more; más 'kipak

13.170 little (quantity), few; poco -ipxa

13.180 enough; bastante, suficiente oX ?à

13.181 some; un poco, algo, alguno pak

13.190 multitude, crowd; multitud

13.210 full; lleno -kam, -pokt

13.220 empty; vacío i'nàî, -inaX

13.230 part, piece; pedazo ik'tim

13.240 half; mitad imo'îsît

13.330 alone, only; solo, solamente

Related to the word for ‘four’.

13.030 /ksoi -?anî/: /ksoi -?anî/ '?? ten'.

13.050 /t?anî 'tašo -I?/: /t?anî tašo -I?/ 'REALIS-ten one be'. The verb in this expression requires the prefix /ko-/ '3.IO'.

13.060 /t?anî 'tòkx -I?/: /t?anî tòkx -I?/ 'REALIS-ten REALIS-two be'. The verb in this expression requires the prefix /ko-/ '3.IO'.

13.070 /t?anî 'tòitom -I?/: /t?anî t-oîtom -I?/ 'REALIS-ten REALIS-

five be’. The verb in this expression requires the prefix /ko-/ '3.IO'.

13.080 /i'?anî -òkx/: /i-ò-?anî -òkx/ '3.POS.-NOMZR.-ten two'. The verb in this expression requires the prefix /ko-/ '3.IO'.

13.090 /i'?anî -?anî/: /i-ò-?anî -?anî/ '3.POS.-NOMZR.-ten ten'.

13.100 /ïx kàp 'tašo: /ïx kàp 'tašo/ elsewhere the one'; /'iti k?i'yaX/: /i-atî ko-i-?i'yaX/ '3.POS.-on 3.IO.-3.POS.-NOMZR.-end'.

13.110 /oX ?à/: /oX ?à/ 'thus be'.

13.120 /i'nàî/: /i-nàî/ 'with-skin'.

13.130 /ik'tim/: /i-ò-aktim/ '3.POS.-NOMZR.-be.cut'.
13.340 *first; primero*\(^{414}\)
'iki yän ö -ap
13.350 *last; último*\(^{415}\)
'iti -ämä
13.360 *second; segundo*\(^{416}\)
Ik -ap
13.370 *pair; par*
-yai
13.380 *two times; dos veces*\(^{417}\)
-ačk
13.420 *third; tercero*\(^{418}\)
'iki ḫpXa
13.440 *three times; tres veces*\(^{419}\)
-ačpXa

14. Time

14.110 *time; tiempo*
--------
14.120 *age; edad*
--------
14.130 *new; nuevo*\(^{420}\)
kmä -I?
14.140 *young; joven*
'āčka
14.150 *old; viejo*
-šim
14.160 *early; temprano*
--------
14.170 *late; tarde*
--------
14.180 *now; ahora*
kmäX
14.190 *immediately; en seguida, inmediatamente*\(^{421}\)
?ōX Xa? -ämä

14.210 *swift, fast, quick; rápido*
-āfšX
14.220 *slow; despacio, lentamente*
-miʔa, -yäm
14.230 *hasten, hurry; apurar(se), darse prisas*\(^{422}\)
-aʔāfšX, -aʔkapšX, -apšX
14.240 *retard, delay; demorar(se), retrasar(se)*
--------
14.250 *begin, beginning; empezar, comenzar, inicio*\(^{423}\)
-aʔiti
14.252 *last, endure; durar*\(^{424}\)
-ačmX
14.260 *end (temporal); fn*\(^{425}\)
'iti kʷiʔiyat ak
14.270 *finish; acabar, terminar, finalizar*
-aXï
14.280 *cease, stop; cesar, dejar de, detenerse*\(^{426}\)
'akïX -šam
14.290 *ready; listo*
-iʔtäʔo
14.310 *always; siempre*
kóX
14.320 *often; a menudo, frecuentemente*
--------
14.330 *sometimes; a veces*\(^{427}\)
?akX -I?, šimXʷk Xa?
14.331 *soon; pronto*
Xã
14.332 *long-time (for a); por mucho tiempo*\(^{428}\)
?aX tōX -aʔyaXï
14.340 *never; nunca, jamás*
--------

\(^{414}\) /'iki yän ö -ap/: /i-aki i-yän ö -ap/ '3.POS.-with 3.POS.-face ?? stand'.
\(^{415}\) /'iti -ämä/: /i-ati -ämä/ '3.POS.-on used.up'. The verb in this expression requires the prefix /ko-/'3.IO.'.
\(^{416}\) /Ik -ap/: /i-āk -ap/ '3.POS.-side stand'. The verb in this expression requires the prefix /ko-/'3.IO.'.
\(^{417}\) /-āčk/: /-ā-āčk/ 'RAISING-two'.
\(^{418}\) /'iki ḫpXa/: /i-aki i-0-apXa/ '3.POS.-with 3.POS.-NOMZRG-three'.
\(^{419}\) /-ačpXa/: /-a-čpXa/ 'RAISING-three'.
\(^{420}\) /kmä -I?/: /kmä -I?/ 'now be'.
\(^{421}\) /?ōX Xa? -ämä/: /?ōX Xa? -ämä/ '?? and used.up'.
\(^{422}\) /aʔāfšX/ is etymologically related to the word /-āfšX/ 'fast'. The verb /-apšX/ requires the prefix /ko-/ '3.IO.'.
\(^{423}\) /aʔiti/: /-aʔ-iʔi/ 'AUG.-base'.
\(^{424}\) This verb requires the prefix /ko-/ '3.IO.'.
\(^{425}\) /'iti kʷiʔiyat ak/: /i-ati ko-iʔ-iyat ak/ '3.POS.-on 3.IO.-3.POS.-NOMZRG.-measure in.length the'.
\(^{426}\) /'akX -šam/: /'akX -šam/ 'somewhere put'.
\(^{427}\) /?akX -I?: /akX -I?/ 'somewhere be'; /šimXʷk Xa?/ /šimXʷk Xa?/ 'when? and'.
\(^{428}\) /aX tōX -aʔyaXï/: /aX tōX -aʔyaXï/ 'rather far AUG.-measure'.
14.350 again; otra vez, de nuevo
mos i'takô

14.410 day; día
šā?

