

HARMONIC VERSUS NON-HARMONIC FINAL VOWEL IN THE VERBAL INFLECTION OF KWANYAMA

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1. INTRODUCTION

In a number of Western Bantu languages the final vowel is subject to vowel harmony in a varying set of verbal tenses. In Kwanyama, a Bantu language spoken in Angola and Namibia, classified by Malcolm Guthrie as R.21, the final vowel is subject to vowel harmony in the Present, Negative Present, Habitual, Negative Habitual and Recent Past tenses. Basically the penultimate vowel is copied to the final slot of the verb structure. This is true for the majority of disyllabic verb stems. However, there are a number of disyllabic verb stems that do not take the harmonic final vowel, but take the default vowel -a instead.

Many language descriptions, such as Möhlig, Marten and Kavari (2002) for Herero, Fivaz (1986) for Ndonga and Zimmermann and Hasheela (1998) for Kwanyama, mention that not all verb stems allow a harmonic final vowel, but no rationale is provided for the 'exceptional' verb stems. Grégoire (1979) analyses the use of the harmonic final vowel in a number of languages and mentions two obstacles for the analysis of Kwanyama final vowel harmony: the tonal system of the language is not known, and the data presented by Brincker (1891) and Tobias and Turvey (1954) are contradictory. Now that the basics of the Kwanyama tonal system are known (Halme 2004), and we have access to some recently collected data, Grégoire's hypotheses can be tested.

In the present article I explore the use of the harmonic versus non-harmonic final vowel in Kwanyama. The basic question is which are the verbs that take the non-harmonic final vowel -a in the tenses that apply vowel harmony to the final vowel. I collected my data in Angola in 2005. I have also used Turvey, Zimmermann and Taapopi's (1977) Oshikwanyama-English Dictionary, which is based on Hermann Tönjes' work at the beginning of the 20th century. There are a number of verb stems for which my data give a harmonic vowel but for which Turvey, Zimmermann and Taapopi's Dictionary marks the non-harmonic vowel as the final vowel to be used in the Present tense. The Proto-Bantu forms I refer to

are taken from the *Reconstructions lexicales bantoues 2* compiled by André Coupez, Yvonne Bastin and E. Mumba in Musée royal de l'Afrique centrale, Tervuren in 1998.

According to Grégoire (1979), the conditioning of the variation of the final vowel in languages of zone R is partly tonal. The original vowel length also plays a role in determining the choice between a harmonic vowel and non-harmonic *-a*. The reflexes of the reconstructed High-toned verbs of form *-CVVC- or *ji-CVC- take the vowel *-a*. Longer stems are derivations, which take the default final vowel *-a*, with the exception of the applicative and the impositive extensions, which are followed by the final vowel *-e*. The reflexes of Low-toned reconstructions of form *-CVVC- and the reflexes of all reconstructions of form *-CVC- are expected to take the harmonic final vowel.

2. HARMONIC FINAL VOWEL

Most of the Kwanyama disyllabic verb stems take the harmonic final vowel. The vowel of the verb root, i.e. the penultimate vowel, is copied, so that the harmonic vowel is *-e* for verb bases *-CeC¹-*, *-i* for verb bases *-CiC-*, *-o* for verb bases *-CoC-* and *-u* for verb bases *-CuC-*. The harmonic final vowel for the verb bases of form *-CaC-* is *-e*. The examples (1) through (5) illustrate. The lexical H(igh) or L(ow) tone of the verb is marked next to the gloss of the base. Tones shift in Kwanyama one mora to the right, and thus in the examples the tone of the root is always manifested on the second vowel of the stem.

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|-----|--------------------|-------------|-------------|
| (1) | otáva_téme | < -tem- | cf. *-teem- |
| | IV.2_kindle.PRE | kindle L | |
| | 'they kindle' | | |
| (2) | otáva_lími | < -lim- | cf. *-dIm- |
| | IV.2_cultivate.PRE | cultivate L | |
| | 'they cultivate' | | |
| (3) | otáva_kókó | < -kok- | cf. *-kók- |
| | IV.2_drag.PRE | drag H | |
| | 'they drag' | | |
| (4) | otáva_túmú | < -tum- | cf. *-tÚm- |
| | IV.2_send.PRE | send H | |
| | 'they send' | | |

¹ C stands here for any consonant, prenasalised consonant, glide or a combination of an obstruent and a glide.

