Southeastern Pomo Grammar

By

Julius Barry Moshinsky

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Approved:

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Committee in Charge

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PREFACE

This phonological and grammatical sketch of the Southeastern Pomo language is based on data which I gathered as a fieldworker for the Survey of California and other Indian Languages, between 1965 and 1968. I undertook three field trips during this period, each lasting from eight to ten weeks. I received research funds from the Survey and from the Phillips Fund of the American Philosophical Society.

I want to express my thanks to many individuals. First of all, to Mary R. Haas, who introduced me to American Indian linguistics, directed my attention to Southeastern Pomo, and altered my linguistic viewpoints for the better on more than one occasion.

Secondly, I would like to thank Abraham Halpern, whose extremely thorough field notes on Southeastern Pomo, gathered as part of a survey of all seven Pomo languages in 1939-1940, enriched my own work considerably. The people that Halpern worked with were from an earlier generation, and discussions and re-elicitations of his materials with Albert Thomas proved extremely valuable.

Most importantly, I want to thank the people who taught me about Southeastern Pomo for their time, energies and patience: Albert Thomas and John and Effie
Kelsey of Sulfur Bank, Lake County, California; Jim Brown of Upper Lake, Lake County, California; and Harry Johnson of Alexander Valley, Sonoma County, California. I am indebted to them all.

Finally, I have derived a great deal of linguistic insight, encouragement and general therapy from discussions with my committee members and the following individuals: John Crothers, Robert C. Hollow, Terrence S. Kaufman, Sally McLendon, Mauricio J. Mixco, Robert L. Oswalt, Douglas R. Parks, Shirley K. Silver, Leonard Talmy, Eero Vihtanen and Marilyn Kay Vihtanen.
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PART ONE - INTRODUCTION

Chapter One. Introduction

1.1. Linguistic Affiliations and Geography

Southeastern Pomo is one of seven distinct languages comprising the Pomoan family. Sapir classified Pomo as part (c) of the Northern Hokan branch of the Hokan stock, within the Hokan-Coahuiltecan group of the Hokan-Siouan superstock.¹

Six of the seven Pomo languages were spoken in an area extending from a point sixty miles north of San Francisco, northward for ninety miles, and from the Pacific Coast eastward about fifty miles. The seventh language, Northeastern Pomo, was spoken east of this area, across the Inner Coast Range.² Southeastern Pomo was spoken in an area surrounding East Lake and Lower Lake, in Lake County. The area extended from approximately the town of Clear Lake Oaks at the north, to the bottom of Lower Lake at the south. The Southeastern Pamos inhabited two modern sites: the Lower Lake Rancheria on the northern bank of Cache Creek, about one and a half miles northeast of the town of Lower Lake; and the Sulphur Bank Rancheria, on the eastern shore of East Lake, the eastern arm of Clear Lake, at a point about one-half mile north of the Sulphur Bank mine.³
All of the informants available at the time of my fieldwork were from Sulphur Bank. Dialect divergences between Sulphur Bank and Lower Lake Southeastern Pomo seem to be minimal, however, restricted to a small number of lexical differences.

1.2. Informants

Although there are still about a dozen speakers of Southeastern Pomo, I was able to work with only five people. Three of these, John and Effie Kelsey and Albert Thomas, all in their late 50's, still use the language on a daily basis. Harry Johnson, in his late 70's, speaks Pomo with them occasionally. Jim Brown, also in his 70's, had not spoken the language actively for about thirty years, but was able to recall a great deal.

Texts were elicited from Jim Brown, Harry Johnson and John Kelsey. Most of the verb paradigm material was elicited from Albert Thomas, with whom I also re-elicited and analyzed all of Halpern's 1939-40 Southeastern Pomo texts and morphological data.

1.3. Scope of the Description

Because of the fact that no aspect of Southeastern Pomo phonology or grammar has ever been described, and because of the apparently imminent demise of this language, my fieldwork was directed towards an overview of the
language, rather than towards a deeper study of any single subsystem or group of related phenomena. It is hoped that the resulting sketch, which obviously can make no grandiose claims as to psychological validity or as a representation of the competence of a Southeastern Pomo speaker, will nonetheless be of some use to people interested in Hokan descriptive and historical studies, and in related fields.

An attempt has been made to structure the description so that it can be easily used by people with varying interests. All inflectional and derivational morphemes have been listed and semantically characterized in an inventory fashion, in addition to having been described as functional elements in syntactic processes. Given my limited knowledge of the language, the description of selected transformational processes is naturally the most speculative part of the dissertation.

No Pomo bibliography will be included, since extensive Pomo and Hokan-Coahuiltecan linguistic bibliographies have already been compiled by Robert Oswalt and Margaret Langdon, respectively.
NOTES TO PART ONE


3 S.A. Barrett, The Ethno-geography of the Pomo and Neighboring Indians. University of California Publications in American Archaeology and Ethnology, vol. 6, no. 1 (February, 1908), pages 204-209.

4 Barrett refers to this site as xna' day "balsa landing", and to the site on Rattlesnake Island, on Clear Lake just opposite Sulphur Bank as elém. The informants I worked with called Sulphur Bank elém and Rattlesnake Island, elém mdon "Elem Island."

PART TWO - PHONOLOGY

Chapter 2. Phonetics

2.1. Phonetic Inventory

In this section the distinctive segment types of Southeastern Pomo will be listed, that is, those segments which must be distinguished at a systematic phonetic level, before phonetic detail rules converting binary to n-ary valued matrices operate. All of these segments except for e, ë, ë and n are also present at the systematic phonemic level. All schwas are products of the Pretonic Vowel Epenthesis rule, ë and ë are products of the Palatal Backing rule, and n is produced by the Nasal Assimilation rule.

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2.2. Articulatory Descriptions

The articulation of the segments listed in 2.1. will be described in this section. Several informal statements of semi-systematic low-level phonetic alternations will be made.

2.2.1. Obstruents

2.2.1.1. Voiced Stops

This series is defective by comparison with the voiceless and glottalized series, having only two members, \( b \) and \( d \). Both are rather fortis in articulation, and voiced throughout their duration.

The phone \( d \), like its voiceless and glottalized counterparts, is usually articulated in roughly the same position as the English alveolar stops, but may be retroflexed, especially in the environment of post-velar consonants, as in [\( \ddot{x}d\ddot{q}\ddot{q} \)] 'gopher snake'. Other examples of \( b \) and \( d \) are [\( \ddot{\text{a}}\ddot{b}k\ddot{o} \)] 'dreamer, story-teller', [\( \ddot{b}\ddot{a}l \)] 'tongue', [\( \ddot{\text{c}}\ddot{u}\ddot{w}\ddot{a}\ddot{l}\ddot{b}u \)] 'thumb', [\( \ddot{b}\ddot{e}\ddot{d}\ddot{a} \)] 'creek' and [\( \ddot{d}\ddot{u}\ddot{y}\ddot{t}\ddot{l}\ddot{a}\ddot{t} \)] 'he turns around'.

2.2.1.2. Voiceless Stops

Southeastern Pomo distinguishes two apical stops, \( t \) and \( \ddot{t} \), in both the voiceless and glottalized series. \( t \) is an apico-interdental to apico-dental stop, and \( \ddot{t} \) is an apico-alveolar to retroflexed apical stop. The
range of articulatory variation is a result of differences both between idiolects and within single idiolects, as a result of both random variation and phonetic conditioning such as that noted for d.

\( \text{c} \) is a palato-alveolar affricate for the most part, but is articulated further back in the palatal region when a palatal vowel or glide follows (see the Palatal Backing rule in 4.2), for some speakers.

The \( k-q \) distinction is basically that between a velar and a post-velar stop, although articulatory position may not always be the primary factor. The post-velar stop is typically more fortis in articulation, and there may be considerable \( \chi \)-affrication with \( q \), even a failure to effect closure at times. In such instances, especially in word-final position, \( q \) is quite difficult to distinguish from \( \chi \).


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2.21.3. Glottalized Stops


2.21.4. Spirants

Southeastern Pomo has only a voiceless spirant series. ꜣ is labio-dental, ŋ is palatal, and x, ɣ and ʃ are articulated in the same positions as the corresponding stops. As noted with the velar and post-velar stops, articulatory position may not be the primary effector of the x-ɣ distinction. Not only does x seem to be less fortis than ŋ, but the velar spirant also seems to be accompanied by a spreading and tensing of the lips during its articulation. Examples of the spirants are [ʃaːl] 'mushroom', [ʃnóː] 'pelican', [mufú] 'wormwood', [ʃdáːŋə] 'devil', [ʃaːlab] 'hair net, burden net', [ʃbé b'qóː] 'coot', [xá] 'fish', [xá] 'water', [xubá] 'body', [xəbá] 'fog' and [hédabaq] 'foreign'.

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2.21.5. Sonorants

The non-syllabic sonorants consist of the nasals m, n and η (which is always a product of the Nasal Assimilation Rule), the lateral l, and semivowels w and y. l is always "light", with no velar co-articulation. There is also a flap r which sometimes occurs in Spanish loans, but is usually replaced by d or l, for example /tōdu/ ~ /tōru/ 'bull', /rēdu/ ~ /rēredu/ 'blacksmith' and /sōmlilu/ 'hat'.

There are six vowels, schwa occurring only epenthetically before stress. They are all lax, with the approximate phonetic qualities [I], [ɛ], [a], [ə], [U] and [o]. There is some tendency to tense vowels in word-final syllables.


2.3. Feature Analysis

2.31. Theoretical Framework

The feature theory I will use is basically that presented in The Sound Pattern of English. This system
describes Southeastern Pomo phonetics and phonological processes more adequately than any other I have seen. Binarity of feature values is assumed for all phonological rules. While phonetic detail rules, mapping binary onto n-ary values are considered to be a necessary part of the phonological component, none will be given, because of the theoretical and instrumental problems involved. I do not assume that such rules are necessarily universally specified, however.¹

One problem in the specification of the stops should be mentioned. In Chomsky and Halle's phonetic theory the claim is made that in languages possessing both dental and alveolar stops in distinctive opposition, the actual positions of articulation are determined secondarily, by low-level phonetic rules. They claim that the distinction is manifested primarily by a feature "Distributed", which is roughly parallel to the traditional distinction between apical and laminal articulation.²

Distributed is defined in the following manner (page 312):

Distributed sounds are produced with a constriction that extends for a considerable distance along the direction of air flow; nondistributed sounds are produced with a constriction that extends only for a short distance in this direction. Although I have made no instrumental measurements on this for Southeastern Pomo, my observations are that the dental
articulation is typically made by an occlusion extending from the tongue apex, placed directly against the underside of the teeth, the tip extending slightly beyond the teeth, and backwards to effect some laminal contact on the front part of the alveolar ridge. The articulation of the alveolar stops, on the other hand, shows less extension along the direction of air flow, varying between a solely laminal occlusion against the central part of the alveolar ridge, to a more apical closure at about the same position, or somewhat further back.

In addition, there seem to be other articulatory mechanisms which aid in distinguishing the dental from the alveolar stops. Word-finally the plain dental stop may be affricated, producing an easily audible [$t^\theta$]. And the alveolar stops $d$, $t$ and $\acute{t}$ may be considerably retroflexed, as noted in 2.21.1.

Although I do not have conclusive evidence one way or the other as to the suitability of the Distributed feature to describe this distinction in Pomo, it is a reasonable hypothesis, and will be utilized in this study.

2.32. Systematic Phonetic Feature Matrix

The following matrix is a characterization of Southeastern Pomo segments at a systematic phonetic level. Systematic phonemic matrices will be presented in 3.3.
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Chapter 3. Pre-phonology

In this chapter, in section 3.1., I will present morpheme structure conditions which relate fully specified systematic phonemic matrices to minimally redundant lexical representations of morphemes. Both fully and minimally specified systematic phonemic matrices will be given in section 3.2.3.

3.1. Morpheme Structure Conditions
3.1.1. Segment Structure Conditions

An unordered set of if-then conditions relating complete feature specifications of individual segments to minimally redundant specifications will be given in this section. The application of these conditions to the matrix in section 3.22. will result in the matrix in section 3.21.

1. \([-\text{son}] \rightarrow \begin{array}{l}
-\text{syll} \\
+\text{cons} \\
-\text{low} \\
-\text{round} \\
-\text{nasal} \\
-\text{lat} \\
-\text{length} \\
\end{array} \]

2. \([+\text{son}] \rightarrow \begin{array}{l}
-\text{glot Ci} \\
-\text{del rel} \\
-\text{glot pres} \\
+\text{voiced} \\
-\text{strid} \\
-\text{distr} \\
\end{array} \]
3. \([+\text{syll}] \rightarrow [+\text{son}\]
   \hspace{1cm}|-\text{cons}\]
   \hspace{1cm}|\hspace{1cm}|-\text{cor}
   \hspace{1cm}|-\text{ant}
   \hspace{1cm}|-\text{distr}
   \hspace{1cm}|-\text{nasal}
   \hspace{1cm}|-\text{lat}
   \hspace{1cm}+\text{cont}\]

4. \([-\text{syll}] \rightarrow [-\text{length}]\]

5. \([-\text{cons}] \rightarrow [+\text{son}\]
   \hspace{1cm}|-\text{cor}
   \hspace{1cm}|-\text{ant}
   \hspace{1cm}|-\text{nasal}
   \hspace{1cm}|-\text{lat}
   \hspace{1cm}+\text{cont}\]

6. \([+\text{cor}] \rightarrow [-\text{high}\]
   \hspace{1cm}|-\text{low}
   \hspace{1cm}|-\text{back}
   \hspace{1cm}|-\text{round}\]

7. \([+\text{ant}] \rightarrow [-\text{high}\]
   \hspace{1cm}|-\text{low}
   \hspace{1cm}|-\text{back}
   \hspace{1cm}|-\text{length}\]

8. \([+\text{high}] \rightarrow [-\text{low}]\]

9. \([+\text{low}] \rightarrow [+\text{syll}\]
   \hspace{1cm}|-\text{high}
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   \hspace{1cm}|-\text{round}\]

10. \([+\text{round}] \rightarrow [-\text{low}\]
    \hspace{1cm}+\text{back}\]

11. \([+\text{distr}] \rightarrow [+\text{ant}\]
    \hspace{1cm}|-\text{del rel}\]

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12. \([+\text{glot cl}] \rightarrow \begin{bmatrix} -\text{son} \\ -\text{cont} \\ -\text{voiced} \end{bmatrix}\)

13. \([+\text{nasal}] \rightarrow \begin{bmatrix} +\text{son} \\ -\text{yll} \\ +\text{cons} \\ +\text{ant} \\ -\text{round} \\ -\text{lat} \\ -\text{cont} \end{bmatrix}\)

14. \([+\text{lat}] \rightarrow \begin{bmatrix} +\text{son} \\ -\text{yll} \\ +\text{cons} \\ +\text{cor} \\ +\text{ant} \\ -\text{distr} \\ -\text{nasal} \\ +\text{cont} \end{bmatrix}\)

15. \([+\text{cont}] \rightarrow \begin{bmatrix} -\text{glot cl} \\ -\text{del rel} \\ -\text{glot pr} \end{bmatrix}\)

16. \([+\text{del rel}] \rightarrow \begin{bmatrix} -\text{son} \\ +\text{cor} \\ +\text{ant} \\ -\text{distr} \\ -\text{cont} \\ -\text{voiced} \\ +\text{strid} \end{bmatrix}\)

17. \([+\text{glot pr}] \rightarrow [+\text{glot cl}]\)

18. \([+\text{ht sbg pr}] \rightarrow \begin{bmatrix} -\text{cor} \\ -\text{ant} \\ -\text{high} \\ -\text{back} \\ -\text{glot cl} \\ +\text{cont} \\ -\text{del rel} \\ -\text{glot pr} \\ +\text{strid} \end{bmatrix}\)
19. \([+\text{voiced}] \rightarrow [-\text{glot ci}] [-\text{strid}]\)

20. \([-\text{voiced}] \rightarrow [-\text{son}]\)

21. \([+\text{strid}] \rightarrow [-\text{son}] [-\text{voiced}]\)

22. \([-\text{son}] [+\text{voiced}] \rightarrow [+\text{ant}] [-\text{cont}] [-\text{glot pr}]\)

3.12. Sequence Structure Conditions

An unordered set of sequence structure conditions, characterizing redundancies in feature specifications of phonemes, will now be given.

1. \(d\) and \(h\) do not occur as the first element of a consonant sequence.

\[
\sim \left\{ \begin{array}{c}
[-\text{son} \\
[+\text{voiced}] \\
[-\text{son}] \\
[-\text{ant}] \\
[-\text{high}] \\
[-\text{back}] \\
 [+\text{cont}] \\
\end{array} \right\} [-\text{syll}]\]
2. h and ? do not occur morpheme-finally.

```
-son
-ant
-high
-back
```

3. All morpheme-final two-consonant sequences have a resonant as the first member.

```
[-syll] → [+son] / +cons [-syll] +
```

4. The only voiceless segments occurring after $x$ and $\chi$ are velar and post-velar stops and $\delta$.

```
[-voiced] → ([+back]
-CONT
{[+glot cl]
-GLOT PR}) / [+back]
+CONT
-voiced
```

5. There are no vowel sequences.

```
~ [+syll] [+syll]
```

6. The only voiceless stops that can follow t, ɾ, ɾ or ɾ are homorganic.

```
[-cont]
-voiced
→ [+cor
很小
-distr
-DEL REL
-voiced]
```

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7. Glottalized stops are never followed by glottalized stops.

\[ \sim [+\text{glot pr}] [+\text{glot pr}] \]

8. Spirants are never followed by spirants.

\[ \sim [-\text{son}] [-\text{son}] \]

\[ [+\text{cont}] [+\text{cont}] \]

9. \( w \) and \( y \) are never followed by stops, except for \( ? \).

\[ [-\text{son}] \rightarrow [+\text{glot cl}] \]

\[ [-\text{cont}] \]

\[ [-\text{glot pr}] \]

\[ [-\text{syll}] \]

\[ [-\text{cons}] \]

10. Plain voiceless stops are never followed by \( h \).

\[ \sim [-\text{cont}] \]

\[ [-\text{glot cl}] \]

\[ [-\text{voiced}] \]

11. \( l \) is never followed by a spirant.

\[ \sim [+\text{lat}] \]

\[ [+\text{cont}] \]

\[ [-\text{voiced}] \]

12. The only geminate consonant sequences are \( tt \) and \( ss \).

\[ \psi \text{specified segment} \rightarrow \]

\[ [+\text{cor}] \]

\[ [+\text{cor}] \]

\[ <\text{distr}] \]

\[ <\text{distr}] \]

\[ <\text{cont}] \]

\[ <\text{cont}] \]

\[ [-\text{voiced}] \]

\[ [-\text{voiced}] \]
13. b is never followed by a nasal.

\[ \sim [-\text{son}] [+\text{nasal}] \]

14. p and \text{p} do not occur as the first member of a two-
consonant sequence.

\[ \sim [-\text{son}] [-\text{syll}] \]

\[ +\text{ant} \]

\[ -\text{cor} \]

15. Dental and alveolar stops are not followed by s or \text{s}.

\[ \sim [-\text{son}] \]

\[ [+\text{cor}] \]

\[ [+\text{cont}] \]

\[ [+\text{high}] \]

16. There are no two-stop sequences of k, \text{k}, q and \text{q}.

\[ \sim [-\text{cont}] \]

\[ [+\text{back}] \]

\[ [+\text{cont}] \]

\[ [+\text{back}] \]

17. The only two-consonant sequences with p or \text{p} as the second
member are sp, \text{sp}, mp and \text{qp} (This may be accidentally
due to the rarity of p and \text{p}).
18. The only two-consonant sequence with $k$ or $q$ as the first member and $x$ or $\chi$ as the second member is $q\chi$.

\[ [+\text{back}] \quad [-\text{son}] \rightarrow [-\text{high}] \quad [-\text{glot cl}] \quad [-\text{high}] \]

19. $f$ is never followed by a labial consonant.

\[ \sim [-\text{son}] \quad [-\text{syll}] \quad [-\text{cor}] \quad [+\text{ant}] \quad [+\text{cont}] \]

20. $\delta$ is not followed by $c$ or $\check{c}$.

\[ \sim [-\text{son}] \quad [+\text{del rel}] \]

21. The only two-consonant sequences with $n$ as the first member are $nk$, $n\chi$, $nw$ and $ny$. 
22. The only consonant sequences with \( w \) as the first member are \( w?, ws, \) and \( wy. \)

\[ \begin{array}{c}
+\text{cor} \\
+\text{nas}
\end{array} \rightarrow \begin{array}{c}
-\text{syll} \\
-\text{cons}
\end{array} \rightarrow \begin{array}{c}
+\text{high} \\
+\text{back}
\end{array} \}

\[ \begin{array}{c}
+\text{glottal}
\end{array} \]

\[ \begin{array}{c}
+\text{cont}
\end{array} \}

\[ \begin{array}{c}
-\text{syll} \\
-\text{cons}
\end{array} \rightarrow \begin{array}{c}
+\text{high}
\end{array} \]

23. The only consonant sequences with \( y \) as the first member are \( yx \) and \( yh. \)

\[ \begin{array}{c}
-\text{syll} \\
-\text{cons}
\end{array} \rightarrow \begin{array}{c}
+\text{high} \\
-\text{round}
\end{array} \rightarrow \begin{array}{c}
+\text{glottal}
\end{array} \]

\[ \begin{array}{c}
-\text{glottal pr}
\end{array} \]

\[ \begin{array}{c}
+\text{cor}
\end{array} \]

\[ \begin{array}{c}
+\text{cont}
\end{array} \]

\[ \begin{array}{c}
-\text{voiced}
\end{array} \]

\[ \begin{array}{c}
-\text{syll} \\
-\text{cons}
\end{array} \rightarrow \begin{array}{c}
+\text{high}
\end{array} \]

24. \( l \) does not occur before a spirant.

\[ \sim \quad [+\text{lat}] \quad [+\text{son}] \quad [+\text{cont}] \]
25. Most verb stems are of the form \((C)CV(\cdot)(C)\).

\[ V_{stem} + ([ -syll]) [-syll] [+syll] ([ -syll]) + V_{stem} \]

These sequence structure conditions account for 384 of the 432 non-existing two-consonant sequences (out of a mathematically possible \(26^2 = 676\) different sequences). The following gaps in the set of occurring two-consonant sequences are not accounted for, and are thought to be non-systematic:

- \( b\dot{t}, b\acute{r}, c\acute{t}, c\hat{t}, c\acute{k}, c\acute{q}, c\acute{f}, c\acute{m}, k\hat{t}, c\prime p, c\acute{t}, c\acute{q}, c\acute{n},\)
- \( k\acute{t}, k\acute{t}, k\acute{c}, k\acute{f}, k\acute{s}, k\acute{n}, k\acute{d}, k\acute{p}, k\acute{t}, k\acute{q}, k\acute{s}, k\acute{g}, k\acute{m}, f\acute{t},\)
- \( f\acute{c}, f\acute{k}, f\acute{t}, f\acute{c}, f\acute{y}, s\acute{t}, s\acute{t}, s\acute{t}, s\acute{q}, s\acute{p}, s\acute{t}, s\acute{k}, l\acute{t}, l\acute{t},\)
- \( l\acute{c}, l\acute{t}, l\acute{k}, l\acute{n}, l\acute{y}, q\acute{t}.\)
3.2. Systematic Phonemic Feature Matrices

3.21. Fully Specified Systematic Phonemic Matrix

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3.22. Incompletely Specified Systematic Phonemic Matrix

<p>|                | b | d | p | t | ʈ | c | k | q | ʰ | ʃ | ɕ | ɕ̝ | ʃ̝ | ɭ | ʐ | ʑ | ʔ |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| sonorant       | - | - |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| syllabic       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| consonantal    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| coronal        | - | + | - | + | + | - | - | - | + | + | - | - | - | - | - | - | - | - |
| anterior       | + | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| high           | + | - |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| low            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| back           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| round          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| distributed    | + | - | + | + | - | - | + | + | - | - | - | - | - | - | - | - | - | - |
| glottal closure| - | - | - | - | - | - | + | + | - | - | - | - | - | - | - | - | - | - |
| nasal          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| lateral        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| continuant      | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| delayed release| - | - | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| glottal pressure| - | - | - | - | - | - | + | + | + | + | - | - | - | - | - | - | - | - |
| height. subglot. pressure |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| voiced         | + | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| strident       | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| length         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |</p>
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Chapter 4. Phonological Rules

4.1. Introduction

This chapter will consist of a partially ordered set of phonological rules which derive phonetic representations from sequences of morphemes in their underlying or morphophonemic form. All rules operate obligatorily, unless there is a statement of optionality.

According to Chomsky and Halle's phonological theory, before phonological rules can operate on surface structures, a series of readjustment rules must be applied. Included among the processes which these rules effect is the assigning of underlying phonological representations to grammatical morphemes. This removes all morphologically conditioned alternations which are unique to individual morphemes out of the phonology, which then includes only statements of some degree of generality. These readjustment rules will be stated in the appropriate sub-sections of the Morphology chapters.

4.2. Rule Ordering

The phonological rules require strict ordering of the following sequences (the numbers referring to the rules are the sub-section numbers of 4.3).

The notation should be read in this way: 5-6 means that there is an ordering relationship between 5 and 6; 6/7 means that there is no ordering necessary
between 6 and 7. 5-6/7 means that both 6 and 7 must be ordered after 5. Rules listed on separate lines are ordered independently of each other.

1-2-3-4-5-6/7
8/9/10-11-12/13/15/17
13-16/17-19-20-21
1-6/11-12-17-24

4.3. Phonological Rules

4.3.1. Stress Placement

\[
V \rightarrow V / \left\{ \begin{array}{c}
\# \\
\langle \text{Seg} \rangle
\end{array} \right\} + c^n_1 - \cdots / \left\{ \begin{array}{c}
\cdots \rangle_{N,V,Adj,Adv} \\
\langle \cdots \rangle_{\text{stem}}
\end{array} \right\}
\]

\[
\left[ \begin{array}{c}
\langle [+\text{syll}] \rangle \\
\langle [+\text{stress}] \rangle \\
\left\{ \begin{array}{c}
\langle [+\text{word b}] \rangle \\
\langle [+\text{seg}] \rangle
\end{array} \right\}
\end{array} \right]
\]

This rule applies primary stress to the first vowel of every word of a major category, as well as to the first vowel of a major stem. The latter statement
is necessary in order that the first vowel of a reduplicated stem, or of a stem preceded by a directional prefix may still receive stress, although it is not in word-initial position.

Examples of the application of this rule follow:

/\text{ca+qla+m+t}/ 'it flew down to the ground'

1. câ+qla+m+t
1lj. câ+qla+ma+t
24. câqlamat

/\text{ci·cala}/ 'peas (Spanish loan)'

1. ci·cala

/\text{qlacac}/ 'woodpecker'

1. qlácac
3. qalácac

Surface bracketing will be given for the following example:

\begin{verbatim}
[V[dir pref \text{lil} ] dir pref+[stem \text{ka }] stem+[surf n ] surf
+[surf 'c ] surf+[\text{fin suf t }] fin suf ] v#
\end{verbatim}

/lil+k\text{'a}+n+c+t/ 'he chased them into the corral'

1. lil+k\text{'a}+n+c+t
lil+k\text{'a}+n+c+t
3. lil+k\text{'a}+n+c+t
4.3.2 Sonorant Syllabicization

$$\begin{align*}
\{m\} & \rightarrow \{\text{*m}\} / \# \rightarrow \text{chomorganic} \\
\{l\} & \rightarrow \{\text{*l}\}
\end{align*}$$

$$\begin{align*}
[-\text{syll}] & \rightarrow [+\text{syll}] / \# \\
\begin{array}{c}
+\text{son} \\
+\text{cons} \\
+\text{ant} \\
+\text{cor} \\
\rho\text{distr}
\end{array} & \rightarrow \\
\begin{array}{c}
+\text{syll} \\
+\text{ant} \\
+\text{cor} \\
+\rho\text{distr}
\end{array}
\end{align*}$$

This rule states that the resonants $m$ and $l$ become syllabic when followed by a consonant which has the same point of articulation. It must be ordered before the Pretonic Vowel Epenthesis rule to prevent a vowel insertion in such a position. Presumably $n$ is
excluded from this process only because Sequence Structure Condition 21 prevents it from preceding an alveolar consonant.

