

The relative clause and its tones in Tswana¹

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1 Syntactic and prosodic characteristics of the relative clause in Tswana (high tones are marked by acute accent, underlying high tones are underlined)

Tswana RCs have an obligatory relative pronoun (Zeller 2004) which is identical in form and tone to the demonstrative pronoun; however, it has lost its demonstrative significance. (↔ Zulu, ≈ Tsonga)

Northern and Southern Sotho: the relative pronoun occasionally merges with the following subject marker in direct relative clauses (Mischke 1998).

Subject concord in RC is formally and tonally identical to the one in subordinate tenses but with *ó* (instead of *á*) in CL1 at least as an alternative (Chebanne et al. 1995: free variation, Cole 1955: 173, dialectal variation).

Verb form is in the participial tense (Cole 1955, Chebanne et al. 1997).

Tswana has the RC suffix *-ng* (in Northern Sotho also *-go*) consistently as a RC-marker. (↔ Zulu where a relative suffix *-yo* is only found in some tenses and only if the verb is final in the RC clause, ≈ Tsonga *-ko*)

(mo-<u>ń</u>na)_{PP}	(y<u>ó</u>-	(<u>ó</u>-	b<u>ú</u>a)_oPP-	<u>ń</u>g...
CL1-man	DEMCL1-	SPCL1-	speak-	REL

‘the man who is talking’

Antedecent is followed by a prosodic phrase break (activating the finality restriction which excludes domain-final syllables as targets for high tone spread), just like with any other postnominal modifier (cf. Zeller 2004)

Pronoun is prefixed to what follows (either verb or noun, Cole in press: §172). But the acceptability of three consecutive underlying high tones shows that it cannot be within the same word as what follows. More research needed.

High tone spread onto a following low-toned noun prefix (not illustrated here) suggests that there is no phrase boundary following the relative clause.

Suffixation of *-ng* activates the finality restriction which excludes domain-final syllables as targets for high tone spread, thus bringing the new penultima down (Chebanne et al. 1997: 199; with the common restrictions, i.e. *LH-ng* → **LL-ng*), thereby suggesting an intervening phonological phrase boundary.

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2 Examples of relative clauses in Tswana ([] delineates the relative clause)

Note: the antecedent is always represented twice in the relative clause (marked in bold)

- (1) *Subject relative – ‘direct relative’* (terminology: Doke 1954, Cole 1955)
mo-nna [**y**ó-**ó**-**b**úa-**ń**g]
‘the man who is talking’
- (2) *Object relative – ‘indirect relative’* (Cole 1955, §10.13)
di-lô [**ts**é-**k**é-**d**i-**r**áta-**ń**g]
‘the things that I like’
- (3) *Subjectival possessive* (Cole 1955, §10.14)
mo-sádi [**y**ó-ngwaná wá-**g**ágwé **ó**-lwála-**ń**g]
‘the woman whose child is sick’
- (4) *Objectival Possessive* (Cole 1955, §10.15)
di-thaba [**ts**é-mafíka **á**-**ts**ôná ré-bôna-**ń**g kájênó]
‘the mountain whose rocks we see today’
- (5) *Associative adverbial* (Cole 1955, §10.17)
ba-nna [**b**a-ré-dúmélána-**ń**g lé-**b**ôné]
‘the men with who we agree’
- (6) *Instrumental adverbial* (Cole 1955, §10.18)
thipá [**é**-ré-séga-**ń**g nama ká-**y**ôné]
‘the knife with which we cut the meat’
- (7) *Locative adverbial* (Cole 1955, §10.21)
Tshwane [**k**wá-**k**é-**ń**na-**ń**g **t**éńg]
‘Tshwane where I live’ (Tshwane= Pretoria)
- (8) HTS from the relative suffix to the following noun
Ditaú [**ts**é-**d**i-**j**élê-**ń**g **d**ikgômó] (Cole & Mokaila 1962: 66f)
‘the lions who ate the cows’
- (9) Phonological phrase boundary only iff RC modifies preceding noun. If antecedent noun is dropped and the RC does thus not modify the preceding noun, then no phrase boundary.
[fill in example]
- (10) Relative clause with 1st and 2nd person (no demonstrative pronoun available)
[**B**a-**l**ó-**r**áta-**ń**g di-**k**úkú] lo-tlaa-sényégêl-w-a **k**é-mênó. (Mascher, Conv 46E III)
‘You (pl.) who like biscuits will get damage by your teeth.’
(cf. Cole 1955: 171)
- (11) Short form of the relative clause in which the auxiliary verb can optionally be dropped (only possible in the positive present tense)
Re-ítshwáréla [**b**a-**b**a-**m**é-lató lé-roná]. < bá-bá-le-ńg mé-lató (Mascher, Conv 46C III)
‘We forgive those who owe us’
- (12) With compound verb tenses, relative suffix -ng only on the first verb
Magôdu [**á**-**á**-**n**ê-**ń**g **á**-tšhwérwé málôba] **á**golótswé.
‘The thieves who had been arrested the other day have been released.’

