

prefinal version

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The origin and use of a relative clause construction that targets objects in Orungu (Bantu, Gabon).

Abstract

This paper provides an analysis of two relative clause constructions in the Gabonese Bantu language Orungu that are in complementary distribution. The choice between them is determined by the target of relativisation in a typologically interesting way, in that it involves the combination of the criteria of the syntactic relation, thematic role and referential properties of the target. The construction that targets most types of objects is formally nearly identical to relative clauses that target the subject of a passive clause and we argue that it originates in the syntactic reanalysis of such subject relatives. That is, relative clauses that targeted the subject of a passive clause have been reanalysed as relative clauses that target the object of an active clause. This shows a rare type of change in relative clause constructions, which is unique in Bantu, but grounded in the universal tendencies captured by the accessibility hierarchy.

1. Introduction

The Gabonese Bantu language Orungu has two relative clause constructions that are in complementary distribution. The first targets most kinds of objects, while the second targets all other positions that are accessible to relativisation. The first construction is theoretically interesting for two reasons. First, the clausal positions it targets can be mapped on a contiguous area of Keenan and Comrie's (1977) accessibility hierarchy, but in order to do

this, the positions on the hierarchy have to be defined in terms of their grammatical relation (Keenan and Comrie 1977), their thematic role (Dik 1997, Bakker & Hengeveld 1999) **and** their referential properties, a combination of criteria that in our knowledge has never been shown to be relevant in the languages of the world. Second, and most importantly, the formal properties of this relative clause construction are so absolutely unique for a Bantu language, that the construction is obviously the result of recent syntactic change. Since this change does not involve a relative clause marker, it is typologically very unusual (Hendery 2012: 2).

This paper provides an analysis of the two relative clause constructions of Orungu, briefly introduced in the remainder of the introduction, and of their complementary distribution on the accessibility hierarchy. Moreover, we propose a diachronic scenario to explain the synchronic situation. In the absence of historical data, this scenario necessarily involves the syntactic reconstruction of an earlier stage of the language, which, as any type of reconstruction, necessarily contains an element of speculation. However, Orungu has the rich morphology that is typical of the Bantu languages and it has not obviously been in contact with unrelated, typologically different languages. These two factors enhance the plausibility of syntactic reconstruction (Harris and Campbell 1995:11). Moreover, the relevant syntactic change is clearly recent, and although it has never been attested elsewhere, we will argue that it is typologically plausible, which further strengthens the likelihood of our proposed diachronic scenario.

The formal properties of the relative clause construction that targets subjects, among others, are unsurprising from a Bantu perspective. It has a relative verb that ends in a morpheme called Final (F) in Bantu linguistics, the shape of which is determined by tense, aspect, mood and polarity (TAMP). This is the normal verb ending in the great majority of Bantu languages. We call this relative clause construction the F-construction, after the Final morpheme that characterises its verb form. An example is given in (1b), where the F is underlined. It is here glossed for its TAMP value plus an indication that it marks a relative verb form, because it is tonally different from its non-relative counterpart (see Section 3 for a description).

(1) a. ònômè àβàn' ówàrò¹

ò-nômè à-à-βàn-í òw-ầrò

1-man.DTP I-RPST-carve-RPST 14-canoe.DTP

'The man carved the canoe.'

b. ònômè [áβàn' òwầrò]

ò-nômè á-à-βàn-ì òw-ầrò

1-man.DTP I-REL.RPST-carve-REL.RPST 14-canoe.DTP

'the man who carved the canoe'

The other relative clause construction, which targets most kinds of objects, is formally nearly identical to relative clauses that target the subject of a passive clause. Its verb form ends in the suffix *-o*, also the marker of passive verbs, and the noun phrase that corresponds to the subject in the non-relative clause is introduced by the preposition *nó*, also the agentive preposition in passive constructions. We call this relative clause construction the O-construction. To our knowledge, it is the only example of a relative clause construction that involves passive morphology in the Bantu languages, and perhaps in the languages of the world. The O-construction is illustrated in example (2b). Example (2c) is a non-relative passive clause of which the subject corresponds to the relativised noun of (2b), showing the strong formal similarities between the O-construction and the passive construction.

(2) a. ó'ηwánt àgòlín ó'g ábà

ó'ηw-ántò à-à-gòl-in-í ó-gà á-bà

1-woman.DTP I-RPST-buy-APPL-RPST 1-chief.DTP 6-mango.DTP

'The woman bought the mangoes for the chief.'