Examples:

/lde/ 'mountain lion'
1. ldé
2.  ldé

/l'la/ 'shoulder blade'
1. l'á
2. l'á

/mpu+k+t/ 'he whistles'
1. mpú+k+t
2. mpú+k+t
11n. mpú+ki+t
24: mpúkit

/mbo+l+k+t/ 'it exploded'
1. mbó+l+k+t
2. mbó+l+k+t
11n. mbó+l+ki+t
24. mbólkit
4.3.3. Pretonic Vowel Epenthesis (Optional)

\[ \phi \rightarrow e \ / \ \left\{ \begin{array}{c} \# \\ c \end{array} \right\} \left[ \text{stem} \ c \rightarrow \text{C} \ . \ . \ . \ \right]_{\text{stem}} \]

\[ \phi \rightarrow \left[ +\text{syl} \right] \ / \ \\
\left[ -\text{cons} \right] \\
\left[ -\text{high} \right] \\
\left[ -\text{low} \right] \\
\left[ -\text{back} \right] \]

\[ \left\{ \begin{array}{c} \# \\ \left[ -\text{syl} \right] \end{array} \right\} \left[ \text{stem} \left[ -\text{syl} \right] \rightarrow \left[ -\text{syl} \right] \ \left[ +\text{stress} \right] \ . \ . \ . \ \right]_{\text{stem}} \]

This rule inserts a schwa between stem-initial consonants, preceding the stress vowel. It is optional in its operation for the most part, although it is more frequent in the most difficult to articulate consonant clusters, such as two stops. It is less frequent in connected discourse when the preceding word ends in a vowel, as well as almost never occurring when the cluster is preceded by a vowel in the same word.

Examples:

/blay/ 'blood'

1. bláy

3. beláy

4c. buláy
/qbandu χlé/  'white oak tree'
1. qbandu χlé
3. qəbandu χlé ~ qəbəndu χəlé
6. qəbəndu χəlé

/ksˈuː+t+k+t/  'he poked the fire'
1. ksút+k+t
3. kəsút+k+t
11n. kəsút+ki+t
24. kəsút+kīt

4.3.4. Schwa Modification (Optional)
This rule will be stated in five subparts.

a) e → i / C _
    _ y
    _ C i
    e

[-high] → [+high]
[+back] → [+back] / [+del rel] [-low]
[-round]
[+syll]

[+son] [+high]
[-back]
[-syll]

[-syll] [+syll]
[-back]
b) $e \rightarrow e / \_ \_ C e$

$[+\text{back}] \rightarrow [-\text{back}] / \begin{cases} \text{[+high]} & \text{[-syll]} & \text{[+high]} \\ \text{-low} & \text{-back} & \text{-low} \\ \text{-round} & \text{-back} & \text{-round} \\ \text{[+syll]} & \text{[+syll]} & \text{[+syll]} \end{cases}$

$[+\text{high}] \rightarrow [\_ \_ \text{high}] / \begin{cases} \text{[+high]} & \text{[-low]} & \text{[+low]} \\ \text{[+round]} & \text{[-round]} & \text{[+round]} \end{cases}$

$[+\text{round}] \rightarrow [-\text{round}] / \begin{cases} \text{[+high]} & \text{[-low]} & \text{[+low]} \\ \text{[+round]} & \text{[-round]} & \text{[+round]} \\ \text{[+syll]} & \text{[-syll]} & \text{[+syll]} \end{cases}$

$\_ \_ C u \_ \_ C o$

The asterisk indicates that the first part of 4c is a mirror image rule: The segment adjacent to the changing schwa may be on either side of it.
d) \( e \rightarrow o / \_\{k\} o \) \\
\([-\text{round}] \rightarrow [+\text{round}] / \_\{[-\text{high}] \_\{-\text{low}\} \_\{-\text{syll}\} \_\{-\text{cont}\} \_\{+\text{high}\} \_\{+\text{back}\} \_\{+\text{syll}\} \_\{+\text{round}\} \_\{+\text{cont}\}\}
\)

e) \( e \rightarrow \_ / \_\{x\} \_\{y\} \_\{z\} \_\{w\} \_\{v\} \_\{u\} \_\{t\} \_\{s\} \_\{r\} \_\{q\} \_\{p\} \_\{o\} \_\{n\} \_\{m\} \_\{l\} \_\{k\} \_\{j\} \_\{i\} \_\{h\} \_\{g\} \_\{f\} \_\{e\} \_\{d\} \_\{c\} \_\{b\} \_\{a\} \_\{\_\}\) \\
\([-\text{high}] \rightarrow [+\text{high}] / \_\{+\text{high}\} \_\{+\text{back}\} \_\{+\text{syll}\} \_\{+\text{cont}\} \_\{+\text{high}\} \_\{+\text{back}\} \_\{+\text{syll}\} \_\{+\text{cont}\}\}
\)

This is an optional rule stating observed tendencies of the epenthetic schwa to color in assimilation to an adjacent consonant or to the following stressed vowel. There is no ordering claim made for subparts of the rule.

Examples:

/\text{cy}a+\text{cy}a+k+n/ 'green' 

1. cyá+cyá+k+n 
2. cyá+cyá+k+n 
3. ceyá+cyá+k+n 
4a. ciyá+cyá+k+n 
5. ciyá+cyá+k+n 
6. ciyá+cyá+k+n 
11n. ciyá+cyá+ki+n
19. čiyá+cyá+kí+n
    čiyá+čyá+kí+n

24. čiyáčyákin

/sdí+q+a/ 'swallow it'
1. sdí+q+a
3. sédí+q+a
4a. sidí+q+a
24. sidíqa

/ʔke/ 'to catch'
1. ʔké
3. ʔeké
4a. ʔiké
-4b. ʔeké

/xwan/ 'dance house'
1. xwán
3. xewán
4c. xuwan

/mwat+a/ 'talk'
1. mwát+a
3. mwát+a
4c. mwát+a
24. mwátə
/bca+k+a/  'drink'
1.  bcá+k+a
3.  becá+k+a
4c.  bucá+k+a
24.  bucáka

/cnu/  'word'
1.  cnú
3.  cenú
4c.  cunú

/ʔqol/  'cradle basket'
1.  ʔqól
3.  ʔeqól
4c.  ʔuqól

/ʔkob/  'angelica sprout'
1.  ʔkób
3.  ʔskób
4d.  ʔokób

/qbo+k+t/  'it's dry'
1.  qbó+k+t
3.  qebó+k+t
4c.  qubó+k+t
-4d. qobö+k+t
1ln. qubö+ki+t ~ qobö+ki+t
24. qubökit ~ qobökit

/xya/ 'head'
1. xyá
3. xeyá
4e. xiyá

/kya/ 'chicken hawk'
1. kyá
3. keyá
4e. kiyá

/qsil+t/ 'it's cold'
1. qsil+t
3. qesil+t
4e. qasil+t
1ln. qasil+i+t
24. qasilit
4.3.5. Stress Movement (Optional)

\[ \text{v}^{+} \rightarrow \text{v} \]

\[ (+\text{glot cI}) \text{[+stress]} \rightarrow \text{[+stress]} \text{[ ]} \text{[-stress]} \]

\[ (+\text{round}) \]

\[ -\text{cons} \]

\[ -\text{glot pr} \]

\[ -\text{back} \]

\[ +\text{low} \]

This rule, which shifts the stress back onto the epenthetic vowel if the intervening consonant is glottal stop, has been observed only a few times, but has been included because of its possible generality.

Example:

/kilto/ 'yellow'

1. kilto
3. keilto
4a. kilito
5. kilitko
7. kilito
4.3.6. Stress Reduction

\[
\begin{align*}
\dot{\nu} & \rightarrow \dot{\nu} / [N \cdots ] \cdots [\nu \begin{bmatrix} \text{dir pref} \\ \text{stem} \end{bmatrix} \text{dir pref} \\ \begin{bmatrix} \text{stem} \\ \text{stem} \end{bmatrix}] V \\
\begin{bmatrix} \text{stem} \\ \cdots \end{bmatrix} \cdots \begin{bmatrix} \text{stem} \\ \cdots \end{bmatrix} V 
\end{align*}
\]

a) \ [+stress] \rightarrow [1stress]

b) [1stress] \rightarrow [2stress] /

\[
\begin{bmatrix} +N \end{bmatrix} \cdots \begin{bmatrix} [+\text{dir pref}] \\ [+\text{stem}] \end{bmatrix} \begin{bmatrix} +V \\ [+\text{stem}] \end{bmatrix}
\]

This rule reflects the fact that not all stresses in a Southeastern Pomo utterance are of equal intensity. Word-internally, the first stress is the stronger, any subsequent stress being reduced. Sententially, the verb seems to get the most stress, the other words in the sentence having their stress reduced by varying degrees.

The stress reduction process for sentences has not been worked out, but if it is systematic it may be either left-iterative or governed by some sort of transformational cycle—the observed data is ambiguous, since the verb, which is the word usually receiving the greatest stress, is usually the last element of the clause.
Examples:

/\bko+\bko+1+t/ "the bird pecks all the time"
1. \bko+\bko+1+t
2. \bko+\bko+1+t
3. \bko+\bko+1+t
4. \bko+\bko+1+t
5. \bko+\bko+1+t
6. \bko+\bko+1+t
7. \bko+\bko+1+t
8. \bko+\bko+1+t
9. \bko+\bko+1+t
10. \bko+\bko+1+t
11. \bko+\bko+1+t
12. \bko+\bko+1+t
13. \bko+\bko+1+t
14. \bko+\bko+1+t
15. \bko+\bko+1+t
16. \bko+\bko+1+t
17. \bko+\bko+1+t
18. \bko+\bko+1+t
19. \bko+\bko+1+t
20. \bko+\bko+1+t
21. \bko+\bko+1+t
22. \bko+\bko+1+t
23. \bko+\bko+1+t
24. \bko+\bko+1+t

/\ma+t+m+ma+t/ "he lay down"
1. \ma+t+m+ma+t
2. \ma+t+m+ma+t
3. \ma+t+m+ma+t
4. \ma+t+m+ma+t
5. \ma+t+m+ma+t
6. \ma+t+m+ma+t
7. \ma+t+m+ma+t
8. \ma+t+m+ma+t
9. \ma+t+m+ma+t
10. \ma+t+m+ma+t
11. \ma+t+m+ma+t
12. \ma+t+m+ma+t
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16. \ma+t+m+ma+t
17. \ma+t+m+ma+t
18. \ma+t+m+ma+t
19. \ma+t+m+ma+t
20. \ma+t+m+ma+t
21. \ma+t+m+ma+t
22. \ma+t+m+ma+t
23. \ma+t+m+ma+t
24. \ma+t+m+ma+t

/#\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#/ "That tree grew from my acorn" (that-my-acorn-agent-tree-grew)
1. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
2. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
3. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
4c. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
5. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
6. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
7. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
8. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
9. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
10. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
11. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
12. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
13. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
14. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
15. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
16. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
17. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
18. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
19. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
20. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
21. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
22. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
23. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
24. #\u+y1\#w1y+aq#bd\#ba#xl\#ki+c+t#
4.3.7. Glottal Stop Deletion (Optional)

\[ ? \rightarrow \emptyset / V \rightarrow V \]

\[ [+\text{glot cl}] \rightarrow \emptyset / [+\text{cons}] \rightarrow [-\text{cons}] [+\text{syll}] \rightarrow [-\text{syll}] \]

This rule deletes glottal stops intervocally.

Example:

/šʊo/ 'acorn meal'

1. šʊo
2. šəʊo
4c. šʊuəo
7. šuəo

4.3.8. D-deletion.

\[ d \rightarrow \emptyset / \_ C \]

\[ [-\text{son}] \rightarrow \emptyset / \_ [-\text{syll}] \]

This rule deletes d when it occurs before a consonant.
Examples:

/lođ+t/ 'my hair is falling out(many long objects fall down)'

1. lođ+t
2. lo+t
24. lót

/będ+lay/ 'women'

1. bèd+lay
3. bèd+lay
4a. bèd+lay
8. bèd+lay
24. bèdlay

4.3.9. Semivowel Metathesis

CVy → CyV / \[\text{stem} \text{redup}\] C

[-syll] [\text{syll spec seg}] [\text{son cons syll back spec seg}] \rightarrow

[-syll] [\text{spec seg spec seg}] [\text{spec seg}] / [\text{stem spec seg}] [\text{redup}] [\text{spec seg}]
This rule states that when a stem of the shape CVy is reduplicated, the second part shows a metathesis of the vowel plus y when it is followed by a consonant. It has been observed so far only with the root /-qoy-/ 'weaving, cutting motion', but may operate more generally.

A notational device 'Ψ specified segment' is used in this and several other rules. Specified Segment is a shorthand device meaning "all the features of a fully specified matrix" and Ψ or any other Greek letter late in the alphabet is a variable over a configuration of all the +'s and -'s of that matrix. Such a segment is identified in the input by giving the minimum subset of these features.

Examples:

/s+qoy+qoy+m+t/ 'they were sawing logs'

1. s+qôy+qoy+m+t
2. s+qôy+qôy+m+t
3. s+qôy+qôy+m+t
4. s+qôy+qôy+m+t
5. s+qôy+qôy+m+t
6. s+qôy+qôy+m+t
7. s+qôy+qôy+m+t
8. s+qôy+qôy+m+t
9. s+qôy+qôy+m+t
10. s+qôy+qôy+m+t
11. s+qôy+qôy+m+t
12. s+qôy+qôy+m+t
13. s+qôy+qôy+m+t
14. s+qôy+qôy+m+t
15. s+qôy+qôy+m+t
16. s+qôy+qôy+m+t
17. s+qôy+qôy+m+t
18. s+qôy+qôy+m+t
19. s+qôy+qôy+m+t
20. s+qôy+qôy+m+t
21. s+qôy+qôy+m+t
22. s+qôy+qôy+m+t
23. s+qôy+qôy+m+t
24. s+qôy+qôy+m+t
/χ+qøy+qoy+t/  'they were felling trees'

1.  χ+qøy+qoy+t
   χ+qøy+qøy+t

6.  χ+qøy+qøy+t

9.  χ+qøy+qyò+t

24. χqøyqyòt

4.3.10. Stop Metathesis

m'ku → muk / C _ Seg-1

[+nas] [ +high ] [ +syl ]
[-back] [+back] [+high]
[-cor] [+glot pr] [+round]
[\\wp spec \ q spec \ q seg] \ [\\wp spec \ q spec \ q seg]

[ ] [\\wp \ spec \ q seg] [\\wp \ spec \ q seg] / [ -syl ] _ [ -lat ]

This rule metathesizes the 'ku of the suffix
/-mku/- 'reciprocal', when it is preceded by a consonant
and followed by any consonant but 1.

Examples:

/ϕùt+mku+t/  'they kissed each other'

1.  ϕùt+mku+t

10. ϕùt+muk+t
11n.  'pü̂+muki+t
24.  'pü̃mukit

/kda+n+mku+t/  'those people are shooting each other'
1.  kda+n+mku+t
3.  keda+n+mku+t
10.  keda+n+muk+t
11n.  keda+n+muki+t
24.  keda+n+mukit

4.3.11. Post-tonic Vowel Epenthesis

\[ \rho \longrightarrow \left\{ \begin{array}{c} \langle a, i \rangle \\ i \end{array} \right\} / \left\{ \begin{array}{c} C^{sv} \\ C^{son} \\ \langle C^{son} \rangle \\ C^{\langle C^{son} \rangle} \\ \langle (C)^2 \rangle \\ \langle n \textrm{f} \textrm{ suf}_3 \rangle \\ \langle n \textrm{f} \textrm{ suf}_3 \rangle \\ C^{\langle n \textrm{f} \textrm{ suf}_3 \rangle} \\ C^{\langle n \textrm{f} \textrm{ suf}_3 \rangle} \\ C \end{array} \right\} - + C \]
\[ \rho \rightarrow [+\text{syll}] / \]

This rule inserts vowels into sequences of verb suffixes. The seventeen expansions of the fully collapsed rule follow:

a) \[ \rho \rightarrow a / \text{C} \cdot \text{m} \_ \_ \_ + \text{C} \]

b) \[ \rho \rightarrow a / \text{C}^{-\text{son}} \text{q} \_ \_ \_ + \text{C} \]

c) \[ \rho \rightarrow i / \text{C}^{-\text{sv}} \_ \_ \_ + \text{C} \]

d) \[ \rho \rightarrow i / \text{C}^{-\text{son}} \text{c}^{-q,m} \_ \_ \_ + \text{C} \]

e) \[ \rho \rightarrow i / \text{C}^{\text{sv}} \text{c}^{-\text{son-m}} \_ \_ \_ + \text{C} \]

f) \[ \rho \rightarrow a / \text{C} \_ \text{m}_{\text{nf}} \text{suf} \_ \_ \_ + \text{V} \# \]
g) \( \phi \rightarrow a / C q_n^f s u f \quad + \quad V \quad \# \)

h) \( \phi \rightarrow a / C m_n^f s u f \quad + \quad \# \)

i) \( \phi \rightarrow a / C q_n^f s u f \quad + \quad \# \)

j) \( \phi \rightarrow a / m \quad c_{fin} s u f \quad \# \)

k) \( \phi \rightarrow a / q \quad c_{fin} s u f \quad \# \)

l) \( \phi \rightarrow i / C c_{-m,q} \quad + \quad V \quad \# \)

m) \( \phi \rightarrow i / C c_{-m,q}^f s u f \quad + \quad \# \)

n) \( \phi \rightarrow i / c_{-m,q}^f \quad c_{fin} s u f \quad \# \)

o) \( \phi \rightarrow a / m \quad n \quad C \)

p) \( \phi \rightarrow a / q \quad n \quad C \)

q) \( \phi \rightarrow i / c_{-m,q} \quad n \quad C \)

lla-b state that an a is inserted following a sequence of non-sonorant consonant plus m or q, when this sequence is followed by morpheme boundary plus a consonant, and that the first consonant can be sonorant if it is followed by m.

Examples:

/\( c a + l + q + m + q + t / \) 'they're rolling hoops along the ground'
1. cá+l+q+m+q+t
11a. cá+l+q+ma+q+t
11k. cá+l+q+ma+qa+t
24. cálmqamqat

/ʔqay+m+w+l+c+t/ 'he makes faces'
1. ʔqáy+m+w+l+c+t
3. ʔeqáy+m+w+l+c+t
11a. ʔeqáy+ma+w+l+c+t
11e. ʔeqáy+ma+li+c+t
11n. ʔeqáy+ma+w+li+cï+t
24. ʔeqámawlicit

llc-e state that an i is inserted under the same conditions as a-c, except that the immediately preceding consonant is not m or q, and that if that consonant is ñ, any consonant (including sonorants) except for a semi-vowel may precede.

Example:
/kto+b+k+q+t/ 'he put it down on the ground'
1. któ+b+k+q+t
3. któ+b+k+q+t
1ld. któ+b+k1+q+t
11k. któ+b+k1+qa+t
24. któbklkqat
11f-i state that an a is inserted following two consonants, before a morpheme boundary plus an optional vowel, at the end of a word, when the second of the two consonants is m or q.

Examples:

/ʔseɬ+m tadaɪpu/ 'wash cloth'
1. ʔseɬ+m tadaɪpu
3. ʔseɬ+m tadaɪpu
11h. ʔseɬ+ma tadaɪpu
13. ʔseɬ+am tadaɪpu
24. ʔseɬam tadaɪpu

/ʔlo+m+q+a/ 'turn it around'
1. ʔlo+m+q+a
11g. ʔlo+m+qa+a
18. ʔlo+m+qa+
24. ʔlo+mqa

11-l-m state that an i is inserted under the same conditions as in g-j, except that the second of the two consonants is not m or q.

Example:

/ʔwaɬ+c+a/ 'duck'
1. ʔwaɬ+c+a
3. ʔəwaɬ+c+a
llj-k state that an a is inserted following m or q, before a consonant which is a final-position suffix (unlike -c- in the above example), at the end of a word. llm inserts an i under the same conditions, except that the preceding consonant is not m or q.

Example:

/ˈca+m+t/ 'they're hunting'

1. ˈcá+m+t

llj. ˈcá+ma+t

24. ˈcámát

llo-p insert an a following m or q, before a sequence of n plus a consonant. llq inserts an i under the same conditions, except that the preceding consonant is not m or q.

Example:

/ˈdo+q+n+hu+t/ 'I got it from him'

1. ˈdó+q+n+hu+t

llp. ˈdó+qa+n+hu+t

24. ˈdóqanhut
4.3.12. Vowel Lowering

\[
\begin{align*}
[<_1i>] & \rightarrow [e] / - + \begin{cases} 
[<_1u>] \\
[<_2u>] \\
[<_3u>] \\
[<_4u>] \\
[<_5u>] \\
\end{cases} \\
[+\text{high}] & \rightarrow [-\text{high}] / \begin{cases} 
[+\text{syll}] \\
[<_1\text{-back}] \\
[<_2\text{+back}] \\
\end{cases} + \begin{cases} 
[+\text{cor}] \\
[+\text{son}] \\
[+\text{cont}] \\
[+\text{del rel}] \\
\end{cases}
\end{align*}
\]

This rule lowers \( \text{i} \) and \( \text{u} \) to \( \text{e} \) and \( \text{o} \), respectively. Lowering occurs morpheme-finally, \( \text{i} \) lowering before \( \text{s} \), \( \text{u} \) before \( \text{c} \), and both \( \text{i} \) and \( \text{u} \) before \( \text{l} \). The rule is obligatory in its operation, except that \( \text{i} \)-lowering is optional before \( \text{s} \).

Examples:

\( /\text{wál+c+l+t/} \) 'he ducked repeatedly'

1. \( \text{wál+c+l+t} \)
2. \( \text{ewál+c+l+t} \)
4c. \( \text{uwál+c+l+t} \)
11c. \( \text{uwál+ci+l+t} \)
11o. \( \text{uwál+ci+l1+t} \)
12. \( \text{uwál+ce+l1+t} \)
24. \( \text{uwálcelit} \)
/ca+mlu+l+t/  'he ran around'
1. cá+mlu+l+t
11n. cá+mlu+li+t
12. cá+ml+li+t
24. cám+lolit

/'ci+mku+c+t/  'those three are fighting each other'
1. 'cí+mku+c+t
11n. 'cí+mku+ci+t
12. 'cí+mko+ci+t
24. 'címkocit

/da f?ey+c+s/  'he didn't bother you'
1. da f?éy+c+s
11n. da f?éy+ci+s
12. da f?éy+ce+s
24. da f?éyces

4.3.13. Word-final Vowel Metathesis

C V → V C / _ # / _non-final sur
[−syl[+syl[−syl[−syl /−insuf] #

This rule metathesizes a word-final CV sequence, if that sequence does not include a final position suffix.

Examples:

1. /tño+kl/ "to guess"
2. /tšón+k/ "to guess"
3. /tšón+k/ "to guess"
4. /tšón+k/ "to guess"
5. /tšón+k/ "to guess"
6. /tšón+k/ "to guess"
7. /tšón+k/ "to guess"
8. /tšón+k/ "to guess"
9. /tšón+k/ "to guess"
10. /tšón+k/ "to guess"
11. /tšón+k/ "to guess"
12. /tšón+k/ "to guess"
13. /tšón+k/ "to guess"
14. /tšón+k/ "to guess"
15. /tšón+k/ "to guess"
16. /tšón+k/ "to guess"
17. /tšón+k/ "to guess"
18. /tšón+k/ "to guess"
19. /tšón+k/ "to guess"
20. /tšón+k/ "to guess"
21. /tšón+k/ "to guess"
22. /tšón+k/ "to guess"
23. /tšón+k/ "to guess"
24. /tšón+k/ "to guess"

1. /tše+mkw/ "twice" (tšec- 'to fold')
2. /tše+mkw/ "twice" (tšec- 'to fold')
3. /tše+mkw/ "twice" (tšec- 'to fold')
4. /tše+mkw/ "twice" (tšec- 'to fold')
5. /tše+mkw/ "twice" (tšec- 'to fold')
6. /tše+mkw/ "twice" (tšec- 'to fold')
7. /tše+mkw/ "twice" (tšec- 'to fold')
8. /tše+mkw/ "twice" (tšec- 'to fold')
9. /tše+mkw/ "twice" (tšec- 'to fold')
10. /tše+mkw/ "twice" (tšec- 'to fold')
11. /tše+mkw/ "twice" (tšec- 'to fold')
12. /tše+mkw/ "twice" (tšec- 'to fold')
13. /tše+mkw/ "twice" (tšec- 'to fold')
14. /tše+mkw/ "twice" (tšec- 'to fold')
15. /tše+mkw/ "twice" (tšec- 'to fold')
16. /tše+mkw/ "twice" (tšec- 'to fold')
17. /tše+mkw/ "twice" (tšec- 'to fold')
18. /tše+mkw/ "twice" (tšec- 'to fold')
19. /tše+mkw/ "twice" (tšec- 'to fold')
20. /tše+mkw/ "twice" (tšec- 'to fold')
21. /tše+mkw/ "twice" (tšec- 'to fold')
22. /tše+mkw/ "twice" (tšec- 'to fold')
23. /tše+mkw/ "twice" (tšec- 'to fold')
24. /tše+mkw/ "twice" (tšec- 'to fold')

1. /tō+m+c/ "razor"
2. /tō+m+c/ "razor"
3. /tō+m+c/ "razor"
4. /tō+m+c/ "razor"
5. /tō+m+c/ "razor"
6. /tō+m+c/ "razor"
7. /tō+m+c/ "razor"
8. /tō+m+c/ "razor"
9. /tō+m+c/ "razor"
10. /tō+m+c/ "razor"
11. /tō+m+c/ "razor"
12. /tō+m+c/ "razor"
13. /tō+m+c/ "razor"
14. /tō+m+c/ "razor"
15. /tō+m+c/ "razor"
16. /tō+m+c/ "razor"
17. /tō+m+c/ "razor"
18. /tō+m+c/ "razor"
19. /tō+m+c/ "razor"
20. /tō+m+c/ "razor"
21. /tō+m+c/ "razor"
22. /tō+m+c/ "razor"
23. /tō+m+c/ "razor"
24. /tō+m+c/ "razor"
4.3.14. Degemination

\[ C_1 C_1 \rightarrow C_1 / C \quad \]

[\[ \psi \text{specseg} \] \rightarrow [\psi \text{specseg}] / \[ -\text{syll} \] \]

This rule simplifies a geminate consonant cluster when a consonant precedes. Such a sequence has been found so far only with the suffix -tta- 'dual'.

Example:
\[ /\text{xe}+k+tta+t/ \quad 'two \ make, \ fix \ things' \]

1. \( \text{xe}+k+tta+t \)
2. \( \text{xe}+k+tta+t \)
3. \( \text{xe}+k+tta+t \)
4. \( \text{xe}+k+tta+t \)
5. \( \text{xe}+k+tta+t \)
6. \( \text{xe}+k+tta+t \)
7. \( \text{xe}+k+tta+t \)
8. \( \text{xe}+k+tta+t \)
9. \( \text{xe}+k+tta+t \)
10. \( \text{xe}+k+tta+t \)
11. \( \text{xe}+k+tta+t \)
12. \( \text{xe}+k+tta+t \)
13. \( \text{xe}+k+tta+t \)
14. \( \text{xe}+k+tta+t \)
15. \( \text{xe}+k+tta+t \)
16. \( \text{xe}+k+tta+t \)
17. \( \text{xe}+k+tta+t \)
18. \( \text{xe}+k+tta+t \)
19. \( \text{xe}+k+tta+t \)
20. \( \text{xe}+k+tta+t \)
21. \( \text{xe}+k+tta+t \)
22. \( \text{xe}+k+tta+t \)
23. \( \text{xe}+k+tta+t \)
24. \( \text{xe}+k+tta+t \)

4.3.15. Nasal Backing (Optional)

\[ \{m\} \rightarrow \eta \quad / \quad q \]

\[ \{n\} \]
[+nas] \rightarrow [-\text{high}] / [-\text{syll}] \\
[-\text{high}] \\
[-\text{back}] \\
[-\text{cont}]

This rule changes \( m \) and \( n \) to \( \eta \), when a \( q \) follows. It is optional for \( m \), and possible also for \( n \).

