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**The Morpho-Phonology of Transitive-Antipassive Verb Pairs
in Veracruz Huasteco**
(preliminary version)*

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Introduction

Huasteco data in the area of transitive-intransitive verb morphology in general, and particularly of antipassives, has not been readily available. For instance, Dayley (1981:55) lists no antipassive for Huasteco and even states, '...there does not appear to be an antipassive of any kind in Huasteco'. The purpose of this paper is to make relevant data available and to present an analysis (as yet incomplete) of the phonological alternations that are evidenced.

The antipassive "is, in some sense, the converse of the passive. What it does is allow the removal of the patient from being in direct relationship with the verb" (Dayley 1978:35). "It indicates that the patient has been omitted from the discussion of a normally transitive activity" (Dayley 1981:12). We here consider to be an antipassive any intransitive verb which is paired with a transitive but differs from it in that the direct object expected by the transitive verb is not expected by the antipassive. We have avoided trying to decide the question of whether in a given instance the transitive or the antipassive is more 'basic'.

The paper is organized as follows:

1. Basic Antipassive Morphemes and Patterns
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 - 1.2 -l
 - 1.3 -om
2. Other Antipassive Patterns
 - 2.1 Combinations of Antipassive Endings
 - 2.2 -n and Other Odd Pieces; Truncated Stems
 - 2.3 -um?
3. Appendix

Differing transitive-marking patterns and phonological rules are discussed as they come up in the examples.

1. Basic Antipassive Morphemes and Patterns

1.1 -x

1.1.1. -x with -x Transitives; Str, MVD

In (1-4) are given examples of verb pairs with antipassives marked by the morpheme -x.[1],[2]

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- (1) 'adorn (things)'
- | | | |
|----------|-------------|---------------|
| dIba-x | dIb-x-in | dib-x-i-nEk |
| adorn-AP | adorn-AP-np | adorn-AP-?-pf |
- 'adorn (s.t.)'
- | | | |
|-------------|----------|-------------|
| dIb-y-al | dIba-y | dib-y-Am |
| adorn-TR-pr | adorn-TR | adorn-TR-pf |
- (2) 'sew'
- | | | |
|---------|-----------|--------------|
| tsUKu-x | tsUK-x-in | tsuk-x-i-nEk |
| sew-AP | sew-AP-np | sew-AP-?-pf |
- 'sew (s.t.)'
- | | | |
|-----------|---------|-----------|
| tsUK-y-al | tsUKu-y | tsuk-y-Am |
| sew-TR-pr | sew-TR | sew-TR-pf |
- (3) 'advise'
- | | | |
|-----------|--------------|----------------|
| tAk'i-x | tAk'-x-in | tak'-x-i-nEk |
| advise-AP | advise-AP-np | advise-AP-?-pf |
- 'advise (s.o.)'
- | | | |
|--------------|-----------|--------------|
| tAk'-y-al | tAk'i-y | tak'-y-Am |
| advise-TR-pr | advise-TR | advise-TR-pf |
- (4) 'curse'
- | | | |
|-------------|-------------|---------------|
| od-bIh-i-x | odbih-x-in | odbih-x-i-nEk |
| ?-name-?-AP | curse-AP-np | curse-AP-?-pf |
- 'curse (s.o.)'
- | | | |
|-------------|------------|-------------|
| odbih-y-al | odbih-i-y | odbih-y-Am |
| curse-TR-pr | curse-?-TR | curse-TR-pf |

The tense endings we posit for antipassive are -x=Ø 'present', -x=in 'non-present', and -x=i=nEk 'perfect'. [3],[4] We assume the correctness of Larsen and Pike's stress assignment rule, which stresses (disjunctively) the rightmost long vowel or the leftmost vowel of a word. Thus the perfect suffixes we presume to be underlyingly -nEk and -a:m, and the second vowel of odbi:bi 'curse' is also underlyingly long. The remaining vowels we assume to be short. Stress Assignment is given more formally in (5) below.

=====

(5) Stress Assignment (Str)

V --> [+str] / ____ R-L Iterative
 {[+lg]}
 #(C)____ Condition: Only one
 stress may be
 assigned per word.

=====

One other rule is needed to account for the alternations in the antipassives. It is Medial Vowel Deletion (MVD), which deletes a short medial vowel in a non-final open syllable following an open syllable. That is, MVD deletes a short vowel except where such deletion would produce a tautosyllabic consonant cluster #CC, C.CC, CC.C. or CC#.

=====

(6) Medial Vowel Deletion (MVD)

V --> Ø / VC__CV
 [-lg]

Note: under certain circumstances (to be discussed later) MVD leaves vestigial labialization when deleting _u_ and perhaps palatalization when deleting _i_. See Sections 1.1.4, 2.3.

=====

MVD must be posited as applying left to right in order to ensure that the stem vowel rather than the suffixal *i* is deleted in the perfect forms.[4b] Derivations are given in (7) to illustrate this.

=====

(7)	UF	diba+x+i+ne:k	diba+x+i+ne:k
	MVD (LR)	dibxine:k	(RL) dibaxne:k
	Str	dibxinEK	*dibaxnEK

=====

MVD has occasional exceptions: e.g. the *-i-* of *kʷanida* in all six forms in (8) below and the *a* of *da* in the non-present and perfect of (8). Note that when MVD cannot apply to the stem vowels *i* and *a* of the perfect form, which is underlyingly *kʷanida-x-i-ne:k*, it deletes the suffixal *i* instead. (The transitives in (8) follow a pattern discussed in Section 1.1.3.)

- (8) 'love (people)'
 k'An-i-da-x k'Anida-x-in k'anida-x-nEK
 esteem-?-cs-AP love-AP-np love-AP-pf
- 'love (s.o.)'
 k'anid-AI k'Anida' k'anid-Am
 love-pr love love-pf

The suffixes on the transitive forms (1b-4b) are: -x=al 'present', -x=Ø 'non-present', and -x=Am 'perfect'. Once again the alternations (stress shifting on and off the stem, appearance and disappearance of the stem-final vowel) are accounted for straightforwardly by Str and MVD.

In (9-12) are forms with stems (many of them complex) ending in CCV.[5] The MVD rule accounts for the alternations. Note that, as in (8), the ending -x=nEK is predictable from the previously posited -x=i=nEK, if MVD is posited as LR, since the stem-final vowel cannot delete. Contrasting derivations are given in (13).

- (9) 'install dentures'
 kAm-bi-x kAmbi-x-in kambi-x-nEK
 tooth-cs-AP ins.den.-AP-np ins.den.-AP-pf
- 'install (s.o.'s) dentures'
 kAmbi-y-al kAmbi-y kambi-y-Am
 ins.den.-TR-pr ins.den.-TR ins.den.-TR-pf
- (10) 'comb hair'
 ts'Its-ba-x ts'Itsba-x-in ts'itsba-x-nEK
 comb(n)-cs-AP comb(v)-AP-np comb(v)-AP-pf
- 'comb (s.o.'s) hair'
 ts'Itsba-y-al ts'Itsba-y ts'itsba-y-Am
 comb(v)-TR-pr comb(v)-TR comb(v)-TR-pf
- (11) 'mend'
 pAts'k'u-x pAts'ku-x-in pats'k'u-x-nEK
 mend-AP mend-AP-np mend-AP-pf
- 'mend (s.t.)'
 pAts'k'u-y-al pAts'k'u-y pats'ku-y-Am
 mend-TR-pr mend-TR mend-TR-pf

- (12) 'cast a spell'
- | | | | |
|--|--------------|---------------|---------------|
| | dim-k'a-x | dimk'a-x-in | dimk'a-x-nEk |
| | sorcere-?-AP | bewitch-AP-np | bewitch-AP-pf |
- 'cast a spell on (s.o.)'
- | | | | |
|--|---------------|------------|---------------|
| | dimk'a-y-al | dimk'a-y | dimk'a-y-Am |
| | bewitch-TR-pr | bewitch-TR | bewitch-Tr-pf |

=====

- (13) 'have adorned things' 'have cast a spell'
- | | | |
|-----|---------------|-----------------|
| UF | diba+x+i+ne:k | dimk'a+x+i+ne:k |
| MVD | dibxine:k | dimk'axne:k |
| Str | dibxinEk | dimk'axnEk |

=====

1.1.2. -x and Transitives without -x; VD

In (14-16) are given forms whose stems end in the 'referential' or 'applicative' suffix *-tsi*. [6]

- (14) 'carry food to people'
- | | | | |
|--|--------------|--------------|--------------|
| | Ak-tsi-x | Aktsi-x-in | aktsi-x-nEk |
| | leave-ref-AP | ca.fo.-AP-np | ca.fo.-AP-pf |
- 'carry food to (s.o.)'
- | | | | |
|--|-----------|--------|-----------|
| | Akts-al | Aktsi | akts-Am |
| | ca.fo.-pr | ca.fo. | ca.fo.-pf |

- (15) 'attend a wake'
- | | | | |
|--|--------------|--------------|--------------|
| | way-tsi-x | waytsi-x-in | waytsi-x-nEk |
| | sleep-ref-AP | bewake-AP-np | bewake-AP-pf |
- 'attend (s.o.'s) wake'
- | | | | |
|--|-----------|--------|-----------|
| | wayts-al | waytsi | wayts-Am |
| | bewake-pr | bewake | bewake-pf |

- (16) 'wait'
- | | | |
|----------------|-------------|-------------|
| Ay-tsi-x | Aytsi-x-in | aytsi-x-nEk |
| follow?-ref-AP | await-AP-np | await-AP-pf |
-
- 'attend (s.o.'s) wake'
- | | | |
|----------|-------|----------|
| Ayts-al | Aytsi | ayts-Am |
| await-pr | await | await-pf |

These forms are all, like (9-12), CCV final,[7] and thus (like (9-12)) have antipassive perfect forms in -x=nEk rather than -x=i=nEk (1-4).

The transitive forms, unlike those in (1-4)/(9-12), do not have the transitive marker -x in them. It turns out not to be predictable on general grounds which verbs take -x transitives and which do not, though it seems to be the case that verb stems ending in -tsi do not take it. Besides this morphological difference between the transitives in (1-4)/(9-12) and those in (14-16), there is the disappearance of the i of -tsi in the present and perfect forms to account for. This is accomplished by positing a phonological rule of Vowel Deletion (VD), which simply deletes a short vowel preceding another vowel. Thus wAx=ts=al 'beware (s.o.)' is derived as in (18).

=====

(17) Vowel Deletion

V -> Ø / __V
[-lg]

Condition: aa ~~=~~=> a [8]

=====

=====

- (18) 'beware (s.o.)'
- | | |
|-----|-------------|
| UF | waya+tsi+al |
| MVD | waytsial |
| VD | waytsal |
| Str | wAytsal |

=====

1.1.3 -x with -Al Transitives; GSI

In (8) and (19-21) are presented stems which exemplify a very common pattern for transitive endings.[9]

- (19) 'send'
- | | | |
|---------|------------|------------|
| Abna-x | Abna-x-in | abna-x-nEK |
| send-AP | send-AP-np | send-AP-pf |
- 'send (s.t.)'
- | | | |
|---------|-------|---------|
| abn-A1 | Abna' | abn-Am |
| send-pr | send | send-pf |
- (20) 'explode'
- | | | |
|------------|---------------|---------------|
| pEw'la-x | pEw'la-x-in | pew'la-x-nEK |
| explode-AP | explode-AP-np | explode-AP-pf |
- 'explode (s.t.)'
- | | | |
|------------|---------|------------|
| pew'l-A1 | pEw'la' | pew'l-Am |
| explode-pr | explode | explode-pf |
- (21) 'return things'
- | | | |
|--------------|--------------|--------------|
| wits-ba-x | witsba-x-in | witsba-x-nEK |
| return-CS-AP | return-AP-np | return-AP-pf |
- 'return (s.t.)'
- | | | |
|-----------|---------|-----------|
| witsb-A1 | witsba' | witsb-Am |
| return-pr | return | return-pf |

We posit that these stems are simply a-final stems, as indicated by their AP forms, which do not take the transitive marker -x. The normal tense markers (-a1, -Ø, and -Am) are used. The stressed A in the present transitive forms is a long a produced by juxtaposing the stem-final and suffix-initial a's, and the glottal stop in the non-present is produced by a phonological rule of Glottal Stop Insertion (below). The A's in the perfect forms are shortened from the double-long vowel one might expect - it might be held that a phonological rule is necessary to do this: we will assume that a general constraint prohibiting double-long vowels in Huasteco accomplishes it.

=====

(22) Glottal Stop Insertion (GSI)

Ø --> ' / Ca __#

=====

We do not have examples of GSI except in non-present transitive forms. Therefore one might want to claim that glottal stop is a morpheme meaning 'non-present transitive'.

It would occur only in the environment /Ca__#. However, there seem to be no cases of words ending in a consonant and a short (unstressed) _a_ without a glottal stop following. This fact is predicted by GSI, but would need separate statement without it.

In (23) are given derivations of representative forms. Note that VD, if written with no restrictions, would apply to the transitive present forms, deleting the stem-final a before the suffix-initial a. It is to avoid this that the special condition was placed on VD in (17).[10]

=====			
(23)	'send'	'sent'	'have sent'
UF	abna+a1	abna	abna+a:am
GSI	-----	abna'	-----
VD	-----	-----	-----
Str	abnA1	Abna'	abnAm
=====			

1.1.4. -x with w=a1 Transitives; W-Ins, LRV, A-Spr

In (24-25) are given stems ending in CCu and CCa, which, unlike (11) but like (14-21), do not take -x.