14.420 night; noche
i'ʔamok

14.430 dawn; madrugada
?ant ?ā iko

14.440 morning; mañana
?ant i'φī

14.450 noon, midday; mediodía
šā? k"i'i'?imak

14.451 afternoon; tarde
šā? kix iš išk -Ix

14.460 evening; vísperas, período del final de la tarde y primeras horas de la noche
i'ʔamok

14.470 today; hoy
šā? ?ipkop

14.480 tomorrow; mañana
?ant -φī

14.481 day-after-tomorrow; pasado mañana
?ant po'φī mos ?ant po'φī

14.490 yesterday; ayer
mo'Xima

14.491 day-before-yesterday; anteayer
mo'Xima ki? 'ipak mo'Xima

14.510 hour; hora
šā? ki? 'ItaX

14.530 clock, timepiece; reloj
šā?

14.610 week; semana
ika'tomak

14.620 Sunday; domingo
ika'tomak

14.630 Monday; lunes

14.640 Tuesday; martes

14.650 Wednesday; miércoles

14.660 Thursday; jueves

14.670 Friday; viernes

14.680 Saturday; sábado
# i'ʃāyo

14.710 month; mes
'IšaX

14.730 year; año
?ant

14.740 winter; invierno
i'?āp̱

14.750 fall; primavera

14.760 summer; verano
i'košim

14.770 autumn; otoño

14.780 season; estación

429 /mos i'takô/: /mos i'takâ-o/ again again-??
430 Same as word for 'sun'.
431 /i'ʔamok/: /i-ʔ-ʔamok/ 3.POS.-NOMZR.-dark'.
432 /?ant ?ā iko/: /?ant ?ā iko/ 'land there 3.POS.-NOMZR.-visible'.
433 /?ant i'φī/: /?ant i-φ-φī/ 'land 3.POS.-NOMZR.-??'.
434 /šā? k"i'i'?imak/: /šā? ko-ʔi'i'?imak/ 'sun ??'. The second word has the root for 'middle' in it.
435 /šā? kix iš išk -Ix/: /šā? kix iš i-śk -Ix/ 'sun the here 3.POS.-side sit'.
436 /i'ʔamok/: /i-ʔ-ʔamok/ 3.POS.-NOMZR.-dark'.
438 /?ant -φī/: /?ant -φ-φī/ 'land ??'.
439 /?ant po'φī mos ?ant po'φī/: /?ant po'-φī mos ?ant po'-φī/ 'land IRREALIS-?? again land IRREALIS-??'

440 /mo'Xima ki? 'ipak mo'Xima/: /mo'Xima ki? i-ʔapak mo'Xima/ yesterday the 3.POS.-back yesterday'.
441 /šā? ki? 'ItaX/: /šā? ki? 'i-ʔ-ʔataX/ 'sun the 3.POS.-NOMZR.-go'.
442 Same as word for 'sun' and 'day'.
443 From Spanish sábado.
444 Same as word for 'moon'.
445 Same as word for 'earth'.
446 /i'?āp̱/: /i-ʔ-ʔap̱/ 3.POS.-NOMZR.-cold'.
447 /i'košim/: /i-ʔ-košim/ 3.POS.-NOMZR.-hot(weather)'.
15. Sense Perception

15.210 smell (vb intrans); oler

15.212 sniff; husmear
-šI

15.220 smell (vb trans); oler, olfactar
-šI

15.250 fragrant; good smelling; fragante, bien oliente448
i'?a'sI -Ipi

15.260 stinking; bad smelling; hediondo
-7amnt, -kon

15.310 taste; gustar, saborear, saber
-pI

15.350 sweet; dulce
-oatx'

15.360 salty; salado
-akat, -kapXž

15.370 bitter; amargo
-akat

15.380 acid; sour; agrio
-kapXž, -xži

15.390 brackish; salobre
-akat, -Xana

15.410 hear; oír
-CI

15.420 listen; escuchar
-kakž

15.440 sound; noise; ruido, sonido449
aaʔ, iʔipon

15.450 loud; alto (voz), ruidoso
-konka

15.460 quiet; silence; silencio, tranquilo
-maI (be quiet)

15.510 see; ver
-aʔo

15.520 look, look at; mirar, contemplar
-škta

15.550 show; mostrar, señalar450
-a'kškta, -a'kšʔot

15.560 shine; brillar451
-aʔ?ai, -šʔ?ox

15.570 bright; brillante
-i'naʔx

15.610 color; color452
'iXika pte im'mis

15.620 light (in color); claro453
?aX ?aʔi ima'iI

15.630 dark (in color); oscuro
-špoʔ, -i'kšpoʔ

15.640 white; blanco
-šxp

15.650 black; negro
-špoʔ

15.660 red; rojo454
-ʔži, -Ciʔx, -aktox

15.670 blue; azul
-oiʔ

15.680 green; verde
-oiʔ

15.690 yellow; amarillo
-masoʔ

15.710 touch; tocar455
-in, -Caktim, 'iti -inoʔ

15.712 pinch; pellizcar
-tIp, -tšita, -titx'

