

It should be noted that class 10 agreement with class 9 nouns or adjectives is not the only instance of heteroconcordance in Shona. Noun class 21, [zi-] governs class 3 concords, [i-] and [ri-], and some nouns in class 1a can govern class 2 concords with an honorific significance.

Babá zinogara Haráre. 1a - 2
(Father lives in Salisbury.)

cf. Babá zinogara Haráre. 1a - 1
(Father lives in Salisbury)

Zisikana riye rinenda kucikoro. 21 - 5 - 5
(That huge girl (we spoke about) attends school.)

3.1.3. Gender Concord Segmental Morphophonemics

Once the gender concord morphemes have been determined (§ 3.1.1.), powerful morphophonemic rules which apply to several morphemes can be formulated. As nearly all these rules apply to several morphemes, it is desirable to have some concise way of referring to all the morphemes covered by the same rule. Morphemes are therefore indicated in the rules in their canonical morphophonemic base forms. For example, rule 1 is given as:-

/CV-/ = /C-/

This rule applies to several morphemes all of the form CV (consonant-vowel), and the particular morphemes are specified at the head of the rule.

In some cases morphemes of different classes have the same morphophonemic base forms. Thus, morphemes of classes 1, 3, and 18 have the common base form /mu-/, and classes 15 and 17 the base form /ku-/. This is not meant to imply that 1, 3, and 18 are one morpheme, or that 15 and 17 are one morpheme.

MR 1 /CV-/ = /C-/ | _ V, other than before deverbative noun stems.

Applies to:-

1a	/ndi-/	8	/zvi-/
1p	/ti-/	10	/dzi-/
11p	/mu-/	12	/ka-/
2	/va-/	16	/pa-/
5	/ri-/	18	/mu-/
7	/ci-/	21	/zi-/

Nouns¹

2	/va-/	vané	(owners)
		vaná	(children) cf. mwana (child)
7	/ci-/	gotó	(fireplace)
		gengó	(wall)
8	/zvi-/	zyotó	(fireplaces)
		zyengó	(walls)
12	/ka-/	kaná	(small child) cf. mwana
21	/zi-/	zotó	(large fireplace)
		zaná	(large child)

Subject Prefix

	Past	Exclusive
1a /ndi-/	<u>nd</u> adyá (I ate)	<u>na</u> ódyá (should I eat)
1p /ti-/	<u>ta</u> dyá	<u>to</u> dyá
11p /mu-/	<u>ma</u> dyá	<u>no</u> dyá
2 /va-/	<u>va</u> dyá	<u>vo</u> dyá
5 /ri-/	<u>ra</u> dyá	<u>ro</u> dyá
7 /ci-/	<u>ca</u> dyá	<u>co</u> dyá
8 /zvi-/	<u>za</u> dyá	<u>zo</u> dyá
10 /dzi-/	<u>da</u> dyá	<u>do</u> dyá
12 /ka-/	<u>ka</u> dyá	<u>ko</u> dyá
16 /pa-/	<u>pa</u> kánáka (it was nice)	<u>pa</u> kánáka (it was nice)
18 /mu-/	<u>mu</u> kánáka (it was nice)	<u>mu</u> kánáka (it was nice)

¹ The phonemic realisation of the relevant morpheme is underlined in each example

<u>Demonstrative</u>	<u>Pronoun</u>	<u>Quantitative</u>	<u>Possessive</u>
"that, those"		"... alone"	"my, mine"

1s	/ndi-/			<u>ndóga</u>	
1p	/ti-/			<u>tóga</u>	
1lp	/mu-/			<u>móga</u>	
2	/va-/	ayo	iyó	yóga	yángu
5	/ri-/	iró	iró	róga	rángu
7	/ci-/	igo	igo	cóga	ońgu
8	/avi-/	igyo	igyo	yoóga	yvángu
10	/dzi-/	idzo	idzo	idóga	idángu
12	/ka-/	ako	iko	kóga	kángu
16	/pa-/	apo	ipo	póga	pángu
18	/mu-/	umo	imo	móga	mángu

MR 1A Classes 2 and 6 /CV-/ → /CV-/ | ___ non-deverbativ
noun stems [-eni]
and [-oko]

<u>vaeni</u>	2	(strangers)	of.	<u>weni</u>	1	(stranger)
<u>maókó</u>	6	(arms)	of.	<u>ruókó</u>	11	(arm)

MR 2 /Cu-/ → /Cw-/ | ___ V, other than before deverbativ
noun stems.

Applies to:-

11	/ru-/
13	/tu-/
14	/hu-/

Nouns

11	/ru-/	<u>rwizi</u>	(river)
		<u>rwaná</u>	(thin child)
13	/tu-/	<u>twaná</u>	(small children)
14	/hu-/	<u>hwahwá</u>	(beer)
		<u>hwaná</u>	(childhood)

Subject Prefix

	Past	Exclusive
	"it/they is/are nice"	"should it/they be seen?"
11	/ru-/ <u>rwákánáka</u>	<u>rwóónwa</u>
13	/tu-/ <u>twákánáka</u>	<u>twóónwa</u>
14	/hu-/ <u>hwákánáka</u>	<u>hwóónwa</u>

	<u>Demonstrative</u>	<u>Pronoun</u>	<u>Quantitative</u>	<u>Possessive</u>
	"that, those"		"... alone"	"my, mine"
11	<u>urwo</u>	<u>irwo</u>	<u>rwóga</u>	<u>rwángu</u>
13	<u>utwo</u>	<u>itwo</u>	<u>twóga</u>	<u>twángu</u>
14	<u>uhwo</u>	<u>ihwo</u>	<u>hwóga</u>	<u>hwángu</u>

MR 2A Class 11 /ru-/ = /rw-/ | — one vowel-commencing non-deverbal noun stem.

ruókó (arm)

MR 3 Classes 15 and 17

/ku-/ = /k-/ | — /o/, other than exclusive {-o-^o}

= /kw-/ (a) | — /s/

(b) | — [-o-] (quant. five morpheme);
in free variation with /k-/.

(c) | — [-o-^o] (exclusive conjugational morpheme)

Subject Prefix

	Past	Exclusive
	"it is nice"	"should it be seen?"
15	<u>kwákánáka</u>	<u>kwóónwa</u>
17	<u>kwákánáka</u>	<u>kwóónwa</u>

	<u>Demonstrative</u>	<u>Pronoun</u>	<u>Quantitative</u>	<u>Possessive</u>
15	<u>uko</u>	<u>iko</u>	<u>kóga/kwóga</u>	<u>kwángu</u>
17	<u>uko</u>	<u>iko</u>	<u>kóga/kwóga</u>	<u>kwángu</u>

NR 4 /w-/ = /mw-/ | — V-commencing non-deverbativ
noun stems
= /w-/ | — /c/-commencing non-deverb-
ative noun stems, in free
variation with /mw-/.

Applies to:-

- 1 /mw-/
- 3 /mw-/
- 4 /wi-/

- | | | |
|---|-------------------|-----------|
| 1 | <u>mwana</u> | (child) |
| 1 | <u>mwana</u> | (owner) |
| 3 | <u>mwedzi</u> | (moon) |
| 3 | <u>mwando</u> | (breeze) |
| 3 | <u>mwotó/motó</u> | (fire) |
| 3 | <u>mwoyo/moyo</u> | (heart) |
| 4 | <u>mwedzi</u> | (months) |
| 4 | <u>mwando</u> | (breezes) |
| 4 | <u>mwotó/motó</u> | (fires) |
| 4 | <u>mwoyo/moyo</u> | (hearts) |

NR 5 Classes 1, 3, 16

/m-/ = /m-/¹ | — polysyllabic noun and adjective
stems commencing with labials
and alveolars, in quick speech,
as alternative to /mw-/.

- | | | |
|----|-------------------------------|---|
| 1 | <u>mpérékédzi/mupérékédzi</u> | (companion) |
| 1 | <u>mpéridzi/mupéridzi</u> | (preacher) |
| 1 | <u>mpjana/mujana</u> | (one who has a turn) |
| 1 | <u>mpvana/mubvana</u> | (daughter who has one
or two children) |
| 3 | <u>mpaséro</u> | (on top (loc. inflection)) |
| 3 | <u>mpvée/mubvée</u> | (type of tree) |
| 3 | <u>mpangará/mupangará</u> | (type of tree) |
| 18 | <u>mpuhango/mumhango</u> | (in the hole of the tree) |

¹ This /m/ is syllabic.

MR 6 /ci-/ = /Ca-/ | — a few noun stems (some de-ideophonic), with some as an alternative to /ci-/.

Applies to:-

7 /ci-/
8 /wi-/

- 7 capúngi/cipúngi (type of eagle)
7 camhémbé (north)
7 crúmpa/ciúnga (magical medicine)
7 cavhévnhé/civhévnhé (running, dodging in chase)
of. nhé (ideophone)
7 camucaca/cimucaca (sound of rain falling)
of. ca va ca (ideophone)
8 zavúngi/zvipúngi (eagles)
8 zavúnga/zviúnga (magical medicines)

MR 7 /Cu-/ = /Cwu-/ (a) | {v¹-} | — (i.e. the demonstrative)

(b) | — selector stems

(c) in other constructions as a variant of /Cu-/; apparently with pejorative significance.¹

Applies to:-

11 /ru-/
13 /tu-/
14 /hu-/ (only (a) and (b) above)

	<u>Demonstratives</u>	<u>Selectors</u>		
	"this, these"	"this"	"that"	"which"
11	<u>urwu</u>	<u>rwúno</u>	<u>rwáye</u>	<u>rwápi</u>
13	<u>utwu</u>	<u>twúno</u>	<u>twáye</u>	<u>twápi</u>
14	<u>uhwu</u>	<u>hwúno</u>	<u>hwáye</u>	<u>hwápi</u>

¹ This needs further investigation.

11	<u>rukúni</u> /rukúni	noun	(piece of firewood)
11	<u>rukova</u> /rukova	noun	(river)
11	<u>ruk'ó</u> /ruk'ó	noun	(arm)
11	<u>rukúró</u> /rukúró	adj.	(big)
11	<u>rutete</u> /rutete	adj.	(thin)
11	<u>ruwwe</u> /ruwwe	enum.	(another)
13	<u>tuwvanhu</u> /tuwvanhu	noun	(small people)
13	<u>tukómaná</u> /tukómaná	noun	(small boys)
13	<u>tutete</u> /tutete	adj.	(thin ones)
13	<u>tupfúpi</u> /tupfúpi	adj.	(short ones)
13	<u>tuwwe</u> /tuwwe	enum.	(others)

MR 8 Olas 14 /hu-/ = /u-/ | — noun stems, in free variation with /hu-/.¹

<u>ubabá</u> /hubabá	(fatherhood)
<u>uoi</u> /huoi	(honey)
<u>usiká</u> /husiká	(night)
<u>uroyi</u> /huroyi	(sorecery)

MR 9 /CV-/ = /CV-/ in all other cases.

Applies to:-

Is	/ndi-/	/ngú/	8	/zyi-/
Ip	/tí-/		10	/ási-/
Ile	/ku-/	/kó/	11	/ru-/
Iip	/mu-/		12	/ka-/
1	/mu-/	/kó/ /-ye/	13	/tu-/
2	/va-/		14	/hu-/
2a	/vá-/		15	/ku-/
3	/zu-/		16	/pa-/
4	/ni-/		17	/ku-/
5	/xi-/		18	/mu-/
6	/ms-/	²	21	/si-/
7	/oi-/		RP	/wi-/

¹ Fortune, op. cit., page 95, states that /u-/ occurs as an alternant to /hu-/ before non-monosyllabic stems.

² There is coalescence with the first vowel of two stems. See MR 28, page 129.

Nouns

1 /mu-/ mukádzi (woman)	10 /dzi-/ dzimbó (houses)
<u>mu</u> ti (agent)	<u>dzi</u> bó (songs)
-it- (do)	11 /ru-/ ruḏzi (tribe)
2 /va-/ vakádzi (woman)	<u>ru</u> ḏzo (lengthy attempt)
<u>va</u> ti (agents)	12 /ka-/ kambwá (small dog)
2a /vá-/ vábabá (fathers)	<u>ka</u> mwá (small child)
<u>vá</u> she (chiefs)	13 /tu-/ tuḡiti (small trees)
3 /mú-/ mukaka (milk)	<u>tu</u> ḡu (small things)
<u>mu</u> ro (amount)	14 /nu-/ nuḡiti (night)
mu ro (measure)	<u>nu</u> ḡi (evil)
4 /mi-/ misáná (backs)	-ip- (become bad)
6 /ma-/ mabwe (stones)	16 /pa-/ paḡi (the floor)
<u>ma</u> pángá (knives)	<u>pa</u> kati (the centre)
<u>ma</u> zano (plans)	17 /ku-/ kuḡai (underneath)
7 /oi-/ oinhu (thing)	<u>ku</u> ḡure (behind)
<u>oi</u> to (deed)	18 /mu-/ muḡati (inside)
-it- (do)	21 /zi-/ zibángá (big knife)
8 /zvi-/ zviito (deeds)	<u>zi</u> mbwá (big dog)
<u>zvi</u> rémá (cripples)	

Infinitive VerbalsPossessivePronoun

		"mine/yours/his"	"him"
<u>ku</u> dá (to love)	Is /-ngú/ wángu		
<u>ku</u> óná (to see)	IIs /-kó/ wákó		
<u>ku</u> ita (to do)	I /-ká/ wákó	/-ye/ iye	
<u>ku</u> enda (to go)			
<u>ku</u> bátá (to hold)			

Subject PrefixObject Prefix

"I/we/you ... make"

"They saw me/us/you ..."

Is /ndi-/ ndinóita	vándioná
Ip /ti-/ tinóita	vátioná
IIs /ku-/ künóita	vákünóná
Iip /mu-/ munóita	vámünóná

Subject PrefixObject Prefix

"he/she/they ... make"

"They saw him, then ..."

1 / mu-/		vámuóná
2 / va-/	vánoita	vávaóná
5 / ri-/	rínoita	vá-ríóná
7 / ci-/	oínoita	vá-cíóná
8 / zvi-/	avínoita	vá-zvíóná
10 / ási-/	ásinóita	vá-á-síóná
11 / ru-/	rúnoita	vá-rúóná
12 / ka-/	kánoita	vá-kúóná
13 / tu-/	túnoita	vá-túóná
14 / hu-/	húnoita	vá-húóná
15 / ku-/	kúnoita	vá-kúóná
16 / pa-/	pánoita	vá-páóná
17 / ku-/	kúnoita	vá-kúóná
18 / mu-/	múnoita	vá-múóná
RP /-zvi-/		vá-zvíóná "them- selves"

Adjective Enumerative Demonstrative Selector

"big"

"another"

"this"

"this"

1 / mu-/	mukúrd	muuwe		
2 / va-/	vakúrd	vauwe	ava	váno
5 / mu-/	mukúrd	muuwe		
4 / ni-/	nikúrd	niuwe		
5 / xi-/		xiuwe	ixi	xino
6 / ma-/	makúrd	mauwe		
7 / ci-/	cikúrd	ciuwe	ici	oíno
8 / zvi-/	avikúrd	zviuwe	izvi	avino
10 / ási-/		áziuwe	íázi	ááino
11 / ru-/	rúrd	ruuwe		
12 / ka-/	kateté ¹	kauwe	aka	káno
13 / tu-/	tuteté ¹	tunwe		
14 / hu-/		huuwe		

¹ This stem means "thin".

² Fortune, op. cit., page 156, treats adjectives of this class as nouns.

		<u>Adjective</u>	<u>Enumerative</u>	<u>Demonstrative</u>	<u>Selector</u>
15	/ku-/	kukúrd	kunwe	uku	kúno
16	/pa-/	pakúrd	panwe	apa	páno
17	/ku-/	kukúrd	kunwe	uku	kúno
18	/mu-/	mukúrd	munwe	umu	múno

MR 10 /v-/ = /c-/ | _ v
 /u-/ = /w-/
 /i-/ = /ɣ-/
 /a-/ = /w-/ | _ /o/
 = ∅ | _ /e/

Applies to:-

IIa	/a-/
1	/a-/ /a-/
3	/a-/
4	/a-/
6	/a-/
9	/a-/

	<u>Pronoun</u>	<u>Quantitative</u>	<u>Subject Prefix</u> ¹	<u>Possessive</u>	
		"alone"	Past	Exclusive	"my, mine"
IIa		wóga	wadyá	wónwa	
1		wóga	wádyá / ádyá ²	wónwa	ránga
3	íyo	yóga	yákánáka	yónwa	wánga
4	íyo	yóga	yákánáka	yónwa	yánga
6	íyo	yóga	ákánáka	ónwa	_snga
9	íyo	yóga	yákánáka	yónwa	yánga

¹ The past examples with /-dyá/ are in the recent past tense and are glossed "you/he ate." Those with /-naka/ (inchoative) are in the remote past and are glossed "it/they are nice." The exclusive forms are glossed "should you/they/.... be seen?"

² The gender concord of the first of these forms is /u-/ and that of the second is /a-/.

MR 10A /v-/ = $\emptyset$ | _ [-a-] (quantitative morpheme), in free variation with /o-/.

Applies to:-

IIa	/u-/
1	/u-/
3	/u-/
6	/a-/

Quantitative

"alone"

IIa	_oga/woga
1	_oga/woga
3	_oga/woga
6	_oga/woga

MR 11A /v-/ = /-yV/ | {v¹-} _ (i.e. in the demonstrative).

Applies to:-

		"this/these"
1	/u-/	uyu
3	/u-/	uyu
4	/i-/	iyi
6	/a-/	aya
9	/i-/	iyi

MR 11B /v-/ = /-y-/ | {v¹-} _ [-o] (i.e. in the demonstrative).¹

Applies to the same forms as MR 11A.

		"that/those"
1	/u-/	uyo
3	/u-/	uyo
4	/i-/	iyi
6	/a-/	ayo
9	/i-/	iyi

¹ This rule is equivalent to MR 1 applied to the output of MR 11A. This alternative formulation requires rule ordering.

MR 12 /v-/ = /v-/ in all other cases.

Applied to:-

ILs	/u-/	
1	/u-/	/a-/
2b	/h-/	
3	/u-/	
4	/i-/	
6	/a-/	
9	/i-/	

	<u>Selector</u>	<u>Subject Prefix</u> ¹	<u>Object Prefix</u>	<u>Enumerative</u>
	"this"		"they saw it/them"	"another"
ILs		<u>unódyá</u>		
1	<u>úno</u>	<u>únodyá</u>		
3	<u>úno</u>	<u>únokúrá</u>	<u>váúóná</u>	
4	<u>úno</u>	<u>ínokúrá</u>	<u>váúóná</u>	
6	<u>úno</u>	<u>únokúrá</u>	<u>váúóná</u>	
9	<u>úno</u>	<u>ínokúrá</u>	<u>váúóná</u>	<u>inwe</u>

Noun

2b	<u>amái</u>	(mother)
2b	<u>ambúya</u>	(grandmother)

MR 13 /vcv/ = /vcv/ in all cases other than those covered by MR 26 below.²

Applies to:-

Is	/ini/	/ini/
Ip	/isú/	/isú/
ILs	/iwé/	/iwé/
IIP	/imi/	/imi/

¹ The examples are in the present habitual tense. Those with /-áya/ are glossed "you eat" and "he eats." Those with /-kura/ are glossed "it/they grow."

