

The Prosody of Shingazidja Relatives

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This paper constitutes a first descriptive account of the prosody of Shingazidja relative clauses. After a short description of the morphology of the relative verb, it shows that there is no prosodic boundary between a restrictive relative and its head, on the one hand, but that the non-restrictive relative and the cleft phrase separately from their heads, on the other hand. These results are similar to those of corresponding works on other Bantu languages, such as Bemba or Zulu. However, Shingazidja differs from these languages in that the phrasing of the restrictive relatives varies according to the function of the head: when the head of the non-restrictive relative is the object of the matrix clause, it phrases separately from what follows.

1 Introduction¹

This paper constitutes a first descriptive account of the prosody of Shingazidja relative clauses.

Shingazidja is a Bantu language which is spoken on Grande Comore (or Ngazidja, the largest island of the Comoros). The language is coded G44a in Guthrie (1967-71)'s referential classification and belongs to the Sabaki group, which also notably contains Kiswahili. Data for this paper were gathered and recorded in Paris (France) from the native speaker Ibrahim Barwane between July 2006 and July 2009, except for the data illustrating the Southern dialect of Shingazidja in (19) and (20), which were obtained from Saïd Bacarzme in July 2008.

The paper is organized as follows. In section 2, I present an overview of the tone rules and phrasing patterns of Shingazidja. In section 3, I provide a short

¹ For helpful discussion of several aspects of this work, I wish to thank Sophie Manus, Katia Paykin, Lisa Selkirk and everybody in the SynPhonI project as well as in the audience of the first workshop of the SynPhonI project. Many thanks to my main informant, Ibrahim Barwane: this work could not have been done without his help.

description of the morphology of the relative verb, and a detailed account of the phrasing parameters of the restrictive relatives. It is shown that these relatives prosodically phrase with their heads. Section 4 is dedicated to the phrasing asymmetry that distinguishes the restrictive relatives that specify the subject of the matrix clause from the relatives that specify the object of the matrix clause, where a boundary separates the head from the relative. In section 5, I describe the prosody of non-restrictive relatives and clefts, where the head is also followed by a prosodic boundary.

2 Background: tone and phrasing

In this section, I will provide a short description of the main prosodic parameters of Shingazidja, focusing on the tone rules (the shift of the tone, and the deletion of the even-numbered surface tones) and the phonological and intonational phrasing parameters.

Because of space restrictions, I will not discuss some of the aspects of the prosodic system that relate to intonation (e.g. the downstep that is commonly associated with the last tone of the utterance).

2.1 Tone rules

The major characteristics of the Shingazidja tone system are well known. The system has been extensively discussed in Tucker & Bryan (1970), Cassimjee & Kisseberth (1989, 1992, 1993, 1998), Philippson (1988, 2005) and Patin (2007, 2008).

In Shingazidja, a high tone shifts to its right up to the end of a Phonological Phrase,² except if an underlying tone-bearing unit blocks it. The shift of the tone leads to the deletion of every even-numbered tone (in respect of the Obligatory Contour Principle). In (1bi)³ for instance, the tone of the noun *maβáha* ‘cats’ shifts to the penult of the adjective *mailí* ‘two’, and the tone of the adjective is

² In this study, a tone-bearing unit is underlined. In (1aiii), for instance, both vowels of the stem are underlined, meaning that the word has the following underlying form: /mi-pírá/.

³ The following abbreviations are used in the glosses (numbers refer to agreement classes):

PAST	past	PRES	present	AT	augment
REL-PA	relative past	REL-PR	relative present	STAB	stabilizer
1SG	first person singular	OM	object marker	REL	relative
FV	final vowel	IMP	imperfective	PAS	passive
ɸ	deleted lexical tone	POSS	possessive	N	noun
QF	Quantifier	DEM	demonstrative	ADJ	adjective
ADV	adverb				

⁴ When a Shingazidja word appears in the text outside the examples, it is transcribed as it is in isolation.

thus deleted. In (1-c-i), however, the tone of the adjective is free to appear because the tone of the noun has been deleted by the tone of the verb *tsi(w)óno* ‘I saw’.

- (1) a. i. -ilí ‘two’
 ii. ma-βáha ‘cats’ (6)
 iii. mi-píra ‘balloons’ (4)
- b. i. ma-βaha ma-íli
 6-cat 6-two
 ‘Two cats.’
 ii. mi-píra mi-ilí
 4-balloon 4-two
 ‘Two balloons.’
- c. i. tsi-(w)ón-o má-βaha ma-ilí
 1SG(PAST)-see-FV 6-cat 6-two
 ‘I saw two cats.’
 ii. tsi-(w)ón-o mí-píra mi-ilí
 1SG(PAST)-see-FV 4-balloon 4-two
 ‘I saw two balloons.’

Beside these regular phenomena, the Moroni dialect has a certain number of tone rules that seem to apply depending on parameters such as the style, the length of the sentence or the speech rate. The precise nature of these rules, never discussed until now to my knowledge, is the subject of ongoing research. For these reasons, I will not consider their effects in the transcription of the examples. However, I will briefly discuss them here, because their effects are visible in the figures.⁵

- TONE SPREAD: a non-phrase final surface tone spreads on the following vowel, most of the time if this vowel is an [i] or when the two high-toned vowels are identical (e.g. uCu)

⁵ However, I will not discuss some other phenomena such as the deletion and/or the insertion of underlying tones (see (17a) here, where the noun *ndóvu* ‘elephant’ has an underlying tone on its penult, while it has usually no tone (17b)).

- (2) ze = m-buda m-bíli n-dziro ⇨ [zembudambílíndziro]
 AT₁₀=10-stick 10-two 10-heavy
 ‘Two heavy sticks.’

- PEAK DELAY: a tone that is supposed to appear on one of the first two syllables shifts to the following syllable, especially when the latter syllable is stressed, if the sentence consists of more than two prosodic words

- (3) nd⁶ = e = má-βaha ma-ilí ⇨ [ndemaβáhamailí]
 STAB=AT₆=6-cat 6-two
 ‘It is the two cats.’