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|-----|---------------|---------|------------|
| (5) | otáva_tálé | < -tal- | cf. *-tád- |
| | IV.2_look.PRE | look H | |
| | 'they look' | | |

As suggested by Grégoire (1979), the Kwanyama reflexes of the High-toned *-CVC- verbs and Low-toned reconstructions seem to select the harmonic vowel. Few counterexamples were detected: *-dana* (a) L 'dance' (cf. *-dian-), *-lafa* (a) H 'lick' (cf. *-dac- tone?), *-vela* (e) H 'be ill' (cf. *-béed-) and *-yela* (a) H 'become bright' (cf. *-jéd-).

The monosyllabic verb stems always take the harmonic vowel. The glides appear as the corresponding high vowels (6)–(7), the stems with palatal consonants take the final vowel *-i* (8) and the stems with other consonants take the final vowel *-e* (9).

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|-----|---------------------------|---------|
| (6) | otáva_fí | < -fya |
| | IV.2_die.PRE ⁷ | die H |
| | 'they die' | |
| (7) | otáva_lú | < -lwa |
| | IV.2_fight.PRE | fight L |
| | 'they fight' | |
| (8) | otáku_shí | < -sha |
| | IV.17_dawn.PRE | dawn H |
| | 'it is dawn' | |
| (9) | otáva_fé | < -fa |
| | IV.2_dig.PRE | dig H |
| | 'they dig' | |

3. PREDICTABLE NON-HARMONIC FINAL VOWEL

All of the derivational extensions, except the impositive and applicative, are followed by the non-harmonic default final vowel *-a* in the tenses which show vowel harmony for the final vowel (10)–(11). The impositive and applicative extensions *-ik/-ek-* and *-il/-el/-in/-en-* are followed by the non-harmonic final vowel *-e* if not followed by another extension (12)–(13).

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|------|----------------------------|--------------|---------|
| (10) | otáva_tálwá | < -talw- | < -tal- |
| | IV.2_look.PASS.PRE | look.PASSIVE | look H |
| | 'they are being looked at' | | |

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|------|-------------------------------------|--------------------------|------------------|
| (11) | otáva_tálfá | < -talif- | < -tal- |
| | IV.2_look.CAUS.PRE | look.CAUSATIVE | look H |
| | 'they show' | | |
| (12) | otáva_liminé | < -limin- | < -lim- |
| | IV.2_cultivate.APPL.PRE | cultivate.APPLICATIVE | cultivate L |
| | 'they cultivate for s.o.' | | |
| (13) | otáva_liminifá | < -liminif- | < -limin- |
| | IV.2_cultivate.APPL.CAUS.PRE | cultivate.APPL.CAUSATIVE | cultivate.APPL L |
| | 'they make s.o. cultivate for s.o.' | | |

Not all derived verbs result from productive derivation, and the non-derived root is not always in use. However, these verbs take the non-harmonic final vowel *-a*. For example, most verbs ending in *-wa* are interpreted as passive verbs and they therefore take the non-harmonic vowel. Verb stems ending in *-wa* that take the harmonic vowel are monosyllabic stems and verb stems where the original second consonant has been deleted through the lenition process, as in *-kuwa* (*kuu*) H 'cry' (cf. *-kÚg-), *-lowa* (*loo*) L 'bewitch' (cf. *-dog-) and *-yowa* (*yoo*) H 'swim' (cf. *-jóg-).

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|------|----------------|-------------------|
| (14) | otáva_hénwá | < -henw- |
| | IV.2_choke.PRE | choke (PASSIVE) L |
| | 'they choke' | |

The neuter verbs often come in pairs with a transitive verb as in examples (15)–(16). The verb *-lika* (*a*) H 'be bitten' is derived from *-lya* H 'eat', and *-sheka* (*a*) H 'rain: cease' has its transitive counterpart *-shela* (*a*) H 'rain: flash'. (17) is an example of the non-productive tentative (contactive) extension, which also requires the non-harmonic final vowel.