² These involve coalescence of /a/ with the 1st vowel of the gender concord: a + i = e.

MR 13 also applies to:-

Ip /-idu/ (/~idd/)

Iip /-inya/ (/~inyä/)

These gender concords, however, always occur in possessively inflected forms and are therefore always subject to the coalescence rule, MR 28 (see page 129).

MR 14 Class 5 [j~] has no discrete phonemic realization, but in certain cases causes a morphophonemic change in the first consonant of the noun and adjective stems. Voiceless stops always become voiced. Voiceless affricates and voiceless fricatives become voiced affricates of the same series, or alternatively remain unchanged. When [j~] has derivative function the affricates and fricatives appear always to change, but when [j~] is non-derivative some stems always change while others alternate freely.

/j~/ + voiceless stop = voiced stop of the same series

/j~/ + voiceless affricate = {voiced affricate of the same series
voiceless affricate}

/j~/ + voiceless fricative = {voiced affricate of the same series
voiceless fricative}

	p	t	k	
<u>Stops</u>	↓ b	↓ d	↓ g	
	pf	ts	tsv	c
<u>Affricates</u>	↓ bv	↓ ds	↓ dsv	↓ j
<u>Fricatives</u>	↑ f	↑ s	↑ sv	↑ sh

There are two anomalous stems:-

/j~/ + /-enje/ (noun stem) ⇒ /zhenje/ (large torch)¹
cf. /mwenje/ 3 (torch)

¹ This could possibly be a class 21 form rather than class 5. In this case: /zi-/ + /-enje/ ⇒ /zhenje/.

/l-/ + /-uya/ (adj. stem) → /b́ya/ (good)¹

cf. 6 /maɣya/

Examples

/l-/ + /ɾ/ → /b/

baɖá	(hoe)	cf.	mapaɖá	6 (hoes)
báŋgá	(knife)		mapáŋgá	6 (knives)
bako	(cave)		mapako	6 (caves)
bato	(bald man)		maparo	6 (bald men)
bamhi	(broad) adj.		mapamhi	6
benyng'á	(alive) adj.		mapenyng'á	6

/l-/ + /t/ → /á/

dámá	(cheek)	cf.	matámá	6 (cheeks)
démó	(axe)		matémó	6 (axes)
dangá	(cattle pen)		matangá	6 (cattle pens)
dáti	(bow)		matáti	6 (bows)
dete	(thin) adj.		matete	6
demá	(black) adj.		matemá	6

/l-/ + /k/ → /g/

goré	(cloud)	cf.	makoré	6 (clouds)
gánó	(battle axe)		makánó	6 (battle axes)
goya	(red soil)		makoya	6 (red soil)
gángó	(potsherd)		makángó	6 (potsherds)
gúrú	(big) adj.		makúrú	6
gúkútú	(hard) adj.		makúkútú	6
govú	(thick) adj.		makobvú	6

/l-/ + /o/ → /j/

jírá	(cloth)	cf.	macírá	6 (cloths)
jékó	(sickle)		maekó	6 (sickles)
jongwé	(cockrel)		macongwe	6 (cockrels)
jens	(white) adj.		macena	6

¹ Alternatively the stem is /-puya/ with MR 14 applying in class 5. In class 6 /-puya/ → /-uya/ [ma-] .

/l-/ + /p/ = /bv/ or remains /p/

bveni	(baboon)	cf.	napieni	6 (baboons)
bvúpá	} (bone)		napiúpá	} 6 (bones)
prúpá			napiúpá	
prúdzi	(shoulder)		napiúdzi	6 (shoulders)
bvumbú	(grayish)	adj.	napiumbú	6
bvúpi	} (short)	adj.	napiúpi	6
prúpi			napiúpi	

/l-/ + /ts/ = /dz/ or remains /ts/

dzuro	(big hare)	cf.	tsuro	9 (hars)
dzatsi	(bundle of fish)		natsatsi	6 (bundles of fish)
tsine	(spring)		natsine	3 (springs)
dzará	(big line)		natsará	3 (line)

/l-/ + /bv/ = /dv/

dzvatavátava	(kind of spider)		natsvatavátava	} 6
			nadzvatavátava	
idzvé	(short, fat kidney)		itsvé	9 (kidney)
dzvené	(pure)	adj.	natsvené	6
dzvuki	(red)	adj.	natsvuki	6
idzvá	(new)	adj.	natsvá	6

/l-/ + /t/ = /bv/ or remains /t/ ¹

bvóro	(big furrow)	cf.	fóro	9 (furrow)
bvuro	(large grazing area)		mafuro	6 (pastures)
bveve	(huge prostitute)		mafeve	6 (prostitutes)
fúró	(froth)		mafúró	6 (much froth)

/l-/ + /s/ = /dz/ or remains /s/

dzóró	(big head)		musóró	3 (head)
dzíkaná	(big girl)		musíkaná	1 (girl)
símá	(strength)		masímá	6 (powers)

¹ Most of the following examples were first elicited by Professor Fortune.

/k-/ + /v/ ⇒ /dv/ or remains /v/

dvvingá (big bundle of wood) masvingá 6 (bundles of wood)

/k-/ + /sh/ ⇒ /ʃ/ or remains /sh/

játé	(big python)	sháté	9 (python)
jiri	(big bird)	shiri	9 (bird)
jambwá	(big calamity)	rushambwá	11 (calamity)
shizha	(leaf)	mashizha	6 (leaves)

MR 15 Class 9 {N-} has discrete phonemic realisation mainly when immediately followed by stops (but excluding /k/), and voiced fricatives, and is then realised as a nasal which is homorganic in position to such immediately following consonant. In most cases {N-} also causes a morphophonemic change in the first consonant of the stem (noun or adjective), which immediately follows {N-}. Little generalisation about these changes is possible other than that voiceless stops are neutralised to /h/, and voiceless fricatives become voiced affricates of the same series.

Voiceless stop ⇒ /h/ | {N-} _

Voiceless fricative ⇒ voiceless affricate | {N-} _

/N-/ + p ⇒ mh
+ t ⇒ nh
+ k ⇒ h
+ kw ⇒ hw

/N-/ + b ⇒ mb
+ d ⇒ nd / nh
+ g ⇒ ng
+ bh ⇒ mb
+ dh ⇒ nd

/N-/ + f ⇒ pf / f
+ s ⇒ ts / s
+ sv ⇒ tsv / sv
+ sh ⇒ sh
+ v ⇒ mb
+ z ⇒ nz
+ zv ⇒ nzv
+ sh ⇒ nj / zh
+ vh ⇒ zv
+ x ⇒ nd
+ w ⇒ nw

/n-/ + pf = pf
 + ts = ts
 + tsv = tsv
 + ɔ = ɔ
 + bv = bv
 + dz = ndz / ɔn

/n-/ + dy = ndy
 + hw = ndw
 /n-/ + n = n
 + ny = ny

/n-/ + /p/ = /mh/

mhurd	(calf)	cf. rupurú	} 9 (poor calf)
mhurú		rumburú	
mhéréko	(something given)	-pérék	(give)
mhondi	(murderer)	-pond-	(kill)
mhasá ¹	(mats)	rupasá	11 (mat)
mhamhi	(broad)	adj. mapamhi	5 6
mhenyng'ú	(alive)	adj. mapenyng'ú	6

/s-/ + /t/ = /nh/

nhémó	(chisel)	cf. -tém	(out)
nhúró	(thing unloaded from head)	-túr	(unload from head)
nhivi *	(sides)	rutivi	11 (side)
nháró	(drawn line)	-tár	(draw a line)
phete	(thin)	adj. matete	6
nhemá	(black)	adj. matemá	6

/s-/ + /k/ = /h/

hova	(river)	cf. rukova	11 (river)
hónséri	(one who causes)	-kónsér	(cause)
huvhúte	(umbilical cords)	rukuvhúte	11 (umbilical cord)
húrd	(big)	adj. mekúrd	6
hókúú	(hard)	adj. mekókúú	6

¹ * denotes that the example is also given by Fortune, op. cit., pages 83 to 86.

/h-/ + /kw/ = /hw/

hwiró (place for climbing) cf. -kwir- (climb)

hwégári (old person) -kwégár- (live long)

/h-/ + /b/ = /mb/

mbuwe (horsefly) cf. kahuwo 12 (small horsefly)

mbereko * (cradle-skin) -berek- (bear)

/h-/ + /d/ = /nd/ or /nh/ (one example of each)

ndiki * (small) adj. cf. ndíki 6

nhiridwo (watered part) -diridz- (water)

/h-/ + /g/ = /ng/

ngaro (settlement) cf. -gar-

ngoré (cloud) goré 5 (cloud)

/h-/ + /bh/ = /mb/

mbanjé * (wild hemp) cf. bhang (Hindustani: hemp)

/h-/ + /dh/ = /nd/

ndaramá * (gold) cf. darahám (Arabic: coins)

/h-/ + /f/ = /pf/ or remains /f/

pfámbi (prostitute) cf. -fámh- (walk)

fufunha (indigestion) -fufunh- (eat reluctantly)

fódyá * (tobacco) folha (Portuguese: leaf)

pfungwá * (thought) -fung- (think)

/n-/ + /s/ = /ts/ or remains /s/

tsará	(rows)	cf.	rusrá	11 (row)
tséto *	(winnowing baskets)		rusró	11 (basket)
súrúzo *	(strained mealie- ooh ash used for salt)		-súrúzo-	(strain)
tséré	(sigh)	adj.	maséré	6

/n-/ + /sv/ = /tsv/ or remains /sv/

tsvitea	(wedding)	cf.	-svik-	(arrive)
svipó	(spittle)		-svip-	(spit)
tsvingo *	(stone-wall ruins)		rsvingo	11 (stone-wall ruin)

/n-/ + /nh/ = /sh/

shayá *	(jawbones)	cf.	rushayá	11 (jawbone)
---------	------------	-----	---------	--------------

/n-/ + /vɲ/ = /zv/

mvemvɲ ¹	(flirt)	cf.	-vhevɲ-	(court)
mvúrá	(water)		chivúrá-máwé	7 (hall)

/n-/ + /z/ = /nz/

nzaríra	(diaphragm)	cf.	ruzaríra	11 (diaphragm)
---------	-------------	-----	----------	----------------

/n-/ + /zv/ = /nvz/ ²

nvárvɲ	(something which gives birth)	-zvárɲ	(give birth)
nvámbírɲ	(place of swelling)	-zvámbrɲ	(overeat)

¹ Notice the regressive assimilation of C² to C¹.

² Fortun[?] op. cit., page 85, gives one example for which he reports that /n-/ + /zv/ = /nvz/.
invi (grey hair) cf. *-vɲ (UrB: grey hair)

/h-/ + /zh/ = /nj/ or remains /zh/ (one example of each)

njámbó (noise) cf. -zhámbo- (make a noise)
 shé-jí * (many) adj. mazhinjí 6

/h-/ + /v/ = /mb/

mbiriso (baking powder, yeast) -viris- (boll trans.)
 mbávéviró (intention) -vávérin- (strive after)
 mbóní * (papil) -vón- (see)
 mbiri (two) adj. maviri 6

/h-/ + /pf/ = /pf/

pfútá * (castor-oil plants) rufútá II (castor-oil plant)

/h-/ + /ts/ = /ts/

tsaré * (rows) cf. rutsaré II (row)

/h-/ + /tɔv/ = /tɔv/

tɔvukú (red) adj. cf. matɔvukú 6

/h-/ + /c/ = /c/

céna * (white) adj. cf. macéna 6

/h-/ + /dz/ = /ndz/ or /dz/ (one example of each)

ndziwo (stopper) cf. chidziwo 7 (stopper)
 dziviso * (obstacle) -dzivis- (hinder)

/h-/ + /z/ = /ná/

ndaramo (long life) cf. -ruram- (live, survive)
 ndimo (place for ploughing) -rim- (cultivate)
 ndámuré (weaned child) -rúndir- (wean)
 ndefú (tall) adj. maréfú 6

/N-/ + /w/ = /nɔw/

nɔwɔrɔ (flat rocks) cf. ruwɔrɔ ll (flat rock)

nɔwiɔ } (songs) rɔwiɔ¹ ll (song)

nɔziɔ

nɔziɔ (rivers) rɔziɔ¹ ll (river)

/N-/ + /n/ = /n/

nomɔ * (seven) adj. cf. manomɔ 6

/N-/ + /ny/ = /ny/

nyɔrɔ * (soft) adj. cf. manyɔrɔ 6

/N-/ + /ng/ = /ng/

ngani (how many?) adj. mangani 6

/N-/ + /ɔy/ = /rɔy/

ndyire-ndyire (greed) of. -dyirɔ (eat (with applied extension))

/N-/ + /hw/ = /mbw/

mbwire-mbwire (powdery food) -hwirɔ (eat powdery food)

There are also a number of nouns in class 9 which commence with /ny/, /nɔ/, /ng/, /ng'/ and /nj/. In nouns with initial /ny/ the stem is probably vowel-commencing, in which case:-

[N-] = /ny/ | _ V.

¹ These stems appear to have /w/-commencing allomorphs in the singular plural.

/-wiɔ/ = /-wiɔ/ | {N-} _
= /-iɔ/ | (a) {ru-} _
(b) {N-} _ , as free variant to /wiɔ/.

Some, at least, of the other nouns must in time past have had stems which were consonant-commencing. This is preserved in the morphophonemics of class 9, but the morphophonemic rules involved have not been formulated here as the initial consonants of the stems can only be ascertained by comparative study. The examples given below are all from Fortune, op. cit., pages 86 and 87, but all have been checked and are tone-marked.

nyáti	(buffalo)		
nyama	(meat)		
nyika	(country)		
nyúci	(bee)		
nyényedzi	(star)		
nyóká	(snake)		
nyótá	(thirst)		
nzendo	(journeys)	cf. rwendó	21 (journey)
nziyó	(song)	rwiyo	11 (song)
nzengá	(frying-pans)	rwengá	11 (frying-pan)
nzara	(hunger)		
nzira	(path)		
nzómbé	(bull)		
nzou	(elephant)		
nzungú	(groundnut)		
ngano	(fable)	cf. mazano	6 (plans)
ngoma	(drum)		
ngomwá	(sterile man)		
nguruva	(pig)		
nguo	(oradl.-skin)		
ngwana	(crocodile)		
ng'anga	(diviner)	cf. hwanga	14 (diviner's medicines)
ng'ombe / ombe	(cattle)		

njiri	(warthog)	
njédsana	(new moon)	cf. mwedaf 3 (moon)
n'éré	(cleverness)	
njivá	(pigeon)	

3.1.4. Gender Concord Tonal Morphophonemics

The tone on certain gender concords is clearly an integral part of the phonemic representation of these forms. The gender concords of this type are indicated in the following table:-

Table 3

Gender Concords with Inherent Tone

Person / Class	Gender Concord Series		
	c	d	e
	Pronoun	Poss. Nucl. ¹	Noun
Ia	/ini/ /-ngà/	<u>iní</u>	wánga
Ip	/isú/ /-idá/	<u>isú</u>	wédu ²
Iie	/iwé/ /-kó/	<u>iwé</u>	wákó
Iip	/imí/ /-inyá/	<u>imí</u>	wényu ²
Class 1	/-yè/ /-kè/	<u>iyé</u>	wáké
2a	/vâ-/		vâshe (chiefe)
2b	/â-/		â-ái (mother)

Only the pronouns of first and second persons show tonal variation.

NR 16 /vov/ = /vov/ | {cop} — ({cop} is here /ndh-/)

Is	/ini/	ndhíni	(it is me)
Ip	/isú/	ndhísú	(it is us)
Iie	/iwé/	ndhíwé	(it is you)
Iip	/imí/	ndhími	(it is you)

¹ These forms are glossed: "my", "our", "your", etc.

² In these forms there is coalescence between the possessive /-a-/ and the first vowel of the gender concord.

njiri	(warthog)	
njédsané	(new moon)	cf. mwedzi 3 (moon)
njéré	(cleverness)	
njivá	(pigeon)	

3.1.4. Gender Concord Tonal Morphophonemics

The tone on certain gender concords is clearly an integral part of the phonemic representation of these forms. The gender concords of this type are indicated in the following table:-

Table 3

Gender Concords with Inherent Tone

Person / Class	Gender Concord Series		
	c	d	e
	Pronoun	Poss. Nucl. ¹	Noun
Ic	/ini/ /-ngù/	ini	wángu
Ip	/isú/ /-idú/	isú	wédu ²
IIs	/iwé/ /-kó/	iwé	wákó ²
IIP	/imí/ /-inyé/	imí	wényú ²
Class 1	/-yè/ /-zé/	iya	wáké
2a	/vá-/		váche (chiefs)
2b	/á-/		amá (mother)

Only the pronouns of first and second persons show tonal variation.

ME 16 /túv/ → /túv/ | {cop} — ({cop} is here /ndh-/)

Ic	/ini/	ndhíni	(it is me)
Ip	/isú/	ndhíisú	(it is us)
IIs	/iwé/	ndhíiwé	(it is you)
IIP	/imí/	ndhíimí	(it is you)

¹ These forms are glossed: "my", "our", "your", etc.

² In these forms there is coalescence between the possessive /-a-/ and the first vowel of the gender concord.

With the exception of the gender concords mentioned above, gender concord tone presents certain problems in a morphemic analysis. The situation is summarised in the following table:-

Table 4

Gender Concord Tones

<u>Construction</u>	<u>Syntactic Function of Construction</u>	
	<u>Substantival</u>	<u>Predicative</u>
Noun	g ⁰ ~ g ⁰ ¹	g ⁰
Adjective	g ⁰	g ⁰
Enumerative	g ⁰	g ⁰
Demonstrative	g ⁰ ~ g ⁰	
Verb - Subject Prefix	g ⁰	g ⁰ Principal I, II g ⁰ Principal III g ⁰ Subjunctive g ⁰ Pres. & Participial g ⁰ Other Participials g ⁰ Consecutive g ⁰ Past tenses
Selector	g ⁰	
Verb - Object Prefix	g ⁰ ~ g ⁰	
Pronoun	g ⁰ (2 - 16)	
Quantitative	g ⁰	
Possessive Prefix	g ⁰	

Substantival verb forms are relatives.

Blank in the Predicative column indicates either no predicative form, or inflection by segmental prefix rather than by tonal suprafix.

No tone mark on g⁰ here signifies non-occurrence of tone due to the non-syllabic form of the gender concord allomorph.

¹ In this case the g⁰ tone is carried by the immediately following vowel -- see § 3.1.5., page 88.

Clearly, in view of the occurrence of both H and L tones on gender concords in constructions having the same syntactic function, the morphophonemic base form of most of the gender concords is best regarded as being toneless. The problem is, in which of the forms do we assign the tone on the gender concord to some morpheme other than the gender concord itself, and in which forms is the tone to be assigned to the gender concord but treated as conditioned by some environmental factor?

