

27. Allomorphy in verb inflection

This chapter discusses the allomorphy of the mood prefixes found in finite verb forms (§17.1.1). (The allomorphy directly related to other aspects of the verb inflection is discussed in the sections in which the morphemes in question are presented.) The mood prefixes are discussed first in their simplest morphological context: with third person subject and, if the verb is transitive, with third person direct object. Third person subject and third person direct object are both morphologically unmarked (see §17.1.2.1, §17.1.2.3), but when a verb is inflected for both, the 3:3 prefix *i-* occurs (see §17.1.2.1). Examples:

(1)	surface	yopánzx	iyopii
	translation	<i>s/he/it ran</i>	<i>s/he tasted it</i>
	underlying	yo-panzx	i-yo-pii
	morphemes	DT-run	3:3-DT-taste
	features	Past, 3 rd subject	Past, 3 rd subject, 3 rd direct object

The verbs are cited in the form appropriate for singular subject and perfective aspect (§17.1.3) unless otherwise noted. This stem usually is not the underlying form if the entire verb paradigm is taken into consideration, but all that is in focus here is the allomorphy relating to the mood prefixes.

27.1 Consonant-initial stems

The verb forms in Table 27.1 have consonant-initial stems. They are therefore helpful to view the underlying forms of certain mood prefixes. But for some mood prefixes, these are not the forms that best elucidate the underlying forms, as explained below.

The nasal assimilation which is observed in the Subjunctive Irrealis **tm-** and Proximal Realis **mi-** forms is explained in §28.5.2 and therefore it is not reviewed here. It is worth pointing out, however, that the practical orthography used here does not show that the nasal /**m**/ is phonetically [ŋ] before the velars and [N] before the uvulars although it does reflect the assimilation before coronals by writing the underlying **m** as **n** in these cases. To make this entirely explicit, partial paradigms of two verbs are given here in phonetic form.

(2)		<i>pinch</i>		<i>look for</i>	
	tm-	itcontíip	[itkon'ti:p]	itcomcáa	[itkoŋ'ka:]
	mi-	intíip	[in'ti:p]	imcáa	[iŋ'ka:]

The special characteristics that are observed in the forms of “empty consonant”-initial verbs are discussed in §27.5. The verb forms are included here because they are additional examples of consonant-initial stems.

Table 27.1: Mood forms of consonant-initial verbs

	Obstruent			Empty Consonant	
	√ <i>panzx</i>	√ <i>tiip</i>	√ <i>caa</i>	√ <i>Camjō</i>	√ <i>Cactim</i>
	<i>run</i>	<i>pinch</i>	<i>look for</i>	<i>shiny</i>	<i>use</i>
t-	tpanzx	ittiip	itcáa	ttamjō	ittáctim
tm-	tompánzx	itcontíip	itcomcáa	tommámjō	itcommáctim
po-	popánzx	ipotíip	ipocáa	poámjō	ipoáactim
yo-	yopánzx	iyotíip	iyocáa	yoámjō	iyóactim
xo-	xopánzx	ixotíip	ixocáa	xoámjō	ixoáactim
si-	spanzx	istiip	iscáa	ssamjō	issáctim
mi-	(i)mpánzx	intíip	imcáa	(i)mmámjō	immáctim
	Nasal Consonant		Palatal Approximant		Glottal Stop
	√ <i>masol</i>	√ <i>mis</i>	√ <i>yaa</i>	√ <i>yaa</i>	√ <i>heel</i>
	<i>yellow</i>	<i>resemble</i>	<i>expensive</i>	<i>own</i>	<i>red</i>
t-	tmasol	itmís	tyaa	ityáa	théel
tm-	tommásol	itcommís	tonyáai	itconyáa	tomhéel
po-	pomásol	ipomís	poyáai	ipoyáa	pohéel
yo-	yomásol	iyomís	yoyáai	iyoyáa	yohéel
xo-	xomásol	ixomís	xoyáai	ixoyáa	xohéel
si-	smasol	ismis	syáai	isyáa	shéel
mi-	(i)mmásol	immís	(i)nyáai	inyáa	(i)mhéel