- PENULT RAISING: the penult of a prosodic word is raised when the last syllable of the same word bears a surface high tone, especially if the syllable is an underlying tone-bearing unit and if the word is phrase-final

- (4) ye = ma-βahá pia ⇨ [yemaβáhápia]
 AT₆=6-cat all
 ‘All the cats.’

2.2 Phonological phrases

As in many other Eastern Bantu languages (Philipsson 1991), tone is not bounded by the limits of the prosodic word in Shingazidja. In (1), the tones of the nouns and/or verbs are free to move to the following word(s). More precisely, the tone shifts in Shingazidja as far as it can towards the end of the phrase. In (5), for instance, the tone of the verb *ha(w)óno* ‘he saw’ shifts to the penult of the phrase, through the noun *ndóvu* ‘elephant’.

- (5) ha-(w)on-o n-dovu m-bíli
 1(PAST)-see-FV 10-elephant 10-two
 ‘He saw two elephants.’

However, a tone cannot cross the boundaries of the phonological phrases. In (6a) – the symbol ‘)ϕ’ signals the end of a phonological phrase –, the tone of the subject NP stops on the last syllable of the noun while the first syllable of the

⁶ The augment is associated with a lexical high tone when the stabilizer precedes it.

verb *haréme* ‘he beat’ is not a tone-bearing unit, and thus a possible target (6b). The example is illustrated in Figure 1, showing the F₀ curve.

- (6) a. (m̄-limad̄jí)_ϕ (ha-r̄em-é páha)_ϕ
 1-farmer 1(PAST)-beat-FV (5-)cat
 ‘A farmer beat a cat.’
 b. *(m̄limad̄ji háreme páha)_ϕ

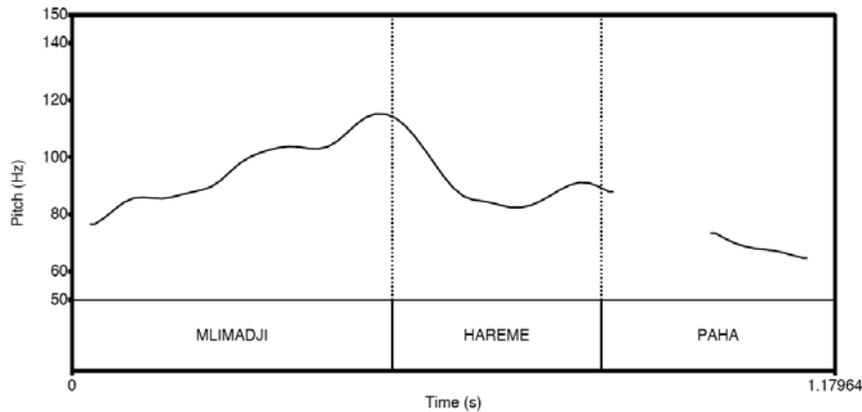


Figure 1: (m̄-limad̄jí)_ϕ (ha-r̄em-é páha)_ϕ ‘A farmer beat a cat.’ – cf. (6a)

The shift of the tone is thus the clue for phonological phrase boundaries in Shingazidja.

As in other languages, the maximal syntactic phrase and the phonological phrase are coextensive. For instance, in (7), the tone of the verb shifts onto the direct object *mapésá* ‘money’ through the beneficiary *wáñdu* ‘persons’, indicating that the whole VP forms a single phonological phrase.

- (7) (tsi-n̄ik-a wa-n̄du má-pesá)_ϕ
 1SG(PAST)-give-FV 2-person 6-money
 ‘I gave money to people.’ (Cassimjee & Kisseberth 1993)

The tone of a subject NP, however, cannot shift onto a following verb (6a), indicating that there is a phonological phrase boundary between the subject NP and the VP. A phonological phrase boundary also separates, for instance, a dislocated element from its host, or two coordinated elements. It should be noted that a phonological phrase boundary is also associated with the augment (also known as ‘preprefix’). The boundary will precede the augment when it cliticizes to a following noun (8a), and follow the augment when it cliticizes to a preceding element (8b).

- (8) a. (ha-nik-á)_ϕ (ye = n-uŋgu n-dzíro)_ϕ
 1(PAST)-give-FV AT₉=9-pot 9-heavy
 ‘He gave the heavy cooking-pot.’
- b. (ha-nik’ = é)_ϕ (n-uŋgu n-dzíro)_ϕ
 1(PAST)-give= AT₉ 9-pot 9-heavy
 ‘He gave the heavy cooking-pot.’

Finally, the phrasing is also conditioned in Shingazidja by focus (Patin 2007, 2008), as it is in other Bantu languages such as Chicheŵa (Kanerva 1990, Downing *et al.* 2005), and by eurythmic constraints.⁷ Due to space restrictions, these aspects will not be discussed in this paper.

2.3 Intonational phrases

In (9ai), the tone stays on the penultimate syllable of the sentence. The tone does not shift to the last syllable (9a_{ii}). Moreover, the shift of a tone also stops on the penult – as in (8a), here repeated as (9bi).

- (9) a. i. (ze = m-buda ṃ-titi pía)_ϕ
 AT₁₀=10-stick 10-small all
 ‘All the small sticks.’
- ii. *(ze = m-buda ṃ-titi píá)_ϕ
- b. i. (ha-nik-á)_ϕ (ye = n-uŋgu n-dzíro)_ϕ
 1(PAST)-give-FV AT₉=9-pot 9-heavy
 ‘He gave the heavy cooking-pot.’
- ii. *(ha-nik-á)_ϕ (ye = n-uŋgu n-dziró)_ϕ

The fact that a tone cannot shift to (in Shingazidja, or in the Bantu language Giryama – cf. Cassimjee & Kisseberth 1998) or spread to (in the Bantu language Shambaa – cf. Philippon 1991, 2005) the last syllable of the utterance is sometimes called ‘extraprosodicity’ (but the term is unsatisfactory, since a

⁷ There is for instance a constraint against sequences of words lacking surface tones that may lead to the insertion of an underlying tone or a phonological phrase boundary. In the latter case, a surface tone is inserted on the penult of the phonological phrase. For an introduction to eurythmic effects on phrasing, see Truckenbrodt (2007).