For the subject prefix it would appear that the L occurring in the relative should be assigned to a "nominalising" morpheme whose phonemic realisation is a L tone which replaces the H on the gender concord in principal forms.¹ This implies derivation of the substantival (relative) form from the predicative, rather than vice versa.² This is clearly desirable for other than tonal reasons.

Adjectives and enumeratives parallel principal and relative verbs in their gender concord tone. If the analysis for verbs suggested above is adopted for adjectives and enumeratives there are difficulties in the formulation of the rule required for the tone sequences following the gender concord (the "inflected nucleus tone" rule," page 91). In adjectives and enumeratives (as well as nouns, which are not considered at this point) different tone sequences after the gender concord occur in the substantival than in the predicative forms. The greatest diversity is shown in the substantival forms, as the predicative tones show neutralisation. Nouns show exactly the same tonal perturbation from substantival to predicative as do adjectives and enumeratives, but the far larger number of noun stems provides full exemplification of all the tone sequences which occur on stems. The following tone patterns clearly illustrate the nature of the problem:-

¹ In verbal forms, tones on the gender concords are only part of the overall tonal patterning involved in signalling of contrasts between different constructions.

² Transformationally there is good motivation for treating relatives as verbs of embedded sentences in the noun phrase, in much the same way as is done for English. Gregersen, *Op. cit.*, pages 43 to 47, has some discussion of this.

<u>Substantival</u>	<u>Predicative</u>
---------------------	--------------------

g ^o - HHH	g ^o - LLL
g ^o - HHL	g ^o - LLL
g ^o - HLL	g ^o - LLL

These must clearly be accounted for by deriving the predicative tones from the substantival in terms of the following rules:-

HHH	=	LLL
HHL	=	LLL
HLL	=	LLL

The general rule we wish to express is that a sequence of H's in substantival forms is replaced by L's in the derived predicative forms. This situation therefore argues against the interpretation of the predicative forms of adjectives and enumeratives as basic. It should also be borne in mind that nouns have exactly the same tonal characteristics as adjectives and enumeratives. While there might well be independent syntactic motivation for regarding predicative adjectives and enumeratives as basic,¹ there is no motivation for regarding the predicative form of nouns as basic.

¹ In a transformational generative grammar there are strong motivations for interpreting adjectives as transformationally derived predicatives. This syntactic treatment is quite possible in a TG grammar despite the tonal patterning of the forms discussed above. The difficulties raised by the tone of these forms in a taxonomic, morphemic analysis are not present in a generative treatment. All tonal patterning (apart from lexical tone) is there accounted for by phonological rules (rather than morphemically as in the above analysis) which operate on bracketed strings of formatives. Tonal patterning is then but a surface marker of syntactic relationships. A L tone on the gender concord of adjectives, enumeratives, and verb forms (apart from I,II) is a marker of one kind of sentence embedding. In other Bantu languages this same kind of sentence embedding may be differently marked: In Zulu by the morpheme [v^o-] before the gender concord, and in Sotho by the suffix [-n] on verbs. In chapter 2 some of the problems presented by taxonomic "tonal grammar" are discussed, and in Appendix II a generative treatment of tone is provided by way of contrast with this taxonomic analysis.

There appears to be no entirely satisfactory solution, as the parallelism between nouns, adjectives, and enumeratives on the one hand, and verb forms on the other, cannot be accounted for by a single homogeneous interpretation. For nouns, adjectives, and enumeratives, the substantival forms must be taken as basic, while for verb forms the predicative forms are basic. The analysis followed here is that the H of the gender concord in the predicative form of nouns, adjectives, and enumeratives, is assigned to a copulative morpheme, [cop]. The L of the subject prefix in relatives is assigned to a relative morpheme [rel]. The tones on all other gender concords are assigned to the gender concord and accounted for by gender concord morphophonemic rules.

Following this analysis, three morphophonemic rules are necessary for the tonal realisation of gender concords.

/go/	⇒	/gō/
/gō/	⇒	/gō/ (toneless)
/gō/	⇒	/gō/

It should be borne in mind that gender concord segmental realisation is covered by rules 1 to 15 above.

MR 17

/gō/ ⇒ /gō/ (a) | __ noun stems
 adjective stems
 enumerative stems
 verb phrases, when go is class 15
 (i.e. infinitive inflection)

- (b) | {V¹-} __ (i.e. in the demonstrative)
- (c) | __ in principal, positive forms of verbal and associative phrase inflections, when go is I and II
- (d) | __ in the present participial verbal inflection

- (e) | _ [-ka-] (i.e. in the consecutive verbal inflection, positive and negative)
- (f) | { {hs-} } { {ngu-} } _ in the subjunctive positive verbal inflection
- (g) | _ in the subjunctive negative verbal inflection, to express negative commands
- (h) | H _ verb root (i.e. object concords, showing polarity with the preceding tone).

Examples

MR 17 (a) /go/ = /gɔ/ | _ noun stems
adjective stems
enumerative stems
verb phrases, when go is 15

<u>murámá</u>	(noun)		(man)
<u>yáhu</u>	"		(people)
<u>mapángá</u>	"		(knives)
<u>tuvanhá</u>	"		(small people)
<u>unhu</u>	"		(humanity)
<u>ngáí</u>	"		(down, the ground)
<u>ziékaná</u>	"		(huge girl)
<u>mukírí</u>	(adj.)	1	(big)
<u>yakírí</u>	"	2	(big)
<u>mauninji</u>	"	6	(big)
<u>tushinji</u>	"	13	(big)
<u>mumwe</u>	(enum.)	3	(another)
<u>rimwe</u>	"	5	(another)
<u>kawwé</u>	"	12	(the same)
<u>kudya</u>	(inf.)	15	(to eat, food)
<u>kubvunza</u>	"	15	(to ask)
<u>kutarisa</u>	"	15	(to look)

NR 17 (b) /gɔ/ = /gɔ/ | [v¹-] _ (i.e. in the demonstrative)

<u>uyu</u>	1	(this)
<u>ava</u>	2	(these)
<u>iri</u>	5	(this)
<u>iriri</u>	8	(these)

NR 17 (c) /gɔ/ = /gɔ/ | _ in principal, positive forms of verbal and associative phrase inflections, when go is I and II.

<u>ndinodyá</u>	(I eat)
<u>tinodyá</u>	(we eat)
<u>uchádyá</u>	(you will eat)
<u>muchádyá</u>	(you (pl.) will eat)
<u>tingádyé</u>	(we may eat)
<u>ndiri kudyá</u>	(I am eating)
<u>unémvura</u>	(you have water)

NR 17 (d) /gɔ/ = /gɔ/ | _ in the present participial verbal inflection.

kana <u>ndicidyá</u>	(if I eat)
kana <u>ndicidyá</u>	(if he eats)
kana <u>tiobvúnzá</u>	(if we ask)
kana <u>vacítárisa</u>	(if they look)

NR 17 (e) /gɔ/ = /gɔ/ | _ {-ka-} (i.e. in the consecutive verbal inflection, positive and negative).

... <u>ndikadyá</u>	(... and then I ate)
... <u>akadyá</u>	(... and then he ate)
... <u>ikasabvunza</u>	(... and then they didn't ask)
... <u>tikasatángésá</u>	(... and then we didn't sell)
... <u>mukasatángésá</u>	(... and then you didn't sell)

MR 17 (r) /go/ = /əo/ | $\left\{ \begin{matrix} \{ha-\} \\ \{nga-\} \end{matrix} \right\}$ — in the subjunctive positive verbal inflection (hortative).

hātītengese	(let us sell)
hāndīye	(let me eat)
ngātībyunze	(let me ask)

MR 17 (r) /go/ = /əo/ | — in the subjunctive negative verbal inflection, to express negative commands.

usādyé	(don't eat)
musābvrūnzé	(don't ask)

MR 17 (h) /go/ = /əo/ | H — verb root (i.e. object concords, showing polarity with the preceding tone).¹

nāinōmūzīvā	(I know him)	
ndakāmūdā	(I liked him) of.	ākamūdā (he liked him)
ndakāmūōnā	(I saw him)	
vāmūdā	(they liked him)	ndēmūdā (I liked him)
vāyōnā	(they saw them)	ndayānā (I saw them)
kana ndiohāmūdā	(if I like him)	
tichāmūdā	(we will like him)	

MR 18

/go/ = /go/ (toneless) (a){cop} — noun stems
 adjective stems
 enumerative stems
 verb phrases, when go is class 15

¹ All the examples in my corpus conform to this rule, but every verb inflection, principal, participial, and relative, positive and negative, is not represented. Further investigation is required here, but as polarity rules apply to several verbal morphemes, the object concord appears to conform to the general pattern.

(b) | [rel] _

(c) in all cases where the gender concord is non-syllabic, unless covered by MR's 20A and 20B.¹

Examples

MR 16 (a) /gc/ → /gc/ (toneless) |{cop}_ noun stems
 adjective stems
 enumerative stems
 verb phrases, when
 go is class 15

The copulative morpheme is in the cases specified realised as a replacive H tone on the gender concord.

<u>muruna</u>	(it is a man)	of.	<u>murúne</u> (man)
<u>múti</u>	(it is a tree)		<u>muti</u> (tree)
<u>zvígáro</u>	(they are the chairs)		<u>zvígáro</u> (chairs)
<u>ókúru</u> (adj.7)	(it is big)		<u>ókúrd</u> (big)
<u>yákúru</u> (" 2)	(they are big)		<u>yákúrd</u> (big)
<u>zvíví</u> (enum.8)	(what sort are they)		<u>zvíví</u> (what sort)
<u>kúdyá</u> (infin.)	(it is the food)		<u>kúdyá</u> (food)
<u>kúcéra</u> (")	(it is the digging)		<u>kúcéra</u> (to dig)

MR 16 (b) /gc/ → /gc/ (toneless) |{rel] _

The relative morpheme is realised as a replacive L tone on the gender concord.

<u>amoténgá</u>	(he who buys)
<u>vasíngaténgo</u>	(they who don't buy)
<u>richááya</u>	(it that will eat)
<u>tisíná kuténgá</u>	(we who didn't buy)
<u>ngáábvúuze</u>	(he who may ask)
<u>vasíngábvúuze</u>	(they who may not ask)
<u>ndínémvura</u>	(I who have the water)
<u>vasémvura</u>	(they who have the water)

¹

In two cases non-syllabic gender concord tone is passed to the next syllable. See pages 88 to 90.

MR 18 (c) /gc/ = /gc/ (toneless) in all cases where the gender concord is non-syllabic, unless MR 20 applies.

By morphophonemic rules 1, 2, 3, 4, 10 and 11B above most gender concord morphemes are phonemically realised without vowels. Class 5 [i-] and class 9 [u-] are also always phonemically realised without vowels (MR 14 and MR 15 respectively). Examples are given under these morphophonemic rules, pages 55 to 64 above.

MR 19

- /gc/ = /gc/ (a) | __ selector stems
- (b) | __ in principal, positive forms of verbal and associative phrase inflections, when gc is III
- (c) | {ha-} __ (i.e. in principal negatives inflections)
- (d) | __ in participial forms of verbal and associative phrase inflections, positive and negative, excluding the present participial positive verbal inflection
- (e) | __ subjunctive verbal inflection, following verbs of wishing, waiting, etc.
- (f) | L __ verb root (i.e. object concords, showing polarity with the preceding tone).

$$(g) /-ngu/ = /-ngu/ \left\{ \begin{array}{l} \{na-} \\ \{aa-} \\ gc-\{a-} \\ \{oop} \end{array} \right\} gc-\{a-} \text{ ---}$$

Examples

MR 19 (a)

/gc/ = /gc/ | __ selector stems

	"this"	"that"	"which"
1	ino	nye	ipi
5	xino	xnye	xipi
9	xyino	xynye	xyipi

MR 19 (b)

/gɔ/ = /gɛ/ | __ in principal, positive forms of verbal and associative phrase inflections, when the gender concord is III.

<u>ɣári</u> kudyá	(they are eating)
<u>ɣánodyá</u>	(they eat)
<u>avíchadyá</u>	(they will eat)
<u>avíngátárise</u>	(they may look)
<u>ángábvúnza</u>	(he may ask)
<u>ɣánevúrá</u>	(they have some water)

MR 19 (c)

/gɔ/ = /gɛ/ | {ha-} __ (i.e. in principal negative verbal and associative phrase inflections).

<u>hándíye</u>	(I do not eat)
<u>haváde</u>	(they do not eat)
<u>hamúcaténga</u>	(you will not buy)
<u>haváná kúbvunza</u>	(they didn't ask)
<u>havíngátárise</u>	(they may not look)
<u>hakúná kudyá</u>	(there is no food)
<u>handína mvúrá</u>	(I don't have any water)

MR 19 (d)

/gɔ/ = /gɛ/ | __ in participial forms of verbal and associative phrase inflections, positive and negative, excluding the present participial positive verbal inflection.

kana <u>náínevúrá</u>	(if I have water)
kana <u>vásíná mvúrá</u>	(if they do not have water)
kana <u>tíngáténga</u>	(if we do not buy)
kana <u>tíchadyá</u>	(if we will eat)
kana <u>músiná kúbvunza</u>	(if you didn't ask)
kana <u>vásirí kúbvunza</u>	(if they are not eating)
kana <u>úngábvúnzá</u>	(if you may not ask)

MR 19 (e)

/go/ = /gɔ/ | — in the subjunctive verbal inflection,
following verbs of wishing, wanting, etc.

ndinóá kúti <u>á</u> yé	(I want you to eat)
ndinóá kúti <u>á</u> téngé	(I want them to buy)
ndinóá kúti <u>á</u> nábvúnzá	(I want you not to ask)

MR 19 (f) (Cf. MR 17 (h) above, page 85)

/go/ = /gɔ/ | L — verb root (i.e. object concords,
showing polarity with the preceding
tone).¹

kumúbvúnza	(to ask him)
ndamúda	(I liked him)
tamúona	(we saw him)
tacítárisa	(we looked at it)
ákaúfá	(he liked it)
kumúwéka	(to laugh at him)

MR 19 (g)

/ngu/ = /ngɔ/ | { {na-}
 {sa-}
 go-[a-]
 [cop] } go-[a-] —

nédzangú	(with mine)
náhédzangú	(it is mine)
wédzangú	(mine's)
cf. dzángú	(mine)

¹ All the examples in my corpus conform to this rule (and rule 17 (h) above), but every verb inflection, principal, participial, and relative, positive and negative, is not represented. Further investigation is required here, but as polarity rules apply to several verbal morphemes, the object concord appears to conform to the general pattern.

3.1.5. Gender Concord Tone Passing

In two cases the tone of gender concord is realised non-syllabically: it is passed to the first vowel of the immediately following vowel-commencing morpheme.¹ The tone-passing rules applied in these cases are ordered in relation to morphophonemic rules 1, 2, 3, 4, 10, 17, 18, 19, and 21.

Noun Prefixes

The L gender concord tone in substantival noun forms (by MR 17(a)), and the H gender concord tone in predicative (copulative) noun forms (by MR's 27(c) below, and 18(a) above), are passed to the first vowel of non-deverbal vowel-commencing stems in all those cases, other than classes 5 and 9, where the noun prefix is realised non-syllabically.²

$$\text{MR 20A} \quad \left[\begin{array}{c} /g\phi/ \\ /g\phi/ \end{array} \right] + \text{V} \rightarrow \text{go (toneless)} + \left[\begin{array}{c} \text{V} \\ \text{V} \end{array} \right]$$

Rule 20A follows rules 17(a), 27(c), and 18(a), and precedes rules 1, 2, 4, and 21. The following is an illustration of the rule ordering involved:-

- 1 Non-syllabic realisation is due to restrictions on vowel-co-occurrence at morpheme boundaries. This is covered by morphophonemic rules 1, 2, 3, 4, and 10 above.
- 2 There are two cases where noun prefixes are not realised non-syllabically before non-deverbal vowel-commencing noun stems. See MR's 1A and 2A. As the prefixes in these cases are syllabic, no tone passing occurs.

vaeni	(strangers)	váeni	(they are strangers)
ruókó	(arm)	rúoko	(it is an arm)
maókó	(arms)	máoko	(they are arms)

/mu-ana/	17(a)	18(a)	27(b)
	=	mu-ana	ma-ana
		20A	20A
		mu-ana	mu-ana
		4	4
		mw-ana	mw-ana
	(child)		21
			mw-ana
			(it is a child)

Examples

Substantive

Predicative

"It is a / they are ..."

vané	(owners)	vane
vaná	(children)	vana
otó	(fireplace)	oto
zvango	(walls)	zvango
vaní	(small child)	vana
otó	(large fireplace)	oto
rwizi	(river)	rwizi
rwana	(thir child)	rwana
twana	(small children)	twana
hwahwa	(beer)	hwahwa
mwana	(child)	mwana
mwedzi	(moon)	mwedzi
awoyó	(heart)	awoyo
mwando	(breeses)	mwando

Subject Prefixes

When subject prefixes (in verbal inflections) are followed by the past morpheme [-a-] they are realised non-syllabically, and their tone, whether H or L (by MR's 17, 18 and 45, or 19), is passed to [-a-].

Principal I, II	go-a-
Principal III	go-a-
Relative	go-a-
Participial	go-a-

MR 20B

$$\begin{bmatrix} /g\phi/ \\ /g\phi/ \end{bmatrix} + /-a-/ \Rightarrow g\phi \text{ (toneless)} + \begin{bmatrix} /-a-/ \\ /-a-/ \end{bmatrix}$$

Rule 20B follows rules 17(c), 18(b) and 45, or 19(b), 19(c), and 19(d). It precedes rules 1, 2, 3, and 10. The following illustrate the rule ordering involved:-

/ndi-a-dya/	/va-a-dya/
§ 17(c)	§ 19(b)
ndi-a-dya	va-a-dya
§ 20B	§ 20B
ndi-a-dya	va-a-dya
§ 1	§ 1
nd -a-dya	v -a-dya
§	§
ndädya ¹	vädya ¹
(I ate)	(they ate)

Examples

ndäidyä	(I used to eat)
vädya	(they used to eat)
vädya	(they who used to eat)
ndäisadyä	(I who didn't used to eat)
haväténgä	(they didn't used to buy)
kana ndäisaténgä	(if I didn't used to buy)
ndäkadyä	(I ate)
väkadyä	(they ate)
väkadyä	(they who ate)
kana ndäkadyä	(if I ate)
täténga	(we bought)
väténga	(they bought)
väténgä	(they who bought)
kana ndäténga	(if I bought)

¹ Verb stem tone changes in the complex tone morpheme replacements in the va- conjugational forms. This is discussed in § 3.4. below.

3.2. INFLECTED NUCLEUS TONE RULE

In adverbial, possessive, copulative, and "ownership" phrase inflections¹ the first word of the inflected phrase is in many cases tonally perturbed.² The same tone changes take place in noun stems following the class 2a prefix {vâ-}. Certain sequences of tones are morphophonemically changed, irrespective of the status or morphemic assignment of the individual tones.

