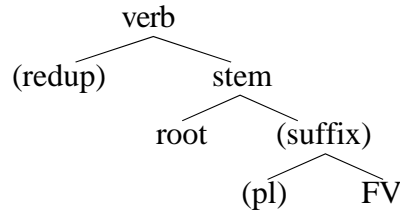


## 4. The Verb and its Inflection

### 4.1. Verb structure

**4.1.1. Basic verb structure.** The structure which is proposed for the Legbó verb is as follows:



As seen, a verb consists of an obligatory stem, which in turn consists of an obligatory root. This root may be followed by an optional pluractional suffix *-az-* and a final vowel (FV) */-i/* or */-a/*. The different possible syllable shapes for each of the four subconstituents is schematized below:

redup	root	pl	FV
CV	CV	VC	V
	CVV		
	CCV		
	CVC		
	CVVC		
	CCVC		
	CVCC-		

In what follows, the initial stem consonant will be referred to as C1 and the second stem consonant, if any, as C2. When a shape is indicated with C1 or C2 indicated, these stand for both single and geminate consonants. Note also that the last one of the listed root shapes, CVCC-, occurs only if followed by a suffix. Only four verbs exist which have the shape CCVCCV.

Ignoring reduplication, given the above distribution of C's and V's, the maximum length of a Legbó verb is three syllables:

monosyllabic (145)		bisyllabic (226)		trisyllabic (5)	
sì	'do'	mana	'catch'	gwàhazi	'walk fast'
dàa	'please, like'	kubba	'enter'	jalazi	'investigate'
dum	'bite'	vìli	'cut'	yÒhOzi	'bluff'
tOOm	'send'	vèèli	'lend'	yuNazi	'scare'

However, as seen by the numbers in the Legbó lexicon, almost all verb entries are monosyllabic or bisyllabic. Of the five trisyllabic verbs, the four indicated have a frozen pluractional suffix */-az-/* plus the FV *-i* which is required after it. (For simplicity, this suffix sequence will be cited as *-azi*.) The fifth trisyllabic verb has a lexicalized reduplicated initial CV: *kakaNa* 'be hard strong'. There is one known verb entry with four syllables, *nONOIOzi* 'be bent, winding', which, when undergoing CV- reduplication, produces the only verb form attested so far with five syllables: *nO-nONOIOzi* 'be really bent, winding'.

In schematizing the structure of the verb, we have not indicated anything concerning tone. The tone of the pluractional and FV suffixes depend on how the verb is inflected for aspect, mood etc. (see §XX). Although Legbó has three contrasting tones, H, M, and L, there is only a binary tonal

opposition in verb roots, which can also be realized differently, depending on inflectional features. Legbó does not have an infinitive, and the citation form is the imperative. As seen in the verbs cited thus far, as well as below, a verb root is either L or M in citation form, and suffix vowels are M; cf. *finá* ‘touch’, pl. *finazi*; *maná* ‘catch, hold’, pl. *manazi*. The one exception is that we transcribe only a L tone on the LM of monosyllabic verbs with a short vowel, e.g. *dzŌ* ‘forget’, *tám* ‘become old’. Phonetically, these are pronounced with a very short LM contour to which a final L is typically added pre-pausally, hence a LML contour in isolation.

**4.1.2. Monosyllabic verb stems.** As indicated in §4.1.1, verb roots are monosyllabic in Legbó. As seen in the above table, 145 or slightly less than 40% of Legbó verbs are monosyllabic in their citation form. The possible shapes of monosyllabic verbs are seen in the following examples:

	<b>L verbs</b>		<b>M verbs</b>	
CV	vÈ	‘kill’	du	‘beat’
CCV	lì	‘bury’	bbo	‘die’
CVV	kÒO	‘vomit’	zoo	‘find, search for’
CVC	vÒN	‘want’	wOm	‘bear fruit’
CCVC	mmÈN	‘swallow’	sEN	‘go’
CVVC	màan	‘give birth’	wOOl	‘flog’

As seen, the initial consonant may be either single/lenis (C) or geminate/fortis (CC). In addition, the vowel may be short (V) or long (VV), with the one restriction that no root has the structure CCVV, i.e. a geminate consonant followed by a long vowel. It is, however, possible to find CCVV in derived forms. Thus, *mà* ‘laugh’ + *-azi* (pluractional suffix + FV *-i*) becomes *mààzi*.

Monosyllabic verb stems ending lacking a coda consonant can have any of the seven vowels, except that /u/ does not occur long. In addition, /ii/ is very rare. (Blank cells indicate that verbs with the intended structure do not appear in the lexicon.)

<b>CV verbs</b>		<b>CVV verbs</b>		<b>CCV verbs</b>	
dzi	‘eat’	nii	‘give’	bbi	‘be black’
be	‘stand’	zee	‘see’	kkwe	‘shout, scream’
tÈ	‘let, allow’	zÈE	‘walk’	ppÈ	‘close (door)’
zu	‘live’			ggù	‘blow’
nyo	‘look after’	bòo	‘be enough’	tto	‘cry, weep’
zÒ	‘babysit’	vOO	‘flow’	kkpO	‘build’
la	‘entangle’	vàa	‘be possible’	mà	‘laugh’

Minimal pairs include:

V vs. VV	wO	‘weed’	wOO	‘shake, rattle’
	ba	‘ask’	baa	‘tie’
	za	‘reject, refuse’	zaa	‘curse, abuse’
C vs. CC	bi	‘be well done’	bbi	‘be black’
	be	‘stand’	bbe	‘slice, cut’
	kpe	‘learn, teach’	kkpe	‘gather, pick’
	tu	‘weed (w/instr.)’	ttu	‘stampede’
L vs. M	sù	‘steal’	su	‘peck/pick at’
	mà	‘laugh’	ma	‘be sick’
	bbò	‘slash, cut’	bbo	‘die’
	kàa	‘argue’	kaa	‘carry’

Note that the vowel sequences /ia/, /ua/ and /Vi/ are all heterosyllabic, e.g. sìa ‘descend’, dua ‘hide (sth.)’ kpai ‘spit’, tui ‘drive away’. These sequences never occur in the first syllable of a CVVCV verb, nor are they ever followed by a coda consonants. They are analyzed as CV with an -i or -a FV: /sì-a/, /du-a/, /kpai-i/, /tu-i/.

Similarly, some of the CVV verbs are analyzed as having a single long vowel, while others have to be analyzed as a sequence /CV-V/. Two criteria distinguish these two sets of CVV verbs: First, they differ in the form of their perfective (§XX). CVV verbs take the suffix -i, while CV-V verbs do not. Second, CVV verbs count as one tone-bearing unit, while CV-V verbs count as two. These two differences are seen in the following examples:

ba-tÓÓi gèdzé ÈtÓÓ ‘he harvested the yams’ (they didn’t do anything else to them)  
ba-lÓÓ gèdzé ÈlÓÓ ‘they spoiled the yams’ (they didn’t do anything else to them)

As seen, the verb tÓÓ ‘harvest’ takes an -i suffix in the perfective, while lÓÓ ‘spoil’ does not. In addition, the HM melody of the focused gerund is fully realized on ÈlÓÓ, but only the H is realized on È-tÓÓ. These verbs are thus analyzed as /tÓÓ/ ‘harvest’ and /lÓ-a/ ‘spoil’. As seen, the length of lÓÓ is from the assimilation of the /-a/ suffix to a preceding mid vowel (cf. the related verb lÒ ‘be bad’). An exact minimal pair is /baa/ ‘tie’ vs. /ba-a/ ‘marry’.

Note that a few CVV roots are also found with and -i or -a suffix: taa-i ‘chew’, pii-a ‘twist’.

The coda consonant is restricted to /l/, /m/, /n/ or /N/ and can be preceded by either a short or long vowel:

	<b>L verbs</b>		<b>M verbs</b>	
CVI	tòl	‘pull, drag’	vOl	‘roll up’
CVm	nùm	‘take’	yum	‘be pregnant’
CVn	gbòn	‘prevent’	dan	‘spin (thread)’
CVN	mìN	‘suck’		
CCVI				
CCVm	kkàm	‘be big’		
CCVn	kkpèn	‘stay long, last’		
CCVN	mÈN	‘swallow’	siN	‘fight’
CVVI	wèel	‘come, arrive’	kool	‘be red’
CVVm	dèem	‘bathe’	tEEm	‘clear bush’
CVVn	yàan	‘spread to dry’	vaan	‘wrestle’
CVVN			taaN	‘sweep’

There appear to be no exact minimal pairs between CVC and CCVC, but cf. mìN ‘suck’ vs. mÈN ‘swallow’ and kkàm ‘be big’ vs. kOm ‘be hot’. Short-long vowel pairs and tonal minimal pairs are attested:

V vs. VV	kOm	‘be hot’	kOom	‘wait for’
	tàm	‘become old’	tàam	‘give dash’
L vs. M	dùm	‘be long’	dum	‘bite’
	dàn	‘be blunt’	dan	‘spin (thread)’
	kÒOn	‘be fitting’	kOOn	‘sow, plant’

**4.1.3. Bisyllabic verb stems.** The examples presented in §4.1.2 consist of monosyllabic verb forms which have no internal morphological structure. Bisyllabic verbs always consist of two morphemes: a root (which typically does not occur independently) and a frozen suffix, underlyingly either /-i/ or /-a/.

Bisyllabic verb forms whose two syllables have a surface onset consonant can have any of the following shapes:

	<b>L verbs</b>		<b>M verbs</b>	
CVC-i	bàli	‘step on’	zumi	‘extinguish’
CVC-a	mìna	‘lie down’	mana	‘catch, hold’
CVVC-i	vèèli	‘lend’	tOONi	‘drip’
CVVC-a	mÒÒNO	‘return’	tOONO	‘cough’
CCVC-i	vvèmi	‘beg’	ttali	‘untie’
CCVC-a	bbàla	‘remember’	kkana	‘imitate’
CVCC-i	kènni	‘feed’	wukki	‘be rough’
CVCC-a	yòNNo	‘pass’	vEmE	‘be small’
CCVCC-i			ddaddi	‘rejoice’
CCVCC-a			gwekke	‘lift up, raise’

As in the case of monosyllabic verbs, bisyllabic verbs do not begin CCVV. One exception has been noted: vvEEmE ‘leave, go away’. In addition, vowels may not be long before a geminate consonant, hence there are no CVVCCV verbs. It is also important to note that only three verbs have been found that have a geminate (fortis) consonant in both positions: ddaddi ‘rejoice’, dzubbi ‘be cold’,

and gwekke ‘raise, lift up’. One verb, vvEEmE ‘leave, go away’, has been found with a geminate C1 followed by a lexical long vowel.

Minimal pairs for tone are readily available. On the other hand, it is difficult to isolate V/VV or C/CC as the sole difference between two verb forms. Thus, some of the representative verbs listed below have two differences:

V vs. VV	cème	‘divide, share’	tèèmi	‘hit, strike’
	nyàNi	‘write’	maaNi	‘be sour’
C vs. CC	mana	‘hold, catch’	màna	‘be born’
	mìna	‘lie down’	mina	‘squeeze’
L vs. M	dzÈIE	‘answer a call’	dzEIE	‘know’
	tÒÒNO	‘cough’	tOONO	‘praise’
	bbÒli	‘peel’	bbOli	‘add to’
	kùma	‘worship’	kuma	‘turn upside down’

Because there are only two FV suffixes, analyzed as /-i/ and /-a/, out of 49 potential combinations of V1 + V2, only the 14 combinations shown below occur in bisyllabic verb forms:

	<b>i</b>	<b>e</b>	<b>E</b>	<b>u</b>	<b>o</b>	<b>O</b>	<b>a</b>
<b>i</b>	5						15
<b>e</b>	10	14					
<b>E</b>	3		16				
<b>u</b>	8						18
<b>o</b>	6				10		
<b>O</b>	9					33	
<b>a</b>	17						39

The fourteen combinations are illustrated below.

	<b>V2 -i</b>		<b>V2 -a</b>	
CiC-	vìli	‘cut’	bila	‘climb’
CeC-	vvèmi	‘beg’	cème	‘divide, share’
CEC-	myÈÈli	‘slide’	dzEIE	‘know’
CuC-	yumi	‘wake s.o. up’	kubba	‘enter’
CoC-	tonni	‘pierce’	ttòno	‘tell’
COC-	sOni	‘look at’	kÒmO	‘hear’
CaC-	vami	‘roast’	kkaNa	‘fry’

As seen, the FV /-a/ assimilates to a preceding mid vowel /e, E, o, O/, i.e. /CeC-a/, /CEC-a/, /CoC-a/ and /COC-a/ are realized, respectively, as CeCe, CECE, CoCo, and COCO. Two exceptions have been found: kpeNa ‘be intelligent’, tEha ‘talk gibberish’. As seen in the above examples, either consonant may be single or geminate, and the vowel may be short or long, subject to the restrictions indicated above.

It should be noted that the same vowel distributions are found when the intervocalic consonant is zero. First, stems that have the vowel sequences /ia/, /ua/ and /Vi/ must be distinguished from

similar ones whose C2 is a “ghost consonant”, which may be realized as a velar approximant “gh”, or which may be realized as zero. The symbol “h” is used to represent the gh/Ø variants.

	V2 -i		V2 -a	
CiC-	pihi	‘twist’	sia	‘descend’
CeC-	yèhi	‘decrease, reduce’	kpeehe	‘announce’
CEC-	vEi	‘bubble, boil’	tÈÈhE	‘burn’
CuC-	yui	‘rinse’	kkua	‘kneel’
CoC-	tooi	‘use a pick’	lòho	‘bend’
COC-	ppÒi	‘hurt’	gwÒhO	‘skin, shave’
CaC-	kpai	‘scratch, scrape’	pàaha	‘break, shatter’

As seen, the vowel of the root can be long or short; cf. kpai ‘spit, taai ‘chew’. In many cases, it is hard to determine the difference between a long vowel and a sequence of identical vowels separated by a ghost consonant “h”. The vowel of the verb pii ‘twist’ sounds like a long [i:], as in nii ‘give’, but is analyzed as pih-i because of its progressive and perfective forms, piii and piiazi, respectively (vs. nii ‘give’, whose corresponding forms are nnii and nii).

As seen, the vowel that precedes the “h” can be either long or short, as expected. This can potentially create quite long sequences of identical vowels, e.g. tÈÈhE-E ‘burn it’, pronounced with four contiguous lengths of [E].