‘lexical’ tone can appear on the last syllable of an utterance – e.g. (1-c-i), (7), etc.). This phenomenon relates to the NONFINALITY constraint family in OT (see, among others, Cassimjee & Kisseberth 1998).

This non-finality effect has been claimed to be the clue for Intonational Phrases in Patin (2007, 2008), following Cassimjee & Kisseberth (1998). However, it is not clear if, in Shingazidja, the domain of the Intonational phrase is the clause or the sentence. While NONFINALITY always applies at the end of a sentence, it optionally applies at the end of a clause. A matrix clause, for instance, can be separated from an embedded clause by a phonological phrase boundary or an intonational phrase boundary. In (10a), the tone of the verb *ngudju(w)o* ‘I know’ shifts to its last syllable, meaning that it is followed by a phonological boundary. In (10b), however, the tone remains on the penult of the verb, meaning that the word is followed by an intonational phrase boundary – the symbol ‘),’ signals the end of an intonational phrase.

- (10) a. ((ng-u-dju(w)-ó)_φ (ndo = βi yá-lim-a)_φ),_i
 PRES-2ND(SG)-know-FV who=which 1(REL-PA)-cultivate-FV
 ‘You know who cultivated.’
- b. ((ng-u-dju(w)-o)_φ),_i ((ndo = βi yá-lim-a)_φ),_i
 PRES-2ND(SG)-know-FV who=which 1(REL-PA)-cultivate-FV
 ‘You KNOW who cultivated.’

It seems that the difference between the two examples in (10) relates to focus and/or emphasis. An argument in favor of such an analysis is the fact that NONFINALITY may occur when there is no evidence for a clause boundary (e.g. when two VPs are coordinated). This point is the object of current research, and will not be discussed in detail here.

3 Restrictive relatives

In this section, I will describe the morphological structure of the relative verb, and discuss the phrasing parameters that are associated with the restrictive relative clause.

3.1 The form of the relative verb

If we compare example (11a) to its relative counterpart (11b), we find that the two sentences differ with regard to the following properties: i. the form of the

subject marker, as in many other Bantu languages⁸ – *ya-* vs. *ha-* ii. the form of the final vowel iii. the phrasing pattern (the phrasing of the relative clause will be discussed in the following sections).

- (11) a. (ye = m-leví)_ϕ (ha-húZ-u)_ϕ
 AT₁=1-drunkard 1(PAST)-sell-FV
 ‘The drunkard sold.’
- b. (ye = m-leví yá-huz-a)_ϕ
 AT₁=1-drunkard 1(REL-PA)-sell-FV
 ‘The drunkard who sold.’

There is little to say about the form of the final vowel. The final vowel of many verbs harmonizes with the vowel of the root in the past tense, e.g. *hawóno* ‘he saw’, *halimí* ‘he cultivated’, etc. This is, as far as I know, never the case when the verb is in the relative form, e.g. *yahúza* ‘(that) he sold’, *yawóna* ‘(that) he saw’, *yalíma* ‘(that) he cultivated’, etc. Moreover, the final vowel of many verbs does not harmonize in the past tense, e.g. *haníka* ‘he liked’, *hahéza* ‘he sang’, *hafúsa* ‘he chased’, etc. Thus, the final vowel alone cannot distinguish the relative verb from the corresponding matrix verb.

What does signal the relative form of the verb is the form of the subject marker. In (12), the paradigms of the past and relative (past) forms of the verb (*h*)urénga ‘to take’ are presented.⁹

(12)	PAST		RELATIVE (PAST)	
	tsi-réng-é	‘I took’	na-réng-a	‘(that) I took’
	hu-réng-é	‘you took’	wa-réng-a	‘(that) you took’
	ha-réng-é	‘(s)he took’	ya-réng-a	‘(that) (s)he took’
	ri-réng-e	‘we took’	ra-réng-a	‘(that) we took’
	m-déng-e	‘you (pl) took’	mwa-réng-a	‘(that) you (pl) took’
	wa-réng-e	‘they took’	wa-réng-a	‘(that) they took’

When considering the paradigms of the past and the relative (past) forms of the verb (*h*)urénga ‘to take’ in example (12), the reader might wonder why the relative markers are presented as a unit instead of being split into two parts, e.g.

⁸ Cf. Cheng & Downing (2007: 21), about Zulu: ‘the relative clause is identified by having the relative form of the subject marker on the relative verb for both subject and object relatives’.

⁹ It should be noted that besides the differences in the form of the subject marker and the final vowels, the paradigms diverge according to their tone patterns.

n-a-, *w-a-*, etc., which would mean that we postulate the existence of a morpheme *-a-* between the subject marker and the root. The latter analysis receives support from the fact that the relative markers of the other classes follow the same pattern: *la-rénga* (5), *za-rénga* (8, 10), *fa-rénga* (7), etc. Moreover, some of the corresponding subject markers of the present form exhibit a different vowel: *li-* (5), *zi-* (8, 10), *fi-* (7), etc.

Nevertheless, some of the markers in the present form exhibit an *-a-* (*wa-* (2), *ya-* (6)), and the marker of classes 3 and 11 is *u-*. Last but not least, the marker of the third singular person in the present form varies according to the function of the relative: *(w)u-* in a subject relative (13a) but *ya-* in an object relative (13b).

- (13) a. (ndʔ = e = m-lévi (w)u-wón-o)_ϕ
 STAB=AT₁=1-drunkard 1(REL-PA)-see-FV
 ‘It is the drunkard who sees.’
- b. (ndé = lé = paha ya-lí-wón-a-ó)_ϕ
 STAB=AT₅=5-cat 1(REL-PR)-OM₅-see-FV-FV
 ‘It is the cat that he sees.’