¹ We follow the Leipzig Glossing Rules and the list of abbreviations in its appendix, with the following additions: I, II, III noun class agreement markers; 1, 2, 3 noun class markers; AGN Agentive preposition; ANT Anterior; CON Connective (genitive); DTP Definite tone pattern; HAB habitual; NTP Non-definite tone pattern; O.REL Relative verb marker in O-relatives; REL.A agent marker in relative clauses; REV Reversive; RPST Remote Past. A superscript ^H in underlying representations of Orungu forms marks the presence of a floating high tone.

b. ógà [wágòlìnò n ó'ɲwá'nt ábà]

ó-gà ó-à-gòl-in-ò nó ó'ɲw-ántò á-bà

1-chief.DTP I.REL-REL.RPST-buy-APPL-O.REL REL.A 1-woman.DTP 6-mango.DTP

'the chief for whom the woman bought the mangoes'

c. ógà àgòlín ábà n ó'ɲwántò

ó-gà à-à-gòl-in-ò nó ó'ɲw-ántò á-bà

1-chief.DTP I-RPST-buy-APPL-PASS AGT 1-woman.DTP 6-mango.DTP

'The chief was bought the mangoes for by the woman.'

Example (2b) has two translation equivalents in English. It can be translated by means of an object relative clause, as in the free translation in (2b), or by means of the subject relative 'the chief who was bought mangoes for by the woman.' Such examples initially led us to the wrong conclusion that objects are not accessible to relativisation in Orungu, and that they first have to be promoted to subject position via passivation. Since positions lower on the hierarchy targeted by the F-construction are obviously accessible to relativisation, this led us to the equally wrong identification of a current discontinuity in the accessibility hierarchy. However, further analysis showed that examples such as (2b) are semantically and syntactically ambiguous. In other words, the O-construction, which targets objects, is a relative clause construction in its own right, to be distinguished from relative clauses that target the subject of a passive clause. We argue that the two are diachronically related, in that the O-construction is the result of a reanalysis of passive subject relatives.

The paper starts with a brief introduction to the Orungu language, focusing on the typological properties that are most relevant for the analysis of relative clauses (Section 2). Section 3 describes the structure of relative clauses. The typologically interesting complementary distribution of the F-construction and the O-construction is the topic of Section 4. In Section 5 we show that the O-construction should be analysed as a separate relative clause construction that directly targets certain types of object and not as a "regular" (F-)relative clause that targets the subject of a passive clause. The section starts with a description of passive clauses. In Section 6, finally, we will present the diachronic scenario

that is most likely to explain the form and distribution of the two contemporary relative clause constructions of Orungu.

The analyses in this paper are based on three types of data: introspection by the second author, who is a fluent native speaker, data from a large corpus of spontaneous speech,² and elicitation with three other native speakers.

2. The Orungu language

2.1. Location, genealogical classification and previous work

Orungu is one of six mutually intelligible varieties of the Myene langue of Gabon. It is spoken in and around the city of Port Gentil by an unknown number of speakers. During a recent major documentation project on the Myene varieties, we could not find children that acquire Orungu as their mother tongue, which implies that the language is in danger of extinction. Myene belongs to the north-western subgroup of Bantu languages and is known as B10 in the referential classification used by Bantuists (see Maho 2003).

The sparse literature on the Myene varieties mostly concentrates on its tone system, which is notoriously difficult to analyse (Ambouroue 2006; Maniacky & Ambouroue 2014; Philippson & Puech, n.d.). Orungu has two surface tone heights H(igh), noted as an acute accent (´á), and L(ow) noted as a grave accent (à). High tones can be downstepped, i.e. lowered in a meaningful and phonologically unpredictable way. Downstep is noted by means of a downward arrow (´á). Contour tones are always falling, i.e. HL (â) or ´HL (´â), never rising. The underlying representations provided in this paper reflect Odette Ambouroue's (2007) tonal analysis. Many morphological operations are marked fully or in part by tonal means. For instance, Orungu has a grammatical opposition between definite and indefinite nouns, unusual for a Bantu language, which is marked exclusively by means of different tone patterns on the noun (3).³

² The documentation was gathered in the Major Documentation Programme *Comparative Documentation of the Myene Language Cluster*, funded by ELDP (2010-2013).

³ The examples in (3) are intended to illustrate the existence of tonal morphology, not to show that definiteness is a grammatical feature of Orungu.

- (3) a. ìmból̀̀ngó ‘an eggplant’
 í‘mból̀̀ngó ‘the eggplant’
- b. pá ‘a bone’
 pà ‘the bone’

2.2. Syntax: constituent order and grammatical relations

The basic order of the major constituents of the clause is SVO. Nominal modifiers always follow the noun. If there are several nominal modifiers, including a possessive pronoun, the possessive pronoun has to be closest to the noun. Although unusual from a typological perspective, this is typical in Bantu (Van de Velde, to appear).