27.1.1 Epenthesis of i

The parenthesized **i** which appears in various intransitive forms in Table 27.1 is an epenthetic vowel which appears when the verb form is not preceded by a vowel with which the nasal or glottal stop in these forms can syllabify (see the syllable structure constraint in §28.3.1). It is assumed here that this is done by an appropriate view of syllabification, insertion of a vowel position, and the filling of that vowel position by the features of /i/.¹

This epenthetic vowel contrasts phonologically with the underlying vowel **i** that is the morpheme 3:3, which also commonly occurs word-initially, illustrated by various forms in Table 27.1. Clear evidence of the difference between the two vowels is seen by examining the allomorphy of the indefinite article. The indefinite article is **zo** before consonants and **z** before vowels. It

¹ While one might argue that the vowel /i/ is the default vowel in Seri, the idea of default features being supplied automatically has been shown to be unworkable (Steriade 1995).

is **z**, of course, before 3:3 **i-**, but it is **zo** elsewhere since “elsewhere” means “before a consonant” in all these cases. The **o** of **zo** enables the sonorants to syllabify, making the epenthesis of **i** unnecessary and unacceptable.² Contrast the examples in (3) which have the 3:3 prefix **i-** (with a transitive verb) and those in (4) which do not have an epenthetic vowel in this context.

- (3) a. **Haxz z imcáa.**
 dog a 3:3-PX-look.for
 [vowel of **zo** deletes before underlying vowel **i-**]
- b. ***Haxz zo imcáa.**
 [incorrect use of full form **zo** before a vowel]
- ‘Un perro lo(s)/la(s) está buscando.’
A dog is looking for it/her/him/them.
- (4) a. **Haxz zo mpanzx.**
 dog a PX-run
 [no epenthetic vowel because of the vowel **o** before the consonant cluster]
- b. ***Haxz zo impánzx.**
 [incorrect use of full form **zo** with an epenthetic vowel **i** at the beginning of the verb]
- c. ***Haxz z impánzx.**
 [incorrect use of short form **z** with an epenthetic vowel **i** at the beginning of the verb]
- ‘Un perro corrió.’
A dog ran.

An **i** is also inserted between a subject agreement prefix and the Proximal Realis prefix. Underlying {**hp-mi-panzx**} (1sS.IN-PX-run) *I ran* loses the **i** of **mi-** by the rule discussed in the following section (§27.1.2). The sequence **pmp** therefore provides the environment for epenthesis; the surface form is (i)**hpimpánz**. Other examples: {**hp-mi-hac**} (1sS.IN-PX-blind) is (i)**hpimhác** *I am blind* and {**m-mi-hac**} (2sS-PX-blind) **mimhác** *you are blind*.³

The rule inserting **i** is used in contexts besides before the Proximal Realis prefix; see §17.1.2.1 (before subject inflection prefixes) and §17.1.6 (before the directional prefixes).

27.1.2 i-Deletion

The vowels of the prefixes **mi-** and **si-** are always dropped before consonants. In fact, from

² Extremely slow speech would put each word in its own phonological phrase, of course, causing the epenthetic vowel to appear.

³ The sequence **mh** is pronounced as if the sounds were metathesized. See §28.5.10.

The nasal in the context C+Nasal+C may either be from the prefix **tm-** (as shown in the tables in this chapter), the negative prefix (see §17.1.4), or the stem-initial nasal of the verb **{-msisiin}** *pitiable, cute*. See the partial paradigm in (6). Example (6e) is a situation where the prefix has a vowel that makes the insertion of an epenthetic vowel unnecessary and making it clear that the stem does not begin with **o** since if it did, the **a** of the prefix would have deleted (see §27.2.1 and §17.2.1).