15.720 feel; sentir
-CI

15.740 hard; duro
-aiskan

15.750 soft; suave
-aistik

15.760 rough; áspero
-i'nášx, -i'pákaʔk

15.770 smooth; suave, liso
-o'miʔx

15.780 sharp; afilado, aguzado, filoso
-ita

15.790 blunt, dull; romo, embotado
-it

448 /ʔʔa'sI -Ipi/: /ʔʔ-a'sI -Ipi/ '3.POS.-NOMZR.-AUG.-smell good'


450 /a'kškta/: /ʔak-škta/ 'AUG.-look.at'; /a'kšʔot/: /ʔak-o-aʔot/ 'AUG.-UNSPECIFIED.OBJ.-see-?I?'. These verbs require the prefix /ko-/ '3.IO.'.

451 The root /-šʔ?ox/ is related to the word /šʔ?/ 'sun'.

452 /'iXika pte im'mis/: /Xika pti i-i-m-mis/ 'things together
NOMZR.-OBJ.MARKER-NEG.-resemble'.

453 /ʔʔaX ?aʔi ima'iI/: /ʔʔaX ?aʔi i-m-ʔ-ʔ-CI/ 'just ?? NOMZR.-NEG.-PAS.-feel'.

454 /-aktox/ is archaic.

455 The verb /-in/ requires the prefix /ko- / '3.IO.' /'iti -inoʔ/: /i-ati i-anoʔ/ '3.POS.-on with-hand'.
15.810 heavy; pesado
-motët
15.820 light (in weight); liviano, ligero
-aqšX
15.830 wet; damp; mojado
-ték
15.840 dry; secó
-štix, -ax'w'k
15.850 hot; caliente
-matx
15.851 warm; tibio, cálido
-makê
15.860 cold; frío
-ápî
15.870 clean; limpio
-pâšisX
15.880 dirty, soiled; sucio
-i'íšîk
15.890 wrinkled; arrugado
-monxk, -paskàX, -pasî

16. Emotion (with Some Physical Expressions of Emotion);
Temperamental, Moral and Aesthetic Notions

16.110 soul, spirit; alma
-âsaX
16.150 surprised, astonished; sorprendido, estupefacto
-âsaX -änx
16.180 good fortune, luck; buena suerte
-mišX -akX -ap
16.190 misfortune, bad luck; mala suerte
-ânX -Cîm
16.230 joyful, glad, happy; alegre, contento
-âsaX -ant -oît
16.250 laugh; reír
-asîm
16.251 smile; sonreír
-----
16.260 play; jugar
-âžîm

16.270 love; querer, amar
-aši'sîn
16.290 kiss; besar
-šîp
16.300 embrace; abrazar
-šîX -îši
16.310 pain; dolor
-šîX -xiši
16.320 grief, sorrow, sadness; tristeza, dolor
-pena
-šîX -âmoš -am'kët -šît -?x
16.330 anxiety; worry; ansiedad, angustia
-šîX -îmîp -îtî -a
16.340 regret, be sorry; lamentar, sentir
-âsaX -kâm -a'xiš
16.350 pity; compasión, lástima
-âsi'sîn
16.370 cry, weep; llorar
-?=a
16.380 tear (noun); lágrima
-atoX
16.390 groan; gemir
-ãsX
16.410 hate; odiar
-1kp -paspX
16.420 anger; enojo
-akX, -âsaX -?āmt

456 /-ax'w'k/ is archaic; the verb /-štix/ requires the prefix /ko-/ '3.IO.'.
457 /mišX -akX -ap/; /mišX -akX -ap/ 'well outside stand'. The verb in this expression requires the prefix /ko-/ '3.IO.'.
458 /-ânX -Cîm/ 'to have bad luck':
-ânX -Cîm/ 'buzzard throw to'.
459 /-âsaX -ant -oît/; /-âsaX -ant -oît/ 'spirit land arrive'.

460 /-âsi'sîn/; /-ã-msi'sîn/ 'AUG.-piilable'.
461 /îki -tîpx'w'k/: /i-akî -tîpx'w'k/ '3.POS.-with pinch'.
462 /šîX -xiši/; /šîX -xiši/ 'thing painful'.
463 /šîX -âmoš -am'kët -šît -?x/: /šîX -âmoš -am'kët -šît -?x/ 'thing ABS-heart ?? a 3.POS.-on be.PL'. The verb in this expression requires the prefix /ko-/ '3.IO.'.
464 /šîX -îmîp -îtî -a/: /šîX -îmîp -îtî -a/ 'thing NOMZR.-NEG.-good 3.POS.-on be'. The verb in this expression requires the prefix /ko-/ '3.IO.'.
465 /-âsaX -kâm -a'xiš/: /-âsaX -kâm -a'xiš/ 'spirit the AUG.-painful'.
466 /âsi'sîn/: /-ã-msi'sîn/ 'AUG.-piilable'.
467 /1kp -paspX/: /i-âkp -paspX/ '3.POS.-side ??'. The verb in this expression requires the prefix /ko-/ '3.IO.'.
468 /-akX/ 'be angry with'; /-âsaX -?āmt/ 'spirit stink'.