Because of the restriction of the second vowel of bisyllabic verb forms, it is analyzed as a FV suffix, rather than part of the root. The root of a bisyllabic verb may have all of the shapes of monosyllabic verbs, i.e. CV, CVV, CCV, CVC, CVVC, CCVC. In addition, the intervocalic consonant may also be geminate: dzubbi ‘be cold’, wÒNNO ‘fly’. The geminate counterparts of coda /m, n, N/ are all found in bisyllabic verbs, whereas intervocalic /l/, which can occur in the progressive form of CV1 verbs (§XX), is not found in verb entries. On the other hand, /bb, dd, kk/, which do not have coda analogues in monosyllabic verbs, occur intervocalically in bisyllabic verbs:

	V2 -i		V2 -a	
CVI-	ggàli	‘lift’	fila	‘germinate’
CVm-	zumi	‘extinguish’	kkpama	‘wander’
CVn-	bini	‘carry (in hand)’	ttùna	‘struggle’
CVN-	tOONi	‘drip’	zùNa	‘perspire’
CVm-	vomi	‘uproot’	kùma	‘worship’
CVnn-	kènni	‘feed’	nanna	‘remove pot/fire’
CVNN-			vùNNa	‘count’
CVbb-	gabbi	‘entwine’	tabba	‘add, mix’
CVdd-	yìddi	‘be fearsome’	gàdda	‘step over’
CVkk-	tàkki	‘wipe, clean’	dakka	‘dream’

The few exceptional intervocalic consonants found in bisyllabic (or longer) verb entries are due either to suffixation of pluractional -azi, e.g. jalazi ‘instigate’, yuNazi ‘scare, frighten’, or to reduplication, e.g. dìdia ‘be happy’, kakaNa ‘be hard, strong’. See §4.2.1 and §4.2.2 for discussion of the productive use of these processes in verb inflection.

**4.1.4. Relics of derivational processes.** As seen in the preceding sections, Legbó exploits both consonant and vowel length for lexical purposes. In addition, although the suffixes -i and -a

can be formally isolated, they too have a strictly lexical function in the language. While related languages exploit verb suffixes (or “extensions”) to mark valence, e.g. causative, reciprocal/middle voice, etc., neither -i nor -a has such a grammatical function in Legbó. One simply has to learn which verbs are lexicalized with a FV—and which one.

Despite this unpredictability, there are pairs of segmentally related Legbó verb stems which are highly suggestive of an earlier system of verb extensions. These are presented in three groups below:

(i) Verbs which have similar or identical meanings

kkÒli	‘scoop out, pack’ (e.g. mud)	kÒÒli	‘spoon, scoop out’ (e.g. soup)
tum	‘sew’ (cf. kum ‘pierce, sew’)	dumi	‘sew’
vOl	‘roll up’	vOddO	‘roll up’
ja	‘instigate’	jalazi	‘instigate’
baa	‘tie’	bbaha	‘tie a wrapper’
bbyà	‘iron (clothes)’	bbyàha	‘press/push down’
kpai	‘scratch, scrape’	kpàal	‘scrape, rake’
pàaha	‘break’	ppàNa	‘break’
		ppài	‘break into pieces’
		? ppàla	‘cut loose, part, separate’
ta	‘contribute’	tabba	‘add, mix’
tàm	‘grow old’	tàmi	‘be mature, grow’
be	‘stand’ (tr. & intr.)	beele	‘place container of sth.’
cèe	‘divide, share out’	cème	‘divide, share out’
ggù	‘blow (mouth, wind)’	ggùma	‘fan, blow’
kkua	‘kneel’	kuNNa	‘crawl’
za	‘reject, refuse’	zaa	‘curse, abuse’
taali	‘draw a line’	ttali	‘untie, loosen’
yu	‘tease’	yuNazi	‘scare, frighten’ (by teasing)

(ii) Verbs which differ in relation of arguments to the expressed action or state:

màan	‘give birth’	màna	‘be born’
lÒ	‘be bad’	lÒO	‘spoil, destroy’
		? lÒkkO	‘be rotten’
ttÒ	‘fall’	tÒO	‘harvest’
fO	‘return, come back’	fOIO	‘be near’
ggbO	‘jump’	gbOONi	‘bounce’ (e.g. a ball)
kkO	‘hate, lack’	kkÒghO	‘eye with hatred’
kpe	‘learn, teach’	kpeNa	‘be intelligent’
tèe	‘rain, fall (rain)’	tème	‘be drenched by rain’
mia	‘squeeze (person), embrace’	mina	‘squeeze (orange), wring’
tooi	‘pick (with a pick)’	tonni	‘pierce’
ppÒ	‘knock, hit, jam, collide’	ppÒi	‘ache, throb’ (‘it knocks s.o.’)
		ppÒmO	‘meet’
su	‘be full, fill (intr.)’	suNa	‘fill (tr.)’

(iii) Verbs which, if related, would indicate an opposite or “reversive” action or state:

zu	‘exist, live’	zumi	‘extinguish, lose, be lost’
kkù	‘stay, remain, be (location)’	kùà	‘open (door)’
bOO	‘heal’	bOOl	‘slander, tell a lie against’
fa	‘rub (off)’	fagha	‘wedge (between sth.)’
taali	‘draw a line’	ttali	‘untie, loosen’
dza	‘urinate’	dzaNa	‘suck’ (e.g. breast)

As seen, some of the changes involve differences in consonant and/or vowel length, others in adding or subtracting a second consonant or vowel. There do not seem to be enough examples to extract recurrent patterns. Several of the pairs suggest an earlier -a that might have indicated a state or middle voice: màan ‘give birth’, màna ‘be born’; kpe ‘learn, teach’, kpeNa ‘be intelligent’; tèo ‘rain’, tème ‘be drenched by rain’. On the other hand, the pair su ‘be full’, suNa ‘fill (tr.)’ changes an intransitive into a transitive. This makes the analysis of ppÒ ‘collide’, ppÒmO ‘meet’ less clear: is ‘meet’ from ‘make collide’ or ‘collide’ (middle voice)? Where an unpredictable consonant appears, it may have belonged historically to the root in some cases, to the lost suffixes in others.

A few more speculatively related verbs are kkpO ‘build’, kkpONO ‘be tall’ (of a person, building, etc., i.e. ‘be built’); kpOO ‘chase’, kpOOli ‘skip, step over’; yum ‘be pregnant’, yumi ‘awaken (tr.)’.

#### 4.2. Derived verb stems

There are four processes that may produce derived verb stems by alternating their segmental (but not tonal) structure: perfective -i suffixation, pluractional -azi suffixation, progressive formation, and reduplication.

**4.2.1. Perfective -i.** Some, but not all, verb stems acquire a FV -i in certain parts of the paradigm identified here as perfective (§XX). It is easiest to show this with consonant-final verb stems, all of which take an -i. Thus, compare bá-wèl ‘they will come’ (irrealis) vs. ba-wéél-i ‘they came’ (perfective). Other examples show the generality of the rule CVC → CVC-i in the perfective:

stem	perfective		stem	perfective	
tÒl	tÓli	‘pull’	siN	siNi	‘fight’
yum	yumi	‘be pregnant’	kool	kooli	‘be red’
dàn	dáni	‘be blunt’	dèem	déemi	‘bathe’
mìN	míni	‘suck’	vaan	vaani	‘wrestle’
kkàm	kkámi	‘be big’	taaN	taaNi	‘sweep’
kkpèn	kkpéni	‘stay long’			

Because the perfective does not occur in isolation (e.g. in imperatives), L tone verbs will be cited with H root tone, which is the typical realization, e.g. tOl ‘pull’ vs. E-tÓli ‘s/he pulled’, dèem ‘bathe’ vs. ba-déemi ‘they bathed’.

A verb stem which already ends in the FV -i will show no change in the perfective:

stem	perfective		stem	perfective	
ggáli	ggáli	‘lift’	kènni	kénni	‘feed’
zumi	zumi	‘extinguish’	gabbi	gabbi	‘entwine’



bini	bini	‘carry’	yìddi	yíddi	‘be fearsome’
tOONi	tOONi	‘drip’	tàkki	tákki	‘wipe, clean’
vomi	vomi	‘uproot’			

Similarly, verb stems which end in /-a/ also show no change:

stem	perfective		stem	perfective	
fila	fíla	‘germinate’	nanna	nanna	‘remove pot/fire’
kkpama	kkpama	‘wander’	vùNNa	vúNNa	‘count’
ttùna	ttúna	‘struggle’	tabba	tabba	‘add, mix’
zùNa	zúNa	‘perspire’	gàdda	gádda	‘step over’
kùma	kúma	‘worship’	dakka	dakka	‘dream’

This includes verbs whose /-a/ has assimilated to the preceding root vowel: ba-téme ‘they embraced’, ba-fEnE ‘they shaved’, ba-yóNNo ‘they passed by’, ba-mÓÓNO ‘they returned’.

The mutual exclusivity of lexical -a and perfective -i suggests that they are in the same FV “slot”. That is, if a verb already has a FV, it does not take perfective -i.

Verbs whose stem has an /ia/, /ua/ or /Vi/ sequence, or which have a “ghost consonant”, will also not take an -i FV in the perfective:

stem	perfective		stem	perfective	
sìa	sía	‘descend’	tooi	tooi	‘use a pick’
yèhi	yéhi	‘decrease’	gwÒhO	gwÓhO	‘skin, shave’
vÈi	vÉi	‘bubble’	pààha	pááha	‘break, shatter’
kkua	kkua	‘kneel’			

The use of the FV -i in the perfective of CV, CCV, and CVV verbs is also largely predictable, but with exceptions.

First, most of the CV verbs with a lenis consonant take -i in the perfective. 26 such verbs have been found, of which the following are representative:

stem	perfective		stem	perfective	
dì	dí	‘say’	lu	lui	‘babble’
kpe	kpei	‘learn’	zÒ	zÓi	‘babysit’
wÈ	wÉi	‘tremble’	ta	tai	‘contribute’

There are seven CV verbs, however, which do not take -i.

stem	perfective		stem	perfective	
vì	ví	‘go out’	de	de	‘be’
wì	wí	‘be bitter’	kè	ké	‘put’
bi	bi	‘be done’ (food)	vÈ	vÉ	‘kill’
be	be	‘stand up’			

As noted, these seven verbs all have a front vowel. The following shows the distribution of CV verbs in the perfective as a function of their vowel:

	Ci	Ce	CE	Cu	Co	CO	Ca
-i	2	1	2	10	1	4	6
Ø	11	11	6	9	7	15	22
#/% of -i:	5/33 = 15%			15/46 = 33%			6/28 = 21%

The indicated percentages show a lesser likelihood of perfective -i appearing on a CV verb whose vowel most resembles the suffix in frontness and (non-)roundness: Only 15% of the CV verbs with a front unrounded vowel take -i. In the case of Ca verbs, whose vowel resembles -i in not being round, 21% take -i. However, when the vowel is /u/, /o/ or /O/, i.e. back instead of front, and round instead of unround, 33% of these CV verbs take -i.

In contrast with CV verbs, all but three of the 74 CCV verbs in the lexicon fail to take -i in the perfective:

stem	perfective		stem	perfective	
bbi	bbi	'be black'	tto	tto	'cry'
kkwe	kkwe	'shout'	ggbO	ggbO	'jump'
ddÈ	ddÉ	'greet'	mà	má	'laugh'
ddu	ddu	'whisper'	ppa	ppa	'pluck, pick'

The exceptions are:

dza	dzai	'be good'	dzò	dzói	'keep'
su	sui	'be full'			

While the three exceptions all involve a redundantly fortis consonant /dz/ or /s/, there are (near) minimal pairs which do not take -i in the perfective: dza 'they urinated', dzÓ 'they forgot', sú 'they stole'.

Note that the defective verb fù 'come' does not have a perfective form. Thus, it is necessary to use the synonymous verb wèèl 'come' in such cases: fù ~ wèèl 'come', wééli 'they came' (\*fú, \*fúi).

CVV verbs show a similar patterning to CV verbs. Ignoring the two exceptional Cii verbs (see below), 26 out of 35 take -i in the perfective. Representative examples:

stem	perfective		stem	perfective	
wee	weei	'swim'	dOO	dOOi	'be heavy'
dEE	dEEi	'buy'	kpa	kpaai	'be strict'
zoo	zooi	'find'	yaa	yaa	'scratch, itch'

The nine exceptions are:

stem	perfective		stem	perfective	
zee	zee	'see'	baa	báa	'marry'
vEE	vEE	'pick up'	kaa	káa	'carry'
zÈE	zÉE	'walk'	vàa	váa	'be possible'
bòo	bóo	'be enough'	nàa	náa	'take'
lÒO	lÓO	'destroy'			

These verbs are analyzed as /ze-a/, /vE-a/, /zÈ-a/, /bò-a/, /lÒ-a/, /a/, /ka-a/, /v`a-a/ and /n`a-a/, where -a assimilates to the preceding mid vowel. The final -a blocks the -i spell-out in the perfective, as expected. The analysis is confirmed by two other pieces of evidence:

First, the 2sg and 3sg object enclitics have an initial [y] after CV-a verbs which they do not have after CVV verbs. This difference is seen in the following sentences in the irrealis mood (in which verbs do not take an -i perfective suffix):

<b>CVV verbs</b>		<b>CV-a verbs</b>	
É-dEE-E	‘he will buy it’	é-zeè-yE	‘he will see it’
é-zoo-E	‘he will find it’	É-vEÈ-yE	‘he will pick it up’
É-tOO-E	‘he will throw it’	É-ka`a-yE	‘he will carry it’
É-baa-E	‘he will tie it’	É-ba`a-yE	‘he will marry her’

Similarly: É-baa-Ó ‘he will tie you sg.’ vs. É-ba`a-yÓ ‘he will marry you’ etc. See also §4.4 for a similar -È vs. -yÈ suffix distinction in the first gerund form (G1).

Second, there are tonal differences: CV-a verbs which become CVV by assimilation count as two tone-bearing units for mapping ML and HM melodies on verb stems. On the other hand, CVV which have an underlying (single) long vowel count as only one. This difference is also seen in the above forms with the 3sg object enclitic -E vs. -yE. Since one might try to attribute it to the presence vs. absence of the [y], the corresponding verb forms are given below with the 3pl object pronoun -bE ‘them’:

<b>CVV verbs</b>		<b>CV-a verbs</b>	
É-dEE-bE	‘he will buy them’	é-zeè-bE	‘he will see them’
é-zoo-bE	‘he will find them’	É-vEÈ-bE	‘he will pick them up’
É-tOO-bE	‘he will throw them’	É-ka`a-bE	‘he will carry them’
É-baa-bE	‘he will tie them’	É-ba`a-bE	‘he will marry them’

As seen, the /CVV/ verbs on the left receive a M tone in the irrealis, while the /CV-a/ verbs on the right are realized with a ML falling tone: the M goes on the first CV and the L on the -a FV, which assimilates to a preceding mid vowel. There are, however, differences between these /CV-a/ verbs and /Ci-a/ and /Cu-a/ verbs, which are described in §XX.