Such a situation is one which in principle cannot be handled in allomorphic terms as the changes take place across morphological boundaries. As the term "morphophonemics" is used in this work to refer to the rules covering the relationship of the phonological and morphological strata, rather than only the mapping of morphemes into phonemic sequences, cases such as this are properly covered by the term.

The morphophonemic changes are as follows:-

- (a) The first L in a sequence of L's (a sequence being one or an uninterrupted succession of two or more) is changed to H. In the case of inflections of class 1a nouns (i.e. prefix + 1a noun), the first two L's of a three-L sequence are changed to H's if the 1a noun

¹ The morphemes {na-} and {sa-} (adverbial), go-[-a-] (possessive), {cop} (copulative), and {sâ-}, {mu-xvi-nâ-}, {va-xvi-nâ-} ("ownership") are prefixed to phrases. Several different kinds of phrases may be so inflected, and these are described in §§ 4.3.2. to 4.3.7. below. The inflectional prefixes are themselves subject to segmental and tonal morphophonemic rules. These rules are treated in §§ 3.3.1. to 3.3.3. below. The details of application of the three morphophonemic rules involved in phrase inflections (the nucleus tone rule, and inflectional prefix segmental and tone rules) vary somewhat with each type of inflection and the form being inflected. The situation is fairly complex and does not permit of overall generalisation.

² The inflected phrase is in every case the nucleus of the construction (adverbial phrase, possessive phrase, etc.), hence the term "inflected nucleus tone rule."

includes a syllabic gender concord of some other class or, in some cases, a syllabic prefixal stem formative.

(b) A single H or an unbroken sequence of H's is changed to low.

These changes are expressed in the following rules:-

MR 21

$$\begin{bmatrix} L(L_n)... \\ H_n... \end{bmatrix} \Rightarrow \begin{bmatrix} H(L_n)... \\ L_n... \end{bmatrix}^1 \left\{ \begin{array}{l} \{v\dot{a}-\} \\ \{ns-\} \\ \{sa-\} \\ go[-a-] \\ \{oop\} \\ \{sd-\} \\ \{na-zvi-na-\} \\ \{va-zvi-na-\} \end{array} \right\} -$$

MR 21A

LLL $\Rightarrow$ HHL | prefix - la noun with syllabic prefix

In detail, the changes are the following:-

L	$\Rightarrow$	H
LL...	$\Rightarrow$	HL...
LLL...	$\Rightarrow$	HLL...
		HHL... (inflected la nouns with extra syllabic prefix)
LLH...	$\Rightarrow$	HLH...
H	$\Rightarrow$	L
HH	$\Rightarrow$	LL
HL...	$\Rightarrow$	LL...
HHH	$\Rightarrow$	LLL
HHL...	$\Rightarrow$	LLL...
HLL...	$\Rightarrow$	LLL...
HLH...	$\Rightarrow$	LLH...

¹ Ellipses indicate that following tones, if any, are not affected.

Exemplification of these changes is given below. Tone sequences other than those listed are not affected. In particular, LH... remains LH...

In the case of the copulative inflection, the copulative morpheme is in some cases realised segmentally as a prefix, in other cases as a H tone which replaces the L of the gender concord of the inflected word. In either case, when the above rule applies, the tone sequences immediately following the realisation of the copulative morpheme are affected. The following examples illustrate the change $LL = HL$ following different phonemic realisations of the copulative morpheme.

<u>ishóma</u>	(they are a few)
shoma	(a few)
<u>cigáro</u>	(it is a chair)
cigaro	(a chair)
<u>ndhíámbo</u>	(he is a chief)
mambo	(a chief)
<u>ndheúyu</u>	(it is this one)
nyu	(this one)

Class 2a Nouns -- Examples

váGó / váIgo	(Mr Igo)	L(L) = H(L)
cf. Igo	(name: Igo)	
vámambo	(chiefs)	LL = HL
cf. mambo	(chief)	
váNyákuti	(Mr So-and-so)	LL = HLL
cf. Nyakuti	(So-and-so)	
váCigáro	(Mr Cigaro)	LLL = HHL ¹
cf. Cigaro	(name: Cigaro)	

¹ /oi/ in the class 7 gender concord and MR 21a is therefore applied.

<u>váFungisáyi</u>			LLH → HLH
cf. Fungisáyi	(name: Fungisayi)		
<u>váshá</u>	(chiefs)	H → L	
cf. ishó	(chief)		
<u>vákóndó</u>	(hammer-head birds)	HH → LL	
cf. kóndó	(hammer-head bird)		
<u>vátenzi</u>	(owners)	HL → LL	
cf. téenzi	(owner)		
<u>váGaranga</u>	(Mr Garanga)	HH → LLL	
cf. Gárángá	(name: Garanga)		
<u>váakuru</u>	(grandfathers)	HH → LLL	
cf. ákúru	(grandfather)		
<u>váévanjé</u>	(first-born)	HL → LHL	
cf. névanjé	(first-born)		
<u>vábábá</u>	(fathers)	LL	
cf. babé	(father)		

Phrase Inflections

The inflected nucleus tone rule (MR 21 and 21A) is only applied to certain forms immediately following the various phrase inflection morphemes. The forms affected are all nominal constructions of word, phrase, and clause types. In the latter two the rule is applied to the first phonological word of the phrase or clause. However, not all nominal constructions are subject to the inflected nucleus tone rule. Some nominal forms are only subject to the rule in certain inflections and not in others, and some nominal constructions (such as classes 2a and 2b nouns, selectors, possessive phrases, and relative phrases¹) are not subject to the rule at all. The forms subject to the inflected nucleus tone rule are indicated in the table below.

¹ This is a nominalised verbal construction, in transformational terms a "relativised sentence."

Table 5

Forms Subject to Inflected Nucleus Tone Rule

	Inflection		
	Adverbial	Possessive	Copulative
Nouns, class 1a	No	Yes	Yes
Nouns other than 1a, 2a, 2b	Yes	Yes	Yes
Adjectives	Yes	Yes	Yes
Enumeratives	Yes	Yes	Yes
Demonstratives	Yes	Yes	Yes
Pronouns I, II	No	No	No ¹
III	Yes ²	Yes ³	No
Relative Phrases	Yes	Yes	Yes ⁴
"Ownership" Phrases			
{nyā-}	No	Yes	No
{mu-zvi-na-}	No	No	Yes
{va-zvi-na-}	No	No	Yes
Definitive Phrases	Yes	Yes	Yes

In the "ownership" inflection, {nyā-}, {iā-}, {mu-zvi-na-}, and {va-zvi-na-} are restricted to substantive phrases having nouns as nucleus. Here too, the nucleus tone rule applies to the sequence of nucleus tones immediately following the "ownership" inflecting morphemes, with the exception of {nyā-}.

- L NH
- 1 But for first and second persons LH = HL. See MR 16, page 76.
 - 2 Only forms without {i-}.
 - 3 Only classes 4 and 2 without {i-}, viz. /-ya/ and /-vo/ respectively.
 - 4 In this case {cop} = /ndha-/ or H. MR 21 applies only when {cop} = H, and this necessitates ordering the copulative morpheme morphophonemic rules (MR's 24 and 27) before MR 21.

The contexts in which the inflected nucleus tone rule operates may be fully specified in the rule, as follows:

MR 21

Let X represent the adverbial, possessive, and copulative morphemes,

$$\begin{bmatrix} L(L_n \dots) \\ L_n \dots \end{bmatrix} = \begin{bmatrix} H(L_n \dots) \\ L_n \dots \end{bmatrix} \quad (a) \quad \left\{ X \begin{bmatrix} \text{NOUNS, other than 1a, 2a, 2b} \\ \text{adjectives} \\ \text{numeralizers} \\ \text{demonstratives} \\ \text{locative phrases} \\ \text{infinitive phrases} \end{bmatrix} \right\}$$

$$(d) \quad \left\{ X \begin{bmatrix} \{va-\} \\ \text{go-}\{-a-\} \\ \{\text{cop}\} \end{bmatrix} \right\} \quad \text{NOUNS of class 1a}$$

$$(e) \quad \left\{ X \begin{bmatrix} \{na-\} \\ \{sa-\} \end{bmatrix} \right\} \quad \text{pronouns III, without \{i-\}}$$

$$(d) \quad \left\{ X \text{ go-}\{-a-\} \right\} \quad \begin{matrix} 1,2 \text{ pronouns, without \{i-\} \\ "ownership" phrases with} \\ \{\text{ya-}\} \end{matrix}$$

$$(e) \quad \left\{ X \text{ \{cop\} } \right\} \quad \begin{matrix} \text{"ownership" phrase with} \\ \{\text{mu-xvi-na-}\}, \{\text{va-xvi-na-}\} \end{matrix}$$

$$(f) \quad \left\{ X \begin{bmatrix} \{sa-\} \\ \{\text{mu-xvi-na-}\} \\ \{\text{va-xvi-na-}\} \end{bmatrix} \right\} \quad \text{NOUNS}$$

MR 21a $LLL \rightarrow HLL$ { prefix - 1a noun with syllabic prefix

Examples -- Class 1a Nouns

Possessive

rángáto

í. mambo

yáshé

af. íshé

(the chief's)

(chief)

(the chief's)

(chief)

LL → HL

H → L

<u>wācigaro</u>	(Oigaro's)	LLL = HLL ¹
cf. Oigaro	(Oigaro)	
<u>rātayara</u>	(father-in-law's)	HLL = LLL
cf. tāyāra	(father-in-law)	
<u>rābābā</u>	(father's)	LL
cf. bābā	(father)	

Copulative

<u>ndhīmāng</u>	(it is the chief)	LL = HL
cf. māmbō	(chief)	
<u>ndhīhē</u>	(it is the chief)	H = L
cf. īshē	(chief)	
<u>ndhīcigaro</u>	(it is Oigaro)	LLL = HLL ¹
cf. Oigaro	(Oigaro)	
<u>ndhītēsi</u>	(it is the owner)	HL = LL
cf. tēsi	(owner)	

Nouns other than 1a, 2a, 2bAdverbial

<u>sēādzā</u>	(like sadza)	LL = HL
cf. sadza	(sadza (stiff porridge))	
<u>neōigaro</u>	(with a chair)	LLL = HLL
cf. oigaro	(chair)	
<u>nēshamwari</u>	(with a friend)	HLH = LLH
cf. shāmwarī	(friend)	
<u>nēbāngā</u>	(a knife also)	HL = LL
cf. bāngā	(knife)	
<u>nēzai</u>	(an egg also)	HL = LL
cf. zai	(egg)	

¹ MR 21a, as the stem includes the class 7 gender concord [ci-].

cf. <u>nyá hémuti</u>	(oring the medicine)	LM
muti	(medicine)	

Possessive

cf. <u>vaná vanápeni</u>	(the baboons' young)	LLL = HLL
mapfeni	(baboons)	
cf. <u>dámá dsevánhu</u>	(people's houses)	LL = HL
vanhu	(people)	
cf. <u>masái éhuku</u>	(the fowl's eggs)	HR = LL
húké	(fowl)	
cf. <u>muswé wésúmbe</u>	(the lion's tail)	HL = LL
shúmbe	(lion)	

Copulative

cf. <u>isáda</u>	(it is sadza)	LL = HL
sadza	(sadza)	
cf. <u>imbwa</u>	(it is a dog)	B = L
imbwa	(a dog)	
cf. <u>mwana¹</u>	(it is a child)	H = L
mwana	(a child)	
cf. <u>ibanga</u>	(it is a knife)	HR = LL
banga	(knife)	
cf. <u>múrwu</u>	(he is a man)	HR = LL
murúwé	(man)	
cf. <u>musikaná</u>	(she is a girl)	HLR = HLR
musikaná	(girl)	
cf. <u>múmbire</u>	(he is an Mbire)	HL = LL
múmbire	(an Mbire)	

¹ Although the stem is /-ana/ the gender concord tone (in this case [cop] H) is passed to the first vowel of the stem. See MR 204, page 88.

AdjectivesAdverbial

sezvishoma	(like the few)	LLL → HLL
cf. zvisshoma	(a few)	
nshuru	(with a big one)	HH = LL
cf. hūrd	(a big one)	
nshukūrd	(with a big one)	LHH
cf. mukūrd		

Possessive

mhuru dzénhahatū	(the calves of the six (cattle))	HLH → LLH
cf. nhāhatū	(six)	
muswé wéguru	(the big one's tail)	HH = LL
cf. gūrd	(big one)	
mwana wamukūrd	(the child of the big one)	LHH
cf. mukūrd	(big one)	

Copulative

ishōma	(they are a few)	LL = HL
cf. shoma	(a few)	
mūkuru	(he is big)	HH = LL
cf. mukūrd	(big)	
iguru	(it is a big one)	HH = LL
cf. gūrd	(a big one)	

EnumerativesAdverbial

dyā nemūwa	(bring another one)	LL = HL
cf. mumwa	(another one)	

tyá némuwé (bring the same one) LL → HL
 cf. muwé (the same one)

Possessive

dzimá dzéwáwé (the others' houses) LL → HL
 cf. yawé (others)

dzimá dzéwáwé (the same ones' houses) LL → HL

Copulative

muwé (he is another one) L → H
 cf. muwé (another one)

muwé (he is the same one) H → L
 cf. muwé (the same one)

DemonstrativeAdverbial

úyá néyó (bring that one) LL → HL
 cf. uyó (that one)

séurwú rwáké (like this one of his) LL → HL
 cf. urwú (this one)

Possessive

nwará wéyú (this one's child) LL → HL
 cf. uyú (this one)

mabúku sáyó (their books) LL → HL
 cf. ayó (them, those)

Copulative

ndhéyú (it is this one) LL → HL
 cf. uyú (this one)

Pronouns (III only, without {i-})Adverbial

navó vóés	(with them all)	L = H
cf. ívo	(then)	
cf. naívo	(with them all)	
nayé	(he too)	L = H
cf. íye	(him)	
cf. naíye	(he too)	
saré gdrá rángu	(like my big one)	L = H
cf. íro	(it)	
cf. saíro	(like it)	

Possessive (classes 1 and 2 only)

bhúku rayé	(his book)	L = H
cf. íye	(him)	
cf. bhúku raíye	(his book)	
unwé hwáwó	(their unity)	L = H
cf. ívo		
cf. dangá rádzó	(their kraal)	
cf. dangá raídzó	(their kraal)	

Locative PhraseAdverbial

nekúmushá úye	(through that village)	LH = HLH
cf. kumushá úye	(to that village)	
nemúmushá	(through the middle of the village)	LH = HLH
cf. mumushá	(in the middle of the village)	

Possessive

vaná vekúmushá	(the children of the village)	LH = HLH
----------------	----------------------------------	----------

Copulative (only when [cop] = H)

pávān <u>hu</u>	(it is where the people are)	LL = HL
of. pavan <u>hu</u>	(where the people are)	
pāmushá wáké	(it is his headquarters)	LL
of. mushá wáké	(his headquarters)	
of. nāhōpamushá wáké	(it is his headquarters)	

"Ownership" PhrasesPossessive (only with the morpheme {nya-})

imbá yányānukā <u>dzi</u> wáké	(the dog of him and his wife)
of. nyamukā <u>dzi</u> wáké	(he and his wife)
imbá yányānuzvínā <u>hwahwá</u>	(the house of the owners of the beer)
of. nyamuzvínā <u>hwahwá</u>	(the owner of the beer)
imbá yāvazvínā <u>hwahwá</u> uh <u>wu</u>	(the house of the owners of the beer)

Copulative (only with {wu-zvi-na-} and {va-zvi-na-})

vāzvínā <u>hwahwá</u>	(they are the owners of the beer)
of. vazvínā <u>hwahwá</u>	(the owners of the beer)
of. nāhīsányika	(he is the one in charge of the country)
of. sānyika	(the one in charge of the country)

Infinitive PhrasesAdverbial

sek <u>icera</u> gombá	(like digging a hole)
of. kucera gombá	(digging a hole)
nēkutémá muti	(by cutting a tree)
of. kutémá muti	(to cut a tree)

Possessive

mapadzá ekú o era gombá	(hoes to dig the hole with)
cf. kucera	(to dig)
dámó rékútémá mutí	(an axe to cut the tree with)
kutémá	(to cut)

Copulative

kúdyá kwakánáki	(it is good food)
cf. kudyá kwakánáka	(good food)
kúog o ra gombá	(it is digging a hole)
cf. kucera gombá	(to dig a hole)

Nouns

"Ownership" (with [sá-], {mu-zvi-na-}, {va-zvi-na-})

Here only the first part of MR 21 generally applies, viz.:

$$L(L_1 \dots) \Rightarrow H(L_1 \dots)$$

sáwaci iyi	(the owner of this watch)
cf. waci	(watch)
sányika iyo	(the owner of that land)
cf. nyika	(land)
muzvináwinda mukuru	(the owner of a big field)
cf. munda	(field)
muzvináhwahwá	(the owner of the beer)
cf. hwahwá	(beer)
muzvináhwéva	(the accused in a repeated case)
cf. mhóva	(case)
vazvinábhóra	(football players)
cf. bhóra	(football)

In all phrase inflections of forms other than those specified in Table 5 on page 95, the inflected nucleus tone rule does not apply. These cases are indicated in the table below.

Table 6

Forms Not Subject to Inflected Nucleus Tone Rule

	Inflection		
	Adverbial	Possessive	Copulative
Class 1a nouns	No		
Classes 2a, 2b nouns	No	No	No
Selectors	No	No	No
Pronouns I, II	No	No	No ¹
III with {i-}	No	No	No
Pronouns (Poss. nucleus)		No	
Locative Phrases			No ²
Possessive Phrases	No	No	No
Relative Verbal Phrases	No	No	No
Relative Associative Phrases	No	No	No
Participial Phrases		No	
"Ownership" Phrases			
{nyá-}	No		No
{sá-}	No	No	No
{mu-ví-na-}	No	No	
{vá-zví-na-}	No	No	

Examples -- Class 1a Nouns

Adv.	nashé	(with the chief)
cf.	i h́é	(the chief)
	samambo	(like a chief)
cf.	nambo	(chief)

¹ But for pronouns I, II LL = HL. See MR 16, page 76.

² Only when {cop} = /ndh́é-/.

Classes 2a, 2b Nouns

Adv.	avámámbo	(like the chiefs)
Poss.	matere avámámbo	(the chiefs' courts)
Cop.	ndhavámámbo	(it is the chiefs)
	cf. vámámbo	2a (chiefs)
Adv.	dváváshu	(with the chiefs)
Poss.	monbe dváváshu	(the chiefs' cattle)
Cop.	ndhaváshu	(it is the chiefs)
	cf. váváshu	2a (the chiefs)
Adv.	naambúya	(with grandmother)
Poss.	durí naambúya	(grandmother's mother)
Cop.	ndhaambúya	(it is grandmother)
	cf. ambúya	2b (grandmother)

Selectors

Adv.	nedúno	(with this one)
Poss.	mwané wedúno	(this one's child)
Cop.	ndhedúno	(it is this one)
	cf. únó	(this one)
Adv.	secipi	(like which one?)
Poss.	imbá yecipi	(the house of which one?)
Cop.	ndheecipi	(which one is it?)
	cf. cipi	(which one?)