Examples:

\[ /'c'e+m+q+t/ \quad \text{'he stuck it in the ground'} \]

1. \( 'c'e+m+q+t \)

11k. \( 'c'e+m+qa+t \)

15. \( 'c'e+\eta+qa+t \)

19. \( 'c'e+\eta+qa+t \)

24. \( 'c'e\eta qat \)

\[ /'\tilde{s}\tilde{a}+m+q+t/ \quad \text{'she dressed him'} \]

1. \( '\tilde{s}\tilde{a}+m+q+t \)

11k. \( '\tilde{s}\tilde{a}+m+qa+t \)

(15. \( '\tilde{s}\tilde{a}+\eta+qa+t \ ))

24. \( '\tilde{s}\tilde{a}mqat - '\tilde{s}\tilde{a}\eta qat \)

4.3.16. Spirantization

\[
\begin{align*}
\{k\} & \rightarrow \{x / \_ q\} \\
\{q\} & \rightarrow \{x / \_ k\}
\end{align*}
\]
[−cont] → [+cont] / [−son] [−son] [−son]

This rule changes k or q to a velar or post-velar spirant, homorganic with the following velar or post-velar stop.

Examples:

/ʔy₁q+k+l+t/  'he teaches all the time'
1. ʔy₁q+k+l+t
3. ʔey₁q+k+l+t
11d. ʔey₁q+ki+l+t
11n. ʔey₁q+ki+li+t
12. ʔey₁q+ke+li+t
16. ʔey₁+x+ke+li+t
24. ʔey₁xkelit

/čyo+co+k+q+t/  'he rattled it; a rattlesnake rattles'
1. čyž+cyo+k+q+t
   čyž+cyo+k+q+t
6. čyž+cyo+k+q+t
11k. čyž+cyo+k+qa+t
16. čyž+cyo+x+qa+t
19. čyž+cyo+x+qa+t
   čyž+cyo+x+qa+t
24. čyžčyžxqušt
4.3.17. Ejective Reduction (Optional)

\[
\{ \text{c, } \text{k, } \text{q} \} \implies \quad / \quad \text{ k}
\]

\[
[\text{<delrel}\quad \rightarrow \quad [\text{-delrel}] / \quad [\text{+high}] \\
[\text{-back}\quad \rightarrow \quad [\text{-back}] / \quad [\text{+back}] \\
[\text{+glotpr}\quad \rightarrow \quad [\text{-glotpr}] / \quad [\text{-cont}]}
\]

This rule optionally reduces c, k and q to ?, when immediately preceding k. It may be obligatory for k.

Examples:

/\text{lak}+\text{lak}+\text{k}+\text{t}/ \quad '\text{he shakes his head from side to side}'

1. \text{lak}'+\text{+lak}'+\text{k}+\text{t} \\
6. \text{lak}'+\text{+lak}'+\text{k}+\text{t} \\
11n. \text{lak}'+\text{+lak}'+\text{ki}+\text{t} \\
17. \text{lak}'+\text{+lak}'+\text{ki}+\text{t} \\
24. \text{lakl}'+\text{ki}+\text{t}

/\text{ciw}+\text{c}+\text{k}+\text{t}/ \quad '\text{she's cooking}'

1. \text{ciw}+\text{c}+\text{k}+\text{t} \\
11n. \text{ciw}+\text{c}+\text{ki}+\text{t} \\
17. \text{ciw}+\text{c}+\text{ki}+\text{t} \\
24. \text{ciw}+\text{c}+\text{ki}+\text{t}
/таq+/таq+k+t/  'it got soft'

1.

/тоq+/тоq+k+t
/тоq+/тоq+k+t

6.

/тоq+/тоq+k+t

11n.

/тоq+/тоq+k1+t

17.

/тоq+/тоq+k1+t

24.

/тоq+тоq+k1t

4.3.18. Vowel Cluster Reduction

\[ V \rightarrow \emptyset / V \_ \]

\[
\left[ \begin{array}{c}
\text{[+son]}
\text{[+syll]}
\text{[-cons]}
\end{array} \right] \rightarrow \emptyset / \left[ \begin{array}{c}
\text{[+son]}
\text{[+syll]}
\text{[-cons]}
\end{array} \right] \]

This rule deletes the second member of a two-vowel sequence.

Examples:

/sbu+l+k+a/  'steal!'

1.

sbú+l+k+a

3.

sebú+l+k+a

4c.

subú+l+k+a

11-1.

subú+l+k1+a

18.

subú+l+k1+

24.

subúlki
/ʔki+a/ 'marry her!'
1. ʔki+a
3. ʔeki+a
18. ʔeki+
24. ʔeki

/hayu+it/ 'dog's'
1. háyu+it
18. háyu+t
24. háyut

/ti+ib/ 'for you(sg)(benefactive)'
1. ti+ib
18. ti+b
24. tib

4.3.19. Affricate Palatalization

\[
\begin{array}{c}
\begin{array}{c}
[c] \\
[\hat{c}]
\end{array} \\
\rightarrow \\
\begin{array}{c}
[\hat{\chi}] \\
[\hat{i}]
\end{array} \\
/ \\
[\hat{y}]
\end{array}
\]
This rule moves palato-alveolar affricates further back into the palatal region, when followed by i or y.

Examples:

/čičikob/  'wild berry'

1. čičikob
19. čičikob

/cil+m+k+t/  'a breeze is blowing'

1. cil+m+k+t
11a. cil+ma+k+t
11n. cil+ma+ki+t
19. cil+ma+ki+t
24. čilmakit

4.3.20. Liquid Palatalization

1 → y / __{č}
    {č}
\[
\begin{array}{c}
\begin{aligned}
+\text{cons} & \rightarrow -\text{cons} \\
+\text{cor} & \rightarrow -\text{cor} \\
+\text{ant} & \rightarrow -\text{ant} \\
-\text{high} & \rightarrow +\text{high} \\
+\text{lat} & \rightarrow -\text{lat}
\end{aligned}
\end{array}
\]

This rule changes \( l \) to \( y \), when it is followed by \( \hat{s} \) or \( \hat{\check{s}} \).

Example:

/bde+l+c+1t/ 'they’re carrying them in their hands`

1. bdé+l+c+t
3. bdé+l+c+t
4a. bidé+l+c+t
11c. bidé+l+c+i+t
19. bidé+l+č+i+t
20. bidé+y+č+i+t
24. bidéyčit

4.3.21. Affricate Depalatalization

\[
\begin{align*}
\left[ \hat{s} \right] & \rightarrow \left[ c \right] \\
\left[ \hat{\check{s}} \right] & \rightarrow \left[ \check{c} \right]
\end{align*}
\]

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\[
\begin{array}{c}
[-\text{ant}] \rightarrow [+\text{ant}] / [+\check{-}\text{rel}] \\
[-\text{cor}] [+\text{cor}] \\
[+\text{high}] [-\text{high}] \\
\end{array}
\]

This is an optional rule which changes palatal affricates back to palato-alveolar affricates, before 1. It is necessary to first change c to č and then back optionally because Liquid Palatalization operates even if a c before i is not palatalized on the phonetic surface, but it will not operate on an l followed by a c which cannot undergo Affricate Palatalization.

The example given in 4.3.21. will serve as the example of Affricate Depalatalization. After rule 20 operates, rule 21 may optionally.

20. bidě+y+či+t
21. bidě+y+či+t
24. biděýcit

4.3.22. h-deletion

\[h \rightarrow \emptyset / _{-} C\]
[+htsbgrp] → φ / _ [-syll]

This rule deletes h before a consonant. It might be considered to be related to Sequence Structure Condition 1, which states that h cannot precede a consonant. All examples of this rule which have been discovered so far involve the directional prefix /kuh-/ 'move to the outside of a enclosed space'.

Example:
/kuh+na+t/ 'many trees poke up through the ground'

1. kūh+na+t
   kūh+nā+t
6. kūh+nā+t
22. kū+nā+t
24. kūnāt

4.3.23. Vowel Deletion

V → φ / V C _ C V

[+syll] → φ / [+syll] [-syll] _ [-syll] [+syll]
This rule deletes a vowel which is preceded by a vowel plus a single consonant, and followed by a single consonant plus a vowel.

As I am currently analyzing the problem of vowel insertion and deletion in Southeastern Pomo, this rule is necessary only within the pronominal system. An analysis of verb suffix sequences as consisting of mainly -CV- shaped morphemes, with this rule performing deletions was rejected in favor of an analysis in which suffixes of the shape -C- have vowels inserted by the Post-tonic Vowel Epentheses rule. This latter analysis seems to be a less complex and ad hoc analysis of the verb than the former. Therefore, both processes of vowel deletion and vowel insertion are being posited for the language.

Examples:

/ʔo+mal+ay/ 'they (non-displaced)'

1. ʔo+mal+ay

23. ʔo+ml+ay

24. ʔo+mlay

/me+mal+ay+il/ 'them (near)'

1. mé+mal+ay+il

23. mé+ml+ay+il

24. mé+mlayil
/\o+med+it+ib/  'for her (non-displaced, benefactive)'

1.  \o+med+it+ib
23.  \o+md+it+ib
24.  \o+md+it+ib

4.3.24.  Morpheme Boundary Deletion

+ \rightarrow \emptyset

\frac{-\text{seg}}{\frac{+\text{Morpheme Boundary}}}{\rightarrow \emptyset}

This rule deletes all occurrences of morpheme boundary, which has no phonetic realization.
NOTES TO PART TWO


3This section is based on the theoretical framework presented in Richard Stanley, "Redundancy Rules in Phonology", *Language* vol. 43 (1967), pages 393-436.

4Chomsky and Halle, pages 9-11.
PART THREE - VERB MORPHOLOGY

Chapter Five. Introduction and Positional Analysis

5.1. Introduction to the Morphology

Parts Three and Four will consist of an inventory of the grammatical morphemes of Southeastern Pomo, that is, inflectional and derivational affixes and postfixes, pronominal elements, and adverbials. Each entry will include the underlying phonological shape of the morpheme, a description of its syntactic-semantic properties, and examples of its use. Full sentence examples will be given only in those instances where the nature of the morpheme warrants it, such as a coordinating suffix.

The inventory nature of this section should be emphasized. Except for a positional analysis of the verb complex, a systematic treatment of the morphemes within the total grammar will not be undertaken. Information such as the mechanism of introducing a particular morpheme, whether by phrase structure rewrite or by transformational rule, will be given in Part Five.

5.2. Positional Analysis

A chart of the surface configuration of verb morpheme positional classes will be presented in this
section. The sequence of suffix positions represents a maximum extrapolation, since no single verb form contains a member of each position class. Note that several morphemes have been found to occur in more than one position, although not with a single verb stem, except when there is more than one occurrence of the causative suffix.

There are twelve suffixes which, due to a great deal of homonymy, have only four underlying representations among them: -q-, -m-, -k- and -c-. To facilitate the interpretation of the examples given, each of these twelve morphemes will be indicated by the phonological shape with a subscript letter which indicates which morpheme is being represented, such as q_c, q_p, q_x, etc. This is a purely morphemic notation, and has no morphophonemic significance.

A distinction was made, in certain phonological rules in Chapter Four, between final position and non-final position suffixes. Position 14 contains those morphemes which are being called final position, including modal, aspectual, deverbalizing, and sentence conjoining elements. Every verb form must include one of these morphemes, and may additionally follow it with one of a number of interrogative, evidential, conjoining, and modal suffixes, listed in position 15. These latter
suffixes will be termed 'enclitics', because they follow morphemes which are, for phonological and syntactic reasons, called final position suffixes.

This chart serves as the Surface Suffix Ordering Constraint, as outlined in section 13.3.28.

<table>
<thead>
<tr>
<th>DIRECTIONAL + INSTRUMENTAL + VERB + REDUPLICATIVE MORPHEMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAB 'habitual'</td>
</tr>
<tr>
<td>INTS 'intensive'</td>
</tr>
<tr>
<td>DISTR 'distributed'</td>
</tr>
<tr>
<td>ITCOM 'iter. to comp.'</td>
</tr>
<tr>
<td>PLS 'plural source'</td>
</tr>
<tr>
<td>PLF 'plural figure'</td>
</tr>
<tr>
<td>ITER 'iterative'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUFFIX POSITION 1 + SUFFIX POSITION 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>-b- 'intensive change'</td>
</tr>
<tr>
<td>-ş- 'forceful contact'</td>
</tr>
<tr>
<td>-p- 'with force'</td>
</tr>
<tr>
<td>-t- 'iterative'</td>
</tr>
<tr>
<td>-y- 'plural figure'</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>DIRECTIONALS</td>
</tr>
<tr>
<td>-mlu- 'circulative'</td>
</tr>
<tr>
<td>-qla- 'downward'</td>
</tr>
<tr>
<td>-qlo- -ql- 'upward'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUFFIX POSITION 3 + SUFFIX POSITION 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>-mg- 'down towards a surface'</td>
</tr>
<tr>
<td>-qc- 'causative'</td>
</tr>
<tr>
<td>-qp- 'non-singular'</td>
</tr>
<tr>
<td>-qx- 'to away from'</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
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</tbody>
</table>
SUFFIX POSITION 5 + SUFFIX POSITION 6
  -mku- 'reciprocal'
  -w- 'plural action'
  -ki- 'inceptive'
  -kp- 'plural figure, source'
  -ks- 'semelfactive'

SUFFIX POSITION 7 + SUFFIX POSITION 8
  -mp- 'plural source'
  -ox- 'to away'
  -cr- 'reflexive'
  -kp- 'plural figure, source'

SUFFIX POSITION 9 + SUFFIX POSITION 10
  -l- 'durative'
  -cp- 'plural action'
  -qc- 'causative'
  -qp- 'non-singular'
  -ki- 'inceptive'

SUFFIX POSITION 11 + SUFFIX POSITION 12
  -xot- 'negative'
  -ta- 'dual'

SUFFIX POSITION 13 + MODE
  -d- 'potential'
  -dey- 'about to'
  -mlam- 'almost'
### SUFFIX POSITION 14

**MODE**
- -a 'imperative'
- -da 'future conditional'
- -dowa 'hortative'
- -hine 'imperf. optative'
- -kli 'inabilitive'
- -wa 'impersonal agent'

**ASPECT**
- -kle 'habitual'
- -s 'negative imperfective'
- -t 'positive imperfective'
- -ya 'perfective'

**DEVERBALIZERS**
- -baq 'past passive part.'
- -m 'instr. or place nom.'
- -n 'absolutive'

**CONJOINING ELEMENTS**
- -btonwa 'after'
- -day 'simultaneous'
- -fed 'conditional'
- -fia 'sequential'
- -qat 'when'
- -yukin 'before-switch reference'

### POSITION 15

**ENCLITICS**

**CONJOINING ELEMENT**
- -mix 'identical subj.'

**INTERROGATIVES**
- -?e 'interrogative'
- -?ha 'yes-no interrogative'
- -we 'locative interrogative'

**EVIDENTIALS**
- -do 'quotative'
- -do 'introspective'
- -ya 'visual'

**MODE**
- -y 'perfective optative'
Chapter Six. Directional Prefixes

Most of the directional affixes are prefixed to the verb stem. The few directional suffixes are treated in Chapter Ten.

6.1. bay- 'to the outside of an enclosed area'

Examples:
/bay+a+q_{x}+t/ → báyaqat 'l goes outside'
/bay+ce+q_{x}+t/ → báycèqat 'l takes it out of the house'
/bay+cnu+q_{x}+t/ → báycnûqat 'preach'
/bay+do+q_{x}+t/ → báydòqat 'stick your head out through a window'
/bay+qṭu+l+t/ → báyqṭulit 'spit something out'
/bay+k+t+a+q_{p}+n+c_{p}+t/ → báykṭaqancit 'he chased them out of the corral'

6.2. cal- 'to home'

This is made up of the stem ca 'house' and the object suffix -il.

Examples:
/cal+?ye+q_{p}+dowa/ → cályèqdowa 'let's go home'
/cal+o+t/ → cálot 'go home!'
6.3. dul- 'to across a body of water'

Examples:
/dul+fli+t/ → dúlflít 'move residence to across the river'
/dul+xka+t/ → dúlxkåt 'they paddled across the river'

6.4. duy- 'through an area, around within an area, along the perimeter'

Examples:
/duy+ci+ya/ → dúyçiya 'he walked through, carrying'
/duy+he+t/ → dúy?hèt 'turn the car around; carry something across the hall'
/duy+he+c'e+t/ → dúy?hècit '1 receives a non-long object'
/duy+da+t/ → dúydåt 'road runs along the perimeter of the lake'
/duy+kj+a+t/ → dúykjåt 'ladle or dip out soup, water'
/duy+qlo+q_c+t/ → dúyqlòqat 'he tipped it over'
/duy+sce+t/ → dúyscèt 'stand in a circle'
/duy+di+t/ → dúydåt 'float by on the water, glide by in the air'
/duy+tla+t/ → dúytlåt 'turn over (in prone position); turn around (in sitting position)'
/duy+xdì+DISTR+t/ → dúyxdixdåt 'drag something around inside an area (like in the sweatbath)'
6.5. **kuh-** 'emerge out of an enclosed space'

Examples:

/kuh+he+t/ → kûhêt 'bring a non-long object in from the outside or from another room'

/kuh+ca+t/ → kûcât '(the sun)rises'

/kuh+ci+c_x+t/ → kûcîcît 'take something out of an enclosure'

/kuh+ne+t/ → kûnêt 'trees are growing'

/kuh+o+t/ → kûhot 'come out a hole, out of hiding'

/kuh+na+t/ → kûnât 'smoke comes out of the hole in the top of the sweathouse'

/kuh+kdo+c_x+t/ → kûkdôcît 'pull a rope out of a box, a handkerchief out of your pocket'

/kuh+mdî+t/ → kûmdît 'shut the door; put a lid on a jar'

/kuh+mli+t/ → kûmlît 'someone pushes something over to your side of the room; take something out of the room'

/kuh+sce+t/ → kûscêt 'a squirrel peeps up out of a hole; a drill comes through a board'

6.6. **lil-** 'into an enclosed space'

Examples:

/lil+k+\v^a+n+c_p+t/ → lîlkî̀nîcît 'he chased the cattle into the corral'

/lil+bde+t/ → lîlbû̀dêt 'put a non-long object into a container'
/lil+bo+t/ → lilbót 'he crawled into a tunnel'
/lil+ca+t/ → lilcât '(the sun)sets'
/lil+do+t/ → lildôt 'put your hand into a hole, into your pocket'
/lil+ml1+q₃₉+t/ → lilmîqbit 'insert one non-long object each into many holes'
/lil+mo+t/ → lilmôt 'tunnel goes through'
/lil+tl0+t/ → liltlôt 'fall into a creek'

6.7. ma- 'down to the ground; to a surface'

The difference in meaning between this and ma- is not known.

Examples:
/ma+ni+t/ → mánit 'a tree full of apples falls down'
/lamesa ma+di+t/ → lamesa mádit 'set the table'

6.8. mal- 'across water; from water onto land'

This prefix is made up of the stem ma- 'land' plus the object suffix -il.

Examples:
/mal+ʔse+t/ → málʔseât 'sit down on the ground after coming out of the water'
/mal+ca+q₉₉+t/ → málcąqat 'it was washed ashore'
/mal+m+sə+t/ → málmsət 'he brought something in a boat'
/maɬni+t/ → mánlit 'throw an object out of the water onto the land; to fire someone from a job'
/maɬxka+t/ → málɔxtət 'he came across the water and landed on shore'
/maɬcKI+t/ → máyɛklikt 'go from water onto land'

6.9. mɑːt- 'down to a surface, down to the ground'

Examples:
/mɑːtm+ma+t/ → mɑːtmamət 'he lies down'
/mɑːtk+m+ma+t/ → mɑːtkamət 'he sat down'
/mɑːtsca+t/ → mɑːtsca:t 'he was sitting'
/mɑːt+ne+mku+l+t/ → mɑːtnɛmko:lɪt 'they wrestled(down to the ground)'

6.10. mo- 'cease forward motion, stop, come to rest'

Examples:
/mo+di+t/ → módit 'come to a stop on the water'
/mo+kto+t/ → móktɔt 'walk along and stop'
/mo+kto+kə+s+t/ → móktɔkəlt 'he stood up; a horse rears'
/mo+ne+t/ → mónet 'lean something against something'
/mo+ʃ+ne+t/ → móʃnet 'put a belt on someone'

6.11. moy- 'up off a surface, up from the ground'

Examples:
/moystatehe+b+kə+s+t/ → móyɛhɛbkəlt 'i picks up a non-long object'
/moy+ca+b+k_s+t/ → móncàbkit 'a non-long object (bird, helicopter) rises off the ground'

/moy+ca+b+k_s+t/ → móncàbkit 'a long object (bird, airplane) rises off the ground'

/moy+di+t/ → móndít 'stuck in the mud' (this seems to mean 'suspended upward in a fluid')

6.12. til- 'thither, away from speaker'

Examples:
/ti1+c1+ya/ → tilciya 'he carried it away'
/ti1+o+t/ → tilot 'he left'
/ti1+?bi+t/ → til?bit 'begin something'
/ti1+?he+n+c_x+t/ → til?hèncít 'chase away, drive off'
/ti1+bdì+t/ → tilbdít 'throw something away'
/ti1+ca+q_c+t/ → tìlcàqat 'mail something'
/ti1+fli+t/ → tilfli1t 'move, change residence'
/ti1+mdì+t/ → tilmdít 'open a door'
/ti1+ne+t/ → tilnèt 'overtake and pass; throw away, leave behind'

6.13. xol- 'hither, towards speaker'

Examples:
/x̪ol+o+t/ → x̪òlot 'he came'
/x̪ol+yhe+mku+t/ → x̪ulyhèmkút 'they met each other'
/x̪ol+bo+t/ → x̪òlbôt 'an animal or person walks up to you'
6.14. **xqol-** 'outward, to the outside'

Examples:

\[ /xqol+ne+t/ \rightarrow xqolnët \text{ 'sing; throw something from the} \]
\[ \text{side into the center'} \]

\[ /xqol+x{id}+IT{ER}+t/ \rightarrow xqolx{dx}{dit} \text{ 'drag something from} \]
\[ \text{the inside to the outside of(he sweathouse)'} \]

\[ /xqol+o+t/ \rightarrow xqolot \text{ 'creek running, water running} \]
\[ \text{after a storm'} \]

\[ /xqol+he+c_{x}+t/ \rightarrow xqolhëcýt \text{ '1 or 2 take a non-long} \]
\[ \text{object out(from a cupboard, etc.)'} \]

\[ /xqol+bu+k_s+t/ \rightarrow xqolb{ù}kit \text{ 'a boy or girl grows up'} \]

\[ /xqol+ca+k_s+c_{x}+t/ \rightarrow xqolc{à}k{cit} \text{ 'spring(season)'} \]

\[ /xqol+di+t/ \rightarrow xqoldit \text{ 'it floated out from shore'} \]

6.15. **xuy-** 'up to a high position'

\[ /xuy+ma+t/ \rightarrow xúymáit \text{ 'place a long object up high(like} \]
\[ \text{on a high shelf)'} \]

\[ /xuy+k+ma+q_o+t/ \rightarrow xúymáqat \text{ 'place a non-long object}
\[ \text{up high'} \]

\[ /xuy+xqo+m_p+q_c+t/ \rightarrow xúyxqòqat \text{ 'place several objects}
\[ \text{up high'} \]

6.16. **yoh-** 'downstream, downhill, down along a surface'

Examples:

\[ /yoh+ci+ya/ \rightarrow yóciya \text{ 'walk down carrying'} \]

\[ /yoh+fi{l}t/ \rightarrow yófl{lt} \text{ 'move downstream'} \]

\[ /b{da} yoh+bda+t/ \rightarrow b{da} yóbd{à}t \text{ 'the creek runs downward'} \]
/yoh+bo+t/ → yōbot 'he crawled downhill'
/ʔ+s+u+n yoh+cy+a+t/ → ʔsūn yōčyāt 'the mark runs downward'
/dawa yoh+da+t/ → dāwa yōdat 'the road runs downhill'
/yoh+di+t/ → yōdit 'things float downstream'
/yoh+oa+t/ → yōhot 'he went downhill'
/yoh+kta+ITER+t/ → yōktaxtat 'drag something downhill'
/yoh+tla+t/ → yōtlat 'slide, roll downhill'

6.17. yol- 'to away from something'
  Examples:
/yol+bi+t/ → yōlbīt 'something is left, remains; leave
                something behind'
/yol+kₜ+wa+qₜ+a+t/ → yōlkit wāqat 'he walked away
                from it'

6.18. yuy- 'back to(?)(meaning uncertain)
  Examples:
/yuy+nu+kₜ+crₜ+t/ → yūynukcit 'answer(nu-'speak')'
/yuy+xbe+kₜ+crₜ/ → yūyxɓeːkiː 'crutch, cane'
Chapter Seven. Instrumental Prefixes

7.1. Introduction

The instrumental prefix system of Southeastern Pomo appears to be considerably more limited than those of the other Pomo languages, both in productivity and in the number of occurring prefixes. This is largely the result of a pre-Southeastern Pomo phonological rule which deleted an unstressed vowel which preceded the stressed root vowel. All of the instrumental prefixes were thereby reduced in shape from CV- to C-, causing extreme homophony. This seems to have resulted in reduced analyzability of the prefixes, their meanings only sporadically isolable from those of the roots.

For the purposes of this grammar, then, the resultant CCV and CCVC stem will be considered single morphemes, except in cases where a prefix is clearly identifiable, and can be combined with several different roots. The question of the synchronic reality of these prefixes in Southeastern Pomo will thus remain open for the present.

For comparative purposes, this section will present prefixes which are clear synchronically, as well as those which may be isolable only on a comparative basis. The cognate forms in Kashaya and Eastern Pomo will be provided for ease of comparison.
7.2. Instrumental Prefixes

7.2.1. ?- 'with the hand'

This prefix corresponds to Eastern Pomo /da-/- and Kashaya /da-/. It is ?- rather than d- because of a pre-Southeastern Pomo phonological rule

\[ d \rightarrow ? / \_ C \]

which resulted in the Southeastern Pomo sequence structure condition that d may not be followed by a consonant.

Examples:

/ʔ+boʔ+k_s+t/ → ʔbóʔkit 'pull a plant up out of the ground'

/ʔ+dut+1+t/ → ʔdútliit 'touch, nudge with the hand'

/ʔ+ke+t/ → ʔkét 'hold or grab something'

/ʔ+liv+k_s+t/ → ʔlíwkit 'gesture with the hand; wave'

/ʔ+sat+t/ → ʔsátit 'feel something with the hands'

/ʔ+ta+n/ → ʔtán 'a hand'

/ʔ+te+š+k_s+t/ → ʔtéškit 'pat something with the hands'

7.2.2. ?- 'action by natural forces, by gravity'

This prefix corresponds to Eastern /di-/- and Kashaya /di-/-.

Examples:

/ʔ+beʔ+t/ → ʔbéʔit 'destroy, run out of'

/ʔ+qay+t/ → ʔqáyit 'a boat rocks; something turns over'
/ʔ+tqat+k_s+t/ → ʔtátkit 'crack (an egg)'

/ʔ+tqes+k_s+t/ → ʔtéškit 'a bear jumps a man and brings him down'

/ʔ+tut+k_s+t/ → ʔtútkit 'get a man down, wrestling'

7.2.3. ʔ- 'with one or more fingers or claws'

This is cognate with Eastern /du:/ and Kashaya /dũ-/.

Examples:

/ʔ+ćin+t/ → ʔćinit 'pinch someone'

/ʔ+lot+t/ → ʔlótit 'touch with the finger'

/ʔ+čat+k_s+t/ → ʔčátkit 'scratch with fingers, claws'

7.2.4. b- 'with a protrusion; with the mouth, tongue, beak; talking, eating'

This is cognate with Eastern /ba:/ and Kashaya /ba-/.

Examples:

/b+kaṭ+t/ → bkáṭit 'say something wrong; lie' (compare with ʔkáṭit 'do something wrong')

/b+qoy+t/ → bqóyit 'to chop something into two pieces'

/b+coč+l+t/ → bcóklit 'fish nibbles, pulls on line'

/b+kO+ITER+k_s+t/ → bkóbkòkit 'bird pecks'

/b+lat+k_s+t/ → blátkit 'he's licking it'
/b+lit+k₈+q₉+t/ → blítqiqt 'stick out the tongue'
/b+lo+HAB+l+t/ → blôblôlit 'he mumbles'
/b+tok+t/ → b tôkit 'woodpecker pecks'
/b+xu·tu+k₈+çᵣ+t/ → buxú·tukcit 'pucker up the mouth'
/b+yî+q₉+t/ → byîwat 'advise, lecture, preach'

7.2.5. b- 'handling a number of objects; gathering; by sewing'

This corresponds to Eastern /bi·-/ and Kashaya /bi-/.

