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MODE-ASPECT-PERSON INFLECTION IN PAME

1. Verb prefixes 100-200
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7. Person meanings in sequences with class 200
 1. Morphemes of classes 100 and 200. Each of the verb prefix morphemes in Pame¹ partakes simultaneously of three intersecting classifications, numbered by hundreds, tens, and units respectively. Within each of these classifications each class has a meaning which is the meaning common to all its members. This class meaning may alternatively be stated as a semantic component; thus each prefix morpheme of classes 100 and 200 may be said to have simultaneously one semantic component corresponding to its century class, another to its decade class, and another to its unit class.
 - 1.1. Century classes 100 and 200 differentiate mode:
class 100 transitive, class 200 intransitive.
Morphemes of classes 100 and 200 are divided into decade classes 10-60 which differentiate aspect: class 10 real-perfective, class 20 unreal-perfective, class 30 real-progressive, class 40 unreal-progressive, class 50 potential, class 60 neutral (dependent on the presence of an auxiliary verb or clitic)²

Morphemes of classes 100 and 200 are also divided into unit classes 01-03 which differentiate person: class 01 first person, class 02 second person, class 03 third person.

Some of the prefix morphemes are ambiguous as to two or more persons and are set up as belonging to hybrid unit classes; e.g. morphemes whose numbers end in (1/2) belong simultaneously to classes 01 and 02 and mark first and second persons ambiguously. When referring to person meanings we use, in addition to class numbers 01-03, the numbers 01/2 first and second persons, 01/3 first and third persons, 02/3 second and third persons, 01/2/3 first, second, and third persons.

1.2. Class 100 prefixes may belong simultaneously to any of the decade classes 10-60 and any of the unit classes 01-03. Class 200 prefixes belonging to any of the unit classes 01-03 and to any of the decade classes 10-40 are parallel to the corresponding morphemes of class 100. But class 200 prefixes do not show contrast between classes 50, and 60; one set of morphemes of class 200 parallels both classes 150 and 160 and is here arbitrarily set up as class 250. Restated in terms of class meanings, transitive prefixes appear in all aspects and persons, and intransitive prefixes appear in all persons but do not contrast as to potential vs. neutral aspects. The identical potential/neutral prefixes are arbitrarily classified as potential.

1.3. Each mode-aspect-person morpheme bears a number which shows its position in the three-dimensional classification. We now list these morphemes and their meanings. Allomorphs of the morphemes are listed in 6, and here along with the number is listed a type-allomorph in braces.

111	{no-}	<u>trans. real-perfective 1-pers.</u>
112	{ni-}	<u>trans. real-perfective 2-pers.</u>
113	{ndo-}	<u>trans. real-perfective 3-pers.</u>
121	{nto-}	<u>trans. unreal-perfective 1-pers.</u>
122	{nni-}	<u>trans. unreal-perfective 2-pers.</u>
123	{mdo-}	<u>trans. unreal-perfective 3-pers.</u>
122/3	{mma-}	<u>trans. unreal-perfective 2-3-pers.</u>
131	{la-}	<u>trans. real-progressive 1-pers.</u>
132	{ki-}	<u>trans. real-progressive 2-pers.</u>
133	{wa-}	<u>trans. real-progressive 3-pers.</u>
131/2	{to-}	<u>trans. real-progressive 1-2-pers.</u>
141	{ndo-}	<u>trans. unreal-progressive 1-pers.</u>
142	{ŋgi-}	<u>trans. unreal-progressive 2-pers.</u>
143	{nda-}	<u>trans. unreal-progressive 3-pers.</u>
141/3	{nda-}	<u>trans. unreal-progressive 1-3-pers.</u>
151	{lo-}	<u>trans. potential 1-pers.</u>
152	{ki-}	<u>trans. potential 2-pers.</u>
153	{la-}	<u>trans. potential 3-pers.</u>
151/3	{la-}	<u>trans. potential 1-3-pers.</u>
152/3	{la-}	<u>trans. potential 2-3-pers.</u>
161	{no-}	<u>trans. neutral 1-pers.</u>
162	{ná-}	<u>trans. neutral 2-pers.</u>
163	{na-}	<u>trans. neutral 3-pers.</u>
162/3	{na-}	<u>trans. neutral 2-3-pers.</u>

- 211 {ta-} intrans. real-perfective 1-pers.
- 212 {ki-} intrans. real-perfective 2-pers.
- 213 {ko-} intrans. real-perfective 3-pers.
- 211/2/3 {ni-} intrans. real-perfective 1-2-3-pers.
- 211/2 {i-} intrans. real-perfective 1-2-pers.
- 221 {nta-} intrans. unreal-perfective 1-pers.
- 222 {ŋgi-} intrans. unreal-perfective 2-pers.
- 223 {mba-} intrans. unreal-perfective 3-pers.
- 221/2/3 {nni-} intrans. unreal-perfective 1-2-3-pers.
- 221/2 {nti-} intrans. unreal-perfective 1-2-pers.
- 231 {la-} intrans. real-progressive 1-pers.
- 232 {ki-} intrans. real-progressive 2-pers.
- 233 {li-} intrans. real-progressive 3-pers.
- 231/2/3 {ti-} intrans. real-progressive 1-2-3-pers.
- 231/2 {ta-} intrans. real-progressive 1-2-pers.
- 241 {nta-} intrans. unreal-progressive 1-pers.
- 242 {ŋ ko-} intrans. unreal-progressive 2-pers.
- 243 {nda-} intrans. unreal-progressive 3-pers.
- 241/2/3 {mba-} intrans. unreal-progressive 1-2-3-pers.
- 241/3 {nda-} intrans. unreal-progressive 1-3-pers.
- 241/2 {nta-} intrans. unreal-progressive 1-2-pers.
- 251 {ta-} intrans. potential 1-pers.
- 252 {ko-} intrans. potential 2-pers.
- 253 {la-} intrans. potential 3-pers.
- 251/2 {ta-} intrans. potential 1-2-pers.
- 251/2/3 {ta-} intrans. potential 1-2-3-pers.

2. Verb affix morphemes of classes 300 and 400 (usually suffixes) also may be described in terms of three intersecting classifications, but the class combinations show less symmetry than do those of the prefixes marking mode-aspect-person.

2.1. Century classes 300 and 400 differentiate exclusiveness; class 300 non-exclusive, class 400 exclusive.

Morphemes of classes 300 and 400 are divided into decade classes 20 and 30 which differentiate dual vs. plural: class 20 dual, class 30 plural.

Morphemes of classes 300 and 400 are also divided into unit classes 01-03 plus hybrid unit classes; the unit classes differentiate person and thus have the same meanings as the unit classes of the classes 100 and 200 morphemes.

2.2. Class 400 suffixes belong simultaneously to unit class 01 but not to other unit classes (in terms of class meanings, exclusive appears only in first person). Thus class 400 consists only of morphemes 421 and 431.

Class 20 suffixes belong simultaneously to either class 300 or class 400, but are not divided into unit classes (in terms of class meanings, they do not ^{contravene} ~~differentiate~~ person). Thus, class 320 consists of a single morpheme numbered 321/2/3 which appears in first, second, and third persons; class 420 consists of a morpheme 421 which appears only in first person due to the limitations stated above for class 400.

2.3. We now list the number-marking morphemes and their meanings.

321/2/3 { -i } non-excl. dual 1-2-3-pers.

- 331 {-tn} non-excl. pl. 1-pers.
 331/2 {-dn} non-excl. pl. 1-2-pers.
 332 {-k[?]ŋ} non-excl. pl. 2-pers.
 333 {-?} non-excl. pl. 3-pers.
 421 {-bm[?]} excl. dual 1-pers.
 431 {-t[?]n} excl. pl. 1-pers.

3. Class 500 consists of a single ~~one~~ person-marking morpheme 502 { k- } second-person. (502 is not mutually exclusive with 321/2/3, thus necessitating a new class).

4. Stem list. The following verb-stems are divided into classes according to which of the prefix-allomorph sets (see 6.5.) occurs with each class. Stems are later cited (6.3. ff.) by class symbol plus stem number (and stem allomorph number if any); e.g. stem A⁴ 3.2 is -?qc? to hold up.

Stems falling into classes A-G occur with class 100 prefixes; classes R-W occur with class 200 prefixes.)

→ (Numbers within parentheses are for reference in the treatment of morphemes listed in 2.3.)

For stems with more than one allomorph, the allomorph distribution is shown in 6.5.4.

Class A¹

1. -kkua*hi?* to obey (333.1)
 2. -kkua*s* to do right (333.5)
 3. -ddxog*ŋ* to prepare (333.5)
 4. -t[?]e*he* to satisfy (333.1)
 5. -n[?]x*hemp* to endure (333.5)
 6. -ccig*ŋ?* to clean (333.5)
 7. -nh*omp* to deceive him (333.5)
 8. -lle*hi?* to remove (333.1)
 9. -?w*aq* to answer (333.3)

A
at
number raised after
letter A

10. -hu'u to be able (333.3)
11. -hu'ut to be accustomed to (333.3)
12. -mohi? to deny (333.1)
13. -kk'e'et to defend (333.2)
14. -ŋgao? to greet (333.2)
 - Class A² -mne to lose (333.2)
 - Class A³ -ŋgaos to season (333.3)
 - Class A⁴
1. -ʔedn? to curse (333.3)
2. -ʔei to do in a manner (333.3)
3. 1 -ʔo'qc? o 3.2 -ʔoc? to hold up (333.3)
 - Class A⁵ only w. 333
1. -tt'iy to turn over to (333.5)
2. -tto to kill (333.5)
3. -ndai to make big (333.5)
4. -huap to forgive him (333.3)
 - Class A⁶
1. -ppu'ugy to exchange (333.5)
2. -ppat to fortell (333.5)
3. -o'u to spoil (333.5)
4. -ma'i to erect (333.2)
5. -mni to have (333.2)
6. -wwigy to gather together (333.3)
 - Class A⁷
1. -ex to respect (333.5)
2. -dda'a to lay down (333.5)
3. -kkr'e to repent (333.2)
4. nn'e to fill up (333.2)

Class B'

1. -ku to belittle (333.2)
2. -miuh to cook (333.2)
3. -ndaič? to like (333.2)

Class B' -sca to skin (333.2)Class B' -ehi? to say (333.4)

- Class B' vi. 130 112, 122, 142, 152
 1.1 -huc? (333.4) 1.2 -huc? 1.3 (-huc? [333.4] ~ -hiuc?)
to put down

Class B' -h'eign? to blow or winnow (333.4)

Class B' -

1. -hiuh to choose (333.4)
2. (-h'eign? [333.4] ~ -hiagh?) to let go of

Class B' -

- 1.1 (-hul? [333.4] ~ -hifl?) 1.2 (-hul? ~ -hiul?)

to put insideClass B' -?ias to cut with scissors (333.4)

Class C'

1. -tugh to guard (333.2)
2. -ke? to use (333.2)
- 3.1 -no?o (333.2) 3.2 -no to be acquainted with (333.2)

Class C' vi. 131, 133

- 1.1 -cu (333.1) 1.2 -cu 1.3 -cu to scold (333.1)