(6)			Underlying Form
a.	tomsisiin	<i>is s/he/it cute?</i>	{t-msisiin} RL-cute
b.	comsisiin	<i>who is cute</i>	{c-msisiin} SN-pitiable
c.	momsisiin	<i>s/he/it is cute</i>	{mi-msisiin} ⁶ PX-pitiable
d.	somsisiin	<i>s/he/it will be cute</i>	{si-msisiin} ⁷ IR.ID-pitiable
e.	icamsisiin	<i>to be cute</i>	{ica-msisiin} INF.IN-pitiable

The epenthesis of **o** is also seen in other contexts, including negative imperatives (see §17.2.2).⁸ Underlying **{c-m-panzx}** becomes **compánzx** *Don't run!*

The rule is given informally in (7), where N refers to any nasal consonant and the subscripts on C simply serve to distinguish the two consonants. The added restriction is necessary to prevent this rule from applying in the situation where the first consonant is part of a subject agreement prefix (as in **ihpimpánzx** discussed above in §27.1.1).⁹ This formulation makes the features of the inserted vowel entirely explicit, although it may not be coincidental that the nasal in these contexts is always underlyingly **m** (which arguably is, however, the unmarked nasal in the language, as shown in §28.5.2).

(7)	o -Epenthesis:	$C_a \quad N C_b$
		↑
		o
		where C_a is not part of a person inflectional prefix; N = nasal

The following forms are presented to make explicit that some instances of **o** are not due to epenthesis at all.

⁶ The **i**-Deletion rule (5) applies first, feeding this rule.

⁷ The **i**-Deletion rule (5) applies first, feeding this rule.

⁸ Care must be taken to not confuse Imperative **c-** followed by epenthetic **o** with the full allomorph **co-** of the third person indirect object agreement prefix (§17.1.2.4).

⁹ Underlying **{hp-mi-panzx}** (1SS.IN-PX-run) *I run* loses the **i** of the prefix, giving the sequence **pmp**, which seems to precisely be the context for **o**-Epenthesis. Nevertheless, **o**-Epenthesis does not apply. Instead, **i**-Epenthesis applies; the surface form is **ihpimpánzx**.

One can see that **c-Epenthesis** (§27.1.4) applies in the Subjunctive Irrealis forms of the transitive verbs, exactly as expected. Therefore underlying **{i-tm-ii}** (3:3-SB-hear) becomes **ictmii**.

27.2.1 Vowel Elision

It is not possible to motivate the presence of the vowels of the prefixes by these forms. Since we know that the prefix vowels exist because of other facts — the **o**'s from the consonant-initial stems shown in Table 27.1 and the **i**'s from the short low vowel-initial roots in Table 27.3 — the loss of the prefix vowel before the long vowel-initial roots must be accounted for. This may be motivated by a lack of hiatus since one can argue (but not easily) that non-initial syllables in Seri disfavor the lack of an onset. At any rate, word-internal vowel sequences across morphemes boundaries are extremely special (see §27.5). The rule is something like (10).¹¹

$$(10) \quad \text{Vowel elision:} \quad \begin{array}{c} V \quad V \\ \downarrow \\ \emptyset \end{array}$$

The elision of a vowel before a vowel is seen in various other contexts as well. The **o** of the directional prefix **mo-** (§17.1.6 and §27.7) deletes before a vowel, for example: **mica** *to come* from underlying **{mo-ica-a}** (TWD-INF.IN-move).

27.2.2 o-Coalescence

Something rather curious very regularly happens when an **o**-final prefix (**po-**, **yo-**, or **xo-**) immediately precedes an **o**-initial root. Rather than simply drop out, as happens when the root is transitive (such as with $\sqrt{\text{ooc}}ta$ *look at*), the sequence **o+oo** — and, as is seen below, also **o+o** — is replaced by short **a**. Furthermore, when this happens to the **o** of the Emphatic prefix **xo-**, the **x**