(24)	'boil (liquids)'		
	pAxk'u-x boil-AP	pAxk'u-x-in boil-AP-np	paxk'u-x-nEk boil-AP-pf
	'boil (s.t.)'		
	pAxk'uw-a1 boil-pr	pAxk'u boil	paxk'U-m boil-pf
(25)	'repeat (things)'		
	wIts-k'o-x return-?-AP	wItsk'o-x-in repeat-AP-np	wItsk'o-x-nEk repeat-AP-pf
	'repeat (s.t.)'		
	wItsk'ow-a1 repeat-pr	wItsk'o repeat	wItsk'O-m repeat-pf

The antipassive forms follow the pattern of (11), etc., the final stem vowel not deleting by MVD because that would bring three consonants together, and the perfect thus having x=nEk rather than x=i=nEk. Assuming that the

transitive endings are underlyingly the same as in (14-21) (-a:l, -Ø, -a:m), two rules are needed to account for the data: one to insert the w in the present forms and one to produce the long (and therefore stressed) U in the perfect forms. The first rule we will call W-Insertion: it introduces a w between Ø or u and a.

=====

(26) W-Insertion (W-Ins)

Ø --> w / V __+a
[+rd]

Note: A Y-Insertion (\i__+a) may be part of this rule: see Section 2.3.

=====

W-Ins must be ordered to precede VD (bleeding and counterbleeding). The second rule we call Long Rounded Vowel Formation: it converts a rounded vowel followed by long a into a long rounded vowel.[11]

=====

(27) Long Rounded Vowel Formation (LRV)

V a: ==> V:
[+rd] [+rd]
[Øhi] [Øhi]

=====

LRV should be ordered to precede W-Ins (bleeding and counterbleeding) and also VD (again, bleeding and counterbleeding).

(28) gives another form with an u-final stem, but this time the u is preceded by only one consonant.

(28)	'hit (people)'		
	chA'ux	chAw'-x-in	chaw'-xi-nEk
	hit-AP	hit-AP-np	hit-AP-pf
	'hit (s.o.)'		
	chA'w-al	chA'aw	cha'U-m
	hit-pr	hit	hit-pf

A couple of new patterns can be seen at work here, together

with some that we have seen previously. Assuming the stem to be *cha'u* and the endings to be the same as in (24) the present antipassive *chA'u=x* is straightforward, with no rules except Stress Assignment applying to it. The transitive perfect *cha'Um* also comes straightforwardly, by LRV feeding Str. The transitive present *chA'wal* is derived as follows: W-Ins provides the *w*, which then serves as part of the context for MVD, which deletes the *u*. Thus W-Ins can be seen to feed MVD. These derivations are given in (29).

(29)	'hit (s.o.)'	'have hit (s.o.)'
UF	cha'u+al	cha'u-a:m
LRV	-----	cha'u:m
W-Ins	cha'uwal	-----
MVD	cha'wal	-----
STR	chA'wal	cha'Um

The antipassive perfect form *chaw'=-x=i=nEk* shows the same suffixal *x=i=nEk* as the CV-final stems in (1-4) rather than the *-x=nEk* of the CCV-final stems in (9-13), confirming the posited stem UF *cha'u*. The *w* turns out to be best accounted for as a leftover from MVD: when MVD deletes a *u* following a glottal stop (or *b*, *k*, or *k'*, e.g. (42-44), (62)) it leaves behind an audible trace of rounding or labialization.[12] Thus the only rules applying to *chAw'=-x=in* and *chaw'=-x=i=nEk* are the expected MVD (with vestigial labialization) and Stress Assignment.

This leaves only the non-present of 'hit (s.o.)', *chA'aw*, to be accounted for. For this alternation (which also affects stems in *abu*-- see (44)) we posit a rule of A=Spreading:

(30) A=Spreading (A=Spr)

u --> aw / a{?,h}__#

Note: Perhaps *i* --> *ax* by this same rule. See Section 2.3.

1.2. -1

1.2.1. -1 with -x Transitives

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A large number of antipassive verb forms take, instead of -ɣ, a morpheme -l to mark the antipassive. In (31-35) are given examples of such forms. The transitive forms in each case, as in (1-4) and (9-12) take transitives formed with -ɣ.

- (31) 'play (music)'
- | | | |
|----------|-------------|--------------|
| t'E:ne-l | t'e:n-l-Ach | t'e:n-l-Amad |
| play-AP | play-AP-np | play-AP-pf |
- 'play (s.t.)'
- | | | |
|------------|---------|------------|
| t'En-y-al | t'Ene-y | t'en-y-Am |
| play-TR-pr | play-TR | play-TR-pf |
- (32) 'blow (with breath)'
- | | | |
|----------|-------------|--------------|
| hU:tsu-l | hu:ts-l-Ach | hu:ts-l-Amad |
| blow-AP | blow-AP-np | blow-AP-pf |
- 'blow on (s.t.)'
- | | | |
|------------|---------|------------|
| hUts-y-al | hUtsu-y | huts-y-Am |
| blow-TR-pr | blow-TR | blow-TR-pf |
- (33) 'cut (things)'
- | | | |
|---------|------------|-------------|
| kO:to-l | ko:t-l-Ach | ko:t-l-Amad |
| cut-AP | cut-AP-np | cut-AP-pf |
- 'cut (s.t.)'
- | | | |
|-----------|--------|-----------|
| kOt-y-al | kOto-y | kot-y-Am |
| cut-TR-pr | cut-TR | cut-TR-pf |
- (34) 'put out, hang up (things) to dry'
- | | | |
|----------|-------------|--------------|
| t'A:ki-l | t'a:k-l-Ach | t'a:k-l-Amad |
| dry-AP | dry-AP-np | dry-AP-pf |
- 'put (s.t.) out to dry'
- | | | |
|-----------|---------|-----------|
| t'AK-y-al | t'AKi-y | t'ak-y-Am |
| dry-TR-pr | dry-TR | dry-TR-pf |

- (35) 'cough'
- | | | |
|----------|-------------|-------------|
| Ohba-l | ohba-l-Ach | ohba-l-Amad |
| cough-AP | cough-AP-np | cough-AP-pf |
-
- 'cough (s.t.)'
- | | | |
|-------------|----------|-------------|
| Ohba-y-al | Ohba-y | ohba-a-Am |
| cough-TR-pr | cough-TR | cough-TR-pf |

We posit for these AP forms the endings -l=Ø 'present', -l=a:ch 'non-present', and -l=a:mad 'perfect'. We know of no way it can be predicted whether a stem will take -x or -l antipassive endings (nor, as previously mentioned, whether it will take -x in the transitives). If we assume underlyingly short vowels in the stems, all of the alternations in these data are predicted by Str (5) and MVD (6).

1.2.2 -l and Transitives without -x; O/a Switching

In (36-37) are given forms where after an a-final stem the transitive -x is not used. These forms parallel (19-21), and their alternations are explained by the same rules (Str, MVD, GSI). Note that the UF difference between the present forms, the difference between the antipassive present -l and the transitive present -al, produces the surface contrast in stress placement.

- (36) 'drink'
- | | | |
|----------|-------------|-------------|
| Uch'a-l | uch'-l-Ach | uch'-l-Amad |
| drink-AP | drink-AP-np | drink-AP-pf |
-
- 'drink (s.t.)'
- | | | |
|----------|--------|----------|
| uch'-Al | Uch'a' | uch'-Am |
| drink-pr | drink | drink-pf |
-
- (37) 'make (tortillas)'
- | | | |
|-------------|----------------|----------------|
| pAK'a-l | pak'-l-Ach | pak'-l-Amad |
| make:(t)-AP | make:(t)-AP-np | make:(t)-AP-pf |
-
- 'make (s.t., namely tortillas)'
- | | | |
|---------------|------------|---------------|
| pak'-Al | pAK'a' | pak'-Am |
| make:torts-pr | make:torts | make:torts-pf |

In (38) is given an unusual form in which the initial stem vowel a changes to a.[13] Assuming that the second vowel also changes to a makes the forms fall out naturally.

(38)	'listen'		
	Och'o-l	och'-l-Ach	och'-l-Amad
	listen-AP	listen-AP-np	listen-AP-pf
	'listen to (s.o.), feel (s.t.)'		
	ach'-Al	Ach'a'	ach'-Am
	listen-pr	listen	listen-pf

Thus we posit a minor rule of O/a-Switching, and derive (38b) as in (40).

=====

(39) O/a-Switching (O/a) (Minor rule)

o --> a [In marked verb stems in transitive forms.]

=====

=====

(40)	'listen to s.o.'	'listened to s.o.'	'have listened to s.o.'
UF	och'o+al	och'o+ø	och'o+a:m
	[+o/a]	[+o/a]	[+o/a]
O/a	ach'aal	ach'a	ach'a:m
GSI	-----	ach'a'	-----
Str	ach'Al	Ach'a'	ach'Am

=====

1.2.3 -l and Transitives in w-al; H-Deletion

In (41-44) are given forms parallel to (24-25) and (28): w-final stems which do not take -x in the transitive forms and thus undergo W-Ins, A-Spr, and LRV.

(41)	'sell (things)'		
	nUhu-l	nuh-l-Ach	nuh-l-Amad
	sell-AP	sell-AP-np	sell-AP-pf
	'sell (s.t.)'		
	nUhw-al	nUhu	nuhU-m
	sell-pr	sell	sell-pf

- (42) 'spend, waste (money)'
- | | | |
|----------|-------------|-------------|
| pAKu-l | pa:kw-l-Ach | pakw-l-Amad |
| spend-AP | spend-AP-np | spend-AP-pf |
- 'spend, waste (s.t., namely money)'
- | | | |
|----------|-------|----------|
| pAKw-al | pAKu | pakU-m |
| spend-pr | spend | spend-pf |
- (43) 'suck (sugar cane)'
- | | | |
|----------|--------------|---------------|
| ch'A'u-l | ch'aw'-l-Ach | ch'aw'-l-Amad |
| suck-AP | suck-AP-np | suck-AP-pf |
- 'suck (s.t., namely sugar cane)'
- | | | |
|-----------|---------|----------|
| ch'A'w-al | ch'A'aw | ch'a'U-m |
| suck-pr | suck | suck-pf |
- (44) 'reach'
- | | | |
|----------|-------------|-------------|
| bAhu-l | baw-l-Ach | baw-l-Amad |
| reach-AP | reach-AP-np | reach-AP-pf |
- 'reach (s.t.)'
- | | | |
|----------|-------|----------|
| bAhw-al | bAhaw | bahU-m |
| reach-pr | reach | reach-pf |

The stem in each case, we posit, has an underlying form identical to that in the antipassive present. MVD (6) occurs in the other antipassive forms, leaving behind a labialization as a vestige of the deleted *u*. This labialization is imperceptible in (41) because it sounds like it is part of the preceeding *u*, and in the transitive present forms (where MVD also applies) because it sounds like part of the following *w*. W-Ins feeds MVD in the transitive present forms. A-Spr (30) accounts for the non-present forms of (43) and (44) and LRV (27) for all the transitive perfect forms. Str (5), of course, assigns the stresses. There remains only to account for the disappearance of *b* in the non-present and perfect of (44a). This is the only verb we have found with this particular alternation,[14] but on the strength of it we will posit H-Deletion. Note that H-Del must be constrained not to apply before *w*, as the present transitive of (44) is *bAbwal*, not *bAwwal*.

=====

(45) H-Deletion (H-Del)

h --> w / a__ C
[+lab] [+cns]

Note: It may be the case that a palatalized
h (from MVD deleting _i_) deletes
similarly. See Section 2.3.

=====

The non-present of (44a), then, is derived as follows:

=====

(46) 'reached'
UF bahu+l+a:ch
MVD bahwla:ch
H-Del bawla:ch
Str bawlaCh

=====

1.2.4. -l with -na Transitives

In (47-49) are given forms whose transitives have a
suffix -na in them, whose meaning is problematic but
includes (at least) the notion 'transitive'. [15]

(47) 'carry load'
kIta-l Kit-l-Ach Kit-l-Amad
carry-AP carry-AP-np carry-AP-pf

'carry load of (s.t.)'
kit-n-Al kItna' kitn-Am
carry-?-pr carry carry-pf

(48) 'swim'
kOwa-l kow-l-Ach kow-l-Amad
swim-AP swim-AP-np swim-AP-pf

'swim (s.t., e.g. a river)'
kow-n-Al kOwna' kown-Am
swim-?-pr swim swim-pf

- (49) 'study'[16]
 ex0ba-l exob-l-Ach exob-l-Amad
 study-AP study-AP-np study-AP-pf
- 'study (s.t.)'
 exob-n-Al ex0bna'
 study-?-pr study exobn-Am
 study-pf

Other than the presence of -na, which is not predictable on any grounds we know of, these forms are all explainable by MVD, GSI, and Str.

1.3 -om

1.3.1 -om with -A Transitives; N-Deletion

In (50-56) are given examples of verb pairs with antipassives marked by the morpheme -om.

- (50) 'love'
 K'An-i-d-om K'anid-om-Ach K'anid-om-Amad
 esteem-?-cs-AP love-AP-np love-AP-pf
- 'study (s.o.)'
 K'anid-Al K'Anida'
 love-pr love K'anid-Am
 love-pf
- (51) 'deliver (borrowed things)'
 wits-b-om witsb-om-Ach witsb-om-Amad
 return-cs-AP return-AP-np return-AP-pf
- 'return (s.t.)'
 witsb-Al witsba'
 return-pr return witsb-Am
 return-pf
- (52) 'carry, take (things, people)'
 hu:n-om hu:-m-Ach hu:-m-Amad
 carry-AP carry-AP-np carry-AP-pf
- 'carry (s.t. or s.o.)'
 hu:n-Al hu:na'
 carry-pr carry hu:n-Am
 carry-pf

- (53) 'know people'
 Exl-om exl-om-Ach exl-om-Amad
 know-AP know-AP-np know-AP-pf
- 'know (s.o.)'
 exl-Al Exla' exl-Am
 know-pr know know-pf
- (54) 'call, invite'
 kAn-om kan-m-Ach kan-m-Amad
 call-AP call-AP-np call-AP-pf
- 'call (s.o.)'
 kan-Al kAna' kan-Am
 call-pr call call-pf
- (55) 'pick up (things)'
 dAy-om day-m-Ach day-m-Amad
 pick:up-AP pick:up-AP-np pick:up-AP-pf
- 'pick up (s.t.)'
 day-Al dAya' day-Am
 pick:up-pr pick:up pick:up-pf
- (56) 'put things away'
 ta'p-om ta'p-om-Ach ta'p-om-Amad
 put:away-AP put:away-AP-np put:away-AP-pf
- 'put away (s.t.)'
 ta'p-Al ta'pa' ta'p-Am
 put:away-pr put:away put:away-pf

The tense endings on the antipassives are the same as those on -l antipassives (1.2): -Ø 'present', -a:cl 'non-present', and -a:mad 'perfect'. The transitives have the endings associated with a-final stems, (e.g. in (1.1.3, 1.2.2)). Where possible we tried to get other forms of these verbs to independently show them to be a-final and in every case but one they were.[17] Assuming then that the stems are -a-final, we can explain the absence of the a in the antipassives by VD before the suffix -om. The a of -om is then often deleted by MVD (e.g. in the non-presents and perfects of (52), (54) and (55)). Thus VD precedes (feeding) MVD. As expected the a does not delete when it follows two consonants (e.g. in (51), (53) and (56)), or

where exceptional (e.g. in (50)). Most of the rest of the alternations are stress shifts predicted by Str.