- 2.1 -tu?u (333.2) 2.2 -tu to plant

- 3.1 -cao? (333.1) 3.2 -cao? to feel

- 4.1 -ke?edn (333.2) 4.2 -ke?edn? (333.3) 4.3 -kedn?

to pullClass C' -mما? to want (333.2)

Class C⁴ -maq? to accuse (333.2)

Class C⁵ -sa?p to teach him (333.2)

Class C⁶

1. -g^Wa'a?n to grab (333.2)

2. -g^Wne?x to pity (333.2)

3. -g^Wk^Wehe? to copy (333.1)

4. -g^Wta?o to prevent (333.2)

5. -g^Wth^Wdn? to laugh at (333.1)

6. -g^Wehu? to scorn (333.1) 152, 153, 162, 163

Class C⁷

1.1 -sa? ~ 1.2 -sa? to make bare (333.2)

2.1 -s^Wil? (333.2) ~ 2.2 -sil? to wash (333.2)

Class C⁸

1.1 -g^Wth^W? (333.1) ~ 1.2 -t^Wha? to gain (333.1)

2.1 -g^Wtaho (333.1) ~ 2.2 -taho to touch (333.1)

Class C⁹

1.1 -k^Wehugh? (333.1) ~ 1.2 -k^Wehugh? to pull out (333.1)

2.1 -tahic? (333.1) ~ 2.2 -tahic? to receive (333.1)

3.1 -kehe? (333.1) ~ 3.2 -k^Wehe? to find (333.1)

Class D¹

1. -?aho to talk (333.4)

2. -?ahodn to ask (333.4)

Class D²

1.1 (-?e)e {333.4} ~ -?e'u? ~ 1.2 -?e to set apart

2.1 -?x'u? ~ 2.2 -?xu? (333.4) ~ 2.3 -?xu? to see how it is

Class D³

1.1 -?ei? (333.4) ~ 1.2 -?ei? to sell (333.4)

2.1 -?u? (333.4) ~ 2.2 (-?iu? ~ -?u?) to hear (333.4)

3.1 -?iugh? (333.4) ~ 3.2 -?iugh? to give (333.4)

Class D⁴

1. -^V~~xe~~ to doctor (333.4)
 2. -^V~~xat~~ to dig (333.4)

Class E¹

- 1.1 -pahi? (333.7) ~ 1.2 -pahi? (333.7) ~ 1.3 -wahi? ~
 1.4 -wahi? to hit

- 2.1 -pai (333.7) ~ 2.2 -wai to own (333.7)

Class E²

- 1.1 -px?xp? (333.7) ~ 1.2 -pxp? (333.7) ~ 1.3 -wx?xp ~
 1.4 -w?p ~ 1.5 -w?p to help him

Class E³

- 1.1 -wahi? (333.7) ~ 1.2 -^Epahi (333.7) ~ 1.3 -wahi
to imitate
 2.1 -wehe? (333.7) ~ 2.2 -^Epehe? (333.7) ~ 2.3 -wehe?

to bat oneself

Class E⁴

- 1.1 -wu (333.7) ~ 1.2 -^Epu to do or give work

Class E⁵

- 1.1 -^Epah? (333.7) ~ 1.2 -waha? (333.7) ~ 1.3 -waha?
to carry on ones back

- 2.1 -^Epaho (333.7) ~ 2.2 -waho (333.7) ~ 2.3 -waho

to borrow

Class F¹

- wu to give permission (333.7)

Class F²

- III xl. (all -1) 112, 113, 122, 123, 127, 132, 1423, 1523, 1623, 3333

- 1.1 -h^Veio? (333.4) ~ 1.2 -nheič? to fit tightly

Class F³

- 1.1 -wehe?p (333.7) ~ 1.2 -wehe?p to bat him

2. -wwaha?p to lend to him (333.7)

112, 122, 130, 142, 152

Class G¹

- 1.1 -^oohic? (333.4) ~ 1.2 -^oohic? to overstep (333.4)

Class G²

- 1.1 -^oaogn (333.4) ~ 1.2 -daogn to bury

- 2.1 -^oaigh (333.4) ~ 2.2 -diagn to throw away

- 3.1 -^oail? (333.4) ~ 3.2 -dial? to throw in

(4) Of the classes R-W stems, which
the following stems occur with class 200 prefixes, those
marked by an asterisk also occur with class 100 prefixes and
were classified above under one of the A-G Classes.

Class R¹ -ddxogn* to prepare (333.6, 332.1, 431.2)Class R²

1. -chao to become (333.6, 332.4, 431.3) -t, -k^h, -t^h

2. -ppugh to escape (333.6, 332.3, 431.2) -t, -dn^h, -dn^h

3. -nhon to deceive (333.6, 332.3, 431.2) -t, -dn^h, -dn^h

Class R³

- A² 1. -mme* to lose (333.2, 332.2, 431.3) h-, [t^hn, -t^hn]

2. -tehe? to kneel (333.1, 332.2, 431.3) ?-, [t^hn, -t^hn]

- B³ 3. -^oehi?* to call oneself (333.4, 332.2, 431.3) l-, [t^hn, -t^hn]

4. -haigh to remain behind (333.4, 332.3, 431.2) l-, -dn^h, -dn^h

5. -daho to think (333.1, 332.4, 431.3) ?-, -k^h, -t^hn

Class R⁴

1. -ne^oep to appease him (333.2, 332.4, 431.3) h-, -k^h, -t^hn

2. -nc^ohagh to fast (333.1, 332.1, 431.2) ?-, -k^h, -dn^h

- D¹ 3. -^oaho* to talk of oneself (333.4, 332.4, 431.3) l-, -k^h, -t^hn

4. -tebe^ot to get married (333.1, 332.2, 431.3) ?-, l-, -t^hn

- C¹ 5. -ke^o* to be busy (333.2, 332.1, 431.3) h-, -k^h, -t^hn

6. -gao?* to rest (333.2, 332.4, 431.2) h-, -k^h, -dn^h

7. -ma'a to depend on (333.2, 332.3, 431.2) -h-, -dn?, -dn?

8. -lləogn̩ to ride an animal (333.3, 332.2, 431.3) t-, -dn?, -t?n?

Class R -sao? to study (333.2, 332.4, 431.3) h-, -ky, -t?n?

A^b Class S -c'u?* to be spoiled (333.6, 332.4, 431.3) -t-, -ky, -t?n?

Class S' -llə to fill up (333.3, 332.1, 431.3) t- $\begin{cases} 331. K^3 \\ 332. L^3 \\ 330+333 \end{cases}$

Class T $\begin{cases} X^3 \\ X^3 \end{cases}$ $\begin{cases} 331. K^3 \\ 332. L^3 \\ 330+333 \end{cases}$ $\begin{cases} 432 \\ 433 \end{cases}$

1.1 -mehu \approx 1.2 -wéhu \approx 1.3. -k'a (333.6) \approx 1.4 -kua

(332.1, 431.1) to live -t-, h?n?, -bn?

Class T' -nhás to arise (333.6, 332.2, 431.3) -t-, -t?n?, -t?n?

Class U'

1. -ss'ehigh to eat (333.6, 332.2, 431.3) -t-, -t?n?, -t?n?

2. -?ehil?* to sleep (333.6, 332.2, 431.3) -t-, -t?n?, -t?n?

3.1 -oəgñ $\begin{cases} 333.6 \\ 431.2 \end{cases}$ \approx 3.2 -oəgij $\begin{cases} 330+333 \\ 432 \end{cases}$ \approx 3.3 -neəgñ -t-, -dn?, -dn?

to be angry (332.3, 431.2)

Class U² $\begin{cases} 330+333 \\ 432 \end{cases}$

1.1 -cu? \approx 1.2 -k'ei? to fall (333.6, 332.1, 431.3) -t-, -k?j, -t?n?

A^c 2. -tto?* to die (333.6, 332.1, 431.3) -t-, -k?j, -t?n?

Class U³ $\begin{cases} 330+333 \\ 432 \end{cases}$

1.1 -ma'adn (333.6, 332.3, 431.2) \approx 1.2 -ma'a \approx -t-, -dn?, -dn?

→ 1.3 -ba'a to make a loud noise

Class U⁴ $\begin{cases} 330+333 \\ 432 \end{cases}$

1.1 -ma'igñ (333.6, 332.3, 431.2) \approx 1.2 -ma'i?* \approx -t-, -dn?, -dn?

→ 1.3 -ma'i to stand

Class V' -ppu? to descend (333.6, 332.2, 431.3) -t-, -t?n?, -t?n?

Class V² $\begin{cases} 330+333 \\ 432 \end{cases}$

1.1 -lh'e (333.6, 332.2, 431.3) \approx 1.2 -lehigh \approx 1.3 -t-, -t?n?, -t?n?

-nehigin̩ to pass by

- Class W¹ 330, 430
- 1.1 -ŋsigh? (333.6, 332.3, 431.2) ~ 1.2 -wai ~ -t, -t^h, -dn?
- 1.3 -baign? to cry) ~ 210, 220 (but not 330, 430)
- Class W²
- 1.1 -doədn? (333.6, 332.3, 431.2) ~ 1.2 -doə ~ -t, -dn?, -dn?
- 1.3 -'oa to walk around
- Class W³ -mban? to visit (333.6, 332.2, 431.3) ~ -t, -t^h, -t^h

5. Morpheme sequences. In general the verb structure consists of one prefix of the 100 or 200 class plus stem plus or minus a suffix of the 300 or 400 class; or of a prefix of the 100 or 200 class plus morpheme 333 (except 333.6) plus stem. However, with class 500 the following sequences occur: 500 plus 211/2/3 plus stem; or 211/2/3 plus stem plus 321/2/3 plus 500.

6. Morphophonemics. In this section we give the phonemic shapes of the allomorphs and their distribution; ~~certain~~ certain morphophonemic statements are given in terms of ~~certain~~ regarding phonological processes.

6.1. Throughout the language automatic phonological changes occur at morpheme boundaries. After or initial ^{certain} n > ŋ, c > č, s > š, d > g, t > k, 't > 'k, tn > kn, dn > gn, dn? > gh?, nc > nc; when preceded by ~~or~~ nn > ŋŋ, cc > čč, ss > šš, dd > gg, tt > kk.

If a stem occurs with a prefix having tone-stress, the stem tone-stress is lost and that of the prefix is retained.

Other statements regarding phonological changes will be stated later when we list the allomorphs concerned.

6.2. Morphophonemes. ✓ following a stem-initial consonant or consonant cluster ^{is} actualized as labialization of the consonant(s) when following a back high vowel (o or u); as non-labialization of the consonant(s) when following other vowels: ~~nike?~~ nok^we? (no- + -k^we?) I used it, but n^wike? (ni- + -k^we?) you used it.

✓ preceding a stem-initial consonant ^{is} actualized as gemination of the consonant when the prefix has tone-stress: ~~nottaho~~ n^tottaho (no- + -t^tah^o) I touched it.

G occurring as part of a prefix morpheme ^{is} actualized as gemination of the contiguous stem-initial consonant: laccu (laG- + -cu) I might scold it.