Table 27.2: Mood forms verbs with initial long vowel

	$\sqrt{\text{aac}}oj$	$\sqrt{\text{eet}}ol$	$\sqrt{\text{ii}}$	$\sqrt{\text{oos}}$	$\sqrt{\text{ooseta}}$	$\sqrt{\text{ooc}}ta$
	<i>big</i>	<i>push</i>	<i>hear</i>	<i>sing</i>	<i>jiggle</i>	<i>look at</i>
t-	taacoj	itéetol	itii	toos	tooseta	itóoc ta
tm-	tmaacoj	itcméetol	itcmii	tmoos	tmooseta	itcmóoc ta
po-	paacoj	ipéetol	ipii	pas	peseta	ipóoc ta
yo-	yaacoj	iyéetol	iyii	yas	yeseta	iyóoc ta
xo-	xaacoj	ixéetol	ixii	xōas	xōeseta	ixóoc ta
si-	saacoj	iséetol	isii	soos	sooseta	isóoc ta
mi-	maacoj	iméetol	imii	moos	mooseta	imóoc ta

¹¹ Structure Preservation (Kiparsky 1982) also arguably prevents this rule from applying to morpheme-internal sequences.

is simultaneously labialized. Anticipating the facts from the following section, the rule is presented in (11). The presentation is very informal; the presence of the uvular fricative is not required for the rule to apply, obviously.

- (11) **o-Coalescence:**
- | | | |
|------|---|------|
| (x) | o | o(o) |
| ↓ | ↓ | ↓ |
| (xö) | a | |
- if and only if the verb form is intransitive

One exception to this rule is known: the forms of the positional verb $\sqrt{\text{loom}}$ *lie*; see **poom** (IR.DP-lie), **yoom** (DT-lie), **xoom** (EM-lie).

27.2.3 Low Vowel Harmony

The rule of **o-Coalescence** feeds a rule that harmonizes a stressed **a** with an **e** that follows immediately or in the next syllable. See the forms of $\sqrt{\text{ooseta}}$ in Table 27.2. Underlying {**pooseta**}, for example, becomes intermediate (**paseta**) by **o-Coalescence** and then **peseta** by Low vowel harmony.

- (12) **Low Vowel Harmony:**
- | | | |
|---|----------------|---|
| á | C ₀ | e |
| ↓ | | |
| é | | |

A root such as $\sqrt{\text{oeepx}}$ *flap* illustrates the harmony as well. The forms corresponding to those in Table 27.2 are **toeepx**, **tmoeepx**, **peeepx**, **yeepx**, **xöeepx**, **soeepx**, **moeepx**. The presence of the rounded consonant **xö** in **xöeepx** shows that **o-Coalescence** has applied. It is assumed here that some rule (not formulated here) adjusts the vowel length of the resulting cluster of vowels (to account for why it seems to be **yeepx** and not **yeeeepx**, for example).¹²

There are derived verbs such as $\sqrt{\text{o-queeex}}$ (UO-cut.hair) that show the need to specify that the harmonizing vowel must be stressed. The forms corresponding to those in Table 27.2 are **toquééex**, **tmoquééex**, **paquééex**, **yaquééex**, **xöaquééex**, **soquééex**, **moquééex**. While **o-Coalescence** has obviously applied, there is no vowel harmony in these forms.

27.3 Short vowel-initial stems

Roots that begin with short vowels vary in their behavior in rather regular ways. Table 27.3 presents the standard patterns with vowel-initial roots that have prosodic stress on the initial vowel.

¹² This is one of the verbs with a diphthong that is presented here with a long **ee** although it was presented with a short **e** in Marlett (1981b). On some of the problems relating to diphthongs, see §28.3.4.

Table 27.3: Mood forms of verbs with initial stressed short vowel

	√am <i>swallow</i>	√esije <i>probe for thorn</i>	√is <i>raw</i>	√otj <i>stand up</i> <i>from</i> <i>horizontal</i>	√oteja <i>tilt, lean</i>
t-	itám	itésije	tis	totj	toteja
tm-	itemám	itemésije	tmis	tmotj	tmoteja
po-	ipóom	ipóosije	pis	patj	peteja
yo-	iyóom	iyóosije	yis	yatj	yeteja
xo-	ixóom	ixóosije	xis	xöatj	xöeteja
si-	isíim	isíisije	sis	sotj	soteja
mi-	imíim	imíisije	mis	motj	moteja