Examples:
/b+î+q₉+t/ → bîlit 'gather food'
/b+ho+w+l+t/ → bhôwlit 'he's stringing beads'
/b+di+q₉+t/ → bdîqat 'hand someone a bunch of arrows'
/b+šu어+t/ → bšûtît 'she's sewing'

7.2.6. c- 'with the front end, by flowing water'

This is cognate with Kashaya /cû-/ and may be related to Eastern /ku·-/.

Examples:
/c+do+t/ → cdôt 'see'
/c+ki+t/ → ckît 'bird alights; car, train stops'
/c+lo+t/ → clôtît 'scrape something off; paint'
/c+wi+t+ITER+t/ → cwitcwítit 'bow a violin'
/c+wol+ITER+kₙ+t/ → cwólcwòlkit 'he stirred it'
/c+xuʃ+t/ → çxuʃit 'he sipped it'
/c+xol+kₙ+t/ → cxólkit 'it's leaking'

7.2.7. c- 'with a massive object, with a knife'
This corresponds to Kashaya /ca-/ and possibly to Eastern /ka'-./

Examples:
/c+yet+t+c_{qₜ}+t/ → čiyétqat 'to iron clothes'
/c+qa+t/ → cqát 'he put it down'
/c+xaw+t+cₙₜ+q_{qₜ}+t/ → cₙₜawqat 'he cut it down with a swinging motion'
/c+xaʃ+kₙ+t/ → cxₙₜkit 'strip a bunch of hops off a stem in one motion'

7.2.8. c- 'momentaneous, intensive action, projecting from a surface'
This is cognate with Eastern /'ci-/.

Examples:
/c+daʃ+kₙ+t/ → cdₙₜkit 'splatter; he spit and his spit splattered'
/c+le+t+t/ → 'clétit 'it's dripping'
/c+mu+INTS+k₇+t/ → čmúčmùkit 'he smiled'
/c+te+q₉+k₇+t/ → čtéxkit 'he sneezed'
/c+xuṭuk'/ → oxúṭuk 'wart'

7.2.9. f- 'with the end of a long object'
This is cognate with Eastern /pʰa−/ and Kashaya /pʰa−/.

Examples:
/fa+dak+t/ → fádak'ît 'to dress a deer'
This verb stem is unusual in its preservation of the prefix vowel, if the above segmentation is correct. The stress apparently moved back onto the prefix before that vowel was deleted.
/f+tik+t/ → f'tik'ît 'whip, beat someone'
/f+tam+q₉+t/ → ftámqat 'he lit the lamp'

7.2.10. f- 'with the side of a long object; piercing'
This is cognate with Eastern /pʰi−/ and Kashaya /pʰi−/.

Examples:
/f+lut+k₇+t/ → flút'kit 'he dented it'
/f+qa+l+t/ → fqálit 'knock nuts off a tree'
7.2.11. k- 'poking, piercing, pounding, squeezing, mashing'

This probably corresponds to both /ka*-/ and /ku*-/ in Eastern.

Examples:
/k+du+t+k_s+t/ → kdú̱kít 'poke, jab with finger'
/k+ca+t/ → kcó̱t 'to kick'
/k+cu+š+k_s+t/ → kcú̱škit 'he poked it with a stick'
/k+có̱k+k_s+t/ → kcó̱ʔkit 'hit someone with your fist'
/k+lc+š+k_s+t/ → klú̱cít 'he rolled a cigarette'
/k+luc+k_s+t/ → klú̱cít 'klú̱cít kit 'it's dented up all over'
/k+nč+t/ → kní̱lit 'pound, grind'
/k+šu+ITER+t/ → kšú̱kšút 'he poked around with a stick'
/k+čál+k_s+t/ → kčálkit 'slap someone'
/k+to+k_s+t/ → któ̱kit 'he took a step'
/k+tu̱k+k_s+t/ → ktu̱ʔkit 'he punched a hole in it, pierced it'
/k+čát+t/ → kčátit 'squash, step on, mash'
/k+čet+k_s+t/ → kčétkit 'run over with a car, mash'
/k+ti+t/ → ktit 'stab, spear, impale, poke with finger'
/k+ti+k_1+t/ → ktí̱kit 'bump into, hit, run into'
/k+ti+m̃+_t/ → kmát 'beat a drum'
7.2.12. m- 'with a projection at the end of a long object; with the fingers, with the butt of the hand, with the foot'  
This is cognate with Eastern /ma-/> and Kashaya /ma-/.  
Examples:  
/m+dut+k_s+t/ → mdútkit 'squeeze with the fingers'  
/m+cal+k_s+t/ → mcálkit 'squeeze in arms, hands; wring out clothes'  
/m+li+k_s+t/ → mlikit 'throw many objects, a bunch of sticks'  
/m+na+k_s+t/ → mnákit 'to pay'  
/m+ták+k_s+t/ → mfà'kit 'press it down with the hand'  
/m+tek+k_s+t/ → mfé'kit 'step on, mash, smash with the foot; depress the gas pedal'  
/m+te⁺š+k_s+t/ → mťeskìt 'pat, slap with both hands'  
/m+xa⁺t+k_s+t/ → mťátkìt 'strip a bunch of hops off a stem in one motion'  

7.2.13. m- 'with internal energy; with heat, exploding, burning; with the emotions'  
This is cognate with Eastern /mu-/> and Kashaya /mù-/.  

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Examples:

/m+bol+k_s+t/ → mbólkit 'pop, explode, blow up; tire
blows, bacon pops, balloon pops'
/m+ho+l+t/ → mhólit 'wood turns to charcoals'
/m+lu+t/ → mlút 'bake, roast'
/m+ta+t/ → mtát 'be cooked, sunburned'
/m+te+k_s+t/ → mtékít 'be hot, warm; have a fever'
/m+cay+m_i+c_r+t/ → mcáymacít 'to hate'
/m+co+q_c+c_r+t/ → mcóqcit 'be ashamed'
/m+fe[t/ → mfét 'skunk'
/m+doyo+k_s+t/ → mdóyokit 'sour'
/m+qay+t/ → mqáyit 'sweet'
/m+xu+tu+k_s+t/ → mxú+tuikit 'shrink up; be wrinkled up'
/m+xe+c_r+t/ → mxécit 'it has an odor (not necessarily
bad)'

7.2.14. m- 'with the projected end of an object'

This is cognate with Eastern /mi-/ and Kashaya
/mi-/.

Examples:

/m+pu+k_s+t/ → mpúkit 'to whistle, blow a whistle'
/m+di+l+t/ → mdélit 'to fish with a dip net'
/m+do+q_c+t/ → mdóqat 'to kill'
/m+qo+q_c+t/ → mğeqat 'to holler, shout'

/m+t'o+q_c+k_s+t/ → m'tõqkit 'smack the lips' (This form exceptionally does not undergo Spirantization. It may also be pronounced m'tõxkit.)

7.2.15. q- 'with a biting, scratching, tearing, mashing action'

This is cognate with Eastern /qa-/ and Kashaya /qa-/.

Examples:
/q+be't+t/ → qbe'tit 'to eat all the food up; to scratch'
/q+ce+k_s+t/ → qcekit 'to eat along with, in addition to'
/q+ne+t/ → qnet 'to bite'
/q+ne+c_p+t/ → qne'c'it 'eat the same food day after day'
/q+se+q_c+ya/ → qse'qya 'canned food'
/q+ay+l+t/ → q'aylit 'to tell something (archaic)'
/q+sk+ll+t/ → qšullit 'peel buckeye, corn'
/q+a+m+t/ → q'amat 'rusty, mildewed'
/q+at+ITER+k_s+t/ → q'tatq'tatkit 'mash'

7.2.16. a- 'cutting, slicing, shearing'

This is probably cognate with Eastern /sa-/.

Examples:
/sqoyt/ → sq̓ó̱yt 'cut with scissors; saw off'
/s+da+t/ → sdá̱t 'peel (fruit or vegetable)'
/s+da+t+k_s+t/ → sdá̱tkit 'slice bread'
/s+kot+l+t/ → sk̓ó̱tlit 'he shovelled all day'
/s+pam1+t/ → spá̱mat 'mouse gnaws'
/s+kab+k_s+t/ → sk̓á̱bbkit 'cut with knife, tear, slash, rip'
/s+qol+t/ → sq̓ó̱lit 'cut hair, feathers with shears'

7.2.17. s- 'with water'

This is cognate with Eastern /si-/ and Kashaya /si-/

Examples:
/s+cot+t/ → sc̓ót̓it 'it's melting'
/s+woc+iter+k_s+c̓p+t/ → swó̱swò̱k̓ít 'gargle'
/s+woc+t+k_s+q_c+t/ → swó̱tk̓ig̓at 'dissolve'
/s+di+q_c+t/ → sdí̱g̓at 'swallow'

7.2.18. ñ- 'with a long, often flexible object'

This is cognate with Eastern /k̓hi-/ and Kashaya /c̓hi-/

Examples:
/ñ+bu+t/ → ñbút 'weave a basket'
/š+da+t/ → šdát 'make mush'
/š+dok’+k_s+t/ → šdö’kit 'make a dent; a gully or depression in the ground'
/š+lu+l+c’+t/ → šlóycit 'snake sheds its skin' (This form shows that phonological rule 12. Vowel Lowering must precede phonological rule 20. Liquid Palatalization.)
/š+në+t/ → šnet 'put a belt or headband on someone'
/š+i+a+p+q_c+t/ → štápqat 'snap your fingers'

7.2.19. ŝ- 'spreading out, stretching'

This is probably cognate with two prefixes in Eastern Pomo, /k’u-/* and /h’i-/*.

Examples:
/š+?=t/ → š?et 'leach acorns'
/š+kì+t/ → škit 'catch in a trap, in a net'
/š+mo/ → šmó 'foam'
/š+šay+t/ → štáyet 'bleed someone; cut with a flint'
/š+wu+k_s+t/ → šwúkit 'melt, thaw out'

7.2.20. x- 'break, undo'

This is probably cognate with Kashaya /ha-/*, and maybe with Kashaya /hi-/*.

Examples:
/x+lo+k_s+t/ → xlökit 'unwind, tear down, erase'
/χ+mo тебя → χmóτi т 'snore'
/χ+qa+b+kг+т/ → χqábkit 'break in a door'
/χ+qoy+t/ → χqóyit 'fell a tree'
/da χ+d1+qд+s/ → da χdíqas 'he doesn't know'
Chapter 8. The Verb Root

8.1. Introduction

A syntactic analysis of a language should include as an integrated sub-part a presentation of the verb stem and affixal systems. The criterial categories which the particular language abstracts out of the experiential continuum should be given, and the system in which they are embedded should be characterized at the most abstract deep structure or generative semantic level. Finally, to validate the empirical reality of the deep analysis, there should be a set of transformations relating such a system to observed surface configurations.

This analysis of the Southeastern Pomo verb will fall short of this goal. What is being presented is a syntactic-sematic characterization of each affix, and an analysis of a small but significant sub-part of the verb root system, which I will term the motion-configurational system. This includes the verbs of motion, position, giving, carrying, throwing, and placing of objects.

An informal presentation of the prelexical structure of these roots will be given first. Then the roots will be listed in sets which are suppletive for the number of the 'figure' or 'theme'. Gruber defines 'theme' as the noun phrase in the sentence
which "may be in motion in a concrete or in an abstract sense, manifesting a change of position, possession, class membership, activity, etc."\textsuperscript{5}

Each verb root will be defined first according to the prelexical components which I believe are involved, and then by various English translations supplied by the informants. Some examples of the use of these roots will be given in this chapter, and further examples will be found throughout the verb morphology.

8.2. Motion-configurational Prelexical Elements

In this section the prelexical elements which define this subset of the verb root system will be presented. They will be formalized into binary features for notational convenience only, but these features may be indicative of real categories in the language. The elements fall into seven categories:

1) Presence or absence of source of motion
2) Figure-source relationship
3) Shape of figure
4) Orientation of figure
5) Position of figure with respect to the medium
6) Motion of figure
7) Number of figure
8.2.1. Presence or Absence of Source of Motion

The set of verb roots can be bifurcated on the criterion of whether or not a 'source of motion' (in Gruber's sense) is specified. For the verbs treated in this section, those which indicate presence of source are transitive and those indicating absence are intransitive. This distinction will be formalized by the feature [+source present]. [+source present] verbs indicate carrying, placing, giving and throwing, and [-source present] verbs indicate stationary position or motion. [-source present] verbs can be changed to [+source present] by the addition of the suffix -q₉- 'causative'.

8.2.2. Figure-source Relationship

 [+source present] verbs may be further distinguished by the spatial (and extended meanings) relationship between the figure and the source. The figure may be in contact with the source, out of contact and moving away from the source, or may be transferred from one source to another.

These distinctions will be represented by the features [+figure contact] and [+figure transfer]. [+figure contact] verbs indicate holding and carrying, [-figure contact] verbs indicate such things as throwing
and sending, and [+figure transfer] verbs indicate giving. In addition, a verb root marked [+figure contact] may be changed to [-figure contact] by the addition of the suffix -n- 'figure separation'.

8.2.3. Shape of Figure

Many of these roots specify the shape of the figure involved. The classification is basically between plural(or mass), and between long and non-long objects. In addition, the [+figure contact] or carrying verbs distinguish between animate and inanimate objects. With other verbs, animate objects are considered either long or non-long. The features used to indicate these distinctions are [+long], [+mass] and [+animate].

8.2.4. Orientation of Figure

If a figure is marked [+long], its orientation, whether horizontal(lying) or vertical(standing) may be indicated by the verb root. This will be specified by the feature [+vertical].

8.2.5. Position of Figure with Respect to the Medium

Basically, a two-way distinction is made as to the medium that the figure is positioned in relation to. It is either positioned on a surface or within a fluid.
The fluid may be air or water, a distinction made by some roots, but not by others (such as -di- which is 'suspended in a fluid', but xka- 'come to land from out of water'). It is probably the case that the distinction is not between types of fluid, but between the kinds of actions possible in the environment of air or water specifically. The distinction will be indicated by [+surface], [-surface] meaning positioning within a fluid. Plural or mass figures positioned on a surface may be specified to be distributed over the surface, indicated [+distributed]. Finally, at least one pair of roots distinguishes between the ground and other surfaces, so a feature [+ground] is necessary.

Some verb roots indicate transfer of a figure from one medium to another, such as from air to land, water to land, or land to water. A notation like [+surface] → [-surface] meaning 'from a surface into a fluid' will be used. At least one verb also indicates greater forcefulness in the transfer, so a feature [+force] will be used. Also, a feature [+from water] is necessary to distinguish water-to-land motion from air-to-land motion in a few instances.
8.2.6. Motion of Figure

Motion can be specified by a four-way distinction for the roots treated here: a figure is at rest, in translatory motion, in rotation around an axis, or passing from an in-motion state to an at-rest state. These will be indicated by the features [+motion], [+translatory], [+rotation, and [+end motion]. [-end motion] can be changed to [+end motion] by the addition of the suffix -b- 'intensive change in motional state'.

8.2.7. Number of Figure

The majority of motion-configurational roots are suppletive for singular, dual and plural/mass figure number. Some roots make only a two-way distinction, between singular/dual and plural figure.

Therefore, the feature notation for number of figure will be [+plural] and [+dual].

8.2.8. Internal Relationships of the Features

Although no theoretical claim is being made that the above features are an adequate representation of the semantics of these verb roots, in this section some statements of hierarchy and redundancy within this feature system will be given.
1. \([+\text{source present}] \rightarrow [+\text{figure contact}] \rightarrow [+\text{figure transfer}]\)

2. \([-\text{mass}] \rightarrow [+\text{long}] [+\text{animate}]\)

3. \([+\text{surface}] \rightarrow [+\text{ground}]\)

4. \([+\text{motion}] \rightarrow [+\text{translatory}] [+\text{rotational}] [+\text{end motion}]\)

5. \([-\text{plural}] \rightarrow [+\text{dual}]\)

6. \([+\text{mass}] [+\text{surface}] \rightarrow [+\text{distributed}]\)

7. \([+\text{long}] \rightarrow [+\text{vertical}]\)

8. \([+\text{figure contact}] \rightarrow [+\text{animate}]\)

9. \([+\text{plural}] \rightarrow [+\text{mass}]\)

10. \([+\text{motion}] \rightarrow [-\text{distributed}]\)

11. \([+\text{figure contact}] \rightarrow [+\text{source present}] [+\text{figure transfer}]\)

12. \([+\text{long}] [+\text{animate}] \rightarrow [-\text{mass}]\)
13. \([+\text{ground}] \rightarrow [+\text{surface}]\)

14. \(\begin{aligned} & [+\text{translatory}] \rightarrow [+\text{motion}] \\
& [+\text{rotational}] \end{aligned}\)

15. \([+\text{dual}] \rightarrow [-\text{plural}]\)

16. \([+\text{distributed}] \rightarrow [+\text{mass}] \\
& [+\text{surface}]\)

17. \([+\text{vertical}] \rightarrow [+\text{long}]\)

18. \([+\text{animate}] \rightarrow [+\text{figure contact}]\)

8.3. The Verb Roots

The motion-configurational verb roots will now be listed. It should be noted that the feature notation is not intended to fully characterize the semantics of the roots, but only to maintain some distinctness between them. It seems clear that if binary feature notation is to be used at all in semantics, the distinctness convention utilized in phonology cannot be maintained. Morphemes must be differentiable by the specification or lack of specification of a given feature, that is, a third value, which will be indicated \([-\text{Feature}]\).

Singular, dual and plural/mass number will be indicated here and elsewhere in the grammar as 1, 2
and 3, rather than as [-plural, -dual], [-plural, +dual] and [+plural].

8.3.1. ca- 1
   ko- 2
   mha- 3

'motion over a surface; run, fly, flow'

Examples:
/ca+mlu+l+t/ → cámlolit '1 runs around a point, or within an area, or flies around in the sky'
/kö+mlu+l+t/ → kömlolit '2...'
/mha+mlu+l+t/ → mhámlolit '3...'
/ca+l+t/ → cálit '1 runs, flies; water flows slowly'
/ca+l+qₚ+m₁+q₉+t/ → cálmqaqat 'they're playing ball'

8.3.2. wa- ~ a- ~ o- 1
   yhe- 2
   yye- 3

'motion along a surface; walk, go'

The semantic difference between ca- and wa- is not adequately characterized by the features. The difference seems to be between 'moving along progressively' (ca-) and simply 'going' (wa-). The former seems to indicate
a more flowing kind of motion, the latter usually less so.

The allomorphy for the singular morpheme can be expressed by the following ordered readjustment rules:

1) wa → a / bay
2) wa → o / dir. prefix
3) wa → wa

Examples:
/wa+l+t/ → wálit '1 is walking'
/yhe+l+t/ → yhélit '2...
/?ye+l+t/ → ?yélit '3...
/wa+l+k₁+t/ → wálkit '1 started walking'

8.3.3.  di-  1
        li-  2
        li+t-  3

'moving or hovering while suspended in and being buoyed up by a fluid; float in water, glide in air, be stuck in mud'

The plural is formed from the dual plus the suffix -t-
'iterative'.
Examples:

/duy+d1+t/ → dýdít '1 floats by on water, glides by in the air'

/duy+l1+t/ → dýlít '2...

/duy+l1+t+t/ → dýlíltit '3...

/di+m1+t/ → dímat '1 hangs in the air or floats on the water(stationary)'

/li+m1+t/ → límat '2...

/li+t+PLF+t/ → lítíltit '3...

/di+b+k1+t/ → díbkít '1 floats along and comes to a stop on the water'

8.3.4. bhe- 1,2  
     mya- 3  

'motion through a fluid; swimming'

Examples:

/bhe+l+t/ → bhélit '1 swims'

/bhe+tta+t/ → bhéttat '2...

/mya+t/ → myát '3...

/bhe+mlu+l+t/ → bhémlolit '1 swims around'

8.3.5. qlo- 1,2,3  

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'rolling motion along a surface; wheel rolls'

Examples:
/qlol+1/ → qlol 'wheel'
/qlol+ITER+ka+t/ → qlolqlokit 'the wagon is rolling along'

8.3.6. bo- 1
bla- 2
mha- 3

'motion along a surface, long object horizontally; crawl, walk on all fours, snake moves'

Examples:
/bo+l+t/ → bólit 'l(baby, snake)crawls, moves'
/bla+l+t/ → blálit '2...
/mha+l+t/ → mhálit '3... ; mudhens swimming along on the surface of the water'
/bo+k1+t/ → bókit 'baby starts crawling'
/bo+qlol+q+t/ → bóqloqat 'l(dog, baby)crawls uphill; up to you'
/bla+qlol+q+t/ → bláqloqat '2...
/mha+qlol+q+t/ → mháqloqat '3...

8.3.7. qa- 1,2,3

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'motion into a fluid medium; dive into water, swim'

Examples:

/qa+k ꞏ t/ → qákit '1 dives in'

/qa+k ꞏ tta+t/ → qáktat '2...

/qa+m ꞏ t/ → qámat '3...' or '1, 2, 3 swim'

8.3.8. sca– 1

mye– 2

blo– 3

'non-long object rests on a surface; sit(the human body in a sitting position is [-long])'

Examples:

/ma ꞏ +sca+t/ → máꞏscât 'he's sitting down'

/sca+t/ → scât 'he's sitting, staying; he's alive; it's sitting there'

/mye+m ꞏ t/ → myémat '2 are seated, sitting'

/blo+m ꞏ t/ → blómat '3...

8.3.9. kto– 1

no– 2

blo– 3

[-source present]

[-long]

[-motion]
'long object rests on a surface in a vertical position; stands'

Examples:
/kto+m₉+t/ → któmat '1 stands still; faces towards something'
/no+m₉+t/ → nómat '2 stand still'
/blo+m₉+t/ → blómat '3...'
/kto+kₐ+t/ → któkit '1 steps on something'
/kto+m₉+tta+t/ → któmtat '2 face towards something'

8.3.10.  mₜᵢ-  1
         bₜᵢ-  2
         ťqo-  3

'source present'
+long
-vertical
+surface

'long object rests on a surface in a horizontal position; lies'

Examples:
/mₜᵢ+t/ → mₜᵢt '1 person, log, animal is lying down'
/bₜᵢ+t/ → bₜᵢt '2...'
/mₜᵢ+tta+t/ → mₜᵢttat '2...'
/ťqo+m₉+t/ → ťqómat '3...'
/ťqo+m₉+q₉+a/ → źqómoqa 'lie there!'
/ťqo+m₉+a₉+a/ → źqórqa 'put it down there!'

The penultimate example is an exception to the
Nasal Backing rule. This may be due to pressure to keep the last two examples from being homophonous.

8.3.11. sce- 1,2,3

`objects distributed on a surface`

Examples:

/χος sce+t/ → χός scét 'people sitting or standing around in a circle'

/sce+n/ → scén 'rain'

/sce+n sce+k_p+t/ → scèn scékit 'it's raining'

8.3.12. ṭla- 1

, ḡṭa- 2

χqo- 3

`long object turns on horizontal axis; turn over in bed; airplane takes off; person rolls onto the ground and lies there; someone falls; houses stand in a row(extended meaning?)'
Examples:

/\text{tl}a+ya/ → \text{tl}áya 'I fell (into the lake, from a boat)'

/\text{tl}a+q_{c}+t/ → \text{tl}áqat 'I fell down'

/\text{s}t\text{a}+q_{c}+t/ → \text{s}táqat '2...'

/\text{x}qo+q_{c}+t/ → \text{x}qóqat '3...'

/\text{myo} \text{tl}a+m_{l}+q_{c}+c^{r}+t/ → \text{my}ó \text{tl}ámqóit 'feel sorrow, grief (myo 'heart)'

/\text{ca} \text{tl}a+m_{g}+k_{p}+t/ → \text{c}á \text{tl}ámkit 'row of house extends in a row'

/\text{tl}a+l+t/ → \text{tl}álit 'I pencil moves around in a box; person crawls up to you'

/\text{x}qo+l+t/ → \text{x}qólit '3...'

/\text{tl}a+k_{s}+t/ → \text{tl}áxit 'person hits the ground, rolls, and lies'

8.3.13. \text{tl}o- 1,2,3

\begin{array}{c}
\text{[source present]} \\
\text{[long]}
\text{[surface]}
\text{[vertical]}
\text{[rotational]}
\text{[translatory]}
\end{array}

'long object turns on vertical axis; someone turns around'

Examples:

/\text{tl}+m_{g}+t/ → \text{tl}ómát 'I turns around'

/\text{tl}o+m_{g}+q_{c}+t/ → \text{tl}ómqat 'I turns I around'
8.3.14. kbi- 1,2
    xqo+b- 3

    [-source present]
    [+surface] ⇒ [+surface]
    [-from water]
    [+end motion]

'come to rest down onto a surface; sit down,
bird or plane lights down, lands'

Examples:
/kbi+kₙ+t/ → kbit '1 sits, lights down'
/xqo+b+kₙ+t/ → xqóbkit '3...'

8.3.15. cki- 1,2
    xqo+b- 3

    [-source present]
    [+long]
    [+vertical]
    [+surface]
    [+end motion]

'long object comes to rest on a surface; car,
train, person comes to a stop'

Examples:
/cki+t/ → kkit '1 stops'
/xqo+b+kₚ+t/ → xqóbkit '3 stop'
/cki+ITER+m₁+t/ → ckickmat '1 starts and stops, over
and over'

8.3.16. mat+scæ- 1
        mat+kma- 2
        mat+mya- 2
        mat+blo- 3

    [-source present]
    [-long]
    [+surface]
    [+end motion]
'non-long object comes to rest on a surface; move to a sitting position, sit down'

Examples:

/mat+scə+t/ → mátscət  '1 sits down'
/mat+kma+t/ → mátkmat  '2...'
/mat+myə+m_t/ → mátyəmat  '2...'
/mat+blo+m_t/ → mátbləmat  '3...'

8.3.17. xka- 1,2 [-source present [-surface] → [+surface]]
         ?ye- 3 +from water
         +end motion

'come to rest on land, from out of the water'

Examples:

/mal+xka+t/ → málxkət  '1 comes to shore'
/mal+xka+tta+t/ → málxkəttat  '2...'
/mal+?ye+q̣_p+t/ → mál?yəq̣at  '3...'

8.3.18. kna- 1,2 [-source present [-surface] → [+surface]]
         x̣q̣o+b- 3 +force
         +end motion

'object comes to rest on a surface with a forceful or abrasive action; plop down on the bed and lie there, rub against wet paint, shut your eyes'
Examples:

\( /\text{kna+t/} \rightarrow \text{kná}t \ 'l \text{hit the bed and lay; l rubbed against wet paint}' \)

\( /\text{xqo+b+k_p+t/} \rightarrow \text{xqóbkít} \ '3...' \)

\( /\text{kna+k_s+t/} \rightarrow \text{knákit} \ 'l \text{closed his eyes}' \)

8.3.19.  ce- 1[+long]  
          ke- 2[+long]*  
          ?du- ~ ?he- 1[-long]  
          ?ta- 2[-long]  
          fi- 1,2[+animate]  
          ci- 3[+plural]  
          ci- 1,2,3 on back  

*ke- can also mean '3 carry 1-3 long objects each'.  
'figure in motion with source; carry'  

All carrying on the back is undifferentiated for shape and number.