In (13), there is a morpheme *-ó/-ó* at the end of the verbs. There is a corresponding morpheme that clearly behaves as an enclitic in several other Bantu languages (e.g. Chitumbuka (Downing 2006)), but this is not the case in present-day Shingazidja. Some of its properties seem to indicate that it behaves like the other so-called ‘final vowels’ of the language.¹⁰ For example, it always appears in the present tense, whether the verb is in a relative or in a matrix clause (e.g. *ngamník-o* ‘I give’, *ngariwoná-o* ‘we see’). Moreover, it cannot occur in Arabic loan words (*ngamtímízi* ‘I finish’). Once again, only the subject marker (and to a small degree the underlying tone patterns) indicates that the verb is in the relative form: *ngu¹¹-wón-o* ‘he sees’ vs. *(w)u-wón-o* ‘(that) he sees’, *ngwa-won-á-o* ‘they see’ vs. *wa-won-á-o* ‘(that) they see’, *ngali-won-á-o* ‘it (e.g. a cat) sees’ vs. *li-won-á-o* ‘(that) it (e.g. a cat) sees’, etc.

There is an interesting difference between the past and the present relative forms according to the object markers. In Shingazidja, the object marker is

¹⁰ The morpheme varies according to its tone properties (compare for instance the examples in (13): the morpheme is underlyingly high in (13a), but lacks its underlying tone in (13b)).

¹¹ The morpheme consists of the combination of the imperfective morpheme *nga-* with the subject marker *-u-*.

- b. (e = mw-idz' yá-ib-a n-dovu)_ϕ (ha-táw-a)_ϕ
 AT₁=1-thief 1(REL-PA)-steal-FV 9-elephant 1(PAST)-r. away-FV
 ‘The thief who stole an elephant ran away.’

In (17a), the tone of the noun *mwidzǐ* ‘thief’ cannot shift onto the verb, while the subject marker is a possible target (since its vowel is not underlyingly high-toned), signaling the presence of a phonological phrase boundary. In (17b), however, the tone of the head of the relative is free to shift onto the subject marker of the relative verb *yaíba* ‘(that) he stole’.

Compare Figure 1 to Figure 2, illustrating the example (18). In the former, the highest pitch is associated with the last syllable of the subject *mlimádjǐ* ‘farmer’. In the latter, the highest pitch appears on the first syllable of the relative verb *la(w)óna* ‘(that) it [5] saw’.

- (18) (le = paha lá-(w)ona)_ϕ
 AT₅=(5-)cat 5(REL-PA)-see-FV
 ‘The cat that saw.’

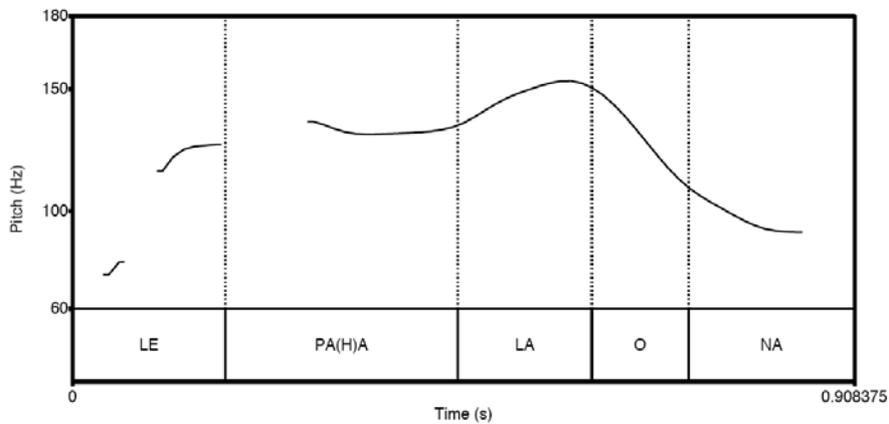


Figure 2: (le = paha lá-(w)ona)_ϕ ‘The cat that saw.’ – cf. (18)

The lack of prosodic break between the head of a restrictive relative and the verb of the relative has been noted for several other Bantu languages – e.g. Bemba (Cheng & Kula 2006), Chicheŵa (Downing & Mtenje, *to appear*), Chimwiini (Kisseberth, *this volume*), Embosi (Beltzung et al., *this volume*), Luganda (Hyman, *this volume*), Zulu (Cheng & Downing 2007). In many cases, however, the head optionally phrases with the verb of the relative (Bemba, Chimwiini, Embosi). The Bantu languages where the head phrases separately seem to constitute an exception – e.g. Simakonde (Manus, *this volume*) (but the head

phrases with the relative verb in other varieties of Makonde, e.g. Shimakonde (Liphola 2001), Mahuta (Odden 1990a), Maraba (Odden 1990b)).

It seems, however, that there is a prosodic boundary between the head and the verb of the relative in the Southern variety of Shingazidja (19), but more research is needed to confirm this. Nevertheless, it would not be a surprise since this variety is less permissive than the others as far as the prosodic phrasing is concerned. For instance, a phonological phrase regularly separates the noun from an adjective that follows it (20).

(19) *Southern Shingazidja*

(e = mw-idzi)_ϕ (ya-ib-a n-dovú)_ϕ (ha-táw-a)_ϕ
 AT₁=1-thief 1(REL-PA)-steal-FV 9-elephant 1(PAST)-run away-FV
 ‘The thief who stole an elephant ran away.’

(20) *Southern Shingazidja*

(ha-nik-á)_ϕ (ze = n-ungú)_ϕ (m-bili)_ϕ
 1(PAST)-give-FV AT₁₀=10-pot 10-two
 ‘He gave the two cooking-pots.’

In Shingazidja, as in several other languages (e.g. Zulu (Cheng & Downing 2007)), the function of the head in the relative has no effect on the phrasing parameters of the clause (21).

- (21) a. (wo = wa-levi’ wa-wá-(w)on-a)_ϕ
 AT₂=2-drunkard 2SG(REL-PA)-OM₂-see-FV
 (ŋgwá-djó-(h)w-tung-a)_ϕ
 IMP.2-IMP-FUT-swim-FV
 ‘The drunkards who you saw are going swimming.’
- b. (wa-djeni’ wa-wá-nik-a ma-6ambú)_ϕ
 2-stranger 2SG(REL-PA)-OM₂-give-FV 6-present
 (wa-djíβ-iw-a)_ϕ
 2(PAST)-please-PS-FV
 ‘The visitors to whom you gave (some) gifts are pleased.’