It becomes clear from this table that the vowels in the prefixes **po-**, **yo-** and **xo-** are well-motivated. The evidence is also seen here for the vowels of the prefixes **si-** and **mi-**. The conjugation of the roots that begin with **i** or **o** look no different than their counterparts with long vowels, thus providing additional evidence of Vowel Elision (10), **o**-Coalescence (11), and Low Vowel Harmony (12). The roots that begin with the vowels **a** and **e** are those where all of the action happens. (Roots beginning with **e** are rare except when the second syllable also has **e**, as in √**emen** *toss into the air (as to winnow)*, √**iqui** √**emetx** *screw*, √**epeza** *lick lips*, √**eque** *give as a gift*, √**eselax** *pick at (something teensy)*, √**ete** *cure (by healer)*. Even the preceding list may be exhaustive.)

The data in Table 27.4 show that roots which do not have prosodic stress on the first vowel conjugate for mood in the same way as the roots that begin with long vowels. The crucial points of comparison are the short low vowels. They do not undergo the assimilation/deletion that is characteristic of stressed short low vowels. The relevant rules for the allomorphy displayed are Vowel Elision (§27.2.1) and **o**-Coalescence (§27.2.2).

27.3.1 Short Low Vowel Assimilation

In these forms the sequences **i+a** and **i+e** become **ii** (long **i**) and the sequences **o+a** and **o+e** become **oo** (long **o**). In one possible analysis, the short low vowels assimilate to the preceding vowel. In another possible analysis, the short low vowel loses its distinctive feature(s) and the feature of the preceding vowel spreads to it.¹³ With either analysis there is some complication, as

¹³ Marlett (1981b) and Stemberger & Marlett (1983) posited a rule of Short Low Vowel Deletion with lengthening of the prefix vowel as a concomitant effect.

is shown below.

It is unclear whether there is assimilation of a short low vowel to a low vowel. The pertinent examples are found in forms such as the infinitives (§17.2.1) where it is, however, unclear whether the length in infinitives is due to assimilation or to underlying length in the prefix. (The latter is, as a matter of fact, an option that is also possible in the cases under consideration here.)

The long vowel that results is not distinguishable from an underlying long vowel. As a result, many paradigms contain words that are phonetically identical to words in other paradigms. The word **imíim** *s/he swallows/swallowed it*, from underlying {**i-mi-am**} (3:3-PX-swallow), is homophonous with **imíim** *who does not sleep*, from underlying {**i-m-iim**} (SN-N-sleep). The word **imíih** *s/he did it*, from underlying {**i-mi-ah**} (3:3-PX-do/put.FL/say), is homophonous with **imíih** *s/he/it is*, from underlying {**i-mi-iih**} (3:3-PX-be.FL).

There is a complication with the formulation of this rule that is evident when diphthong-initial roots are examined (see §27.4). Setting aside these complications, a simple formulation of the rule is given in (13).

(13) Short Low Vowel Assimilation

A short low vowel assimilates to the features of an immediately preceding vowel.

27.3.2 Stems of derived verbs

Table 27.5 presents a sampling of the possible types of derived verb stems and shows how the verbs conjugate for mood. It is seen that derived verbs do not conjugate differently from those shown in Tables 27.1, 27.2 and 27.4. To be more specific, the consonant-initial derived verb stems conjugate just like consonant-initial roots. Derived verb stems beginning with long vowels conjugate just like roots beginning with long vowels. Derived verb stems beginning with unstressed vowels conjugate just like roots beginning with unstressed vowels. Derived verbs do

Table 27.4: Mood forms of verbs with initial unstressed vowel

	√omihj	√azaplc	√ifohzx
	<i>smooth</i>	<i>paralyzed in legs</i>	<i>cough with hacking cough</i>
t-	tomihj	tazáplc	tifóhzx
tm-	tmomihj	tmazáplc	tmifóhzx
po-	pamihj	pazáplc	pifóhzx
yo-	yamihj	yazáplc	yifóhzx
xo-	xöamihj	xazáplc	xifóhzx
si-	somihj	sazáplc	sifóhzx
mi-	momihj	mazáplc	mifóhzx

not begin with a stressed short vowel.