N occurring as part of a prefix morpheme ^{is} actualized as a nasal consonant at the same articulation point as the contiguous stem-initial consonant: m before bilabials, ^y before velars, n before alveolars and ? . tamba^wa (taN- + -ba^wa) I made a loud noise.

6.3. Allomorphs of class 100 prefixes. Throughout the rest of this paper if there occurs more than one allomorph of a given morpheme it is referred to by the morpheme number followed by decimals. The ^tactual distribution of the prefix allomorphs is given in 6.5. in terms of the sets of allomorphs occurring with the verb classes. Parentheses refer to stem number plus other morphemes if any, which occur in the example cited.

Allomorphs of 111 {no-}, 112 {ni-}, 113 {ndo-}:

111.1 no- nokkuas (A¹ 2) I did it right

111.2 ni- ni^wias (B²) I cut it with a scissors ?

→ I think this is intransitive I had a haircut

Ch
JF
Lg

- 111.3 no- notto (A⁵ 2) I killed it
- 112.1 ni- nikkuas (A' 2) you did it right
- 112.2 ni- nikkuas (A' 3) you turned it about
- 112.3 niy- niy'ehi? (B³ 1) you said it
- 112.4 ni... imma? (C³) you wanted it
- 112.5 ni + dR²- nigahodn? (D' 2) you asked it
- 113.1 ndo- ndokkuas (A' 2) he did it right
- 113.2 ndo- ndotto (A⁵ 2) he killed it

*class nps
if, about*

Allomorphs of 121 {nto-}, 122 {mni-}, 123 {mdo-},

122/3 {mna-}:

- 121.1 nto- ntokkuas (A' 2) if I (did) it right ✓
- 121.2 nto- ntóndai (A⁵ 3) if I made it big
- 122.1 mni- mnikkuas (A' 2) if you (did) it right
- 122.2 mni- mniy'gai (A⁵ 3) if you made it big
- 122.3 mniy- mniy'ehi? (B³ 1) if you said it
- 122.4 mni... mnimao? (C') if you accused it
- 122.5 mni + dR²- mnigaho (D' 1) if you talked to it
- 122.7 mna- mnáwu (F') if you gave permission
- 122.8 mna- mnawehé?p (F³ 1.2) if you hatted him
- 123.1 mdo- mdokkuas (A' 2) if he did it right
- 123.2 mdo- mdotto (A⁵ 2) if he killed it
- 123.3 mna + mRw- mnámu (F') if he gave permission
- 123.4 mna- mnábu (333.7 + F') if they gave permission
- 123.5 mna- mnalheic? (333.4 + F² 1.1) if they fitted it
tightly against
- 123.6 mna + mRw- mnámehe?p (F³ 1.1) if he hatted him
- 122/3 mna- mnáneic? (F² 1.2) if you/he fitted it tightly

Allomorphs of 131 {la-}, 132 {ki-}, 133 {wa-}, 131/2 {to-}:

- 131.1 la- la^ʔehi[?] (B³ 1) I say it
- 131.2 ta- ta^ʔehi[?] (B³ 1 + 331/2) we(pl.) say it
- 131.3 li- li^ʔias (B⁸) I cut it with a scissors
- 131.4 ti- ti^ʔias (B⁹ + 320) we(dual) cut it with a scissors
- 131.5 laG- lattug[?] (C' 1) I guard it
- 131.6 taG- tattui (C' 1 + 320) we(dual) guard it
- 131.7 lá- lappaho (E⁵ 2.1) I borrow it
- 131.8 wú- wuppahodn (E⁵ 2.1 + 331/2) we(pl.) borrow it
- 131.9 to- towēhe[?]p (F³ 1.1) I bat him
- 131.10 tó- tówu (F') I give permission
- 131.11 ta- táttahoi (C⁸ 2.1 + 320) we(dual) touch it
- 132.1 ki- ki^ʔehi[?] (B³ 1) You say it
- 132.2 ki- kippaho (E⁵ 2.1) you borrow it
- 132.3 kiG- kikkug[?] (C' 1) you guard it
- 132.4 ki... kimmáq[?] (C') you accuse it
- 132.5 la- lawehe[?]p (F³ 1.2) you bat him
- 133.1 lo- lokkuas (A' 2) he does it right
- 133.2 wa- wa^ʔehi[?] (B³ 1) he says it
- 133.3 wú- wummaq[?] (C') he accuses it
- 133.4 wú- wuppaho (E⁵ 2.1) he borrows it
- 133.5 wá- wánhæ (333.2 + A⁷ 4) they(pl.) fill it up
- 133.6 lo- lónðai (A⁵ 3) he makes it big
- 133.7 #^(3rd) nho[?]o (333.2 + C' 2.1) they(pl.) are acquainted with it
- 133.8 wi- wi^ʔias (B⁸) he cuts it with a scissors
- 133.9 waG- wattug[?] (C' 1) he guards it
- 133.10 wúG- wuppehi[?] (E' 1.1) he hits it

- 133.11 lu- luppət (A' 2) he foretells it
 133.12 wa + mRw- wamehe?p (F³ 1.1) he hates him
 131/2.1 to- tokkuas (A' 2) I/you do it right
 131/2.2 to- tōtto (A⁵ 2) I/you kill it
 131/2.3 tu- tūppu?ugh (A' 1) I/you change it

Allomorphs of 141 {ndo-} , 142 {ŋgi-} , 143 {nda-} ,

141/3 {nda-} :

- 141.1 ndo- ndokkuas (A' 2) if I do it right
 141.2 ndó- ndóhuap (A⁵ 4) if I forgive him
 141.3 nda- nda?ehi? (B³ 1) if I say it
 141.4 ndaG- ndattugh (C' 1) if I guard it
 141.5 ndá- ndákka?ay (C' 1) if I grab it
 142.1 ŋgi- ŋgikkus (A' 2) if you do it right
 142.2 ŋgi- ŋgihuap (A⁵ 4) if you forgive him
 142.3 ŋgiŋ- ŋgiŋ?ehi? (B³ 1) if you say it
 142.4 ŋgi... ŋgimma?ay (C³) if you want it
 142.5 ŋgi + dR²- ŋgigaho (D' 1) if you talk to it
 142.6 nda- ndaweho?p (F³ 1.2) if you bat him
 142.7 ndá- ndáwu (F') if you give permission
 143.1 nda- ndalkkuas (A' 2) if he does it right
 143.2 ndá- ndahuap (A⁵ 4) if he forgives him
 143.3 ndan- ndan?ehi? (B³ 1) if he says it
 143.4 nda...^ ndamma?ay (C³) if he wants it
 143.5 nda + dR²- ndadaho (D' 1) if he talks to it
 143.6 nda + mRw- ndamehi (E³ 1.1) if he imitates it
 143.7 ndá + mRw- ndamu (F') if he gives permission
 141/3 nda- ndasa?p (C⁵) if I/he teach him
 142/3 nda- ndanheič? (F² 1.2) if you/he fit it tightly

Allomorphs of 151 {lo-}, 152 {ki-}, 153 {la-}.

151/3 {la-}, 152/3 {la-}:

- 151.1 lo- lokkuas (A' 2) I might do it right
- 151.2 lo- lóhuap (A⁵ 4) I might forgive him
- 151.3 lu- lúppuugh (A⁶ 1) I might change it
- 151.4 la- la²hi? (B³ 1) I might say it
- 151.5 la- lásoa (B²) I might skin it
- 151.6 laG- lanno (C' 2.2) I might be acquainted with it
- 151.7 li- lí*is* (B⁸) I might cut it with a scissors
- 152.1 ki- kikkus (A' 2) you might do it right
- 152.2 ki- kihuap (A⁵ 4) you might forgive him
- 152.3 kih- kih²hi? (B³ 1) you might say it
- 152.4 ki... kimmah (C³) you might want it
- 152.5 ki+dR²- kigho (D' 1) you might talk to it
- 152.6 la- lawehe?p (F³ 1.2) you might hat him
- 152.7 la- láwu (F') you might give permission
- 153.1 la- lakkus (A' 2) he might do it right
- 153.2 la- láhuap (A⁵ 4) he might forgive him
- 153.3 lan- lan²hi? (B³ 1) he might say it
- 153.4 la... lamah (C³) he might want it
- 153.5 la+dR²- ladaho (D' 1) he might talk to it
- 153.6 la+mRw- lamahi (E³ 1.1) he might imitate it
- 153.7 la+mRw- lamu (F') he might give permission
- 151/3 la- laku (B' 1) I/he might belittle it
- 152/3 la- lanheič? (F²) you/he might fit it tightly

Allomorphs of 161 {no-}, 162 {na-}, 163 {na-}, 162/3 {na-}:

- 161.1 no- nokkuas (A' 2) I to do it right
- 161.2 nō- nondai (A⁵ 3) I to make it big

- 162.1 na- nasoa (B²) you to skin it
 162.2 nan- nanhuc? (B¹) you to put it down
 162.3 na... naša? (C¹ 1) you to make it bare
 162.4 na... nammo? (C³) you to want it
 162.5 na+ dR?- nádx (D⁴ 1) you to doctor it
 162.6 na- nawahi? (E' 1.3) you to hit it
 162.7 nan- nankiul? (B⁷) you to put it inside
 162.8 nan... nan'ohic? (B³ 2.2) you to overate
 163.1 na- nat'aos (333.3 + A³) they(pl.) to season it
 163.2 na- nacu (C² 1) he to scold it
 163.3 nan- nankiul? (B⁷ 1.2) he to put it inside
 163.4 na+ mRw- namahi? (E' 1.2) he to hit it
 163.5 na+ dR?- nad^h (D⁴ 1) he to doctor it
 163.6 na+ mRw- námu (F¹) he to give permission
 ✓ 163.7 na... nadoag? (G¹ 1.2) he to bury it
 ✓ 162/3.1 na- nakkuas (A¹ 2) you/he to do it right
 162/3.2 na- nándai (A⁵ 3) you/he to make it big
 162/3.3 nan- nan'ehi? (B³ 1) you/he to say it
 162/3.4 na+ dR?- nadaho (D¹) you/he to talk to it

6.4. Allomorphs of the class 200 prefixes.

Allomorphs of 211 {ta-}, 212 {ki-}, 213 {ko-}, 211/2/3

{ni-}, 211/2 {i-}:

- ✓ ³ ¹ ² 211.1 ta- tanhás (T²) I arose
 ✓ ³ ¹ ² 211.2 ti- tippuí? (V' + 321/2/3) we(dual) descended] V' is ^{assigned} to 211/2/3
 ✓ ³ ¹ ² 211.3 tá- táou? (U² 1.1) I fell
 ✓ ³ ¹ ² 211.4 tí- tíoui? (U² 1.1 + 321/2/3) we(dual) fell
 ✓ ³ ¹ ² 211.5 taN- timba'a (U³ 1.3) I made a loud(noize
 ✓ ³ ¹ ² 211.6 tin- timbain? (W' 1.3 + 321/2/3) we(dual) cried