Pronouns I, II

Adverbial Possessive Copulative¹
 "with me/you/.." "of me/you/.." "it is me/you/.."

Ia	není	cení	ndhíní	cf. iní
Ip	nesú	cesú	ndhínsú	cf. isú
Ila	newé	cewé	ndhíwé	cf. iwé
IIP	není	cení	ndhíní	cf. iní

¹ In the copulative inflection of these forms LH = HR
 by MR 16, page 76.

Pronouns III with [i-] (cf. page 101)

Adv.	naivo	(with them)
Poss.	oaiwo	(theirs')
Cop.	naiwo	(it is them)
	of. aiwo	(them)

Pronouns - Possessive Nucleus (20. series d)

Poss.	Is	oangu	/ci-a-ngu/	(mine)
	Ip	oedu ¹	/ci-a-idu/	(ours)
	Iis	oaki	/ci-a-ki/	(yours)
	Iip	oeny ¹	/ci-a-iny/	(yours)

Locative Phrases (when [cop] = /ndi-/)

Cop.	ndhepamusha waki mukiri	(it is his headquarters)
of.	pamusha waki mukiri	(at his big village)

Possessive Phrases²

Adv.	newaamai	(with mother's)
Cop.	ndhewaamai	(it is mother's)
	of. waamai	(mother's)

Adv.	necomumwe	(with another's)
Cop.	ndhecomumwe	(it is another's)
	of. comumwe	(another's)

Poss.	cewumwe	(the one of another's)
	of. wumwe	(another's)

Relative verbal Phrases

Adv.	neanoshanda kwazo	(with the one who works hard)
Poss.	musha weanoshanda kwazo	(the village of the one who works hard)

¹ In these forms there is coalescence: /a + i/ = /e/. This is covered by MR 28, § 3.3.5.

² See also, however, the slightly amended form of MR 21, page 115, and the examples on page 116.

Op.	ndhéanoshándá kwázvo	(it is he who works hard)
cf.	anoshándá kwázvo	(he who works hard)

Relative Associative Phrases

Adv.	néanóimbá húrú	(with the one who has a big house)
Poss.	mwaná wéanóimbá húrú	(the child of the one who has a big house)
Op.	ndhéanóimbá húrú	(it is the one who has a big house)
cf.	anóimbá húrú	(he who has a big house)

Participial Phrases

Poss.	mwaná wavánodá	(the child whom they like)
	mombe dzavákádrayá	(the cattle which they killed)
	vákádzí vavácaróórá	(the women they will marry)

"Ownership" Phrases

Adv.	nasáwaci iyi	(and the owner of this watch)
cf.	sáwaci iyi	(the owner of this watch)
	nanyamukádzí wáké	(with him and his wife)
cf.	nyamukádzí wáké	(he and his wife)
	sémusvínáhwahwá	(like the owner of the beer)
cf.	musvínáhwahwá	(the owner of the beer)
Poss.	imbá yánáwaci ¹	(the dog of the watch's owner)
cf.	sáwaci ¹	(the owner of the watch)
	imbá yávasvínáhwahwá	(the house of the beer's owners)
cf.	vasvínáhwahwá	(the owners of the beer)
Op.	ndhisáwaci iyi	(it is the owner of this watch)
cf.	sáwaci iyi	(the owner of this watch)
	ndhinyabbúku iri	(it is the owner of this book)
cf.	nyabbúku iri	(the owner of this book)

¹ There is some dialectal variation in the tones of these forms.

3.3. MORPHEMES IN /..a/

Five phrase-inflecting morphemes are characterised by the same segmental and tonal morphophonemic rules for at least certain common environments. These morphemes are:-

Adverbial	{na-}	(with, and, also)
	{sa-}	(like)
Possessive	{-a-}	(of)
Copulative	{Cop}	-- only certain phonemic realisations
Presentative	{ha-}	

3.3.1. Segmental Assimilation

The five above morphemes in some cases show regressive vowel assimilation in frontness or backness to the vowel of an immediately following gender concord.¹ The morphophonemic base forms of these morphemes are most conveniently the following:-

{na-}	/na-/
{sa-}	/sa-/
{-a-}	/-a-/
{ha-}	/ha-/
{Cop}	/ndha-/ ²

¹ The assimilations are:-

a	→	o		__	u
a	→	a		__	a
a	→	e		__	i

These morphophonemic alternations provide part of the reason for recognising a 3 x 2 vowel system rather than the customary 5 x 3.

	i	u		i	e	o	u
	e	a	o		a		

If the 5 x 3 interpretation is adopted, these assimilations are in both front-backness and height.

² The copulative morpheme also has other realisations which are quite diverse phonemically, viz. /ndhi-/ , /i-/ and h (replacive tone on the gender concord). These are treated in § 3.3.4.3. The base form /ndha-/ only covers those phonemic realisations of {Cop} which, in common with the other four morphemes indicated above, show regressive vowel assimilation.

The base forms of these morphemes may all be generalised as /(C)a-/, and the regressive assimilation rule which applies to them is the following:-

MR 22

- /(C)a-/ → /(C)o-/ | __ gender concords with /u/, as a free variant to /(C)e-/
- = /(C)a-/ | __ gender concords with /a/, as a free variant to /(C)e-/
- = /(C)a-/ (a) | __ gender concords with /i/
 (b) | __ class 5 {i-} and class 9 {u-}
 (c) as a free variant to /(C)o-/ and /(C)a-/ in the environments indicated for these.

This morphophonemic rule applies in the inflections indicated in the table below.

Table 7

Inflecting Affixes -- Regressive Vowel Assimilation

	Inflection			
	Adverbial /na-/sa-/	Possessive /-a-/	Copulative /ndha-/	Presentative /ha-/
Nouns other than 1a, 2a, 2b	Yes	Yes	No ¹	--
Adjectives	Yes	Yes	No ¹	--
Enumeratives	Yes	Yes	No ¹	--
Demonstratives	Yes	Yes	Yes	--
Selectors	Yes	Yes	Yes	Yes
Locative Phrases	Yes	Yes	No	--
Infinitive Phrases	Yes	Yes	No ¹	--

¹ The form of the copulative morpheme does not show assimilation in these cases.

In addition to MR 22, most of the above cases are subject to the inflected nucleus tone rule (MR 21) and a total dissimilation rule (MR 23 below).

Nouns other than 1a, 2a, 2b 1

Adverbial

<u>nómufi mukúfi</u>	
<u>sémufi mukúfi</u>	(like a big tree)
<u>nómwaná wángu</u>	
<u>némwaná wángu</u>	(with my child)
<u>námazwi áwó</u>	
<u>némazwi áwó</u>	(by means of their words)
<u>némvura iyo</u>	(with that water)
<u>sésáza rángu</u>	(like my sadza)
<u>neogigaro</u>	(a chair also)

Possessive

<u>vaná vamápfeni</u>	
<u>vaná vamápfeni</u>	(the baboons' young)
<u>mutauri wóruurufi urwu</u>	
<u>mutauri wóruurufi urwu</u>	(the speaker of this tongue)
<u>manyérenyété ghari yáké</u>	(the patterns of her pot)

¹ Fortune, op. cit., pages 23 and 24 (inter alia), treats these and certain other cases as involving coalescence of /a/ with a "latent initial vowel." Other similar cases are described as involving assimilation, in much the same way as my treatment. In view of these clear cases of assimilation, and despite certain apparent similarities with Nguni, the postulation of latent initial vowels in all forms but 1p and 1ip pronoun replacements is uneconomic and unjustifiable. The effect of this treatment is to increase morphophonemic complexity by a new kind of rule: gender concord of all classes have vowel-commencing allomorphs which occur in the adverbial and possessive inflections of certain forms only.

AdjectivesAdverbial

naváshoma vakúrd
 neváshoma vakúrd (with a few big ones)
 sáokúrd cáké. (like his big one)

Possessive

mutauri wúrurimi urwu
 mutauri wúrurimi urwu (the speaker of this tongue)
 mhurú dānhanhatú idzo (the calves of those six)

EnumerativesAdverbial

úyá neciwé (bring another one)
 úyá nómumwé
 úyá námumwé (bring the same one)

Possessive

mwené wamánwé óga
 mwené wamánwé óga (the owner of the other ones
 only)
 dzimbé dzómumwé
 dzimbé dzómumwé (the same one's houses)

DemonstrativesAdverbial

sáávo vadíki
 sáávo vadíki (like those small ones)
 nóyú mukúrd
 nóyú mukúrd (with this big one)
 náici cimwé (by means of this one only)

Possessive

mabhúku sávo vadíki
 mabhúku sávo vadíki (the books of those small ones)

mwana wgyu mukura (the child of this big one)
 mwana wgyu mukura

oigaro oigiri rimwe (the chair of this one only)

Copulative

ndhegyu mukura (it is this big one)
 ndhegyu mukura

ndhaavo (it is those)
 ndhaavo

ndhefisi cinwe (it is this one only)
 ndhefisi cinwe

Selectors

Adverbial

nouno (with this one right here)
 nouno

tya navaye (bring those yonder)
 tya navaye

seciye cinwe (like that same one)
 seciye cinwe

Possessive

mwana wupi (the child of which one?)
 mwana wupi

mabhuku gavye (their books)
 mabhuku gavye

Copulative

ndheuno mukura (it is this big one)
 ndheuno mukura

ndhevano vadiki (it is these small ones here)
 ndhevano vadiki

ndheciye (it is that one over there)
 ndheciye

Presentative

hóhwáno hwahwá	
hóhwáno hwahwá	(here is the bear)
héváye vadiki	
héváye vadiki	(there are the small ones)
hédzínó dzákó	
hédzínó dzákó	(here are yours)

Locative PhrasesAdverbial

nomúoitóro óáké	
nomúoitóro óáké	(through his store)

Possessive

vaná vókúmushá dýe	
vaná vókúmushá dýe	(the children of that village)

Infinitive PhrasesAdverbial

sokúcera gombá	
sokúcera gombá	(like digging a hole)
nókudyá sádza	
nókudyá sádza	(and to eat sádza)

Possessive

démó rókutémá mutí	
démó rókutémá mutí	(an axe to cut the trees with)
mapadzá okúcera gombá	
mapadzá okúcera gombá	(hoes to dig the hole with)

3.3.2. Tonal Dissimilation

The regressive vowel assimilation of morphemes having morphophonemic base forms / (c) a - / (§ 3.3.1. above) is accompanied in all forms but the presentative [ha-] by

simultaneous tonal dissimilation with the immediately following tone. Where the inflected nucleus tone rule applies (MR 21, § 3.2. above), this tone dissimilation rule applies after the nucleus tone rule. The inflecting prefixes /-(C)a-/ therefore show tonal polarity with the first perturbed tone of the nucleus, if the nucleus is subject to perturbation by MR 21. The tone dissimilation rule may be expressed concisely as follows:-

MR 23

$$/-(C)a-/ \rightarrow \begin{matrix} -H \\ /-(C)a-/ \end{matrix} \quad \begin{matrix} +H \\ \end{matrix}$$

Where: +H represents H tone
 -H represents L tone
 = represents either + or -
 - +H represents L tone
 - -H represents H tone

And where the two =s in the rule have the same value.

By this rule: /-(C)a-/ H... $\rightarrow$ /-(C)a-/ H...
 /-(C)a-/ L... $\rightarrow$ /-(C)a-/ L...

Examples illustrating the vowel assimilation rule in § 3.3.1. above (pages 110 to 113) also illustrate this rule. Where the adverbial, possessive, copulative, and presentative morphemes have tones other than those accounted for by MR 23, these tonal realisations are accounted for (together with their segmental realisations) by MR's 24 to 27 below.

3.3.3. Other Morphophonemics

The adverbial, possessive, copulative, and presentative morphemes, in addition to their similar segmental and tonal realisations treated in § 3.3.1. and 3.3.2. above, have certain other similar phonemic realisations in some environments. These are accounted for by certain common morphophonemic rules below, but overall contextual generalisation for these rules is not possible.

3.3.3.1. In the adverbial, possessive, and copulative inflections of possessive phrases, relative phrases, and

relative associative phrases, and in the copulative inflection of locative phrases, the following rule applies to the inflecting morphemes:-

MR 24 /{(c)a-}/ → /{(c)é-}/ | $\left\{ \begin{array}{l} \text{Possessive Phrase} \\ \text{Relative Verbal Phrase} \\ \text{Relative Associative Phrase} \end{array} \right\}$

MR 24A [cop] /ndha- / → /ndhé- / | $\left\{ \begin{array}{l} \text{Locative Phrase} \end{array} \right\}$

Possessive

In the case of possessive phrase inflections, the possessive [-a-] of the inflected possessive phrase always has L tone when such phrases are multiply inflected. This L tone is in some cases due to the application of the tonal dissimilation rule (MR 23) following the inflected nucleus tone rule (MR 21). When, however, by the application of these two rules [-a-] of the inflected phrase would be H, the inflected nucleus tone rule (MR 21) is not applied, and by MR 23 the possessive prefix is then L.

The inflected nucleus tone rule has therefore to be slightly amended to take account of this, as follows:-

MR 21 (Here formulated only for possessive phrases and multiply-inflected possessive phrases.)

(a) $H_n \dots = L_n \mid \text{go-[-a-]} \text{---}$

(b) $L(L_n) \dots = H(L_n) \dots \mid \left\{ \begin{array}{l} \{na-\} \\ \{sa-\} \\ \text{go-[-a-]} \\ \text{[cop]} \end{array} \right\} \text{go-[-a-]} \text{---}$

The polarity rule (MR 23) applies to the inmost possessive [-a-], and MR 24 to the outmost inflecting morpheme.

The 1st pronoun replacement [-ngu], which in the simple possessive inflection has L tone, has H tone by MR 19(c) when multiply inflected.

NR 19(g)

/ngu/ = /ngu/ { {na-}
 {sa-}
 go-[-a-]
 {cop} } go-[-a-] _____ 1

ExamplesAdverbial

nédzashé uyu (and those of this chief)
 cf. dzáshé uyu (those of this chief)
 cf. ishé uyu (this chief)

séwáMvúrá (like Mvura's)
 cf. wáMvura (Mvura's)
 cf. Mvúrá (Mvura)

nécaamái (with mother's)
 cf. caamái (mother's)
 cf. amái (mother)

nécomúmwé (with another's)
 cf. comúmwé (another's)
 cf. munwé (another)

nécomumwé (with the one of the same one)
 cf. comumwé (the one of the same one)
 cf. mumwé (the same one)

séwúúnó (like the one of this one)
 cf. wúúnó (the one of this one)
 cf. únó (this one)

nédzangú (with mine)
 cf. dzángú (mine)

¹ Alternatively /ngu/ could be treated as having inherent H tone which becomes L in the simple possessive by the inflected nucleus tone rule. In further inflections of possessive phrases with /ngu/ the latter would then have its basic H tone due to non-operation of the nucleus tone rule. On the other hand the pronoun replacements of IIs ({ko}) and class I ({-ke}) have basic inherent H tone and are not subject to the nucleus rule. No homogeneous treatment is therefore possible either way.

	sévesú	(like ours)
cf.	vesú	(ours)
cf.	isú	(we)
	néradzó dzóse	(like that of them all)
cf.	rás dzóse	(that of them all)
cf.	idzo dzóse	(all of them)

Possessive

	cinhu céwembá iyi	(the thing of the one (e.g. owner) of this house)
cf.	wémba iyi	(the one (e.g. owner) of this house)
cf.	imbá iyi	(this house)
	céweyo húrú	(*he (ne of the one of that big one)
cf.	weyo húrú	(the one of that big one)
cf.	iyó húrú	(that big one)

Copulative

	ndhédzéwánhu véddú	(it is those of our people)
cf.	dzéwánhu véddú	(those of our people)
cf.	vanhu véddú	(our people)
	ndhéyégárangá rángu	(it is the one of my second wife)
cf.	yégaranga rángu	(the one of my second wife)
cf.	gárangá rángu	(my second wife)
	ndhéwódnó mukúrú	(it is this elder's)
cf.	wódnó mukúrú	(this elder's)
cf.	údnó mukúrú	(this elder)
	ndhéázangú	(they are mine)
cf.	ázangú	(mine)

Locative PhraseCopulative ([cop] = /ndhé-/ or R)

	ndhépamushá wáké mukúrú	(it is his headquarters)
cf.	pamushá wáké mukúrú	(at his big village)
cf.	pámushá wáké mukúrú	(it is his headquarters)
cf.	mushá wáké mukúrú	(his big village)

Relative Verbal PhraseAdverbial

- néanoshándá Haráre (with him who works in Salisbury)
 cf. anoshándá Haráre (he who works in Salisbury)
 sévaivhíma musángó (like those who used to hunt in
 the veld)
 cf. vaivhíma musángó (those who used to hunt in the veld)
 névacácéra gombá (with those who will dig the hole)
 cf. vacácéra gombá (those who will dig the hole)

Possessive

- imbwá dzévanóvhíma (the dogs of those who hunt)
 cf. vanóvhíma (those who hunt)
 ósakáténgesa momba (the one of him who sold the cattle)
 cf. akáténgesa momba (he who sold the cattle)

Copulative

- ndhéanoshándá Haráre (it is he who works in Salisbury)
 cf. anoshándá Haráre (he who works in Salisbury)
 ndhósvaivhíma (it is they who used to hunt)
 cf. vaivhíma (they who used to hunt)

Relative Associative PhraseAdverbial

- néanámá húrú (with the one who has a big house)
 cf. anámá húrú (the one who has a big house)
 nkunedyu (through the place where this one
 is)
 cf. kunedyu (where this one is)
 nékanemúwe mukúru (and where the other big one is)
 cf. kunemúwe mukúru (where the other big one is)

Possessive

nwaná wéanímá	(the child of he who has a house)
cf. anímá	(he who has a house)
vaná vévanémómbé	(the children of those with cattle)
cf. vanémómbé	(those with cattle)

Copulative

ndhéanímá hírú	(it is he who has a big house)
cf. anímá hírú	(he who has a big house)
ndhévanésáda rángu	(it is those who have my sadza)
cf. vanésáda rángu	(they who have my sadza)

3.3.3.2. MR 25 applies to the adverbial, possessive, and copulative morphemes when these inflect the forms indicated in the table below.

MR 25 / (c)a- / = / (c)á- /

Table 8

Contexts for MR 25 Application

	Inflection		
	Adverbial	Possessive	Copulative
Nouns, class Ia	Yes	No	No
Nouns, classes 2a, 2b	Yes	Yes	Yes
Pronouns: I, II	Yes	Yes	No
class 1	Yes	Yes	No
classes 2 - 18	Yes	Yes ¹	No
Ownership phrase with [nyá-], [sá-]	Yes	No	No
Participial Phrase	--	Yes	--

In some cases the inflected nucleus tone rule (MR 21) also applies.

¹ In this case only when the pronouns include the morpheme [i-].