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|------|-------------------|------------------------|-------------|
| (15) | otáshi_téká | < -tek- | cf. -tey- |
| | IV.7_break.PRE | break i.tr. (NEUTER) H | break tr. H |
| | 'it breaks' | | |
| (16) | otáa_tiká | < -tik- | cf. -til- |
| | IV.6_be-spilt.PRE | be spilt (NEUTER) H | spill H |
| | 'it is spilt' | | |
| (17) | otáva_lyáta | < -lyat- | |
| | IV.2_tread.PRE | tread (TENTIVE) L | |
| | 'they tread' | | |

4. UNPREDICTABLE USE OF NON-HARMONIC FINAL VOWEL

There are a number of disyllabic verb stems which have to be marked in the lexicon as the ones that take the non-harmonic final vowel *-a* in tenses that apply final vowel harmony, for nothing in the verb stem indicates that the harmonic vowel should not be used.

Grégoire (1979) has suggested that the variation harmonic versus non-harmonic final vowel might have a diachronic explanation. The hypothesis is that the reflexes of the reconstructed High-toned roots of form *-CVVC- or *-ji-CVC- take a non-harmonic final vowel. Maniacky (2003) shows that this works for Ngangela, a zone K language, which exhibits variation between the harmonic final vowel (*-e* for *-CaC-* bases) and the final vowel *-a* in the tense called *l'antérieur*. He argues that it is the reflexes of the reconstructed High-toned roots with either a long vowel or the initial sequence **ji-* that take the non-harmonic vowel *-a*.

Grégoire's hypothesis seems to be correct for Kwanyama, too. I detected 18 Kwanyama reflexes of the reconstructed High-toned *-CVVC-verbs, 15 of which take the non-harmonic vowel *-a*. (See Appendix 1 for a list of these verbs.)

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|------|-------------------|---------|-------------|
| (18) | otáva_étá | < -et- | cf. *-dét- |
| | IV.2_bring.PRE | bring H | |
| | 'they bring' | | |
| (19) | otáva_tílá | < -tíl- | cf. *-tíll- |
| | IV.2_fear.PRE | fear H | |
| | 'they are afraid' | | |

Some of the 15 verb bases which support the hypothesis contain a derivational extension, which in Kwanyama requires the non-harmonic vowel *-a* in any case, such as the tentative (contactive) extension *-at-* (20) and the separative extension *-ul-* (21).

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|------|------------------|------------------------|-------------|
| (20) | otáva_kwátá | < -kwat- | cf. *-kÚat- |
| | IV.2_seize.PRE | seize (TENTATIVE) H | |
| | 'they seize' | | |
| (21) | otáva_dúlá | < -dul- | cf. *-dúUd- |
| | IV.2_undress.PRE | undress (SEPARATIVE) H | |
| | 'they undress' | | |

Two reflexes are interpreted as impositive derivations and therefore take the final vowel *-e* (22)–(23). Within the reflexes of the reconstructed High verbs of form *-CVVC-, there is one verb stem which takes the harmonic vowel *-e* and thus contradicts the hypothesis (24).

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|------|-------------------|---------------------------|-------------|
| (22) | otáva_díké | < -dik- | cf. *-dúIk- |
| | IV.2_dress.PRE | dress s.o. (IMPOSITIVE) H | |
| | ‘they dress s.o.’ | | |
| (23) | otáva_twíké | < -twik- | cf. *-tÚIk- |
| | IV.2_load.PRE | load s.o. (IMPOSITIVE) H | |
| | ‘they load s.o.’ | | |
| (24) | otáva_vélé | < -vel- | cf. *-béed- |
| | IV.2_be-ill.PRE | be ill H | |
| | ‘they are ill’ | | |

The reflexes of reconstructed High *ji*-initial verb stems take the non-harmonic final vowel *-a* (25)–(26). Grégoire (1979) points out the problematic example of *-kala* ‘stay’, which takes the non-harmonic final vowel although the reconstruction is Low-toned *-jikad-. Schadeberg (2003) gives this verb as an example of the use of the extensive extension *-al-. This non-productive extension may be the reason for the choice of the non-harmonic final vowel *-a* (27).