16.440 envy, jealousy; envidia, celos
3mo k'1maXt

16.450 shame (noun): vergüenza
3a? -mako

16.480 proud; orgulloso
3asx 1mo -ipi

16.510 dare; atreverse
1?isaX kom 1tai

16.520 brave; valiente
1'ktamo, 1?isaX aiXaX

16.530 fear, fright; miedo

16.540 danger; peligro
3h X ka'kato?

16.620 desire; want; anhelar, desear
3ano

16.622 choose; escoger, elegir
3ta -amxk

16.630 hope; esperanza

16.650 faithful; fiel
3amtX -ataX

16.660 true; verdadero
3apa, 3isoX

16.670 lie, tell lies; mentir
3asitam

16.680 deceit; engaño

16.690 forgive; perdonar
3m-aXpX

16.710 good; bueno
3pa

16.720 bad; malo
3mpi3a

16.730 right; correcto

16.740 wrong; incorrecto, falso

16.760 fault; culpa

16.770 mistake; equivocación, error
3h X ?akx i'koi7

16.780 blame; culpa, censura

16.790 praise; exaltar, alabar
3a'kOyam

16.810 beautiful; hermoso, bonito
3a'sim

16.820 ugly; feo
3mpi3a

16.830 greedy; codicioso, voraz

16.840 clever; listo, inteligente, hábil
3?axX -m-?xim, anXw -s?axn -aa

17. Mind, Thought

17.110 mind; mente, pensamiento
3imo3

17.130 think; pensar
3ano, 3imo3

17.140 think; creer, suponer

478 This verb requires the prefix /ko- /
3.1O.'.

479 /-m-aXpX/ /-m-aXpX/
3NEG.-be.mad.at'. The verb in this
expression requires the prefix /ko- /
3.1O.'.

480 /?axX i'koi7/ /?axX ?akx
1-?a-koit/ 'thing apart 3.POS.-
NOMZR.-UNSPECIFIED.SUBJ.-touch'.

481 The verb in this expression requires the prefix
/kO-/ '3.1O.'.

482 /?axX -m-?xim/ /?axX -m-?xim/
??? NEG.-have.sight; /anXw -s?axn
-aa/ /anXw -s?axn -aa/ 'much
abdomen know'.
17.150 believe; creer\textsuperscript{483}\n
- a'\textit{i}a?at, - asox - Cimoš

17.160 understand; entender

-----

17.170 know; saber

- aa

17.171 guess; adivinar, acertar\textsuperscript{484}

- Cimoš

17.172 imitate; imitar\textsuperscript{485}

'iitim - āi

17.180 seem; parecer\textsuperscript{486}

?aXi ta'?i ?aX mā ('it seemed')

17.190 idea, notion; idea, concepto

-----

17.210 wise; sabio

-----

17.220 foolish; necio, estúpido\textsuperscript{487}

?aīX - Ixim

17.230 insane; loco\textsuperscript{488}

fōk'

17.240 learn; aprender

-----

17.242 study; estudiar\textsuperscript{489}

- asox - a'koat

17.250 teach; enseñar\textsuperscript{490}

- a'koat

17.260 pupil; alumno\textsuperscript{491}

?a'paspx k'\textit{i}a'koat

17.270 teacher; profesor, maestro\textsuperscript{492}

?a'paspx k'ka'koat

17.280 school; escuela, colegio\textsuperscript{493}

?a'paspx anó k'ika'koat

17.310 remember; acordarse, recordar\textsuperscript{494}

-amōs - oit

17.320 forget; olvidar\textsuperscript{495}

ikp - ānim

17.340 clear; claro

-----

17.350 obscure; obscuro

-----

17.360 secret; secreto\textsuperscript{496}

i'kaitom istaxk

17.370 sure; seguro\textsuperscript{497}

śiX k'\textit{i}'i?i?at

17.380 explain; explicar\textsuperscript{498}

- āmX

17.410 intention; propósito

-----

\textsuperscript{491} /a'paspx k'\textit{i}a'koat/:

?-a-p-ā-ōspox

ko-?a-ā?- āk-o-aa-t/ 'NOMZR.-

PAŠ.-AUG.-spotted 3.IO.-NOMZR.-PAŠ.-

AUG.-UNSPECIFIED.OBJ.-know-??'.

\textsuperscript{492} /a'paspx k'ka'koat/:

/?a-p-ā-ōspox ko-k-āk-o-aa-t/ 'NOMZR.-

PAŠ.-AUG.-spotted 3.IO.-

NOMZR.-AUG.-

UNSPECIFIED.OBJ.-know-??'.

\textsuperscript{493} /a'paspx anó k'ika'koat/:

/?a-p-ā-ōspox ō-ano

ko-i-ō-ka-āk-o-aa-t/ 'NOMZR.-

PAŠ.-AUG.-UNSPECIFIED.OBJ. 3.POS.-in

3.IO.-3.POS.-NOMZR.-

UNSPECIFIED.SUBJ.-AUG.-

UNSPECIFIED.OBJ.-know-??'.

\textsuperscript{494} /-amoś - oít/: /-amoś - oít/ 'heart

touch'. The verb in this expression requires the

prefix /ko-/ '3.IO.'.

\textsuperscript{495} /ikp - ānim/: /i-āk- ānim/

'3.POS.-side cover'.