3. Semantics of relative clauses

3.1 noun modification

3.2 “adjective” formation

3.3 Clefting

Creissels (n.d., 106): “les formes relatives du verbe tswana s’emploient typiquement comme noyau prédicatif de relatives restrictives, et il semble raisonnable de penser que leurs autres emplois (notamment dans les phrases clivées exprimant une focalisation) sont historiquement dérivés de leur emploi dans la relativisation”.

- No evidence for differences in prosody between restrictive and non-restrictive relative clause (cf. Cheng & Kula 2005 for Bemba)
- No evidence for differences in prosody concerning cleft and restrictive/non-restrictive relative clause (cf. Cheng & Downing 2006 for Zulu)

In Tswana it seems as if the phrasing of clefts, relative clauses and modified noun phrases is syntactically determined, namely by a tonal form which indicates that what follows is a modification of the same constituent. A reason why the phrasing of a relative clause resembles modification might lie in the diachronic development of the relative clause from a demonstrative pronoun which is still clearly evident synchronically in Tswana (cf. Zeller 2004) although the demonstrative has lost its meaning and might even in some cases merge phonologically with the following verb word (Mischke 1998). But tonologically, there is always a phrase boundary between a head noun and a following qualificative in Tswana, in contrast to Xhosa (Jokweni 1995) and Chichewa (Kanerva 1990).

4. Tone pattern of the “relative tense”

antecedent [RelPr SP* **R-a-ng**]

NB: In Bemba (Cheng & Kula 2005) restrictive subject relative clauses can be indicated solely by tone-marking. Although the tones of the subject marker also change in RC in Tswana one cannot say that RCs can be indicated solely by tone in Tswana because

- the tones of the subject marker are mostly ambiguous between participial tense and RC
- there is also the relative pronoun (although it can be dropped in specific instances; cf. Cole 1955)
- but most importantly there is always the relative suffix.

Tests would need to show which of the cues – tone or suffix – is more important perceptually.

Cole (1955: 178): “Direct relatives and relative clauses are formed from participial verb tenses by substituting the relative concord for the subjectival concord, and suffixing *-ng* to the verb. [...] It is important to note that relatives **are based on the participial forms of the verb tenses** [emphasis, SZ], not on the principal forms. This is seen more clearly in negative constructions than in the positive, e.g.

Ngwana ga-a-lel-e	‘The child is not crying’	(principal)
Fa ngwana a-sa-lel-e...	‘If the child does not cry...’	(participial)
ngwana yô-o-sa-lel-e-ng	‘the child who does not cry’	(relative)

The relative, being based on the participial form, has the negative formative *-sa-*, whereas the principal form has *ga-*.” (cf. Cole in press, §170).