Nouns Class 1aAdverbial

<u>nashé</u> uyu	(and this chief also)
cf. <u>ishé</u> uyu	(this chief)
<u>samambo</u> mukúrá	(like a senior chief)
cf. <u>mambo</u> mukúrá	(a senior chief)

Nouns Classes 2a, 2bAdverbial

<u>navánevánjé</u> avo	(with those firstborn)
cf. <u>vánevánjé</u> avo	(those firstborn)
<u>úyá</u> <u>navábabá</u>	(come with the fathers)
cf. <u>vábabá</u>	(fathers)
<u>naamái</u> vóga	(with mother only)
cf. <u>amái</u> vóga	(mother only)

Possessive

mataré <u>avámámbo</u>	(the chiefs' courts)
cf. <u>vámámbo</u>	(the chiefs)
durí <u>raambúya</u>	(grandmother's mortar)
cf. <u>ambúya</u>	(grandmother)

Copulative

<u>ndhavábabá</u> vakúrá	(it is the elder fathers)
cf. <u>vábabá</u>	(fathers)
<u>ndhavámámbo</u>	(it is the chiefs)
cf. <u>vámámbo</u>	(chiefs)
<u>ndhaamái</u> vóga	(it is mother only)
cf. <u>amái</u> vóga	(mother only)

Pronouns

Adverbial (I, II pronouns are subject to coalescence rule MR 26 below. III pronouns without {i-} are subject to the inflected nucleus tone rule MR 21.)

není mukúrd (with me the senior one)
nesú vakúrd (like us old people)

neyé }
neye } (and he who studies)

navó vóé }
naivo vóé } (with them all)

saró gúrú rángu }
sairo gúrú rángu } (like my big one)

Possessive (I, II pronouns are subject to coalescence rule MR 28 below. With III pronouns the possessive morpheme only occurs as /-á-/ in class 1, and in classes 2 to 18 with {i-}.)

monbe ixení mukúrd (the cattle of me the senior one)
vaná vad (our children)
mushá wéwé (your village)

bhúku rayé }
bhúku raye } (his book)

zvigaro zvaivo } (their chairs)
 of, zvigaro zvávó } (their chairs)

dangá rafidzo (their cattle kraal)

Ownership Phrase (with {naya-}, {sá-})Adverbial

nasáwaci iyi (and the owner of this watch)
nanyamkádai wákwé (with that fellow and his wife)
nasányika iyó (and the one responsible for that country)

Participial PhrasePossessive

mwaná wáyánoḁá (the child whom they like)
 mombe dravákáúrayá (the cattle which they killed)
 sadza xgvári kudyá (the sadza which they are eating)

3.3.3.3. MR 26 applies in those cases where phrase-inflecting morphemes have the phonemic realization /Cḁ-/.

MR 26 Applies to possessive {-a-}.

/-a-/ = /-á-/ | gc- — { la nouns
 pronouns 2 - 18 without [i-]
 pronoun replacement gc's [II.1]
 "ownership" phrases }

MR 26A Applies to presentative {ha-}.

/ha-/ = { /há-/ | — selectors (/há-/ further subject to
 assimilation rule MR 22 above)
 /ha-/ | — demonstratives (/há-/ is further subject
 to coalescence rule MR 28
 below.) }

Possessivela Nouns

dare ráámbo (the chief's court)
 munda wáCigáro (Cigáro's field)
 mombe yááhe (the chief's head of cattle)
 démó xábabá (father's axe)

Pronouns classes 2 to 18 without [i-]

dangá ráázo (their cattle kraal)
 kudyá kwáro (its food)
 vaná yáéwo (their children)

Proper replacement gender concords I, II, and class 1

monbe dzangu	(my cattle)
vaná védú	(our children) (also MR 28)
sadza rókó	(your sadza)
vaná vényú	(your children) (also MR 28)
musáá wáké	(his village)

"Ownership" phrases

imwá yákwaoi	(the dog of the owner of the watch)
imwá yányámukádzi wáké	(the dog of him and his wife)
imá yávanínánwahá uhú	(the house of the owners of this beer)
vaná yásányika iyo	(the children of the one in charge of that country)

Presentative

Selectors /há-/ is also subject to vowel assimilation rule MR 22 above.

hómwino hwahá	(here is the bear)
hávé vadiki	(there are the small ones)
hádsino dzákó	(here are yours)

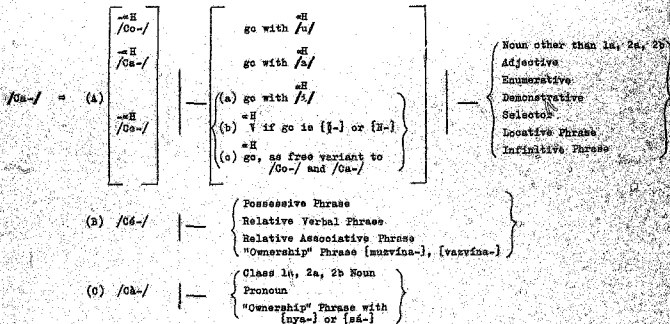
Demonstratives /há-/ is also subject to vowel coalescence rule MR 28 below.

háyo monbe yábabá	(there is father's ^{cow} cattle)
hávo vanhu váya	(there are those people)
hówo rwaná	(there is the miserable child)

3.3.4. Summary

The morphophonemic rules for adverbial, possessive, copulative, and presentative phrase-inflecting morphemes are sub-categorised above (MR's 22 to 26) in order to permit the greatest generalisation about their highly similar morphophonemic alternations. The rules as they relate to these morphemes individually are summarised in conflated form below, and in the case of the copulative several additional phonemic realisations are also accounted for.

3.3.4.1. Adverbial Morphemes {na-} /na-/, {sa-} /sa-/



This rule is applied after the inflected nucleus tone rule (MR 21), and the tonal dissimilation in (A) is therefore dissimilation with the first perturbed tone resulting from the application of MR 21. Notice that in (A) the context specification is both of a phonological and grammatical nature.

3.3.4.2. Possessive Morpheme [-a-] /-a-/

/-a-/ = (A)	-aH /-o-/ -aH /-a-/ -aH /-e-/	gc with ^{-H}/a/ gc with ^{-H}/a/ gc — { (a) gc with ^{-H}/i/ (b) ^{-H}Y if gc is [i-] or [N-] (c) ^{-H}gc, as free variant to /-o-/ and /-a-/
-------------	---	---

3.3.4.3. Copulative Morpheme {cop}

MR 27

{cop} = (A)

-H /ndho-/	gc with /a/	} { Demonstrative Selector }
-H /ndha-/	gc with /a/	
-H /ndhe-/	(a) gc with /i/ =H	
	(b) gc, as free variant variant to /ndho-/ and /ndha-/	

(B) /ndhã-/ | _ Class 2a, 2b Noun

(C) /ndhẽ-/ | _ { Locative Phrase, as free variant
to H
Possessive Phrase
Relative verbal phrase
Relative Associative phrase }

(D) /ndhi-/ | _ { Class 1a Noun
"Ownership" Phrase with
[sã-] or [nya-] }

(E) /ndh-/ | _ Pronoun

(F) /f-/ | _ { Class 5, 9 Noun
Class 5, 6 Adjective }

(G) H | gc { Noun other than 1a, 2a, 2b, 5, 9
Adjective other than 5, 9
Enumerative
Locative Phrase, as free variant
to /ndhẽ-/
"Ownership" Phrase with [mu-svi-na-]
or [ya-svi-na-]
Infinitive phrase }

The forms (A), (B), and (C) have already been accounted for by morphophonemic rules 22, 23, 24, and 25, and have been illustrated above. Illustration of the remaining forms is given below.

Cumulative Examples1a Nouns (The inflected nucleus tone rule also applies.)

<u>ndhishu</u> uyu	(it is this chief)
<u>ndhishu</u> mamo	(it is the chief)
<u>ndhishu</u> tenzi	(it is the owner)
<u>ndhishu</u> Cigaro	(it is Cigaro)

"Ownership" Phrase with [uys-] and [sa-]

<u>ndhishu</u> waci iyi	(it is the owner of this watch)
<u>ndhishu</u> yabhdika	(it is the owner of the book)

Pronouns (I, II have NR 16 applied, IIR → HII)

<u>ndhini</u>	(it is me)
<u>ndhisi</u>	(it is us)
<u>ndhiwe</u>	(it is you)
<u>ndhiko</u> kamwe	(it is another one)
<u>ndhiso</u> dsangu	(they are mine)

Classes 5 and 9 Nouns (The inflected nucleus tone rule also applies.)

<u>imvura</u> iyo	9	(it is that water)
<u>imbwa</u> yedu	9	(it is our dog)
<u>isidisa</u> rangu	5	(it is my saddle)
<u>ibveni</u>	5	(it is a baboon)

Classes 5 and 9 Adjectives (The inflected nucleus tone rule also applies.)

<u>iguru</u> rangu	5	(it is my big one)
<u>ishoma</u> idzi	9	(it is these few)
<u>icete</u>	5	(it is a thin one)

Nouns other than of classes 1a, 2a, 2b, 5, and 9.
(The inflected nucleus tone rule also applies.)

<u>mbiti</u> mukuru	(it is a big tree)
<u>avigaro</u> zvangu	(they are my chairs)
<u>mbawo</u> kwo	(it is their words)

músikáná	(she is a girl)
múruna	(he is a man)
vákadzi	(they are women)

Adjectives other than classes 5 and 9¹

oikuru náké	(it is his big one)
váshóna vakúró	(they are a few big ones)
zvingani	(how many are they?)

Enumeratives¹

múmwé	(he is another one)
múmwé	(he is the same one)
oíyí	(what sort is it?)

Locative Phrases¹ (H is a free variant to /ndhé-/.)

pámushá wáké mukúró	} (it is his headquarters)
ndhépamushá wáké mukúró	
ndhékumushá wáké	} (it is towards his home)
múamushá wáké	

"Ownership" Phrases with [mu-zví-na-] and [ya-zví-na-]¹

vázvinahwahwá uhwu	(they are the owners of this beer)
múzwínamhosva	(he is the accused)

Infinitive Phrases¹

kúdyá kwé ánáka	(it is good food)
kúóóra gomá	(it is digging a hole)

¹ The inflected nucleus tone rule also applies.

3.5.5. Non-discrete Morphophonemes -- Coalescence

Certain sequences of morphemes have non-discrete phonemic realisations, that is, the phonemes involved in these realisations cannot all be exclusively assigned to one or the other of the morphemes concerned. All such cases involve morphemes whose morphophonemic base forms end in /a/, followed by certain vowel-commencing morphemes. The /a/ of the one morpheme and the vowel (only /i/, /a/, or /o/) of the next are phonemically realised by a single vowel.

MR 28

$$/a/ + \begin{bmatrix} /i/ \\ /a/ \\ /o/ \end{bmatrix} \Rightarrow \begin{bmatrix} /e/ \\ /a/ \\ /o/ \end{bmatrix}$$

These morphophonemic changes have customarily been described as involving vowel "coalescence." In terms of the vowel system as analysed above,¹ the two juxtaposed vowels mutually assimilate in the resultant single low vowel.

The forms to which MR 28 applies are the following:-

class 6 gender concord /ma-/ | two /i/-commencing noun stems
adverbial /na-/ and /sa-/ | pronouns I, II

possessive /-a-/ | { pronouns I, II
pronoun replacements (Ip, IIp
(possessive nucleus) }

presentative /hi-/ | demonstratives

ExamplesNouns

The two noun stems [zino] (tooth) and [ziso] (eye) which are subject to MR 28 when occurring with [ma-], themselves show

1

	Front	Mid	Back
High	i		u
Low	e	a	o

morphophonemic variation.

MR 29

$$/zi00/ \rightarrow \left\{ \begin{array}{l} /-i00/ \quad | \{ma-\} \text{---} \\ /zi00/ \quad | \{ \{ \{ - \} \} \text{---} \\ \quad \quad \quad | \{ma-\} \text{---} \end{array} \right\}$$

By MR 28 /aa-/ - /-i00/ → /ma00/.

manó /maníno (teeth) of. zínó 5 (tooth)
 nasó /naisó (eyes) of. zinó 5 (eye)

Adverbial Inflection of Pronouns I, II

nani	(with me) of.	ini	(I)
esú	(like us) of.	isú	(we)
nawé	(with you)	iwé	(you)
sani	(like you)	imi	(you)

Possessive Inflection of Pronouns I, II

eni	(mine)	of.	ini	(I)
esú	(ours)		isú	(we)
owé	(yours)		iwé	(you)
eni	(yours)		imi	(you)

Possessive Inflection of Pronoun Replacements In, IIn

edú	(ours)	/ci-a-idu/
enýú	(yours)	/ci-a-inyu/

Presentative Inflection of Demonstratives

háyo mome	(there is that head of cattle)	/há-/ - /yo/ = háyo
háya	(here these are)	/há-/ - /ya/ = háya
háyo	(there that one is)	/há-/ - /yo/ = háyo

3.4. CONJUGATIONAL MORPHEMES

Conjugational morphemes are of two main types: those whose phonemic realization is segmental and tonal, and those whose realization is only tonal. Some of the former have invariant phonemic forms, whereas others show conditioned tonal variation which is accounted for by morphophonemic rules. Forms with only tonal realization constitute a class of mutually exclusive morphemes which occur on the "verb stem," and show conditioned variation similarly accounted for by morphophonemic rules. One conjugational morpheme has invariant segmental realization only.

3.4.1. Morphemes with Invariant Phonemic Realisation(a) Negative [ha_n-] = /há-/

<u>handiténgésé</u>	(I do not sell)
<u>haváiténgésé</u>	(they didn't used to sell)
<u>havécábrunzá</u>	(they will not ask)
<u>hatiná kudá</u>	(we didn't eat)
<u>haténgábrunzá</u>	(we may not ask)
<u>havási kubrunza</u>	(they are not asking)

(b) Hortative [ha_n-] = /há-/

<u>hátibrunza</u>	(let us ask)
<u>hátitenga momba</u>	(let us buy a head of cattle)

(c) Consecutive [$-ks_0-$] = /-ká-/

... ndikadýá sádza	(... and then I ate sadza)
... vakatóngá	(... and then they bought)
... akabrunza	(and then he asked)

(d) Present Participial [$-ci_p-$] = /-cí-/

kana ndigídyá	(if I eat)
kana acíbvá	(if he leaves)
kana acirégérera	(if he forgives)

¹ i.e., Verb root-(extension(s))-final suffix.

(a) Exclusive {-o-} = /-o-/

náááya	(should I start eating?)
vóvóá	(should they leave?)
tóvóvóá	(should we ask?)

(x) Past {-a-} = /-a-/ (toneless, by MR 20B /-a-/ carries the tone of the subject gender concord)

náááya	/ndi-a-/	(I ate)
vááya	/vè-a-/	(they ate)
vááya	/vè-a-/	(they who ate)
takátenga	/tì-a-/	(we bought)
ákátárisa	/á-a-/	(he looked)

(g) Nominalising (class 15) {ku-} = /kh-/ (MR 17(a))

kúdyá sááza	(to eat sadza)
kuténgá wómbe	(to sell a head of cattle)
kupera gombá	(to dig a hole)

(h) Plural {-yi} = /-yi/

brunzáyí mámbo	(ask the chief)
idýáyi sááza	(eat the sadza)
taríáyi	(please look)

3.4.2. Morphemes Showing Tonal Dissimilation

Several morphemes whose realisation is segmental and tonal show tonal variation which is in most cases dissimilation (polarity) with preceding or following tones. This dissimilation is expressed in the morphophonemic rules by the same notational devices utilised above, and explained on page 114. In a few cases the dissimilation is with the tone class of the verb root (the latter being high or low), irrespective of the tonal sequence actually occurring on the verb stem. This dissimilation is indicated by +R.

(a) Present habitual {-no-} ¹

MR 30A [-no-] = $\begin{matrix} \sim H \\ /-no-/ \end{matrix} \mid \begin{matrix} \sim H \\ \end{matrix}$

ndingdyá	(I eat)
ánodyá	(he eats)
anódyá	(he who eats)
tingvunza	(we ask)

Fortune has elicited participial forms of the present habitual,² and here {-no-} appears to show dissimilation with the verb root tone class.

MR 30B [-no-] = $\begin{matrix} \sim R \\ /-no-/ \end{matrix}$

ndínopá	(I give)	ndínóbvá	(I leave)
ndínóténgá	(I buy)	ndínóbvunzá	(I ask)
ndínóséwenzá	(I work)	ndínótarísa	(I look)

(b) Past habitual {-i-}

MR 31

$$\{-i-\} = \left\{ \begin{array}{l} \left\{ \begin{array}{l} /-i-/ \mid _ \text{sh-}^H \\ /-i-/ \mid _ \text{sh-}^L \end{array} \right\} \mid \begin{array}{l} \text{go-}^H \text{ } \\ \text{(i.e. negative} \\ \text{participial)} \end{array} \\ \begin{array}{l} \sim H \\ /-i-/ \end{array} \mid \begin{array}{l} \sim H \\ _ \end{array} \text{, elsewhere} \end{array} \right\}$$

Negative participial:

kana ndíísadyá	(if I didn't used to eat)
kana íísaténgá	(if he didn't used to buy)
kana táíísabvunza	(if we didn't used to ask)
of. kana táíísabvunza	(we who didn't used to ask)
kana váíísatarísa	(if they didn't used to look)
of. váíísatarísa	(they who didn't used to look)

¹ There is some dialectal variation in the tone of /-no-/.

² Unpublished student notes.

Other past habitual forms:

ndaídyá	(I used to eat)
váidyá	(they used to eat)
váidyá	(they who used to eat)
máirwa	(you used to fight)
ráirwa	(it used to fight)
ráirwa	(it which used to fight)
kana ráirwa	(if it used to fight)
kana áitóngá	(if he used to buy)
handáipá	(I didn't used to give)
handáibvunza	(I didn't used to ask)
úisapá	(he who didn't used to give)
váísatarisa	(they who didn't used to look)

(c) Negative [-si-]

NR X2

$$[-si-] = \left\{ \begin{array}{ll} /-si/ & | [na-]go- \text{ --- } \\ \text{---} & | \text{---} \end{array} \right\}$$

handáí kudyá	(I am not eating)
haváí kútarisa	(they aren't looking)

In these examples [-si-] seems to be functioning as a so-called "deficient verb."

of. ndisíri kudyá	(I who am not eating)
kana ndisíri kudyá	(if I am not eating)

ndisíngadyé	(I who do not eat)
vásíngábvunzá	(they who do not ask)
ásíngátóngesé	(he who does not sell)

kana ndisíngadyé	(if I do not eat)
kana vásíngábvunzá	(if they do not ask)
kana ásíngátóngesé	(if he does not sell)

ndisiri kupá	(I who am not giving)
vasiri kubunza	(they who are not asking)
asiri kutengesa	(he who isn't selling)
kana ndisiri kupá	(if I am not giving)
kana vasiri kubunza	(if they are not asking)
kana asiri kutengesa	(if he is not selling)
vasisapá	(they who will not give)
vasisabunza	(they who will not ask)
tisigatarise	(we who will not look)
kana vasingape	(if they will not give)
kana vasingabunza	(if they will not ask)
vasina kudya	(they who didn't eat)
asina kubva	(he who didn't leave)
kana vasingape	(if they didn't eat)
kana vasinga kubva	(if he didn't leave)
ndisingape	(I who may not give)
asingatenge	(he who may not buy)
vasingabunza	(they who may not ask)
kana ndisingape	(if I may not give)
kana asingatenge	(if he may not buy)
kana vasingabunza	(if they may not ask)

(a) Negative {-sa-}

NR 33

{-sa-}	→	/-sa-/		go-á-f- ^{"F"}	á	(past habitual neg. rel.)
		/-sa-/		go- ^{"J"}	-á-e	(subjunctive neg.)
		/-sa-/		elsewhere		

Past habitual negative relative:

taiaáténgá	(we who didn't used to buy)
aiiaáténgáá	(he who didn't used to sell)
raiaághvunza	(they who didn't used to ask)
náiaiaátarisa	(I who didn't used to look)

Subjunctive negative:

ndinóá kúti áagdyá	(I want you not to eat)
ndinóá kúti váaáténgá	(I want them not to buy)
ndi-óá kúti áagdvunzé	(I want you not to ask)
usáábrinzá	(don't ask!)