The readjustment rule for '1[-long]' is  

\( ?\text{du-} \rightarrow ?\text{he-} / \text{dir. prefix} \rightarrow \)  

\( ?\text{du-} \rightarrow ?\text{du-} \)

Examples:

\( /\text{kuh+?he+t/} \rightarrow \text{kúhét} \ 'l \text{brings in a non-long object}' \)

\( /?\text{du+l+t/} \rightarrow \text{dúlit} \ 'l \text{carries 1 non-long object}' \)
/kuh+ce+t/ → kúčėt 'l brings in 1 long object'
/xol+ci+ya/ → xólčiya '3 bring in(peaches, water)
/xol+ke+t/ → xólkēt 'l brings 2(loaves of bread)'
/f1+l+t/ → fólit 'l carries a baby, a dog'
/duy+?he+ya/ → dúy?hēya 'l carried(a watermelon)through (the field)'
/ta+qli+k$_g$+ya/ → ?táqlīkya 'l carried 2 non-long objects uphill'
/yö+f1+tta+ya/ → yōflētaya 'l carried 2(babies)downstream'
/mal+ce+t/ → málcēt 'l brought it in from the lake'

8.3.20. bde-  1,2[-long]  [+source present]
          ne-  1,2[+long]  [-figure contact]
          mli-  3[+plural]
          kle-  3[+distributed]
          ?la-  iterative

'object in motion away from source; throw, send'

Examples:
/bde+l+t/ → bdōlit 'l throws something'
/bde+t/ → bdēt 'l hit someone with a rock, ball'
/kle+l+t/ → klēlit 'l threw a lot of rocks at many people'
/ne+t/ → nēt 'l throws a stick'
/ne+k$_g$+t/ → nēkit 'l threw a stick once'
/mli+k$_g$+t/ → mlīkit 'l threw many rocks, sticks'
8.3.21.  \( \chi o- \ 1[+\text{long}] \)  
\( f\,\omega- \ 2[+\text{long}] \)  
\( ?\omega- \ 1[-\text{long}] \)  
\( ?ta- \ 2[-\text{long}] \)  
\( ho- \ 3[+\text{plural}] \)

'figure is transferred from one source to another; give'

Examples:
\( /\chi o+t/ \rightarrow \chi \dot{o}t \ '1 \text{ gives one long object}' \)
\( /\chi o\, f\omega+y\omega a/ \rightarrow \chi \dot{o}s \ f\omega\dot{y}a \ '1 \text{ or 2 gave 2 long objects}' \)
\( /?qa+t/ \rightarrow \ ?q\dot{a}t \ '1 \text{ gives 1 non-long object}' \)
\( /\chi o\, ?ta+q\, p+t/ \rightarrow \chi \dot{o}s \ ?t\acute{a}qat \ '1 \text{ or 2 give 2 non-long objects}' \)
\( /ho+q\, p+y\omega a/ \rightarrow h\acute{o}qya \ '1, 2 \text{ or 3 gave many objects}' \)

8.3.22.  \( kma- \ 1[-\text{long}] \)  
\( ma- \ 1[+\text{long}] \)  
\( mya- \ 2 \)  
\( \chi qo- \ 3 \)

'place object on a surface'

Examples:
\( /\chi uy+ma+t/ \rightarrow \chi \acute{u}ym\acute{a}t \ '1 \text{ placed 1 long object up high}' \)
\( /\chi uy+kma+t/ \rightarrow \chi \acute{u}yk\acute{m}\acute{a}t \ '1 \text{ placed a non-long object up high}' \)
/xuy+qo+m+q+t/ → xiyqoŋqt 'I placed 3 objects up high'

/ma+q+t/ → māqat 'I put 1 long object on the table'

8.3.23. ko- 1 2  
  xqo- 3

[source present  
 +figure contact
 [−surface] → [+surface]

'place an object down onto a surface'

Examples:

/ma+t+ko+t/ → mātkōt 'I put something down'

/ma+t+xqo+m+p+q+t/ → mātxqoŋqt '3 put things down'

/k+mi+t/ → kōmat 'serve food(put things down on the table repeatedly)'

8.3.24. cqa- 1
  mya- 2
  xqo- 3

[source present  
 +figure contact
 [ground]

'place an object on the ground'

Examples:

/cqa+t/ → cqāt 'I put it on the ground'

/cqa+tta+t/ → cqāttat '1,2 put 2 on the ground'

/mya+m+p+t/ → myqŋqt 'I set 2 things down on the ground'

/ma+t+xqo+m+p+t/ → mātxqoŋqt 'I set many things down on the ground'
8.3.25. òet-  

+source present
+plural
+surface
-motion
+distributed

'place objects distributively on a surface'

Example:

/òet+q+p+t/ → òetqat 'I set the table'

8.3.26. Neutralizations

It will be noticed that many of the distinctions are neutralized for some roots, especially when the figure is [+plural]. A list of these roots follows, with the number of each subsection of 8.3. in which it is presented.

mha-  1,6
mya-  4,16,22,24
blo-  8,9,16
xqa-  10,12,14,15,18,22,23,24
Chapter Nine. Reduplication

9.1. Reduplicative Morphemes

Several verb affixes are realized phonologically by reduplication of the verb stem. These are:

1. Habitual (HAB)
2. Intensive (INTS)
3. Distributed over a surface (DISTR)
4. Iterative (ITER)
5. Iterative to Completion (ITCOM)
6. Plural source of motion (PLS)
7. Plural figure (PLF)

While most verb stems occurring with reduplication also occur without, some, such as those for colors, do not.

Reduplicative morphemes will be represented in morphemic notation within the grammar in the same way as will morphemes with more independent phonological representations, except that they will be labelled with English abbreviations, rather than with underlying Pomo phonological elements.

Additionally, certain nouns show reduplication. These include derived verbs, as well as the semantic domains of small animals, plants, and birds. Nominal reduplication is not treated by rules, but is indicated
in the lexicon. Some reduplicative nouns follow.

qwáqwà cà 'kitchen, cookhouse' (qwa- 'eat')
qóqlóqló 'thunder'
wówò 'grandfather'
lmélmè 'pneumonia'
lúlú 'flute'
χáydàndàn 'one-stick basket'
cíla'cíla 'mink'
 François 'lizard'
Tún' tún 'mole'
cín'cín 'chipmunk'
hóshósh 'porcupine'
lókoylókoy 'pink flower pinole'
cí'ckób 'berry'
cílikcilík 'swallow'
cándánay 'blue jay'
cít'cót 'small flying creature (bird, fly)'
laláq 'goose'
qátqát 'crane'
wúqwúq 'loon'
χlébkóbkó 'black and grey spotted woodpecker'

(χle 'tree' + b+ko- 'peck')

χáw'áw 'crow'
9.2. Readjustment Rules

The following readjustment rules prepare verb forms which have reduplicative morphemes for the application of phonological rules.

\[
\begin{align*}
\text{HAB} \\
\text{INTS} \\
\text{DISTR} \\
\text{ITER} & \rightarrow \text{Reduplication} \\
\text{ITCOM} \\
\text{PLS} \\
\text{PLF}
\end{align*}
\]

Reduplication 1. Stem Reduplication

\[(\text{Directional Prefix})+(\text{Instrumental Prefix})+\text{Root} \rightarrow (\text{DP})+(\text{IP})+\text{Root}+(\text{IP})+\text{Root}\]

\[
((C_1)C_2V_1C_3)+(C_4)+C_5V_2(C_6) \rightarrow
((C_1)C_2V_1C_3)+(\llangle C_4 \rrangle)+C_5V_2(\llangle C_6 \rrangle)+(\llangle C_4 \rrangle)+C_5V_2(\llangle C_6 \rrangle)
\]

Reduplication 2. Directional Prefix + -o-

\[(C_1)C_2V_1C_3+o \rightarrow (C_1)C_2V_1C_3+o+C_3+o\]

Reduplication 3. Stem-final Consonant Loss (Minor Rule)

\[(C_1)+C_2V_1C_3 \rightarrow (\llangle C_1 \rrangle)+C_2V_1C_3+(\llangle C_1 \rrangle)+C_2V_1\]
Reduplication 4. Root+Suffix (Minor Rule)

Root+Suffix  Root+Suffix+Root+Suffix

\[ C_1 V_1 + C_2 \rightarrow C_1 V_1 + C_2 + C_1 V_1 + C_2 \]

9.3. Examples of Reduplication

/\?+kol+ITCOM+k_s+t/ \rightarrow \?k\?l?k\?lkit 'a snake is curled up'

/\?+te\?c+ITCOM+k_s+t/ \rightarrow \?te\?c?te\?c\?kit 'fold something up'

/b+la+ITCOM+t+k_s+t/ \rightarrow bl\?bl\?lkit 'lap it up'

/b+li+ITCOM+k_s+c_r+t/ \rightarrow bl\?b\?l\?l\?l\?kit 'wet the lips'

/bok+ITCOM+k_s+t/ \rightarrow b\?b\?b\?lkit 'boil over'

/k+lu\?t+ITCOM+k_s+t/ \rightarrow kl\?l\?kl\?l\?kit 'it's dented up all over'

/k+\?t\?uk+ITCOM+k_s+t/ \rightarrow k\?t\?uk\?t\?\?kit 'punch it full of holes'

/m+bol+ITCOM+k_s+t/ \rightarrow mb\?lmb\?l\?lkit 'all the tires blew out'

/m+te+ITCOM+t+l+t/ \rightarrow mt\?mt\?l\?lit 'pat down with the hands;
pat dirt or wrinkles out of a bed'

/qe+ITCOM+k_s+c_r+t/ \rightarrow q\?q\?q\?k\?kit 'l clears his throat'

/qwo+ITCOM+t/ \rightarrow q\?w\?q\?q\?ot 'cough something up'

/\?+loy+HAB+t+t/ \rightarrow \?l\?ol\?lit \?l\?ly\?lit 'he skins an
animal every day'

/b+k\?o+HAB+t+t/ \rightarrow bk\?bk\?lit 'it pecks all the time'

/\?ol+o+HAB+m_1+klo/ \rightarrow \?ololomk\?l\?e 'he used to come around'
/?+le+INTS+t/ → ṭé?lét 'help someone'
/cub+INTS+kₗ+t/ → cúbćúbkit 'it's sharp-pointed'
/kci+INTS+kₗ+t/ → kcícickit 'the water is crystal-clear'
/ste+INTS+kₗ+t/ → stékcitékit 'it's very sticky'
/xli+INTS+cᵢₗ+t/ → x lílcicit 'regret something'
/lki+DISTR+kₗ+t/ → l kïlcïkit 'it's shiney, it shines'
/lqo+DISTR+kₗ+t/ → lqolqïkit 'it's black'
/cya+DISTR+kₗ+n/ → ñyáñyákin 'blue-green'
/tan+DISTR+n/ → tánñànin 'brown'
/to+DISTR+kₗ+n/ → tótokin 'white'
/?+liw+ITER+l+t/ → ?liw?lïwit 'make gestures'
/?+qo+ITER+l+t/ → ?qó?qòlit 'feel around for something in a container'
/?+te+t+ITER+l+t/ → ?të?tëlit 'walk around with your legs far apart; walk bow-legged'
/?+xat+ITER+kₗ+t/ → ?xát?xâtkit 'scour a spot; scratch with fingernails'
/b+x+a+ITER+t/ → bźábxt 'he's whispering'
/ca+ITER+kₗ+t/ → cákcâkit 'l flits around'
/cki+ITER+m₁+t/ → ckíckímat 'stop and start, over and over'
/co+ITER+q_c+t/ → còqcòqat 'l gallops, trots'
/cw₁+ITER+t/ → cwichwit 'play the violin'
/\textit{myo+ITER+k}_S+t/ \rightarrow \textit{my\text{\'}my\text{\'}okit} 'breathe' \\
/q+\textit{ta+ITER+t+k}_S+t/ \rightarrow \textit{q\text{\'}atq\text{\'}atkit} 'mash' \\
/\textit{\text{\'}u+ITER+l+t}/ \rightarrow \textit{\text{\'}u\text{\'}ul\text{\'}ulit} 'poke around with a stick' \\
/\textit{\text{\'}t\text{\'}u+ITER+k}_S+t/ \rightarrow \textit{\text{\'}t\text{\'}u\text{\'}t\text{\'}ukit} 'tremble' \\
/c_1+\textit{PLS+b+m}_P+t/ \rightarrow \textit{cib\text{\'}l\text{\'}mat} '3 grab onto something' \\
/cw_1+\textit{PLS+m}_P+t/ \rightarrow \textit{cw\text{\'}olcw\text{\'}olmat} '3 stir pots' \\
/cq_1+\textit{PLS+q}_C+t/ \rightarrow \textit{cq\text{\'}toq\text{\'}tqat} '3 hang up many things' \\
/\textit{\text{\'}o+bol+PLF+t}/ \rightarrow \textit{\text{\'}o\text{\'}bol\text{\'}bolit} 'pull 3 out' \\
/\textit{\text{\'}o+na+PLF+t}/ \rightarrow \textit{\text{\'}o\text{\'}na\text{\'}n\text{\'}at} '1 ties 3 up' \\
/c_1+\textit{PLF+t+t}/ \rightarrow \textit{cic\text{\'}lit} '3 hang, dangle' \\
/\textit{ke+PLF+t+t}/ \rightarrow \textit{k\text{\'}etk\text{\'}etit} '3 are sticking in the ground' \\
/\textit{\text{\'}o\text{\'}d+PLF+q}_C+t/ \rightarrow \textit{\text{\'}od\text{\'}odqat} 'knock many over' \\
/kb\text{\'}a+\textit{PLF+t}/ \rightarrow \textit{kb\text{\'}ak\text{\'}bat} 'dust went into several people's eyes' \\
/\textit{\text{\'}o+lo+PLS+t}/ \rightarrow \textit{\text{\'}o\text{\'}lo\text{\'}lot} '3 are untying' \\
/\textit{\text{\'}o+lo+PLF+t}/ \rightarrow \textit{\text{\'}o\text{\'}lo\text{\'}lot} 'untie 3'

\textbf{9.4. Vowel Reduplication}

There is a small set of verb stems of the shape (C)CV\textsubscript{1}C(C)V\textsubscript{1}. This might possibly be a minimal form of reduplication, only the stem vowel being reduplicated. Since this is a totally non-productive phenomenon, these stems will merely be listed in the lexicon. The verbs in question are the following.
bošto-  'be glad'
bxu·tu-  'pucker up the mouth'
daqya-  'scold'
kocolò-  'tickle someone' (CV₁CV₂CV₁ shape)
k'ede-  'stiff, dry, calloused'
mdoyo-  'sour'
mqaba-  'sweet, strong, healthy, tough, hard'
mxu·tu-  'shrink up, be wrinkled up'
nanta+o-  'think'
qmudu-  'thick, dense; of hair, hay, grass, etc.'
qpiydi-  'have slit eyes'
qšulu-  'have cramps'
skada-  'cry, bawl, scream'
tmulu-  'clench the fist'
xqulbu-  'grow up, be adolescent, be tall and lean'
Chapter Ten. The Suffixes

In this chapter the verb suffix morphemes will be presented, along with semantic characterizations and examples of their use.

10.1. -b- 'intensive change in motional state'

This morpheme seems to indicate a rather vigorous inception or termination of an action or state of motion.

Examples:
/blo+b+k_s+t/ → blóbkit 'l sits down, bird alights'
/cdo+b+k_s+t/ → cdóbkit 'l wakes up and opens eyes'
/ci+b+k_s+t/ → cíbkit 'l grabs onto something while falling'
/di+b+k_s+t/ → díbkit 'l floats along and comes to a stop on the water'
/do+b+k_s+t/ → dóbkit 'place the hand down on something'
/tai+ITER+b+k_p+c_p+t/ → tát'tákkičit 'children are playing'
/xi+a+b+k_s+t/ → xákbit 'water stands in a puddle'
/da xko+b+k_s+s/ → da xkóbkis 'she didn't pay attention'

10.2. -p- 'with force(?)

This suffix has been found on only two stems.
Examples:
/k'o+ ITER +p+k_s +q_c +t/ → kópkópqiqat 'knock on a door'
/s'ta-p+q_c +t/ → s'tápqat 'snap your fingers'

10.3. -š- 'to contact with great force'

Examples:
/?+te+s+k_s +t/ → ?téskit 'a bear jumps on a man and brings him down'
/m+te+s+k_s +t/ → mtéskit 'pat or slap with both hands'
/mye+s+k_s +t/ → myéskit 'rub; push open with the hands'
/k+cu+s+k_s +t/ → kósškit 'poke with a stick'

10.4. -t- 'iterative'

The meaning of this suffix is basically iterative, although it sometimes seems to indicate plurality of an associated noun phrase (figure, source, goal).

Examples:
/?+lu+t+t/ → ?lútit 'bail; wrap a box with paper'
/?+ša+t+m_p+t/ → ?šátmat '3 wear something'
/?+su+t+t/ → ?sútit 'scrape something off; whittle a stick, sharpen a pencil, plane a board'
/c+lo+t+t/ → clótit 'rub fingers on; many short scrapes on a surface'
/čle+t+t/ → člētit 'the faucet is dripping'
/ťa+t+k₈+t/ → ĭătktit 'mash something'
/yoh+li+t+t/ → yōlitit 'many objects float downstream'

10.5.  -y- 'plural figure'

Examples:
/ŋ+lu+y+mₚ+kₚ+c₉+t/ → ʔlúymakcît '3 wrap themselves up'
/ŋ+te+y+mₚ+l+t/ → ʔtēymlit '1 covers many things'
/ŋ+te+y+mₚ+kₚ+t/ → ʔtēymakit '3 cover many things'
/c₉+y+mₚ+k₈+t/ → ʔc₉ymakit '3 are hunting'
/daqalho+y+q₉+t/ → daqalhoyqat '1 gathers things into a pile'
/k̚a+y+mₚ+kₚ+t/ → k̚yamakit '3 pouring something into containers'
/q̚a+y+mₚ+kₚ+t/ → q̚yamakit '3 are rusty; mildewed'
/ťa+y+k₈+t/ → ĭykit 'glass, ice cracks'
/blo+y+c₉+t/ → blōyqit '3 sit around in a room'

10.6.  -mlu- 'circulative'

This suffix indicates motion around a point or multidirectional movement within an area.
Examples:
\[bhe+mlu+l+t/ \rightarrow bhémlolit\] 'l swims around and around'
\[ca+mlu+l+t/ \rightarrow cámlolit\] 'l runs around something'
\[do+mlu+t/ \rightarrow dómlut\] 'move one's hand on something'
\[xa+mlu+l+t/ \rightarrow xámlolit\] 'the water runs around and around'

10.7. -qla- 'downward'

Examples:
\[ca+qla+m_{g}+t/ \rightarrow cáqlamat\] 'l flies down'
\[do+qla+m_{g}+t/ \rightarrow dóqlamat\] 'lower the hand, move the hand downward'
\[k'\dot{a}+qla+m_{g}+t/ \rightarrow k'\dot{a}qlamat\] 'l pours something down; it's raining hard'

10.8. -qlo- ~ -ql- 'upwards; uphill; up off the ground'

The alternation between the two forms is not clear, but is probably morphologically conditioned by the verb stem.

Examples:
\[mha+q1+k_{s}+t/ \rightarrow mhàqlikit\] '3 fly up; 3 run uphill'
\[ci+q1+k_{s}+t/ \rightarrow ciqlikit\] 'walk uphill carrying'
\[da+q1+k_{s}+t/ \rightarrow dáqlikit\] 'a road runs uphill'
\[do+q1+k_{s}+t/ \rightarrow dóqlikit\] 'put one's hand up in the air'
/bla+qlo+q_c+t/ → bláqloqat '2 crawl uphill or up to you'

10.9. -m_g - 'towards or onto or on a surface; on the ground'

Examples:
/cdo+m_g+c_r+t/ → cdómêit 'look at oneself in the mirror'
/kto+m_g+t/ → któmat 'I stands still'
/lku+m_g+t/ → lkûmat 'it's dark(of weather)'
/tlo+m_g+t/ → tlómat 'I turns around/
/kša+m_g+t/ → kšámât 'baptize'
/ko+m_g+t/ → kómat 'serve food'

10.10. -q_c - 'causative'

Some examples will be given in pairs, to show the effect of the causative.

Examples:
/?+tē+k_s+t/ → ?išêkit 'it's heavy'
/?+tē+k_s+q_c+t/ → ?išêkigat 'put something heavy on someone'
/?yot+q_p+m_p+q_c+t/ → ?yotqmaqat '3 refuse'
/bay+ce+q_c+t/ → báycèqat 'take something out of the building'
/bay+cnu+q_c+t/ → bányñuqat 'he's preaching' (cnu 'word')
/bcîl+n/ → bcîlin 'long'
/bcîl+k_s+q_c+t/ → bcîlikqat 'lengthen'
/ca+l+q_c+t/ → cáłqat '1 rolls a ball, a hoop; drives a car'
/cdo+q_c+t/ → cdôqat '1 shows('causes to see')'
/cdaṭ+k_s+t/ → cdaṭ̣kit '1 splatters'
/cdaṭ+k_s+q_c+t/ → cdaṭ̣kiqat '1 spits something out, which splatters'
/cub+ITCOK+q_c+t/ → cúbcùbqat 'to sharpen'
/mta+t/ → mṭāt 'it's cooked'
/mta+q_c+t/ → mṭāqat '1 cooks something, it's getting cooked, it's cooked'
/syi+m_g+t/ → syimat 'borrow something'
/syi+m_g+q_c+t/ → syîrqat 'loan something'
/šaṭ+k_s+t/ → šaṭ̣kit 'water splashes'
/šaṭ+k_s+q_c+t/ → šaṭ̣kiqat 'throw water on'

10.11. -q_p- 'non-singular figure or source of motion'

Examples:
/ʔ+loq+p+t/ → ?lóyqat '1 skins 2 or more animals'
/ʔ+teč+p+t/ → ?téčqat '1 pleats a skirt (does many folds)'
/hulacu+q_p+m_p+t/ \rightarrow \text{hulacuqmat} \ 'many are getting drunk'
/kšit+q_p+m_p+q_c+kle/ \rightarrow \text{kšitqmaxkle} \ 'they're always cheating people'
/kšul+q_p+t/ \rightarrow \text{kšulqat} \ 'they're all peeled'
/kti+q_p+m_p+t/ \rightarrow \text{ktiqmat} \ 'they steal'
/kti+q_p+l+t/ \rightarrow \text{ktiqqlit} \ 'steal many things'

10.12. -q_x- 'motion to away from the speaker'

Many forms with this suffix seem to be ambiguously interpretable as containing -q_c-.

Examples:
/\text{ci}+q_x+t/ \rightarrow \text{ciqat} \ 'carry a lot of things away from here'
/\text{ci}+q_c+t/ \rightarrow \text{ciqat} \ 'hand someone a bowl or glass full'
/\text{ce}+q_x+t/ \rightarrow \text{ceqat} \ 'take something long away from here'
/\text{ta}+q_x+t/ \rightarrow \text{taqat} \ 'take 2 away from here'
/\text{ta}+q_c+t/ \rightarrow \text{taqat} \ 'give 2 to someone'

10.13. -m_1- 'iterative'

Examples:
/\text{lu}+m_1+t/ \rightarrow \text{luqmat} \ '1 wraps a long thing with cloth, wire, rope'
/\text{lu}+m_1+m_p+t/ \rightarrow \text{luqmat} \ '3 wrap a long thing'
10.14. -n- 'figure separation'

As noted in 8.2.2., this suffix changes the meaning of verbs which indicate that the figure and source of motion are in contact to mean that they are spatially separated, but still causally connected in some way.

Examples:

/ʔqay+mi+w+l+c'x+t/ → ʔqáymawlicit 'l makes faces'

/kti+mi+t/ → ktimat 'beat a drum'

/myat+mi+w+l+c'x+t/ → myátmawlicit 'wish, pray, think about something'

/spa+mi+t/ → spámat 'mouse gnaws'

/do+qo+n+hu+t/ → doqanhut 'receive something; take something off somebody's hands' (This is the sole example of the morph -hu-.)

/bay+kda+n+l+t/ → báykdânlit 'l shoots, kills many'

/til+k'ta+n+c'x+t/ → tilktâncit 'l chases many away; many chase l away'
10.15. -mku- 'reciprocal'

The phonological treatment of -mku- is dealt with in section 4.3.10.

Examples:
/ʔki+mku+t/ → ʔkim'kut 'they got married'
/b+kó+w+cₚ+mku+l+t/ → bkwčimkolit 'to gossip'
/ci+mku+l+t/ → čimkolit 'a war, many fight each other'
   (ci- 'do')
/f+di+qₕ+mku+t/ → fdíqмуkit 'recognize each other'
/k+cok+mku+l+t/ → kćokmkolit '2 hit each other'
/ʔanho+mku+l+t/ → ʔanhomkolit 'they're arguing'
/xoxl+1+kₘ+t til+yhe+mku+t/ → xōxililkit tilyhèmkut
   'they went in opposite directions'
/mxex+mku+tta+t/ → mxéxmuktat 'they swapped something'
/tošna+mku+t/ → tóšnamkut 'they embraced each other'

10.16. -w- 'plural action'

This suffix means that an action is performed a number of times, either simultaneously by different agents or sequentially by the same agent.

Examples:
/ʔ+kó+w+cₚ+t/ → ʔkówčit 'many feed the fire'
/b+ho+w+l+t/ → bhówlit '1 strings beads'
/b+ku+q+x+t/ → bkúqat 'l shoots, gags, spears'
/b+ku+w+q+x+t/ → bkúwqat 'l thrashes standing grain'
/k+ša+PLF+w+q+p+t/ → kšawkšawqat 'break many'
/q+mu+w+l+t/ → qmúwlit 'he tastes them sequentially (like at a wine tasting)'
/q+mu+w+m+p+t/ → qmúwmat 'they're tasting it'

10.17. -k₁- 'inceptive'

Examples:
/ʃa.q+k₁+t/ → ʃáʔkit 'he started crying'
/lme+ITER+t/ → lmélmèt 'have the chills'
/lme+ITER+k₁+t/ → lmélmèkit 'get the chills'
/myq+k₁+t/ → myókit 'wake up, become conscious'
/wa+l+k₁+t/ → wálkit 'l starts walking'
/χmoi+k₁+ya/ → χmòțkiya 'l started to move'

10.18. -kₚ- 'plural figure; plural source of motion'

Examples:
/f+d₁+kₚ+t/ → fdíkit 'many know'
/qₐ+kₚ+t/ → qákit 'many men leave their wives'
/myel+kₚ+t/ → myélkit 'many are watching, watching over'
/\texttt{q\+b\+t\+k\_p\+m\_p\+t} / \rightarrow \texttt{q\+b\+t\+k\_m\+t} 'many ate the food up'

/\texttt{s\+q\+l\+k\_p\+l\+t} / \rightarrow \texttt{s\+q\+l\+k\_p\+t} '1 cuts the hair of many'

/\texttt{\$\+b\+u\+k\_p\+t} / \rightarrow \texttt{\$\+b\+u\+k\_p\+t} 'many weave'

10.19. \texttt{-k\_s} 'semelfactive'

This suffix appears to both characterize the overall shape of an action as being of relatively short duration, in contrast to \texttt{-l-} 'durative', as well as to indicate that an action is performed once, as opposed to an action performed habitually or an unspecified number of times.

Examples:

/\texttt{x\+i\+t} / \rightarrow \texttt{x\+i\+t} 'to name someone'

/\texttt{x\+i\+k\_s\+t} / \rightarrow \texttt{x\+i\+k\_s\+t} 'to say someone's name'

/\texttt{\$\+k\+a\_t\+t} / \rightarrow \texttt{\$\+k\+a\_t\+t} 'do things on the sly'

/\texttt{\$\+k\+a\_t\+k\_s\+t} / \rightarrow \texttt{\$\+k\+a\_t\+k\_s\+t} 'do something on the sly once'

/\texttt{\$\+l\+i\+w\+k\_s\+t} / \rightarrow \texttt{\$\+l\+i\+w\+k\_s\+t} 'wave once to someone'

/\texttt{\$\+l\+o\+t\+k\_s\+t} / \rightarrow \texttt{\$\+l\+o\+t\+k\_s\+t} 'touch something once'

/\texttt{\$\+q\+a\_t\+k\_s\+t} / \rightarrow \texttt{\$\+q\+a\_t\+k\_s\+t} 'cut 1 open'

/\texttt{\$\+t\+e\_c\+k\_s\+t} / \rightarrow \texttt{\$\+t\+e\_c\+k\_s\+t} 'fold something once'

/\texttt{\$\+t\+e\_c\+h\+k\_s\+t} / \rightarrow \texttt{\$\+t\+e\_c\+h\+k\_s\+t} 'fold something up'

/\texttt{\$\+t\+a\_p\+k\_s\+q\_c\+t} / \rightarrow \texttt{\$\+t\+a\_p\+k\_s\+q\_c\+t} 'snap the fingers once'
10.20. \(-m_p-\) 'plural source of motion'

This is still another of the many verb suffixes indicating pluralization of action and of associated noun phrases. As may be seen from the examples, the suffixes seem to work together, reinforcing each other and further delineating the nature of the pluralization involved. \(-m_p-\) indicates plural source of motion more unambiguously than \(-k_p-\) does.