Recall that /ii/ and /uu/ are extremely rare in lexical entries. There are no /Cuu/ verbs. From tonal evidence we can determine that the two /Cii/ verbs should be analyzed as /Ci-i/: é-nii-bE ‘he will give them’, é-pii-bE ‘he will twist them’. These verbs remain unchanged, i.e. they do not acquire an additional -i suffix, in the perfective: e-nii-bE ‘he gave them’, e-pii-bE ‘he twisted them’.

Since it is very hard to hear the difference between CVV and CVhV, one criterion for determining the shape of the stem is to see if it takes -i in the perfective. As seen above, verbs such as wee ‘swim’, dEE ‘buy’ etc., which take -i in the perfective, are unambiguously CVV. On the other hand, it is more difficult to analyze monosyllabic verbs ending in a phonetically long vowel which do not take -i in the perfective. These may have one of three structures:

(i) They may be /CVV/ verbs which exceptionally do not take -i in the perfective, e.g. nii ‘give’. Note also that this verb cannot be analyzed as /ni-i/ because of its gerund form gÈ-niiyÈ ‘giving’. As discussed in §XX, the suffix -È does not occur on verbs which end in -i.

(ii) They may have the structure /CV-a/, where the /-a/ assimilates to a preceding mid vowel. For example, lŃO ‘spoil, destroy’, which does not take -i, might be analyzed /lŃ-a/, most likely related to lŃ ‘be bad’. By this criterion, zaa ‘curse, abuse’, which takes -i, cannot be analyzed as /za-a/, and may therefore not be related to za ‘reject, refuse’, as was speculated in §4.1.2.

(iii) They may be /CVh-a/, i.e. involving a “ghost consonant” in their structure, as in the following examples:

<b>stem</b>	<b>perfective</b>		<b>stem</b>	<b>perfective</b>	
jehe	jehe	‘be tall’	vŃhO	vŃho	‘wake up’
lŃho	lŃho	‘be bent’	bàha	báha	‘put pot on fire’

That three distinct analyses of [VV] is required is seen from the following comparison of stem, perfective, and gerund forms:

	<b>stem</b>		<b>perfective</b>	<b>gerund</b>
CVV	wee	‘swim’	weei	gè-weèÈ
	dEE	‘buy’	dEEi	gÈ-dEEÈ
	zoo	‘find’	zooi	gÈ-zoòÈ
	tOO	‘throw’	tOOi	gÈ-tOOÈ
	kpaà	‘be strict’	kpaai	gÈ-kpaàÈ
CV-V ?	zee	‘see’	zee	gè-zeèyÈ
	vEE	‘pick up’	vEE	gÈ-vEEyÈ
	bòo	‘be enough’	bóo	gè-bòòÈ
	lŃO	‘spoil, destroy’	lŃO	gÈ-lŃOÈ
	kaa	‘carry’	kaa	gÈ-kaàyÈ
CVhV	jehe	‘be tall’	jehe	gè-jehè
	lŃho	‘bend’	lŃho	gè-lŃhò
	vŃhO	‘wake up’ (intr.)	vŃhO	gÈ-vŃhÒ
	bàha	‘put (pot) on fire’	báha	gÈ-bàhà
CVVh-a	kpeehe	‘announce’	kpeehe	gè-kpeèhè
	pÈÈhe	‘lean on’	pÈÈhE	gÈ-pÈÈhÈ
	pòòho	‘overflow’	póóho	gè-pòòhò
	tOOhO	‘run away, escape’	tOOhO	gÈ-tOOhÒ
	dOOhO	‘sleep’	dOOhO	gÈ-dOOhÒ
	pàaha	‘break’	páaha	gÈ-pààhà
	kpaaha	‘lock’	kpaaha	gÈ-kpaàhà

As seen, CVV and CV-V verbs are distinct in the perfective. In addition, if their vowel is unround, CVV verbs will take the normal -È gerund suffix, while CV-V take -yÈ (the only verb forms to do so—see §XX). CVhV also do not take -i in the perfective. However, as seen, they also do not take -È in the gerund. Finally, CVVhV verbs work identically to CVhV except for the added vowel length in their first syllable:

For the semantics of the perfective, see §XX.

**4.2.2. Pluractional -azi.** The pluractional suffix -az- obligatorily combines with the FV -i and can thus be cited as -azi. It can be added to any verb to indicate that multiple action is involved (see §XX). As seen in the following examples, the *a* of -azi will assimilate to a preceding mid vowel:

(i) Monosyllabic verbs (CV, CCV, CVV, CVC, CCVC, CVVC)

sì	sìazi	‘do’	du	duazi	‘beat’
be	beezi	‘stand’	tto	ttoozi	‘cry’
vÈ	vÈEzi	‘kill’	lÒ	lÒOzi	‘be bad’
za	zaazi	‘reject, refuse’			
bbi	bbiazi	‘be black’	ggù	ggùazi	‘blow’
kkwe	kkweezi	‘shout, scream’	bbo	bboozi	‘die’
ddÈ	ddÈEzi	‘greet’	ttÒ	ttÒOzi	‘fall’
mà	màazi	‘laugh’			
nii	niazi	‘give’			
zee	zeezi	‘see’	kòo	kòozi	‘grind’
dEE	dEEzi	‘buy’	tOO	tOOzi	‘throw’
zaa	zaazi	‘abuse, curse’			
mìN	mìNazi	‘suck’	dum	dumazi	‘bite’
			gbòn	gbònnozi	‘prevent’
gÈm	gÈmEzi	‘be big’	tÒl	tÒlOzi	‘pull, drag’
dàn	dànazi	‘be blunt’			
siN	siNazi	‘fight’			
kkpèn	kkpènezi	‘stay long time’	sòm	sòmozi	‘smell’
mÈN	mÈNEzi	‘swallow’			
kkàm	kkàmazi	‘be big’			
wèel	wèelezi	‘come, arrive’	dòom	dòomozi	‘burn’
tÈEm	tÈEmEzi	‘clear bush’	tOOm	tOOmOzi	‘send’
vaan	vaanazi	‘wrestle’			

ii) Bisyllabic verbs (CVCV, CVVCV, CCVCV, CVCCV, CCVCCV)

vìli	vìlazi	‘cut’	bila	bilazi	‘climb’
vvèmi	vvèmezi	‘beg’	cème	cèmezi	‘divide, share’
myÈÈli	myÈÈlEzi	‘slide’	dzEIE	dzEIEzi	‘know’
yumi	yumazi	‘wake s.o. up’	kubba	kubbazi	‘enter’
tonni	tonnozi	‘pierce’	ttòno	ttònozi	‘tell’
sOni	sOnOzi	‘look at’	kÒmO	kÒmOzi	‘hear’
vami	vamazi	‘roast’	kkaNa	kkaNazi	‘fry’

iii) Bisyllabic verbs with “h” second consonant

pihi	piiazi	‘twist’	sia	sìazi	‘descend’
yèhi	yèezi	‘decrease, reduce’	kpeehe	kpeehezi	‘announce’
vÈi	vÈEzi	‘bubble, boil’	tÈÈhE	tÈÈhEzi	‘burn’
yui	yuazi	‘rinse’	kkua	kkuazi	‘kneel’

tooi	toozi	‘use a pick’	lòho	lòhozi	‘bend’
ppÒi	ppÒOzi	‘hurt’	gwÒhO	gwÒhOzi	‘skin, shave’
kpai	kpaazi	‘scratch, scrape’	pààha	pààhazi	‘break, shatter’

As also seen, unless there is a ghost “h”, there is no short/long vowel opposition immediately before -azi. Thus, both verbs za ‘reject’ and zaa ‘curse’ have the identical pluractional form zaazi.

Note that -azi replaces both -a and -i, which further justifies the recognition of these as suffixes.

The pluractional suffix may be added to any verb in any tense, subject to semantics. It can indicate different situations. Typically, there will be a plural referent in the utterance, but there needn’t be, in which case -azi refers to plural actions or states. This is seen in the following intransitive paradigms:

wàhÉ sÉ E-ttÓ	‘the child fell’	
bÈhÉ sÉ ba-ttÓ	‘the children fell’	(typically as one action, all at once)
EggÒ sÉ E-bbi	‘the cloth is black’	
EggÒ sÉ ba-bbi	‘the cloths are black’	
wàhÉ sÉ E-ttÓOzi	‘the child fell’	(on different occasions, several times)
bÈhÉ sÉ ba-ttÓOzi	‘the children fell’	(plural; one after another, at different times)
EggÒ sÉ E-bbiazi	‘the cloth is black’	(here and there, sometimes, off and on)
EggÒ sÉ ba-bbiazi	‘the cloths are black’	(plural; here and there; off and on etc.)

When there is an object, more interpretations are possible:

wàdum sÉ e-dui èvèvè sÉ	‘the man beat the thief’	
wàdum sÉ e-dui àvèvè sÉ	‘the man beat the thieves’	
bàdum sÉ ba-dui èvèvè sÉ	‘the men beat the thief’	
bàdum sÉ ba-dui àvèvè sÉ	‘the men beat the thieves’	
wàdum sÉ e-duazi èvèvè sÉ	‘the man beat the thief’	(several or different times)
wàdum sÉ e-duazi àvèvè sÉ	‘the man beat the thieves’	(pl, iterative, thief separately)
bàdum sÉ ba-duazi èvèvè sÉ	‘the men beat the thief’	(each man separately)
bàdum sÉ ba-duazi àvèvè sÉ	‘the men beat the thieves’	

A last function of the pluractional suffix is to mark the progressive aspect. This is taken up in the next section.

**4.2.3. Progressive formation (PF).** There are two ways to form a progressive, which will be referred to as PF1 and PF2.

In PF1, the majority pattern, progressives are formed by suffixation of -i plus potential consonant fortition, e.g. kè/kkèi ‘put/putting’:

bÈhÉ sÉ ba-ké lídzil sÉ ʔkE ÈttO	‘the children put the food into the hosue’
bÈhÉ sÉ ba-kkéi ídzil sÉ ʔkE ÈttO	‘the children are/were putting the food in the house’

Approximately 360 or 80% of the 450 verbs in the lexicon form their progressive in this way.

Among these, a group of about 30 verbs also use -i, but, in addition, an unpredictable geminate consonant appears that is not in the base verb, e.g. *be/benni* ‘stand/standing’:

wàdum sÉ e-be ʔN-kE ÈttO ‘the man stood in the house’  
wàdum sÉ e-benni NkE ÈttO ‘the man is/was standing in the house’

Approximately of these have a “ghost” C2 /h/, which

In PF2, a smaller group of about 90 verbs in the lexicon which cannot undergo the above majority pattern, “piggy-back” on the pluractional verb form, marked by /-azi/:

èyòò IÓmin E-vami ÈtÈÈn ekkpón ‘my friend roasted meat’  
èyòò IÓmin E-vamazi ÈtÈÈn ekkpón ‘my friend is/was roasting meat’

This includes all verbs whose stem has the shape CVCCi, i.e. which already end in -i preceded by a geminate consonant (see below).

In neither case is there a change in tone conditioned solely by PF. Tonal alternations depend instead on other inflectional features (see §XX).

The following summarizes and illustrates the different patterns observed in PF, based on the shape of the input stem.

CV, CCV, CVV → CCVi. As indicated, most verbs form their progressive by means of the -i suffix, accompanied by possible consonant fortition if the consonant isn’t already geminate. This is illustrated for CV and CCV verbs below:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
bi	bbii	‘be done (food)’	mà	mài	‘laugh’
ccO	ccOi	‘be talkative’	nnÈ	nnÈi	‘defecate’
du	ddui	‘beat, pound, crush’	nyo	nyoi	‘look after’
dzi	dzii	‘eat’	Nwa	Nwai	‘dip, stick in ground’
fO	fOi	‘return, come back’	ppò	ppòi	‘belch’
ggù	ggùi	‘blow’	sù	sùi	‘steal’
ggbO	ggbOi	‘jump’	tÈ	ttÈi	‘let, allow’
gwa	gwai	‘drink’	vì	fii	‘go out, exit’
kè	kkèi	‘put’	wu	wwui	‘grate’
kpe	kkpei	‘learn, teach’	yà	yyài	‘be satiated’
kkwe	kkwei	‘shout, scream’	zÒ	sÒi	‘babysit’
la	llai	‘entangle’			

Note in the above examples that [ff] and [ss] are the fortis equivalents to /v/ and /z/. However, since these consonants are always fortis, they are written as single *f* and *s*; cf. also *dz* [ddz], *gw* [ggw], *j* [ddž].

In accordance with the general constraint against \*CCVV sequences in lexical entries, the long vowel of CVV verbs will be shortened in PF:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
bOO	bbOi	‘heal’	tèe	ttèi	‘rain’
cèe	ccèi	‘divide, share out’	tOO	ttOi	‘throw’

dEE	ddEi	‘buy’	vàa	fài	‘butcher’
kòo	kkòi	‘grind’	wee	wwei	‘swim’
kpaà	kkpai	‘be strict’	yÒO	yyÒi	‘weave’
làa	llài	‘rub off’	zaa	sai	‘abuse, curse’
nii	nnii	‘give’			

As a result, CV/CVV minimal pairs merge in PF, e.g. za ‘reject’ and zaa ‘abuse’ have the same progressive form sai. On the other hand, a long [ii] is tolerated when /Ci/ or /CCi/ undergo PF: bbi/bbii ‘be black’, di/ddii ‘say’. This may be attributed to the derived nature of the length, which is heteromorphemic, and possibly heterosyllabic.