One thing not explained is the alternation in (52) involving the disappearance of *n* in the antipassive non-present and perfect. These forms should be contrasted with the corresponding forms in (54) where the *n* does not disappear. Our tentative hypothesis is that the difference in the length of the stem vowel accounts for the difference in behavior. We write a rule as follows:

=====

(57) N-Deletion (N-Del)

$n \rightarrow \emptyset / V: ___ m$

=====

N-Del follows (is fed by) MVD. In (58) is given the derivation of the non-present form of (52a).

=====

(58) 'carried (things)'

UF	hu:na+om+a:ch
VD	hu:noma:ch
MVD	hu:nma:ch
N-Del	hu:ma:ch
Str	hu:mAch

=====

In (59) is a new example of O/a-Switching.

(59) 'wash (things)'

t'OK-om	t'ok-m-Ach	t'ok-m-Amad
wash-AP	wash-AP-np	wash-AP-pf

'wash (s.t.)'

t'ak-AI	t'Aka'	t'ak-Am
wash-pr	wash	wash-pf

It is of interest that the referential form of this verb is *t'AK-is=al* (wash-ref.-pr) rather than *t'OK-is=al*, indicating that the referential is built on a transitive rather than an intransitive stem.[18]

1.3.2 -om with w=al and y=al Transitives; O-Deletion

In (60-62) are presented forms in which stems ending in *u* take endings very similar on the surface to the *-om* endings.

- (60) 'break nixtamal'
- | | | |
|----------|-------------|-------------|
| ke:lu-m | ke:l-m-Ach | ke:l-m-Amad |
| break-AP | break-AP-np | break-AP-pf |
- 'break (s.t., namely nixtamal)'
- | | | |
|----------|-------|----------|
| ke:lw-al | ke:lu | ke:lU-m |
| break-pr | break | break-pf |
- (61) 'beat, mix (things)'
- | | | |
|---------|------------|-------------|
| xA:lu-m | xa:l-m-Ach | xa:l-m-Amad |
| beat-AP | beat-AP-np | beat-AP-pf |
- 'beat (s.t.)'
- | | | |
|----------|------|---------|
| xA:lw-al | xAlu | xaIU-m |
| turn-pr | turn | turn-pf |
- (62) 'wash clothes'
- | | | |
|----------|--------------|---------------|
| pA:k'u-m | pa:kw'-m-Ach | pa:kw'-m-Amad |
| wash-AP | wash-AP-np | wash-AP-pf |
- 'wash (s.t., namely clothes)'
- | | | |
|-----------|--------|----------|
| pA:k'w-al | pA:k'u | pa:k'U-m |
| wash-pr | wash | wash-pf |

These forms show a number of familiar patterns. W-insertion and MVD (with, of course, Str) give the present transitive forms. LRV is operating in the transitive perfect forms. MVD also would appear to be at work in the antipassive non-present and perfect forms, with the residual labialization in (61) which we would expect from deleting an *u*. However, the appearance of *u* rather than *o* in the present antipassives (and apparently in the non-present and perfect as well, since the residual labialization in (61) could not come from deleting *o*, cf. its absence in (59)), is surprising. Assuming *u*-final stems and the *-om* antipassive suffix, we would expect VD to apply, deleting the *u* rather than the *o*.

In (63a-66a) are given forms with *i*-final stems, which behave similarly in that instead of the *i* deleting by VD before the *o*, the *o* apparently deletes.

- | | | | |
|------|-------------------------|-------------|--------------|
| (63) | 'toast (things)' | | |
| | t'I:li-m | t'i:l-m-Ach | t'i:l-m-Amad |
| | toast-AP | toast-AP-np | toast-AP-pf |
| | 'toast (s.t.)' | | |
| | t'Ili-y-al | t'Ili-y | t'il-y-Am |
| | toast-TR-pr | toast-TR | toast-TR-pf |
| (64) | 'twist (things)' | | |
| | t'A:li-m | t'a:l-m-Ach | t'a:l-m-Amad |
| | twist-AP | twist-AP-np | twist-AP-pf |
| | 'twist (s.t.)' | | |
| | t'Al-y-al | t'Ali-y | t'al-y-Am |
| | twist-Tr-pr | twist-TR | twist-TR-pf |
| (65) | 'bury (things)' | | |
| | h0:li-m | ho:l-m-Ach | ho:l-m-Amad |
| | bury-AP | bury-AP-np | bury-AP-pf |
| | 'bury (s.t.)' | | |
| | h0li-y-al | h0li-y | holi-y-Am |
| | bury-TR-pr | bury-TR | bury-TR-pf |
| (66) | 'look for (things)' | | |
| | A:li-m | a:l-m-Ach | a:l-m-Amad |
| | look-AP | look-AP-np | look-AP-pf |
| | 'look for, miss (s.t.)' | | |
| | A-y-al | Ali-y | ali-y-Am |
| | look-TR-pr | look-Tr | look-TR-pf |

We posit to account for these forms a rule deleting σ following \perp or μ :

(67) 0-deletion (0-Del)

$$o \rightarrow \emptyset / \vee \text{ --- } [+hi]$$

0-Del must precede VD (bleeding and counterbleeding), and

like VD must precede MVD (feeding). Representative derivations are given in (68).

=====			
(68)	'washed'	'toast'	'called'
UF	pa:k'u+om+a:ch	t'i:li+om	Kana+om+a:ch
O-Del	pa:k'uma:ch	t'i:lim	-----
VD	-----	-----	Kanoma:ch
MVD	pa:kw'ma:ch	-----	Kanma:ch
Str	pa:k'wmAch	t'i:lim	KanmAch

=====

The forms in (63-66), it will have been noted, take -x in the transitives. These are the only -om forms we know that do so, with the exception of (69) (and perhaps (98-101). As far as we know it is purely coincidental that the stems of all of them end in li. The transitive present stem of (66) is suppletive (though perhaps relatable to the Truncated Present pattern discussed in Section 2.2); and the transitive stems *ho:li* 'bury' and *ali* 'seek' -- note, *no:li* the intransitive stems -- must be marked exceptional to MVD.

In (69) is given a form with an *o*-final stem and -x-transitive forms.

(69)	'sweep'		
	kw'et	Kw'et-m-Ach	Kw'et-m-Amad
	sweep	sweep-AP-np	sweep-Ap-pf
	'sweep (s.t.)'		
	kw'Et-y-al	Kw'Eto-y	Kw'et-y-Am
	sweep-TR-pr	sweep-TR	sweep-Tr-pf

The antipassive present of (69) is truncated (see Section 2.2), which means that we do not see what the result of combining *o+om* would be. We might expect *o:m*, just as *a+al* gave *a:l* in 1.1.3. However, if a long *o:* were produced, it would not be able to delete by MVD, as it apparently has done in the non-present and perfect forms. (70) gives a parallel form (though one without -x in the transitive) in which a short *o* does in fact surface in the antipassive forms.

(70)	'empty (things)'		
	h0lk'o-m	holk'o-m-Ach	holk'o-m-Amad
	empty-AP	empty-AP-np	empty-AP-pf
	'empty (s.t.)'		
	h0lk'ow-al	h0lk'o	holk'o-m
	empty-tr	empty	empty-pf

We assume, then, that $\alpha\alpha$ is shortened to α by VD, unlike $\alpha\alpha$; the condition on VD in (17) is intended to produce this disparity.[19] As previously noted (Footnote #10) both the refusal to shorten $\alpha\alpha$ and the shortening of $\alpha\alpha$ serve to disambiguate forms, e.g. Uch'a=1 'drink' from uch'a=1 'drink (s.t.)' (36), and h0lk'o=m 'empty (things)' from h0lk'o=m 'have emptied (s.t.)' here in (70). Derivations are given in (71).

		=====	
(71)	'pick up(s.t.)'	'empty'	'swept'
UF	daya+al	holk'o+om	kw'eto+om+a:ch
VD	-----	holk'om	kw'etoma:ch
MVD	-----	-----	kw'etma:ch
Str	dayAl	h0lk'om	kw'etmAch
		=====	

The -um antipassives, discussed in Section 2.3, may well be further variants of -om.

2. Other Antipassive Patterns

In this section are presented a number of patterns of antipassive formation which differ from those in Section 1 to varying degrees. In 2.1 are given examples of mixtures of the patterns in 1, and in 2.2-2.3 are presented other patterns, some of which we understand very little.

2.1 Combinations of Antipassive Endings

A good number of verbs have more than one antipassive form. Some examples we have seen already are k'anida 'love', with an -x and an -om antipassive ((8) and (50)) and witsba 'return' ((21) and (52)), again with -x and -om antipassives. A number of other verbs also have these two types of antipassives. We have not found any consistent difference in meaning between the two types, though we have not yet investigated the matter thoroughly. In some cases

it has seemed that the -om antipassives carried a 'be a Verb' or 'Verb for a living' sense.

In (72) is an apparent example of a verb with -l and -om antipassives, though the -om perfect form is apparently not used. The semantic link between the antipassives and the transitive is less than clear. (kux means '(person's) back'). See (77) and Footnote 19a for another example.

(72)	'go in place of (people)'		
	KU:xu-l	kux-l-Ach	kux-l-Amad
	go-AP	go-AP-np	go-AP-pf
	'take your turn'		
	KU:xu-m	kux-m-Ach	kux-l-Amad
	take-AP	take-AP-np	take-AP-pf
	'bear, put up with (s.t.)'		
	KUx-y-al	KUxu-y	kux-y-Am
	bear-TR-pr	bear-TR	bear-TR-pf

A number of verbs seem to mix -l and -om forms. Thus (73-74); (88) is another example.

(73)	'make tortillas'		
	ch'At'-om	ch'at'-l-Ach	ch'at'-l-Amad
	make:t-AP	make:t-AP-np	make:t-AP-pf
	'make (s.t., i.e. tortillas)'		
	ch'at'-Al	ch'Ata'	ch'at-Am
	make-pr	make	make-pf
(74)	'dance (dances)'		
	bix-n-E-l	bix-m-Ach	bix-m-Amad
	dance-?-?-AP	dance-AP-np	dance-AP-pf
	'dance (s.t., namely a dance)'		
	bix-n-Al	bix-na'	bix-n-Am
	dance-?-pr	dance-?	dance-?-pf

In (75) is a form with both -l and -om antipassive suffixes at once.

(75)	'burn (things)'		
	tsIk-l-om	tsik-l-om-Ach	tsik-l-om-Amad
	burn-AP-AP	burn-AP-AP-np	burn-AP-AP-pf
	'burn (s.t.)'		
	tsik-Al	tsIka'	tsik-Am
	burn-pr	burn	burn-pf

(76-77) are examples of -om and -x suffixes on the same stem. (77) also has a truncated present (Section 2.2).

(76)	'enjoy (things)'		
	kulbEt-n-om	kulbEtna-x-in	kulbetna-x-nEk
	like-?-AP	enjoy-AP-np	enjoy-AP-pf
	'enjoy (s.t.)'		
	kulbetn-Al	kulbEtna'	kulbetn-Am
	enjoy-pr	enjoy	enjoy-pf

(77)	'borrow (things)'	[19a]	
	mat		
	borrow		
	'ask to borrow (things)'		
	mAti-x	mAt-x-in	mat-m-Amad
	borrow-AP	borrow-AP-np	borrow-AP-pf
	'borrow (s.t.)'		
	mAt-y-al	mAti-y	mat-y-Am
	borrow-TR-pr	borrow-TR	borrow-TR-pf

Various -x, -l, and -om antipassive forms are often mixed with other elements presented below, as well.

2.2. -n and other Odd Pieces; N-Degemination; Truncated Presents

Another ending that appears on a few antipassives is -n. This suffix usually means 'reflexive' or 'passive', as illustrated in (78-80).

- (78) 'take medicine'
 ilAl-n-al ilAli-n ilal-nEk
 medic.-RFL-pr treat-RFL treat-pf
- 'give (s.o.) medicine'
 ilAli-y-al ilAli-y ilali-y-Am
 treat-TR-pr treat-TR treat-TR-pf
- (79) 'be given something'
 pid-n-al pida-n pid-nEk
 give-PS-pr give-PS give-pf
- 'give (s.o.) something'
 pid-Al pida' pid-Am
 give-pr give give-pf
- (80) 'fan oneself, (wind) blow'
 wAw'-n-al wA'u-n waw'-nEk
 blow-RFL-pr blow-RFL blow-pf
- 'fan (s.o. or s.t.)'
 wAw'-y-al wA'u-y waw'-y-Am
 blow-TR-pr blow-TR blow-TR-pf

Some old patterns show up in these forms: Str, MVD (with vestigial labialization in (80)), a transitive form (78b) exceptional to MVD when the intransitive is not. The -al present form is new for intransitives, as is the Ø morpheme for non-present; we had seen both of these patterns only in transitives.[20] Both are general for *n* forms. The -nEk perfect suffix we have seen, on -x antipassives (Section 1.1). Here we would posit that its initial *n* coalesces with the -n of the reflexive suffix, feeding MVD.

=====

(81) N-Degemination (Degem)

nn ==> n

=====

In (82) is given the derivation of the reflexive perfect of (80).