Examples:

\(/?+lo+t+m_p+t/ \rightarrow \text{?lótmät 'many touch things'}\)

\(/?+luc+m_p+t/ \rightarrow \text{?lúcmat 'many roll cigarettes'}\)

\(/?+lu+t+m_p+t/ \rightarrow \text{?lútmat 'many are bailing'}\)

\(/?+qo+y+m_p+t/ \rightarrow \text{?qôymat 'many are picking prunes'}\)

\(/?+su+t+m_p+t/ \rightarrow \text{?sútmat 'many are planing a board'}\)

\(/?+\ddot{\text{x}}+u+s+m_p+\dddot{\text{c}}+t/ \rightarrow \text{?\ddot{x}s\ddot{m}c\ddot{c}it 'many are scratching themselves where they itch'}\)

\(/b+?i+m_p+t/ \rightarrow \text{b?imat 'many are gathering edibles'}\)

\(/b+\ddot{\text{x}}u+t+m_p+t+t\ddota+t/ \rightarrow \text{b\ddot{x}útmattat '2 are sewing'}\)

\(/\ddot{\text{x}}mi+PLS+m_p+t/ \rightarrow \text{\ddot{x}mi\ddot{x}m\ddot{m}mat 'many are humming'}\)
10.21. \( -\hat{c}_x \) - 'to away from a point'

This suffix means either 'to away from the source of motion' or 'to away from the goal', and is usually found with the appropriate directional prefixes and \(-n-\) 'figure separation'.

Examples:

\(/\text{kuh}+\hat{c}_i+\hat{c}_x+t/ \rightarrow \text{kúčíčíť} \quad \text{'pull a bucket out of a well'}\)

\(/\text{čqol}+\hat{q}e+n+\hat{c}_x+t/ \rightarrow \text{čqóḷhěncíť} \quad \text{'take a non-long object out from the cupboard'}\)

\(/\text{bay}+\hat{q}a+q_p+n+\hat{c}_x+t/ \rightarrow \text{báỵtâqâncíť} \quad \text{'chase 2 out'}\)

\(/\text{til}+\text{mdi}+t/ \rightarrow \text{tildíčíť} \quad \text{'open the door'}\)

\(/\text{til}+\text{mdi}+\hat{c}_x+t/ \rightarrow \text{tildícíť} \quad \text{'open the door from the inside'}\)

10.22. \( -\hat{c}_r \) - 'reflexive'

Examples:

\(/\hat{q}+\text{kay}+\hat{c}_r+t/ \rightarrow \hat{q}áycíť \quad \text{'take your own hat off'}\)

\(/\hat{q}+\text{ke}+\hat{c}_r+t/ \rightarrow \hat{q}éčíť \quad \text{'hold your breath'}\)

\(/\hat{q}+\text{lu}+\text{m}_i+\hat{c}_r+t/ \rightarrow \hat{q}ámcíť \quad \text{'wrap something around oneself'}\)

\(/\hat{q}+\text{lu}+t+\text{m}_p+\hat{c}_r+t/ \rightarrow \hat{q}útmáčíť \quad \text{'they rolled their hair up into buns'}\)

\(/\hat{q}+\text{sel}+k_p+\hat{c}_r+a/ \rightarrow \hat{q}ělkica \quad \text{'wash yourselves!'}\)

\(/\hat{q}o+\hat{c}_r+t/ \rightarrow \hat{q}óčíť \quad \text{'he's hiding'}\)
/ʔ+sù·c_r+x+t/ → ʔsú·c't 'mark yourself; get your picture
  taken'
/kma+q_c+ɬ_r+x+t/ → kmáq·c'it 'pick up a hitchhiker' ('cause
  a person to place himself in a sitting position')
/da f+di+q_c+ɬ_r+s/ → da fdiq'cís 'be unconscious' ('to
  not know oneself')
/kal+q_s+ɬ_r+x+t/ → kálkic'it 'clap once ('slap oneself')'
/nanta+ɬ_r+x+t/ → nántacic'it 'think'
/se+n sey+q_s+ɬ_r+x+t/ → sèn séykic'it 'be ashamed of oneself'
  (sey- 'not to like something')

10.23. -l- 'durative'

-l- serves as a contrastive element to -k_s- 'semelfactive'. Its basic meaning seems to be durative,
but it can indicate iterative, habitual, plural figure
or goal, and frequentative.

Examples:
/ʔ+k�o+w+t+ɬ_p+x+t/ → ʔkówlicit 'he keeps the fire going'
/ʔ+liw·ITER+l+t/ → ʔliw·lïwlicit 'make gestures'
/ʔ+qa+y+l+t/ → ʔqáylit 'boat rocks many times'
/ʔ+šon+l+t/ → ʔšônlit 'he guesses all the time'
/ʔ+wal+ɬ_r+t+l+t/ → ʔwálcélit 'l dodges, ducks repeatedly'
/ʔwic+l+t/ → ʔwic'licit 'he's always fighting with his wife'
\[ /\text{b}+\text{k}_0+\text{w}+\text{l}+\text{t} / \rightarrow \text{bk\'owlt} \ 'tell something to a lot of people' \]
\[ /\text{d}_0+\text{l}+\text{c}_p+\text{t} / \rightarrow \text{d\'oycit} \ 'many are moving their hands back and forth' \]
\[ /\text{l}_1+\text{l}+\text{c}_p+\text{t} / \rightarrow \text{l\'eycit} \ 'many are floating' \]

10.24. \[ /\text{c}_p / \rightarrow \text{plurality} \]
This suffix has the same meaning as \[ /-w-/\].

Examples:
\[ /\text{l}\text{o}_y+\text{c}_p+\text{t} / \rightarrow \text{l\'oycit} \ 'they're singing' \]
\[ /\text{q}+\text{n}\text{e}+\text{c}_p+\text{t} / \rightarrow \text{q\'ne\'cjit} \ 'eat the same food day after day' \]
\[ /\text{b}+\text{x}\text{a}+\text{c}_p+\text{t} / \rightarrow \text{b\'x\'acit} \ 'I whispers' \]
\[ /\text{q}+\text{o}+\text{w}+\text{c}_p+\text{t} / \rightarrow \text{q\'owcit} \ 'many people are doing something' \]

10.25. \[ /\text{xot} / \rightarrow \text{negative(non-imperfective)} \]
This is the realization of negative(along with the preverbal element da) when the verb negated would not have \[ /-t/ \] 'positive imperfective' in the positive form.

Examples:
\[ /\text{d}+\text{a} \text{d}\text{e}+\text{xot}+\text{a} / \rightarrow \text{da b\'d\'exota} \ 'don't hit him!' \]
\[ /\text{d}+\text{a} \text{k}\text{t}+\text{i}\text{k}_s+\text{q}_p+\text{xot}+\text{a} / \rightarrow \text{da k\'ti\'q\'axota} \ 'don't hit it!' \]
\[ /\text{d}+\text{a} \text{kh}\text{o}+\text{d}+\text{l}\text{i}\text{xot}+\text{k}+\text{le} / \rightarrow \text{da kh\'odl\'ixotkle} \ 'he never used to limp' \]
/da đaqya+χot+ya/ → da đaqyaχotya 'he didn’t scold him'

10.26. -tta- 'dual'

This suffix can dualize the figure, goal, or source of motion, sometimes resulting in a form that is ambiguous out of context.

Examples:
/ʔ+liw+k shortfall+tta+a/ → ʔliwkitta '2 wave once!'
/ʔxe+k shortfall+tta+t/ → ʔxéktat '2 fix or make something'
/ʔ+ʃa+m shortfall+q_p+tta+t/ → ʔšámqattat '1 wears 2 things or 2 wear 1 thing'
/b+k shortfall+o+w+l+tta+t/ → bkwólittat '2 tell something to many'
/hali+q_p+m shortfall+tta+t/ → hálíqmattat '2 discuss, plan'
/k+cuʃ+k shortfall+tta+t/ → kcuʃkittat '2 poke with sticks'
/k+sol+k shortfall+tta+t/ → ksółkittat '1 or 2 break 2 long objects'
/k+ti+q_p+m shortfall+tta+t/ → ktíqmattat '2 stab people'
/kuh+mdi+tta+t/ → kúmdittat '2 shut doors'

10.27. -dey- 'about to'

This suffix indicates that the action is impending, but still unperformed.
Examples:

/?o+m+al+ay ʃɔl+yé+t ke bxe na+k+t+dey+qat/ →
ʔɔmlay ʃɔl+yèqat ke bxe nákdeyqat  'He was about to
drive the deer when they came!' ('they-came-and-deer-
he was about to drive at the same time")

/mal+xka+dey+qat/ → málxkàdeyqat  'he was almost to
shore when...

/?a báʔ+lo+y+q+t+dey+ʔ+ha/ → ?á báʔlóyqadeyʔha
'Shall I skin them?'

/?a tį+m+o+dey+ʔ+ha/ → ?a tįlodeyʔha  'Should I leave?'

/ʃɔʔ+ko+ko+dey+ʔ+ha/ → ʃɔʔʔkočdėyʔha  'Should we build
a fire?'

10.28. -d-  'potential'

This suffix means that an action has not been
performed. It is sometimes translated as future, some-
times as conditional, and sometimes as potential.

Examples:

/?ca+m+i+d+t/ → ʃámdit  'he's getting ready to hunt'

/?a noyoc+k+t+cale/ → ʔa nóyockidit cāle  'I'm drowning'

/qli+k+t+cale/ → qlíkdit cāle  'the weather is clearing up'

/?+lo+y+d+t/ → ʔlóydit  'he's going to skin the animal'
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/š+a+a/ → ša 'wet it down'
/šA+k+Ä/ → šāki 'dig'
/daqalho+a/ → dáqalho 'gather, assemble'

10.31. -da 'future conditional'

This suffix indicates that an action might take place in the future, usually with some conditional meaning. When used in a past tense context, it seems to mean about the same as -dey-.

Examples:
/ti sle+q+c+da/ → tì sléqda 'you might get choked' (compare tì sléqdit 'you're gonna get choked')
/š+x+a+il +la+da/ → šål šláda 'you might fall in the water'
/yow kóc+d+a/ → yow kócda 'he was about to sit down'
/böe+l+d+a/ → bòeldà 'what am I going to carry?'
/š+awi+ba+ře tì řoqa çi+d+a/ → šawibaře tì řoqa čida 'Who would do that to you?' ("who-to you-that-would do")
/xnà duy+qlo+d+a/ → xnà duyqlòda 'The boat might tip over!'

10.32. -dowa 'hortative'

This is a first-person imperative, either singular or plural. It has a shortened form -do.

Examples:
/cal+?ye+q+p+dowa/ → cäl?yèqdowa 'let's go home'
/b+k'o+dowa/ → b'kódowa 'let me tell it'

/ma±+ko+dowa/ → máf'kódowa 'let me lay it down'

/sce+k_s+d+t bay ca ku+dowa/ → scékidit bay cà kúdowa

'It's gonna rain, so I'd better build a house!'

("it will rain—therefore—house—I'd better build")

/à ba ?+qá+t+q_+dowa/ → à ba ?qáqadowa ~ ?qáqtqado

'Let me cut it; I'll do the cutting.'

/wiy ba fádak+duwa/ → wìy ba fádakdowa 'Let's butcher it.'

10.33. -hine 'imperfective optative'

This suffix contrasts with the enclitic -y

'perfective optative'. It is always found in conjunction with a preverbal element ta.

Examples:

/ma ta ?oqa ci+q_+hine/ → mà ta ?oqa cíqahine 'I wish you would do it; You ought to do it.'

mà ta ?oqa da cícsotqahine 'I wish you wouldn't do it.'

/ta tawal+k_s+q_+hine/ → 'ta tawalkiqahe 'he ought to work'

/à yiwi ta xol+o+q_+hine/ → à yìwi ta xòloqahine

'I wish he would come.'

scèn ta scéxqahine 'I hope it rains.'

/wi+ay ta bxe ce+b+k_s+hine/ → wìy ta bxe cêbkihine

'We oughta go watch for deer.'
/ə = ta bxè bo+hine/ → ə = ta bxè bóhine 'I ought to go hunting.'

่วู้ ่i ta tènta wálqahine 'He oughta go to town.'

10.34. -kli 'inability'

This is a negative morpheme which usually, but not always, has the meaning 'unable to, can’t'. It can also function independently, as a particle.

Examples:

bèqada ma əol núkli 'You can’t say anything about it.'

/əle+INTS+kli/ → əlé?lèkli 'It can’t help him.'

ə cdókli 'I can’t see.'

/mna+q+c+kli/ → mnáqklí 'it’s cheap' ('it can’t make you pay(?))'

yíwi méy kli 'he’s not here'

ə xíl cékle kè yim kli 'I used to have it, but I don’t now.'

10.35. -wa 'impersonal agent'

Examples:

/tu əal+k+wa/ → tu əálkiwa 'it’s already dug'

/sce+k+wa/ → scékwa 'it’s raining'
10.36. -kle 'habitual'

   Examples:
   /cxol+k_s+kle/ → cxólkikle 'it always leaked'
   /kšiₜ+q'_c+kle/ → kšiₜqakle 'he always cheats us'
   /skọₜ+l+kle/ → skọₜlikle 'he used to shovel'

10.37. -t 'positive imperfective'

   This seems to be the most unmarked final position
   suffix, occurring on most forms within the grammar. No
   further examples will be given in this section.

10.38. -s 'negative imperfective'

   This is the negative suffix which corresponds
   to -t. It is always accompanied by the negative preverbal
   element da, and is suffixed directly to da in non-verbal
   constructions.

   Examples:
   /da xko+s/ → da xkos 'he didn't obey'
   /da xko+b+k_s+s/ → da xkóbkis 'he didn't pay attention'
   ṭuₜi sáqanbaq das 'that's not true'
   /da ẓma ṭšal+q'_c+cₚ+s/ → da ẓma ṭšalqacis
10.39. -ya 'perfective'

Examples:

/ʔ+su+ya/ → ʔúyá 'he marked it'
/da'y+ya/ → dáyaya 'I scolded him'
/ku+ya/ → kúya 'he built it'
/pú+i+k₅+ya/ → pú'ikiya 'he kissed her'
/q+se+cₜ+ya/ → qšéqya 'canned food'
/yxe+ITER+ya/ → yxeyxéya 'quit having spasms'
/yxe+ITER+k₅+ya/ → yxeyxékiya 'have 1 spasm'
/š+qod+ya/ → šqódya 'he finished weaving it'

10.40. -baq 'past passive participle'

This suffix nominalizes verbs, with the meaning 'having been VERBed'.

Examples:

/bṭe+k₅+cₜ+baq/ → bṭéqabaq 'raised, grown up (of a child)'
/ʔisal+k₅+baq/ → ʔisalkibaq 'fried'
/ʔa+ʔšal+baq/ → ʔášálbaq 'hurt'

10.41. -m 'instrument or place of action nominalizer'

This suffix forms nouns with the resultant meaning of 'instrument of action' or 'place of action'.

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Examples:
/ʔsu+q_c+m/ → ʔsúqam 'pen, pencil, camera'
/ʔxó kaleta ba cki+ITER+m/ ʔxó kàleta ba ckîkîm 'train depot('train stops over and over')'
/ʔcwí+ITER+m/ → ʔcwícwím 'violin('you strop back and forth on it')'
/ʔktó+ITER+q_c+m/ → ʔktóktòqam 'stairs('you step on them')'
/ʔm+lu+q_c+m/ → mlúqam 'oven' (mlú- 'bake')
/ʔqla+q_c+m/ → ʔqláqam 'fishing rig or fish hook'
(qlá- 'trap something')
/ʔscu+q_c+m ʔqo+wi/ → ʔscúqam ʔqòwi 'sucking doctor'
/ʔxli+w+m/ → ʔxlíwam 'sifter'

10.42. -n 'absolutive'
- This suffix forms adjectives from certain verbs, such as those indicating quality, as well as state of action nouns. It also functions as the final position suffix when an evidential enclitic is present.
Examples:
/ʔlki+DISTR+n/ → ʔlilkîn 'shiny; satin'
/ʔ+ʔeʔ+k_s+n+q_o/ → ʔʔeʔkingqo 'it's heavy(it feels heavy to me)'
/ʔ+ʔqey+n ʔx_a/ → ʔqéyin ʔxà 'ice water' (q+ʔqey- 'cold')
/scë+n/ → scën 'rain'
/šu+n/ → ?sûn 'picture, photo'
/kì+n/ → kîn 'string'
/ktì+n/ → ktìn 'corpse, very sick person' (ktì- 'stab')
/ko+mg+n/ → kómân 'wave(water)' (ko+mg- 'put it down')
/smì+ñ/ → smán 'sleep' (no corresponding verb form)

10.43. -btonwa 'after'

This suffix conjoins two sentences which describe actions in a direct sequential relationship.

Example:
/ma צ'ol+o+btonwa ?a yi+il syi+mg+ya/ → mà צ'olobtonwa ?à yîl syîmîa 'I borrowed it after you came!' ("you-after you came-I-it-borrowed")

10.44. -day 'simultaneous'

This suffix conjoins two sentences which describe actions performed simultaneously, by the same or different subjects.

Examples:
/צ'ol+blo+t cale ?a bte+kì+t wa+l+day/ → צ'olblôt cale ?à btékit wâlday 'It happened when I was grown up!' ("it happened-I-was grown up-when")
/yi'wi?aq Saunders qa'n q'l+l+ya/ → y'wi'q Saunders smán q'l'àya 'He fell asleep while I was there.' ("he-I-when I was there-sleep-got him")

/qa wit xbač+day xo+l+o+d+t/ → qa wit xbačday xólodit 'I come when he asks me.' ("I-me-when he asks-I'll come")

10.45. -fed 'conditional; if'

This suffix conjoins two sentences, the second of which describes an action following and conditional on the first. It is often followed by -mit.

Examples:

qûyi wi yu'kiq xólófedmit, dàwa da fàkìkìxotdit 'If he gets there before me, he won't know the road.' ("he-me-before-if he comes-road-not-he won't know")

qa b dét fed wiya'kàcuce qáqdit 'If I throw, my cap will fall!' ("I-if I throw-my-cap-will fall")

qòmlay qûyi qóyfed qa mpödit 'If they ever head him off, I'll see it' ("they-him-if they head him off-I-will see")

10.46. -fìa 'sequential'

This suffix conjoins two sentences describing actions which occur sequentially, with the same or different subject, and no necessary causal connection.
Examples:

'à xólofla qnák'ya 'He fell asleep after I came.' ("I-after I came-he fell asleep")
yìwi yóqfla bxè țlákqa 'After he shot it, the deer fell over.' ("he-after he shot-the deer-fell over")

10.47. -qat 'when'

This suffix conjoins two sentences whose actions occur either sequentially or simultaneously, with the same or different subject.

Examples:

málot ke lèlușa xóloqat 'When he came to Lelușa, he landed.' ("he landed-and-Lelușa-when he came") /qo+mal+ay mqo+qₐ+qat+mit hayu wo ITER+k/logo/ ʔòmlay mqóqatmit hayu wo wò kikle 'When they holler, the dog barks.' ("they-when they holler-the dog-barks")

10.48. -yukin 'before-switch reference'

This suffix conjoins sentences which describe sequentially occurring events with different subjects.

Examples:

'à xóloyukin 'u qnák'inya 'He fell asleep before I came.' ("I-before I came-already-I saw he had fallen asleep")
mà móčkiyukin ṭà tilodit 'I'll go before you wake up.'
("you-before you wake up-I'll go")

Sections 10.49 through 10.56 describe the postverbal enclitics, which, when they occur, usually follow a final position suffix. The evidentials do, ḷo, and ya must follow -n 'absolutive'.

10.49. -mít 'identical subject; if'

This enclitic usually conjoins two sentences having the same subject, describing two actions which are either causally connected or simultaneous.

Examples:
/ʔo+mal+ay tát+ITER+b+kₜ+cₜ+t+miṭ qey+ITER+kₜ+mₚ+kle/ →
ʔòmlay táttaɓbicimíṭ qéykiqéykimkle 'Whenever they play, they laugh.' ("they-when they play-they laugh")
/ma čínakotay qów+l+miṭ ql+1+miṭ ma čínakotay qnil+kₜ
til+o+ḑ+t/ → mà čínakotay qówlimiṭ qlálimiṭ mà čínakotay qnilki tilodit 'If you do bad things, when you die you will go to a bad place.' ("you-bad-when you do-when you die-you-bad-towards-will go")
10.50. -qe 'interrogative'

This is an interrogative enclitic for questions requiring more than a yes or no answer.

Examples:
heqatqe ti xin 'What's your name?'
hèmealkit mè yxélite 'Where are you(plural)paddling to?'

10.51. -qa 'yes-no interrogative'

This is an interrogative enclitic for yes-no questions.

Examples:
xélóqa 'Did you come?; Hello!' (greeting used by person visited)
sçén scekitqa 'Is it raining?'
mà ba mèl bxè bkuqqa 'Did you shoot this deer?'
('you-subject marker-this deer-did you shoot')

10.52. -we 'locative interrogative'

This interrogative is used on motion verbs, indicating 'to where?', 'from where?' or extended meanings.

Examples:
/xkal+we/ → xkalwe 'Where are you paddling?'
ca ba mel bxè bkuqwe 'Who shot this deer?' ('Where did the shot come from?')
10.53. -do 'quotative'  
This is an evidential enclitic, meaning that the sentence is either a direct quote or is known because someone else reported it to you.

Examples:
/nu+n+do/ → nándo 'he said' This is used throughout narratives.
/bku+q+c+n+do/ → bkúqando 'he shot it'
/ti+mli+d+n+do/ → tilmliɗindo 'he's gonna throw it away'

10.54. -qo 'introspective'  
This is an evidential enclitic which means that the sentence contains information known because of introspection on one's thoughts or senses.

Examples:
/wit ?t[^e]q+k_s+n+qo/ → wit ?t[^e]kiriŋo 'it's too heavy for me'
/boš][o+n+qo/ → boštɔŋqo 'I'm glad; thanks'
/mte+k_s+n+qo/ → mtɛkiriŋo 'I'm hot'
/ɛmɑ ɡqo+q+c+ɔ+r+n+qo/ → ɛmɑ ɡqəqiriŋo 'it's good to a sense(tastes good, smells, feels, sounds, looks good)'

10.55. -ya 'visual'  
This is an evidential enclitic which means that
the preceding information is known because of visual evidence (or extended meaning).

Examples:
yil bdù fñînya 'He took the acorn.'
?uyi ?à ba 'îndo nûnya 'He said that I did it.'
("he-I-subject-did it, quotative-he said, visual")

10.56. -y 'perfective optative'
This suffix contrasts with the previously discussed -hine 'imperfective optative'. It usually, but not always, indicates perfective aspect. It is usually found with one of two preverbal elements, ta or laq; no meaning difference between them was observed.

Examples:
/ma mqo+q_c+ya+y/ → mà mqóqayay 'You should have seen it; I wish you had seen it.'
/ma laq ?oqa 'î+c+q_c+ya+y/ → mà laq ?oqa čiqayay 'I wish you had done it' also mà ta ?oqa čiqayay
/?a ta ti bo+q_c+ya+y/ → ?à ta ti bóqayay 'I should let you go hunting.'
NOTES TO PART THREE

1 Julius Moshinsky, "Historical Pomo Phonology" (to appear).


3 This concept is elucidated by Jeffrey S. Gruber in his Studies in Lexical Relations, Ph.D. dissertation reproduced by the Indiana University Linguistics Circle, January, 1970, pages 1-5.

4 I will use Leonard Talmey's term "figure" (personal communication), rather than Gruber's term "theme". These seem to be equivalent concepts. I wish to thank Leonard Talmey for numerous helpful discussions of these problems--the interpretations are strictly my own responsibility.

5 Gruber, page 29. Gruber's term "source of the motion", which partially overlaps with "agent", will also be used.

6 The q- receives an epenthetic -a- because the following consonant is part of a final position suffix,
even though that consonant is not itself word-final. The Post-tonic Vowel Epenthesis rule should be revised to indicate that the final position suffix consonant may be followed by other segments. Epenthesis does not always take place before the final position suffix -ya, however.
PART FOUR - ADJECTIVES AND NOUNS

Chapter Eleven. Adjectives

11.1. Introduction

Most adjectival words in Southeastern Pomo, as can be seen throughout the verb morphology, are in fact fully inflected verbs. For instance, all colors, except for yellow, are reduplicated verbs. 'Yellow', /kʔilto/ → kʔilto, like the other morphemes which will be called true adjectives, cannot take verbal inflections. Both true adjectives and those intransitive verbs which correspond to English adjectives can be the predicate of the sentence. Therefore, my classification of morphemes as adjectives is morphological rather than syntactic.

The category of uninflectable adjectives will be exemplified in this chapter, with some morphology pointed out.

11.2. Adjectives in -baq

There are adjectives ending in the suffix -baq, which is assumed to be the same morpheme as the past passive participle marker on verbs, for which there are no corresponding verb forms.
Examples:

xěkubaq 'first'
hdabaq 'foreign, alien'
kšilbaq 'false'
wálbaq 'right(correct)'
?uyi sáqanbaq das 'That's not true, not real.'
kébaq 'new' (ké 'now')

11.3. -kli 'negative'

Adjectives can be formed by suffixing -kli to nouns or verbs.

Examples:

?o 'tooth' + -kli $\rightarrow$ ?ókli 'dull(not sharp)'
$/,fal- 'dirty' + -kli $\rightarrow$ $$/falkli 'clean'
cnu 'word, language' + -kli $\rightarrow$ cnókli 'mute, dumb'

11.4. -n 'absolutive'

Many adjectives end in -n, which is probably the same as the absolutive suffix on verbs.

Examples:

sáqan 'real, true'
mtun, mtunbaq 'old' (compare mtúwi 'old man')
kuhan 'small, little'
11.5. -myak
This suffix has been found on only one adjective, /bəa-/ 'rich, rich man', and on a noun, knîlmyak 'sprinter'.
Examples:
bəámyak 'rich, rich man'
bəámyak bðèd 'rich woman' (also bəámèd)
bəáklì 'poor, poor man'

11.6. Further Examples of Adjectives
ʔúxqat 'all, every'
btènik 'big(singular)'
ţînay 'big(plural)'
pînîto 'spotted(Spanish loan)'
ló xo 'lazy(Spanish loan)'
čînakoʃay 'bad'
čìmá 'good'
móloq 'false, ersatz' móloq ðò 'false teeth'
ʔlémay 'half'
Chapter 12. Nouns

12.1. Introduction

Nouns are syntactically defined in Southeastern Pomo as morphemes or sequences of morphemes to which various case and number suffixes and postpositions can be appended. Many nouns are derived from verb stems, but an equally large or larger number are not.

In this chapter I will define the subclasses of nouns and pronouns, list the case suffixes and postpositions, and present various nominalization processes.

12.2. Noun Subclasses

Nouns have been divided into the following subclasses:

Nouns

1. Animate Nouns
   a. Human Nouns
      1) Kinship Nouns
      2) Other Human Nouns
   b. Non-human Animate Nouns

2. Inanimate Nouns
   a. Locative nouns
   b. Other Inanimate Nouns

Pronouns
These subclasses have been set up on both morphological and syntactic grounds. Animate nouns can be distinguished from inanimates by their ability to take benefactive and possessive case endings. Human nouns can be distinguished from other animate nouns because only human nouns have a plural form. Kinship nouns can be distinguished from other animates by the fact that they take the prefix m- 'kinship', many have an irregular first person possessive prefix ?i-, and many have a separate vocative form.

Locative nouns can be distinguished from other inanimates by the fact that they can take the objective suffix, the two locative suffixes -y and -w, and the verbalizing suffix -lk- 'to a place'.

12.3. Case Suffixes
12.3.1. -il 'object case'

This suffix marks the surface 'object' case.