*CVC, CCVC, CVVC* → *CCVCCi*. Monosyllabic verbs ending in a consonant geminate both of their consonants in PF. As before, the long vowel of CVVC shortens as well:

(i) *CVC, CCVC* → *CCVCCi*

stem	prog		stem	prog	
bàl	bbàlli	‘remove oil/palmnut’	nùm	nnùmi	‘take’
dum	ddumi	‘bite’	pOm	ppOmi	‘rise, do sth. early’
du	ddui	‘beat, pound, crush’	sEN	sENNi	‘go’
gbon	ggbonni	‘prevent’	tÒl	ttÒlli	‘pull, drag’
kum	kkumi	‘pierce, stab’	vÒN	fÒNNi	‘want, look for’
kkpèn	kkpènni	‘stay long time’	wOm	wwOmi	‘bear fruit’
mÈN	mÈNNi	‘swallow’	yum	yyumi	‘be pregnant’

(ii) *CVVC* → *CCVCCi*

stem	prog		stem	prog	
bOOl	bbOlli	‘slander’	màan	mànni	‘give birth’
ceeN	cceNNi	‘groan’	taaN	ttaNNi	‘sweep’
dèem	ddèmi	‘bathe’	vaan	fanni	‘wrestle’
kool	kkolli	‘be red’	wàan	wwànni	‘cook’
kpàal	kkpàlli	‘scrape, rake’	yàal	yyàlli	‘paddle’
kwaal	kkwalli	‘try’	zEEl	sElli	‘be fast, run’

Again we see that [f] and [s] are the fortis counterparts to /v/ and /z/. Also again, vowel shortening can result in mergers, this time between CVC and CVVC, e.g. kOm ‘be hot’ and kOOm ‘wait for’ both have the progressive form kkOmi. Note that the verb cèel ‘resemble’, which can form a regular progressive ccèlli, also shows the irregular variant ccènni.

*CVCa, CVV-a* → *CVCCi*. While CV(V)C verbs geminate both of their consonants in PF, bisyllabic verbs only geminate their second consonant in PF. As seen in the following examples, both /CVC-a/ and /CVVC-a/ verbs undergo replacement of their final -a by -i. If the root vowel is long, it also undergoes shortening:

(i) *CVCa* → *CVCCi*

stem	prog		stem	prog	
bila	bididi	‘climb’	mìna	mìnni	‘lie down’
cème	cèmi	‘divide, share’	tùma	tùmi	‘stop sth. moving’



dùma	dùmi	‘draw water’	vina	vinni	‘go home’
kÒmO	kÒmi	‘hear, feel’	wÒIO	wÒddi	‘be rich’
kpeNa	kpeNNi	‘be intelligent’	zùNa	zùNNi	‘perspire’
kwOIO	kwOddi	‘preach’			

(ii) CVVC-a CVCC-i

stem	prog		stem	prog	
beelee	beddi	‘place container on’	maaNi	maNNi	‘burst’
dòòNo	dòNNi	‘be deep’	tOONO	tONNi	‘cough’
kpeeni	kpenNi	‘miss time to do sth.’	zÈÈnE	zÈnni	‘hang, hook’

The most striking thing about the above data is the behavior of /l/. If initial or in coda position, it will geminate as [ll], e.g. lu/llui ‘babble’, kool/kkolli ‘be red’. If intervocalic, however, /l/ will geminate as [dd]: vOIO/ vOddi ‘surpass’, zOIO/zOddi ‘pour’. Also consistent with this analysis is that an initial /v/ or /z/ of a CV(V)CV verb will not devoice to [f] or [s]: vùla/vùddi ‘be far’, zOIO/zOddi ‘pour’. One does not hear \*fìla or \*sÒddi because the first consonant of a CVCV verb is not fortified in PF.

The following examples show that CCVC-a verbs also undergo replacement of -a by -i and gemination of their intervocalic consonant:

(iii) CCVC-a CCVCC-i

stem	prog		stem	prog	
bbàla	bbàddi	‘remember’	kkpÈIE	kkÈddi	‘be called’
ddÒmO	ddÒmi	‘be wet’	mina	minni	‘squeeze, wring’
dzàNa	dzàNNi	‘quarrel’	nnòmo	nnòmo	‘be straight, stretch’
fÈIE	fÈddi	‘be light (weight)’	nyana	nyanni	‘scatter’
ggùma	ggùmi	‘fan, blow’	ppène	ppènni	‘be stupid’
gwene	gwenni	‘be white’	sùma	sùmi	‘be senior’
jàla	jàddi	‘be astride’	ttONO	ttONNi	‘begin’
kkana	kkanni	‘imitate’	vvene	vvenni	‘rise up’

Given gemination, vowel shortening, and replacive suffixation of -i, PF will result in merger of the progressive forms of many verbs:

stem		stem		prog
màan	‘give birth’	màna	‘be born’	mànni
tOONO	‘cough’	ttONO	‘begin’	ttONNi
zaa	‘curse, abuse’	za	‘reject, refuse’	sai
kOOm	‘wait for’	kOm	‘be hot’	kkOmi

Other verbs merge except in tone, e.g. pOm/ppOmi ‘rise, do sth. early’ vs. ppÒmO/ppÒmi ‘meet on the way’.

To the above patterns we can add CV(V)h-a verbs, whose ghost consonant geminates in PF1. 26 such verbs have been found:

stem	prog	stem	prog
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dzaha	dzabbi	‘suckle’ ~ dzakki	kooho	kokki	‘show’
lòho	lòbbi	‘bend’	kpaaha	kpakki	‘lock’
nyÒhO	nyÒbbi	‘look for’	kpeehe	kpekki	‘announce’
tEha	tEbbi	‘talk gibberish’	pàaha	pàkki	‘break’ ~ ppai
ttÒhO	ttÒbbi	‘sit down’	pèehe	pèkki	‘lean on’
bàha	bàkki	‘put (pan, pot) on fire’	pòoho	pòkki	‘overflow’
bbaha	bbakki	‘tie (wrapper)’	ppyàha	ppyàkki	‘grab, arrest’
bbyaha	bbyakki	‘press down’	sòho	sòkki	‘dawn’
gwàha	gwàkki	‘breathe’	kkÒhO	kkÒkki	‘eye s.o. with hatred’
gwÒhO	gwÒkki	‘skin, flay’	viiha	vikki	‘wedge’
jehe	jekki	‘be tall’	vÒhO	vÒkki	‘wake up (intr.)’
kkaha	kkakki	‘deliver (message)’	dOOhO	dONNi	‘sleep’
kkoho	kkokki	‘cuddle’	tOOhO	tONNi	‘run away, escape’

Since the ghost “h” still functions as a “place holder” for a once occurring consonant, and since “h” can alternatively be realized as a weak velar approximant “gh” (or [w] before [o]), the above geminates probably indicate the nature of the original C2. As seen, the great majority of CV(V)h-a verbs take kk in the progressive: there are 20 of these, vs. 5 verbs which take bb (~ kk in one case) and 2 verbs which take NN.

In addition, 13 CV(V) verbs have been found whose PF also shows the addition of an unpredictable geminate consonant:

stem	prog		stem	prog	
lÒ	lÒbbi	‘be bad’	zee	zemi	‘see’
lÒO	lÒbbi	‘spoil, destroy’	be	benni	‘stand’
dza	dzabbi	‘be good’	bòo	bòNNi	‘be enough’
zoo	sokki	‘find’	dzò	dzòNNi	‘keep’
zu	sukki	‘exist’	su	suNNi	‘be full’
ba	bami	‘ask’	zÈÈ	zÈNNi	‘walk’
de	demi	‘be’			

In this examples, the intervocalic geminate can be bb, kk, m, nn, or NN, and there is no statistical preference for kk. It is unclear whether these geminates are historical reflexes of a root-final consonant or (perhaps less likely) of suffixes that intervened between the CV(V) root and the -i FV.

The verb su ‘be full’ is suggestive, however. The velar nasal of its progressive form, suNNi, is identical to the consonant found in the related transitive form of this verb suNa ‘fill’ (cf. §4.1.4). Since su and suNa have the same progressive form suNNi, two analyses are compatible with the data:

(a)	su	su-N-	su-NN-i
(b)	su	su-N-a	su-NN-i

In (a) the input to PF is the CVC verb base suN-, while in (b) it is the bisyllabic verb stem suNa. If (a) is the correct way to view these unpredictable geminates, then we expect the intermediate CVC structure to undergo fortition of both of its consonants. This is borne out only in the case of zu/sukki ‘exist’ and zoo/sokki ‘find’. In the other cases, the C1 remains lenis, including zee/zemi ‘see’ and zÈÈ/zÈNNi ‘walk’. Perhaps it is only kk which causes “sympathetic” fortition of the C1 in sukki and sokki. Note, however, that the verb zàkki ‘turn around, stir’ exists in the language,

whose initial /z/ does not devoice. In addition, there are a number of intervocal kk's in the next group of verbs which also do not condition gemination of the C1.

In addition, all Cia and Cua verbs take a geminate consonant in PF

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
dua	dubbi	'hide' (~ dukki)	ggu	ggukki	'uproot'
lua	lubbi	'be nauseous'	kù	kùkki	'open (door)'
tua	tubbi	'be strong' (~ tukki)	kkua	kkukki	'kneel'
vvua	vvubbi	'pile, heap up'	sia	sìkki	'descend'
mia	mikki	'squeeze, embrace'	yia	yikki	'pile sth. in container'
bua	bùkki	'follow'	zia	zìkki	'leave'

As expected, given the bisyllabic input, the C1 of these verbs does not undergo gemination (and the /z/ of zia 'leave' does not become devoiced).

About half of the CV(V)i verbs show the same appearance of a geminate consonant in PF:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
ddai	ddakki	'lick'	ppai	ppàkki	'break to pieces'
dzai	dzakki	'tear'	ppò	ppòkki	'ache, throb'
dzui	dzukki	'be messy'	sui	sukki	'pound (in mortar)'
kkwò	kkwòkki	'pack'	ttui	ttùkki	'hoe'
nnui	nnukki	'push'	vvè	vvèkki	'pour, throw away'

As seen, all ten of these verbs have an initial fortis consonant. By contrast, there are 12 verbs of the same shape that take -azi in PF (next paragraph), and all of these have an initial lenis consonant. The following two verbs with /ai/ are the only ones to show only C1 fortition in PF: vyài/fyài 'wash and squeeze', zai/sai 'really do, do too'.

The second way of creating a progressive form, PF2, is to add -azi, in which case there is a merger with the pluractional meanings. 83 verbs have been found to take -azi in PF. All but five of these fall into one or both of the following categories:

$CV(V)Ci \rightarrow CV(V)Cazi$  (C1, C2 may be single or geminate). The first group consists of verbs that have an -i suffix. Of the 59 such verbs, 53 form their progressive in -azi. As seen in the following examples, -azi does not condition gemination, nor are there any changes in vowel length in the resulting pluractional/progressive forms:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
bini	binazi	'carry'	maan	maanazi	'be sour'
cakki	cakkazi	'be dried'	nneni	nnenazi	'have, get'
dumi	dumazi	'sew'	ttali	ttalazi	'untie, loosen'
gabbi	gabbazi	'entwine'	vili	vìlazi	'cut'
gbò	gbòazi	'bounce'	wòli	wòlazi	'take off (clothes)'
kkumi	kkumazi	'be warm'	yumi	yumazi	'awaken s.o.'
kpò	kpòazi	'skip, step over'	zumi	zumazi	'extinguish'

The verb ddaddi 'rejoice' has two progressive forms: ddaddazi (as expected) and ddalazi.

Note that verbs of the form CV(V)i also use -azi to form their progressive, provided their C1 is lenis:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
kpai	kpaazi	‘spit’	vEi	vEEzi	‘bubble, boil’
taai	taazi	‘chew’	wàài	wàazi	‘snatch’
tooi	toozi	‘pick w/a pick’	wòoi	wòozi	‘slaughter (animal)’
piia	piiazi	‘twist’	yui	yuazi	‘rinse’
tui	tuazi	‘drive away’	zai	zaazi	‘wash’

CCVi verbs, on the other hand, follow PF1 and acquire an intervocalic geminate consonant in the progressive, e.g. ddai/ddakki ‘lick’ (cf. discussion above).

The following six -i verbs form their progressives according to the first pattern, i.e. by geminating their second consonant:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
bbOli	bbOddi	‘add to’	sini	sinni	‘leak’
bbÒli	bbÒddi	‘peel’	vvùni	vvunni	‘stop doing sth.’
bàli	bàddi	‘step on’	kpeeni	kpenni	‘miss time to do’

The last verb kpeeni/kpenni ‘miss the right time to do something’, also shows the expected vowel shortening.

*CVCCV* → *CVCCazi*. The second group consists of bisyllabic verbs which do not end in -i, rather /-a/, but whose intervocalic consonant is geminate. Of the 26 verbs of the shape /CVCCa/ in the lexicon, all but five take -azi in the progressive. Examples:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
bakka	bakkazi	‘cut into by chunks’	lÒkkO	lÒkkOzi	‘be rotten’
dakka	dakkazi	‘dream’	mÈmE	mÈmEzi	‘remove’
gàdda	gàddazi	‘step over’	tabba	tabbazi	‘add, mix’
kubba	kubbazi	‘enter’	viNNa	viNNazi	‘roll’
kpOddO	kpOddOzi	‘fold’	yòNNo	yòNNozi	‘pass by’

Note that the verb tème ‘embrace’ has an irregular progressive form tèbbezi in addition to tèmezi.

Even though they have a geminate C2, the following five verbs are not required to use -azi in PF:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
gwekke	gwekki	‘lift up, raise’	nanna	nanni	‘remove pot/fire’
kuma	kumi	‘cover/turning over’	vOddO	vOddi	‘roll up’
kuNNa	kuNNi	‘crawl’			

Instead, these merely change their FV from /-a/ to -i.

In addition, there are four exceptional verbs which take -azi, but which do not fall into either of the above two categories are the following:

<b>stem</b>	<b>prog</b>		<b>stem</b>	<b>prog</b>	
cÒl	cÒlOzi	‘be packed (soup)’	pii(a)	piiazi	‘twist’
kakaNa	kakaNazi	‘be hard, strong’	wOOl	wOOlOzi	‘flog’

The verb wOOl ‘flog’ has an alternate progressive form gwOOlOzi.

Finally, note that there is small group of verbs which end in -azi in their base entry:

<b>stem/prog</b>		<b>stem/prog</b>	
ggbàazi	‘think’	yÒhOzi	‘bluff’
gwàazi	‘walk fast’	yuNazi	‘scare’
jalazi	‘instigate’	yaNazi	‘look up and down at w/scorn’
kpeezi	‘rush someone’	yeyeNezi	‘whimper after crying’
nONOIOzi	‘be bent, winding’	kòkonozi	‘hover around’

Verbs which form their progressive via PF1 may also undergo pluractional suffixation. These verbs thus potentially distinguish stems, progressive, pluractional, and progressive-pluractional verb forms. Some examples:

<b>stem</b>	<b>progressive</b>	<b>pluractional</b>	<b>prog-pluractional</b>	
dì	ddìi	dìazi	ddìazi	‘say’
zu	sukki	zuazi	sukkazi	‘live’
dum	ddumi	dumazi	ddumazi	‘bite’
bila	biddi	bilazi	biddazi	‘climb’
vyài	fyài	vyàazi	fyàazi	‘wash & squeeze’
ttÒhO	ttÒbbi	ttÒhOzi	ttÒbbOzi	‘sit down’

The progressive-pluractional forms combine both meanings, e.g. ba-biddazi ‘they are climbing (separately, at different times etc.)’, ba-ttÒbbOzi ‘they are sitting down’ (one after the other). The assumption is that such verbs have the internal structure [ [ verb ] prog ] plur ].