(82)	'have fanned oneself'
UF	wa'u+n+ne:k
Degem	wa'une:k
MVD	waw'ne:k
Str	waw'nEK

In several cases, the semantic difference between an intransitive with *-n* and its corresponding transitive is more antipassive than passive or reflexive. (83) and (84) are examples ((84) has a truncated present form, see discussion below).

(83)	'get (things) dirty'		
	k'Ut'-li-n-al	k'Ut'li-n	k'ut'li-nEK
	mud-?-AP-pr	dirty-AP	dirty-pf
	'get (s.t.) dirty'		
	k'Ut'li-y-al	k'Ut'li-y	k'ut'li-y-Am
	dirty-TR-pr	dirty-TR	dirty-TR-pf
(84)	'steal (things)'		
	kwe'	kwE'e-n	kwe'-nEK
	steal	steal-AP	steal-pf
	'steal (s.t.)'		
	kwE'-y-al	kwE'e-y	kwe'-y-Am
	steal-TR-pr	steal-TR	steal-TR-pf

-n endings and the other antipassive endings seem to get mixed up sometimes. For instance in (85) the *-n+ne:k* perfect ending seems to have been put on an *-om* verb. Note however that the meaning here is perhaps reflexive rather than antipassive, and that the only corresponding transitive is explicitly causative.

- (85) 'bathe'
- | | | |
|-----------|--------------|----------|
| Atsi-m | ats-m-Ach | ats-nEk |
| bathe-AP? | bathe-AP?-np | bathe-pf |
-
- 'bathe (s.o.)'
- | | | |
|---------------|------------|---------------|
| atsi-d-AI | atsI-da' | atsi-d-Am |
| bathe-caus-pr | bathe-caus | bathe-caus-pf |

This last example brings up two related issues: one that the "antipassive" endings are sometimes found on verbs which are not clearly antipassives, and which may have no particular transitive paired with them, and second that in a number of pairs other morphemes (such as -da 'causative') may be found in one or the other form. We do not know much about the meanings of a number of these morphemes. A few miscellaneous examples are given below; various others have already been seen.

- (86) 'place, put (things) (on)'
- | | | |
|------------|---------------|---------------|
| Kw'Ah-ba-x | Kw'ahb-om-Ach | Kwahb-om-Amad |
| ?-cs-PS? | put-PS?-np | put-PS?-pf |
-
- 'place, put (s.t.) (on)'
- | | | |
|-----------|----------|-----------|
| Kw'Ahb-AI | Kw'Ahba' | Kw'ahb-Am |
| put-pr | put | put-pf |
-
- (87) 'be'
- | | | |
|-------|----------|-----------|
| Ex-om | ex-m-Ach | ex-m-Amad |
| be-? | be-?-np | be-?-pf |
-
- (88) 'take care of (things or people)'
- | | | |
|----------|--------------|--------------|
| bEl-ko-l | belko-m-Ach | belko-l-Amad |
| road?-AP | ta.ca.-AP-np | ta.ca.-AP-pf |
-
- 'take care of (s.t. or s.o.)'
- | | | |
|--------------|--------------|-----------|
| bel-at-n-AI | belatnA'[21] | belatn-Am |
| road?-PS?-pr | ta.ca. | ta.ca.-pf |

- (89) 'warm up' [22]
 dila-l dil-Ach dil-Amad
 warm-RFL? warm-np warm-pf
- 'warm (s.t.) up'
 dila-n-d-AI dilandA' [21] diland-Am
 warm-PS?-cs-pr warm warm-pf
- (90) 'receive (things)'
 bAch'-k'u-l bach'k'u-l-Ach bach'k'u-l-Amad
 receive-?-AP receive-AP-np receive-AP-pf
- 'receive (s.t.)'
 bAch'w-al bAch'u bach'U-m
 receive-pr receive receive-pf
- (91) 'sing (songs)'
 Ahat Ahti-n ahti-nEk
 sing sing-AP sing-pf
- 'sing (s.t.)'
 ahat-n-AI Ahat-na' ahat-n-Am
 sing-PS?-pr sing-PS? sing-PS?-pf
- (92) 'sneeze'
 hAt'is-om hat'isom-l-Ach hat'isom-l-Amad
 sneeze-AP? sneeze-AP?-np sneeze-AP?-pf

And so forth. Other examples may be found in the appendix.

One further pattern we have seen several examples of involves shortening a present tense form to just the stem, often without even its final vowel. Usually, as in (69), (77), (84), (91-92) the truncated stem is antipassive in meaning; sometimes, as in the examples below, it is transitive. Sometimes, as in (77) and (94), both truncated and non-truncated forms are used, with an aspectual difference in meaning, typically that the truncated form is 'aoristic' while the non-truncated form is 'inceptive' or something else.

- (93) 'want (things)'
- | | | |
|-----------------------|--------------------------------|---------------------------------|
| 1E'-n-om
want-?-AP | 1e'n-om-l-Ach
want-AP-AP-np | 1e'n-om-l-Amad
want-AP-AP-pf |
|-----------------------|--------------------------------|---------------------------------|
- 'want (s.t.)'
- | | | |
|-------------------------------|----------------|--------------------|
| 1e' / 1e'n-Al
want want-pr | 1E'na'
want | 1e'n-Am
want-pf |
|-------------------------------|----------------|--------------------|
- (94) 'know (things), be knowledgeable'
- | | | |
|--------------------------|----------------------------|-----------------------------|
| cho'Ob-n-om
know-?-AP | cho'ob-l-Ach
know-AP-np | cho'ob-l-Amad
know-AP-pf |
|--------------------------|----------------------------|-----------------------------|
- 'know (s.t.)'
- | | | |
|---------------------|--|--|
| chO'ob [23]
know | | |
|---------------------|--|--|
- 'come to know (s.t.)'
- | | | |
|--------------------------|----------------------|--------------------------|
| cho'ob-n-Al
know-?-pr | cho'Ob-na'
know-? | cho'ob-n-Am
know-?-pf |
|--------------------------|----------------------|--------------------------|

One more antipassive pattern is shown in (95), the only complete example of its type so far encountered. [23a]

- (95) 'mount, ride (things)'
 punE-l pUne-y pUne-nek
 mount-pr mount-np? mount-pf
- 'mount, ride (s.t.)'
 pun-A1 pUna' pun-um-nA1
 mount-pr mount mount-?-?

The transitive perfect of this verb is quite idiosyncratic. The antipassive forms, however, exemplify a fairly widespread and extremely complex array of patterns which we do not understand well at all. A number of such verbs (all intransitives, many reflexive/passive) are listed starting on the 11th page of the appendix. Among the questions they raise are: what accounts for the differences in their stress patterns? Why is *-nek* 'perfect' never stressed in these verbs, though it always is elsewhere? Why does the vowel before *-nek* never delete by MVD, though vowels before *-nEk* do so routinely? What does the *x* on some (but not all) of the non-present forms have to do with all this? A number of the rules we have discussed can be seen at work in these forms, and sometimes they seem not to apply where they should. We invite the reader to try his luck at them.

2.3. -um ?

There are a few forms which look like they may take an -um antipassive marker. By its phonological shape and by the fact that it takes -Ø, -Ach, and -Amad as its tense suffixes, it looks closely related to the -om suffix (Section 1.3), and it would be desirable to predict one from the other, but it is not clear how to do so. In (96-98) are three forms with -um.

- (96) 'write (things)'
 dUts-um duts-m-Ach duts-m-Amad
 write-AP write-AP-np write-AP-pf
- 'write (s.t.)'
 duts-Al dUtsa' duts-Am
 write-pr write write-pf
- (97) 'breathe'
 dU:ts-um du:ts-m-Ach du:ts-m-Amad
 breathe-AP? breathe-AP?-np breathe-AP?-pf
- (98) 'put, hang (things) out to dry'
 tAK'-um tak'-m-Ach tak'-m-Amad [23b]
 dry-AP dry-AP-np dry-AP-pf
- 'put (s.t.) out to dry'
 tAK'-y-al tAK'-i-y tak'-y-Am
 dry-TR-pr dry-TR dry-TR-pf

(96a) and (97) are a minimal pair for length in all three tenses. It is not clear, however, that -um in (97) is a suffix, nor what it means if it is, since there is no transitive form to compare with it.

These three are the only forms we have with -um following a non-glottal consonant. If we assume -um as a new suffix, the forms are quite predictable, with VD removing the stem final a in (96) and i in (98), and MVD deleting the u in the intransitive non-present and perfect forms. However, as we said above, it would be preferable to show these to be variants of the -om suffix. (98) might be susceptible to the solution we will suggest for (99-103) below, but no obvious solution offers itself for (96-97). One perhaps farfetched possibility is to posit a vowel harmony. Such a rule would somehow have to be restrained from applying to hu:ɔ=om (52), the only other uC±om verb we have found.[24]

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In (99-102) are the rest of the -um forms we have encountered.

- | | | | |
|-------|------------------|---------------|---------------|
| (99) | 'read (things)' | | |
| | Ah-um | ah-um-Ach | ah-um-Amad |
| | read-AP | read-AP-np | read-AP-pf |
| | 'read (s.t.)' | | |
| | Ah-y-al | Aha-y | ah-y-Am |
| | read-TR-pr | read-TR | read-TR-pf |
| (100) | 'buy (things)' | | |
| | ch'A'-um | ch'ay'-m-Ach | ch'ay'-m-Amad |
| | buy-AP | buy-AP-np | buy-AP-pf |
| | 'buy (s.t.)' | | |
| | ch'A'-y-al | ch'A'a-y | ch'a'-y-Am |
| | buy-TR-pr | buy-TR | buy-TR-pf |
| (101) | 'weave (things)' | | |
| | chAh-um | chay-m-Ach | chay-m-Amad |
| | weave-AP | weave-AP-np | weave-AP-pf |
| | 'weave (s.t.)' | | |
| | chAh-y-al | chAha-y | chah-y-Am |
| | weave-TR-pr | weave-TR | weave-TR-pf |
| (102) | 'carry water' | | |
| | K'A'-um | K'ay'-m-Ach | K'ay'-m-Amad |
| | ca.wa.-AP? | ca.wa.-AP?-np | ca.wa.-AP?-pf |

We found no transitive corresponding to (102). (103) is a set of referential forms formed on the stem of (102) (c.f. (14-16)).

- | | | | |
|-------|----------------------------|----------------|------------------|
| (103) | 'carry water for (people)' | | |
| | K'ay'-tsi-x | K'ay'-tsi-x-in | K'ay'-tsi-x-nEk |
| | ca.wa.-ref-AP | c.w.-ref-AP-np | ca.wa.-ref-AP-pf |
| | 'carry water for (s.o.)' | | |
| | K'ay'-ts-al | K'ay'-tsi | K'ay'-ts-Am |
| | ca.wa.-ref-pr | ca.wa.-ref | ca.wa.-ref-pf |

Beginning with (99), we note that the antipassives (not the transitives, this time) are exceptional to MVD. It appears that the stem is *aba*, and that the transitive forms take *-ɣ* 'transitive'. (99-101) are all divided and glossed on the assumption that this is so, although we will question it immediately. It is interesting that, on this assumption, (98-101), which use *-um*, (63-66), which are all the *-i*-final stems, and (69), the lone exception, are the only *-m*-type antipassives which have *-ɣ* transitives.

Assuming, then, that a suppletive *-um* morpheme is used, the forms in (99) are all predictable.

However, other things seem to be at work as well. The non-present and perfect forms of (100a) and (102) and also the root in (103) show a stem- (or root-) final *ɣ̥*. If e.g. the non-present of (100a) were, as we would posit from the analysis in the last two paragraphs, *chaʔatuma:ch*, we would then expect, by VD, *chaʔuma:ch*, and then, by MVD with vestigial labialization, *chawima:ch*. Instead of the *w̥*, we get a *ɣ̥* in these forms. Similarly, in the non-present and perfect of (101a), where from an UF such as *chabatuma:ch* we should expect (by VD, MVD, and H-Del) *chawma:ch*, we instead get *chayma:ch*, with *ɣ̥* instead of *w̥*.

Consider further the extent to which the transitives of (99-100) parallel (28b) and (43b), and (101b) parallels (44b), always with the exception that they have *ɣ̥* instead of *w̥*, and also with the exception that there is no analog to the long stem vowel in the perfect, produced by LRV. The *ɣ̥*'s in the present and perfect forms could come from a Y-Insertion collapsible with W-Ins (26), feeding MVD as does W-Ins, and the non-present forms could be produced by a version of A-Spreading (30) expanded to treat *i* like *u*.

We might, then, posit for (99-102) stems ending in *i*, and make the following expansions of our rules:

(a) MVD (6) would leave vestigial palatalization when deleting *i*, just as it leaves vestigial labialization when deleting *u*.

(b) H-Deletion (45) would apply to palatalized as well as labialized *b*'s, leaving behind (naturally enough) a *ɣ̥* instead of a *w̥*.

(c) A-Spreading (30) would occur before *i* as well as *u*, again producing an *aɣ̥* instead of an *aw̥*.

One further rule would also be needed: a coalescence of *i + o* to produce *u* in e.g. the antipassive present forms.

=====

(104) Coalescence

i + o ==> u

=====

Derivations like the following would occur (c.f. (29), (46)):

=====

(105)	'weave (s.t.)'	'wove (things)'	'carry water for (s.o.)'
UF	chahit+al	chahi+om+a:ch	k'a'i+tsi+al
Y-Ins	chahiyal	-----	(exception)
O-Del	-----	chahima:ch	-----
Coal	-----	-----	-----
VD	-----	-----	k'a'itsal
MVD	chahyal	chahyma:ch	k'ay'tsal
H-Del	-----	chayma:ch	-----
Str	chAhyal	chaymAch	k'Ay'tsal

=====

=====

(106)	'read (s.t.) (np)'	'read (things)'
UF	ahi	ahi+om
O-Del	---	(exception)
Coal	---	ahum
A-Spr	ahay	-----
Str	Ahay	Ahum

=====

With but little work the same analysis could be extended to (98), whose transitive non-present shows it to have an *i*-final stem. Either a *y* could be inserted after a word-final *i*, or we could go ahead and claim that (98), unlike (99-101), has the *-y* 'transitive' morpheme.