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|------|-----------------------|--------------|--------------|
| (25) | otáva_púlá | < -pul- | cf. *-jípUd- |
| | IV.2_ask.PRE | ask H | |
| | ‘they ask’ | | |
| (26) | otáva_kútá | < -kut- | cf. *-jíkUt- |
| | IV.2_be-replete.PRE | be-replete H | |
| | ‘they become replete’ | | |
| (27) | otáva_kálá | < -kal- | cf. *-jikad- |
| | IV.2_stay.PRE | stay H | |
| | ‘they stay’ | | |

In addition, there are a number of verbs which take the non-harmonic vowel instead of the regular harmonic vowel, with no apparent reason, as in examples (28)–(30). (See Appendix 2 for a list of these verbs.) However, there are few counterexamples to the general principles that the reflexes of the High *-CVC- verb bases and the reflexes of the Low *-CVVC- bases ought to take the harmonic final vowel (31)–(32).

- (28) otái_wédá < -wed-
IV.9_bark.PRE bark H
'it [dog] barks'
- (29) otáva_túká < -tuk-
IV.2_fly.PRE fly H
'they [birds] fly'
- (30) otáshi_xúnga < -xung-
IV.7_spill.PRE spill L
'it [vessel] spills'
- (31) otáshi_yélá < -yel- cf. *-jéd-
IV.7_become-bright.PRE become-bright H
'it becomes clear'
- (32) otáva_dána < -dan- cf. *-dian-
IV.2_dance.PRE dance L
'they dance'

Non-productive extensions may be the rationale for the choice of the non-harmonic vowel for some of these verbs. Grégoire (1979) suggests that the ancient causative extension *-i- may have produced some of the Kwanyama verb stems that for no apparent reason take the non-harmonic vowel instead of the harmonic one:

- (33) otáva_yófa < -yof- cf. *-joki-
IV.2_roast.PRE roast L
'they roast'
- (34) otái_yádá < -yad- cf. *-jijad-
IV.8_become-full.PRE become full H
'they [vessels] become full'
- (35) otáva_fúdá < -fud- cf. *-púd-
IV.2_breathe.PRE breathe H blow with mouth
'they breathe'

5. IDIOLECTAL VARIATION

There are verb stems for which the final vowel varies from speaker to speaker. (See Appendix 3 for a list of these verbs.) Wider research is required in order to see whether this variation is regional in any way, or whether the age of the speakers is a determining factor. I have data from six Kwanyama speakers from

four different areas and from Turvey, Zimmermann and Taapopi's Oshikwanyama-English Dictionary (1977), where all verbs for which I detected some variation have been indicated as taking the non-harmonic vowel *-a*. For some verbs like *-feta* L 'twist', some speakers gave the non-harmonic vowel without hesitation, and some speakers equally with no hesitation gave the harmonic vowel.

- (36) otáva_féta < -fet-
 IV.2_ twist.PRE twist L
 'they twist'
- (37) otáva_féte < -fet-
 IV.2_ twist.PRE twist L
 'they twist'

Some of the verbs in question are rarely used in the Present, Habitual or Recent Past tenses, a fact that may account for the variation in the final vowel. This is the case, for example, with the verb *-shopa* 'have skin greasy', which appears almost exclusively in the Past tense. When pressed, most speakers would opt for a harmonic vowel (38). One opted for the default vowel *-a* (39), and one speaker gave both alternatives.

- (38) otáva_shópó < -shop-
 IV.2_ have-skin-greasy.PRE have-skin-greasy H
 'they get greasy skin'
- (39) otáva_shópá < -shop-
 IV.2_ have-skin-greasy.PRE have-skin-greasy H
 'they get greasy skin'

For some verbs three or more speakers gave two alternative final vowels. These verbs may be shifting from the exceptional pattern to the regular one, i.e. from using the non-harmonic vowel to using the harmonic one (40) > (41) and (42) > (43). For the verb *-dunda* H 'frequent', five speakers used the harmonic vowel (44) and gave no alternative, whereas one of my informants, as well as Turvey, Zimmermann and Taapopi (1977) give the non-harmonic vowel for this verb (45).