Objectives of this talk

- to show the tones in the relative tenses in the Present Positive in Tswana as compared to the participial tense
- to get feedback on a possible low-toned morpheme in the participial tense cross-Bantu
- to argue for a distinct tone pattern in the relative tense in Tswana

The verb forms in the relative tense and the participial tense correspond to each other in

- negative formation (same negation particle *-sa-* in the same slot, cf. Cole above),
- tone pattern (cf. appendix pages 7 and 8),

with the exceptions of

- subject concord of CL1 (ó statt á; at least as free variation or as dialectal variation),
- **tone pattern in the Present Positive.**

Table 1: Tone patterns of the Present Positive: participial versus relative tense

<i>Chebanne et al. 1997</i>	gérondif (= participial)	relative tense (present)
1 H	l _ó o-j _á	[b _á b _á -j _á - <u>ńg</u>]
2 H	ó-b _í n _á	[b _á b _á -kw _á l _á - <u>ńg</u>]
3 H	ó-b _ê r _é k _á	[b _á b _á -b _ê r _é k _á - <u>ńg</u>]
4 H	l _ó -b _ê r _é k _é l _á	[b _á b _á -tsh _{ám} é _k í _s a- <u>ńg</u>]
1 L	ó-t _l á	[b _á r _é -y _á - <u>ńg</u>] kw _á métseng y _á bôn _é
2 L	á-l _í m _á	[b _á b _á -b _á l _á - <u>ńg</u>]
3 L	l _ó -ts _á m _á y _á	[b _á b _á -ét _é l _á - <u>ńg</u>]
4 L	b _á -tsh _á l _ó g _á n _y a	[b _á b _á -d _ú m _é d _í s _a - <u>ńg</u>]*

(16) *Mascher (in prep., Gram 100):

- [b_á k_é-b_át_lí_sí_sa-ńg]
- [b_á k_é-l_ék_ál_ék_án_ya-ńg]

Two differences emerge in the comparison:

- with high-toned verbs, the stem-initial syllable is never lowered in the RC
- with low-toned verbs, HTS takes place iteratively (just as in the Present Negative, Perfect Positive and negative etc.), at least in the Rolong variety (Cole & Mokaila 1962, Mascher in prep.)

First observation is confirmed by Chebanne *et al.* (1997: 199) and Creissels (n.d., p. 104):

“Le gérondif [= participial] des verbes à tones lexical haut est caractérisé au présent positif par une alternance tonale qui ne se retrouve pas dans le forme relative correspondante (par exemple, le gérondif présent de *-símólóla* “commencer” avec un indice de sujet de classe 1 est *á-símólóla*, mais la forme relative correspondante est *á-símólóla-ńg*.”

Questions:

Present Participial Tense

Chebanne *et al.* (1997: 185ff): “When a lexically high-toned stem immediately follows the SM, a formative consisting of an underlying empty syllable must be recognized at the junction between the SM and the stem. [...] However, when the SM is immediately followed by a lexically toneless stem, the tonal melody is not the one which would be expected if an empty syllable were still present after the SM: the spreading of the H tone of the SM reaches the second syllable of the stem. There seems to be no other solution than to posit two variants of the structure of this tense.”

Mascher (in prep., Gram 40C): The participial tense is formed with a “lingering” low tone which pulls down the first syllable of a high stem but vanishes into a low stem. The subject marker to its left is nevertheless able to spread its high tone.

Is there evidence from diachrony/ other Bantu languages for an earlier morpheme that could help explain the emerging tone patterns in Tswana?

Relative tense

The empty syllable or the lingering low tone is absent in the Present Positive in relative clauses. Thus, the tense is not identical to the participial tense.