So this analysis does a lot of work for us, giving us free rides on naturally expanded versions of rules we had already posited, and thereby expressing the similarities of patterning between these and *ʔw=al* and *hw=al* verbs. However, it has its problems.

(a) It cannot account for (96), with its *a*-final stem, and likely not (97) either.

(b) The antipassive present forms must all be exceptional to O-Deletion. This could be accomplished by ordering Coalescence before O-Del; however then (63-66) would have to be made exceptional to Coalescence, and the non-present and perfect forms of (100-102) as well.

(c) Yet Coalescence cannot be restricted to present tense forms, as it applies in all three forms of (100a). The

non-present and perfect forms of (100a) must thus be exceptional to O-Deletion as well as to MVD.

(d) All forms in -tsi such as (14-16) and (103) must be exceptions to Y-Insertion, since you do not get e.g. ʔʔʔʔtsixal. (We assume that Y-Ins, being collapsed with W-Ins, precedes VD rather than vice versa.)

(e) We have to explain why no "vestigial palatalization" shows up in forms like the antipassive non-present and perfect of (34) and (perhaps) (3), and why we get h rather than ʔ in (4a).

(f) Although the parallels with ʔw=al and hw=al transitives are expressed well, the equally strong parallels with -ʔ=al transitives are lost.

We are left with the feeling that either we've missed something crucial somewhere, or Huasteco (like other normal languages) isn't as simple and elegant as we'd like; that more than one contradictory pattern may be legitimately seen in the same data.

Footnotes

*Rufina and Teodora Del Angel Santana provided the data for this paper and commented on their native intuitions regarding many aspects of it. James and Mary Walker collected the data, and David Tuggy helped with the analysis. We wish to emphasize the preliminary nature of this paper, especially taking into consideration the amount of data we do not have any clear explanation for: see especially Section 2.3 and the "Unstressed -nək" verbs in the appendix.

[1] The phonemes of Veracruz Huasteco are represented in this paper in a non-technical orthography as follows: Consonants are lenis stops: b, t, ts, ch(=č), k, kw; fortis stops: p, t', ts', ch', k', k'w; fricatives: d(=θ) s, x(=š); laryngeals: h, ʔ(=?); liquids: l, r; nasals: m, n; semi-vowels: ɣ, w. Vowels are a, e, i, o, u. Vowels can also be long; length is indicated by a colon except when the vowel is stressed.

Stress is problematic. According to Larsen and Pike (1949) the rightmost long vowel of a word is stressed and if there is no long vowel the first vowel is stressed. We assume this rule to be true: it is given in (5). We are

representing stressed vowels by upper case letters. Thus any vowel, other than the first in a word, which is written with a capital letter, may be presumed to be long. Not all such stressed vowels were perceptibly long to us, however. In a number of cases, especially when there were more than one long vowel in a word, stress was hard to determine and seemed at times to fluctuate.

Veracruz Huasteco has the same inventory of sounds as San Luis Potosí Huasteco, but with the addition of *s* as in *Usnal* '(s.t.)is said' and *x* as in *cawɔ* 'fox'. The sounds *d*, *f*, and *g* also occur occasionally in loan words from Spanish. Our orthography departs from that used by Larsen in his *Vocabulario Huasteco* of S.L.P.(1955) in the following ways: we have used *k* for the velar stop instead of *c* and *qu*. Also, *kɔ* is used instead of *cɔ* and *quɔ*; *kw* instead of *cw* and *kɔw* instead of *cɔw*. We have used *b* instead of Larsen's *j*, *w* instead of *hu* and *d* for *ɬ*. The rationale for using *d* for the phonetic sound *ɬ* is based on almost universal informant reaction that it is indeed the same as the second *d* in the Spanish word 'dedo'.

[2] Our conventions for citing and glossing data are as follows: Verb forms are given in three columns, reflecting the existence of three basic 'tenses'. The first column contains 'present' forms, followed by 'non-present' and then by 'perfect' forms. (These categories correspond to McQuown's (1976) completive, incomplete and perfect.) Usually verbs are cited in pairs, with the first being antipassive and the second the corresponding transitive. We will refer to the first of a pair as *a* and the second as *b*; thus (1b) will refer to the (transitive) verb forms meaning 'adorn (s.t.)'. Transitive verbs are glossed with *s.t.* or *s.o.* in parentheses, representing the thing or person expected to function as object.

In morpheme-by-morpheme glosses where a single morpheme is glossed by two English words, they may be joined by a colon.

When verbs with complex stems are used in examples, we gloss the component morphemes in the first citation (the present antipassive) but gloss the stem as a whole thereafter (see e.g. (4)).

The following abbreviations are used in glosses and elsewhere:

AP = antipassive	TR = transitive
PS = passive	RFL = reflexive
np = non-present	pr = present
ref = referential	cns = consonantal
pf = perfect	cs = causative
L-R = left to right	R-L = right to left

UF = underlying form	N = noun
s.o. = someone	V = verb, vowel
s.t. = something	C = consonant
str = stressed	lg = long
hi = high	

When a morpheme or stem has an overlong gloss, other ad hoc abbreviations are used -e.g. in (14) 'ca.fo.' for 'carry food to'.

The following are abbreviations of names of phonological rules:

Str = (5), Stress Assignment
 MVD = (6), Medial Vowel Deletion
 VD = (17), Vowel Deletion
 GSI = (21), Glottal Stop Insertion
 W-Ins = (26), W-insertion
 LRV = (27), Long rounded vowel Formation
 A-Spr = (30), A-Spreading
 O/a = (39), O/a-Switching
 H-Del = (45), H-Deletion
 N-Del = (57), N-Deletion
 O-Del = (67), O-Deletion
 Degem = (81), N-Degemination
 Coal = (104), Coalescence
 Y-Ins = Y-Insertion

[3] Perhaps the -i- in -x=i=ne:k is the same morpheme as the -in- in -x=in 'non-present', and the two n's merge into one by N-Degemination (81).

[4] The antipassive endings are apparently identical to a set of reciprocal endings. However, all the stem V's are lengthened in the reciprocal forms. This places stress (5) on the last stem vowel, and forces MVD (6) to apply to the i of x=i=ne:k rather than the final stem vowel. Thus 'advise each other' (cf. (3)) has the forms ta:k'I=x, ta:k'I=x=in, ta:k'I:=x=nEk.

[4b] One form casts doubt on a firm LR ordering of MVD. The antipassive forms of 'dream' (a "referential" form of 'sleep' and an -l antipassive, see 1.2) are wa=ts=bi=l (sleep-ref-cs?-AP), watsbi=l=Äch or watsib=l=Äch, and watsbi=l=Ämad, while the corresponding transitive forms (meaning 'dream about (s.o.)') are watsib=n=Äl (dream-PS?-pr), watsib=nÄ', and watsib=n=Äm. The forms vary as to whether the i of -isi 'referential' or that of -bi 'causative (?)' is deleted, while strict LR ordering would predict that the i of -isi would always be the one.

[5] Actually many if not most of these forms would be at some stage CV+CV-final, the CCV configuration being produced by the first L-R iterative application of MVD. E.g. the stem in (10) is probably underlyingly *ts_iitsab=ba* 'comb(N)-cs', which by Degemination yields *ts_iitsaba* and then by MVD *ts_iitsba*.

[6] Typically, *-tsi* when added to a verb makes it transitive with respect to some person to or for whom the action is done. In many grammatical models it would be analyzed as a marker of an indirect object's becoming direct object. Its usage is quite complex, however: consider the meaning one must posit for it to explain (15) - not 'sleep for s.o.', but 'not sleep because of s.o.'

[7] Like the other CCV stems, most if not all would be underlyingly CV+*tsi*, with the C*tsi* produced by MVD. See the derivation in (18).

[8] This condition is discussed in 1.1.3 (Footnote #10).

[9] Transitives with this pattern (*-Δl*, etc.) are common in absolute terms: however they are not as common as *-x=al* transitives among verbs with antipassives in *-x*.

[10] Vowel deletions typically do not shorten virtual long vowel clusters (REF), so we might assume such a constraint on VD. However, we will see in (69-70) that *ɔ+ɔ* does not produce *ɔ*: but rather *ɔ*. Therefore we have put the condition on VD that it does not shorten virtual long *a*'s, permitting it to shorten the *ɔ*'s. Note that both cases serve a disambiguating function--shortening *a*'s preserves the distinction between the antipassive and transitive presents of (36) and (37), and not shortening *ɔ*'s preserves the distinction between the antipassive present and the transitive perfect of (70).

[11] In San Luis Potosi Huasteco LRV is apparently optional and perhaps restricted to a limited class among *w=al* verbs: Edmonson (MS:13) states that either *nubuwΔ:mal* or *nubU:mal* 'have sold (s.t.)' was acceptable to her informants.

[12] This account is especially satisfying since to try to posit a 'real' segmental *w* here would be to posit either a new phoneme *w*' or a CCC cluster, neither of which

is needed independently of forms susceptible to this analysis. We would thus posit that the stem in (20) is underlyingly *pe'ula*. (Note however that *u'*, *w'*, and *x'* all do occur word-finally: e.g. *ɬaw'* 'fox'.

The labialization is not clearly perceptible in a number of environments involving preceding and following *u*'s or *w*'s. For instance in the present of (28b) we posit that the labialization occurs but is perceived as the onset for the consonant *w*. Similarly in the forms in (2) which undergo MVD the labialization of *k* is perceived as the aftermath of the remaining *u* and/or as part of the onset of the *-x*.

[13] We have not argued here against making the *a* basic and changing it: later forms make the *o/a* direction seem more probable.

[14] The only other verb we have found with a stem clearly ending in *ahu* is *ch'ahu* 'lasso' which takes the *-l* antipassives and *-x* transitives. Unfortunately it is exceptional to MVD, so its non-present and perfect antipassive forms are *ch'ahu-l=ach* and *ch'ahu-l=amad*. The verb whose present tense is *chahu=l* 'be cold' and which must certainly have a *u* associated with the end of the stem somehow, has a causative *chaw=da* 'cool (s.o.) off', which looks like a likely candidate for H-Del. However, the UF *chahu*, with a short *u*, does not account for the intransitive forms. Another place where H-Del may apply is in (101), where an *i* rather than a *u* may have been deleted by MVD, and a *x* rather than a *w* appears on the surface.

[15] *-na* may actually be *-na=a* with *-a* an intransitivizing (often passive, often antipassive, see 1.3) suffix and a *-a* a transitive. In some cases *-na* seems to switch direct objects on transitive verbs, rather like a backwards 'referential'. E.g. *pida* means 'give (s.o.) something', *pida=n* means 'a (person) be given something (intransitive)' and *pida=na* means 'give (s.t.) (to people)'.

[16] *exa:ba* 'study' looks to have *-x* transitive as well as this *-n* transitive: *Exha=x=al* means 'understand (s.t.)'. However, for the *a* to disappear by MVD in this form the UF must be *exoba*, with a short *a*.

[17] For instance, some verbs have *-x* antipassives (e.g. (50) and (51), cf. (8), (21)). Also some can take reciprocal endings, in which case the stem vowels are

lengthened. The reciprocal present of (53) is $a:xla:=x$ and that of (55) is $da:x\hat{a}:=x$. These forms all show the stems to be a -final. The one exception of twenty-four examples is (54), which has an $-x$ antipassive $k\hat{a}ni:=x$, and reciprocal $ka:nI:=x$, which make it look like the stem UF is $kani=$. We do not know how to account for this stem's use of the $-\hat{a}l$ transitive pattern, unless what we have termed O/a -Switching is really V/a , and the stem-final i is converted to a by it. We should expect an i -final stem to behave like (63-66).

[18] Also of interest is the fact that when a reciprocal is made of the referential, lengthening the stem vowels, the root-final vowel before the $-tsi$ is not lengthened, but rather deleted. (E.g. 'wash (things) for each other' is not $\hat{i}a:ka:=tsi:=x$, but rather $\hat{i}a:k=tsi:=x$.) This is a general pattern with reciprocal reflexives. There is thus an ordering paradox between MVD and the reciprocal lengthening: MVD deletes the root-final a , bleeding the lengthening rule. Yet elsewhere we have seen lengthening bleeding MVD (e.g. $\hat{i}a:k\hat{i}l:=x$ in 'advised each other' versus $\hat{i}ak\hat{i}:=x$ in 'advised (people)' (3)). This is, we believe, evidence that phonological rules do not really all apply at once to all the UF's involved in a word. The stem $\hat{i}ak=tsi$ is rightly accounted for by MVD, but is established with that shape in its own right, and it is to that stem, already bearing the evidences of MVD's application, that the reciprocal suffix is added and lengthening applied. This is the sort of phenomenon traditionally expressed by cyclical application.

[19] An alternative analysis (and perhaps, in the end, the best one) would be to assign to the antipassive marker two suppletive forms: $-om$ after a -final stems, and $-m$ elsewhere. The $-m$ allomorph would appear on the antipassives of (60-66) and (69-70). O -Deletion would be unnecessary, and a more general condition could be put on VD , namely that it not shorten any virtual long vowels.

[19a] Further elicitation indicates that $mat:=x=i=nEk$ is also an acceptable perfect form completing the $-x$ paradigm, and that a present tense $mat:=om$ and non-present $mat:=m=\hat{a}ch$ are used in some rancherías other than the Del Angel's, especially by 'people who don't know spanish'. A set of $-l$ forms were also accepted: $mat:=l$, $mat:=l=\hat{a}ch$, and $mat:=l=\hat{a}mad$. Note that $mat:=om$ does not fit the expected patterns: we would expect either $mat:=m$ by O -Deletion, paralleling (63-66), or perhaps $mat:=um$, paralleling (98) and (99-101).

[20] It may prove to be the case that the intransitive present form is $-l$, with the a epenthesized.

[21] We do not know how to account for the stress on the final vowel of these forms. It looks like a positive exception to GSI, which should only apply to short and therefore unstressable final a's. We have only three examples--(88-89) and the form in Footnote #4b-- and in them it was hard at times to tell where the stress really was. Sometimes it clearly was final, other times it seemed equally clearly non-final.