Examples:

/hayu+il/ → háyul 'dog'
/ca+wi+il/ → cávil 'man'
/xqo+mfo+il/ → xqómfol 'doctors'
/?a+f+di+q+c+il/ → ?áfdiqil 'wise man'
12.3.2. -itib 'benefactive'

Examples:
/hayu+itib/ → háyutib 'for the dog'
/tönci+itib/ → töncitib 'for the cat'
/qwi+itib/ → qwitib 'for the baby'
/balak+wi+itib/ → bálakwitib 'for the captain'

12.3.3. -it 'inalienable possession'

This suffix is used when the possessed noun refers to such things as personal relations (kin, friends, etc.) and body parts.

Examples:
/hayu+it xin/ → háyut xìn 'the dog's name'
/bṭed+it xal/ → bṭèdit xàl 'the woman's arm'
/wi+m+e+it xela/ → wìm'et xèla 'my father's friend'
/qwi+it m+še/ → qwit mšè 'the baby's mother'

12.3.4. -it+baq 'alienable possession'

To indicate alienable possession, the suffix -baq is added to the -it suffix. When a possessor noun stands alone without the possessed noun, it always takes this longer form.

Examples:
/hayu+it+baq/ → háyutbaq 'the dog's'
/ʔuyi+it+baq ca/ → ʔuyitbaq cà 'his house'
/ma+it+baq/ → mátbaq 'yours (plural)'

12.3.5. -y 'in'

This locative suffix means 'in' or 'into', in the sense of 'in or into an enclosed but not covered over space'. It can be followed by the objective suffix.

Examples:
/bdá+y/ → bdáy 'in the creek'
/mó+y/ → móy 'in the hole'
/ʔá+y+il/ → ʔáyil 'into the water'
/xná+y/ → xnáy 'in the boat'

12.3.6. -w 'within'

This suffix means 'in or into a covered space'.

Examples:
/ca+w/ → cáw 'in the house' (This also serves as an adverbial meaning 'inside'.)
/ca+w+il/ → cáwil 'into the house'
/ʔa+w/ → ʔáw 'in the mouth' (ʔa- is from ʔásto 'mouth')
12.4. Number Suffixes

In this section I will present the plural suffixes, which may be added to animate nouns, as well as the 'human singular' and 'human plural' suffixes, which are found on many human nouns. Case suffixes are attached to nouns following the number suffix.

12.4.1. -wi 'human singular'

Examples:
/mţu+wi/ → mţûwi 'old man'
/ţqo+wi/ → ţqôwi 'doctor'
/m?1+k+al+wi/ → m?ikalwi 'buyer'
/fţeti+k+wi/ → fţetîkwi 'clown'
/kma+wi/ → kmâwi 'enemy'
/le+wi/ → léwi 'flirt'

12.4.2. Plurals

12.4.21. -mfo 'human plural'

This suffix comes from the noun mfo 'people'.

Examples:
/mţu+mfo/ → mţûmfo 'old people' There is an alternate form /mţu+k+m+ay/ → mţûkmay.
/kma+mfo/ → kmâmfo 'enemies'
/m?1+k+m+a+mfo/ → m?1kmâmfo ~ /m?1+k+a+mfo/ → m?ikâmfo 'buyers'

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12.4.22. Other Plurals

The situation is quite complex with regard to the other plural suffixes. Two morphs which recur in the variants of the suffixes are -ay and -k. The following patterns have been observed:

1) -ay
2) -l+ay
3) -k+m+ay
4) -l+ay ~ k+m+ay
5) -k+m+a+l+ay
6) -t+ay

There do not seem to be any semantic distinctions between these various suffixes. A particular variant is selected by a given morpheme.

In addition, there are some irregular plural formations in human nouns derived from verbs. Some of these are:

/ba+ciw+al/ → báciwal ~ /ci+al+wi/ → cíwalwi 'killer'
/ba+ciw+cp+mfo/ → báciwícmfo 'killers'
/bxe+bol+wi/ → bxébolwi 'hunter'
/bxe+c+ay+b+al+mfo/ → bxécaybalmfo 'hunters'
/qwa+c+w+al/ → qwąčiwal 'cook'
/qwa+c+w+cₚ/ → qwąčiwię 'cooks'

Examples:
/qťa+ay/ → qťáy 'old women'
/btéd+l+ay/ → btélay 'women'
/b?a+x+di+n+l+ay/ → bʔáxdinlay 'poor men'
/bʔa+myak+l+ay/ → bʔåmyaklay → /bʔå+k+m+ay/ → bʔåkmay 'rich men'
/ʔqo+k+m+ay/ → xqókmay → /ʔqo+k+m+a+l+ay/ → xqókmalay 'doctors'
/balak+k+m+a+l+ay/ → bálaxkalay 'captains'
/qwi+k/ → qwik 'babies'
/btéd+l+ay qwi+k/ → btélay qwik 'baby girls'
/xela+t+ay/ → xélatalay 'friends'
/knil+myak+l+ay/ → kniłmyaklay → /knil+k+m+ay/ → kniłkmay 'runners, sprinters'

12.5. -lk- 'to a place'

This is the only morpheme I have found which derives verbs from nouns. Added to a locative noun, it has the meaning 'to that place'. It is probably analyzable as a sequence of -l- 'object case' + -kₙ- 'semelfactive.'
Examples:

\(\text{\textbackslash ?lem+lk+t/} \rightarrow \text{\textbackslash ?el\textbackslash e\textbackslash malkit} \ '\text{he went to Sulfur Bank}'\)

\(\text{\textbackslash tenta+lk+t/} \rightarrow \text{\textbackslash t\textbackslash e\textbackslash ntalkit} \ '\text{he went to town}'\)

\(\text{\textbackslash caduwa+lk+t/} \rightarrow \text{\textbackslash c\textbackslash aduwalkit} \ '\text{he went north}'\)

\(\text{\textbackslash ?lem m\textbackslash d\textbackslash o+n win +lk+t/} \rightarrow \text{\textbackslash ?el\textbackslash e\textbackslash m m\textbackslash d\textbackslash o+n w\textbackslash l\textbackslash in\textbackslash l\textbackslash k\textbackslash it} \ '\text{he went to Rattlesnake Island}'\) (This is an example of an entire noun phrase being verbalized.)

12.6. Postpositions

In addition to the case suffixes, noun phrase grammatical relations and locatives are also expressed by a set of postpositions. Many, perhaps all, of these postpositions can be transformed into place adverbials by the addition of the suffix \(-\text{\textbackslash wa}\). So from \(\text{\textbackslash b\textbackslash t\textbackslash on} \ '\text{after}'\), you can derive \(\text{\textbackslash b\textbackslash t\textbackslash on\textbackslash wa} \ '\text{afterwards}'\). Those postpositions which I was able to elicit with \(-\text{\textbackslash wa}\) will be indicated by \((\text{\textbackslash wa})\) following them, in the list below.

- \(\text{\textbackslash b\textbackslash e\textbackslash t} \ '\text{with(comitative)}'\)
- \(\text{\textbackslash b\textbackslash t\textbackslash on\textbackslash (wa)} \ '\text{after(time)}'\)
- \(\text{\textbackslash daw} \ '\text{in front of}'\)
- \(\text{\textbackslash d\textbackslash a\textbackslash y} \ '\text{while, during, through}'\)
- \(\text{\textbackslash d\textbackslash u\textbackslash w\textbackslash a\textbackslash (wa)} \ '\text{across}'\)
- \(\text{\textbackslash f\textbackslash l\textbackslash a} \ '\text{after}'\)
- \(\text{\textbackslash k\textbackslash n\textbackslash o\textbackslash n\textbackslash (wa)} \ '\text{above, upstream}''\)
lew 'close to(towards)'
mamal(wa) 'beside, along'
man(wa) 'in back of'
mlal(wa) ~ mlala 'over, on top of'
moy(wa) 'out of'
muğu 'close, near'
qan 'on, into, in'
'qna 'from, on(your)side'
ţal(wa) 'on one side of'
wa 'on, from, off'
way 'with(instrument), inside of'
win 'on'
ţan(wa) 'below, downstream'
ţma 'inside of'
ţmaya(wa) ~ ţmay 'in, inside, partitive'
ţo 'outside'
xwat(wa) 'inside'
yow(wa) 'under, below'
yukin(wa) 'ahead of, before'
12.7. Pronouns

The personal pronouns and demonstratives form a single unified system in Southeastern Pomo. They distinguish the following grammatical categories:
(isolable morphs are in parentheses)

Person:  First (wi-)
         Second (ma-)
         Third

Number:  Singular
         Plural (-ay

Gender(in Third Person):
         Masculine (-yi, -wi)
         Feminine (-med)

Position with Relation to Speaker:
         Near--this (mi-, me-)
         Far--that

Displacement:
         Non-displaced
         Displaced (yi-)

Case:
         Subject
         Object (-il)
         Benefactive (-itib)
         Alienable Possession (-it+baq)
         Inalienable Possession (-it)
The category which I am calling 'displacement' indicates the presence or absence of the referent of the demonstrative in the speech situation. It could alternatively be termed 'visibility', since presence in the visual field is also part of the distinction.

The pronouns will now be charted, first in systematic phonemic form, and underneath in systematic phonetic form:
<table>
<thead>
<tr>
<th>PERSON</th>
<th>SUBJECT</th>
<th>OBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sg</td>
<td>/ʔa/</td>
<td>/wi+t/</td>
</tr>
<tr>
<td></td>
<td>ʔá</td>
<td>wit</td>
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<tr>
<td>2 Sg</td>
<td>/ma/</td>
<td>/ti/</td>
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<td></td>
<td>má</td>
<td>ti</td>
</tr>
<tr>
<td>3 Sg/masc/non-displ/unmarked position</td>
<td>/ʔu+yi/</td>
<td>/ʔu+y1+i1/</td>
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<td>ʔúy1i</td>
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<td>/mi+i1/</td>
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<td>mil ~ mél</td>
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<td>/ʔi+y1+i1/</td>
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<td>ʔiy1i</td>
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<td>/yi+wi+i1/</td>
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<td>~ wiyaq</td>
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<td>/ti+it+baq/</td>
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<td>máltib</td>
<td>mátbaq</td>
<td>mát</td>
</tr>
<tr>
<td>/¿o+mal+ay+itib/</td>
<td>/¿o+mal+ay+it+baq/</td>
<td>/¿o+mal+ay+it/</td>
</tr>
<tr>
<td>?ómlaytib</td>
<td>?ómlayitbaq</td>
<td>?ómlayit</td>
</tr>
<tr>
<td>/me+mal+ay+itib/</td>
<td>/me+mal+ay+it+baq/</td>
<td>/me+mal+ay+it/</td>
</tr>
<tr>
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<td>mémlayitbaq</td>
<td>mémlayit</td>
</tr>
<tr>
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<td>/mal+ay+it+baq/</td>
<td>/mal+it/</td>
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<tr>
<td>máltib</td>
<td>málayitbaq ~ málit</td>
<td>málitbaq</td>
</tr>
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<td>/ca+da+itib/</td>
<td>/ca+da+it+baq/</td>
<td>/ca+da+it/</td>
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<td>cádatib</td>
<td>cádatbaq</td>
<td>cádat</td>
</tr>
<tr>
<td>/tay+da+itib/</td>
<td>/ba+baq/</td>
<td>/ba+baq/</td>
</tr>
<tr>
<td>táydatib</td>
<td>bábaq</td>
<td>bábaq</td>
</tr>
</tbody>
</table>
12.8. Kinship Nouns

Kinship nouns form a separate subclass of animate nouns because of their more elaborate morphology. In addition to occurring with a post-pronominal prefix /-m-/, they are the only words in the nominal system which may have a separate form for the vocative.

Nearly all kinship terms occur prefixed with the normal inalienable possession pronouns, with a special complication in the first person, explained below. Whether or not all kinship words can appear without a pronoun has not been determined. It is certain, however, that most kin terms not prefixed by -m- can occur unpossessed, and that certain -m- forms can occur thus. Four terms, wọq'ga 'great grandmother', wọwo 'great grandfather', tọọmela 'child's spouse's parent', and ọjọ ọjọ 'sister's child' have not been elicited with pronominal prefixes.

The -m- prefix occurs on the non-vocative forms of all kinship terms elicited, with the exception of the terms for great grandparents, mate, son, sister's child, and son-in-law.

The pronominal prefix /?i-/? is an alternate first person singular morpheme which occurs only with terms denoting non-descending generation. It is the only first person pronoun occurring with most of these, such as ?imsen 'my mother's brother', but some also occur with wi, and have specialized the ?i- form as a
vocative, as in wi mšè 'my mother' and ñišek 'mother!'.

The vocatives, when morphologically differentiated from the non-vocative first person singular, may be formed in one of three ways:

1. The ñi- prefix replaces wi, with concurrent alteration of the stem form, and sometimes removal of the -m- prefix: wi m¿è 'my father' and ñimek 'father!'.

2. The -m- prefix is removed, with no pronoun prefixed: wi mñoŋ 'my grandchild' and qőŋ 'grandchild!'.

3. There is a suppletive form, with no pronoun: wi màutaq 'my younger brother' and cúman 'younger brother!'.

Most of the kinship terms have been elicited in the plural, which is in this subclass always formed with -l+ay: wi mdaeqlay 'my older sisters', ñišeklay 'my mothers!' (addressing women older than yourself), and wi xálay 'my sons'.

A list of kinship terms follows, with forms cited in the first person singular, followed by vocative, if differentiated.
CONSANGUINEAL

/wo+q'ta/ → wōq'ta 'great grandmother'
/wo+wo/ → wōwo 'great grandfather'
/i+m+qa/ → ʔimqa 'mother's mother'
/i+m+ma/ → ʔimma 'father's mother'
/i+m+cen/ → ʔimcen 'mother's father'
/i+m+bac/ → ʔimbac 'father's father'
/wi m+še/ → wi mšē 'mother'
/i+šek/ → ʔišek 'mother's'
/wi m+e/ → wi mšē 'father'
/i+meʃ/ → ʔimeʃ 'father's'
/wi m+šud/ → wi mšūd 'mother's younger sister'
/i+m+xyaq/ → ʔimxyaq 'mother's older sister'
/i+m+sen/ → ʔimsen 'mother's brother'
/i+m+we/ → ʔimeʃ 'father's sister'
/i+m+ceʃ/ → ʔimceʃ 'father's brother'
/wi m+taq/ → wi mtàq 'younger sister'
/ʔa+jə/ → ʔajə 'younger sister's'
/i+m+deq/ → ʔimdeq 'older sister'
/wi m+du+taq/ → wi mdūtaq 'younger brother'
/ʔum/ → ʔúman 'younger brother's'
/i+m+meq/ → ʔimeq 'older brother'
/wi ʔad/ → wi ʔad 'son'
/wi m+fad/ → wi mfàd 'daughter'
/ʔa+cin/ → ʔačin 'sister's child'
AFFINAL

/wi da/ → wi dà 'wife'
/wi ?ba/ → wi ?bà 'husband'
/wi m+qon/ → wi mqòn 'sister's husband'
/ʔi+m+qon/ → ʔimqon 'sister's husband'
/wi yaqmed/ → wi ʔaqmed 'brother's wife'
/wi m+xa/ → wi mxà 'spouse's mother'
/wi m+cac/ → wi mcàc 'wife's father'
/wi m+ba/ → wi mbà 'husband's father'
/wi m+faq/ → wi mfàq 'wife's brother'
/wi m+faq bṭed/ → wi mfàq bṭed 'wife's sister' (bṭed 'woman')
/wi m+qaṭin/ → wi mqàṭin 'husband's sister'
/wi m+xutaq/ → wi mxùtaq 'husband's brother'
/wi ?mod/ → wi ?mòd 'son-in-law'
/wi m+ʔod/ → wi mʔòd 'daughter-in-law'
/tøʔmela/ → tøʔmela 'child's spouse's parent'

12.9. Nominalization

Five nominalization processes will be described in this section.
12.9.1. No Nominalization Affix

Nouns can be formed from verbs with no affix overtly marking nominalization. Such a noun will always lack a final position suffix.

Examples:
qwa 'food' (q+wa- 'eat')
keč 'piece' (keč- 'cut')
/ʔo šu+ITER+mi+c/ → ʔo šušumic 'toothpick' (šu- 'pick')
/bay+cnu+q/ → baycnúq 'preaching'
/kde+1/ → káel 'chewing tobacco' (kde- 'chew')

12.9.2. -m 'instrument or place of action nominalization'

This suffix is discussed in section 10.41.

12.9.3. -n 'absolutive'

Nominalization is one of the functions of this suffix. It is discussed in 10.42.

12.9.4. -al+wi/-mfo 'agent nouns'

The formation of agent nouns with -wi(singular) and -mfo(plural) is exemplified in sections 12.4.1. and 12.4.21. As will be seen in these examples, -wi is often preceded by a suffix -al. Examples of -al without -wi will be given in section 12.9.5.
12.9.5.  "a- 'nominalizing prefix''

This prefix forms nouns meaning 'one who does (verb)'.

Examples:

/"a+\k\a t+al/ → \n\k\a t\a l 'thief' ('do wrong')

/"a+b+\k\a t+al/ → \n\k\a ba\k\a t\a l 'liar' ('say wrong')

/"a+b+k\o/ → \n\k\o 'story-teller' ('tell')

/"a+f+d\i+q\o/ → \n\i d\i q 'wise man' ('know')

12.10. Interrogatives

All interrogative words occur in two forms: the basic form, ending in the interrogative suffix -\e, and the quotative form, occurring in narrative, in which the -\e suffix is replaced by -do 'quotative'. A list of interrogative words follows.

/"aw\i+\e/ → \n\i\e 'what?'

/"aw\i+do/ → \n\i do (quotative)

/"aw\i+w\a y+\e/ → \n\i w\a y\e 'what with, what for?'

/"aw\i+w\a y+do/ → \n\i w\a y\a do (quotative)

/"aw\i+x\a m+\e/ → \n\i x\a m\e 'what in?'

/"aw\i+x\a m+do/ → \n\i x\a m\a do (quotative)

/bs\i n+\e/ → bs\i n\e 'how many?'

/bs\i n+do/ → bs\i n do (quotative)
/bsin+way+?e/ → bsinway?e  'what time?' (I am not sure of this form)

/bsin+way+do/ → bsinwaydo (quotative)

/btey+?e/ → btéy?e  'when?'

/btey+do/ → btéydo (quotative)

/ca+?e/ → cá?e  'who?'

/ca+do/ → cádo (quotative)

/hel+?e/ → hél?e  'which one(inanimate)?'

/hel+do/ → héldo (quotative)

/hiy+?e/ → hiy?e  'which one(animate)?'

/hiy+do/ → hiydo (quotative)

/he+mal+a+?e/ → hémla?e  'where from, on which side?'

/he+mal+a+do/ → hémlado (quotative)

/he+mal+k_s+t+?e/ → hémalkit?e  'where to?'

/he+mal+k_s+t+do/ → hémalkitdo (quotative)

/he+qat+?e/ → héqat?e  'how?'

/he+qat+do/ → héqatdo (quotative)

/he+qat+way+?e/ → hégatway?e  'why?'

/he+qat+way+do/ → hégatwaydo (quotative)

/he+y+?e/ → héy?e  'where?'

/he+y+do/ → héydo (quotative)
PART FIVE - SYNTAX

Chapter 13. Syntax

13.1. Introduction

In this chapter I will attempt to present an overview of Southeastern Pomo syntactic organization. It is intended to be suggestive, groundwork for future research, rather than an attempt to handle any specific problem definitively.

Specifically, an adequate semantic-syntactic analysis of grammatical relations between noun phrases and the verb will not be undertaken. The syntactic framework of Noam Chomsky in Aspects of the Theory of Syntax, which allows for a superficial treatment of these problems, will be more or less adhered to. Semantic categories which must be handled in the morphology, such as 'source of motion' and 'figure', will not be characterized in the syntax, rather, 'subject-of' and 'object-of' configuratively defined.

In addition, problems of the somewhat free word order, and its semantic and stylistic consequences will not be treated. Sentences will be generated in what seems to be the neutral order, with some permutations transformationally derived. Likewise, neither the order, syntactic classification, or internal structure of adverbials will be presented.
13.2. Phrase Structure Rules

A set of phrase structure rules, producing deep structure phrase markers, will be postulated in this section.

1. \( S \rightarrow \begin{cases} (\text{da+Neg}) (\text{Adv}) \text{ NP} (\text{ba}) \text{ Fred Phrase} (\text{Adv}) \\ S (\text{ke}) S \end{cases} \)

This initial rewrite rule introduces the immediate constituents of the sentence. The second line of the rewrite produces a series of conjoined sentences, optionally connected with the coordinating conjunction ke, of any length.

The optional morpheme ba is a marker of subject, and is used especially in sentences which might otherwise be ambiguous, such as the following.

/\text{"u+y'i \& ba ci+n+do nu+n+ya/} \rightarrow \text{"u+y'i \& ba cindo nunya} \text{ 'He said that I did it' (he-I-ba-did it-said)}

2. Fred Phrase \( \rightarrow \begin{cases} (\text{NP}) (\text{NP}) (\text{Post Phrase}) (\text{Post Phrase}) \\ (\text{da+Neg}) (\text{VP}) \\ \text{Predicate} \end{cases} \)

This rule rewrites the predicate phrase as either
a series of noun phrases and postpositional phrases (arbitrarily indicated in number and order) followed by a Verb Phrase, or as a Predicate, which is then specified as either a predicate nominal or as an adjective (since there is no copula).

3. **Predicate** → \( \{ NP \} \)
   \( \{ \text{Adjective} \} \)

4. **NP** → \( (NP) S \)
   \( \text{NP NP (ke)} \)
   \( \{ \text{Possessive} \} \)
   \( \{ [N] \} \)
   \( \{ [+deictic] \} \)
   \( \{ \text{Numeral} \} \)
   \( \{ \text{N} \} \)
   \( \{ \text{Pron} \} \)
   \( \text{Number} \)

This rule expands Noun Phrase into sequences which include one or more noun phrases, as well as into the constituents of NP: a noun or pronoun, plus an indicator of singular, dual, or plural number.

The first line introduces a nominal sentential complement, with or without a head noun. The second line produces conjoined NP's, followed by an optional
coordinating conjunction. The third line produces a noun phrase with a possessive, demonstrative or numeral modifier, as well as the modifier standing without a head noun phrase.

5. Number → \[
\begin{cases}
\text{Singular} \\
\text{Dual} \\
\text{Plural}
\end{cases}
\]

6. Possessive → NP \[
\begin{cases}
\text{Inalienable} \\
\text{Alienable}
\end{cases}
\]

This rule specifies a possessive modifier as alienable or inalienable, in agreement with the head noun of the phrase.

7. Pron → Pers (Deic) (Gender)

8. Pers → \[
\begin{cases}
1 \\
2 \\
3
\end{cases}
\]

9. Deic → \[
\begin{cases}
\text{near} \\
\text{displaced}
\end{cases}
\]

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10. Gender → \{ masc \}
   \{ fem \}

Rules 7-10 specify a pronoun as to person and, in the case of third person pronouns, deixis and gender. For example, the pronoun yiwi 'he(displaced)'
is generated thusly:

```
  Pron
   / \  /
  Pers Deic Gender
   \  /  |
    3 [\-near\] +displ masc
```

A readjustment rule will operate on this sequence of formatives, producing the underlying phonological shape of the stem:

\[ 3 \text{Pers} + [\-\text{near}] + \text{masc} \rightarrow \text{yiwi} \]

In the sample text in Chapter 14, such formative configurations will be assumed in the generation of pronouns, and for simplicity, they will be replaced by the shorthand notation:
11. Post Phrase → NP Postposition

12. Postposition → [win]
    {mlala}
    {tib}
    {etc.}

Rules 11 and 12 generate postpositional phrases. Although -tib 'benefactive' is treated paradigmatically as a case suffix, in this syntactic sketch it will be generated as a postposition.

An example of a postpositional phrase follows.

```
Post Phrase
   NP Postposition
      Possessive NP
         NP Inalien Noun
            Pron
               ?uyi t bu way 'with his finger'
```
13. \[ \text{VP} \rightarrow (\text{Adv}) (\text{Adv}) (\text{da}+\text{Neg}) \text{Verb} \]

This rule expands Verb Phrase into an optional sequence of adverbs, plus an optional verb phrasal negation marker, plus the verb.

14. \[ \text{Verb} \rightarrow (\text{Dir}) (\text{IP}) V (\text{Aspect}) (\text{Mode}) (\text{Evidential}) \]

15. \[ \text{Dir} \rightarrow \begin{cases} \text{bay} \\ \text{mal} \\ \text{mlu} \\ \text{etc.} \end{cases} \]

16. \[ \text{IP} \rightarrow \begin{cases} \text{?} \\ \text{b} \\ \text{f} \\ \text{etc.} \end{cases} \]

17. \[ \text{Aspect} \rightarrow \begin{cases} \text{HAB} (w) b (m_i) \{ k \} \{ l \} \{ c \} \{ kle \} \\ \text{INTS} \{ y \} \{ s \} \{ k \} \{ t \} \{ ya \} \{ n \} \\ \text{DISTR} \{ p \} \{ t \} \{ \} \{ \} \{ \} \{ \} \\ \text{ITER} \{ \} \{ \} \{ \} \{ \} \{ \} \{ \} \\ \text{ITCOM} \{ \} \{ \} \{ \} \{ \} \{ \} \{ \} \end{cases} \]
18. Mode $\rightarrow \{ d \} \\
\{ dey \} \\
\{ mla?m \}$

This rule introduces one of the three modal elements which is not a final position suffix or enclitic.

19. Evidential $\rightarrow \{ do \} \\
\{ qo \} \\
\{ ya \}$

Rules 14-19 develop the Verb Complex. The ordering of the suffixes is somewhat arbitrary; it may be that the deep structure ordering of suffixes is indeterminate. See 13.3.28.

20. $\begin{bmatrix}
N \\
V \\
Adjective \\
Adv
\end{bmatrix} \rightarrow CS$

Rule 20 is an instruction to rewrite a node labelled with one of the four lexical categories as a Complex Symbol, which initiates the insertion of an
appropriate lexical item.

13.3. Transformational Rules

An ordered set of transformations will be presented in this section. Most of these transformations are exemplified in the sample text in Chapter 14.

13.3.1.

T1. CAUSATIVE REDUCTION

SD: $X$ - $\text{Verb} - \overset{\text{c}}{\text{xe}}\ldots]_{\text{verb}} - Y$

| 1 | 2 | 3 | 4 |

SC: $1234 \Rightarrow 12+q_c 4$

This transformation reduces the periphrastic form of the causative construction to the causative suffix. The claim is that the two constructions are equivalent; this may not hold up under further analysis.

13.3.2.

T2. REFLEXIVIZATION

SD: $[S W - \text{NP}_1 - X - \text{NP}_2 - Y - V - Z ]_S$ where $\text{NP}_1 = \text{NP}_2$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
This transformation inserts the reflexive suffix into a verb suffix string when there are two referentially identical noun phrases, which are always subject and object.

13.3.3.
T3. RECIPROCALIZATION

This transformation inserts the reciprocal suffix into the verb suffix string when proper conditions have been met in the sentence for a reciprocal meaning. While the details of this process have not yet been worked out, a simple case might work like this:

SD: $X - \left[ -s \right]_{NP_S} - Y - V - Z$

\[
\begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 \\
\end{array}
\]

SC: $1 2 3 4 5 \Rightarrow 1 2 3 4 + m'ku 5$

So, for example,

\begin{align*}
\tilde{o+m}a{l+ay} & \tilde{c}i+l+t \\
\Rightarrow \tilde{o+m}a{l+ay} & \tilde{c}i+\overline{m'ku}+l+t \\
\rightarrow \tilde{o}mlay & \tilde{c}imkolit \ 'They \ were \ fighting \ each \ other.'
\end{align*}
13.3.4.  
T4. EQUI-NP DELETION  

SD: $X - NP_1 - Y - NP_2 - Z$ where $NP_1 = NP_2$ referentially  
1 2 3 4 5  

SC: 1 2 3 4 5 $\Rightarrow$ 1 2 3 5  

This transformation deletes a noun phrase which is referentially identical to a preceding noun phrase in the same sentence.

13.3.5.  
T5. PRONOUN DELETION  

SD: $X - Pron - Y$ where Y is not a postposition or 1 2 3 possessive element  

SC: 1 2 3 $\Rightarrow$ 1 3  

This transformation optionally deletes a subject or object pronoun whose identity is knowable from linguistic or non-linguistic contexts.
13.3.6.