Verbs which use -azi in PF2 cannot distinguish formally between progressive, pluractional, and progressive-pluractional meanings.

In the verb lexicon (§XX) the following principal parts are given: i) verb stem; ii) progressive; iii) perfective (if different from the stem). From these forms the following generalizations emerge:

First, only verbs which take -azi in PF2 show no difference between perfective pluractional and progressive: ba-vílazi ÈtÈÈn sÉ ‘they cut the meat’ (pluractional) ~ ‘they are/were cutting the meat’.

Second, only the verbs shown in the last table, which are all lexicalized with the pluractional suffix -azi have show no difference between perfective, progressive, and pluractional forms, e.g. ba gwáazi ‘they walked fast [ $\pm$ pluractional], they are/were walking fast [ $\pm$ pluractional]’.

Third, there is a tendency to use the forms of PF that will make the progressive form distinct from the stem. Recall that PF1 involves TWO changes in creating a progressive form: -i suffixation and consonant gemination. It is significant CVCCi verbs, which have both of these properties in their lexical entry, never undergo PF1—but rather PF2 (-azi suffixation). Thus, a zero derivation is avoided. In addition, very few CVCi and CVCCa undergo PF2. This is because a derivation CVCi CVCCi would involve only a change in consonant fortition, and a change from CVCCa to

CVCCi would involve only a change in the FV. These are the shapes that overwhelming use the suffix -azi to form their progressives.

Fourth, other than those verbs which are lexicalized with the -azi suffix, there are no verbs that have an identical perfective and progressive form. The most common patterns are schematized below:

stem	perfective	progressive	stem	perfective	progressive
CV	CV(-i)	CCV-i	CCVCC-a	CCVCC-a	CCVCC-azi
CCV	CCV(-i)	CCV-i	CVC-i	CV(V)C-i	CV(V)C-azi
CVV	CVV(-i)	CCV-i	CCVC-i	CCVC-i	CCVC-azi
CVC	CVC-i	CCVCC-i	CVVC-i	CVVC-i	CVVC-azi
CCVC	CCVC-i	CCVCC-i	CVCC-i	CVCC-i	CVCC-azi
CVVC	CVVC-i	CCVCC-i	CCVCC-i	CCVCC-i	CCVCC-azi
CVC-a	CVC-a	CVCC-i	CV-a	CV-a	CVCC-i
CCVC-a	CCVC-a	CCVCC-i	CCV-a	CCV-a	CCVCC-i
CVVC-a	CVVC-a	CVCC-i	CV-i	CV-i	CV-azi
CVCC-a	CVCC-a	CVCC-azi	CCV-i	CCV-i	CCVCC-i

It as already pointed out that stems ending in -i, which would be identical in the perfective, do not take -i in the progressive. The six exceptions that exist all show gemination of the C2, e.g. bbOli/bbOddi 'add to', sini/sinni 'leak'. One verb, ppeNNi 'wander from place to place', appears to be inherently progressive. Although ppeNNezi is the corresponding pluractional form, this verb does not appear to have a perfective form.

Setting aside verbs with the suffix -i, the only other place in the system where the perfective and progressive forms could in principle be identical concern CCV verbs. The following recapitulates the number of CV, CCV and CVV verb stems that take or do not take -i in the perfective:

stem	perfective		perfective		expected progressive
CV	CV-i	26	CV	7	CCV-i
CCV	CCV-i	3	CCV	71	CCV-i
CVV	CVV-i	26	CVV	9	CCV-i

As seen, both perfective forms are distinct from the expected progressive form CCV-i in the case of CV and CVV stems. However, in principle, there could be CCV stems which become CCV-i in both the perfective and the progressive. However, no such verb exists. As part of a general avoidance of identity between perfective and progressive, 71 out of the 74 CCV verbs in the lexicon fail to take -i in the perfective. They thus remain distinct from the progressive. The remaining three verbs have the following forms:

stem		perfective	progressive
dza	'be good'	dzai	dzabbi
dzò	'keep'	dzói	dzòbbi
su	'be full'	sui	suNNi

As seen, these three CV verbs are among the 13 which take an unpredictable CC in the progressive. As a result, their perfective and progressive forms remain distinct.

**4.2.4. Reduplication.** As in the case of nouns (§XX), Legbó verbs can undergo a process by which the first C(C)V of their stem is reduplicated. The semantic result is an intensification, often translated by ‘really’:

ba-fína lizol sÉ	‘they touched the bird’
ba-fi-fína lizol sÉ	‘they really/still touched the bird’
ba-mana lizol sÉ	‘they held the bird’
ba-ma-mana lizol sÉ	‘they really held the bird’

The sense is that the action performed was particularly intense or effective, e.g. touching the bird thoroughly, holding the bird tight, etc.

Examples are shown for different stem shapes in the following table:

<b>L verbs</b>			<b>M verbs</b>		
vì	vì-vì	‘go out’	du	du-du	‘beat’
ttÒ	ttÒ-ttÒ	‘fall’	bbo	bbo-bbo	‘die’
zÈÈ	zÈ-zÈÈ	‘walk’	zee	ze-zee	‘see’
nùm	nù-nùm	‘take’	dum	du-dum	‘bite’
kkàm	kkà-kkàm	‘be big’	sEN	sE-sEN	‘go’
mìna	mì-mìna	‘lie down’	mana	ma-mana	‘catch’
bbàla	bbà-bbàla	‘remember’	ttali	tta-ttali	‘untie’
vèeli	vè-vèeli	‘lend’	beeli	be-beeli	‘escort’
kènni	kè-kènni	‘feed’	kubba	ku-kubba	‘enter’
sìa	sì-sìa	‘descend’	mia	mi-mia	‘embrace’
wàai	wà-wàai	‘snatch’	taai	ta-taai	‘chew’

As seen, the reduplicated syllable (or “reduplicant”) is identical to the first C(C)V of the stem. Although the onset of the reduplicant can be geminate, its vowel must be short. What this means is that the shape of the reduplicant is not affected by anything in the second syllable of a bisyllabic verb. It will thus remain constant as the suffixes change in perfective, pluractional, or progressive of the same verb:

bá-sE-sEN	‘they will really go’	(stem)
ba-sE-sENi	‘they really went’	(perfective)
ba-sE-sENEzi	‘they really went’	(pluractional)
ba-sE-sENNi	‘they are really going’	(progressive)

If, on the other hand, the stem C1 undergoes gemination by PF1, this will be reflected in the reduplicant as well:

bá-wè-wèl	‘they will really arrive’	(stem)
ba-wé-wéeli	‘they really arrived’	(perfective)
ba-wé-wéelezi	‘they really arrived’	(pluractional)
ba-wwé-wwélli	‘they are really arriving’	(progressive)
bá-mà-màan	‘they will really give birth’	(stem)
ba-má-máani	‘they really gave birth’	(perfective)
ba-má-máanazi	‘they really gave birth’	(pluractional)
ba-má-máanni	‘they are really giving birth’	(progressive)

The tone of the reduplicant varies according to aspect, mood and other factors that affect verb tones in general. With one exception, the tone of the reduplicant is identical to the first tone of the full verb stem. The six possible stem tone patterns (§XX) are illustrated on the bisyllabic verbs *fina* ‘touch’ and *mana* ‘catch’ and their corresponding reduplicated forms:

L-L	bá-fìnà	bá-fì-fìnà	‘they will touch’	(irrealis)
L-M	fina	fì-fina	‘touch!’	(imperative)
M-L	bá-manà	bá-ma-manà	‘they will hold’	(irrealis)
M-M	mana	ma-mana	‘hold!’	(imperative)
H-M	ba-fína	ba-fí-fína	‘they touched’	(perfective)
L-H	ba-màná	ba-mà-mána	‘they have held’	(perfect)

The first five patterns show that the reduplicated CV carries the same L, M, or H tone as the first tone of the base stem. Tone is therefore transferable in verb reduplication, as it is in noun reduplication (§3.XX).

The last example, however, works differently. In this case the M verb *mana* ‘hold’ occurs in the perfect, an isolated inflectional form that has a very restricted distribution in the language (§XX). As seen from the corresponding pluractional form, *ba-mànázi*, the tone melody for a M tone verb is LHM, i.e. exactly as distributed on the reduplicated verb (*ba-*)*mà-mána*. The analysis is that there is a floating L prefix in the perfect that precedes the verb stem, whose tones will be L-M (for L roots) and H-M (for M roots). Thus, the reduplicated verb form *mà-mána* has the intermediate representation `má-mána, whose first H tone is later replaced by the L prefix (§XX).

Given the structure of the verb presented in §4.1.1, a trisyllabic verb may either involve the pluractional suffix *-azi* or reduplication: *fina* ‘touch’ *fin-azi*, *fì-fina*, *mana* ‘hold’ *man-azi*, *ma-mana*. A quadrisyllabic verb consists of a verb stem that has been both pluralized and reduplicated: *fì-finazi*, *ma-manazi*. Among the six lexicalized trisyllabic verbs, the one reduplicated verb *kakaNa* ‘be hard, strong’ can be pluralized to *kakaNazi*, and the remaining five pluralized verbs can be reduplicated, e.g. *jalazi* *ja-jalazi* ‘instigate’, *yuNazi* *yu-yuNazi* ‘scare’. As mentioned, there is one lexicalized quadrisyllabic verb, *nONOIOzi* ‘be bent, winding’, which has the *-azi* suffix, and which can be reduplicated to create the only known five-syllable verb stem *nO-nONOIOzi*.

### 4.3. Verb inflection

The most striking first fact about Legbó is that it does not distinguish tense. That is, there is no formal marking on the Legbó verb that situates an action or state with respect to the time of speaking. Thus, the sentence *e-yumi* ‘she is/was pregnant’, in which the verb *yum* ‘be pregnant’ appears with the perfective suffix *-i*, is underspecified as to present vs. past time reference. To specify whether the statement concerns the present or the past, it is necessary to add a temporal expression:

<i>e-yumi</i> lEgbàl ama	‘she is pregnant now’	(lEgbàl ‘time’, ama ‘this’)
<i>e-yumi</i> lEgbàl ámE	‘she was pregnant then’	(lEgbàl ‘time’, ámE ‘that’).

Similarly, a sentence using the progressive or habitual form may refer to either present or past time:

<i>E-kkOmi-bE</i>	‘he is/was waiting for them’
<i>ba-nà dzi gèdzé</i>	‘they eat yams/they used to eat yams’



All of these verb forms are termed “realis” in the sense that they refer to present or past actions or states, i.e. to events that are either on-going, go on in general (habitually), or happened some time in the past.

Just as Legbó does not formally distinguish present vs. past tense, it does not have a future tense per se. Rather, Legbó utilizes a generalized irrealis form which can mean future, subjunctive or conditional. Thus, the clause É-sEN kE Eppya can have any of the meanings ‘he will go to market’, ‘he would go to market’, or ‘may he go to market!’.

The major distinctions that the Legbó verb inflection system does recognize can be characterized in terms of the following five oppositions:

- P: Progressive vs. non-progressive
- H: Habitual vs. non-habitual
- I: Irrealis vs. realis
- N: Negative vs. affirmative
- C: Consecutive vs. non-consecutive

The progressive(P), habitual (H), irrealis (I), negative (N) and consecutive (C), abbreviated PHINC, are all marked categories in the language. A form that is negative for the first four features (i.e. non-P, non-H, non-I, non-N) is referred to as “perfective”, abbreviated as Ø. It is also necessary to distinguish the type of clause in which the verb is found: main clause, subject relative clause, consecutive clause etc. Tone is central in marking all of these distinctions. In addition, P and Ø are characterized by segmental modifications on the stem, and H and N require prefix marking beyond the subject marker (SM). As seen in the following representative examples, most of the logical combinations of the above marked categories are grammatical in the language: [check]

- bá-fèi livèél kE `Nkùmà-vèè kkòo ‘they will be singing at the celebration tomorrow’ (PI)
- bá-ná-bennì `N-kE ÈttO ‘they will habitually be standing in the house’ (HI)
- bÈ dzÈ bÈ aàá-ttÒi ‘they will not be habitually falling’ (PHIN)

**4.3.1. Stem tone.** Unless otherwise indicated, the verbs cited in isolation in §4.1 represent the way they would be pronounced in citation or in the singular affirmative imperative, e.g. wèel ‘come, come!’. In §4.2 it was seen that verb stems may undergo segmental changes as part of inflection. These changes include consonant gemination, vowel shortening, suffixation of -i or -azi, and reduplication: wèel ‘come!’, e-wééli ‘s/he came’ (perfective), e-wwélli ‘s/he is coming’ (progressive), wèèlazi ‘come-pluractional’, wè-wèel ‘do come, still come!’. In addition, the verb stem receives a different tonal spell-out depending on the inflectional frame within which it occurs. Thus, in the examples just cited, the verb wèel appears with a LM melody in the imperative, but a HM melody in the perfective and progressive. In this section, focus is on the different stem-tone patterns. However, since the subject agreement marker (SM) also changes tone, it will be necessary to point out these differences as well.

As an initial overview of the major inflections distinguished in Legbó, the different tone melodies are summarized in the following table:

	MCA		SRA		ORA		CCA		NEG	
	root	sfx	root	sfx	root	sfx	root	sfx	root	sfx
<b>Perfective</b>	H,M	-M	L,M	-M	H,M	-M	L,M	-L	H,M	-M
<b>Progressive</b>	H,M	-M	L,M	-M	H,M	-M	L,M	-L	H,M	-M
<b>Habitual</b>	L,M	-L	L,M	-L	L,M	-L	L,M	-L	H,M	-M
<b>Irrealis</b>	L,M	-L	L,M	-L	L,M	-L	L,M	-L	L,M	-L

**Imper**

L,M	-M			L,M	-M	L,M	-L
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In the table, MCA = main clause affirmative, SRA = subject relative clause affirmative, ORA = object relative clause affirmative, CCA = consecutive clause affirmative, and NEG = negative. Under each of these, the tonal patterns are given in two parts:

(i) Root tone: The first part shows the tone that appears on the root vowel. Two tones are given: The first is the tonal realization of underlying L roots, the second is the tonal realization of underlying M roots. Hence, a designation H,M means that a L verb becomes H and a M tone is realized M. It will be observed that L verbs vary between L and H, while M verbs remain M throughout (but cf. below for the special case of the perfect verb form). Thus, the root tone can be L, M or H.