[22] A degemination can be seen at work in the non-present and perfect intransitive forms of this verb. E.g. the UF of the non-present form is *dila-l-a:ch*, which by MVD yields *dilla:ch*, which is degeminated and stressed to give the surface *diláčh*. Note that if this rule is collapsed with N-Degemination (81) an ordering paradox results: Degemination feeds MVD in e.g. the antipassive perfect forms of (78-80), and MVD feeds Degemination in the intransitive non-present and perfect of (89).

[23] We have no explanation for why the first *a* rather than the second is stressed in the truncated form. The antipassive present and transitive non-present forms indicate that the second *a* is long and thus should always be stressed in preference to the first.

[23a] A couple of other antipassives follow this pattern in a couple of forms. 'Chew (gum)' has the forms *k'axk'í-l*, *k'axk'í-l-y*, and *k'axik'í-l-amad* (transitives *k'axik'í-n=al*, etc.); (74) is another example.

[23b] In (34) is an -l antipassive of the same stem.

[24] Another possibility might be to make -um basic and derive -om, since it only shows up following -a-final stems, from *a+o*. Yet the stem in (96) is *duřsa*, and with it you get -um, not -om.

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Appendix

This appendix consists of a sparsely edited working list of transitive/intransitive verb pairs, from which the examples in the text were taken. The first 9 pages are mostly antipassive/transitive pairs, a large number of which are analyzed in the text. Later sections include lists of verbs with truncated presents, verbs like (95) with a stressed root-final vowel in the present and unstressed *-nak* in the perfect, and extended lists of verb forms derived from a single root. The glosses are in Spanish, and morpheme cuts often reflect preliminary analyses contrary to those adopted in the text (e.g. *-Al*, *-a'*, and *-Am* are cut off as tense morpheme, where in the text *-al*, *-Ø*, and *-Am* are posited.) We apologize for not having everything in better order, but hope the data's being available at all will be at least some compensation.

GLOSS	PRESENT	NON-PRESENT	PRESENT PERFECT
"M" group			
-om stems with -Al in the transitives			
ser amante[-MVD]	k'Ani-d-om	k'ani-d-om-Ach	k'ani-d-om-Amad
amar[-MVD]	k'Ani-da-x	k'Ani-da-x-in	k'ani-da-x-nEk
amarlo[-MVD]	k'ani-d-Al	k'Ani-d-a'	k'ani-d-Am
ser entregador	wIts-b-om	wits-b-om-Ach	wits-b-om-Amad
devolver	wIts-ba-x	wIts-ba-x-in	wits-ba-x-nEk
devolverlo	wits-b-Al	wIts-b-a'	wits-b-Am
llevar	hU:n-om	hu:-m-Ach	hu:-m-Amad
llevarlo	hu:n-Al	hU:n-a'	hu:n-Am
conocer	Exl-om	exl-om-(l)-Ach	exl-om-(l)-Amad
conocerlo	exl-Al	Exl-a'	exl-Am
llamar	kAn-om	kan-m-Ach	kan-m-Amad
llamarlo	kan-Al	kAn-a'	kan-Am
levantar	dAy-om	dAy-m-Ach	day-m-Amad
levantarlo	day-Al	dAy-a'	day-Am
guardar	tA'p-om	tA'p-om-Ach	tA'p-om-Amad
guardarlo	ta'p-Al	tA'p-a'	ta'p-Am
hacer	t'Ah-om	t'ah-m-Ach	t'ah-m-Amad
hacerlo	t'ah-Al	t'Ah-a'	t'ah-Am

echar tortillas echar torts	ch'At'-om ch'at'-Al	ch'at'-l-Ach ch'At-a'	ch'at'-l-Amad ch'at-Am
colgar colgarlo	pAl-om pal-Al	pal-m-Ach pAl-a'	pal-m-Amad pal-Am
sembrar sembrarlo	t'Ay-om t'ay-Al	t'ay-m-Ach t'Ay-a'	t'ay-m-Amad t'ay-Am
subir(se) subir(cosas) subir subirlo	K'adI-l K'Ad-b-om K'Ad-ba-x K'ad-b-Al	K'Adi-y K'ad-b-om-Ach K'Ad-ba-x-in K'Ad-b-a'	K'Adi-nek K'ad-b-om-Amad K'ad-ba-x-nEK K'ad-b-Am
dar, entregar dar darlo darselo darselo(recipr)	pid-n-om pid-na-x pid-n-Al pid-Al pi:dA:-x	pid-n-om-Ach pid-na-x-in pid-n-a' pida' pi:dA:-x-in	pid-n-om-Amad pid-na-x-nEK pid-n-Am pid-Am pi:da:-x-nEK
platicar platicarlo	t'il-om t'il-Al	t'il-m-Ach t'il-a'	t'il-m-Amad t'il-Am
raspar rasparlo	hid-om hid-Al	hid-m-Ach hid-a'	hid-m-Amad hid-Am
lavar lavarlo	t'Ok-om t'ak-Al	t'ok-m-Ach t'AK-a'	t'ok-m-Amad t'ak-Am
acarrear acarrearlo	Iy-om iy-Al	iy-m-Ach Iy-a'	iy-m-Amad iy-Am
mirar mirarlo mirarse(recipr)	tEl-om tel-Al te:lA:-x	tel-m-Ach tEl-a' te:lA:-x-in	tel-m-Amad tel-Am te:la:-x-nEK
manejar manejarlo	bel-d-om bel-d-Al	bel-d-om-Ach bEl-d-a'	bel-d-om-Amad bel-d-Am
Misc -om stems			
tener gusto gustarlo	kulbEt-n-om kulbet-n-Al	kulbEt-na-x-in kulbEt-n-a'	kulbet-na-x-nEK kulbet-n-Am
poner(se) ponerlo	kw'Ah-ba-x kw'ah-b-Al	kw'ahb-om-Ach kw'Ahb-a'	kwahb-om-Amad kw'ahb-Am
bendecir bendecirlo	lab-t'Ah-om lab-t'ah-Al	lab-t'ah-m-Ach lab-t'Ah-a'	lab-t'ah-nEK lab-t'ah-Am
quemar quemarlo	tsIk-l-om tsik-Al	tsik-l-om-Ach tsIk-a'	tsik-l-om-Amad tsik-Am
estar (aux. cont)	Ex-om	ex-m-Ach	ex-m-Amad

-um stems with -y-al in the transitives

asolear(se)	tAk'-um	tak'-m-Ach	tak'-m-Amad
asolearlo	tAk'-y-al	tAk'i-y	tak'-y-Am
leer [-MVD]	Ah-um	ah-um-Ach	ah-um-Amad
leerlo	Ah-y-al	Aha-y	ah-y-Am
comprar	ch'A'-um	ch'ay'-m-Ach	ch'ay'-m-Amad
compararlo	ch'A'-y-al	ch'A'a-y	ch'a'-y-Am
tejer	chAh-um	chay-m-Ach	chay-m-Amad
tejerlo	chAh-y-al	chAha-y	chah-y-Am

-um stems with -Al in the transitives

escribir	dUts-um	duts-m-Ach	duts-m-Amad
escribirlo	duts-Al	dUts-a'	duts-Am
respirar	du:ts-um	du:ts-m-Ach	du:ts-m-Amad

Misc -um stems with -al in the transitives

acarrear agua	K'A'-um	k'ay'-m-Ach	k'ay'-m-Amad
acarrear(le) agua	K'ay'-tsi-x	K'ay'-tsi-x-in	K'ay'-tsi-x-nEk
acarrearle agua	K'Ay'-ts-al	K'ay'-tsi	K'ay'-ts-Am

-m stems with w-al in the transitives

lavar ropa	pA:k'u-m	pakw'-m-Ach	pakw'-m-Amad
lavar ropa	pAk'w-al	pAk'u	pak'U-m
quebrar nixt	kElu-m	kel-m-Ach	kel-m-Amad
quebrar nixt	kElw-al	kElu	kElU-m(al)
revolver, rodear	xAlu-m	xal-m-Ach	xal-m-Amad
revolver, rodearlo	xA:lw-al	xAlu	xalU-m
vaciar	h0lk'o-m	holk'o-m-Ach	holk'o-m-Amad
vaciarlo	h0lk'ow-al	h0lk'o	holk'o-m

Misc

poderlo	Ehtow-al	Ehto	eht0-m
Véase Awil (ser poderoso)			

-m stems with -y-al in the transitives

buscar	Ali-m	al-m-Ach	al-m-Amad
buscar/extranarlo	A-y-al	Ali-y	ali-y-Am
buscar(reci)[mvd]	a:li:-x	a:li:-x-in	a:li:-x-nEk

tostar	t'Ili-m	t'il-m-Ach	t'il-m-Amad
tostarlo	t'II-y-al	t'Ili-y	t'il-y-Am
torcer	t'A:li-m	t'a:l-m-Ach	t'a:l-m-Amad
torcerlo	t'Al-y-al	t'Ali-y	t'al-y-Am
enterrar	h0li-m	hol-m-Ach	hol-m-Amad
enterrarlo[-MVD]	h0li-y-al	h0li-y	holi-y-Am

Misc -M

barrer	- Kw'et	Kw'et-m-Ach	Kw'et-m-Amad
barrerlo	Kw'Et-y-al	Kw'Eto-y	Kw'et-y-Am
bañarse	Atsi-m	ats-m-Ach	ats-nEK
bañarlo	atsi-d-Al	atsI-d-a'	atsi-d-Am
bañar(recip)	a:tsi:-d-A:-x	a:tsi:-d-A:-x-in	a:tsi:-d-a:-x-nEK

"X" group

"X" -CV stem with -y-al in transitive

adornar	diba-x	dib-x-in	dib-x-i-nEK
adornarlo	dIb-y-al	dIb-a-y	dib-y-Am
coser	tsUKu-x	tsUK-x-in	tsuk-x-i-nEK
coserlo	tsUK-y-al	tsUKu-y	tsuk-y-Am
dar consejo	tAk'i-x	tAk'-x-in	tak'-x-i-nEK
darle consejo	tAk'-y-al	tAk'i-y	tak'-y-Am
dar consejo(recip)	ta:k'I:-x	ta:k'I:-x-in	ta:k'i:-x-nEK
maldecir	od-bih-i-x	od-bih-x-in	od-bih-xi-nEK
maldecirlo	od-bih-y-al	od-bih-i-y	od-bih-y-Am
maldecirse(recipr)	od-bi:h-I:-x	od-bi:h-I:-x-in	od-bi:h-i:-x-nEK
ser amante[-MVD]	k'Ani-d-om	k'ani-d-om-Ach	k'ani-d-om-Amad
amar[-MVD]	k'Ani-da-x	k'Ani-da-x-in	k'ani-da-x-nEK
amarlo[-MVD]	k'ani-d-Al	k'Ani-d-a'	k'ani-d-Am

"X" -CV stem with -al in transitive

golpear	chA'u-x	chAw'-x-in	chaw'-xi-nEK
golpearlo*	chA'-w-al	chA'aw	cha'U-m
golpearse(recipr)	cha:'U:-x	cha:'U:-x-in	cha:'u:-x-nEK
odiar	At'a-x	At'-x-in	at'-x-i-nEK
odiarlo	at'-Al	At'-a'	at'-Am
odiarse(recipr)	a:t'A:-x	a:t'A:-x-in	a:t'a:-x-nEK

"X" -CV misc

pelearse	pe:hE:x	pe:hE:x-in	pe:he:x-nEK
pelearle	pe:he:x-n-Al	pe:hE:x-n-a'	pe:he:x-n-Am

"X" -CCV stem with -y-al in the transitives

poner dentaduras	kAmbi-x	kAmbi-x-in	kambi-x-nEK
poner dentaduras	kAmbi-y-al	kAmbi-y	kambi-y-Am
visitar	chA'bi-x	chA'bi-x-in	cha'bi-x-nEK
visitarlo	chA'bi-y-al	chA'bi-y	cha'bi-y-Am
remendar	pAts'k'u-x	pAts'k'u-x-in	pats'k'u-x-nEK
remendarlo	pAts'k'u-y-al	pAts'k'u-y	pats'k'u-y-Am
brujea	dImk'a-x	dImk'a-x-in	dimk'a-x-nEK
brujearlo	dImk'a-y-al	dImk'a-y	dimk'a-y-Am
peinarse	ts'Itsba-x	ts'Itsba-x-in	ts'itsba-x-nEK
peinarlo	ts'Itsba-y-al	ts'Itsba-y	ts'itsba-y-Am
peinarse(recipr)	ts'i:tsbA:-x	ts'i:tsbA:-x-in	ts'i:tsba:-x-nEK
ayudar	tOImi-x	tOImi-x-in	tolmi-x-nEK
ayudarlo	tOImi-y-al	tOImi-y	tolmi-y-Am
ayudarse(recipr)	to:ImI:-x	to:ImI:-x-in	to:Imi:-x-nEK
mentir	k'Ambi-x	k'Ambi-x-in	k'ambi-x-nEK
engañarlo	k'Ambi-y-al	k'Ambi-y	k'ambi-y-Am
engañarse(recipr)	k'a:mbI:-x	k'a:mbI;-x-in	k'a:mbi:-x-nEK
preparar	lEhki-x	lEhki-x-in	lehki-x-nEK
prepararlo	lEhki-y-al	lEhki-y	leki-y-Am
cambiarse	hAlk'u-x	hAlk'u-x-in	halk'u-x-nEK
cambiarlo	hAlk'u-y-al	hAlk'u-y	halk'u-y-Am
pensar	chAlpa-x	chAlpa-x-in	chalpa-x-nEK
pensarlo	chAlpa-y-al	chAlpa-y	chalpa-y-Am

"X" -CCV stem with -y-al in the transitives

cepillarse	pEd-ba-x	ped-ba-x-In	ped-ba-x-nEK
cepillar	pEd-ba-y-al	ped-ba-y	ped-y-Am
cepillarse(recipr)	pe:d-bA:-x	pe:d-bA:-x-in	pe:d-ba:-x-nEK
sacudirlo	pEd-y-al	pEdo-y	ped-y-Am