- (40) otáva_fifa < -fif-
 IV.2_ winnow.PRE winnow(°-L)
 'they winnow'

- | | | |
|------|---|---------------------------|
| (41) | otáva_ <u>f</u> fi
IV.2_ winnow.PRE
'they winnow' | < -fif-
winnow(°-L) |
| (42) | otáva_ <u>f</u> ina
IV.2_ squeeze.PRE
'they squeeze' | < -fin-
squeeze(°-L) |
| (43) | otáva_ <u>f</u> ini
IV.2_ squeeze.PRE
'they squeeze' | < -fin-
squeeze(°-L) |
| (44) | otáva_ dúndú_ <u>k</u> ó
IV.2_ frequent.PRE
'they frequent there' | < -dund-
frequent(°-H) |
| (45) | otáva_ dúndá_ <u>k</u> ó
IV.2_ frequent.PRE
'they frequent there' | < -dund-
frequent(°-H) |

6. CONCLUSION

To conclude, the problem is only partly resolved. There is a strong tendency in Kwanyama to have the non-harmonic final vowel associated with the reflexes of the reconstructed High-toned verb stems of form *-CVVC- or *-jí-CVC-. Both the productive and the non-productive derivational extensions, other than applicative and impositive, call for the non-harmonic default vowel *-a*. In addition, there are a number of disyllabic verb stems, which take the non-harmonic default vowel *-a* for no apparent reason. These verbs surely need a closer examination and comparison with related languages. I offer my data to the Bantuists and others interested (see Appendix 2).

An interesting point is the variation within the community of Kwanyama speakers in the choice of the harmonic versus non-harmonic vowel in certain verb stems (see Appendix 3). It is possible that some of the verb stems cited are in the process of transition from the use of the non-harmonic vowel to the use of the harmonic vowel. Whether similar processes are taking place with Kwanyama speakers in Namibia and in closely related linguistic varieties remains an open question.

Abbreviations

*	reconstructed form
1, 2, 3, 4...	noun class
APPL	applicative derivational extension
C	consonant
CAUS	causative derivational extension
H	high tone
intr.	intransitive
IV	initial vowel
L	low tone
PASS	passive derivational extension
PRE	present tense
tr.	transitive
V	vowel

REFERENCES

- BRINCKER, P. H. 1891. *Lehrbuch des Oshikuanjama*. Stuttgart/Berlin: W. Spemann
- COUPEZ, A., Y. BASTIN & E. MUMBA 1998. *Reconstructions lexicales Bantoues*, II. Tervuren: Musée Royal de l'Afrique Centrale.
- FIVAZ, D. 1986. *A Reference Grammar of Oshindonga*. (African Studies of the Academy, 1.) Windhoek: Academy.
- GRÉGOIRE, C. 1979. Les voyelles finales alternantes dans la conjugaison affirmative des langues Bantoues centrales. *Journal of African Languages and Linguistics* 1: 141–172.
- HALME, R. 2004. *A Tonal Grammar of Kwanyama*. (Namibian African Studies, 8.) Köln: Rüdiger Köppe Verlag.
- MANIACKY, J. 2003. *Tonologie du ngangela: variété de Menongue (Angola)*. (LINCOM Studies in African Linguistics, 61.) Munich: Lincom.
- MÓHLIG, J. G. & L. MARTEN & J. U. KAVARI 2002. *A Grammatical Sketch of Herero (Otjiherero)*. Köln: Rüdiger Köppe Verlag.
- SCHADEBERG, T. C. 2003. Derivation. In: D. Nurse & G. Philippson (eds.), *The Bantu Languages*: 71–89. London: Routledge.
- TOBIAS, G. W. R. & B. H. C. TURVEY 1954. *English-Kwanyama Dictionary*. Johannesburg: Witwatersrand University Press.
- TURVEY, B. H. C., W. ZIMMERMANN & G. B. TAAPOPI (eds.) 1977. *Kwanyama-English Dictionary*. Johannesburg: Witwatersrand University Press.
- TÖNJES, H. 1910. *Lehrbuch der Ovambo-Sprache, Oshikuanjama*. Berlin: Georg Reimer.
- ZIMMERMANN, W. & P. HASHEELA 1998. *Oshikwanyama Grammar*. Windhoek: Gamsberg-Macmillan.