(ii) Suffix (sfx) tone: The second part of each tonal melody is identified here as the suffix tone. As seen, the suffix tone is either L or M.

What this means is that there are, in all, five tonal melodies represented in the above table: L roots take one of three tonal melodies: L-L, L-M and H-M. M roots take one of two: M-M or M-L. In addition, the table reveals exactly three morphological “tonal patterns” (TP’s) assigned according on the basis of the above inflectional features. Each of these consists of a pairing of root tones plus a suffix tone:

	<b>schema</b>	<b>L root tone</b>	<b>M root tone</b>	<b>Suffix tone</b>	<b>Melodies</b>
<b>TP1</b>	L,M-L	L	M	L	L-L, M-L
<b>TP2</b>	L,M-M	L	M	L	L-M, M-M
<b>TP3</b>	H,M-M	H	M	M	H-M, M-M

In the schemas, the first tone indicates how a L root will be realized, while the second tone indicates the realization of a M root. To the right of the hyphen is the suffix tone. The melodies are shown in the last column. Since M root verbs are realized M-M in both TP2 and TP3, only five tonal melodies are distinct. Since M roots are realized M in all three cases, TP1-TP3 can be uniquely identified by the L verb melodies: L-L, L-M, and H-M imply the corresponding M verb melodies M-L, M-M and M-M, respectively.

The five tonal melodies and three tone patterns, for which extensive tabular displays are provided in §XX, can be predicted in quite general terms by reference to the indicated inflectional features. The generalizations are best stated as a hierarchy of tone assignment rules:

- i) The affirmative imperative always has the tone pattern TP2 (L,M-M).
- ii) Except for the affirmative imperative, the irrealis and the consecutive always has TP1 (L,M-L). This includes the negative imperative.
- iii) Except in the irrealis, the negative always has the pattern TP3 (H,M-M).
- iv) Except in the negative, the habitual always has the pattern TP1 (L,M-L).
- v) Except in the irrealis and negative, a SRA verb stem takes the melody TP2 (L,M-M).
- vi) Verb stems in the above table not covered by the above take the melody TP3 (H,M-M). This includes MCA and ORC progressive and perfective forms, which differ only segmentally.

Given the nature of these six statements, the tone assignment rules can thus be summarized by the following hierarchy:

<b>IMP-AFF</b>	>>	<b>IRR, CCA</b>	>>	<b>NEG</b>	>>	<b>HAB</b>	>>	<b>SRC</b>	>>	<b>Ø/P</b>
L,M-M		L,M-L		H,M-M		L,M-L		L,M-M		H,M-M
TP2		TP1		TP3		TP1		TP2		TP3

As seen, TP2 appears at the top of the hierarchy (IMP-AFF), but also near the very bottom (SRC). In addition, the TP1 of the irrealis and CCA overrides the TP3 of the negative, which in turn overrides the TP1 of HAB. Note also that TP3 occupies two positions in the hierarchy. As a result, one cannot predict which tonal pattern will prevail on the basis of the identities of the tonal melodies, but rather only on the basis of the inflectional features which assign TP1-TP3. Since it occurs in lowest position in the perfective/progressive, where it does not override any other melody pair, TP3 may represent the “default” tonal assignment.

As also seen in the table, ORA stem tones are identical to those in the MCA, but are included because of differences in the tone of the subject agreement prefix (§4.3.2). The negative stem-tone patterns of all clauses are the same (TP3), except for the irrealis (including the negative imperative), where the negative is realized with TP1.

The table can be expanded by citing other combinations of inflectional features that assign one of the same three melody pairs—and its place in the stem-tone hierarchy. For example, the persistent is marked by TP1 and ranked with HAB in the above hierarchy (§XX). In addition, there are two specialized tone patterns, which require mention:

The first, which will be referred to as TP4, occurs only in one type of purpose clause which explicitly encodes that an action was done intentionally. Although sometimes interchangeable with the CCA, the purpose clause affirmative (PCA) is tonally distinct from it:

CCA	L	:	ba-wéeli bà-kààm mán	‘they came and helped us’
			ba-kkwe bà-yèèlèzi wàhÉ sÉ	‘they shouted and called the child’
	M	:	ba-wéeli bà-zeè mán	‘they came and saw us’
			ba-kkwe bà-yuNàzi wàhÉ sÉ	‘they shouted and scared the child’
PCA	L	:	ba-wéeli àà-kààm mán	‘they came to help us’
			ba-kkwe àà-yèèlèzi wàhÉ sÉ	‘they shouted to call the child’
	M	:	ba-wéeli àà-zéè mán	‘they came to see us’
			ba-kkwe àà-yúNazi wàhÉ sÉ	‘they shouted to scare the child’

As seen above, TP1 (L,M-L) is assigned in the CCA in the first two pairs of examples. The next pair of sentences, first show the L verbs kààm ‘help’ and yèèlèzi ‘call’ taking a L-M melody, which suggests TP2. However, the last pair of sentences show the M verbs zee ‘see’ and yuNazi ‘scare’ taking a H-M melody. TP4 is therefore characterized as L,H-M. It differs from TP2 in assigning H to M verbs, rather than M.

The second special case of tone, found in the perfect, was discussed at the end of §4.2.4. In the perfect, a L root takes a L-M stem melody, but a M verb takes a L-HM melody. L-HM represents a sixth possibly tonal melody and is included in the following illustration, using the pluractional verbs finazi ‘touch’ and manazi ‘hold’:

	<b>Root = L</b>			<b>Root = M</b>	
L-L	bá finàzi	‘they will touch’	M-L	bá-manàzi	‘they will hold’

H-M	ba-fínazi	‘they touched’	M-M	ba-manazi	‘they held’
L-M	finazi	‘touch!’	L-HM	ba-mànázi	‘they have held’

The forms in the first row receive TP1 in the irrealis (I), while those in the second are realized with TP3 in the perfective (Ø). The lower left form is a TP2 imperative form (one could alternatively cite the SRC form ...bá finazi ‘who touched’), while the lower right form is in the perfect.

The perfect only occurs in MCA. In other types of clauses, and in the negative, the perfect merges with the perfective (Ø). It does possibly occur in the antecedent of certain irrealis conditions (§XX). Recall that the perfect was analyzed with a floating L prefix in §4.2.4. What this means is that the two assigned tonal melodies assigned are floating L + L,H-M. That is, exactly the same as TP4, if one factors out the floating L prefix. Although related to TP4, the perfect will be referred to as TP5.

**4.3.2. Prefixes.** Since the inflection of affirmative and negative verbs differs considerably, these will each be treated separately.

**4.3.2.1. Affirmative clauses.** In affirmative clauses, except in the singular imperative, the verb is obligatorily preceded by at least one prefix, a subject agreement marker (SM):

m-	‘1sg’	mE-	‘1pl’	n-ttÓ	‘I fell’	mE-ttÓ	‘we fell’
a-	‘2sg’	ba-	‘2pl,	a-ttÓ	‘you sg. fell’	ba-ttÓ	‘you pl. fell’
E-	‘3sg’		3pl’	E-ttÓ	‘he, she, it fell’	ba-ttÓ	‘they fell’

As seen, there is no distinction between ‘you pl.’ and ‘they’ in affirmative clauses: ba-zooi gèdzé àfON ‘they/you pl. found two yams’. The 1sg SM m- assimilates to a following consonant, while the 3sg SM E- assimilates to e- when the root begins with one of the vowels /i, e, u, o/. The one aspect prefix, -ni-, occurs in the habitual, which is treated separately below.

Because subject-verb agreement is obligatory in affirmative clauses, the above prefixes will be written with a hyphen, e.g. n-zee Èkkà gwÓmin ‘I see my mother’, a-kùbbá NkE ÈttO ÍÓmin ‘you have entered in my house’, mÉ-maná gèdzé àbEma ‘we will hold these yams’. As seen in the following examples, besides the stem tones, the tone of a SM plays an important role in distinguishing aspect and moods:

H:	bá-kuNàzi wÈÉ sÉ	‘they will scare the child’
M:	ba-kùNázi wÈÉ sÉ	‘they have scared the child’
L:	(ba-kkwe) bà-kuNazi wàhÉ sÉ	‘(they shouted) and scared the child’

In the first set of sentences, the SM bá- carries H tone, conditioned by the irrealis or by virtue of being in a ORA. In the second pair of sentences, the SM is M a perfect or perfective verb in the MCA. In the last set, the SM is L because it is in a realis CCA, or a SRA.

The tone of SM’s is summarized in the following table:

	MCA	SRA	ORA	CCA
<b>Perfective</b>	M	L	H	L
<b>Progressive</b>	M	L	H	L
<b>Habitual</b>	M	M	H	L
<b>Irrealis</b>	H	H	H	M

Again, the perfective and progressive have exactly the same tones—and differ only in the segmental make-up of their stems. Their SM tones can be seen in the four clause types below, where the verb *yuNazi* ‘scare’ is identical in the perfective and progressive:

MCA:	ba-kuNazi wÈÉ sÉ	‘they scared/are scaring the child’
SRA:	bàdum sÉ ákE bà-kuNazi wàhÉ sÉ	‘the men who scared/are scaring the child’
ORA:	wàhÉ sÉ ákE bá-kuNazi	‘the child whom they scared/are scaring’
CCA:	(ba-kkwe) bà-kuNazi wàhÉ sÉ	‘(they shouted) and scared the child’

As seen in the table, the SM is always H tone in the ORA, independent of aspect or mood:

Ø:	lizol ákE bàdum sÉ bá-mana	‘birds that the men caught’
P:	lizol ákE bàdum sÉ bá-manni	‘birds that the men are/were catching’
H:	lizol ákE bàdum sÉ bá-nà-manà	‘birds that the men catch/used to catch’
I:	lizol ákE bàdum sÉ bá-mànà	‘birds that the men will/would catch’

On the other hand, the tone of the SM of the SRA is L in the perfective and progressive:

Ø:	bàdum sÉ ákE bà mana lizol	‘the men who caught birds’
P:	bàdum sÉ ákE bà manni lizol	‘the men who are/were catching birds’

Still within the SRA, the habitual SM is M, while the irrealis SM is H:

H:	bàdum sÉ ákE ba-nà-manà lizol	‘the men who catch/used to catch birds’
I:	bàdum sÉ ákE bá-manà lizol	‘the men who will/would catch birds’

Setting aside the SM tones in the SRA and ORA, the other SM tones reveal two generalizations: (i) the tone of the SM is higher in the irrealis than in the realis; (ii) the tone of the SM in the MCA is higher than in the CCA. This is illustrated below:

	MCA	CCA	
<b>Perfective</b>	ba-mana	bà-mana	‘(and) they caught’
<b>Progressive</b>	ba-manni	bà-manni	‘(and) they are catching’
<b>Habitual</b>	ba-nà-manà	bà-nà-manà	‘(and) they catch’
<b>Irrealis</b>	bá-manà	ba-manà	‘(and) they will catch’

Where the SM is M in the MCA it is L in the CCA, and where it is H in the MCA, it is M in the CCA. Assuming that the M tone of the SM in the MCA is the default, the irrealis can be interpreted as assigning a H tone feature to the SM, while the CCA assigns a L feature. In the CCA irrealis, both a H and a L would be assigned, which fuse as M, non-distinct from default M.

**4.3.2.2. Negative clauses.** The inflection of negative verbs is quite different from its affirmative counterpart. First, the SMs show important differences. Second, there is the appearance of a negative prefix segmental reflexes of aspect and mood, which fuse with the prefixal marking of negation itself.

The SMs used in negative clauses with a realis verb form are displayed in the following table:

	SM	SM+NEG	
<b>1sg</b>	m-	m`m-	m`m-ttÓ ‘I fell’
<b>2sg</b>	a-	aà-	aà-ttÓ ‘you sg. fell’
<b>3sg</b>	E-	EÈ-	EÈ-ttÓ ‘s/he/it fell’

<b>1pl</b>	mÈ / mà	mÈ EÈ-	mÈ EÈ-ttÓ	‘we fell’
<b>2pl</b>	bÒ	bÒ àà-	bÒ àà-ttÓ	‘you pl. fell’
<b>3pl</b>	bÈ	bÈ àà-	bÈ àà-ttÓ	‘they fell’

The following are important to note concerning the nature of subject marking in the negative:

First, the singular persons fuse with the negative marker: m-à- m̀m-, a-à- àà-, E-È EÈ-, whose ML tone is shown as it appears in Ø and P realis forms. As before, the 1sg SM undergoes homorganic nasal assimilation (e.g. ǹn-dzi lídzil ‘I ate’, ǸN-kÓO ‘I vomited’), and the 3sg SM undergoes ATR harmony (e.g. eè-dzi lídzil ‘s/he ate’). The fused singular SM+NEG combinations are treated as single prefixes, separated from the verb by a hyphen.

By contrast, the plural persons consist of two distinct parts. The first part is mÈ (~mà) ‘1pl’, bÒ ‘2pl’, or bÈ ‘3pl’. As seen, 2pl and 3pl are distinct SMs in the negative. They are written not as prefixes, however, but as self-standing pronouns. This is justified by the fact that various elements can stand between them and the negative EÈ- or àà-, e.g. an object noun:

mÈ lídzil mÈ eè-dzi	‘we didn’t eat’
mÈ lídzil eè-dzi	
lídzil mÈ eè-dzi	
bÒ gèdzé bÒ àà-dEEi	‘you pl. didn’t buy yams’
bÒ gèdzé àà-dEEi	
gèdzé bÒ àà-dEEi	
bÈ wàhÉ sÉ bÈ àà-zee	‘they didn’t see the child’
bÈ wàhÉ sÉ àà-zee	
wàhÉ sÉ bÈ àà-zee	

As discussed in §XX, the object precedes the verb in the negative, and the plural SMs may be repeated on either side. The SMs mÈ, bÒ and bÈ are therefore clearly not prefixes on the verb. The only requirement in the above sentences is that one of these must be present in one of the two indicated positions in order to get the intended meaning. The utterance lídzil eè-dzi could only mean ‘s/he ate’, and gèdzé àà-dEEi could only mean ‘you sg. bought yams’. This fact is demonstrated also in the following sentences which have an overt noun subject:

bàdum sÉ bÈ wàhÉ sÉ bÈ àà zee	‘the men didn’t see the child’
bàdum sÉ bÈ wàhÉ sÉ àà zee	
bàdum sÉ wàhÉ sÉ bÈ àà zee	

As seen, the SM bÈ must still occur in one of the two positions. An utterance such as \*bàdum sÉ wàhÉ sÉ àà-zee, which does not have bÈ in either position is ungrammatical. While these SMs are not prefixes, it is clear from their obligatory marking that they are subject-verb agreement markers, not independent pronouns. This is supported by vowel harmony facts as well: mÈ EÈ- obligatorily harmonizes to mÈ eè- before an ATR verb root, but only optionally to m̀e eè-: mÈ eè-tto ~ m̀e eè-tto ‘we didn’t cry’.