- $w^3 v^1 u^1 t^2$ 212.1 ki- *kiyás* (T^1) you arose
- U^{24} 212.2 ki- *kiú?* (U^2 1.1) you fell
- $w^{12} w^3$ 212.3 kiN- *kimba'a* (U^3 1.3) you made a loud noise
- $\cancel{T}^{12} w^3$ 213.1 ko- *konbas* (T^2) he arose
- U^{24} 213.2 ko- *koma'i* (U^4 1.2) he stood up
- $w^{12} w^3$ 213.3 koN- *komba'a* (U^3 1.3) he made a loud noise
- $R^{12} s^{12} t^{12}$ 211/2/3.1 ni- *niggxogly* (R') I/he prepared ourselves
- s^{12} 211/2/3.2 ní- *níc'u* (S') I/he were spoiled
- $w^{12} U^3$ 211/2/3.3 nda- *ndama'aigh?* (U^1 1.1 + 432) we(pl. excl.)/ you(pl.) stood up
- $v^1 u^1$ 211/2.1 i- *ippú'tn* ($V' + 331$) we(pl.) descended
- \cancel{w}^{12} 211/2.2 í- *ikkotn* (U^2 2 + 331) we(pl.) died
- $w^{12} t^{12}$ 211/2.3 ti- *ti'ehil?* (U^1 2 + 321/2/3) we(dual) slept
- U^3 211/2.4 tí- *tíkkoi* (U^2 2 + 321/2/3) we(dual) died
- \checkmark $w^3 t^1$ 211/2.5 Palatalization of stem-initial consonant(s) *sséhigly* ✓
 (U' 1 + 331) we(pl.) ate
- $v^2 t^2$ 211/2.6 na- *nahétn* (V^2 1.1 + 331) we(pl.) passed by
- 211/2.7 tiN- *tiy'oai* (W^2 + 321/2/3) we(dual) walked around
- Allomorphs of 221 {nta-}, 222 {ŋgi-}, 223 {mba-},
 221/2/3 {mni-}, 221/2 {nti-}:
- $w^3 v^1 u^1 t^{12}$ 221.1 nta- *ntanbas* (T^2) if I arose
- U^{24} 221.2 ntá- *ntacu?* (U^2 1.1) if I fell
- $w^{12} w^3$ 221.3 ntAN- *ntamba'a* (U^3 1.3) if I made a loud noise
- 221.4 ntIN- *ntimba'ai* (U^3 1.3 + 321/2/3) if we(dual) made a loud noise
- $w^3 v^1 u^1 t^2$ 222.1 ŋgi- *ŋgiyás* (T^2) if you arose
- U^{24} 222.2 ŋgi- *ŋgiú?* (U^2 1.1) if you fell
- $w^{12} w^3$ 222.3 ŋgiN- *ŋgimba'a* (U^3 1.3) if you made a loud noise

- $\text{W}^3 \text{V}^1 \text{U}^1$ 223.1 mba- mbanhás (T^2) if he arose
- $\text{U}^2 \text{U}^4$ 223.2 mba- mbacu? ($U^1 1.1$) if he fell
- $\text{W}^1 \text{U}^3$ 223.3 mbaN- mbamba'a ($U^3 1.3$) if he made a loud noise
- $R^1 \text{U}^2 \text{U}^5$ 221/2/3.1 mni- mniggog̫ (R') if I/he prepared myself/himself
- $S^1 \text{U}^2$ 221/2/3.2 mni- mnic'u (S') if I/he were spoiled
- $\text{W}^2 \text{U}^4$ 221/2/3.3 mda- mdadoadn? ($W^1 + 331/2$) if we(pl. or excl. pl.)
/you(pl.) walked around + mdadoadn? if they(pl) had walked around
- $\text{S}^1 \text{U}^2$ 221/2.1 nti- ntippúi? ($V' + 321/2/3$) if we(dual) descended
- U^2 221/2.2 nti- nticui? ($U^1 1.1 + 321/2/3$) if we(dual) fell
- $\text{W}^3 \text{V}^1 \text{U}^1$ 221/2.3 mbi- mbippu'tn ($V' + 331$) if we(pl.) descended
- U^2 221/2.4 mbi- mbikei'k̫ ($U^2 1.2 + 331$) if we(pl.) fell

Allomorphs of 231 {la-}, 232 {ki-}, 233 {li-} 231/2/3

{ti-}, 231/2 {ta-}:

- $\text{W}^1 \text{V}^1 \text{U}^1 \text{T}^1$ 231.1 la- la'ehil? ($U' 2$) I sleep m p. 30
This is considered
231/2/3?
- V^2 231.2 ta- tassehi ($U' 1 + 321/2/3$) we(dual) eat
- $\text{W}^1 \text{V}^1 \text{U}^1 \text{T}^1$ 232 ki- ki'ehil? ($U' 2$) you sleep
- $\text{V}^1 \text{R}^1 \text{U}^2 \text{U}^3 \text{W}^3$ 233.1 li- liggog̫ (R') he prepares himself
- $S^1 \text{U}^2$ 233.2 li- lič'u (S') he is spoiled
- $\text{V}^1 \text{U}^1 \text{W}^1 \text{U}^2 \text{U}^3$ 233.3 #- 'ehil? ($U' 2$) he sleeps
- $\text{V}^1 \text{V}^1 \text{U}^1$ 231/2/3.1 ti- timme ($R^3 1$) I/you lose ourselves
- $\text{S}^1 \text{U}^1$ 231/2/3.2 ti- tic'u (S') I/you are spoiled
- $\text{V}^1 \text{U}^1 \text{T}^1$ 231/2/3.3 #- mban? ($W^3 + 331/2$) we(pl.)/you(pl.) visit
- U^1 231/2/3.4 wu- wuma'adn ($U^3 1.1 + 331$) we(pl.) make
a loud noise

- W^4 231/2/3.5 wu- wuma'igh ($U^4 1.1 + 331$) we(pl.) stand up
- 231/2/3.6 wa- wāgig̫? ($W^1 1.1 + 331$) we(pl.)/you(pl.) cry
- W^2 231/2/3.7 wa- wadoadn? ($W^2 1.1 + 331$) we(pl.)/you(pl.)

walk around

V¹ R¹²³⁴⁵ 231/2.1 ti- tiggogn (R') I/you prepare myself/yourself

S¹² 231/2.2 tí- tic'ui (s' + 321/2/3) we(dual) are spoiled

W¹²³ V¹²³ T¹²³ 231/2.3 ta- taméhi (T' 1.1 + 321/2/3) we(dual) live

Allomorphs of 241 {nta-}, 242 {ŋko-}, 243 {nda-},

241/2/3 {mba-}, 241/3 {nda-}, 241/2 {nta-}:

V² T¹ R⁵ 241.1 nta- ntawéhu (T' 1.2) if I live

T¹ R⁵ 241.2 nti- ntiwéhi (T' 1.2 + 321/2/3) if we(dual) incl. live

T¹ R⁵ 241.3 mbi- mbisáo'tn (R⁵ 1 + 331) if we(pl.) study

T¹ R⁵ 242.1 nta... ntawéhu (T' 1.2) if you live

T¹ R⁵ 242.2 nti... ntiwéhik? (T' 1.2 + 321/2/3 + 502)

if you(dual) live

T¹ R⁵ 242.3 mbi... mbišaok? (R⁵ 1 + 332) if you(pl.) study

W¹²³ V¹²³ U¹²³ 242.4 ŋko- ŋko'wéhil? (U' 2) if you sleep

V² V¹ U⁴ T¹ R³⁵ 243.1 nda- ndasao? (R⁵ 1) if he studies

S¹² 243.2 ndá- ndac'u (s') if he is spoiled

W¹²³ U¹²³ T¹ 241/2/3.1 mba- mbanéhi (V² 1.3 + 321/2/3) if we(dual) pass by

241/2/3.2 mba + Labialization of stem-initial consonant -

mba'wéhil? (U' 2) if I/he sleeps

W¹ 241/2/3.3 mba- mbahgig? (W' 1.1) if we(pl.)/you(pl.)/they(pl.)

cry

R¹²³⁴⁵ 241/2/3.4 nta- ntal'aho (333.4 + R⁴ 3) if they(pl.)

talk of themselves

S¹ 241/2/3.5 nta- ntattx (333.3 + S²) if they(pl.)

fill themselves up

V¹ 241/3.1 nda- ndappú? (V') if I/he descends

W¹²³ U¹²³ 241/3.2 mba- mba'wéhil? (U') if I/he sleep (mbawéha (U') if I/he sleep)

W⁴ R¹²³⁴ 241/2.1 nta- ntaddrogñ (R') if I/you prepare myself/yourself

W⁴ R¹²³⁴ 241/2.2 nti- ntichaoi (R⁴ 1) if we(dual) become

= v. 331-2 + 130

$\sqrt{U}^4 R^{12}$ 241/2.3 mbi- mbippudn ($R^2 2 + 331$) if we(pl.) escape

$T^2 S^1$ 241/2.4 ntá- ntac'u (S') if I/you are spoiled

$T^2 S^1$ 241/2.5 ntí- ntillx1 ($S^2 + 321/2/3$) if we(dual) fill up ourselves

$T^2 S^1$ 241/2.6 mbi- mbillxtn ($S^2 + 331$) if we(pl.) fill up ourselves

Allomorphs of 251 {ta-}, 252 {ko-}, 253 {la-}, 251/2

{ta-}, 251/2/3 {ta-}:

$\sqrt{T}^1 R^5$ 251.1 ta- tasao? (R^5) I might study

251.2 ti- tisaoi? ($R^5 + 321/2/3$) we(dual) might study

$T^1 R^5$ 251.3 i- isao?tn ($R^5 + 331$) we(pl.) might study

$T^1 R^5$ 252.1 ta... tasao? (R^5) you might study

252.2 ti... tisaoik? ($R^5 + 321/2/3$ 502) you(dual) might study

252.3 i... issaok? ($R^5 + 332$) you(pl.) might study

$W^1 V^1 U^1 R^5$ 252.4 ko- ko?ehil? ($U' 2$) you might sleep

$\sqrt{U}^1 T^1 R^5$ 253.1 la- lawehu ($T' 1.2$) he might be living

$T^2 S^1$ 253.2 la- lallx (S^2) he might fill himself

$U^4 R^{12}$ 251/2.1 ta- taddaogh? (R') I/you might prepare myself/yourself

251/2.2 ti- tiggoi? ($R' + 321/2/3$) we(dual) might prepare ourselves

$T^2 S^1$ 251/2.3 ta- tac'u (S') I/you might be spoiled

251/2.4 ti- tic'ui ($S' + 321/2/3$) we(dual) might be spoiled

\sqrt{U}^1 251/2.5 i- ichaotn ($R^2 1 + 331$) we(pl.) might become

$T^2 S^1$ 251/2.6 i- ic'utn ($S' + 331$) we(pl.) might be spoiled

\sqrt{R}^1 251/2.7 Palatalization of stem-initial consonant- g'odn
($R' + 331$) we(pl.) might prepare ourselves

W^1 251/2/3.1 Labialization of stem-initial consonant- ?ehil?
($U' 2$) I/he might sleep

W^1 / W^2 251/2/3.2 #- má'a (U^3) I/he might make a loud noise

W^3
not in phs.