Is there evidence from diachrony/ other Bantu languages that suggests a characteristic tone pattern in the relative clause, perhaps even in other tenses than the Present Tense?
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Appendix: Examples showing that tenses in the RC are identical to participial tenses

Short Tswana tone manual (cf. Chebanne et al. 1997, Creissels 1998, 1999):

- **High Tone Spread** to the right-adjacent syllable within a phonological domain unless the following syllable is H, marked in **yellow**
- **Grammatical High Tone insertion** on the second verb stem syllable in all negative tenses and in the perfect participial, marked in **orange**
- **Iterative High Tone Spread** to the end of a domain, also marked in **orange** as it always follows Grammatical High Tone insertion
- **Finality restriction**, i.e. the final syllable in a domain is exempt as a target for Tone Spread

Present Negative

Both the participial and the relative tense are characterized by

- SP (whereas IPPSP in the Principal tense)
- negative particle *-sa-* (whereas *ga-* in the Principal tense)
- grammatical tone on the second stem syllable and iterative tone spread to the end of the domain (cf. Khoali 1991)

(17) Examples from Cole & Mokaila (1962: 49f)

- a. Participial: fá **bá-sa-útlw-é**... →
Gakéráté baná [bá-bá-sa-útlw-é-**ng**] batsádi bábôné.
'I don't like children who do not listen to their parents.'
- b. Participial: fá **á-sa-ítsé**... →
A góna lémótho [yó-ó-sa-ítsé-**ng**] ngwêdí lélétsatsí?
'Is there a person who does not know the moon and the sun?'
- c. Participial: fá **sé-sa-í-tirél-é sépe**... →
Mothibi késétšhwakga [sé-sé-sa-í-tirél-é-**ng**] sépê.
'Mothibi is a lazy person who does not do anything for himself.'

Perfect Positive

Both the participial and the relative tense are characterized by

- SP (IPPSP in the Principal tense)
- grammatical tone on the second stem syllable and iterative tone spread (Khoali 1991)

(18) Examples from Cole & Mokaila (1962: 66f)

- a. Participial: fá **dí-jélé**... →
Banna bámótse ólé báilé gotsómá dítaú [tsé-dí-jélé-**ng**] díkgómó tsábôné
málôba.
'The men of that village over there have gone out to hunt the lions which killed their cattle the other day.'
- b. Participial: fá **á-ágílwé**... →
Kerátá matlo [á-á-ágílwé-**ng**] káseténá.
'I like houses which are built of brick.'
- c. Participial: fá **sé-bólálílé**... →
Setsénô [sé-sé-bólálílé-**ng**] motho kámajê malôba sétšhwêrwé.
'The lunatic which killed a person with stones the other day has been arrested.'

- d. Participial: fá **é-besítswé** ... →
Batho b^ár^átá nama [é-é-b^êsítswê-**ńg**] k^ámólelô.
'People like meat which has been roasted with fire.'
- e. Participial: fá **bó-apéilwé**... →
Ker^átá bog^óbe [j^ó-b^ó-apéilwê-**ńg**] k^ámaši.
'I like porridge which has been cooked with milk.'

Perfect Negative

Both the participial and the relative tense are characterized by

- SP (IPSP in the Principal tense)
- negative particle –sa- (ga-[SP]-aa-... in the Principal tense)
- grammatical tone on the second stem syllable and iterative tone spread (Khoali 1991)

(19) Examples from Cole & Mokaila (1962: 66f)

- a. Participial: fá **bá-sa-já** ... →
Batho [bá-b^á-sa-já-**ńg**] nama yákgômó éétlhabílwê^{ńg} máabáne báábídíwá.
'The people who have not eaten the meat of the cow which was slaughtered yesterday are being called.'
- b. Participial: fá **dí-sa-ómá**... →
Molelô gaóbatlé dikgóng [tsé-dí-sa-ó^{ma}-**ńg**] tháta.
'A fire does not want wood which is not very dry.'
- c. Participial: fá **á-sa-íthúta** ... →
Goroménté wáTshírélêtsô gaábatlé Makgóa [á-á-sa-íthú^{ta}-**ńg**] Setswána.
'The Government of the Protectorate does not want Europeans who have not learnt Tswana.'
- d. Participial: fá **bá-sá-rupá** ... →
Basádi báBatswána gabáráté bańna [bá-b^á-sá-rupá-**ńg**].
'The Tswana women do not like men who have not gone through initiation.'

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