- c. (le = paha na-li-vúmβ(w)-a)_ϕ (lí-y-u)_ϕ
 AT₅=(5-)cat 1SG(REL-PA)-OM₅-speak about-FV 5(PAST)-fall-FV
 ‘The cat I talked about fell.’

In (21), there is no prosodic boundary between the head of the relative and the relative verb, whether the head is the direct object of the relative, as in (21a), or the indirect object of the relative, as in (21b). In these examples, the tone of the head shifts up to the object marker *-wa-* (recall that an object marker appearing in the past relative verb lacks its usual underlying tone).

It should be noted that in both (21a) and (21b) the last vowel of the head is slightly lengthened. This pattern appeared frequently in my main informant’s productions, combined with what seems to be an increasing of the speech rate on the remaining part of the relative clause.

Finally, it has to be said that all the tones of a relative but the last tend to disappear, especially at a high speech rate. This is shown in (22), illustrated in Figure 3, where the tones of the head and the relative verb are deleted, and only the tone of the discourse deictic *ni = yó* remains.¹⁴

- (22) (ye = n-ungβ na-tsaβ(h)-a ni = y-ó)_ϕ ((i)-y-ú)_ϕ
 AT₉=10-pot 1SG(REL-PA)-play-FV by=9-ref 9(PAST)-fall-FV
 ‘The cooking-pot I played with fell.’

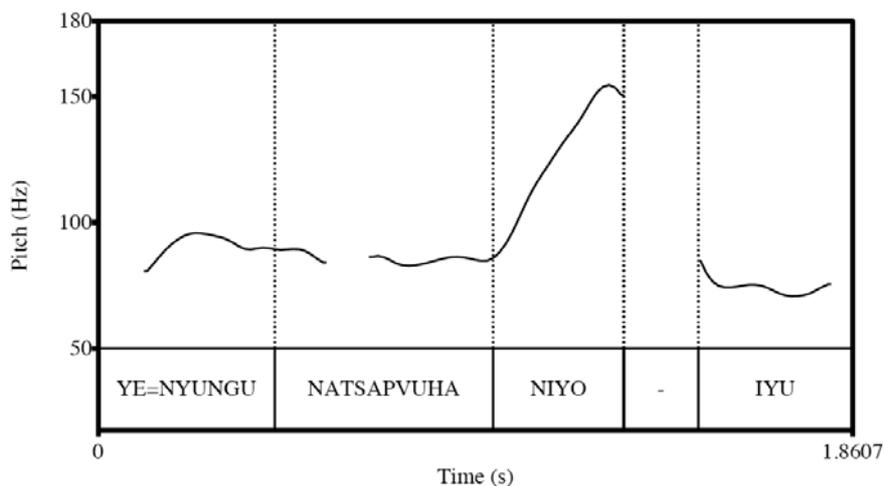


Figure 3: (ye = nungβ natsaβ(h)a ni = yó)_ϕ ((i)yú)_ϕ
 ‘The cooking-pot I played with fell.’ – cf. (22)

¹⁴ It has to be noted that the surface tone of the subject marker of the matrix verb is deleted in (22). The rule that deletes every even tone optionally applies through the phonological phrase boundaries.

3.3 The phrasing of a complex restrictive relative clause

In the preceding section, I discussed the phrasing of the ‘simple’ restrictive relative clauses, i.e. the restrictives that involve a verb immediately following the head. I will now turn to the ‘complex’ restrictive relatives, which refer to relatives involving a verb that is separated from the head by an NP.

Example (23) demonstrates that there is no difference according to phrasing between the ‘simple’ and the ‘complex’ relatives.

- (23) a. (w-ana-wá-ſe Marí ya-wá-won-a)_ϕ
 2-child-2-woman Mary 1(REL-PA)-see-FV
 ((ŋg)wa-djó-(h)w-tsung-a)_ϕ
 INA.2-IMP-FUT-swim-FV
 ‘(some) girls who Mary saw are going swimming.’
- b. (wo = wa-levi Mári ya-wa-won-á)_ϕ
 AT₂=2-drunkard Marie 1(REL-PA)-see-FV
 ((ŋg)wa-djó-(h)w-tsung-a)_ϕ
 INA.2-IMP-FUT-swim-FV
 ‘(some) drunkards who Mary saw are going swimming.’

In (23a), the tone of the noun *Marí* ‘Mary’ shifts to the object marker of the following relative verb. Such a shift is only possible if there is no phonological phrase boundary separating the subject of the relative from the verb. This phrasing pattern is consistent with what has been observed in other Bantu languages such as Bemba (Cheng & Kula 2006), Chicheŵa (Downing & Mtenje, *to appear*) or Zulu (Cheng & Downing 2007). However, Shingazidja differs from the closely related language Chimwiini, where the subject of the relative phrases separately from the relative verb (Kisseberth, *this volume*).

Example (23b), illustrated in Figure 4, shows that there is no boundary either between the head of the relative and the subject of the relative, since the tone of the noun *waleví* ‘drunkards’ shifts to the first syllable of the noun *Mári* ‘Mary’. Once again, this result corresponds to similar patterns in other Bantu languages, including Chimwiini, where the head optionally phrases with the subject of the relative.