R⁴⁵ 251/2/3.3 ta- talhaigh (333 + R³ 4) they(pl.) might remain behind

S² 251/2/3.4 ta- tattx (333 + S²) they(pl.) might fill themselves

W² W² 251/2/3.5 R¹ doa (W²) I/he might walk around
allomorphs of the stem-class 1.5 allomorphs of the

6.5. Distribution of class 100 and class 200 prefixes.

In order to define the distribution of the mode-aspect-person

prefixes they are arranged by their respective numbers into

sets A' through G² and R' through W³. A Set A' occurs with stem-class A', Set A² with stem-class A², etc.

Set A' : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1,
131/2.1, 133.1, 133.2 when 333 occurs, 141.1, 142.1, 143.1,
151.1, 152.1, 153.1, 161.1, 162/3.1.

Set A² : Same as Set A' except 133.3 occurs instead
of (hereafter symbolized by →) 133.2.

Set A³ : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1,
131/2.1, 133.1, 133.4 when 333 occurs, 141.1, 142.1, 143.1,
143.2 when 333 occurs, 151.1, 152.1, 153.1, 153.2 when 333
occurs, 161.1, 162/3.1, 163.1 when 333 occurs.

Set A⁴ : Same as Set A³ except that 133.5 → 133.4.

Set A⁵ : 111.3, 112.2, 113.2, 121.2, 122.2, 123.2,
131/2.2, 133.6, 133.5 when 333 occurs, 141.2, 142.2, 143.2,
151.3, 152.2, 153.2, 161.2, 162/3.2 ..

Set A⁶ : 111.3, 112.2, 113.2, 121.2, 122.2, 123.2, 131/2.3,
133.11, 133.4 when 333 occurs, 141.2, 142.2, 143.2, 151.3,
152.2, 153.2, 161.2, 162/3.2 ..

Set A⁷ : Same as Set A⁶ except 133.5 → 133.4.

≡ A'

Set B' : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.1,
 131.2 when 300 or 400 occur, 132.1, 133.2, 133.7 when 333
 occurs, 141/3, 142.1, 151/3, 152.1, 161.1, 162/3.1 .

Set B² : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.1,
 131.2 when 300 or 400 occurs, 132.1, 133.2, 133.7 when 333
 occurs, 141.5, 142.2, 143.1, 143.2 when 333 occurs, 151.5,
 152.1, 153.1, 153.2 when 333 occurs, 161.2, 162.1, 163.2,
 163.1 when 333 occurs.

Set B³ : 111.1, 112.3, 113.1, 121.1, 122.3, 123.1, 131.1,
 131.2 when 300 or 400 occurs, 132.1, 133.2, 133.7 when 333
 occurs, 141.3, 142.3, 143.3, 143.1 when 333 occurs, 151.4,
 152.3, 153.3, 153.1 when 333 occurs, 161.1, 162/3.3, 163.2
 when 333 occurs .

Set B⁴ : Same as Set B³ except 162.2 and 163.3 → 162/3.3 .

Set B⁵ : 111.1, 112.3, 113.1, 121.1, 122.3, 123.1, 131.1,
 132.1, 133.2, 141.3, 142.3, 143.3, 143.1 when 333 occurs,
 151.4, 152.3, 153.3, 153.1 when 333 occurs, 161.1, 162/3.1 .

Set B⁶ : Same as Set B³ except 131.6 → 131.2, and
 151.6 → 151.4 .

Set B⁷ : Same as Set B³ except that 151.5 → 151.4,
 and 161.2 → 161.1 .

Set B⁸ : 111.2, 112.3, 113.1, 121.1, 122.3, 123.1, 131.3,
 131.4 when 300 or 400 occurs, 132.1, 133.8, 133.7 when 333
 occurs, 141.3, 142.3, 143.3, 143.1 when 333 occurs, 151.7,
 152.3, 153.3, 153.1 when 333 occurs, 161.1, 162/3.3, 163.2
 when 333 occurs .

Set C' : 111.1, 112.1, 113.1, 121.1, 122.1, ~~123.1~~, 123.1,
 131.5, 131.6 when 300 or 400 occurs, 132.3, 133.9, 133.7 when
 333 occurs, 141.4, 142.1, 143.1, 151.6, 152.1, 153.1, 161.1,
 162/3.1 .

Set C² : Same as Set C' except 162.1 and 163.2 → 162/3.1 .

Set C³ : 111.1, 112.4, 113.1, 121.1, 122.4, 123.1, 131.1,
 131.2 when 300 or 400 occur, 132.1, 133.2, 133.7 when 333
 occurs, 141.3, 142.4, 143.4, 151.4, 152.4, 153.4, 161.1,
 162.4, 163.2 .

Set C⁴ : 111.1, 112.4, 113.1, 121.1, 122.4, 123.1,
 131.1, 131.2, when 300 or 400 occurs, 141/3, 142.4, 151/3,
 152.4, 161.1, 162.4, 163.2 .

Set C⁵ : 111.1, 112.4, 113.1, 121.1, 122.4, 123.1, 131.1,
 131.2 when 300 or 400 occurs, 132.1, 133.2, 133.7 when 333
 occurs, 141/3, 142.4, 151/3, 152.4, 161.1, 162.4, 163.2 .

Set C⁶ : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1,
 131.7, 131.11 when 300 or 400 occurs, 132.2, 133.5, 133.7
 when 333 occurs, 141.5, 142.1, 143.1, 143.2 when 333 occurs,
 151.5, 152.1, 153.1, 153.2 when 333 occurs, 161.2, 162.1,
 163.2, 163.1 when 333 occurs .

Set C⁷ : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.7,
 131.11, when 300 or 400 occurs, 132.1, 133.2, 133.7 when 333
 occurs, 141.5, 142.1, 143.1, 151.5, 152.1, 153.1, 161.2,
 162.3, 163.2 .

Set C⁸ : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.7,
 131.11 when 300 or 400 occurs, 132.2, 133.5, 133.7 when 333
 occurs, 141.5, 142.1, 143.1, 151.5, 152.1, 153.1, 161.2,
 162.3, 163.2 .

Set C⁹ : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.5,
 131.6 when 300 or 400 occurs, 132.3, 133.9, 133.7 when 333

occurs, 141.4, 142.1, 143.1, 151.6, 152.1, 153.1, 161.1, 162.3, 163.2 .

Set D' : 111.1, 112.5, 113.1, 121.1, 122.5, 123.1, 131.1, 131.2 when 300 or 400 occurs, 132.1, 133.2, 133.7 when 333 occurs, 141.3, 142.5, 143.5, 143.1 when 333 occurs, 151.4, 152.5, 153.5, 153.1 when 333 occurs, 161.1, 162/3.4, 163.2. when 333 occurs .

Set D² : Same as Set D' except 162.5 and 163.5 → 162/3.4, 163.2 occurs when 333 is present .

Set D³ : 111.1, 112.5, 113.1, 121.1, 122.5, 123.1, 131.7, 131.11 when 300 or 400 occurs, 132.2, 133.5, 133.7 when 333 occurs, 141.3, 142.5, 143.5, 143.1 when 333 occurs, 151.4, 152.5, 153.5, 153.1 when 333 occurs, 161.1, 162/3.4, 163.2 when 333 occurs .

Set D⁴ : 111.1, 112.5, 113.1, 121.1, 122.5, 123.1, 131.7, 131.11 when 300 or 400 occurs, 132.2, 133.5, 133.7 when 333 occurs, 141.3, 142.5, 143.5, 143.2 when 333 occurs, 151.4, 152.5, 153.5, 153.2 when 333 occurs, 161.1, 162.5, 163.5, 163.1 when 333 occurs ,

Set E' : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.5, 131.6 when 300 or 400 occurs, 132.3, 133.10, 133.7 when 333 occurs, 141.4, 142.1, 143.6, 143.1 when 333 occurs, 151.6, 152.1, 153.6, 153.1 when 333 occurs, 161.1, 162.6, 163.4, 163.2 when 333 occurs.

Set E² : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.5, 131.6 when 300 or 400 occurs, 132.3, 133.10, 133.7 when 333 occurs, 141.3, 142.1, 143.6, 143.1 when 333 occurs, 151.4, 152.1, 153.6, 153.1 when 333 occurs, 161.1, 162.1, 163.4, 163.2 when 333 occurs .

Set E³: 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.7, 131.11 when 300 or 400 occurs, 132.2, 133.4, 133.7 when 333 occurs, 141.5, 142.1, 143.6, 143.1 when 333 occurs, 151.5, 152.1, 153.6, 153.1 when 333 occurs, 161.2, 162.6, 163.4, 163.2 when 333 occurs.

Set E⁴: 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.7, 131.11 when 300 or 400 occurs, 132.2, 133.4, 133.7 when 333 occurs, 141.5, 142.1, 143.6, 143.2 when 333 occurs, 151.5, 152.1, 153.6, 153.2 when 333 occurs, 161.2, 162.1, 163.4, 163.1 when 333 occurs.

Set E⁵: 111.1, 112.1, 113.1, 121.1, 122.1, 123.1, 131.7, 131.11 when 320 or 420 occurs, 131.8 when 330 or 430 occurs, 132.2, 133.5, 133.7 when 333 occurs, 141.5, 142.1, 143.6, 143.1 when 333 occurs, 151.5, 152.1, 153.6, 153.1 when 333 occurs, 161.2, 162.6, 163.4, 163.2 when 333 occurs.

In the following three ^Ssets which correspond to stem classes F¹, F², and F³ the contrast between 110 and 160 is neutralized and the prefixes are here listed as 160.

Set F¹: 121.2, 122.7, 123.3, 123.4 when 333 occurs, 131.10, 132.5, 133.12, 133.5 when 333 occurs, 141.2, 142.7, 143.7, 143.2 when 333 occurs, 151.2, 152.7, 153.7, 153.2 when 333 occurs, 161.2, 162.1, 163.6, 163.1 when 333 occurs.

Set F²: 121.1, 122/3, 131.9, 132.5, 133.2, 141.1, 142/3, 151.1, 152/3, 161.1, 162/3.1.

Set F³: 121.1, 122.8, 123.6, 123.5 when 333 occurs, 131.9, 132.5, 133.12, 133.2 when 333 occurs, 141.1, 142.6, 143.6, 143.1 when 333 occurs, 151.1, 152.6, 153.6, 153.1 when 333 occurs, 161.1, 162.6, 163.4, 163.2 when 333 occurs.

virtually

Set G¹ : 111.1, 112.3, 113.1, 121.1, 122.3, 123.1, 131.1,
131.2 when 300 or 400 occurs, 132.1, 133.2, 133.7 when 333
occurs, 141.3, 142.3, 143.3, 143.1 when 333 occurs, 151.4,
152.3, 153.3, 153.1 when 333 occurs, 161.1, 162.8, 163.3,
163.2 when 333 occurs.