\textsuperscript{496} /i'kaitom istaxk/:

/i-ō-ka-aitom i-ō-istaxk/

'3.POS.-NOMZR.-

UNSPECIFIED.SUBJ.-speak 3.POS.-

NOMZR.-hide.PL.'.

\textsuperscript{497} /śiX k'\textit{i}'i?i?at/:

/śiX

ko-i-ō-i'?i?at/ 'thing 3.IO.-3.POS.-

NOMZR.-true'.

\textsuperscript{498} /-āmX/: /-ā-āmX/ 'AUG.-say'. The

verb in this expression requires the prefix

/ko-/ '3.IO.'.

\textsuperscript{483} The verb /-a'\textit{i}a?at/ requires the prefix

/kö-/ '3.IO.'. It is related to the

expression for 'true'. /-asox - Cimoš/: /-asox - Cimoš/ 'self think'.

\textsuperscript{484} The verb in this expression requires the prefix

/kö-/ '3.IO.'.

\textsuperscript{485} 'iitim - āi/; /i-ō-aitim - āi/

'3.POS.-NOMZR.-do do'.

\textsuperscript{486} /aX ta'?i ?aX mā/: /aX t-ā?

- Či ?aX mi-ā/ 'just

DEPENDENT.PAST-PAS.-feel

PROXIMAL-be'.

\textsuperscript{487} /śiX - Ixim/: /śiX - Ixim/ '???

have,sight'.

\textsuperscript{488} From Spanish loco.

\textsuperscript{489} /-asox - a'koat/: /-asox

- āk-o-aa-t/ 'self AUG.-

UNSPECIFIED.OBJ.-know-??'. The verb

in this expression requires the prefix

/kö-/ '3.IO.'.

\textsuperscript{490} /a'koat/: /-āk-o-aa-t/ 'self

AUG.-UNSPECIFIED.OBJ.-know-??'. The verb

in this expression requires the prefix

/kö-/ '3.IO.'.
17.420 *cause; causar* -a?
17.430 *doubt; dudar* 499
?äiX -IXim
17.440 *suspect; sospechar* 500
'ax 'isox -CI, 'iki -akim
17.441 *betray; traicionar* 501
'iki tof -pot, -o'kömxk
17.450 *need; necesitly; necesidad* ----
17.460 *easy; fácil* 502
?äi -Ipa, ?ä -ako
17.470 *difficult; difícil* 503
?ä -mako
17.480 *try, attempt; tratar, probar* -amoś
17.490 *way, manner; modo, manera* 504
'isox i'?äi
17.510 *and; y* Xa?
17.520 *because; porque* ----
17.530 *if; si* ----
17.540 *or; o* ----
17.550 *yes, affirmative; sí* 505
'asa, yo'?ä
17.560 *no, negative; no* 'säta, m-
17.610 *how?; ¿cómo?* ſo

499 /?äiX -IXim/: /?äiX -IXim/ '?? have sight'. The verb in this expression requires the prefix /ko-/ '3.IO'.
500 /'ax 'isox -CI/: /'ax i-asox -CI/ 'just 3.POS.-self feel'; /'iki -akim/: /i-aki -akim/ '3.POS.-with put'.
501 /'iki tof -pot/: /i-aki tof -pot/ '3.POS.-with away ??'; /-o'kömxk/: /-oko-amox/ 'UNSPECIFIED.OBJ.-bring'. The verb in this expression requires the prefix /ko-/ '3.IO'.
502 /?äi -Ipa/: /?äi -Ipa/ '?? good'; /?ä -ako/: /?ä -ako/ '?? visible'.
503 /?ä -mako/: /?ä -mako/ '?? NEG-obsvious'. The negative is synchronically inseparable in this form.
504 /'isox i'?äi/: /i-asox i-?äi/ '3.POS.-self 3.POS.-NOMZR.-do'.
505 Both may be etymologically verbal in origin, deriving from the irregular verb for 'be'.

17.620 *how many?; ¿cuántos?* 506 ſo 'kyaXi
17.630 *how much?; ¿cuánto?* 507 ſo 'kyaXi
17.640 *what?; ¿qué?* aš
17.650 *when?; ¿cuándo?* šimx"k
17.660 *where?; ¿dónde?* 508 '?aki, ſo ?ant
17.670 *which?; ¿cuál?* '?iki
17.680 *who?; ¿quién?* kí
17.690 *why?; ¿por qué?* 509 ſo 'tpaktama