Subjects can be easily defined in Orungu by means of the criteria of word order and indexation. In main clauses, the subject precedes the verb and is indexed on the verb by means of a verb-initial prefix.⁴ Objects are in immediately postverbal position. Since there is no object indexation or flagging (i.e. coding by means of cases or adpositions), the double object construction in Orungu is of the neutral alignment type.⁵ However, objects in double object constructions are differentiated by the relative clause constructions that target them, so that it is useful to give them some more attention. When one of the objects in a double object construction is pronominal, it has to precede the nominal object (4-5). If both are pronominal, the Recipient has to precede the Theme (6).

- (4) a. ó‘ηwánt àgòlíní ‘y ábà
- | | | | |
|-------------|----------------------|---------|-------------|
| ó‘ηw-ántò | à-à-gòl-in-í | àyé | á-bà |
| 1-woman.DTP | I-RPST-buy-APPL-RPST | 3SG.PRO | 6-mango.DTP |
- b. *ó‘ηwánt àgòlín ábà yé

‘The woman bought the mangoes for him.’

⁴ The NP in non-subject relative clauses that corresponds to the subject in the non-relative clause is not a Subject according to this definition. We will refer to it as the agentive NP.

⁵ As opposed to indirective (T = P) or secundative (R = P) alignment, see e.g. Haspelmath (2007).

(5) ó'ηwánt àgòlíní 'm ógà

ó'ηw-ántò à-à-gòl-in-í mó ó-gà

1-woman.DTP I-RPST-buy-APPL-RPST 6.PRO 1-chief.DTP

'The woman bought them for the chief.'

(6) a. ó'ηwánt àgòlíní yè mó

ó'ηw-ántò à-à-gòl-in-í àyé m-ó

1-woman.DTP I-RPST-buy-APPL-RPST 3SG.PRO VI.PRO

b. *ó'ηwánt àgòlíní mò yé

'The woman bought them (cl.6) for him.'

When both objects are nominal, their mutual ordering is syntactically free (7).

(7) a. ó'ηwánt àgòlín ó'g àbà

ó'ηw-ántò à-à-gòl-in-í ó-gà á-bà

1-woman.DTP I-RPST-buy-APPL-RPST 1-chief.DTP 6-mango.DTP

b. ó'ηwánt àgòlín'á' b ógà

ó'ηw-ántò à-à-gòl-in-í á-bà ó-gà

1-woman.DTP I-RPST-buy-APPL-RPST 6-mango.DTP 1-chief.DTP

'The woman bought the mangoes for the chief.'

If the clause is potentially ambiguous, the Recipient has to precede the Theme (8). Whether the interpretation of a ditransitive clause is deemed ambiguous depends on the referential status of participants, on the situation type, and on general world knowledge.

(8) a. ó'ɲwánt àrèβìz óg òɲwâna

ó'ɲw-ántò à-à-rèβ-iz-í ó-gà òɲw-âna
1-woman.DTP I-RPST-show-CAUS-RPST 1-chief.DTP 1-child.DTP

'The woman showed the child to the chief.'

*'The woman showed the chief to the child.'

b. ó'ɲwánt àrèβíz óɲwàn ógà

ó'ɲw-ántò à-à-rèβ-iz-í òɲw-âna ó-gà
1-woman.DTP I-RPST-show-CAUS-RPST 1-child.DTP 1-chief.DTP

'The woman showed the chief to the child.'

*'The woman showed the child to the chief.'

2.3. Morphological characteristics: noun classes, verb structure

Orungu has twelve noun classes (Ambourou 2007: 63), defined as sets of nouns that trigger the same agreement pattern on pronouns, verbs and nominal modifiers, and that have the same overt class prefix.⁶ These classes are numbered from 1 to 14, using the traditional Bantuist system that allows us to identify cognate class markers. (Proto-Bantu classes 11, 12 and 13 are not represented in Orungu. Class 10 is split in 10 and 10b.)