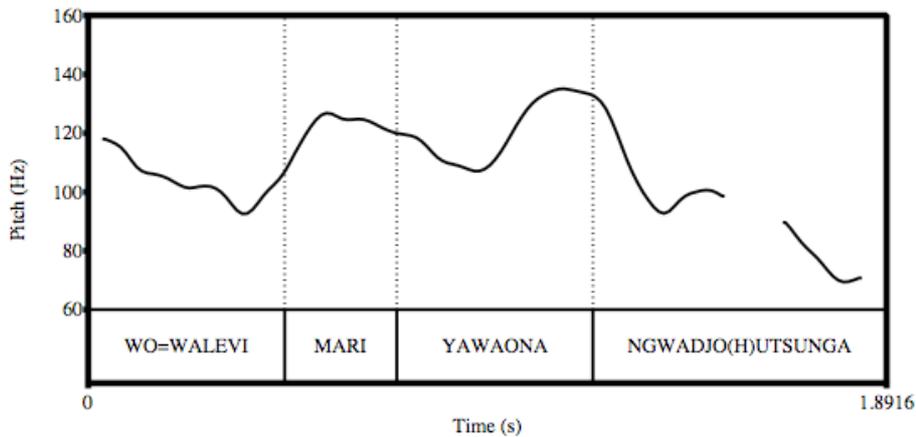


Figure 4: (wo = walevi Mári̇ yawaóná)_ϕ ((ŋg)wadjó(h)wtsungá)_ϕ
 ‘(some) drunkards who Mary saw are going swimming.’ – cf. (23b)

I can thus conclude from the foregoing discussion that there is no obligatory prosodic boundary between the head and the relative, whether the relative involves an overt subject NP or not, nor between a fully realized subject NP and the relative verb. This was expected considering the phrasing properties of Shingazidja, a language where the phonological phrase and the syntactic phrase largely correspond (Patin 2007).

However, up to now, I have only considered the relatives that specify the subject NP of the matrix clause. We will see in the following section that a relative that specifies an object NP does not phrase with its head.

4 The subject-object asymmetry

In the preceding section, I demonstrated that a restrictive relative and its head are not necessarily separated by a prosodic boundary in Shingazidja. In (24), however, the head of the relative phrases separately from the following verb.

- (24) a. ((ŋg)wa-ŋ-saídiya-ó)_ϕ (ri-baliy-é)_ϕ (ze = zi-ndú)_ϕ
 2(PRE)-OM_{1SG}-help-FV 1PL-carry-FV AT₈=8-thing
 (na-reŋg-á)_ϕ (ho = dáhq = ni)_ϕ
 1SG(REL-PA)-take-FV AT₁₇=(5-)house=in
 ‘They are helping me carry the things which I took from the house.’

- b. (tsi-won-ó)_ϕ (ye = mw-andzaní)_ϕ (wa-m-lalík-á)_ϕ
 1SG(PAST)-see- AT₁=1-friend 2SG(REL-PA)-OM₁-invite-FV
 FV
 ((h)arumwa = zé)_ϕ (n-tsaβúwo)_ϕ
 inside=AT₁₀ 10-party
 ‘I saw the friend whom you invited to the party.’

In (24b), for instance, the tone of the noun *mwandzání* ‘friend’ stops on the last syllable of the noun, and does not shift to the relative verb that follows. It thus seems that the phrasing properties of a restrictive relative that specifies the object of the matrix clause differ from the phrasing properties of a restrictive relative that specifies the subject of the matrix clause.

The data in (25), which involve a ‘complex’ relative, support this distinction. While there was no phonological phrase boundary between the head and the relative nor inside the relative in (23), both the head and the subject of the object relative phrase separately from the following word in (25), illustrated in Figure 5.

- (25) (m-na^yoní)_ϕ (ha-n(d)zi-á baruá)_ϕ (m-leví)_ϕ
 1-student 1(PAST)-write-FV (9-)letter 1-drunkard
 (ya-sóm-a)_ϕ
 1(REL-PA)-read-FV
 ‘The student wrote a letter that a drunkard read.’

Only the presence of a phonological phrase boundary between the head of the relative *bárua* ‘letter’ and the subject of the relative *mleví* ‘drunkard’ explains why the tone of the former does not shift onto the latter.

Moreover, the tone of *mleví* ‘drunkard’ does not shift either to the verb of the relative, while example (23) demonstrated that there is no obligatory boundary inside the relative.

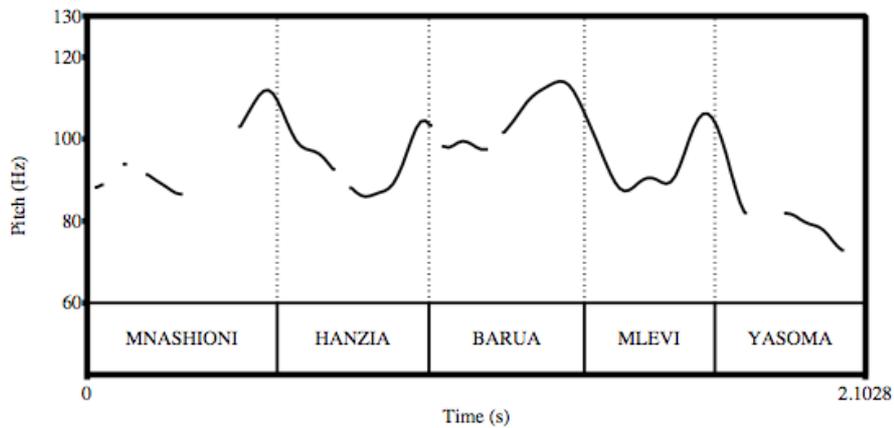


Figure 5: (mnaʃ^yoní)_ϕ (han(d)ziá b̄aruá)_ϕ (mleví)_ϕ (yasóma)_ϕ
 ‘The student wrote a letter that a drunkard read.’ – cf. (25)

Example (26) shows that this boundary is not obligatory either inside the relatives that specify the object of the matrix clause.

- (26) (m-naʃ^yoní)_ϕ (ha-n(d)zi-á)_ϕ (e = b̄aruá)_ϕ
 1-student 1(PAST)-write-FV AT₉=(9-)letter
 (e = f̄undi yá-som-a)_ϕ
 AT₁=(1-)teacher 1(PAST)-read-FV
 ‘The student wrote the letter that the teacher read.’

In (26), the tone of the noun *f̄undi* ‘teacher’ is free to shift to the verb of the relative, illustrating the lack of prosodic boundary between the two words. Further research is needed in order to understand why there is a boundary inside the relative in (25) but not in (26).¹⁵

However, the boundary that separates the head and the relative when the head is the object of the matrix clause is consistent in my data. As far as I know, such a difference in phrasing due to the function of the head has not been observed in other Bantu languages. More research will be necessary to determine if this boundary is obligatory or simply frequent.