Set G² : 111.1, 112.1, 113.1, 121.1, 122.1, 123.1,
131.7, 131.11 when 300 or 400 occurs, 132.2, 133.5, 133.7
when 333 occurs, 141.3, 142.1, 143.4, 143.1 when 333 occurs,
151.4, 152.1, 153.4, 153.1 when 333 occurs, 161.1, 162.6,
163.7, 163.2 when 333 occurs.

Set R¹ : 211/2/3.1, 221/2/3.1, 231/2.1, 233.1, 241/2.1,
251/2.1, 241/2.2 and 251/2.2 when 320 or 420 occurs,
241/2.3 and 251/2.7 when 331, 332, or 430 occurs, 253.1.

Set R² : Same as *Set R¹* except 251/2.5 → 251/2.7.
Set R³ : 21/2/3.1, 221/2/3.1, 231/2.1, 233.1, 241/2.1,
243.1, 251/2.1, 251/2.2 when 320 or 420 occurs, 251/2.7
when 331, 332, or 430 occurs, (231/2/3.1, 241/2/3.4, and
251/2/3.3 when 333 occurs).

Set R⁴ : 21/2/3.1, 221/2/3.1, 231/2.1, 233.1, 241/2.1,
251/2.1, (241/2.2 and 251/2.2 when 320 or 420 occurs),
(241/2.3 and 251/2.7 when 331, 332, or 430 occurs), (231/2/3.1,
241/2/3.4, 251/2/3.3 when 333 occurs).

Set R⁵ : 211/2/3.1, 221/2/3.1, 231/2.1, 233.1, 241.1,
242.1, 243.1, 251.1, 252.1, 253.1, (241.2, 242.2, 251.2, 252.2,
when 320 or 420 occurs), 241.3, 242.3, 251.3, 252.3, when
331, 332, or 430 occurs), 231/2/3.1, 241/2/3.4, 251/2/3.3,
when 333 occurs).

Set S¹ : 211/2/3.2, 221/2/3.2, 231/2.2, 233.2, 241/2.4, 243.2, 251/2.3, 253.2, (241/2.5 and 251/2.4 when 320 or 420 occurs), (241/2.6 and 251/2.6 when 331, 332, or 430 occurs).

Set S² : Same as Set S¹ except when 333 is present
 $231/2/3.2 \rightarrow 233.2$, $241/2/3.5 \rightarrow 243.2$, $251/2/3.4 \rightarrow 253.2$.

Set T' : 211/2/3.1, 221.1, 231.1, 232, 241.1, 242.1, 243.1, 251.1, 252.1, 253.1, (231/2.3, 241.2, 242.2, 251.2, 252.2 when 320 or 420 occurs), 211/2.5, 231/2/3.3, 241.3, 242.3, 251.3, 252.3, when 331, 332 or 430 occurs), (213.1, 231/2/3.3, 241/2/3.1 when 333 occurs).

Set T² : 211.1, 212.1, 213.1, 221.1, 222.1, 241/2.4, 251/2.3, 253.2, (211/2.3, 221/2.1, 241/2.5, 251/2.4, when 320 or 420 occurs), (211/2.6, 241/2.6, 251/2.6, when 331, 332, or 430 occurs). Note that 230 does not appear in this class.

Set U' : 211.1, 212.1, 213.1, 221.1, 222.1, 223.1, 231.1, 233.3, 241/3.2, 242.4, 251/2/3.1, 252.4 when 300 or 400 is absent, (211/2.3, 221/2.1, 231/2.3, when 320 or 420 occurs), (211/2.1, 221/2.3 when 330 or 430 occurs).

Set U² : 211.3, 212.2, 213.2, 221.2, 222.2, 223.2, 231.1, 232, 233.3, 241/3.2, 242.4, 251/2/3.2, 252.4 when 300 or 400 is absent, (211/2.4, 221/2.2, 231/2.3, 241/2/3.1 when 320 or 420 occurs), (211/2.2, 221/2.4, 241/2/3.1, when 330 or 430 occurs).

Set U³ : 211.5, 212.3, 213.3, 221.3, 222.3, 223.3, 231.1, 232, 233.3 when 333 is absent, 241/3.2, 242.4,

251/2/3.2, 252.4 when 300 or 400 is absent, (211.6, 221.4, 231/2.3 when 320 or 420 occurs), (211/2/3.3, 231/2/3.4, when 330 or 430 occurs).

Set U' : 211.3, 212.2, 213.2, 221.2, 222.2, 223.2, 231.1, 232, 241/2.1, 243.1, 251/2.1, 253.1, (211.4, 221/2.2, 231/2.3, 241/2.2, 251/2.2, when 320 or 420 occurs), (221/2/3.3, 231/2/3.5, 241/2.3, 251/2.5, when 331, 332, or 430 occurs).

Set V' : 211.1, 212.1, 213.1, 221.1, 222.1, 223.1, 231.1, 232, 233.3, 233.1 when 333 occurs, 241/3.1, 242.4, 243.1 when 333 occurs, 251.1, 252.4, 253.1, (211/2.3, 221/2.1, 231/2.3, 251/2/3.2, when 320 or 420 occurs), (211/2.1, 221/2.3, 231/2.1, 251/2.7, when 331, 332, or 430 occurs).

Set Y² : 211.1, 212.1, 213.1, 221.1, 222.1, 223.1, 231.2, 232, 231/2/3.1 when 333 occurs, 241.1, 242.4, 243.1, 251.1, 252.4, 253.1, (211/2.3, 221/2.1, 231/2/3.1, 241/2/3.1, 251/2.2, when 320 or 420 occurs), (211/2.6, 221/2.3, 231/2/3.1, 241/2.3, 251/2.5, when 331, 332, or 430 occurs).

Set W' : 211.5, 212.3, 213.3, 221.3, 222.3, 223.3, 231.1, 232, 233.3, 241/3.2, 242.4, 251/2/3.2 but 252.4 when 300 or 400 is absent, (211.6, 231/2.3, 241/2/3.1, when 320 or 420 occurs), (241/2/3.3 when 330 or 430 occurs).

Set W² : 211.5, 212.3, 213.3, 221.3, 222.3, 223.3, 231.1, 232, 233.3, 241/3.2, 242.4, 251/2/3.5, but 252.4 when 300 or 400 is absent, (211/2.7, 231/2.3, 241/2/3.1, 251/2/3.5, when 320 or 420 occurs), (211/2/3.3, 221/2/3.3, 231/2/3.7, 241/2/3.1, when 330 or 430 occurs).

Set W³ : 211.1, 212.1, 213.1, 221.1, 222.1, 223.1, 231.1, 232, 233.3, 241/3.2, 242.4, 251/2/3.2, but 252.4 when

300 or 400 is absent, (211/2.3, 221/2.1, 231/2.3, 241/2/3,1, 251/2/3.2, when 320 or 420 occurs), (211/2.5, 221/2.3, 231/2/3.3, 241/2/3.1, 251/2/3.2, when 331, 332, or 430 occurs).

6.5. Allomorphs of classes 300, 400, and 500. When listing the allomorphs of ~~these~~ classes we make statements regarding morphophonemic processes which alter their phonemic shapes and/or the phonemic shapes of the stems with which they occur. Most of these alterations could be treated as replacive allomorphs, which would make the description of them very complicated. It is felt that the present treatment in terms of reductions, assimilations, etc., is more economical and consistent with the structure of the entire language. The following symbols are used:

C for any consonant, V for any vowel, \bar{V} for any vowel occurring with the phoneme of nasalization, SF_f for stem-final, ~~cons~~, SI_f for stem-initial, ~~cons~~. Parentheses indicate potential occurrence of the enclosed item(s).

6.5.1. Morpheme 321/2/3 has one allomorph -i (non-excl. dual 1-2-3-pers.) ~~(that)~~ occurs with all stems. -i occurs nasalized when juxtaposed to a nasalized vowel. -i undergoes metathesis with SF(C) and if the SF(C) is \bar{v} or $\bar{g}\bar{v}$ the SF(C) is lost unless another suffix follows. In one dialect -i does not undergo metathesis with SF p. -i + SF i(C) > i(C). Vowels e, a, \bar{u} occurring in an unstressed second syllable of a stem are lost when -i occurs, and e, a, \bar{u} occurring as the second member of a vowel cluster tend to be lost when -i occurs. -i occurs ~~sing~~ with SF odn? > oih?. Examples: ndomm̩ei (ndo- +

-mme + -i) they (dual) lost it, líññé?xi (li- +
 -nné?x + -i) they (dual) pity it, tummi (tu- + -mmi +
 -i) we (dual) have it, tingaoi? (ti- + -yao? + -i)
we (dual) rest, lo?o?oic? (lo- + -o?oic? + -i) they (dual)
show it, wa?ahoin? (wa- + -?ahodn? + -i) they (dual)
ask it, wupá?api (wu- + -pá?api + -i) they (dual) change it.

6.5.2. ~~Allomorphs of~~ 421 {-bm?}, 431 {-t?n}, 331 {tn},

331/2 {-dn}, 332 {-k?i} now ~~follows~~,

421 -bm? timmembm? (ti- + -mme + -bm?) we (dual excl.)
lost ourselves.

431.1 -bm? nommembm? (no- + -mme + -bm?) we (pl. excl.)
lost it,

431.2 -dn? nocudn? (no- + -cu + -dn?) we (pl. excl.)
scolded it,

431.3 -t?n nimmet?n (ni- + -mme + -t?n) we (pl. excl.)
lost ourselves.

331 -tn timmetn (ti- + -mme + -tn) we (non-excl. pl.)
lose ourselves.

331/2 -dn nommedn (no- + -mme + -dn) we (non-excl. pl.)
lost it, nimmedn (ni- + -mme + -dn) you (non-excl. pl.)
lost it.

332.1 -k?i tillek?i (ti- + -llx + -k?i) you (non-excl. pl.) fill up yourselves.

332.2 -t?n timmet?n (ti- + -mme + -t?n) you (non-excl. pl.) lose yourselves.

332.3 -dn ippudn? (i- + -ppú? + -dn?) you (non-excl. pl.) descended.

332.4 -k?i tichak?i (ti- + -chao + -k?i) you
 (non-excl. pl.) become.

Distribution of the allomorphs above, 421 occurs with all stems. 431.1 occurs with all stems in classes A - G except stems A'6 and C'1; ~~these~~ with 431.2 occurs. The particular allomorph of 431 and 332 occurring with stems in classes R - W is noted by parentheses in 431; e.g. -dd^gogn (R') occurs with 332.1 (-k^gñ) and 431.2 (-dn^g), etc. 331 occurs with all stems in classes R - W; a morpheme of class 200 must be present. 331/2 occurs with all stems in classes A - G; a morpheme of class 100 must be present.

is now stated.

Rules governing the allomorphs above. Unstressed second V of clusters ao(?), &o, iu, eu, oi, are lost before -bm? and if a sequence aCo, &Co, iCu, eCu, or oCi occurs before -bm? the second V is replaced by a vowel identical with the first (aCo + -bm? > aCabm? etc.). Before -bm? SF i or ai > & and SF i or ai > & ; if a stem contains two syllables the V of the first syllable also > &. Examples. tichabm? (ti- + -chao + -bm?) we (dual excl.) become, tata[?]abm? (tá- + -ta[?]o + -bm?) we (dual excl.) prevent it, tóndam? (tó- + -ndai + -bm?) we (dual excl.) make it big, túm[?]abm? (tú- + -ma[?]i + -bm?) we (dual excl.) erect it.