27.4 Diphthongs

Some verb roots begin with diphthongs. Roots beginning with diphthongs such as **oi** are completely unproblematic as they conjugate just like normal vowel-initial roots. Diphthongs beginning with **a** or **aa**, however, appear to be of two types that correspond to the difference between short vowels and long vowels.

Table 27.5: Mood forms of derived verbs					
	√ <i>queejc</i>	√ <i>apasi</i>	√ <i>aapxa</i>	√ <i>inaail</i>	√ <i>iip</i>
	<i>make explode</i>	<i>wrinkle</i>	<i>put three</i>	<i>have skin</i>	<i>have tail</i>
	< <i>qu_{Abl}-iijc</i>	< <i>a-pasi</i>	< <i>a-apxa</i>	< <i>i-naail</i>	< <i>i-VVp</i>
	AUG-explode	AUG-wrinkled	AUG-three	HAVE-skin	HAVE-tail
t-	itquéejc	itapási	itáapxa	tináail	tiip
tm-	itcomquéejc	itcmapási	itcmáapxa	tmináail	tmiip
po-	ipoquéejc	ipapási	ipáapxa	pináail	piip
yo-	iyoguéejc	iyapási	iyáapxa	yináail	yiiip
xo-	ixoguéejc	ixapási	ixáapxa	xináail	xiip
si-	isquéejc	isapási	isáapxa	sináail	siip
mi-	imquéejc	imapási	imáapxa	mináail	miip
	√ <i>ocázni</i>	√ <i>oop</i>			
	<i>bite</i>	<i>sew basket</i>			
	< <i>o-cazni</i>	< <i>o-ap</i>			
	UO-bite	UO-sew.basket			
t-	tocázni	toop			
tm-	tmocázni	tmoop			
po-	pacázni	pap			
yo-	yacázni	yap			
xo-	xöacázni	xöap			
si-	socázni	soop			
mi-	mocázni	moop			

The simplest ones to describe are those which are clearly underlying long vowels followed by an underlying short vowel. This type is illustrated by the verbs shown in Table 27.6; they conjugate in virtually the same way as the verbs in Table 27.2. Since the word **imíi** *s/he told him/her*, from underlying {**i-mi-ai**} (3:3-Px-tell) (see Table 27.6), is homophonous with **imíi** *s/he*

Table 27.6: Mood forms of verbs with regular diphthongs

	√aai <i>make</i>	√aaipot <i>pay</i>	√aao <i>pass</i>	√ai <i>tell</i>	√oii <i>be.FL.PL</i>
t-	itáai	itáaipot	itáao	itái	toii
tm-	itcmáai	itcmáaipot	itcmáao	itcmái	tmoii
po-	ipáai	ipáaipot	ipáao	ipói	paii
yo-	iyáai	iyáaipot	iyáao	iyói	yaii
xo-	ixáai	ixáaipot	ixáao	ixói	xóaii
si-	isáai	isáaipot	isáao	isíi	soii
mi-	imáai	imáaipot	imáao	imíi	moii

Table 27.7: Mood forms of verbs with irregular diphthongs

	√âaiscan <i>hard</i>	√ooil <i>blue/green</i>
t-	taaiscan	tooil
tm-	tmaaiscan	tmooil
po-	pooiscan	paail
yo-	yooiscan	yaail
xo-	xooiscan	xóaaail
si-	siiscan	sooil
mi-	miiscan	mooil

Table 27.8: Mood forms of verbs with empty consonants

	√Cah <i>vocalize</i>	√Caxz <i>hit</i>	√Col <i>argue</i>	√Cotz <i>suck</i>	√Cihjö <i>red</i>
t-	ttah	ittáxz	ttol	ittótz	ttíhjö
tm-	tommáh	itcommáxz	tommól	itcommótz	tommíhjö
po-	poáh	ipoáxz	poól	ipoótz	ipóihjö
yo-	yoáh	iyóáxz	yoól	iyóótz	iyóihjö
xo-	xoáh	ixóáxz	xoól	ixóótz	ixóihjö
si-	ssah	issáxz	ssol	issotz	ssíhjö
mi-	immáh	immáxz	immól	immótz	immíhjö

heard it, from underlying {**i-mi-ii**} (3:3-Px-hear), the rule of Short Low Vowel Assimilation must be complicated slightly or some other adjustment must be made to avoid the incorrect output (for this verb) **imiii**.