As seen in the preceding example, the prefix EÈ- of the mÈ EÈ- sequence used in the 1pl assimilates to a following ATR verb root. In addition, there is a variant mà which can be used in place of mÈ: mÈ EÈ-ttÓ ~ mà EÈ-ttÓ ‘we didn’t fall’, mÈ eè-tto ~ mà eè-tto ‘we didn’t cry’

The realization of the different prefixes in the various aspects, moods, and clause types is more complex in the negative. The following shows the different realizations of the SMs and negative prefix with the verb ttÓ ‘fall’ in the MCA perfective, progressive, and irrealis:

	1sg	2sg	3sg	1pl	2pl	3pl
Ø	n`n-ttÓ	aà-ttÓ	EÈ-ttÓ	mÈ EÈ-ttÓ	bÒ aà-ttÓ	bÈ aà-ttÓ
P	n`n-ttÓi	aà-ttÓi	EÈ-ttÓi	mÈ EÈ-ttÓi	bÒ aà-ttÓi	bÈ aà-ttÓi
I	n`n`n-ttÒi	aàá-ttÒi	EÈÈ-ttÒi	mÈ EÈÈ-ttÒi	bÒ aàá-ttÒi	bÈ aàá-ttÒi

As seen, the tone pattern on the negative prefix is ML in the realis (Ø, P), and MLH in the irrealis. These same tones are observed with either L verbs (as above) or with M verbs, e.g. EÈ-bbi ‘it wasn’t black’, aàá-sEN ‘you sg. will not go’.

The tones of the negative prefix do however change in the imperative. Below the full affirmative and negative paradigm is given for the first fina ‘touch’ and mana ‘hold’:

	singular		plural	
affirmative	fina	mana	bÒ fina	bÒ mana
negative	aa-finà	aà-manà	bÒ aa-finà	bÒ aà-manà

As seen, the tone of the prefix aa- is M if followed by a L tone, but ML if followed by a M tone. The negative imperative of L verbs such as aa-finà èbbi sÈ ‘don’t touch the goat!’ is the only place where the negative prefix is followed by a L tone. The irrealis negative prefix is MLH, and in the subject relative, where a L verb receives a LM melody, the M tone negative verb bi is required and the following L verb receives a HM melody: bàdum sÈ ákE bà bi bÈ aà-fina èbbi sÈ ‘the men who touched the goat’. Although it is possible to speculate that the ML negative tone found before H and M tones in the realis forms (Ø, P) is the same as the ML of aà-mana lizol sÈ ‘don’t catch the bird!’, only the latter has an alternative with an all L negative prefix, also in the plural: aà-manà, bÒ aà-manà ‘don’t catch!’.

The negative of non-main or non-root clauses, e.g. relative, cleft, and consecutivized clauses, is requires the auxiliary verb bi: [check]

wàhÈ sÈ ákE `m-bi n`n-zee	‘the child I didn’t see’
wàhÈ sÈ ákE á-bi aà-zee	‘the child you sg. didn’t see’
wàhÈ sÈ ákE é-bi eè-zee	‘the child s/he didn’t see’
wàhÈ sÈ ákE mé-bi (mÈ) eè-zee	‘the child we didn’t see’
wàhÈ sÈ ákE bá-bi (bÈ) aà-zee	‘the child you pl. didn’t see’
wàhÈ sÈ ákE bá-bi (bÒ) aà-zee	‘the child they didn’t see’

As seen, the SMs are prefixed to bi and have main clause morphology, e.g. ba- is non-distinct between ‘you pl.’ and ‘they’. As indicated, the negative plural SMs mÈ, bÈ, and bÒ are optional, something which arises in the negative habitual as well.

**4.3.2.3. The habitual.** Given its special properties, the habitual aspect is treated separately. Habitual realis forms describe both present and past habitual actions and states: ba-nà kkù `N-kE ÈttO ‘they stay in the house/they used to stay in the house’. The different persons are illustrated below in the MCA perfective paradigm:

ni-`m-manà lizol	‘I catch birds’	ma-nÈ-manà lizol	‘we catch birds’
n-aà-manà lizol	‘you sg. catch birds’	ba-nà-manà lizol	‘you pl. catch birds’
n-EÈ-manà lizol	‘s/he catches birds’	ba-nà-manà lizol	‘they catch birds’

The habitual marker most likely had the shape ni-, as witnessed in the 1sg above and also in the habitual imperative: ni-màna lizol ‘catch birds (habitually)’. It was most likely a verb which was

preceded by a SM. This is still seen unambiguously with the plural SMs, i.e. ma-nÈ- ‘we hab.’, ba-nà ‘you pl./they hab.’. All SMs, however, also occurred on the main verb. Clear evidence for this is seen both in the singular persons: ni-`m- ‘I hab.’, n-aà- ‘you sg. hab.’, n-EÈ- ‘s/he hab.’. The latter two presumably derived from ni-à- and ni-È, respectively. In addition, the 1pl sequence ma-nÈ- ‘we hab.’ also shows the È that we expect from the mÈ variant of that marker. Although obscured by subsequent changes, the 1pl habitual can most likely be reconstructed as \*ma-ni-mÈ-. As elsewhere, the /E/ of ma-nÈ- harmonizes to a following ATR verb root, e.g. ma-nè-tto ‘we cry’. Note that in affirmative verb forms, mà- is a variant of mÈ only in the habitual (cf. mÈ-ttÓ ‘we fell’, \*mà-ttÓ). It also appears in the negative (§4.3.2.2).

In the MCA irrealis of the habitual, the M-L of the prefix sequence changes to H-H, i.e. affecting both the SM and the habitual prefix itself:

ní-`m-manà lizol	‘I catch birds’	má-nÈ-manà lizol	‘we catch birds’
n-áá-manà lizol	‘you sg. catch birds’	bá-ná-manà lizol	‘you pl. catch birds’
n-EÈ-manà lizol	‘s/he catches birds’	bá-ná-manà lizol	‘they catch birds’

This can probably be derived from earlier \*má-ni-mÈ-, bá-ni-bá- etc., where both historical SMs were assigned a H in the irrealis. Note also that for some reason the SM remains M (rather than becoming L) in the SRA habitual: lizol ákE ba-nà-manà ‘birds that they catch’.

Turning to the negative of the habitual, a more complex marking, using the auxiliary dzÈ. As a main verb dzÈ has the meaning ‘finish’, e.g. È-dzÈ gÈtÓÓ sÈ È-vvÈEmÈ ‘he will finish the work and leave’. [check] In addition, the negative habitual shows different properties according to whether the SM is singular or plural. Beginning with the 3pl SM bÈ ‘they’, the following shows the auxiliary use of dzÈ in the negative equivalents of the (realis) habitual sentence ba-nà-manà lizol ‘they catch/used to catch birds’:

bÈ lizol bÈ dzÈ bÈ aà-manà	‘they don’t (~ didn’t use to) catch birds’
bÈ lizol bÈ dzÈ — aà-manà	
bÈ lizol — dzÈ bÈ aà-manà	
— lizol bÈ dzÈ bÈ aà-manà	
bÈ lizol — dzÈ — aà-manà	
— lizol bÈ dzÈ — aà-manà	
— lizol — dzÈ bÈ aà-manà	

As seen, seven equivalent structures are possible, depending on whether the 3pl SM bÈ ‘they’ appears once, twice, or three times. The dash stands for unrealized positions where bÈ could have appeared. While bÈ has this freedom of occurrence (and repetition), as an agreement marker, it is required to appear in at least one of the indicated three positions. Thus, the sentence lizol dzÈ aà-manà can only mean ‘you sg. don’t catch birds’.

The use of the verb ‘finish’ is related to the fact that the same negative form is used for both the habitual and the ‘already’ perfect. Thus, the above sentences can also mean ‘they haven’t caught birds yet’, or even ‘they have never caught birds’. [check]

In the above examples the auxiliary dzÈ appears before the main. The following sentences show that it can optionally appear after the verb as well.

bÈ lizol bÈ aà-manà dzÈ	‘they don’t (~ didn’t use to) catch birds’
bÈ lizol — aà-manà dzÈ	
— lizol bÈ aà-manà dzÈ	

In this case there is no SM (\*lizol bÈ aà-manà bÈ dzÈ).



The auxiliary dzÈ may appear two or more times in the same sentence:

(bÈ) dzÈ lizol (bÈ) dzÈ (bÈ) àà-manà dzÈ      ‘they don’t (~ didn’t use to) catch birds’  
 (bÈ) dzÈ lizol (bÈ) dzÈ (bÈ) àà-manà —  
 (bÈ) dzÈ lizol (bÈ) — (bÈ) àà-manà dzÈ  
 (bÈ) — lizol (bÈ) dzÈ (bÈ) àà-manà dzÈ

While more than two occurrences of dzÈ begins to feel a bit “heavy”, the above sentences are all grammatical. The parentheses around the SM bÈ also show the optionality of its appearance in the indicated positions, although once again, there must be at least one bÈ agreement marker in the sentence.

Negative habitual sentences with one of the other two plural SMs, mà ~ mÈ ‘we’ or bÒ ‘you pl.’ show the exact same properties, e.g. mÈ dzÈ mÈ eè-manà dzÈ ‘we don’t catch birds’, bÒ dzÈ bÒ àà-manà dzÈ ‘you pl. don’t catch birds’, etc.

In addition, when followed by dzÈ, the plural SMs mÈ ‘we’, bÒ ‘you pl.’ and bÈ ‘they’ can be replaced by the general 3sg SM È-. With one preverbal dzÈ, this produces the following variants:

mÈ dzÈ mÈ eè-manà      ‘we don’t catch birds’  
 È-dzÈ mÈ eè-manà  
 bÒ dzÈ bÒ àà-manà      ‘you pl. don’t catch birds’  
 È-dzÈ bÒ àà-manà  
 bÈ dzÈ bÈ àà-manà      ‘they don’t catch birds’  
 È-dzÈ bÈ àà-manà

When two preverbal dzÈ’s are present, more options are possible:

mÈ dzÈ lizol È dzÈ mÈ ÈÈ-manà      ‘we don’t catch birds’  
 È-dzÈ lizol mÈ dzÈ mÈ ÈÈ-manà  
 È-dzÈ lizol È-dzÈ mÈ ÈÈ-manà  
 bÒ dzÈ lizol È-dzÈ bÒ àà-manà      ‘you pl. don’t catch birds’  
 È-dzÈ lizol bÒ dzÈ bÒ àà-manà  
 È-dzÈ lizol È-dzÈ bÒ àà-manà  
 bÈ dzÈ lizol È-dzÈ bÈ àà-manà      ‘they don’t catch birds’  
 È-dzÈ lizol bÈ dzÈ bÈ àà-manà  
 È-dzÈ lizol È-dzÈ bÈ àà-manà

However, at least one plural SM must be present,. Thus, È-dzÈ lizol ÈÈ-manà could only mean ‘s/he does not catch birds’ and \*È-dzÈ lizol àà-manà is ungrammatical, since È- cannot replace what appears to be a 2sg subject (cf. lizol àà-manà ‘you sg. do not catch birds’). [check]

In addition, the marker È- may optionally occur before post-verbal dzÈ with any SM:

n`n-ttÓ (È-)dzÈ      ‘I don’t fall’      mÈ ÈÈ-ttÓ (È-)dzÈ      ‘we don’t fall’  
 àà-ttÓ (È-)dzÈ      ‘you sg. don’t fall’      bÒ àà-ttÓ (È)dzÈ      ‘you pl. don’t fall’  
 ÈÈ-ttÓ (È-)dzÈ      ‘s/he, it doesn’t fall’      bÈ àà-ttÓ (È)dzÈ      ‘they don’t fall’

Only optional È- may be prefixed to postverbal dzÈ (\*n`n-ttÓ `n-dzÈ, \*aà-ttÓ à-dzÈ, etc.). As before, at least one plural SM must be present. Hence, if bÈ aà-ttÓ È-dzÈ ‘they don’t fall’ is simplified to aà-ttÓ È-dzÈ, it will necessarily mean ‘you sg. don’t fall’.

Concerning the singular SMs in the negatives, these are necessarily are prefixes and therefore cannot be deleted (or replaced by È-) [check] Before the main verb, they necessarily fuse with the negative prefix; they also must occur with (pre-verbal) dzÈ. The following sentences are equivalent to the previous set:

`n-dzÈ n`n-ttÓ	‘I don’t fall’	(mÈ) dzÈ (mÈ) ÈÈ-ttÓ	‘we don’t fall’
à-dzÈ aà-ttÓ	‘you sg. doesn’ fall’	(bÓ) dzÈ (bÓ) aà-ttÓ	‘you pl. don’t fall’
È-dzÈ ÈÈ-ttÓ	‘s/he it doesn’t fall’	(bÈ) dzÈ (bÈ) aà-ttÓ	‘they don’t fall’

The patterns of repetition (of SMs, of dzÈ) found in the negative habitual is repeated in much of Legbó grammar (see §XX).

**4.3.2.4. The consecutive.** Verbs which are coordinated to an earlier verb appear in what is referred to as the consecutive form. This can mean full sentence coordination (with the same or a change of subject) or what is terms a “serial verb” in other languages. Examples include:

Coordination (different subject):	ba-wéeli mè-zeè-bÈ	‘they came and we saw them’
Coordination (same subject):	ba-wéeli bà-zeè-mán	‘they came and saw us’
Serial verb construction:	ba-kaa izÓOm bà-vìli ÈtÈÈn	‘they cut meat with a knife’

The last example, the verb kaa ‘carry’ is used to express an instrument in a serial verb construction. A longer variant is also possible, ba-kaa izÓOm bà-kaà bà-vìli ÈtÈÈn, where bà-kaà ‘and they carried’ is serialized to the main verb kaa ‘carry’.