T6. PLURAL SOURCE CONCORDANCE

SD: \[ X - [_{\text{plural}}] - Y - V - Z \]
\[ 1 \quad 2 \quad 3 \quad 4 \quad 5 \]

SC: \[ 1 2 3 4 5 \Rightarrow 1 2 3 4 (\text{PLS}) (k_p) (m_p) 5 \]

This is one of four transformations which scans the sentence for a noun phrase which is marked with a particular case and number specification, and inserts one or more morphemes into the verb suffix sequence, which indicates concordance with this noun phrase.

The insertion of such concordance morphemes is not obligatory in all instances. Whether or not a given morpheme is inserted into a verb suffix sequence, when the proper noun phrase is present, may be determined by the verb stem, the co-occurrence of other morphemes in the string, individual variation, or other conditions. Examples of many verb forms can be found in Part Three.

This particular transformation inserts from one to three morphemes into a suffix sequence when there is a noun phrase in the sentence which is marked as a Source of Motion and plural number. Since such distinctions as Source are not represented in the phrase markers of
this set of syntactic rules, noun phrases must be considered to be interpretable in terms of features such as [+source].

13.3.7.
T7. PLURAL FIGURE CONCORDANCE

SD: \( X - [\text{+plural}] - Y - V - Z \)
\( \text{[+figure]}_{NP} \)
1 2 3 4 5

SC: 1 2 3 4 5 \( \Rightarrow 1 2 3 4 \text{(PLF)} (y) (k_p) 5 \)

This transformation inserts one to three suffixes if there is a noun phrase in the sentence marked for Figure and plural number.

13.3.8.
T8. NON-SINGULAR NP CONCORDANCE

SD: \( X - [-\text{sg}]_{NP} - Y - V - Z \)
1 2 3 4 5

SC: 1 2 3 4 5 \( \Rightarrow 1 2 3 4+q_p 5 \)

This transformation inserts the suffix \(-q_p\)-if
there is a noun phrase in the sentence which is either dual or plural in number.

13.3.9. DUAL NP CONCORDANCE

SD: X - [+dual]_NP - Y - V - Z

1 2 3 4 5

SC: 1 2 3 4 5 ⇒ 1 2 3 4+tta 5

This transformation inserts the suffix -tta- if there is a noun phrase in the sentence which is marked for dual number.

13.3.10.

T10. NEGATIVE MOVEMENT

SD: X - da-Neg - Y - V - Z

1 2 3 4 5 6

SC: 1 2 3 4 5 6 ⇒ 1 4 2 5 3 6

This transformation moves the (da+Neg) negation marker, either within or outside of the Predicate Phrase, to the verb of the sentence, the da preposed, and the Neg after the verb stem. Neg will be operated on by the
following readjustment rule:

$$\text{Neg} \rightarrow \begin{cases} 
  s / \_ \ldots \_ \\
  \_ / \_ \\
\end{cases}$$

13.3.11.

T11. KE MOVEMENT

SD: $X_J_S - ke - [\_S[NP] - Y$

\begin{array}{cccc}
1 & 2 & 3 & 4 \\
\end{array}

SC: 1 2 3 4 \Rightarrow 1 3 2 4

This transformation optionally moves the coordinating conjunction ke, when it is conjoining two sentences, to the right of the initial noun phrase of the following sentence.

13.3.12.

T12. SENTENCE NOMINALIZATION

SD: $X - \_ t - Y_J_S]\_S[NP - Z$

-ya

\begin{array}{cccc}
1 & 2 & 3 & 4 \\
\end{array}

a) SC: 1 2 3 4 \Rightarrow 1 3 4

b) SC: 1 2 3 4 \Rightarrow 1+baq 3 4
This transformation operates on sentences which are embedded in noun phrases, either deleting the final aspect suffix of the verb, or replacing it by the suffix -baq.

13.3.13.
T13. OBJECT SUFFIX INSERTION

SD: [+n [+animate] NP Pred Phrase ]  

SC: 1  \Rightarrow 1+il

This transformation adds the object marker -il to a Noun Phrase which is dominated by Predicate Phrase, but not by an intervening node like Predicate; predicate nominals do not take -il.

13.3.14.
T14. ?CL-INSERTION

SD: S]\_NP - VP 

SC: 1 2  \Rightarrow 1+?cl 2
This transformation optionally inserts a pronoun which is anaphoric to a preceding nominalized sentence.

13.3.15.
T15. OBJECT FRONTING

SD: \( X - \text{NP}^{\text{Pred Phrase}} - Y \)
   \[
   1 \quad 2 \quad 3
   \]

SC: \( 1 \, 2 \, 3 \Rightarrow 2 \, 1 \, 3 \)

This transformation, possibly involved with focus or emphasis, optionally moves an object noun phrase to the end of a sentence.

13.3.16.
T16. NP EXTRAPOSITION

SD: \( X - \text{NP} - Y \) where \( Y \) is not a postposition or possessive
   \[
   1 \quad 2 \quad 3 \quad \text{element}
   \]

SC: \( 1 \, 2 \, 3 \Rightarrow 2 \, 3 \, 1 \)

This transformation optionally moves a subject or object noun phrase to the end of the sentence.
13.3.17.

T17. CONJOINING SUFFIX INSERTION

a) SD: $X - V - Y - t - S - Z$

   -ya

   1 2 3 4 5 6

   SC: 1 2 3 4 5 6 ⇒ 1 2 3+ \[
   \begin{array}{c}
   \text{btonwa} \\
   \text{day} \\
   \text{fed(miť)} \\
   \{ \\
   \text{fla} \\
   \text{miť} \\
   \text{qat} \\
   \text{yukin}
   \end{array}
   \]

b) SD: $X - \text{Adjective} - S - Y$

   1 2 3 4

   SC: 1 2 3 4 ⇒ 1 2 \[
   \begin{array}{c}
   \text{btonwa} \\
   \text{day} \\
   \text{fed(miť)} \\
   \{ \\
   \text{fla} \\
   \text{miť} \\
   \text{qat} \\
   \text{yukin}
   \end{array}
   \]

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This transformation inserts a final position suffix indicating various types of sentence conjoining into sentences which are thus conjoined. The suffix may be inserted after either a verb or adjective predicate.

13.3.18.

T18. IMPERATIVE

SD: \( X - \left[2\text{nd Person}\right]_{NP} - Y - -t - Z \)

\[
\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\end{array}
\]

SC: 1 2 3 4 5 \(\Rightarrow\) 1 2 3+a 5

This transformation can replace the final position suffix -t with -a, producing an imperative sentence, if the subject of the sentence is a second person noun phrase.

13.3.19.

T19. HORTATIVE

SD: \( X - \left[1\text{st Person}\right]_{NP} - Y - -t - Z \)

\[
\begin{array}{cccc}
1 & 2 & 3 & 4 & 5 \\
\end{array}
\]

SC: 1 2 3 4 5 \(\Rightarrow\) 1 2 3+downa 5

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This transformation replaces the -t 'imperfective' suffix with the hortative suffix, forming a hortative sentence, if the subject is a first person noun phrase.

13.3.20.
T20. OPTATIVE

a) SD: X - V - Y - -t - Z
    1 2 3 4 5
    SC: 1 2 3 4 5 → 1+ta 2+hine 3 5

b) SD: X - V - Y - -ya - Z
    1 2 3 4 5
    SC: 1 2 3 4 5 → 1 \begin{array}{l}
    \text{ta} \\
    \text{laq}
  \end{array}
  2 3 4+y 5

This transformation forms an optative sentence by either a) replacing the imperfective suffix with the imperfective optative suffix -hine and preposing 'ta to the verb, or by b) following the perfective suffix with the perfective hortative enclitic -y, and preposing an optional 'ta or laq to the verb.
13.3.21.

T21. INABILITIVE

a) SD: X - V - Y - -kle - Z
    -t
    -ya
    1 2 3 4 5

SC: 1 2 3 4 5 ⇒ 1 2 3+kli 5

b) SD: X - Adjective - Y
    1 2 3

SC: 1 2 3 ⇒ 1 2+kli 3

This transformation either replaces a final position aspect suffix, or follows a predicate adjective with the kli 'inabilititive' suffix.

13.3.22.

T22. FUTURE CONDITIONAL

SD: X - V - Y - -t - Z
    1 2 3 4 5

SC: 1 2 3 4 5 ⇒ 1 2 3+da 5
This transformation replaces the imperfective aspect suffix -t with the future conditional suffix -da.

13.3.23.

T23. INTERROGATIVE

a) SD: \( W - [\text{Interrog}] - X - V - Y - - t - Z \)
\[
\begin{array}{ccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\end{array}
\]

SC: 1 2 3 4 5 6 7 \( \Rightarrow \) 1 2 3 4 5 6+?e 7

b) SD: \( W - [\text{Interrog}] - X - V - Y - n+d\circ - Z \)
\[
\begin{array}{ccccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\end{array}
\]

SC: 1 2 3 4 5 6 7 \( \Rightarrow \) 1 2 3 4 5 6 7

This transformation forms an interrogative sentence by following the imperfective suffix with the enclitic ?e, if there is an interrogative word in the sentence. As an example:
PRON DEL  ?awiway qla+l+t
INTERROG  ?awiway qla+l+t+?e

P rules  ?awiway qlålité 'What did he die from?'

Note that if the sentence to be interrogativized has a quotative evidential, it will undergo part (b), leaving the sequence of morphemes unchanged:

?awiway qlålindo
13.3.24.

T24. YES OR NO INTERROGATIVE

SD: X - Verb - Y
    1  2  3

SC: 1 2 3 ⇒ 1 2+?ha 3

This transformation produces a question to which the appropriate answer is yes or no (?iy or hî?î).

Example:

?u+yî ba til+o+d+t

YES/NO  ?u+yî ba til+o+d+t+?ha

P rules  ?uyî ba tilodît?ha 'Is he going to leave?'

13.3.25.

T25. LOCATIVE INTERROGATIVE

SD: X - V - Y - \[t\] - Z
    \[-ya\]
    1  2  3  4  5

SC: 1 2 3 4 5 ⇒ 1 2 3+we 5
This transformation forms an interrogative sentence corresponding to an English sentence 'where?' or any sentence where the element being questioned is locative.

Example:

ma χol+o+t

LOC INT ma χol+o+we 'Where are you going?'

13.3.26.

T26. SENTENCE EXTRAPOSITION

SD: \( X - S ]_{NP} - Y \)

1 2 3

SC: 1 2 3 \( \rightarrow \) 1 3 2

This transformation moves a sentence embedded in a Noun Phrase to the end of the highest matrix sentence.

13.3.27.

T27. PREDICATE FRONTING

SD: \( X - \left\{ \text{Predicate Phrase} \right\} - Y \)

\[
\begin{array}{ccc}
1 & 2 & 3 \\
\end{array}
\]

SC: 1 2 3 \( \rightarrow \) 2 1 3
This transformation moves a Predicate Phrase or an embedded sentence to the front of the sentence, possibly for emphasis.

13.3.28.
T28. SUFFIX SEQUENCE REORDERING
SD: $X - V - [Suf] ... - Y - Z$
   1 2 3...n n+1 n+2

where SD parts 3...n are each a verb suffix, and Y is not a verb suffix

SC: 1 2 3...n n+1 n+2 => 1 2 SURF SUF SEQ n+1 n+2

where SURF SUF SEQ is the set of suffixes in 3...n, reordered by matching to the Surface Suffix Ordering Constraint

This is, strictly speaking, not a transformation in the current formal sense of the term. It is a schema which takes as input the sequence of verb suffixes generated by the phrase structure and transformational rules, and reorders them according to the Surface Suffix Ordering Constraint, the surface ordering of suffixes given in Chapter Five. The claim is that the ordering of the
suffixes is not distinctive in the deep structure, except insofar as it is necessary to effect some ordering so that transformations and cooccurrence restrictions can operate properly.
13.4. Summary of Transformations

T1. Causative Reduction
T2. Reflexivization
T3. Reciprocationalization
T4. Equi-NP Deletion
T5. Pronoun Deletion
T6. Plural Source Concordance
T7. Plural Figure Concordance
T8. Non-singular NP Concordance
T9. Dual NP Concordance
T10. Negative Movement
T11. Ke-Movement
T12. Sentence Nominalization
T13. Object Suffix Insertion
T14. ?ol Insertion
T15. Object Fronting
T16. NP Extraposition
T17. Conjoining Suffix Insertion
T18. Imperative
T19. Hortative
T20. Optative
T21. Inabilitive
T22. Future Conditional
T23. Interrogative
T24. Yes/No Interrogative
T25. Locative Interrogative
T26. Sentence Extraposition
T27. Predicate Fronting
T28. Suffix Sequence Reordering
Chapter 14. Sample Text

14.1. Introduction

In this chapter, a short text will be presented, exemplifying many of the elements and processes discussed in the grammar.

First, the text will be presented in a more-or-less systematic phonetic transcription (except that pre-tonic epenthetic vowels and stress will not be indicated), along with a free translation. This will be followed by a morphemic analysis of each sentence, with deep structure phrase markers and indications of the transformations that operate on each sentence.

The text is a narrative spoken in July, 1965.

14.2. Text and Translation

1) ḥuyil cnu fdiqqaqit. 2) ḥa ba fdiqbaq te uyil bkolidit ḥa. 3) hegada bṭeqa ḥuyi šiiškidit, ṭol da fdiqas ḥa.
4) mṭun ḥa mey, pašem muṭin walqat, pašem muṭin ke walqat, ḥqomfo ḥuxqat kli qat, wiy sen mey blomat, ḥumtimfo beqat. 5) ḥa‘ba ḥqacit wiy qowcikle, xa qlakmat, bxe čamat, xacit čamat. 6) cada wil da čixotkłe. 7) wiy sen blomat, ke ḥqomfo ḥol’yeqat, ke wil ṭol ḥuxqat kyewkiqya.
8) ḥow, ḥa τalk’o ṭal pašem ke danwidi muṭin ké, wiy ke mey
9) wil ḥwalqat. 10) bxel 'camal, xa ḥowic, ḥuxqat ḥwalqat wil. 11) heqada boilin, memla binyilk, heqada wali, ḥa'ba ḥuxqa kyewkiqdit, ḥxotit. 12) ḥa da fdiqas.

1) He wants to learn our language. 2) I'll tell him just as much as I know. 3) I don't know how much he's going to ask. 4) A long time ago, when I was ten years old, there were no white people around. We lived here alone, just us Indians. 5) We did everything we wanted to. We went fishing, deer hunting, mudhen hunting. 6) No one bothered us. 7) We were here alone, but then the white man came. They stopped us from doing all that. 8) I'm fifty-eight years old now. We don't do anything here anymore. 9) They stopped us. 10) Deer hunting, fishing... They stopped us from doing everything. 11-12) I don't know how long from now it will be. I guess they'll stop us from doing everything.

14.3. Morphological Analysis

1) ḥuyi-il 3 sg. masc obj. pron.

chus noun 'language, word'
f+di+q_c+q_c+dr+t 'he teaches himself, knows' fdi+q_c 'know'
2) a 1 sg. subj. pronoun
   ba subject particle
   f+di+q₆+baq verb 'what I know'
   te adverb 'just, only'
   ?u+y₁+il 3 sg. masc. pronoun, object
   b+k₀+l+d+t 'will tell' verb
   a 1 sg subject pronoun
3) heqada interrogative adverb 'how'
   bᵠe+q₆ adverb 'size, much' from verb bᵠe- 'grow'
   ?u+y₁ 3 sg masc subject pronoun
   šiš+kₙ+d+t 'will ask' verb
   ?o+il 3 sg object pronoun 'that'
   da f+di+q₆+s verb 'don't know'
   a 1 sg subject pronoun
4) mₜu+n adverb 'long ago'
   a 1 sg subject pronoun
   mey adverb 'here'
   paʔšem numeral 'ten'
   muṭin noun 'year'
   wa+l+qat verb 'when I was' wa- 'l goes, walks'
   paʔšem
   muṭin
   ke coordinating conjunction
   wa+l+qat
\text{\textit{xqo+mfo}} \text{ noun 'white men'}
\text{\textit{?uxqat}} \text{ adjective 'all, every'}
\text{\textit{kli}} \text{ inabilititive, here 'none at all'}
\text{\textit{qat}} \text{ conjoining element, 'when'}
\text{\textit{wi+ay}} \text{ 1 pl subject pronoun}
\text{\textit{sen}} \text{ adverb 'alone'}
\text{\textit{mey}} \text{ adverb 'here'}
\text{\textit{blo+m}+\text{\textit{p}}+\textit{t}} \text{ verb 'sit, live'}
\text{\textit{\textbar{umti+mfo}}} \text{ noun 'people, Indians'}
\text{\textit{beqat}} \text{ verb 'just, only'}
\text{5) \textit{\textbar{a}\cdot ba}} \text{ pronoun 'materials, paraphernalia' here}
\text{\textit{\textbar{a}\cdot ba}} \text{ 'everything' or 'anything'}
\text{\textit{\textbar{qsa+c}+\text{\textit{p}}+\textit{t}}} \text{ verb 'like, want to'}
\text{\textit{wi+\textit{a}}} \text{ 1 pl subject pronoun}
\text{\textit{\textbar{go+w+c}+\text{\textit{p}}+\textit{kle}}} \text{ 'we always did'}
\text{\textit{xa}} \text{ noun 'fish'}
\text{\textit{qla+k}+\text{\textit{p}}+\text{\textit{m}}+\text{\textit{p}}+\textit{t}} \text{ verb 'we caught'}
\text{\textit{bxe}} \text{ noun 'deer'}
\text{\textit{\textbar{ca+m}+\textit{p}}+\textit{t}} \text{ verb 'we hunted'}
\text{\textit{\textbar{xa\cdot c\it{it}}} noun 'mudhen, cootch'}
\text{\textit{\textbar{ca+m}+\textit{p}}+\textit{t}} \text{ verb 'we hunted'}
\text{\textit{cada}} \text{ pronoun 'someone'}
\text{\textit{wi+il}} \text{ 1 pl object pronoun}
da ci+χot+kle verb 'they didn't do' here 'bother'
7) wi+ay 1 pl subject pronoun
    sen adverb 'alone'
    blo+m+p verb 'lived'
ke coordinating conjunction
χqo+mfo noun 'white men'
χol+?ye+q+p verb 'came'
ke coordinating conjunction
wi+il 1 pl object pronoun
?o+il 3 sg object pronoun 'that'
?uxqat adjective 'all, every'
k+ye+w+kq+c+ya verb 'they stopped us'
8) ?ow sentence adverbial 'well'
?a 1 sg subject pronoun
talk?o numeral 'five'
tal connective 'times
pa?šem numeral 'ten'
ke coordinating conjunction
danwidi numeral 'eight'
(5x10+8=58)
mušin noun 'year'
ké adverb 'now'
wi+ay 1 pl subject pronoun
ke coordinating conjunction
mey adverb 'here'
?aw+da pronoun 'something, anything'
da qo+w+c+p+s verb 'we don't do'
9) wi+il 1 pl object pronoun
?+wa+l+q_c+t 'they stopped us'
10) bxe noun 'deer'
'ca+m+p+l verb 'hunt'
xa noun 'fish'
qo+w+c_p verb 'doing'
?uxqat adjective 'all, every' here as pronoun 'everything'
?+wa+l+q_c+t
wi+il
11) heqa+da adverb 'how'
bcilin adverb 'long' from verb bcil+1+n 'long'
memla adverb 'from here, from now(time or space)'
btoyilki adverb 'backwards' from verb b+toyil+1+k_g
'go to behind, backwards'
heqa+da wali adverb 'how long' from verb wa+l '1 goes'
?a+ba pronoun 'everything'
?uxqa adjective 'all' (alternate form)
k+ye+w+k_p+d+t verb 'stop'
14.4. Syntactic Analysis

In this section deep structure phrase markers and transformational derivations will be given for each sentence.

1) ꙭuyi ꙭuyi ꙭvu ꙭdi ꙭq_c ꙭt ꙭuyi ꙭxe ꙭk_s ꙭt

?xot+i verb 'guess'
12) ꙭa ꙭl ꙭsg subject pronoun
da ꙭf+di+q_c+s verb 'not know'
DS:  ?uyi?uyi cnu f+di+q_c+t ?uyi  ?+xe+k_s+t

T1-Caus ?uyi?uyi cnu f+di+q_c+t+q_c ?uyi
T2-Refi ?uyi?uyi cnu f+di+q_c+t+q_c+c_r ?uyi

T4-EqNPdel (2 operations)
    ?uyi cnu f+di+q_c+t+q_c+c_r

T13-CSI ?uyi+il cnu f+di+q_c+t+q_c+c_r
T28-SSR ?uyi+il cnu f+di+q_c+q_c+c_r+t

DS:  "a "a ba f+di+q_c+t te "uyi b+k+o+l+d+t
T12-SN "a "a ba f+di+q_c+baq te "uyi b+k+o+l+d+t
T13-OSI "a "a ba f+di+q_c+baq te "uyi+il b+k+o+l+d+t
T16-NPE "a ba f+di+q_c+baq te "uyi+il b+k+o+l+d+t "a
T28-SSR vacuous operation

3) heqada b'teqa "uyi šiškidit, 'ol da fdiqas "a.
4) mṭun ḡa mey, paḥšem muṭin walqat, paḥšem muṭin ke
walqat, ḡqomfo ṣuṣqat kli qat, wiy sen mey blomat,
ʔumtimfo beqat.
DS:  
\[ S_1 \text{ m\text{\text{"u}}n \text{ a mey pa\text{"e}m mu\text{"i}n wa}+1+t \quad \text{ke} \]  
\[ S_2 \text{ a pa\text{"e}m mu\text{"i}n wa}+1+t \]  
\[ S_3 \text{ \text{"i}qo+mfo ?u\text{"e}qat kli} \]  
\[ S_4 \text{ wi}+ay \text{ sen mey blo}+t \]  
\[ S_5 \text{ wi}+ay \text{ ?umti+mfo be}+q_c+t \]  

TL7-CSI  \text{ m\text{\text{"u}}n \text{ a mey pa\text{"e}m mu\text{"i}n wa}+1+qat} 

T4-ENPD  \text{ ke pa\text{"e}m mu\text{"i}n wa}+1+t 

TL1-KM  \text{ pa\text{"e}m mu\text{"i}n ke wa}+1+t 

TL7-CSI  \text{ pa\text{"e}m mu\text{"i}n ke wa}+1+qat 

T6-PSC  \text{ wi}+ay \text{ sen mey blo+m_p+t} 

TL7-CSI  \text{ \text{"i}qo+mfo ?u\text{"e}qat kli qat}
T26-SSR vacuous operation

5) ْاّبّا ْقّاًت وىّي ْقّوّكّلّه، ْقّلّكّمّ، ْبّيّه ْكّمّ، ْكّاًت ْكّمّ.
DS: \[ wi+ay \, wi+ay \, ?a\text{ba} \, wi+ay \, xa \, qla+t \, wi+ay \, bxe \, ca+t \, wi+ay \, \hat{\chi}acit \, ca+t \, \hat{\chi}acit \, ca+t \, \hat{\chi}qa+c_p^t \, qo+w+c_p^t + kle \]

T4-ENPD (4 operations)

wi+ay \[ ?a\text{ba} \, xa \, qla+t \, bxe \, ca+t \, \hat{\chi}acit \, ca+t \, \hat{\chi}acit \, ca+t \, \hat{\chi}qa+c_p^t \, qo+w+c_p^t + kle \]

T6-FSC \[ wi+ay \, ?a\text{ba} \, xa \, qla+k_p^t + m_p^t + bxe \, ca+m_p^t + \hat{\chi}acit \, ca+m_p^t \]

T26-SE \[ wi+ay \, ?a\text{ba} \, \hat{\chi}qa+c_p^t + qo+w+c_p^t + kle \, xa \, qla+k_p^t + m_p^t + bxe \, ca+m_p^t + \hat{\chi}acit \, ca+m_p^t \]

T27-PF \[ ?a\text{ba} \, \hat{\chi}qa+c_p^t + wi+ay \, qo+w+c_p^t + kle \, xa \, qla+k_p^t + m_p^t + bxe \, ca+m_p^t + \hat{\chi}acit \, ca+m_p^t \]

T28-SSR vacuous operation

6) cada wil da ci'xotkle.
DS: da ʰot ca+da wi+il ʰi+kle
T10-NM ca+da wi+il da ʰ ot+kle
T28-SSR vacuous operation

7) wiy sen blomat, ke ʰqomfo ʰol?yeqat, ke wil ṣol ṣuxqat kyewkiqya.
DS: wi+ay sen blo+t ke x'qo+mfo xol+?ye+t ke x'qo+mfo
wi+ay ?ol ?uxqat k+ye+w+k_s+ya ?xe+k_s+t

T1-CR wi+ay sen blo+t ke x'qo+mfo xol+?ye+t ke x'qo+mfo
wi+ay ?ol ?uxqat k+ye+w+k_s+ya+q_c

T4-ENPD wi+ay sen blo+t ke x'qo+mfo xol+?ye+t ke wi+ay
?ol ?uxqat k+ye+w+k_s+ya+q_c

T6-PSC wi+ay sen blo+m_p+t ke x'qo+mfo xol+?ye+t ke wi+ay
?ol ?uxqat k+ye+w+k_s+ya+q_c

T8-NSC wi+ay sen blo+m_p+t ke x'qo+mfo xol+?ye+q_p+t ke
wi+ay ?ol ?uxqat k+ye+w+k_s+ya+q_c

T13-OSI wi+ay sen blo+m_p+t ke x'qo+mfo xol+?ye+q_p+t ke
wi+il ?ol ?uxqat k+ye+w+k_s+ya+q_c

T28-SSR wi+ay sen blo+m_p+t ke x'qo+mfo xol+?ye+q_p+t ke
wi+il ?ol ?uxqat k+ye+w+k_s+q_c+ya

8) ?ow, ?a ñalk?o ñal pa?sem ke danwìdi muñin ké, wiy
ke mey ?awda da qowces.
DS:  ṭow ṭa talk?o ṭal pa?šem ke danwidi muťin ké ke wi+ay mey ṭawda da+s Ḏo+w+c_p+t.

T11-MM ṭow ṭa talk?o ṭal pa?šem ke danwidi muťin ké wi+ay ke mey ṭawda da+s Ḏo+w+c_p+t.

T28-SSR ṭow ṭa talk?o ṭal pa?šem ke danwidi muťin ké wi+ay ke mey ṭawda Ḏo+w+c_p+s.
9) wil ʔwalqat.

DS: ʔo+mal+ay wi+ay ʔ+wa+l+t ʔ+xe+k_{s}+t
T1-CR ʔo+mal+ay wi+ay ʔ+wa+l+t+q_{c}
T5-FD wi+ay ʔ+wa+l+t+q_{c}
T13-OSI wi+il ʔ+wa+l+t+q_{c}
T26-SSR wi+il ʔ+wa+l+q_{c}+t
11) heqada bcilin, memla biyoilki, heqada wali, a·ba
u̲x̲q̲a̲ kyewkiqdīt, xotit.
DS:  ?o=mal+ay heqa+da bcilin memla b'oyilkí heqa+da wa+1 wi+ay ?a•ba ?uxqa k+y+e+w+d+t ?+xe+kₘ+t

?a ?+xot+t

Tl-CR  ?o=mal+ay heqa+da bcilin memla b'oyilkí heqa+da wa+1 wi+ay ?a•ba ?uxqa k+y+e+w+d+t+qₑ ?a ?+xot+t
T5-PD (3 operations)
heqa+da bcilin memla b'toyilki heqa+da wa+1 ?a·ba
uxqa k+ye+w+d+t+q_c +xot+t

T7-PFC heqa+da bcilin memla b'toyilki heqa+da wa+1 ?a·ba
uxqa k+ye+k_p+w+d+t+q_c +xot+t

T28-SSR heqa+da bcilin memla b'toyilki heqa+da wa+1 ?a·ba
uxqa k+ye+w+k_p+q_c+d+t +xot+t

12) ?a da fdiqas.

```
S
  NP
    Pron
  Pred Phrase
    NP
      Pron
    VP
      Verb
        da s f d1 q_c t
```

D3: ?a ?ol da+s f+di+q_c+t
T5-PD ?a da+s f+di+q_c+t
T28-SSR ?a da f+di+q_c+s
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