"X" -CCV stems with -al in the transitives

enviar	Abna-x	Abna-x-in	abna-x-nEK
enviarlo	abn-A:l	Abn-a'	abn-Am
tronar	pEw'la-x	pEw'la-x-in	pew'la-x-nEK
tronarlo	pew'l-A:l	pEw'l-a'	pew'l-Am
recaer	wIts-bi-n-al	wIts-bi-n	wits-bi-nEK
repetir	wIts-K'o-n-al	wIts-K'o-n	wits-K'o-nEK
la enfermedad			

repetir	wIts-k'o-x	wIts-k'o-x-in	wIts-k'o-x-nEK
repetirlo	wIts-k'ow-al	wIts-k'o	wIts-k'o-m
ser entregador	wIts-b-om	wIts-b-om-Ach	wIts-b-om-Amad
devolver	wIts-ba-x	wIts-ba-x-in	wIts-ba-x-nEK
devolverlo	wIts-b-Al	wIts-b-a'	wIts-b-Am

"X" -C-tsi stems with -ts-al in the transitives

llevar comida a la milpa	AK-tsi-x	AK-tsi-x-in	ak-tsi-x-nEK
llevar comida a la milpa	AK-ts-al	AK-tsi	ak-ts-Am
ir por pasto	Akw'-tsi-x	Akw'-tsi-x-in	akw'-tsi-x-nEK
ir por pasto	Akw'-ts-al	Akw'-tsi	akw'-ts-Am
velar	wAy-tsi-x	wAy-tsi-x-in	way-tsi-x-nEK
velarlo	wAy-ts-al	wAy-tsi	way-ts-Am
esperar	Ay-tsi-x	Ay-tsi-x-in	ay-tsi-x-nEK
esperarlo	Ay-ts-al	Ay-tsi	ay-ts-Am
ser regador	pUh-tsi-x	pUh-tsi-n-in	puh-tsi-x-nEK
regarlo	pUh-ts-al	pUh-tsi	puh-ts-Am
bautizar	pUn-y-al	puha-y	puh-y-Am

"X" -C-tsi stems Misc

dar prestado	mAtin-tsi-x	mAtin-tsi-x-in	matin-tsi-x-nEK
dar prestado	matintsix-n-Al	matintsix-n-A'	matintsix-n-Am
darselo pres- recip	ma:ti:ntsI:-x	ma:ti:ntsi:x-in	ma:ti:ntsi:x-nEK

"L" group

"L" group with -n-Al in the transitive

cargar	kIta-l	kit-l-Ach	kit-l-Amad
cargarlo	kit-n-Al	kit-n-a'	kit-n-Am
nadar	kQwa-l	kow-l-Ach	kow-l-Amad
nadarlo	kow-n-Al	kQw-n-a'	kow-n-Am
estudiar	exOba-l	exob-l-Ach	exob-l-Amad
estudiar	exob-n-Al	exOb-n-a'	exob-n-Am
entenderlo	Exba-y-al	Exba-y	exba-y-Am

Misc "L" with -n-Al in the transatives

masticar (chicle)	k'axk'I-l	k'axk'I-y	k'axik'-l-Amad
masticarlo (chicle)	k'axik'-n-Al	k'Axik'-n-a'	k'axik'-n-Am

cuidar	bEl-ko-l	bel-ko-m-Ach	bel-ko-l-Amad
cuidarlo	bel-at-n-AI	bel-at-n-A'	bel-at-n-Am
calentarse	dIla-l	dil-Ach	dil-Amad
calentarlo	dila-n-d-AI	dila-n-d-A'	dila-n-d-Am
sonar	wAtsbi-l	watsbi-l-Ach (watsib-l-Ach)	watsbi-l-Amad
sonarlo	watsib-n-AI	watsib-n-A'	watsib-n-Am

"L" group with -y-al in transitives

aguantarlo	KUx-y-al	KUxu-y	kux-y-Am
turnar	KU:xu-m	kux-mAch	kux-l-Amad
ir en lugar de otra persona	KU:xu-l	kux-l-Ach	kux-l-Amad
turnarse muy se- guido-recip	Ku:xU:-x	Ku:xU:-x-in	Ku:xu:-x-nEk
turnarlo	KUxu-n-ts-al	KUxu-n-tsi	Kuxu-n-ts-Am
tocar musico	t'Ene-l	t'en-l-Ach	t'en-l-Amad
tocar instrum.	t'En-y-al	t'Ene-y	t'en-y-Am
moler	chE'e-l	che'-l-Ach	che'-l-Amad
molerlo	chE'-y-al	chE'e-y	che'-y-Am
ocuparlo el metate	che'-n-AI	chE'-n-a'	che'-n-Am
ocuparlo el metate (siempre)	che'e-m-n-AI	che'E-m-n-a'	che'e-m-n-Am
soplar	hUtsu-l	huts-l-Ach	huts-l-Amad
soplarlo	hUts-y-al	hUtsu-y	huts-y-Am
cortar	KO:to-l	kot-l-Ach	kot-l-Amad
cortarlo	KOt-y-al	KOto-y	Koty-Am
pintar	mU:ku-l	muk-l-Ach	muk-l-Amad
pintarlo	mUK-y-al	mUKu-y	muk-y-Am
sonar nariz	dImi-l	dim-l-Ach	dim-l-Amad
sonar la nariz	dIm-y-al	dImi-y	dim-y-Am
acarrear (lena)	Eche-l	ech-l-Ach	ech-l-Amad
acarrear lena	Ech-y-al	Eche-y	ech-y-Am
cortar con machete	t'AKi-l	t'ak-l-Ach	t'ak-l-Amad
cortarlo con mach	t'AK-y-al	t'AKi-y	t'ak-y-Am
escardar	chIxi-l	chix-l-Ach	chix-l-Amad
escardarlo	chIx-y-al	chIxi-y	chix-y-Am
rascarse	KOch'i-l	koch'-l-Ach	koch'-l-Amad
rascarlo	KOch'-y-al	KOch'i-y	koch'-y-Am
toser	Ohba-l	ohba-l-Ach	ohba-l-Amad

toserlo	Ohba-y-al	Ohba-y	ohba-y-Am
sacudir	pEdo-l	ped-l-Ach	ped-l-Amad
sacudirlo	pEd-y-al	pedo-y	ped-y-Am
remoler	yUt'	yut'-l-Ach	yut'-l-Amad
remoler (con dientes)	yUt'-y-al	yUt'-i-y	yut'-y-Am

"L" group with -w-al in transitives

gastar	pA:ku-l	pa:kw-l-Ach	pakw-l-Amad
gastarlo, borrarlo	pAk-w-al	pAku	pakU-m
chupar	ch'A'u-l	ch'aw'-l-Ach	ch'aw'-l-Amad
chuparlo*	ch'A'w-al	ch'A'aw	ch'a'U-m
alcanzar	bA:hu-l	baw-l-Ach	baw-l-Amad
alcanzarlo*	bAhw-al	bAhaw	bahU-m
vender	nUhu-l	nuh-l-Ach	nuh-l-Amad
venderlo	nUhw-al	nUhu	nuhU-m
fumar	hUch'-u-l	huch'-l-Ach	huch'-l-Amad
fumarlo	hUch'-w-al	hUch'u	huch'U-m

Misc "L" group with -y in the transitives

Misc "L" of -wal group

recibir	bAch'-k'u-l	bach'-k'u-l-Ach	bach'-k'u-l-Amad
recibirlo	bAch'-w-al	bAch'u	bach'U-m
poder ver, ver a enfermos, etc	chU'u-x	chU'-x-in	chu'-x-i-nEK
ver, vigilar, ser partera	chU'u-l	chu'-l-Ach	chu'-l-Amad
verlo	chU't-al	chU'u	chU-m
verselo	chU'-ts-al	chU'-tsi	chu'-ts-Am
verselo por parte de otra persona	chU'tsintsa-l	chU'tsintsi	chu'tsintsa-m

"L" group with -al in transitives

tomar	Uch'a-l	uch'-l-Ach	uch'-l-Amad
tomarlo	uch'-A-l	Uch'-a'	uch'-Am
hacer tortillas	pAk'-al	pak'-l-Ach	pak'-l-Amad
hacer torts	pak'-A-l	pAk'-a'	pak'-Am

Misc "L" group

escuchar	Och'o-l	och'-l-Ach	och'-l-Amad
escuchar/sentirlo	ach'-A-l	Ach'-a'	ach'-Am

"N" group

"N" group with -y in the transitives

rasurarse	wAx-n-a1	wAchi-n	wax-nEK
rasurarlo	wAch-y-a1	wAchi-y	wach-y-Am
medicinar	ilAl-n-a1	ilAli-n	ilal-nEK
medicinarlo	ilAli-y-a1	ilAli-y	ilali-y-Am
abrigarse	hOkma-n-a1	hOkma-n	hokma-nEK
abrigarlo	hOkma-y-a1	hOkma-y	hokma-y-Am
soplar, abanicar	wAw'-n-a1	wA'u-n	waw'-nEK
soplar/abanicarlo	wAw'-y-a1	wA'u-y	waw'-y-Am
vestirse	xEKet-li-n-a1	xEKet-li-n	xeket-li-nEK
vestirlo(per)	xEKet-li-y-a1	xeket-li-y	xeket-li-y-Am
vestirlo(traje)	xeket-n-A1	xEKet-n-a'	xeket-n-Am
esta vestido		xElet-li-n	xEKet-li-d
ensuciar	k'Ut'-li-n-a1	k'Ut'-li-n	k'ut'-li-nEK
ensuciarlo	k'Ut'-li-y-a1	k'Ut'-li-y	k'ut'-li-y-Am

"N" group with -w-a1

peluquearse	kAx-n-a1	kAxu-n	kax-nEK
peluquearlo	kAxw-a1	kAxu	kaxU-m

"N" group MISC

sonreir	tE'e'e-1	te'e'-1'Ach	te'e'e-1-Amad
reirse	tE'n-a1	te'en	te'n-EK
causar risa	te'en-d-A1	te'en-d-a'	te'en-d-Am
cantar	Ahat	Aht-in	ahti-nEK
cantarlo	ahat-n-A1	Ahat-n-a'	ahat-n-Am
se le olvida	UK'-pi-n-a1	UK'-pi-n	uk'-pi-nEK
olvidarlo	UK'-ts-a1	UK'-tsi	uk'-ts-Am
trabajar	t'Oho-n-a1	t'Oho-n	t'oh-n-EK
trabajarlo(field)	t'oho-m-n-A1	t'Oho-m-n-a'	t'oho-m-n-Am
trabajarlo(animal)	t'oho-m-d-A1	t'Oho-n-d-a'	t'oho-d-Am
hacer llorar	UK'n-a1	UK' ³ in	uk'n-EK
hacer llorar	uk'in-d-A1	UK'in-d-a'	uk'in-d-Am
bailar	bix-nE-1	bix-m-Ach	bix-m-Amad
bailarlo	bix-n-A1	bix-n-a'	bix-n-Am
perdersse	k'Ipcho-n	k'Ipcho-n	k'ipcho-nEK
perderlo	k'Ipchow-a1	k'Ipcho	k'ipchO-m
hacerlo pender	k'ip-d-A1	k'Ip-d-a'	k'ip-d-Am

calva	0ln-a1	0lin	0ln-EK
rezar /o:lan-/	o:l	0:lan	o:l-Amad
rezarlo	0:lan-ts-a1	0:lan-tsi	o:lan-ts-Am
ser conocedor	cho'Ob-n-om	cho'ob-l-Ach	cho'ob-l-Amad
llegar a saberlo	cho'ob-n-A1	cho'Ob-n-a'	cho'ob-n-Am
saberlo(aorist)	ch0'ob		
venir(aorist)	tal		
venir	tsI'i-l	tsI:-ch	tsI'-nek
traerlo	tsi'-d-A1	tsI'-d-a'	tsi'-d-Am
morir	chEme-l	chEme-ch	chEm-nek
matarlo	chem-d-A1	chEm-d-a'	chem-d-Am
llegar	Ule-l	Ul-ich	Ul-nek
hacerlo llegar	ul-d-A1	Ul-d-a'	ul-d-Am
salir	KAle-l	KAle	KAl-nek
hacerlo salir	kal-d-A1	KAl-d-a'	kal-d-Am

-E final stems

-E final stems with -E in non-present

tener frio	ch'ay-bE:-l	ch'ay-bE:	ch'Ay-be-nek
enfriarlo	ch'ay-be:-d-A1	ch'ay-bE:-d-a'	ch'ay-be-d-Am
be (come?) poor	ch'ontal-bE-l	ch'ontal-bE	ch'ontAl-be-nek
estar contento	kul-bE-l	kulbE	kUlbe-nek
contentarlo	kulbe-d-A1	kulbE-d-a'	kulbe-d-Am
aumentarse	yAn-e-l	yAn-e-y	yAn-e-nek
aumentarlo[-MVD]	yan-e-d-A1	yan-E-d-a'	yan-e-d-Am
disminuirse	we'-mE-l	we'-mE	wE'-me-nek
disminuirlo	we'-me-d-A1	we'-mE-d-a'	we'-me-d-Am
encogerse(gusa)	chipi-l-mE-l	chipi-l-mE	chipI-l-me-nek
reducirse(ropa)	chipi'-mE-l	chipi'-mE	chIpi'-me-nek
reducirlo	chipi'-me-d-A1	chipi'-mE-d-a'	chipi'-me-d-Am