18. Vocal Utterance, Speech; Reading and Writing

18.110 *voice; voz* -apon
18.120 *sing; cantar* -ős
18.130 *shout, cry out; gritar* -inx
18.150 *whisper; cuchichear* 510 -sXän õ -aítom
18.160 *mumble; barbotar, refunfuñar, hablar entre dientes* 511 -täst -kañi -aítom
18.170 *whistle; silbar, chiflar* -sipXox
18.180 *shriek; chillar* ----
18.190 *howl; aullar* 512 -apon -a'?ô?k", 'koža -ôšfk
18.210 *speak, talk; hablar* -aítom, -sâX"
18.211 stutter, stammer; tartamudear, balbucear⁵¹³
\[Ikp\] -nipatim
18.220 say; decir
-\[a\], -amX, -\[ã\]
18.221 tell story; narrar, contar⁵¹⁴
\[-amaśXa\]
18.222 speech (make a); decir un discurso
-----
18.230 silent (be); callarse
-\[mai\]
18.240 language; lengua, idioma⁵¹⁵
\[Itom\]
18.260 word; palabra⁵¹⁶
\[i'kaitom\]
18.280 name; nombre
-\[tāsi\]
18.310 ask (question, inquire); preguntar
-\[mi\[i\]t
18.320 answer; contestar⁵¹⁷
-\[aipot\]
18.220 admit, confess; admitir, confesar, reconocer⁵¹⁸
-\[asox\] -a'kōmX
18.340 deny; negar
-\[māt\]
18.350 ask, request; pedir⁵¹⁹
-\[mi\[i\]t
18.360 promise; prometer⁵²⁰
-\[amX\]
18.370 refuse; rehusar
-----
18.380 forbid; prohibir⁵²¹
-\[āita\] -a's'kita
18.390 rebuke, scold; reprender⁵²²
-\[a'kānt\] -\[aXnix\]
18.410 call (= summon); llamar (= indicate a alguien que venga por medio de voces o señas
-\[āa\]
18.420 call (= name); llamar, denominar, nombrar⁵²³
-\[a'tāsit\]
18.430 announce; anunciar, avisar⁵²⁴
\[kā\] -a'kōat
18.440 threaten; amenazar
-\[a'kat'\]a
18.450 boast; jactarse⁵²⁵
\[?akX\] 'i'sox -āitim
18.510 write; escribir⁵²⁶
-\[āspox\]
18.520 read; leer⁵²⁷
\[?a'paspox\] -a'kaitom
18.560 paper; papel⁵²⁸
\[?a'paspox\]
18.570 pen; pluma⁵²⁹
\[i'kāspox\]
18.610 book; libro⁵³⁰
\[?a'paspox\] a'nōkax
18.670 poet; poeta
-----

⁵¹³ /Ikp\ -nipatim/: /i'Ikp\ -nipatim/ '3.POS.-side hit.REP.'
⁵¹⁴ /-amaśXa/ is the iterative form of the verb
\[-amX/ 'say'.
⁵¹⁵ /Itom/: /i-ō-aitom/ '3.POS.-NOMZR.-speak'.
⁵¹⁶ /i'kaitom/: /i-ō-ka-aitom/ '3.POS.-NOMZR.- UNSPECIFIED.SUBJ.-speak'.
⁵¹⁷ The verb in this expression requires the prefix
\[/ko- '3.IO'.
⁵¹⁸ /-asox\ -a'kōmX/: /-asox
\[-a'kōmX/ 'self AUG.-UNSPECIFIED.OBJ.-say'.
⁵¹⁹ The verb in this expression requires the prefix
\[/ko- '3.IO'.
⁵²⁰ /-amX/: /-ā-amX/ 'AUG.-say'. The verb in this expression requires the prefix
\[/ko- '3.IO'.
⁵²¹ The verb /-āita\ requires the prefix
\[/ko- '3.IO'.
⁵²² /-aXnix/ is archaic.
⁵²³ /-a'tāsit/: /-ā-tāsi-t/ 'AUG.-name-??'.
⁵²⁴ /kā\ -a'kōat: /k-ā\ -a'kōat/ 'NOMZR.-prepare AUG.-know'.
⁵²⁵ /?akX\ 'i'sox -āitim/: /?akX
\[i-asox\ -āitim/ 'apart 3.POS.-self do.REP.' The verb in this expression
requires the prefix \[/ko- '3.IO'.
⁵²⁶ /-āspox/: /-ā-ōspox/
\['AUG.-spotted'.
⁵²⁷ /?a'paspox\ -a'kaitom/: /?a-ś-ōspox -a'kaitom/
\['NOMZR.-PAS.-AUG.-spotted AUG.-talk'.
⁵²⁸ /?a'paspox/: /?a-ś-ōspox/
\['NOMZR.-PAS.-AUG.-spotted'.
⁵²⁹ /i'kāspox/: /i-ō-ka-ś-ōspox/
\['3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-AUG.-spotted'.
⁵³⁰ /?a'paspox\ a'nōkax/: /?a-ś-ōspox a-ā?-nōkax/
\['NOMZR.-PAS.-AUG.-spotted NOMZR.-PAS.-carry'.

227
18.710 *flute; flauta
18.720 *drum; bombo, tambor
18.730 *horn, trumpet; trompeta, trompa, corneta
# 'ʔaʔo an i'kọpXox
18.740 *ratite; cascabel, sonajero, matraca
šíX ʔaʔaŋína', 'ʔaʔaš

19. Territorial, Social, and Political Divisions; Social Relations

19.110 *country; país
19.120 *one's native country; patria
19.150 *city; ciudad
'ʔaʔíatul
19.160 *village; pueblo
'ʔaʔíatul
19.170 *boundary; límite, frontera

19.210 *people (population); pueblo (término para designar a la gente común por oposición a otras clases sociales)
kom ʔaʔak
19.230 *tribe, clan; tribu, clan

19.240 *chief; jefe, cacique
kiʔæʔæ kākox, šíX ʔant-a'kọt
19.250 *staff, walking stick; bastón, bordón
ikašók
19.310 *rule, govern; gobernar