¹⁵ The difference in phrasing between the two examples may result from the role of eurythmic constraints. In (25), a tone appears on the last syllable of every prosodic word but the last, while there is in (26) no tone on the last syllable of the word *b̄aruá* ‘letter’, which precedes the subject of the relative.

5 Non-restrictive relatives and clefts

In this section, I will deal with two kinds of relatives that exhibit a phrasing pattern that differs from the one of the restrictive relatives in several other Bantu and non-Bantu languages: non-restrictive relatives, on the one hand, and clefts, on the other hand. For these types of relative clauses, I will briefly address prosodic issues other than phrasing.

5.1 Non-restrictive relatives

In Shingazidja, non-restrictive relatives differ from restrictive relatives in their phrasing. In (27), the non-restrictive relative phrases separately from the head. In (27b), for instance, the tone of the noun *walimádji* ‘farmers’ does not shift to the verb *wafanáo* ‘who [they] do’ of the relative – the example is illustrated in Figure 6.

- (27) a. (Marí)_ϕ (u-djǒ-(h)ú-ʃind-a ya-tsunǵ-é)_ϕ
 Marie 1(REL-PR)-IMP-FUT-can-FV 1-swim- FV
 (n-dǒ)_ϕ (ye = mw-an(d)zani w-á (h)anǵú)_ϕ
 well AT₁=1-friend 1-of my
 ‘Marie, who can [will be able to] swim well, (is) my friend.’
- b. (wa-limádji’)_ϕ (wa-faná-á-o hazí)_ϕ (wa-lém-ew-a)_ϕ
 2-farmer 2(REL-PA)-do-FV work 2(PRE)-tire-PAS-FV
 ‘Farmers, who work, are tired.’

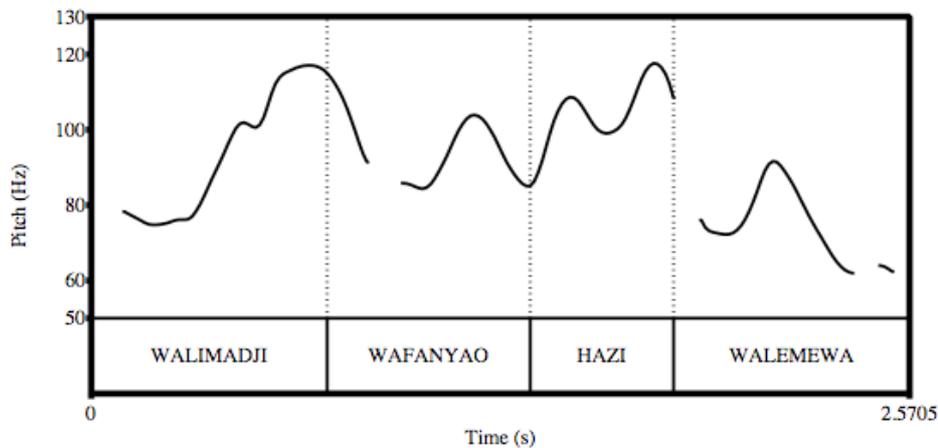


Figure 6: (walimádji)_ϕ (wafanáo hazí)_ϕ (walémewa)_ϕ
 ‘Farmers, who work, are tired.’ – cf. (27b)

The difference in phrasing between the restrictive and non-restrictive relatives has been observed in several other Bantu languages, such as Bemba (Cheng & Kula 2006: 43), Chicheŵa (Kanerva 1990) or Zulu (Cheng & Downing 2007: 58-59, Cheng, *this volume*), and beyond (see, among others, Nespor & Vogel 1986, Truckenbrodt 1995).

Besides the phrasing parameters, the non-restrictive relative exhibits other peculiarities. In particular, it is frequently realized in a higher register than the matrix clause (see Figure 6). However, the rising of the register does not seem to be obligatory, contrary to the presence of a boundary after the head.

In addition, depending on parameters such as the speech rate or emphasis, the non-restrictive relative is regularly delimited on its left and its right by pauses. In (28) for instance, where the head is emphasized, the non-restrictive relative is surrounded by two clear pauses, as can be observed in Figure 7. In this example, the tones of the head *walimádji* ‘farmers’ and the word *házi* ‘work’ do not shift to the last syllables of their prosodic groups, which indicates that they are both followed by intonational phrase boundaries.

- (28) ((wa-limádji)_φ)_i § ((wa-fan-á-o házi)_φ)_i §
 2-farmer 2(REL-PA)-do-FV work
 ((wa-lém-ew-a)_φ)_i
 2(PRE)-tire-PAS-FV
 ‘FARMERS, who work, are tired.’

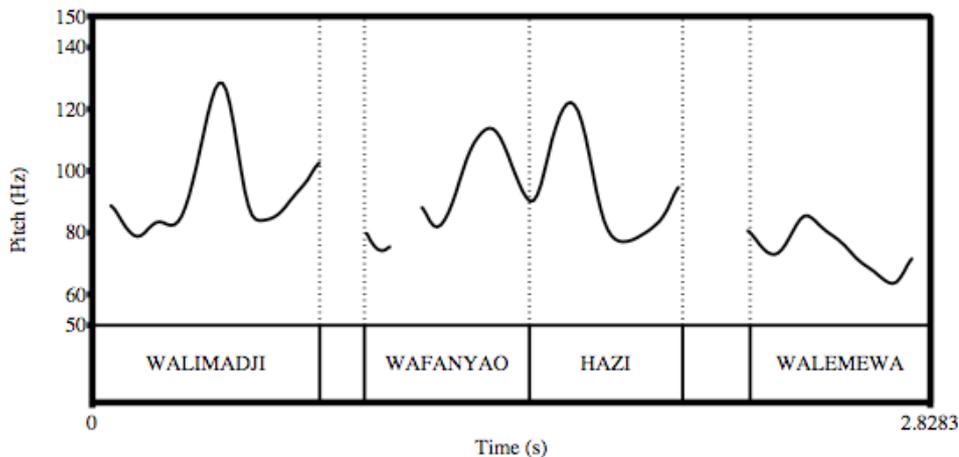


Figure 7: ((walimádji)_φ)_i((wafanáo házi)_φ)_i((wálémewa)_φ)_i,
 ‘Farmers, who work, are tired.’ – cf. (28)

5.2 Clefts

In several Bantu languages such as Bemba (Cheng & Kula 2006: 43), Chimwiini (Kisseberth, *this volume*) or Zulu (Cheng & Downing 2007: 58-59, Cheng, *this volume*), the head of a cleft, just as the head of a non-restrictive relative, is followed by a prosodic boundary. As expected, Shingazidja also follows this pattern.