In the consecutive, the verb stem takes TP1: L verbs take L-L tone, while M verbs take M-L. In the above sentences, both of whose verbs are in the realis, the SM of the main clause is M and the SM of the consecutivized clause is L. In the corresponding irrealis forms, the tones of the SM are one step up: the SM of the main clause is H, while the SM of the consecutivized clause is M:

bá-wèèl me-zeè-bÈ	‘they will come and we will see them’
bá-wèèl ba-zeè-mán	‘they will come and see us’
bá-kaà izÓOm bà-vìli ÈtÈÈn	‘they will cut meat with a knife’

A plural SM mÈ or ba can optionally lose its consonant in a consecutivized verb form. The four variants below all mean ‘they cut meat with a knife’:

ba-kaa izÓOm bà-kaà bà-vìli ÈtÈÈn	ba-kaa izÓOm à-kaà bà-vìli ÈtÈÈn
ba-kaa izÓOm bà-kaà à-vìli ÈtÈÈn	ba-kaa izÓOm à-kaà à-vìli ÈtÈÈn

The same four possibilities for ‘we cut meat with a knife’ can be created by substituting mÈ- for bà- and È- for à-.

Variation between mÈ- ~ È- and ba- ~ a- are quite general in serial verb constructions: [check]

mÈ-kkámì (m)È-bOIÒ-bO	‘we are bigger than you pl.’	(lit. we are big & surpass you pl.)
ba-vìli ÈtÈÈn (b)à-níim	‘they cut meat for me’	(lit. they cut meat & gave me)

Affirmative + affirmative [check]

Negative + affirmative  
 Affirmative + negative  
 Negative + negative

#### 4.3.2.5. Auxiliary verbs. ‘again’ etc.

n-ddá `n-ttÒ	‘I also fell’	mE-ddÉ (m)È-ttÒ
a-ddá à-ttÒ	‘you sg.’	
E-ddá È-ttÒ	‘s/he’	ba-ddá (b)à-ttÒ

[check irrealis to see if bá-ddà (b)à ttÒ]

Check all of the following

	realis	irrealis	prog.	pluract.	redup.
‘also’	ddà	ddài		ddàazi	ddà-ddà
‘really, too, very’	zài				
‘be after, just’	bÒIO				bÒ-bÒIO
‘actually’	kama	kama	*	*	?*

ba-káma bà-vì      ‘they actually went out’  
 bá-kama ba-vì      ‘they will actually go out’ (exceptional M-M on kama in irrealis)

#### 4.4. Gerundives.

Although not usually a part of verb inflection, but rather a derivational process that affects phrases, gerundives will be discussed in this section. Legbó recognizes three different forms which will be called gerundive and referred to as G1, G2, and G3. These forms are illustrated for the verbs nùm ‘take’ and dum ‘bite’ in the table below:

G1 : gÈ-... È (TP1)	G2 : ì-C`V- (L,M+TP2)	G3: È- (TP2)
gè-nùm-È		è-núm
gè-nùm-ì		è-núm-i
gè-nùm-àzì		è-núm-azi
gè-nù-nùm-È	ì-nù-núm	è-nú-núm
gè-nù-nùm-ì	ì-nù-núm-i	è-nú-núm-i
gè-nù-nùm-àzì	ì-nù-núm-azi	è-nú-núm-azi
gè-dum-È		è-dum
gè-dum-ì		è-dum-i
gè-dum-àzì		è-dum-azi
gè-du-dum-È	ì-du-dum	è-du-dum
gè-du-dum-ì	ì-du-dum-i	è-du-dum-i
gè-du-dum-àzì	ì-du-dum-azi	è-du-dum-azi

As also shown, the stem in G1, G2 and G3 forms undergo PF, pluractional marking, and/or CV-reduplication. G2 stems are in fact always reduplicated.

G1 is formed by the prefix gÈ- ( gè-) and assigning TP1: a L verb will have L tone, while a M verb will have M tone. In addition, as seen also in the following forms, -È is suffixed onto monosyllabic verb stems:

<b>L verb</b>	<b>G1</b>		<b>M verb</b>	<b>G1</b>	
kè	gèkèÈ	‘putting’	du	gèduÈ	‘beating’
ttÒ	gÈttÒÈ	‘falling’	tto	gèttoÈ	‘crying’
kòo	gèkòòÈ	‘grinding’	tOO	gÈtOOÈ	‘throwing’
kàam	gÈkààmÈ	‘helping’	tOOm	gÈtOOmÈ	‘sending’

On the other hand, -È is not found on verb stems which are bisyllabic and end in -a or -i:

<b>L verb</b>	<b>G1</b>		<b>M verb</b>	<b>G1</b>	
bùà	gèbùà	‘following’	dua	gèduà	‘hiding’
ttùì	gètùì	‘cultivating’	nnui	gènnuì	‘pushing’
fìna	gèfìna	‘touching’	mana	gÈmanà	‘holding’
tèèmi	gètèèmi	‘hitting’	beeli	gèbeèli	‘escorting’
yÒhOzi	gÈyÒhÒzì	‘bluffing’	yuNazi	gèyuNàzì	‘scaring’

It can be assumed that the failure of -È to occur in such verbs is because it is in the same “slot” as an -a or -i suffix. Cf. gÈ-mÒÒNÒ ‘returning’, gèvilì ‘cutting’, gÈ-tOÒNÒ ‘coughing’, gèzumì ‘extinguishing’.

Two further remarks concerning the -È suffix:

First, -È fuses with the [a] of /CCa/ verbs: mmà ‘laugh’ gÈmmÈÈ ‘laughing’, bba ‘block’ gÈbbÈÈ ‘blocking’. /Ca/ verbs with a lenis initial do not fuse: yà ‘be satiated’ gÈyàÈ ‘being satiated’, ba ‘ask’ gèbaÈ ‘asking’.

Second, -È (but not perfective -ì) is found after CVV verbs which derive from CV + an identical or assimilated suffix -i or -a. With such verbs, if the stem vowel is non-round, the G1 suffix appears as -yÈ:

<b>L verb</b>	<b>G1</b>		<b>M verb</b>	<b>G1</b>	
bòo	gèbòòÈ	‘being enough’	baa	gÈbaàyÈ	‘marrying’
lòO	gÈlòòÈ	‘spoiling’	kaa	gÈkaàyÈ	‘carrying’
nàa	gÈnààyÈ	‘taking’	nii	gèniyÈ	‘giving’
vàa	gÈvààyÈ	‘being possible’	pìi	gèpiyÈ	‘twisting’
zÈÈ	gÈzÈÈyÈ	‘walking’	vÈÈ	gÈvÈÈyÈ	‘picking up’
			zee	gèzeèyÈ	‘seeing’

This produces the following minimal pair: /baa/ ‘tie’ gÈbaàÈ ‘tying’, /ba-a/ ‘marry’ gÈbaàyÈ ‘marrying’. The presence of -(y)È is surprising, because these same verbs fail to take -ì in the perfective (§4.2.1), suggesting there is an -a or -i suffix which ought to block -È as well (as in the case of bisyllabic /Cia/, /Cua/ and CVCV verbs. It would appear that verbs with an identical or assimilated -i or -a behave as monosyllabic, but bimoraic (hence also as two tone-bearing units). The presence of the perfective suffix -i is thus sensitive to “slots”, i.e. whether the verb form already has an -i or -a, while G1 -È is added to any monosyllabic base, whether ending in -i/-a or not. Hence, there will also be no -È if the verb has either a progressive -i or pluractional -azi suffix.

The second gerund (G2) is marked by an i- prefix and CV- reduplication. This CV- will take the base tone of the verb (L or M). The full verb stem that follows takes TP2, i.e. a H-M melody on L verbs and a M-M melody on M verbs: [check CVV(C)(V)]

<b>L verb</b>	<b>G2</b>		<b>M verb</b>	<b>G2</b>	
kè	ìkèké	‘putting’	du	ìdudu	‘beating’
ttÒ	ìttÒttÓ	‘falling’	tto	ìttotto	‘crying’
kòo	ìkòkóó	‘grinding’	tOO	ìtOtOO	‘throwing’
kàam	ìkàkáám	‘helping’	tOOM	ìtOtOOM	‘sending’
bùà	ìbùbùá	‘following’	dua	ìdudua	‘hiding’
ttùì	ìttùttúì	‘cultivating’	nnui	ìnnunnuì	‘pushing’
fina	ìfifina	‘touching’	mana	ìmamana	‘holding’
tèèmi	ìtètéémi	‘hitting’	beeli	ìbebeeli	‘escorting’
yÒhOzi	ìyÒyÓhOzi	‘bluffing’	yuNazi	ìyuyyuNazi	‘scaring’

The third gerund (G3) is marked by an È- prefix and TP2:

<b>L verb</b>	<b>G2</b>		<b>M verb</b>	<b>G2</b>	
kè	èké	‘putting’	du	Èdu	‘beating’
ttÒ	ÈttÓ	‘falling’	tto	ètto	‘crying’
kòo	èkóó	‘grinding’	tOO	ÈtOO	‘throwing’
kàam	Èkáám	‘helping’	tOOM	ÈtOOM	‘sending’
bùà	èbúa	‘following’	dua	Èdua	‘hiding’
ttùì	èttúì	‘cultivating’	nnui	Ènnui	‘pushing’
fina	èfina	‘touching’	mana	Èmana	‘holding’
tèèmi	ètéémi	‘hitting’	beeli	Èbeeli	‘escorting’
yÒhOzi	ÈyÓhOzi	‘bluffing’	yuNazi	èyuNazi	‘scaring’

As seen, L verbs take a H-M stem melody, while M verbs take M-M.

Turning to their function, G1 and G2 are quite similar. Both are nominal and can appear in argument position, e.g. as subject and object:

gèvÈÈ ÈÈ-dzai ‘killing isn’t good’ (vÈ ‘to kill’)  
 ìvÈvÉ ÈÈ-dzai

ba-ttONO gÈvvÈÈmÈ ‘they began leaving’ (vvÈÈmÈ ‘to leave’) [check]  
 ba-ttONO ìvvÈvvÈÈmÈ

[check] giving birth is painful / singing? pleases me

he heard singing? crying? coughing? laughing?

gÈmmÈÈ sÉ dáá-m ‘the laughing pleased me’

Both can be expanded by a nominal modifier, e.g. possessive, determiner: [check]

gèvèèÈ ÍÓmin ‘my singing’  
 ìvèvéé ÍÓmin  
 gèkkweÈ sÓ ‘your sg. shouting’

i

e-sú gèsùÈ      ‘he stole’ (what he did was steal?)  
e-sú ì-sù-sú

Complement of another verb:

ba-ttONO gèvèèÈ      ‘they started to sing’  
ba-ttONO ìvèvéé

Compounding of object?

ìvèèl gèvèèÈ  
ìvèèl ìvèvéé

Possessive? gèvèèÈ lÓmin ? ìvèvéé lÓmin?

Auxiliary verbs

summary of verb forms à la Mary Paster! fina/mana

analysis of habitual / dda / kaa & ?.

object pronouns

NB \*fuazi; fix above on weel/etc. e

Three Types of “Gerunds” in Legbo

nùm ‘take’, dum ‘bite’

### **Appendix: Combinations of Verb Inflection Features**

P=progressive, H=habitual, I=irrealis, N=negative, C=consecutive

<b>Form</b>	<b>L root</b>	<b>M root</b>	
Ø	ba-fína	ba-mana	‘they touched/held’
P	ba-fínni	ba-manni	‘they are touching/holding’
H	ba-nà-finà	ba-nà-manà	‘they hab. touch/hold’
I	bá-finà	bá-manà	‘they will touch/hold’
N	bÈ àà-fína	bÈ àà-mana	‘they did not touch/hold’
C	bà-finà	bà-manà	‘&they touched/held’
PH	ba-nà-fínni	ba-nà-manni	‘they are hab. touching/holding’
PI	bá-fínni	bá-manni	‘they will be touching/holding’
PN	bÈ àà-fínni	bÈ àà-manni	‘they are not touching/holding’
PC	bà-fínni	bà-manni	‘&they are touching/holding’
HI	bá-ná-finà	bá-ná-manà	‘they will hab. touch/hold’
HN	bÈ dzÈ àà-fína	bÈ dzÈ àà-mana	‘they do not hab. touch/hold’
HC	bà-(nà-)finà	bà-(nà-)manà	‘&they hab. touch/hold’
IN	bÈ ààá-finà	bÈ ààá-manà	‘they will not touch/hold’
CI	ba-finà	ba-manà	‘&they will touch/hold’
NC	bÈ aaa finà	bÈ ààà-manà	‘&they did not touch/hold’
PHI	bá-ná-fínni	bá-ná-manni	‘they will hab. be touching/holding’
PHN	bÈ dzÈ àà-fínni	bÈ dzÈ àà-mánni	‘they will not be hab. touching/holding’
PHC	bá-ná-fínni	bá-ná-manni	‘&they are hab. touching/holding’
PIN	bÈ dzÈ ààá-fínni	bÈ dzÈ ààá-manni	‘they will not be touching/holding’
PIC	bá-ná-fínni	bá-ná-manni	‘&they will be touching/holding’
PNC	bá-ná-bi ààá-fínni	bá-ná-bi ààá-manni	‘&they are not touching/holding’
HIN	bÈ dzÈ ààá-finà-	bÈ dzÈ ààá-manà-	‘they will not hab. touch/hold’
HIC	ba-(na-)finà	ba-(na-)manà	‘&they will hab. touch/hold’
HNC	bá-ná-bi ààá-finà	bá-ná-bi ààá-manà	‘&they did not hab. touch/hold’
INC	bá-bi ààá-finà	bá-bi ààá-manà	‘&they will not touch/hold’
PHIN	bÈ nÈÈ dzÈ ààá-fínni	bÈ nÈÈ dzÈ ààá-manni	‘they will not hab. be touching/holding’
PHIC	bá-ná-fínni	bá-ná-manni	‘&they will hab. be touching/holding’
PHNC	bá-ná-bi ààá-fínni	bá-ná-bi ààá-manni	‘&they were not hab. touching/holding’
PINC	bá-ná-bi ààá-fínni	bá-ná-bi ààá-manni	‘&they will not be touching/holding’
HINC	bá-ná-bi ààá-finà	bá-ná-bi ààá-manà	‘&they will not hab. touch/hold’
PHINC	bá-ná-bi ààá-fínni	bá-ná-bi ààá-manni	‘&they will not hab. be touching/holding’