19.320 *king, ruler; rey, gobernante
kiʔæʔæ kākox
19.330 *queen; reina

19.360 *noble, nobleman; noble

19.370 *citizen, subject; ciudadano, súbdito

19.410 *master; amo, dueño

19.420 *slave; esclavo

19.430 *servant; sirviente

19.440 *freeman; hombre libre

19.450 *command; mandar
-o'koat
19.460 *obey; obedecer
 itm kiʔ 'ití āí
19.470 *let, permit; permitir, dejar
-akatX
19.510 *friend, companion; amigo, compañero

19.520 *enemy; enemigo
ikp ãaʔai
19.540 *neighbor; vecino
yaʔæʔamät
19.550 *stranger; extranjero
'koksaʔ
19.560 *guest; huésped (quien se hospeda)

19.570 *host; huésped, hospedero (quien hospeda a otros)

531 'ʔaʔo an i'kọpXox/ 'ʔaʔo 0-an i-ʔ-ka-0-apXox/ 'gold 3.POS.-in 3.POS.-NOMZ-UNSPECIFIED.SBJ.-UNSPECIFIED.OBJ.-inflate'. From Spanish oro.
532 /šíX ʔaʔaŋína:/ /šíX ʔa-aʔ-ŋ-íní/ 'thing NOMZR.-PAS.-AUG.-sound'.
533 /kiʔæʔæ kākox/ /k-ıʔ-æʔæ kākox/ 'NOMZ-UNSPECIFIED.SBJ.-WITH-plant NOMZR.-big'.
534 /saʔaš/ /1-0-ka-ašók/ '3.POS.-NOMZR.-UNSPECIFIED.SBJ.-have.staff'.
535 /kiʔæʔæ kākox/ /k-ıʔ-æʔæ kākox/ 'NOMZR.-WITH-plant NOMZR.-big'.
536 /-o'koat/: /-oko-aat/ 'UNSPECIFIED.OBJ.-order'.
537 /itm kiʔ 'ití āí:/ /1-0-aimtom kiʔ 1-ati āí/ '3.POS.-NOMZR.-talk the 3.POS.-on do'.
538 /ikp ãaʔai:/ /i-akp ãáʔ-yaí/ '3.POS.-SIDE NOMZR.-PAS.-HELP.lower'.
539 /yaʔæʔamät/ /1-yaʔæʔamät/ '3.POS.-NOMZ.-HAVE.neighbor'. This word is related etymologically to the word /ʔama/ 'camp'.
540 Because of the /t/, this must be a loanword, but the source is unknown.
20. Warfare

20.110 fight (vb); pelear
-áto, -ámóixim

20.130 war, battle; guerra, batalla

20.140 peace; paz

20.150 army; ejército, tropas
'Xika ko'yai

20.170 soldier; soldado
# san'tāf, šix ki'Xāša

20.210 weapons, arms; armas

20.220 club; maza, garrote

20.222 battle-ax; hacha de combate

20.230 sling; honda
?ap'naix an i'kōXkim

20.240 bow; arco
'ʔaknì

20.250 arrow; flecha
?a'Xāša

20.260 spear; lanza
?a'kāiš

20.270 sword; espada
# ?as'pīya

20.280 gun, cannon; escopeta, cañón
# arm 'ʔaknì

20.310 armor (defensive); armadura

20.330 helmet; yelmo

20.340 shield; escudo

20.350 fortress; fortaleza

20.360 tower; torre

20.410 victory; victoria

20.420 defeat; derrota

20.430 attack; atacar
-šam

20.440 defend; defender
-ayaš

20.450 retreat; huir, retirarse
-oxōš

20.460 surrender; rendirse
'isox 'ʔamæ -amxk

20.470 captive, prisoner; cautivo, preso
?a'naix

20.471 guard, sentinel; guarda, centinela

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541 /ʔaX -āi/; /i-aʔaX -āi/ '3.POS.-with do'.
542 '/isox iʔāi/; /i-asox i-ʔ-āi/ '3.POS.-self 3.POS.-NOMZR.-do'.
543 /-apxk/; /-o-ixpk/ 'UNSPECIFIED.OBJ.-grab'.
544 /kmām 'kmpləʔa/; /kmām k-mpaʔa/ 'woman NOMZR.-bad.REP'.
545 /'Xika ko'yai/; /Xika k-o-yai/ 'things NOMZR.-UNSPECIFIED.OBJ.-help.lower'.
546 /san'tāf/ 'soldier', from Spanish soldado, probably via Uto-Aztecan; compare Tohono O'odham (Papago) shonait. /šix ki'Xāša/; /šix k-i-ʔXāša/ 'thing NOMZR.-with-arrow'.
547 /ʔa-pnaiš an i'kōXkim/; /ʔa-pnaiš ʔ-ano i-ʔ-ka-o-aXkim/

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'ABS.-?? 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-throw'. (/⁻pnaiš/ means 'skin' in isolation today; it is etymologically derived from /ʔap i'naix/ 'deer 3.POS.-skin'.
548 /ʔa'Xāša/; /ʔa-ʔ-ʔ'Xāša/ 'NOMZR.-PAS.-drip'
549 /ʔa'kāiš/; /ʔa'kāiš/ 'ABS.-spear'.
550 From Spanish espada.
551 /ʔam 'ʔaknì/; /ʔam 'ʔaknì/ 'metal bow'. Compare 9.670.
552 /'isox 'ʔamæ -amxk/; /i-asox 'ʔamæ -amxk/ '3.POS.-body camp bring';
553 /ʔa'naix/; /ʔa-ʔ-ʔ'naix/ 'NOMZR.-PAS.-catch'.