Changes regarding a suffix containing a voiced stop and a nasal consonant (-bm?, -dn, -dn?). Voiced stop of the suffix drops when V precedes. SF ? drops in sequence V? when followed by a suffix containing ?, and SF ? undergoes metathesis with a suffix containing no ?. Examples. tummim? (tú- + -mmi + -bm?) we (dual excl.) have it, tasábm? (ta- + -sa[?] + -bm?) we (dual excl.) make it bare, tasádn? (ta- + -sa[?] + -dn) we (non-excl. pl.) make it bare.

Changes regarding a suffix containing a voiceless stop and a nasal consonant (-tn, -t[?]n, -k[?]n, -k[?]). ? and voiceless stop of a suffix drops if SF C is ?, but SF i? + -tn > i[?]k[?], i? + -t[?]n > i[?]n, i? + -k[?]n > i[?]k[?]; if the SF sequence is i? a voiceless stop of a suffix is lost. SF s drops when in sequence Vs when suffix containing a voiceless stop plus a nasal C occurs, but SF Vs + -bm? > sn? and SF Vs + -dn > sn. SF qo? + -bm? or -dn > qsn? and SF i[?]c? + -bm? or -dn > i[?]sn?.

(Examples)

tikeheⁿ (ti- + -teheⁿ + -tⁿ) we(pl. excl.) kneel
 k^wei^kiⁿ (Labialization of SIC + -keiⁿ + -tn) we(non-excl.
 pl.) might fall, ti^ehiⁿ (ti- + -^ehiⁿ + -tn) we
 (non-excl. pl.) say of ourselves, to^waosnⁿ (to- + -^waos +
 -dn) we(non-excl. pl.) season it, inhatⁿ (i- + -nhás +
 -tn) we(non-excl. pl.) arise, to^oq^osnⁿ (to- + -^oq^ocⁿ +
 -bmⁿ/dn) we(excl./non-excl. pl.) show it, tandaïsnⁿ (ta- +
 -ndaioⁿ + -bmⁿ) we(excl. pl.) like it, kii^gaisnⁿ (ki- +
 -ndaioⁿ + -dn) you(non-excl. pl.) like it.

Changes regarding the above suffixes and SF velar consonants. SF g^h or g^h? + -bmⁿ > -bmⁿ. SF g^h + -dn or -tn > dn but SF igh + -dn or -tn > ign. SF ignⁿ + -dnⁿ, tⁿn, -dn, or -tn > ighⁿ. SF g^h preceded by V other than i + -dnⁿ or + -kⁿ) > dnⁿ and g^h? respectively. Examples. tigg^hbmⁿ (ti- + -ddxog^h + -bmⁿ) we(dual excl.) prepare ourselves, tigg^hodn (ti- + -ddxog^h) + -tn) we(non-excl. pl.) prepare ourselves, ss^wehigyn (Labialization of SIC + -ssehig^h + -tn) we(non-excl. pl.) might eat, tuwwigyn (tu- + -wwig^h + -dn) we(non-excl. pl.) gather together something, toccighⁿ (to- + -ccighⁿ + -dn) we(non-excl. pl.) clean it, tigg^hodnⁿ (ti- + -ddxog^h + -dnⁿ) we(excl. pl.) prepare ourselves, tigg^hogyⁿ (ti- + -ddxog^h + -kⁿ) you(non-excl. pl.) prepare yourselves,

Changes regarding the above suffixes and specific stem-final consonants. SF dnⁿ + -dnⁿ, -bmⁿ, -tn, or -dn > dnⁿ. wadoadnⁿ (wa- + -doadnⁿ + -dnⁿ/-tn) we(non-excl. or excl. pl.) walk around. SF dn + -bmⁿ > dnⁿ, but SF dn +

-dn or -tn > dn. takke^éedn? (ta- + -kke^éedn + -bm?) we(excl. dual or pl.) pull it, wuma^áadn (wu- + -ma^áadn + -tn) we(non-excl. pl.) make a loud noise.

SF Vp + -bm? or -t[?]n > Vp[?]m; SF p + -tn, -dn, or -k[?] > pm, but SF [?]p + -bm? or -dn > [?]pm. tihé^éep[?]m (ti- + -ne^éep + -bm?[?]/t[?]n) we(excl. dual)/we(excl. pl.) appease him, towéhe^épm (to- + -wehe^ép + -bm?[?]/dn) we(non-excl./excl. pl.) hat him.

SF l[?] + -bm? or -dn > l[?]n. SF l[?] + -t[?]n or -tn > l[?]k[?]. tasil[?]n (ta- + -s^Wil[?] + -bm?[?]/-dn) we(non-excl./excl. pl.) wash it, ^Wéhi[?]k[?] (Labialization of SIC+ -[?]éhil[?] + -tn/t[?]n) ^{we}(non-excl./excl. pl.) might sleep.

SF Vt + -bm? > t[?]n; SF Vt + -dn > tn. tokk^We[?]et[?]n (to- + -kk^We[?]et + -bm?) we(excl. dual or pl.) defend it, tohu[?]utn (to- + -hu[?]ut + -dn) we/you(non-excl. pl.) are accustomed to it.

SF e[?]t + -t[?]n or -tn > e[?]tn. tikehe[?]tn (ti- + -tehe[?]t + -tn/t[?]n) we(non-excl./excl. pl.) get married.

SF on + -tn > on; SF on + -t[?]n or -dn? > on?. tih[?]on (ti- + -nh[?]on + -tn) we(non-excl. pl.) deceive ourselves, tih[?]on? (ti- + -nh[?]on + -t[?]n/-dn?) we(excl. pl.)/you(non-excl. pl.) deceive ourselves/yourselfes.

SF an? + -bm?, -tn, or -t[?]n > an?. mban? (#- + -mban? + -bm?[?]/tn/-t[?]n) we(dual excl.)/we(non-excl./excl. pl.) visit.

SF Vmp + -dn > Vm, SF Vmp + -bm? > Vm?. tonhom (to- + -nhomp + -dn) we/you(non-excl. pl.) deceive him, ton[?]ch[?]m? (to- + -n[?]ch[?]m + -bm?) we(excl. pl.) endure it.

SF aŋ + -dn > an. wakkaŋan (wa- + -kaŋaŋ + -dn)
we (non-excl. pl.) grab it.

6.5.3. ~~Number~~^{allomorphs of} 333 { ?- } are now listed.

333.1 ?- lak'ahi? (la- + ?- + -k'ahi?) they (pl.) might believe it.

333.2 h- lamhe (la- + h- + -mme) they (pl.) might lose it.

333.3 t- lathu'u (la- + t- + -hu'u) they (pl.) might be able to do it.

333.4 l- lal'ehi? (la- + l- + -'ehi?) they (pl.) might say it.

333.5 #- latto (la- + #- + -tto) they (pl.) might kill it.

333.6 -t lachaot (la- + -chao + -t) they (pl.) might become.

333.7 b- labu (la- + b- + -wu) they (pl.) might give permission.

The occurrence of these allomorphs is noted by parentheses in ~~4~~; e.g. -kkúahi? (A' 1) occurs with 333.1.

Morphophonemic changes involved when the above allomorphs occur. ?- and h- undergo metathesis with SI C(C). SI s > c when ?- or h- occurs. Clusters of identical consonants reduce to one with ?- or h- (h- + SI s > ch, h- + SI mm > mh, ?- + SI tt > t?, etc.). h- + SI nd > nth and h- + SI ng > nh. Examples. wumhe (wu- + h- + -mme) they lose it, tichaō? (ti- + h- + -sao?) they study, wam'ohi? (wa- + ?- + -mohi?) they deny it, tipkhao? (ti- + h- + -ngao?) they rest, wanthal (wa- + h- + -ndai) they make it big. ?- + SI ll > t?. wat'ehi? (wa- + ?- + -llehi?) they remove it.

t- + SI ll > tt; t- + SI ww > pp. tattxog? (ta- + t- + -llxog?) they ride, wuppigh (wu- + t- + -wig?) they gather together something.

l- + SI t > lh in one-syllable stems or if a ? occurs

in the stem. lhug^y (#- + h- + -tug^y) they guard it.

① l- + SI d or t > l? if h occurs somewhere in the stem.
til^yehe? (ti- + l- + -tehe?) they kneel.

l- + SI nd > lh. lhaič? (#- + l- + -ndaič?)
they like it.

b- + SI w or p > b. báho? (#- + b- + -waho?)
they see it, bai (#- + b- + -pai) they own it.

With -t there occurs regressive assimilation of SF C(C) to the articulation point of the suffix; -t undergoes metathesis with SF ? if a C immediately precedes the ?.

lippudnt (li- + -ppug^y) + -t) they escape, ssehig^yk
(#- + -ssehig^y) + -t) they eat, wadoadnt? (wa- +
-doadn? + -t) they walk around.

SF s drops before -t. lánhat (lá- + -nhas + -t)
they arise.

6.5.4. Morpheme 502 {k-} occurs with stems in classes R - W; a morpheme of class 200 must be present.

502.1 k- kničhao (k- + ni- + -chao) you became ;

502.2 -k? nichaoik? (ni- + -chao + -i + -k?) you(dual)
became .

SF t > k following -i and when -k? occurs following there is reduction of the cluster of identical consonants.

kikke^yik? (ki- + -kk^ye^yet + -i + -k?) you(dual) defend it .

6.4. Distribution of stem allomorphs

of stems listed in the

- (IV) A⁷ 3.2 occurs when 333 is present; 3.1 elsewhere.

(IV) B⁷ 1.1 occurs when 130 is present; 1.2 when 112, 122, 142, or 152 is present; 1.3 elsewhere. (B⁷ 1.3 has an alternate shape which is indicated by ~ which occurs following a prefix ending in n. Cf. lahu[?] (la- + -hu[?]) I might put it down, lanhiuc[?] (lan- + -hiuc[?]) he might put it down. (Other phonologically determined allomorphs listed in A⁷ follow prefixes ending in d, and are not mentioned again in this paper. Cf. ~~I might hear it, ladu[?] (la- + dR[?] + -du[?]) he might hear it;~~ ~~I might hear it, ladu[?] (la- + dR[?] + -du[?]) he might hear it;~~ la'e'e (la- + e'e) I might set it apart, lade'u (la + dR[?] + e'e) he might set it apart.)

D^{2.1} (IV) B⁷ 1.2 occurs when 112, 122, 142, 152, or 162 is present; 1.1 elsewhere.

(IV) C⁷ 3.1 occurs when 130 or 121 is present; 3.2 elsewhere.

(IV) C⁷ 1.2 occurs when 112, 122, 132, 142, or 152 is present; 1.1 occurs when 131 or 133 is present; 1.3 elsewhere.

(IV) C⁷ 2.2 occurs when 112, 122, 142, 152, or 162 is present; 2.1 elsewhere.