Other forms:

kuagdyá	(not to eat)
kuagbva	(not to leave)
kuagbvunza	(not to ask)
hátiagdyá	(let us not eat)
hátiagbvunza	(let us not ask)
ndikaagdyá	(and then I didn't eat)
vakasatarisa	(and then they didn't look)
kana váiaáténgá	(if they didn't used to buy)
kana áiaagbvunza	(if he didn't used to ask)

(e) Several morphemes whose phonemic realisation ends with /a/ show tonal dissimilation which in some cases is progressive, in some regressive, and in other cases dissimilation with the tone class of the verb root. These morphemes are covered by the same set of morphophonemic rules, the morphemes being the following:-

{-aa-}	(future)
{-nga-}	(potential)
{-ka-}	(remote past)
{-sa- ₂ }	(future negative) ¹

¹ This form is treated as being distinct from negative {-aa-} in (d) above as the future negative relative where {-sa-} occurs has a negative morpheme in {-si-} (go-si-sa-R-a, cf. future negative participial: go-si-nga-R-a), and is tonally similar to the other morphemes listed in (e).

MR 34A [-Ca-] = /-Ca-/ | (H)L Root 1

ndio^{ga}pa (I will give)
tio^{ga}bvunza (we will ask)
vao^{ga}bvunza (they who will ask)
cf. vao^{ga}bvunza (they will ask)

ting^{ga}ye (we may eat)
ung^{ga}tonge (you may buy)
ang^{ga}tonge (he who may buy)
vang^{ga}tárise (they who may look)

ndak^{ga}pa (I gave)
tak^{ga}bvá (we left)
vak^{ga}tárise (they who looked)

kana ndising^{ga}ye (if I do not eat)
kana vasing^{ga}tonge (if they do not buy)
kana tising^{ga}bvunzé (if we do not ask)
kana asing^{ga}tárise (if he does not look)

MR 34B [-Ca-] = /-Ca-/ | LH Root 2

handio^{ga}pé (I will not give)
handio^{ga}bvá (I will not leave)
handio^{ga}bvunzá (I will not ask)
handio^{ga}téngé (I will not buy)

havángapé (they may not give)
havángabvá (they may not leave)
havángabvunzá (they may not ask)
havángaténgé (they may not buy)

tisising^{ga}yé (we who will not eat)
tisising^{ga}téngé (we who will not buy)
tisising^{ga}tárise (we who will not look)
vasising^{ga}bvunzé (they who will not ask)

¹ This is a case of progressive dissimilation.

² This is a case of regressive dissimilation.

vasingadyé	(they who may not eat)
vasingténga	(they who may not buy)
tisingábvunzé	(we who may not ask)

ME 348 [-Ca-] = /-Ca-/ | ^{+H} H Root

High roots:

áadyé	(he will eat)
vácáténgá	(they will buy)
kana áadyá	(if he will eat)
kana áacáténga	(if he will buy)
ángapé	(he may give)
ángaténgésé	(he may sell)
kana vángapé	(if they may give)
kana vángaténgésé	(if they may sell)
ákadyá	(he ate)
ákaténgá	(he bought)

Low roots:

vácábvúnza	(they will ask)
vácátárisa	(they will look)
kana áacábvá	(if he will leave)
kana áacábvunzá	(if he will ask)
ángábvé	(he may leave)
ángátárise	(he may look)
kana vángábvé	(if they leave)
kana vángábvunzé	(if they ask)
ákábvá	(he left)
ákatárisa	(he looked)

3.4.3. Tonal Morphemes

The sequence of tones occurring on the root-extension(s)-final suffix of a verbal form is interpreted as a single morphological entity, and is assigned to a morpheme whose realisation is only tonal. There are altogether ten such morphemes, some of which occur with the high class of verb roots, some with the low verb roots, and a few with both. We are not concerned here with the substitution of one tonal morpheme for another in the various verbal inflections, but rather with the conditioned phonemic variation shown by each morpheme. In any particular verbal construction the various tone sequences of different "lengths" occurring on verb stems, with high roots on the one hand and low roots on the other, are simply different phonologically conditioned realisations of the morphemes concerned.

For example, in the following infinitive forms the sequences H, HH, HHH occur with the high roots, and the sequences L, LL, LLL occur with the low roots.

kudyá	(to eat)	kotyá	(to leave)
kutúngá	(to buy)	kubvúngá	(to ask)
kutúngáá	(to sell)	kutárieá	(to look at)

¹ The forms traditionally regarded as "verbs" are treated rather differently in this analysis (see §§ 4.2.2. and 4.3.3. below). What has commonly been called the "verb stem" is composed of the verb radical (root + extension(s)) together with the terminal suffix.

Which of the three high sequences occurs is conditioned by the number of syllables in the verb stem, and the same applies to the low sequences. Only two morphemes are therefore recognised and these have allomorphs: /k ~ HH ~ HHH/ and /l ~ LL ~ LLL/. It should be noted that stems incorporating extensions are tonally no different from those without.

The morphophonemics of these tonal morphemes may be stated in allomorphic (or "sub-selection") terms, as above, or in adjustment terms utilising base forms. In the latter case it is convenient to recognise as base forms the longest sequences being accounted for. A morphophonemic rule is necessary for each morpheme in order to specify the base form for each.

For most of the tonal morphemes, sequences of two or more are simply sequential left-to-right expansions or additions to the tone occurring on a monosyllabic stem. This is seen in the following realisations of one such morpheme:-

H
HH
HHH
HHHL

In this case, as the verb stem is lengthened, one more tone per syllable is added (left-to-right) in accordance with the above "paradigm".

In a few cases the expansion is not simply by addition to the right, and this is illustrated in the following realisations of one such morpheme:-

H
HL
HLH
HHLH

As the morphophonemic base forms are the maximal tone sequences being accounted for, some indication must therefore be given of the way in which base forms must be "read" or given

sequential realisation. This is indicated by subscript numbering and parenthesisation. Base forms are always read from left to right, the subscript numbering of each tone indicating the requisite number of syllables necessary for the occurrence of this tone. For example, the realisations:-

H		H
EH		HL
HHH	and	HLH
HHHL		HHHL

have the morphophonemic base forms $/H_1(H_2(H_3(K_4)))/$ and $/(H_4)H_1(L_2(H_3))/?$ respectively.

In addition to a morphophonemic base form, each morpheme is given an abstract morphemic citation form, the morphemes being alphabetically numbered. As nearly all these morphemes are confined to either the high verb roots or the low roots, superscript indication of this distributional feature is included in each morphemic citation form, as follows:-

- h : high roots
- w : low roots
- b : both high and low roots.

In the morphophonemic rules below, the realisation of the tonal morphemes on stems of up to four syllables is accounted for. As there are only two contrastive tones for the phonemic realisation of the tonal morphemes, there is, of course extensive neutralisation of contrast between these morphemes, particularly in the shorter tone sequences. There are comparatively few verb roots whose stem tones are aberrant, and the morphologically conditioned phonemic realisation of the tonal morphemes when occurring with stems incorporating these roots is not described below.¹

¹ A list of these verb roots is given above, page 22.

$$\text{MR 35} \quad \{TM_A^h\} = /H_1(H_2(H_3(H_4))) / \mid \text{verb stem}^1$$

kupɛ	(to give)
kutɛngɛ	(to buy)
kutɛngɛɛ	(to sell)
kutɛngɛnɛɛ	(to chase) ²

$$\text{MR 35A} \quad \{TM_A^h\} = L \mid \text{verb stem (monosyllabic) in the present habitual negative}$$

handɛpɛ	(I do not give)
handɛtɛngɛ	(I do not buy)
handɛtɛngɛɛ	(I do not sell)
handɛtɛngɛnɛɛ	(I do not chase)

$$\text{MR 36} \quad \{TM_B^h\} = /((H_4)H_2)H_1(H_3) / \text{ (cf. MR 37)}$$

kana ndɛpɛ	(if I gave)
kana ndɛtɛngɛ	(if I bought)
kana ndɛtɛngɛɛ	(if I sold)
kana ndɛtɛngɛnɛɛ	(if I chased)

$$\text{MR 37} \quad \{TM_C^h\} = /((H_4)H_1(H_2(H_3))) / \text{ (cf. MR 36)}^3$$

handɛchɛpɛ	(I will not give)
handɛchɛtɛngɛ	(I will not buy)
handɛchɛtɛngɛɛ	(I will not sell)
handɛchɛtɛngɛnɛɛ	(I will not chase)

¹ While in the grammatical analysis below (§§ 4.2.2. and 4.3.8.) no "verb" or "verb stem" is recognised, the latter term is useful here to indicate the substrate domain of the tonal morphemes.

² Minimal exemplification is given here as the distribution of the tonal morphemes is treated in § 4.3.3. below.

³ Conflation of MR's 36 and 37 would require complex conditioning statements.

$$\text{MR 38 } \{TM_H^B\} = /H_1(L_2(L_3(L_4)))/$$

High Verbs

ndapá	(I gave)
ndaténgá	(I bought)
ndaténgéngá	(I sold)
ndaténdanisé	(I chased)

Low Verbs

ndabvá	(I left)
ndabvúngá	(I asked)
ndatáring	(I looked)
ndarégerera	(I forgave)

$$\text{MR 39 } \{TM_H^B\} = /L_1(L_2(L_3(L_4)))/$$

Low Verbs

kubvá	(to leave)
kubvúngá	(to ask)
kutaríng	(to look at)
kuregerera	(to forgive)

High Verbs

ndicápa	(I will give)
ndicáténgá	(I will buy)
ndicáténgéngá	(I will sell)
ndicáténdanisé	(I will chase)

$$\text{MR 40 } \{TM_H^B\} = /H_1(H_2(L_3(L_4)))/$$

kana ndicibvá	(if I leave)
kana ndicibvúngá	(if I ask)
kana ndicitaríng	(if I look)
kana ndicifégerera	(if I forgive)

$$\text{MR 41} \quad \{TM_U^w\} = /H_1 \left\{ \begin{matrix} (L_2) \\ H_2 L_3 (L_4) \end{matrix} \right\} /$$

amut₁ (he said to him)
 amibv₂ (he asked him)
 amut₃ (he looked after him)
 amur₄ (he forgave him)

$$\text{MR 42} \quad \{TM_U^w\} = /L_1 (H_2 (L_3 (L_4))) / \text{ (cf. MR 43)}^1$$

kana ndisingabva (if I will not leave)
 kana ndisingabvuna (if I will not ask)
 kana ndisingatarisa (if I will not look)
 kana ndisingaregere (if I will not forgive)

$$\text{MR 43} \quad \{TM_I^w\} = / (L_2) H_1 (L_3 (L_4)) / \text{ (cf. MR 42)}$$

handingabva (I may not leave)
 handingabvuna (I may not ask)
 handingatarisa (I may not look)
 handingaregere (I may not forgive)

$$\text{MR 44} \quad \{TM_J^w\} = / ((L_4) L_2) H_1 (H_3) /$$

ibva (leave!)
 bvuna (ask!)
 tarisa (look!)
 regere (forgive!)

¹ Conflation of MR's 42 and 43 would require complex conditioning statements.

3.5. MISCELLANEOUS MORPHEMES3.5.1. Relative

Relatives of all verbal forms are characterised by a subject concord with L tone, and this L tone is assigned to a relative morpheme.

NR 45 {rel} → L | go

(See also NR 18(b) for related gender concord morphophonemics.)

Relative forms with first or second person subject gender concords are in some cases indistinguishable from the corresponding principal forms as the latter also have L subject concords.¹ Such homophonous forms are nevertheless morphemically different, and the morphemic structure (excluding the tonal morphemes of § 3.4.3. above) is indicated for each example below.

	ndinógara Harára {rel-ndi-no-gar-a}	(I who live in Salisbury)
cf.	ndinógara Harára {ndi-no-gar-a}	(I live in Salisbury)
	anógara Harára {rel-a-no-gar-a}	(he who lives in Salisbury)
cf.	ánogara Harára {a-no-gar-a}	(he lives in Salisbury)
	asátenga {rel-a-ca-teng-a}	(he who will buy)
cf.	asátengé {a-ca-teng-a}	(he will buy)

¹ In the recent past positive the tonal morphemes occurring on the verb stem differ in the principal and relative forms. All negative relatives are also segmentally different from the corresponding principal forms.

- asísaténgé (he who will not buy)
[rel-a-si-sa-teng-e]
- asíngadyé (he who doesn't eat)
[rel-a-si-nga-dy-a]
- vangábvé (they who may leave)
[rel-va-nga-bv-e]
- cf. vángábvé (they may leave)
[va-nga-bv-e]
- asíngátarise (he who may not look)
[rel-a-si-nga-taris-e]
- tingábvúnze (we who may ask)
[rel-ti-nga-bvunz-e]
- cf. tingábvúnze (we may ask)
[ti-nga-bvunz-a]

In past tense forms with the morpheme {-a-} MR 45 is ordered before MR 20, the latter passing the subject gender concord tone to {-a-}.

- akábvúnza (he who asked)
[rel-a-a-ka-bvunz-a]
- cf. akábvúnza (he asked)
[a-a-ka-bvunz-a]
- dzábvá (they who left)
[rel-dzi-a-bv-a]
- cf. dzábvá (they left)
[dzi-a-bv-a]
- waiténgá (you who used to buy)
[rel-u-a-i-teng-a]
- cf. waiténgá (you used to buy)
[u-a-i-teng-a]

vaiténgésá	(they who used to sell)
{rel-va-a-i-teng-es-a}	
of. vaiténgésá	(they used to sell)
{va-a-i-teng-es-a}	
afáábvunsa	(he who didn't used to ask)
of. {rel-a-a-i-sa-bvunz-a}	
of. hafibvunsa	(he didn't used to ask)
{ha-a-a-i-bvunz-a}	

3.5.2. Demonstrative

The initial morpheme of demonstratives, [v¹-], shows complete assimilation to the vowel of the gender concord which immediately follows [v¹-].

<u>MR 46</u>	/u/ _ (c)u
{v ¹ -} =	/e/ _ (c)e
	/i/ _ (c)i

In demonstrative forms with [-o] (meaning "that, those") MR 46 applies before MR's 1, 2, 3, and 11b which elide the vowel of the gender concord.

Class	"this/these"	"that/those"
2	ava [v ¹ -va]	avo [v ¹ -va-o]
3	avya [v ¹ -a]	avyo [v ¹ -a-o]
5	iri [v ¹ -ri]	iro [v ¹ -ri-o]
6	aya [v ¹ -a]	ayo [v ¹ -a-o]
7	ioi [v ¹ -oi]	ioo [v ¹ -oi-o]
9	iyi [v ¹ -i]	iyoo [v ¹ -i-o]
11	uruu [v ¹ -ru]	urwo [v ¹ -ru-o]

3.5.3. Quantitative

The quantitative morpheme, [-a-] shows the following morphophonemic alternation:-

<u>MR 47</u>	{/-ə-/} go _ quantitative stem
[-a-] =	{/-ə-/}

Class	{-ga} "alone"	{-ne} "all"
1p	tóga / tǝga	tóne / tǝne
2	vóga / vǝga	vóne / vǝne
8	zvóga / zvǝga	zvóne / zvǝne
13	twóga / twǝga	twóne / twǝne

3.5.4. "Stab" "aer"

The empty preclausal morph¹ which occurs with otherwise monosyllabic nouns, adjectives, pronouns, and in the imperative inflection of C type verb roots, has different tonal realisations.

MR 48

$$/i-/ = \begin{cases} /i-/ & \text{monosyllabic nouns, adjectives,} \\ & \text{verb stems} \\ /i-/ & \text{ga-[-o]} \text{ (i.e. pronouns 2-13)} \end{cases}$$

ishé	1a	(chief)
iyhú	5	(egg)
ibvi	5	(knee) cf. nabri (knee)
ibwe	5	(stone) cf. sabwe (stone)
itsvó	9	(kidney)
imbá	9	(dog)
itsvá	9 (adj.)	(new)
idavá	5 (adj.)	(new)

¹ Fortune, in *Analytical Grammar of Shona*, terms this form "prothetic" (pages 88, 107 note 5, 134, 135) and "epenthetic" (page 268). Doko, *A Comparative Study in Shona Phonetics*, terms it "penultimate i" (page 196). The term "stabiliser" has been used in the Department of African Languages at the University of the Witwatersrand. These various terms all serve to indicate that this morph is dictated by phonological rather than grammatical requirements. The term "empty morph" was used by Hockett, "Problems of Morphemic Analysis," *Language* 23, 1947, to denote morphemic segments "which have no meaning and belong to no morpheme."

² Monosyllabic nouns and adjectives can only occur in classes 1a, 5, and 9 as forms of other classes have syllabic gender concords.

<u>inwá</u>		(drink!)
<u>inwáyí</u> ¹		(drink!)
<u>ibwá</u>		(leave)
<u>ití</u>		(say (it)!)
<u>ívo</u>	2 (pronoun)	(them)
<u>íwó</u>	3 (pronoun)	(it)
<u>író</u>	5 (pronoun)	(it)
<u>íázo</u>	10 (pronoun)	(them)

3.6. EXTERNAL SANDHI

The following rule applies across certain word boundaries to the tone sequences indicated,

NR 49

....H + LL....
...HH + H....

....H + HL....
...HL + H....

The forms perturbed in this way include nouns, adjectives, enumeratives, infinitives, and locatives when object to an immediately preceding verbal form. The conjunction (kuti) (that) is also subject to this rule, as the final high verb tones.

Handinyírè <u>taamba</u> <u>zhinjá</u> .	(I don't write many letters.)
cf. <u>taamba</u>	(letters)
<u>ákáténgá</u> <u>tángá</u> .	(He bought a knife.)
<u>ákáténgá</u>	(he bought)
<u>ánodá</u> <u>kubvunza</u> <u>mubvunzo</u> .	(He wants to ask a question.)
cf. <u>kubvunza</u> <u>mubvunzo</u>	(to ask a question)
<u>Kyóká</u> <u>iri</u> <u>múswá</u> .	(The snake is in the grass.)
cf. <u>múswá</u>	(in the grass)
<u>Váanúya</u> <u>néxwípó</u> .	(They will bring gifts.)
<u>váanúya</u>	(they will come)
<u>Nínóswíwá</u> <u>kíti</u> <u>ánembwá</u> .	(I know that he has a dog.)