APPENDIX 1

**Kwanyama reflexes of High *-CVVC- verb stems
which take the non-harmonic final vowel -a**

stem	tone	gloss	origin
-dala	H	give birth to	*bíad
-djala	H	wear	*dúad
-dula	H	undress	*dúUd
-eta	H	bring	*déet
-fiya	H	spit	*túij
-fula	H	rub	*tíUd
-kuka	H	shed teeth, i.tr.	*kúUk
-kula	H	shed teeth, tr.	*kúUd
-kwafa	H	help	*kúati
-kwata	H	grasp	*kúat
-tila	H	fear	*tíId
-tula	H	put	*túUd
-twala	H	carry	*túad
-tyava	H	gather firewood	*tíab
-vyula	L	straighten	*bíUd

APPENDIX 2

**Kwanyama verb stems which take the non-harmonic final vowel -a
for no apparent reason**

stem	tone	gloss	origin
-dana	L	dance	*dian
-diya	L	leak	
-dona	L	~mo, draw out	
-duda	L	pull	*diUd (final consonant?)
-duma	H	hum	
-efa	L	leave	
-fenya	L	take snuff	
-feta	L	wipe	
-fofa	H	strip off	
-fofa	H	give 2 nd helping of food	
-fuda	H	breathe	
-fufya	L	tell lies	
-funga	L	sway	
-hefa	H	inhale	

-hepa	L	want, need	
-hola	L	prick out	
-kana	H	get lost	
-kenya	L	lay bare clenched teeth	
-kofa	L	sleep	
-kufa	L	take	
-kunya	L	gnaw	
-kwena	L	whine	
-kwenya	L	scratch	
-kweya	L	scrape	
-lafa	H	lick	*dac (tone?)
-lesha	L	read	Ger. <i>lesen</i>
-mbweta	L	bubble	
-nhuka	H	jump	
-nyika	L	smell of	
-nyola	H	carve	
-nyota	L	pinch	
-puka	H	err	
-pweda	L	trail, haul	
-pweya	L	strip off	
-shela	H	rain: flash	
-sheya	H	give unsolicited	
-shisha	L	drip	
-shuna	L	go back	
-teya	H	break tr.	
-toka	H	lose status	
-toka	H	become white	*took (tone?)
-tona	H	pluck	
-topa	H	explode	
-tuka	H	fly	
-twama	H	take root	
-twima	L	smoke	
-twiya	H	go in the eye	
-vema	L	gleam	
-wana	L	suffice	
-weda	L	~LOC, add	
-weda	H	dog: bark	
-xunga	L	spill	
-xwama	H	catch fire	
-xwela	L	insert	
-xwema	L	snake: hiss	
-xwida	L	snatch	
-yada	H	fill up	*jijad (final consonant?)
-yeda	L	lift up	
-yela	H	become bright	*jéd
-yeya	L	salivate	
-yofa	L	roast	*joki
-yuka	L	be straight	

APPENDIX 3

Kwanyama verb stems with idiolectal variation in the final vowel

stem	tone	gloss	origin
-dunda (u, a)	H	frequent	
-feta (a, e)	L	ripen prematurely	
-feta (a, e)	L	twist	
-fifa (a, i)	L	winnow, sift	*titi
-fina (a, i)	L	squeeze (out)	*pin
-kenya (a, e)	L	lay bare teeth	
-kila (a, i)	L	be encrusted	
-kina (a, i)	H	squeak	
-kisha (i, a)	H	face: be swollen because of weeping a lot	
-kola (o, a)	H	affect	
-koya (a, o)	H	pass	
-kwesha (a, e)	L	~komayoo, grit one's teeth	
-ngwenya (e, a)	L	be upset	
-oka (o, a)	H	stop (of the flow)	
-punda (u, a)	L	almost fall down	
-shopa (o, a)	H	have skin greasy	
-shosha (a, o)	L	add	
-twika (a, i)	H	go blind	
-xula (a, u)	H	secrete milk	
-yala (e, a)	L	lay	
-yova (o, a)	H	soil: be rain-soaked	