(IV) C⁷ 3.2 occurs when 142 or 152 is present; 3.1 elsewhere.

(IV) C⁷ 4.1 occurs when 130 or 121 is present; 4.3 when 112, 122, 142, 152, or 162 is present; 4.2 elsewhere.

(IV) C⁷ 1.2 occurs when 112, 122, 142, 143, 152, 153, 162, or 163 is present; 1.1 elsewhere.

(IV) C⁷ 2.2 occurs when 112, 122, 142, 143, 152, 153, 162, or 163 is present; 1.1 elsewhere.

- (f) C⁸1.2 occurs when 143, 153, or 163 is present; 1.1 elsewhere.
- (g) C⁹2.2 occurs when 143, 153, or 163 is present; 2.1 elsewhere.
- (h) C⁹1.1 occurs when 112, 122, 130, 142, or 152 is present; 1.2 elsewhere.
- (i) C⁹2.1 occurs when 112, 122, 130, 142, or 152 is present; 2.2 elsewhere.
- (j) C⁹3.1 occurs when 112, 122, 130, 142, or 152 is present; 3.2 elsewhere.
- (k) D²1.2 occurs when 112, 122, 142, 152, or 162 is present; 1.1 elsewhere.
- (l) D²2.1 occurs when 121 or 140 is present; 2.3 occurs when 112, 122, 142, 152, or 162 is present; 2.2 elsewhere.
- (m) D³1.1 occurs when 111, 113, 121, 123, 141, 151, or 161 is present; 1.2 elsewhere.
- (n) D³2.1 occurs when 111, 113, 121, 123, 141, 151, or 161 is present; 2.2 elsewhere.
- (o) D³3.1 occurs when 111, 113, 121, 123, 141, 151, or 161 is present; 3.2 elsewhere.
- (p) E'1.1 occurs when 130 is present; 1.2 occurs when 141 or 151 is present; 1.3 occurs when 112, 122, 142, 152, or 162 is present; 1.4 elsewhere.
- (q) E'2.1 occurs when 130, 141, or 151 is present; 2.2 elsewhere.
- (r) E²1.1 occurs when 130 is present; 1.2 occurs when 141 or 151 is present; 1.3 occurs when 121 is present; 1.5 occurs when 112, 122, 142, 152, or 162 is present; 1.4 elsewhere.
- (s) E³1.1 occurs when 143, 153, or 163 is present; 1.2 occurs when 130, 141, or 151 is present; 1.3 elsewhere.

- W E³ 2.1 occurs when 143, 153, or 163 is present; 2.2 occurs when 130, 141, or 151 is present; 2.3 elsewhere.
- E⁴ ~~E⁴ 1.2 occurs when 130, 141, or 151 is present; 1.1 elsewhere.~~
- G⁴ E⁵ 1.1 occurs when 130, 141, or 151 is present; 1.2 occurs when 143, 153, or 163 is present; 1.3 elsewhere.
- G⁴ E⁵ 2.1 occurs when 130, 141, or 151 is present; 2.2 occurs when 143, 153, or 163 is present; 2.3 elsewhere.
- G⁴ F³ 1.1 occurs when 111, 121, 131, 141, 151, 161, or 333 is present; 1.2 elsewhere.
- G⁴ F³ 1.2 occurs when 122, 132, 142, 152, or 162 is present; 1.1 elsewhere.
- G⁴ G' 1.2 occurs when 111, 113, 121, 123, 141, 143, 151, 153, 161, 162, or 163 is present; 1.1 elsewhere.
- G⁴ G² 1.2 occurs when 112, 122, 142, 143, 152, 153, 162, or 163 is present; 1.1 elsewhere.
- G⁴ G² 2.2 occurs when 112, 122, 142, 143, 152, 153, 162, or 163 is present; 2.1 elsewhere.
- G⁴ G² 3.2 occurs when 112, 122, 142, 143, 152, 153, 162, or 163 is present; 3.1 elsewhere.
- G⁴ T' 1.1 occurs when 230 is present and 330 or 430 is absent; 1.4 occurs when 230 and 331, 332, or 430 is present; 1.3 occurs when 230 plus 333 are present and whenever 330 or 430 occur in other places; 1.2 elsewhere.
- G⁴ U^{3.1} occurs when 230 is present; 3.2 occurs when 240 or 250 is present; 3.3 elsewhere.
- G⁴ U² 1.2 occurs whenever 330 or 430 is present; 1.1 elsewhere.
- G⁴ U³ 1.1 occurs whenever 330 or 430 is present; 1.3 occurs when 210 or 220 is present (and 330 or 430 is absent); 1.2 elsewhere (when 330 or 430 is absent).

- (X) U¹l.1 occurs whenever 330 or 430 is present; l.2 occurs when 230 is present (and 330 or 430 is absent); l.3 elsewhere (when 330 or 430 is absent).
- (C) V²l.1 occurs whenever 330 or 430 is present; l.3 occurs when 242.4 or 252.4 are present; l.2 elsewhere (when 330 or 430 is absent).
- (C) W¹l.1 occurs when 330 or 430 is present; l.3 occurs when 210 or 220 is present (and 330 or 430 is absent); l.2 elsewhere (when 330 or 430 is absent).
- (C) W²l.1 occurs whenever 330 or 430 is present; l.3 occurs when 210 or 220 is present (and 330 or 430 is absent); l.2 occurs elsewhere (when 330 or 430 is absent).

7. Person meanings in sequence with class 200.
in the preceding sections
 Examples cited ~~here~~ have not always reflected the whole significance of the morpheme numbers containing hybrid unit classes. ni- (211/2/3) is set up as belonging to unit classes 01, 02, and 03. In terms of meaning, when 211/2/3 occurs, the ambiguity as to person is nearly always rendered unambiguous by the presence of a morpheme belonging to the 300, 400 or 500 century classes but whose unit class is unambiguous. Cf. niggógn (ni-[211/2/3.1] + -ddxogṇ) I/he prepared myself/himself; kniggógn (k- [502.1] + ni-[211/2/3.1] + -ddxogṇ) you prepared yourself; niggódn (ni-[211/2/3.1] + -ddxogṇ + -dn[331.1]) we (non-excl. pl.) prepared ourselves; niggódn? (ni-[211/2/3.1] + -ddxogṇ + -dn? [431.2]) we (pl. excl.) prepared ourselves; niggók? (ni-[211/2/3.1] + -ddxogṇ + -k? [332.1]) you (pl.) prepared yourselves; niggódn^t (ni-[211/2/3.1] + -ddxogṇ + -t[333.6]) they (pl.) prepared themselves.

The total person value of a given sequence is equal to the person value common to all of the affixes present. That is, the total person value is equal to the logical product¹² of the unit class(es) belonging to century class 100 or 200 multiplied by the unit class(es) belonging to century classes 300, 400, or 500. nigḡodn (211/2/3 × 331 = 1-pers.)¹³ we(non-excl. pl.) prepared ourselves; nigḡok?_y (211/2/3 × 332 = 3-pers.) ^{you}they(pl.) prepared ^{your}themselves; nigḡodnt (211/2/3 × 333 = 3-pers.) they(pl.) prepared themselves; lakudn (151/3 × 331/2 = 1-pers.) we(non-excl. pl.) belittled it.

However, in the example nigḡoi (211/2/3 + R' + 321/2/3) we(dual)/they(dual) prepared ourselves/themselves, only 1-3-pers. meaning categories are cited as present in the example even though the logical multiplication yields 1-2-3-pers. value. This is due to the fact that 2-pers. is always overtly marked by 332 or 502 when an example occurs with only 2-pers. meaning present: knigḡoigij (502 × 211/2/3 = 2-pers. you prepared yourself; nigḡoighj? (211/2/3 × 321/2/3 × ⁵⁰²~~332~~ = 2-pers.) you(^{dual}) prepared yourselves; nigḡok?_y (211/2/3 × 332 = 2-pers.) you(pl.) prepared yourselves).¹⁴

Footnotes

¹

Pame, a member of the Otomi language family, is spoken in a few places near the southeast border of the state of San Luis Potosí, Mexico. The analysis presented here is based on the speech of Cresenciano Mar, twenty eight years old, a member of a speech community numbering about 1300 Indians in the area of Santa María Acapulco, S.L.P. Data were gathered in 1951-2 under the auspices of the Summer Institute of Linguistics.

A tentative phoneme list includes consonants p, t, k, ?, b, d, g, m, n, γ, c(ts), č, s, š, l, l^y, r, h, y, w(voiced bilabial fricative), f(occurring in Spanish loan words). Alternate interpretations of the labialization and palatalization of consonants are possible; in this paper labialization is written as C^w when occurring, and palatalization is written only word-initially as C^y as it is predictable in other positions in the word. There is evidence for an alternate interpretation of labialization and palatalization as clusters of C plus w and C plus y. The vowels are i, e, ɿ, a, o, u. There is a phoneme of nasalization (ñ) which may occur with any of the above vowels. There are three phonemes of tone-stress, high ('), low (``), and falling (^); only one tone-stress may occur with each word and it is written over the vowel which takes the onset of the tone-stress, although all vowels in clusters do share the particular tone-stress present. For further information see Phonemes and PAME(Otomi) Morphophonemes of North Pame(unpublished), by Lorna F. Gibson. Phonemics and Morphophonemics

Appreciation is hereby extended to William Wonderly, Lorna Gibson, and Anne Olson for their help in the preparation of this paper.

2 A fourth contrast not reflected by the numbering system is between real (perfective or progressive) and unreal (perfective or progressive). The potential and neutral aspects do not share this fourth contrast.

3 In the corpus are about 50 more verbs for which only partial paradigms are available and therefore not yet classified. If complete data were available it is questionable that either the number of stem classes or the number of prefix allomorphs would be substantially increased.

4 This is the first example cited of a prefix allomorph having discontinuous tone^{-stress} which replaces the tone-stress of the stem; i.e. ni...` + -mma`y > nimma`y.

5 The shape of the prefix is ni plus d replacing stem-initial ? ; d > g following i.

6 Both the unreal-perfective and unreal-progressive are translated with the word if, as in if I could have, I would have carried it.

7 Many speakers do not use 122 and 123 as given here but use 112 and 113 instead; i.e. they make no distinction in form as 122 and 112 or 123 and 113.

⁸ Some speakers use wa- in place of ta- when 330 or 430 occurs; some use both, ta- when 320 or 420 is present and wa- when 330 or 430 is present.

⁹ The neutral aspect always follows ma future as *yik* in *ma nokkuas I will do it right*; or follows one of three auxiliary verbs as in *lammah nakkwas he wants to do it right*.

¹⁰ Palatalized ss > *ss*.

¹¹ Falling tone-stress replaces high tone-stress.

¹² See William L. Wunderly, Lorna F. Gibson, and Paul L. Kirk, Number in Kiowa: Nouns, Demonstratives, and Adjectives, IJAL 20.1-7 (1954).

¹³ The symbol *X* indicates logical multiplication.

¹⁴ Verb affixes not included in this analysis are the prefixes occurring in the imperative verb forms, and the object suffixes.