The more difficult verbs to describe are those which are arguably historically an underlying short **a** followed by another vowel (long or short). See the examples in Table 27.7. Some phonetic length adjustment takes place which causes at least many in the current generation of Seri speakers to perceive vowel length to be *superficially* just like in verbs such as $\sqrt{\text{aao}}$ *pass by* and $\sqrt{\text{aai}}$ *make*, although the verbs in question conjugate entirely differently.¹⁴ They conjugate much as one would expect verbs with short **a** should conjugate.

27.5 Empty-consonant stems

A small number of verbs (under 20) display a different conjugation pattern than all of the examples described above; see Table 27.8.¹⁵ These verbs have been analyzed as beginning with a consonant position that is empty of features (represented as C in underlying forms). When this consonant follows a consonant, it assimilates completely to that preceding consonant. When it follows a vowel, it does not acquire any features and thus hiatus occurs. (The exact placement of stress on the resulting sequence of vowels seems to vary from speaker to speaker.) Various other facts in the language support this particular type of analysis; these verbs act in all ways as if they began with a consonant in underlying form.¹⁶

The verbs $\sqrt{\text{aCa}}$ *know* and $\sqrt{\text{eCe}}$ *give (food)* are somewhat similar in that under certain conditions no consonant appears between the vowels and under other conditions the consonant **y** appears between them: **itáa** (3:3-RL-know) from underlying {**i-t-aCa**}¹⁷, **spáa** (IR.ID-PV-know) from underlying {**si-p_{Abl}-aCa**}¹⁸, **iyóaa** (3:3-DT-know) from underlying {**i-yo-aCa**}¹⁸, and **isíya** (3:3-IR.ID-know) from underlying {**i-si-aCa**}. The consonant **y** that appears can be explained by spreading the features of **i** to the empty consonant position in the root. This consonant is

¹⁴ The “problem” with these verbs was discovered shortly at the very end of the time of preparation of the 2005 dictionary. The data in that work were primarily from the lexical files of Edward Moser, who transcribed them without the additional length that the younger consultants insisted was there. Since Moser’s transcriptions were usually extremely accurate, this consistent difference was enigmatic at first.

¹⁵ These verbs are discussed in Marlett (1981a) and Marlett (1981b, chapter 6). The most formal analysis appeared in Stemberger & Marlett (1983).

¹⁶ See Stemberger & Marlett (1983) for a complete presentation of the evidence.

¹⁷ Xavier Moreno feels strongly that the stressed vowel in **itáa** is short, and the 2005 dictionary followed his suggestion in writing it as **itá**. In this grammar I have written it long.

¹⁸ The long vowel in this word is not directly explained.

Table 27.9: Mood forms of some irregular verbs compared with regular verbs

	regular	irregular	regular	irregular
	√ acat	√ ācat	√ aalim	√ âama
	<i>bitter, salty</i>	<i>swim</i>	<i>play</i>	<i>reside</i>
t-	tacat	tacat	taalim	taama
tm-	tmacat	tmacat	tmaalim	tmaama
po-	poocat	pacat	paalim	pooma
yo-	yoocat	yacat	yaalim	yooma
xo-	xoocat	xacat	xaalim	xooma
si-	siicat	sacat	saalim	siima
mi-	miicat	macat	maalim	miima

phonetically long (see §28.5.1). The features of **o** do not spread in a similar fashion; there is no phoneme /w/ nor a phonetic [w] in the word **iyóaa**.

27.6 Irregular verbs both ways

The patterns presented above are what seem to be the standard ones in the language. There are a few exceptional verbs of two different types.