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20.480 booty, spoils; botín
20.490 ambush; acechar, emboscar
20.510 fisherman; pescador
20.520 fishhook; anzuelo
20.530 fishing line; cuerda de pescar
20.540 fishnet; red, atarraya
20.550 fish trap; nasa
20.560 bait; cebo, carnada
20.610 hunt; cazar
20.620 shoot; tirar, disparar
20.630 miss (target); errar, fallar
20.640 trap (noun); trampa
20.650 trap (vb); atrapar
21.110 law; ley
21.150 court; tribunal
21.160 judge (vb); juzgar
21.170 judgment; juicio
21.180 judge (noun); juez
21.210 plaintiff; demandante
21.220 defendant; acusado
21.230 witness; testigo
21.240 swear; jurar
21.250 oath; juramento
21.310 accuse; acusar, denunciar
21.320 condemn; condenar
21.330 convict (vb); demostrar la culpabilidad (de alguién)
21.340 acquit; absolver, exculpar
21.350 guilty; culpable
21.360 innocent; inocente
21.370 penalty, punishment; castigo
21.380 fine; multar
21.390 prison, jail; cárcel
21.420 murder; asesinar
21.430 adultery; adulterio
21.440 rape; violación

21. Law

21.110 law; ley
     ki'?a? kix 'isox i'?ái
21.150 court; tribunal

554 /'kā?ît/: /k-ā-a?it/ 'NOMZR.-AUG.-eat'.
556 /'Xæpæ pōsX/: /Xæpæ pōsX/ 'sea mesquite. rope'.
557 /śIX i'kā?ît/: /śIX i-ō-ka-ā?it/ 'thing 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-AUG.-eat'.
558 /an iki'mōna?ka/: /ß-ano i-ō-ka-i'mōna?ka/ '3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-have. feet'. The verb root is related historically to the archaic word for 'foot', /-mōnx/.
559 /ki'?a? kix 'isox i'?ái/: /k-1-?a? kix i-asox i-?ái/ 'NOMZR.-with-plant the 3.POS.-body 3.POS.-NOMZR.-do'.

560 /-a'kōmX/: /-āk-o-amX/ 'AUG.-UNSPECIFIED.OBJ.-say'.
561 /?'ak̄o an iko'kāitaX/: /?'ak̄o ò-ano i-ō-ka-o-kāitaX/ 'house 3.POS.-in 3.POS.-NOMZR.-UNSPECIFIED.SUBJ.-UNSPECIFIED.OBJ.-put.ITER'.
562 /?akX -a'mi?it/: /?akX -ā-mi?i-t/ 'somewhere AUG.-die??'.
563 The verb /-n-ip/ in this expression requires the prefix /ko-/ '3.IO.'.
22. Religion and Superstition

22.110 religion; religión

22.120 
22.130 temple, church; templo, iglesia

22.140 altar; altar

22.150 sacrifice, offering; ofrenda

22.160 worship; adorar, profesar culto

22.170 pray; orar

22.180 priest; sacerdote

22.190 holy; sacred; sagrado

22.220 preach; predicar

22.230 bless; bendecir

22.240 curse; maldecir

22.260 fast (vb); ayunar

22.310 heaven; cielo, paraíso

22.320 hell; infierno

22.350 demon (evil spirit); demonio (espíritu malo)

22.370 idol; ídolo

22.420 magic, witchcraft; sorcery; brujería, hechicería

22.430 sorcerer, witch; brujo/bruja, hechicero/hechicera

22.440 fairy, elf; hada, duende

22.450 ghost, phantom; fantasma

22.470 omen, portent; agüero, presagio

23. Regional Phenomena

23.000 gila monster; lagarto escorpión

23.000 lobster; langosta del mar

23.000 shrimp; camarón

23.000 osprey; gavilán pescador

23.000 sea turtle; caguama

23.000 mountain lion; gato montés

23.000 saguaro cactus; cardón

23.000 saguaro cactus; saguaro

23.000 barrel cactus; biznaga

564 /iko'kōs 'kiya/: /ika-o-kōs

565 From Spanish dios.

566 /'Xika 'kōsi ki? '?ako ano yai/: /Xika k-ōsi ki? '?ako

567 /yōs -a'tožek/: /yōs -a'tožek

568 From Spanish padre.

569 /'a'kakotož/: /ā-kakotož/

570 /mīšx -āi/: /mīšx -āi/ 'well do'.

571 This may be derived historically from /?am

572 /?ako 'kama/: /?ako k-ama/

573 /i'kIsaX ?ipi ?akX kāp/: /iki-āsaX ?ipi ?akX k-āp/

586 /'Xika k-ōsi ki? '?ako ano yai/: /Xika k-ōsi ki? '?ako

587 /2-ano 1-y-0i/ 'things

588 From Spanish dios.

589 /'a'kakotož/: /ā-kakotož/

590 /3.IO.'.
23.000  *limberbush; torote (Jatropha)*  
?āt

23.000  *elephant tree; torote (Bursera)*  
Xōp

23.000  *mesquite tree; mezquite*  
ʔās

23.000  *ironwood tree; palo fierro (Olneya tesota)*
ko’mitin, ʔʔasān

23.000  *palo verde; palo verde*  
šipXʷʔ, šix

23.000  *raccoon; mapache*  
Xān

23.000  *creosote bush; hediondilla, gobernadora*  
ʔʔaXat

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574 /ko’mitin/ 'green ironwood'; ʔʔasān/ 'dry ironwood'.