¹ Notice that /i-/ occurs when [-yí] is present, although the verb stem is no longer monosyllabic.

CHAPTER FOUR

MORPHOSYNTAX

4.0. GENERAL APPROACH

The second of the two requisite levels of representation recognised here in accounting for Shona sound-meaning correlates is the morphemic, the morpheme being the minimal entity at this level.¹ Segmentation of phonemically transcribed utterances into morphemes, and morphophonemic resolution are of course mutually dependent, and the considerable complexity of the latter (treated in chapter three) relates the morphemes, whose tactic structuring is treated in this chapter, to phonemic sequences. Morphophonemic alternation is described above in terms of interstratal realisation rules. These rules differ in kind from the rules governing the arrangements of morphemes into sentences, the latter being largely tactic in nature. Questions of phonemic realisation (i.e. morphophonemics) are therefore not properly treated in a description of tactics (i.e. grammar).

At the grammatical level of sentence representation, tactic structuring is not linear but involves relations of a highly intricate and abstract nature. A description of sentence properties in part requires a statement of morpheme relationships, and such description has of necessity to utilise the concept of constructions. That is, associated with each sentence of a language is a "depth-ordering" or pyramidal structure by which certain morphemes are more intimately related to others, certain groups to certain other groups, and so on. This hierarchical organisation of the morphemes of a sentence is the constituent structure of the sentence, the ultimate constituents of the hierarchy being morphemes.

While it is clear that sentences in all languages are characterised by constituent structure, the place to be accorded to the description of such structure remains a matter of

¹ The first level of representation is the phonological, of which the phoneme is recognised as being the minimal entity.

disagreement among linguistic schools of thought. For the post-Bloomfieldian descriptive linguists in the United States linguistic analysis involves segmentation and classification of sentences into their component parts, syntax generally being conceived of as involving essentially constituent structure. This approach has been called "taxonomic" by the transformationalists who maintain that taxonomy alone is inadequate in accounting for the properties of sentences and the linguistic competence of speakers.¹

The two best-known non-transformational approaches to constituency structure developed in the United States are IC (immediate constituent) analysis and tagmemics. The concept of construction and hierarchy is central to both, although there are some interesting differences. These differences are of interest here as the morphosyntactic description below is a "slot-and-filler" one, tagmemics being essentially of "slot-and-filler" type, although with certain additional characteristics and restrictions.²

IC analysis proceeds on the assumption that sentence structures "can be described as layered in concentric, onion-like layers."³ Sentence segmentation is therefore by successive dichotomous cutting, that is, the constituents of constructions at any level are in general considered to be binary.⁴ Slot-and-filler, or string constituent analysis,⁵ on the other hand, does

¹ This has been explored in many transformational writings. A thorough investigation of a variety of American taxonomic constituent structure models is Postal's Constituent Structures: A Study of Contemporary Models of Syntactic Description, IJAL, 30, 1, Part III, 1964. Constituency (i.e. "phrase structure") is accepted as only one of the parameters involved in a grammatical system. Sentence relationships involving more than simply substitution of constituents (Gleason's "agnate" relations, Linguistics and English Grammar, Chapter Seven) are held to be essential in formulating a correct grammar.

² A lucid comparison of slot-and-filler and IC analysis is given in Chapter Seven of Gleason, op. cit. Longacre's "String Constituent Analysis," Language, 36, 1960, presents the tagmemic view of IC analysis as well as expounding and illustrating tagmemic theory. Elson and Pickett's An Introduction to Morphology and Syntax is a useful first text in tagmemic theory.

³ Longacre, op. cit., page 64.

⁴ Gleason points out, op. cit., page 163, that in the constructions for which three rather than two constituents are recognised, the constituents are coordinate.

⁵ The term is used by Longacre, op. cit., to refer to the analysis of structures whose constituents "are ordered like beads on a string," rather than being "layered".

not limit constructions to only two constituents. Proceeding as it does by progressive dichotomous cutting between the constituents of a sentence, IC analysis has many more levels of structure and goes through more stages than does slot-and-filler analysis. Strictly dichotomous cutting yields constructions of varying relevance and rather too much structure is recognised through excessive cutting.

In slot-and-filler analysis the existence of a relatively small number of hierarchically arranged units such as word, phrase, clause, and sentence is assumed. The manifestation of any one of these units may be maximal (i.e. all the permitted constituents may occur) or the manifestation may be minimal. An extreme example of the latter would be a sentence manifested by a single clause, manifested by a single phrase, which in turn is manifested by a single word. For any particular sentence, therefore, empty positions or slots may be recognised, whereas in an IC analysis every construction in a sentence is complete in itself. In a slot-and-filler description an indication must be given for each construction of those slots which may be empty and those which must obligatorily be filled. A further point of difference between IC and slot-and-filler analysis, the emphasis of constituent relations in IC analysis as opposed to the focus on the place of each constituent in a construction in slot-and-filler analysis.

One major advantage of slot-and-filler analysis is that it "avoids the necessity of deciding order of cuts (or of making cuts) in precisely those places where it seems most debatable and least useful."¹ The excess cutting necessitated by the insistence on a binary segmentation in IC analysis also raises difficulties about adequate naming of the many constructions identified. In slot-and-filler analysis, on the other hand, with its recognition of maximal constructions and optionally filled slots, naming of constituents receives some degree of prominence. It should also

be noted that IC analysis has generally been restricted to syntactic analysis, morphological structures usually being described in string constituent terms. By applying string constituent analysis, a single homogeneous description of structures

¹ Gleason, op. cit., page 163.

from word to sentence level results.

In the morphosyntactic description below a hierarchical structuring of grammatical constructions at various levels is recognised in which constructions from lower levels are the constituents of higher level constructions. The constituents of a construction occur in various slots, some of which are nuclear and therefore obligatorily filled, while others are peripheral and optionally filled. The fillers of the slots in a particular construction are units from the same, and/or a lower level (or levels) in the hierarchy to that of the construction in question. However, some of the upper syntactic units are "down-graded" and fill slots in constructions at lower levels.¹ It should be noted that the concepts of "slot" and "filler", "constituent" and "construction", and "construction" and "level" are correlatives.

It must be stressed that the syntactic description below is strictly limited in the breadth of coverage of Shona constructions. Derivation is not treated and sentence constructions have been limited to single clause types. Sentences having several clauses which are conjoined or subordinated in some way or another, are not described here. This is an arbitrary, although not unnatural, limitation for which there are a few reasons. Most important of these is the focus in this study on those syntactic constructions which "straddle" the conventional morphology-syntax boundary, hence "morphosyntax" in the title of this dissertation. The main demonstration of the analysis in this connection is that in describing the constituent structure of sentences a number of important constructions must be recognised in which the constituents are phonologically bound morphemes on the one hand and phrases on the other. There is therefore no clear division into morphology and syntax.² It is of particular interest that in this analysis there is no word construction which coincides with the traditional "verb" part of speech.³

¹ This gives the property of recurrence.

² The southern Bantu languages generally are of this type.

³ This is, of course, not a feature peculiar to strictly surface structure descriptions only. The same applies in a TO treatment, although for reasons of constituency.

A further reason for restricting the scope of this analysis is that a comprehensive investigation of the full variety of sentence constructions would be a major undertaking far exceeding the limitations of space, and purpose, of this dissertation. The surface structure nature of this description also imposes its own limitations, and it is now my view that both the questions posed by the transformationalists as being of prime importance in syntactic investigation, as well as the insights of TG theory, would lead to a better motivated and more adequate syntactic description. The limitations of this study to single clause sentences at least avoids the taxonomic difficulties associated with simultaneous multiple subject-object relations which a single noun phrase may show to several verbs.¹

Constructions are classified below according to the level at which they occur. The classification of any particular construction is determined by the nature (in terms of levels) of its component constituents and the kinds of constructions in which it itself occurs as a constituent. All constructions therefore involve a two-way reference to other levels in the hierarchy. Contrast between constructions is dependent on the levels at which they occur and the nature and ordering of their component constituents. In the formulae for constructions, the slots are indicated by upper case notation, and the fillers of the slots by lower case. Braces indicate either/or occurrence of constituents. Thus, $A \left\{ \begin{smallmatrix} b \\ c \end{smallmatrix} \right\}$ denotes a slot A filled by constituents b or c. The constituents b and c may themselves be constructions, in which case, for example, at a lower level $B \left\{ \begin{smallmatrix} x \\ y \end{smallmatrix} \right\}$. Since the constructions constitute a hierarchy in which lower units fill slots in higher ones, the lower units are best described first and then on up through the hierarchy. The slot-fillers of a unit at a particular level are then described before the unit itself.

¹ Subject and object are not features of constituents but rather of certain kinds of constituency. That is, they are relational rather than categorical notions.

Examples illustrating the various constructions are given in both morphemic and phonemic transcription with an indication, where necessary, of the number of the interrelating morphophonemic rule applicable to each morpheme. Appendix III, page 240, is an index to the morphophonemic rules and is provided in fold-out form to facilitate reference back to particular rules where necessary.

4.1. WORDS

Words are constructions whose constituents are stems and morphemes, and which occur as constituents in phrases and sentences. Seven word constructions are recognised, and there is in addition four types of particles whose slot-filling properties are similar to those of the word constructions. Because of their distribution, the particles, although not morphologically complex, are assigned to the word level.

4.1.1. Noun

A noun is a word which consists of at least one, and at the most three,² of the series of gender concords, and a stem which may be morphemically complex, and whose stem does not occur with all the gender concords of series *a*.³ Nouns which would otherwise be monosyllabic (only in classes 1a, 5, and 9) incorporate the *resg*ment /i-/ which serves to add a syllable.⁴

¹ These are in some cases derived, morphologically complex forms. As derivation is not treated here, such stems are not described.

² The order classes of the concords have not been investigated as the occurrence of more than one noun gender prefix is in most cases a derivational feature.

³ This is one of the differences between nouns on the one hand, and adjectives and enumeratives on the other.

⁴ This form is dictated by phonological requirements. Phonological words, with the exception of ideophones and interjections, cannot be monosyllabic in Zensuru. /i-/ also occurs with otherwise monosyllabic adjectives of classes 5 and 9, and in imperatives where the verb root does not contain /i-/ itself. /i-/ occurs with pronouns of classes 1 to 18. The tone of /i-/ is accounted for by MR 46.

When such nouns are the nucleus of adverbial, possessive, locative, and "ownership" inflected substantive phrases /i-/ may be retained or dropped. In copulatively inflected substantive phrases with these nouns as nucleus /i-/ is dropped.

Summary:¹ $\pm G:go \begin{pmatrix} 16 \\ 17 \\ 18 \end{pmatrix} \pm G:go e + G:go e + NUC:noun stem$

Classes 1a, 5, 9: $+ /i-/ + G:go \begin{pmatrix} 1a \\ 5 \\ 9 \end{pmatrix} + NUC:noun stem$

The non-derivative gender prefixes denote gender-class (not on a sex basis) and number. The latter includes such semantic categories as singular, plural, mass, and number unspecified (see § 3.1.2. for discussion of the latter). The derivative gender prefixes denote augmentative, diminutive (both sometimes with accompanying pejorative significance) or abstract. Some of the gender prefixes have both derivative and non-derivative function, and much further work and interpretation of the gender system is needed.

Examples of nouns are not given here as the considerable exemplification of the associated morphophonemic rules above (MR's 1, 2, 4, 5, 6, 8, 9, 14, 15, 17, 18) serves also to illustrate noun constructions. Little can be added at this stage to Fortune's treatment in his *Analytical Grammar of Shona*.²

Series e Gender Prefixes:

Class		Class		Class	
1	mu-	5	i-	12	ka-
1a	Ø	6	ma-	13	tu-
2	va-	7	ci-	14	ku-
2a	vá-	8	svi-	15	ku- ³
2b	A-	9	N-	16	pa-
3	mu-	10	dai-	17	ku-
4	mi-	11	ru-	18	mu-
				21	zi-

¹ Where G represents gender (slot), go gender concord, and e the gender concord series (page 42). No slot indication is given for /i-/ as this form does not occur by grammatical requirements.

² Chapters III and IV.

³ This is a nominalising morpheme used with verb phrases.

4.1.2. Adjective

An adjective is a word which consists of one of the series of gender concords and one of the adjective stems listed below, and whose stem can occur with all the gender concords of series f (apart from semantic incompatibilities).¹

Summary: + G:GN N + NUG: adjective stem

As is the case with nouns, adjectives which would otherwise be monosyllabic (only in classes 5 and 9 with two stems) incorporate the segment /i-/ which serves to add a syllable. In phrase inflections other than the copulative, when such an adjective is nucleus of the phrase, the /i-/ is retained or dropped. In copulative inflections /i-/ is always dropped.

Series f Gender Concords

Class		Class	
1	mu-	11	ru-
2	ya-	12	ka-
3	mu-	13	tu-
4	mi-	14	hu-
5	i-	15	ku-
6	ma-	16	pa-
7	ci-	17	ba-
8	zvi-	18	nu-
9	N-		

Adjective Stems

These constitute a relatively small closed class with the following members:-

-cana	(white)	-kúrd	(big)
-diki/-dúku	(small)	-mbishi	(unripe)
-hombé	(big)	-na	(four)
-kobú	(thick)	-ngani	(how many?)
-kúkiti	(hard)	-nomwé	(seven)

¹ An example of such incompatibility would be a diminutive gender concord with a stem denoting large size.

-nyóró	(soft)	-shora	(yellow)
-panhi	(broad)	-tatú	(three)
-penyang'di	(alive)	-temá	(black)
-pfumbamwa	(nine)	-tete	(thin)
-pfumbú	(blue, grey)	-tavá	(new)
-pfúpi	(short)	-tsvené	(pure)
-refú	(long)	-tsvukú	(red)
-sérú	(eight)	-urá	(good)
-shánu	(five)	-viri	(two)
-shává	(red)	-tánhatú	(six)
-shoma	(few, small)	-shingí	(many)

Paradigmatic Examples¹

Class	MR	-kúrá "big"	-pfúpi "short"	-áiki "small"	-tete "thin"
1	9,17	mukúrá	mupfúpi	madiki	mitete
2	9,17	vakúrá	vapfúpi	vadiki	vatete
3	9,17	mukúrá	mupfúpi	madiki	mitete
4	9,17	mikúrá	mipfúpi	midiki	mitete
5		{[N-kuru]}	{[N-pfupi]}	{[N-diki]}	{[N-tete]}
	14,18	gírú	{bvúpi} {pfúpi}	diki	dete
6	9,17	makúrá	mapfúpi	madiki	matete
7	9,17	oikúrá	oipfúpi	oidiki	oitete
8	9,17	svikúrá	svipfúpi	svidiki	svitete
9		{[N-kuru]}	{[N-pfupi]}	{[N-diki]}	{[N-tete]}
	15,18	húrá	pfúpi	adiki	ahete
11	9,17	rukúrá	rupfúpi	rudiki	rutete
12	9,17		kupfúpi	kudiki	kutete
13	9,17		tupfúpi	tudiki	tutete
14	9,17	hukúrá	hupfúpi	hudiki	hutete
16	9,17	pakúrá	papfúpi	padiki	patete
17	9,17	kukúrá	kupfúpi	kudiki	kutete
18	9,17	mukúrá	mupfúpi	madiki	

¹ Examples are given in morphemic transcription only where the morphophonemic base forms differ from the phonemic forms.

4.1.3. Enumerative

An enumerative is a word which consists of one of the series g gender concord and one of the three enumerative stems listed below, and whose stem can occur with all the gender concords of series g.

Summary: +G:go g + NUC:enumerative stem

Series g Gender Concords

Class		Class	
1	mu-	10	dzi-
2	va-	11	tu-
3	mu-	12	ka-
4	ni-	13	tu-
5	ri-	14	hu-
6	pa-	15	ku-
7	ci-	16	pa-
8	svi-	17	ku-
9	i-	18	mu-

Enumerative Stems

-mwe	(another, some, other)
-mwé	(one, some)
-yi	(what sort of?)

Paradigmatic Examples

Class	MR	-mwe	-mwé	-yi
1	9,17	mumwe	mumwé	myi
2	9,17	vamwe	vamwé	vayi
3	9,17	mumwe	mumwé	myi
4	9,17	niwwe	niwwe	niyi
5	9,17	riwwe	riwwe	riyi
6	9,17	paawwe	paawwé	payi
7	9,17	ciwwe	ciwwe	ciyi
8	9,17	sviawwe	sviawwé	sviyi
9	12,17	iwwe	iwwe	iyi

Class	MR	-uwe	-uwe	-yi
10	9,17	dziuwe	dziuwe	dziyi
11	9,17	zuuwe	zuuwe	zuyi
12	9,17	kauwe	kauwe	kayi
13	9,17	tuuwe	tuuwe	tuyi
14	9,17	huuwe	huuwe	huyi
15	9,17	kuuwe	kuuwe	kuyi
16	9,17	pauwe	pauwe	payi
17	9,17	kuuwe	kuuwe	kuyi
18	9,17	muuwe	muuwe	muyi

4.1.4. Demonstrative

A demonstrative is a word which incorporates the morpheme [V¹-] and one of the series a gender concord. It may also incorporate the morpheme [-o] (that).

Summary: + DEM:[V¹-] + G:gc a ± NUC:[-o]

[V¹-] is in all cases subject to MR 46. The morphophonemic rules applicable to the gender concords are indicated below.

			"this, these"			"that, those"		
Series a go's			Morphemic Structure	MR	Phonemic Form	Morphemic Structure	MR	Phonemic Form
Class								
1	u	V ¹ -u	17,11A	uyu		V ¹ -u-o	18,1B	uyo
2	va	V ¹ -va	17,9	ava		V ¹ -va-o	18,1	ayo
3	u	V ¹ -u	17,11A	uyu		V ¹ -u-o	18,1B	uyo
4	i	V ¹ -i	17,11A	iyi		V ¹ -i-o	18,1B	iyi
5	ri	V ¹ -ri	17,9	iri		V ¹ -ri-o	18,1	iro
6	a	V ¹ -a	17,11A	aya		V ¹ -a-o	18,1B	ayo
7	oi	V ¹ -oi	17,9	ici		V ¹ -oi-o	18,1	ico
8	svi	V ¹ -svi	17,9	iavi		V ¹ -svi-o	18,1	iavo
9	i	V ¹ -i	17,11A	iyi		V ¹ -i-o	18,1B	iyi
10	dzi	V ¹ -dzi	17,9	idzi		V ¹ -dzi-o	18,1	idzo
11	ru	V ¹ -ru	17,7	uru		V ¹ -ru-o	18,2	urwo
12	ka	V ¹ -ka	17,9	aka		V ¹ -ka-o	18,1	ako
13	tu	V ¹ -tu	17,7	utwu		V ¹ -tu-o	18,2	utwo

Author Fivaz Derek

Name of thesis Shona Morphophonemics And Morphosyntax. 1969

PUBLISHER:

University of the Witwatersrand, Johannesburg

©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.