First, some verbs have initial stressed short low vowels which act just as if they were *long* in every way (that is, all facts about their conjugation, including facts not presented in this chapter) except that they are phonetically *short*. See the verb for *swim* in Table 27.9 as an illustration. That root is marked with a macron over the vowel in the underlying form of the root to indicate this kind of irregularity. Other verbs with this kind of irregularity include √**āii** *wake up partially*, √**ācōtim** *cover oneself as with a blanket*, √**āsaquim** *comb one's hair* (as contrasted with √**asaquim** *brush (something)*).

Second, another kind of irregularity is illustrated by the verb for *reside* in Table 27.9. The root conjugates in every way as if the root began with a *short* low vowel (including with vowel assimilation) but the low vowel is always phonetically *long* when it is present. This type of root is marked with a circumflex over the vowel in the underlying form of the root to indicate this kind of irregularity.

27.7 Highly irregular verbs

Several highly irregular verbs exist in the language which nonetheless have interesting systematic properties with respect to their irregularities. All of these are not discussed here (see the

paradigms in the 2005 dictionary).¹⁹ Table 27.10 presents non-negative and negative mood forms as a way to partially illustrate the facts. The key feature of these irregular verbs is the fact that, very unusually for the language, stress rarely occurs on their roots at all.²⁰ (To make these unusual facts completely evident, stress is indicated in all of these verbs in this table.) Underlying forms of the roots are not given for these verbs.

It can be seen from the data in Table 27.10 that the presence of the prefix 3:3 **i-** (§17.1.2.1) is very important in the transitive verbs since it receives the stress in these verbs (unlike anywhere else in the language). Except for the verb meaning *be* in this table, if there is no prefix vowel, a vowel is epenthesized and is then stressed. This epenthetic vowel is either **a**, **e**, or **ee**; the vowels **e** and **ee** are used when the verb root has **e**; this fact is related to the vowel harmony seen elsewhere (§13.6.4). In the verb meaning *say*, an excrescent **t** also often appears.

It is also seen that **c**-Epenthesis (§27.1.4) applies in these forms as it does in regular verbs.

Finally, it is typical of these highly irregular verbs that the trio of prefixes **po-**, **yo-** and **xo-** do not pattern alike, unlike elsewhere. To be specific, forms with the prefix **xo-** look quite different than those with the prefixes **po-** and **yo-**.

¹⁹ See pages 912ff of the dictionary, although these pages include irregular verbs of more types than the ones presented in this section.

²⁰ Marlett (1981b, chapter 5) called them stress-retracting verbs.

Table 27.10: Mood forms of verbs of some highly irregular verbs

	<i>accompany</i>	<i>say (intr.)</i>	<i>grind (dry item)</i>	<i>give</i>	<i>be</i>
t-	ítal	téete	íta	íite	táa
t-m-	itcámal	téme	itcmáha	itquéme	táma
tm-	itcámal	téme	itcmáha	itquéme	táma
po-	ípal	téepe	ípa	íipe	ípa
po-m-	ipómal	póme	ipóma	ipóme	póma
yo-	íyal	téeye	íya	íiye	íya
yo-m-	iyómal	yóme	iyóma	iyóme	yóma
xo-	ixóal	xóe	ixóa	ixóe	xóa
xo-m-	ixómal	xóme	ixóma	ixóme	xóma
si-	íssal	téese	ísa	íise	sáa
si-m-	iscámal	séme	iscáma	isquéme	sáma
mi-	ímal	téeme	íma	íime	máa
	<i>come</i>	<i>go</i>			
	(with mo-)	(with nt-)			
t-	móta	(i)ntíta			
t-m-	(i)ntáma	xxx			
tm-	(i)ntáma	xxx			
po-	mopa	(i)ntípa			
po-m-	(i)mpóma	(i)ntpóma			
yo-	móya	(i)ntíya			
yo-m-	(i)nyóma	(i)ntyóma			
xo-	(i)mxóaa	(i)ntxóa			
xo-m-	(i)mxóma	(i)ntxóma			
si-	mósa	(i)ntísa			
si-m-	(i)nsáma	(i)ntsáma			
mi-	móma	(i)ntíma			