In (29), the cleft is introduced by the so-called ‘stabilizer’ *ndĕ*. In this example, the head of the cleft is followed by a phonological phrase boundary, which prevents the shift of the tone to the verb of the relative.

- (29) (*ndĕ* = ó = w-ana-wa-ʃé)_ϕ (wa-tsaβu(h)-á-o)_ϕ
 STAB=AT₂=2-child-2woman 2(REL-PA)-play-FV
 (*karibu* = n = ó)_ϕ (m-d(o) w-á m-adji)_ϕ
 near=with=AT₃ 3-river 3-of 6-water
 ‘It is the girls who play by the river.’

The non-restrictive relative and the cleft thus share the same phrasing properties: both are associated with the presence of a prosodic boundary after the head. It is important to say, in addition, that it is the very presence of this boundary that characterizes the cleft. In ‘presentative’ sentences, which also involve the stabilizer, there is no prosodic break between a head and a relative (30).

- (30) (*ndĕ* = zĕ = n-dovu wa-zí-won-a)_ϕ
 STAB=AT₁₀=10-elephant 2(REL-PA)-OM₁₀-see-FV
 ‘This is the elephants which they saw.’

In (30), the tone of the augment shifts through the noun *ndóvu* ‘elephant’ to the relative.

The nature of the boundary that separates the head of the cleft from the relative also depends on parameters such as emphasis or focus. Compare the sentence in (31a) with (31b), where the head is focalized.

- (31) a. (*ndĕ* = zĕ = η-guwó)_ϕ (o = wa-djení)_ϕ (wa-huliy-á)_ϕ
 STAB=AT₁₀=10-cloth AT₂=2-stranger 2(REL-PA)-buy-FV
 (*ye* = fúndi)_ϕ
 AT₉=(9-)teacher
 ‘It is the clothes the visitors bought for the teacher.’

- b. ((zinú)_φ (ndē = ze = η-gúwo)_φ)_i ((o = wa-djení)_φ)
 DEM.10 STAB=AT₁₀=10-cloth AT₂=2-stranger
 (wa-huliy-á)_φ (ye = fund(i))_φ)_i
 2(REL-PA)-buy-FV AT₉=(9-)teacher
 ‘THESE ARE THE CLOTHES the visitors bought for the teacher.’

In (31b), the head is separated from the subject of the relative by an intonational phrase boundary. The fact that the tone of the head *ngúwo* ‘clothes’ does not shift on its last syllable, as in (31a), provides evidence for the presence of this boundary. Example (31b) is illustrated in Figure 8.

Interestingly, the relative in (31b), which was *given* – i.e. previously mentioned in the discourse –, is characterized by a reduced register that goes along with a reduced intensity.

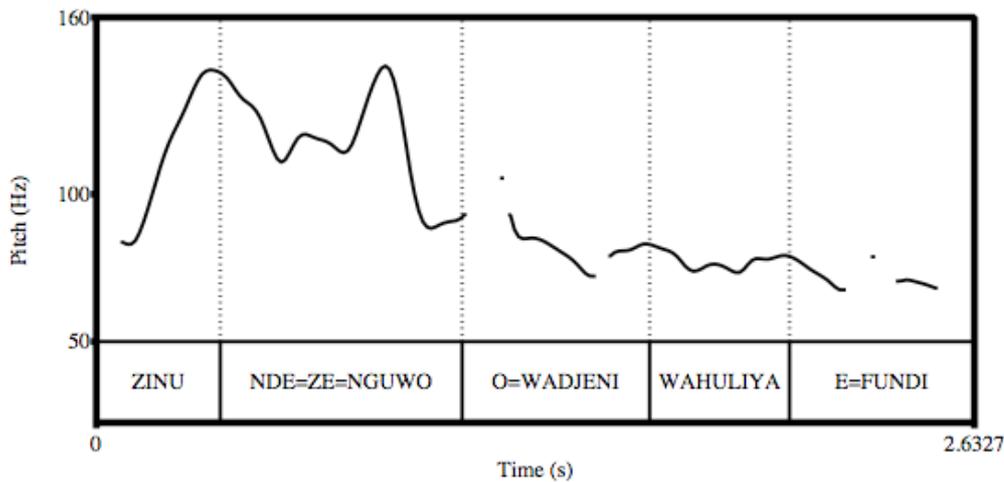


Figure 8: ((zinú)_φ (ndē = ze = η-gúwo)_φ)_i ((o = wa-djení)_φ (wa-huliy-á)_φ (ye = fund(i))_φ)_i ‘THESE ARE THE CLOTHES the visitors bought for the teacher.’ – cf. (31b)

6 Conclusion

In this paper, I proposed a first descriptive account of the phrasing of relatives in Shingazidja. I have shown that the head of a relative phrases with the relative in restrictive relatives, whether they are subject or object relatives and whether they involve an overt NP or not, but not in non-restrictive relatives or clefts. These results are consistent with the results that were obtained in several other Bantu languages, such as Bemba, Chicheŵa or Zulu.

However, Shingazidja differs from these languages by exhibiting an asymmetry between the relatives that specify the subject of the matrix clause and relatives that specify the object of a matrix clause. In the latter case, the relative phrases separately from its head.

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