-E final stems without -E in non-present

ahogarse	putE-l	pUte-y	pUte-nek
ahogarlo	pute-d-A1	putE:-d-a'	pute:-d-Am
curarse	hele-l	hEle-y	hEle-nek
curarlo	hel-d-A1	hEl-d-a'	hel-d-Am
está lleno	ts'Utsat		
llenar(se)	ts'U:tse-l	ts'U:ts-ey	ts'U:ts-e-nek
llenarlo	ts'Uts-y-a1	ts'Utsu-y	ts'uts-y-Am

volverse secarse [-MVD]	wits-E-1 wayE-1	wits-i-y waye-y	wits-e-nek waye-nek
amanecer [-MVD] amanecerlo	tsudE-1 tsude-d-A1	tsUde-y tusde-d-A'	tsUde-nek tsude-d-Am
crecer [-MVD] crecerlo	pUbe-1 pube-d-A1	pUbe-y pube-d-A'	pUbe-nek pube-d-Am
salvarse [-MVD] salvarlo	lo'E-1 lo'w-a1	lo'e-y lo'o	lo'e-nek lo'o-m
pararse [-MVD] pararlo	kubE-1 kub-A1	KUbe-y KUB-a'	KUbe-nek kub-Am
montar [-MVD] montarlo	punE-1 pun-A1	pUne-y pUn-a'	pUne-nek pun-umA1

-A final stems

andar cf manejarlo	bE1a-1	bEle-y	bE1(e)-nek
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-I final stems

ser poderoso	Awi-1	awi-ch-mE: awi-1-mE:	awi-1-me-nek
estar(lugar)	Kw'Ahat	Kw'Aha-y	Kw'Ah-i-nek
vivir(lugar)	Kw'ahI-1	Kw'Aha-y	Kw'Ah-i-nek
vivir(en tal casa)	Kw'Ah-ts-a1	Kw'Ah-tsi	Kw'ah-ts-Am
vivir(voz pas)	Kw'Ah-tsi-n-a1		
bajarse	pa'I-1	pA'a-y	pA'i-nek
bajarlo	pa'-b-A1	pA'-b-a'	pa'-b-Am
levantarse [-MVD]	ch'akI:-1	ch'Aka-y	ch'Aki-nek
levantarlo	ch'ak-b-A1	ch'AK-ba'	ch'ak-b-Am
acostarse [-MVD]	KwachI-1	KwAchi-y	KwAchi-nek
acostarlo	Kwachb-A1	KwAchb-a'	Kwachb-Am

-U final stems

estar enfermo	ya'u-1	ya'u-1-Ach	ya'u-1-Amad
enfermarse	ya'u-1-mE-1	ya'u-1-mE	ya'U-1-me-nek
enojarse [-MVD]	chakU:-1	chAKu-y	chAKu-nek
enojarlo	chaku-d-A1	chakU:-d-a'	chaku-d-Am

Ø

descansar	kOyo-1	koyO-ch	koyO-mad
descansarlo	koy-d-A1	kOy-d-a'	koy-d-Am

brincar	t'ikwn-al	t'ikon	t'ikwn-Ek
brincarlo	t'ikon-ts-al	t'ikon-tsi	t'ikon-ts-Am
pedirlo	kOn-ts-al	kOn-tsi	Kon-ts-Am
preguntarlo	kOn-y-al	kOn-y	Kon-y-Am
dormir	wAya-l	wAy-ich	way-Amad
dormirlo	way-d-AI	wAy-d-a'	way-d-Am

Group with -V- unstressed -nek, E instead of ey/CC

tener frío	ch'ay-bE:-l	ch'ay-bE:	ch'Ay-be-nek
enfriarlo	ch'ay-be:-d-AI	ch'ay-bE:-d-a'	ch'ay-be-d-Am
be (come?) poor	ch'ontal-bE-l	ch'ontal-bE	ch'ontAl-be-nek
estar contento	kul-bE-l	kulbE	KUlbe-nek
contentarlo	kulbe-d-AI	kulbE-d-a'	Kulbe-d-Am
aumentarse	yAn-e-l	yAn-e-y	yAn-e-nek
aumentarlo [-MVD]	yan-e-d-AI	yan-E-d-a'	yan-e-d-Am
disminuirse	we'-mE-l	we'-mE	wE'-me-nek
disminuirlo	we'-me-d-AI	we'-mE-d-a'	we'-me-d-Am
encogerse (gusanos)	chipi-l-mE-l	chipi-l-mE	chipI-l-me-nek
reducirse (ropa)	chipi'-mE-l	chipi'-mE	chIpi'-me-nek
reducirlo	chipi'-me-d-AI	chipi'-mE-d-a'	chipi'-me-d-Am
ahogarse	putE-l	pUte-y	pUte-nek
ahogarlo	pute-d-AI	pute:-d-a'	pute:-d-Am
curarse	hele-l	hEle-y	hEle-nek
curarlo	hel-d-AI	hEl-d-a'	hel-d-Am
está lleno	ts'Utsat		
llenar (se)	ts'U:tse-l	ts'U:ts-ey	ts'U:ts-e-nek
llenarlo	ts'Uts-y-al	ts'Utsu-y	ts'uts-y-Am
volverse	wits-EI	wIts-i-y	wIts-e-nek
secarse [-MVD]	wayE-l	wAye-y	wAye-nek
amanecer [-MVD]	tsudE-l	tsUde-y	tsUde-nek
amanecerlo	tsude-d-AI	tusde-d-A'	tsude-d-Am
crecer [-MVD]	pUbe-l	pUbe-y	pUbe-nek
crecerlo	pube-d-AI	pube-d-A'	pube-d-Am
salvarse [-MVD]	lo'E-l	lO'e-y	lO'e-nek
salvarlo	lO'w-al	lO'o	lO'O-m
pararse [-MVD]	kubE-l	KUbe-y	KUbe-nek

pararlo	kub-AI	kUb-a'	kub-Am
montar [-MVD]	punE-I	pUne-y	pUne-nek
montarlo	pun-AI	pUn-a'	pun-umnAI
andar	bEIa-I	bEIe-y	bEI(e)-nek
cf manejarlo			
ser poderoso	Awi-I	awi-ch-mE: awi-I-mE:	awI-I-me-nek
estar(lugar)	kw'Ahat	kw'Aha-y	kw'Ah-i-nek
vivir(lugar)	kw'ahI-I	kw'Aha-y	kw'Ah-i-nek
vivir(en tal casa)	kw'Ah-ts-aI	kw'Ah-tsi	kw'ah-ts-Am
vivir(voz pas)	kw'Ah-tsi-n-aI		
bajarse	pa'I-I	pA'a-y	pA'i-nek
bajarlo	pa'-b-AI	pA'-b-a'	pa'-b-Am
levantarse [-MVD]	ch'akI:-I	ch'AKa-y	ch'AKi-nek
levantarlo	ch'ak-b-AI	ch'AK-ba'	ch'ak-b-Am
acostarse [-MVD]	kwachI-I	kwAchi-y	kwAchi-nek
acostarlo	kwachb-AI	kwAchb-a'	kwachb-Am
estar enfermo	yA'u-I	ya'u-I-Ach	ya'u-I-Amad
enfermarse	ya'u-I-mE-I	ya'u-I-mE	ya'U-I-me-nek
enojarse [-MVD]	chakU:-I	chAKu-y	chAKu-nek
enojarlo	chaku-d-AI	chakU:-d-a'	chaku-d-Am

"Truncated present" group

perderse	K'Ipcho-n	K'Ipcho-n	K'ipcho-nEk
perderlo	K'Ipchow-aI	K'Ipcho	K'ipch0-m
hacerlo perder	K'ip-d-AI	K'Ip-d-a'	K'ip-d-Am
pedir prestado	mAt	mAch-in	mat-m-Amad
pedir prestadolo	mAt-y-aI	mAti-y	mat-y-Am
rezar /o:lan-/	o:I	O:lan	o:I-Amad
rezarlo	O:lan-ts-aI	O:lan-tsi	o:lan-ts-Am
necesitarlo	yEnts-aI	yEntsi	yents-Am
ser necesario	yEhat	yehat-n-A	yEhat-n-ad
codiciar	le'-n-om	le'-n-om-I-Ach	le'-n-om-I-Amad
quererlo(aorist)	le'		
quererlo	le'-n-AI	le'-n-a'	le'-n-Am
querer(recipr)	le:':n-A:-x	le:':n-A:-x-in	le:':n-A:-x-nEk
ser conocedor	cho'Ob-n-om	cho'ob-I-Ach	cho'ob-I-Amad
llegar a saberlo	cho'ob-n-AI	cho'Ob-n-a'	cho'ob-n-Am

saberlo(aorist)	ch0'ob		
jugar	ubAt'	ubAt'-in	ubat'-nEk
jugarlo(game)	ubat'-n-A1	ubAt'-n-a'	ubat'-n-Am
distraerlo[mvd]	ubAt'i-y-a1	ubAt'i-y	ubat'-iy-Am
remoler	yUt'	yut'-1-Ach	yut'-1-Amad
remoler (con dientes)	yUt'-y-a1	yut'I-y	yut'-y-Am
repasar (nix)	xits	xits-m-Ach	xits-m-Amad
repasar(nixt)	xits-A1	xits-a'	xits-Am
barrer	kw`et	kw`et-m-Ach	kw`et-m-Amad
barrerlo	kw`Et-y-a1	kw`Eto-y	kw`et-y-Am
robar	kwe'	kwE'e-n	kwe'-nEk
robarlo	kwE'-y-a1	kwE'e-y	kwe'-y-Am
desmontar [-MVD]	k0te	kote-1-Ach	kote-1-Amad
estornudar [-MVD]	hAt'isom	hat'isom-1-Ach	hat'isom-1-Amad
visitar la milpa [-MVD]	Ale-lom	Ale-lom-1-Ach	ale-lom-1-Amad
ir de compras en el pueblo	bits0w-lom	bitsow-lom1-Ach	bitsow-1Amad (-lom1-Amad)

SPECIAL Section

llevar en la cabeza-oficio	pAma-1	pam-1-Ach	pam-1-Amad
llevarlo en la cabeza-aorist	pam-Am	pAm-n-a'	pam-n-Am
levantarlo a la cabeza-incip aor.	pam-n-A1	pAm-n-a'	pam-n-Am
levantarselo a la cabeza-incip aor.	pAma-y-a1	pAma-y	pama-y-Am
llevar a otra pers en la cabeza	pAm-na-x	pAm-na-x-in	pam-na-x-nEk
llevar a otra pers. en la cabeza-recip	pa:m-nA:-x	pa:m-nA:-x-in	pa:m-na:-x-nEk
ponerle a la cabeza de otra pers.-rec	pA:ma:-x	pa:ma:-x-in	pa:ma:-x-nEk
poder llevar en la cabeza	pa:m-nA:1		
ayudar a levantarlo en la cabeza-pas	pama-y-Ab	pAma-y-at	
llevarselo en la cabeza	pAm-n-an-ts-a1	pAm-n-an-tsi	pam-n-an-ts-Am
poderse llevar en la cabeza	pam-n-A:b	pam-n-A:	pAm-n-ad

podersele llevar en la cabeza	pam-n-an-ts-Ab	pAm-n-an-ts-at	pAm-n-an-tsi-d
podersele llevar en la cabeza-recip	pa:mna:ntsAb	pa:m-n-a:-n	pa:mna:ntsid
tenerlo en la cabeza	pAm-ad		
dormir	wAya-l	WAY-ich	way-Amad
dormirse	no hay pres.	WAY-k-an	WAY-k-a-nek
quedarse dormido	WAY-ka-n-al	way-ka-l-Ach	way-ka-l-Amad
dormirlo	way-d-Al	WAY-da-'	way-d-Am
dormirselo	WAY-da-n-ts-al	WAY-da-n-tsi	way-da-n-ts-Am
volverse	wits-El	wits-i-y	wits-e-nek
recaer	wits-bi-n-al	wits-bi-n	wits-b-i-nEK
repetir			
la enfermedad	wits-K'o-n-al	wits-k'o-n	wits-k'o-nEK
repetir	wits-K'o-x	wits-k'o-x-in	wits-k'o-x-nEK
repetirlo	wits-K'ow-al	wits-k'o	wits-k'-Om
ser entregador	wits-b-om	wits-b-om-Ach	wits-b-om-Amad
devolver	wits-ba-x	wits-ba-x-in	wits-ba-x-nEK
devolverlo	wits-b-Al	wits-ba-'	wits-b-Am
comer	K'ApU-l	K'apU-ch	K'apU-mad
comerlo*	K'Ap-al	K'ApU	K'apU-m
comerlo			
(por costumbre)	K'Ap-w-al	K'ApU	K'apU-m
comer demasi-			
ado[-MVD]	K'A:pu-n-al	K'A:pu-n	K'A:pu-nEK
comerlo todo[-MVD]	K'A:pu-y-al	K'A:pu-y	K'A:pu-y-Am
comerlo			
rápido	K'aptsikiy-Al	K'aptsiki-y	K'aptsikiy-Am
comer de			
lo ajeno	K'Ap-tsi-x	K'Ap-tsi-x-in	K'ap-tsi-x-nEK
comerselo	K'Ap-ts-al	K'Ap-tsi	K'ap-ts-Am
comer del otro	K'aptsintsi-x	K'aptsintsi-x-in	K'aptsintsi-nEK
comerlo por			
parte del otro	K'aptsints-al	K'aptsin-tsi	K'aptsints-Am
comerle poco			
de su comida	K'Apnintsi-x	K'Apnintsix-in	K'apnintsi-Am
hacerle rendir			
su comida	K'Apnints-al	K'Apnin-tsi	K'apnintsi-Am
comerlo de poco			
en poco	K'ap-ni-x-n-Al	K'ap-ni-x-n-A'	K'a-ni-x-n-Am
dar asistencia	K'ApU-n-d-om	K'apu-n-d-om-Ach	K'ApU-n
dar de comer	K'ApU-n-d-ax	K'ApU-n-d-ax-in	K'apu-n-d-ax-nEK
darle de comer	K'apu-n-d-Al	K'ApU-n-d-a'	K'apu-n-d-Am
estar goloso	K'apu-pU-l	K'apu-pu-l-Ach	K'apu-pu-l-Amad
devorarse entre si	K'a:pu:-x	K'a:pu:-x-in	K'a:pu:-x-nEK
ser comestible	K'apw-Ab	K'Apw-at	K'ap-nE:k
se lo comen	K'aptsints-Ab	K'aptsints-At	K'aptsints-Am
se come, lo			
devoran	K'Ap-n-al	K'ap-at	K'Ap-ud