(9) a. ò-tóndò w-ínó 'this basket' (class 3) / ì-tóndò y-ínó 'these baskets' (class 4)

b. ì-nyóyì ny-ínó 'this voice' (class 5) / à-nyóyì m-ínó 'these voices' (class 6)

Orungu has the complex verb structures typical of Bantu languages (Meeussen 1967, Nurse 2008). Conjugated verbs are only partially compositional, which is why Bantuists traditionally describe verb forms with a slot-filler model, in which most names of morphological paradigms refer to their position in the verbal template, rather than to their function. The verb root can be followed by one or more derivational suffixes (aka *extensions*) and/or by the so-called Prefinal suffix *-ag*, which expresses habitual aspect in Orungu. The

⁶ If we only take into account the agreement patterns, only nine classes can be distinguished in Orungu, since classes 8 and 9 trigger the same agreement pattern, as do classes 14 and 3, and 10 and 10b.

combination of root, extensions and Prefinal suffix is called *base* (Meeussen 1967:89). The base is obligatorily followed by the so-called Final morpheme (F), the choice of which depends on tense, aspect, mood and polarity. The verb stem (= base + Final) is preceded by a string of prefixes, of which only the first (or *Initial*) is obligatorily present in indicative verb forms. The Initial is an agreement marker that indexes the subject, except in relative clauses, where it indexes the relativised noun. The structure of Orungu verbs is illustrated in (10).

(10) àwánà wérébèkólízègè

àw-ânà wá-é-ré-bè-[[[kól]_{root}-ìz-àg]_{base}-è]_{stem}

2-child.DTP II-IMPF-NEG-FUT-buy-CAUS-HAB-FUT.NEG

‘The children will not often sell anymore.’

We will close this section with a brief description of the applicative suffix, which will be relevant in Section 6. Orungu is at an interesting intermediary stage between the typical Bantu case in which an applicative suffix has to be added to the verb in order to license a (typically) Benefactive argument (see, e.g., Schadeberg 2003: 74) and the rare Bantu languages such as Eton (Cameroon, A70) or Koyo (Congo, C24), where maximality constraints on stems have led to the loss of the applicative suffix, but where an unmarked Benefactive argument can be added anyway (Van de Velde 2010, Hyman 2004). Orungu verb stems can have maximally three syllables.⁷ An object expressing a beneficiary can be added to a clause whatever the syllable structure of the verb. If the resulting verb stem does not exceed three syllables, the applicative suffix must be added, as in example (11b) where the addition of a beneficiary after the verb is accompanied by the addition of the applicative suffix *-in* on the verb, as compared to (11a).⁸ Otherwise, the applicative suffix is simply left out. This is shown in example (12b), where the verb could be expected to have an

⁷ All exceptions involve the syllables *an* and *a(ŋ)g*, which can each add a syllable to the normal maximum of three. That is, quadrisyllabic stems obligatorily contain *an* or *a(ŋ)g* and pentasyllabic stems *a(ŋ)gan* or *ana(ŋ)g*. These forms are synchronically not always analysable as separate morphemes. When they are, the prefinal suffix *-ag* expresses habitual aspect and the derivational suffix *-an* is reciprocal. Extra lengths restricted to specific (formal) suffixes have been reported for other Bantu languages with maximality constraints (Hyman 2004: 79).

⁸ In some of these verbs, the addition of the applicative suffix is optional, rather than obligatory.

applicative suffix *-in*, due to the presence of a beneficiary, but where it hasn't, because adding one would result in the verb stem *dyárun-in-ì*, which has more than three syllables.

(11) a. ànám̀b̀ì mb̀ò̀ǹì

à-á-nám̀b̀-ì m-b̀ò̀ǹì
I-PRF-cook-PRF 9-goat.DTP

'He has cooked the goat.'

b. ànám̀bí'̀ǹ ógà mb̀ò̀ǹì

à-á-nám̀b̀-ìn-ì ó-gà m-b̀ò̀ǹì
I-PRF-cook-APPL-PRF 1-chief.DTP 9-goat.DTP

'He has cooked the goat for the chief.'

(12) a. àdyárùǹì mb̀ò̀ǹì

à-á-dyárùǹ-ì m-b̀ò̀ǹì
I-PRF-split-PRF 9-goat.DTP

'He has gutted the goat.'

b. àdyárùǹ'̀ǹ ógà mb̀ò̀ǹì

à-á-dyárùǹ-ì ó-gà m-b̀ò̀ǹì
I-PRF-split-PRF 1-chief.DTP 9-goat.DTP

'He has gutted the goat for the chief.'

3. The structure of relative clauses

This section describes the structure and use of the relative clause constructions discussed in this paper.⁹ In relative clauses, the subject is not indexed on the verb form, and the

⁹ This paper is only concerned with the F-construction and the O-construction, both of which involve a synthetic verb form. There is a third relative clause construction in Orungu, which has a periphrastic verb form, involving a conjugated auxiliary *-rè* 'be' and an infinitive form of the main verb. All positions on the accessibility hierarchy are accessible to relativisation with this construction, including possessors, which are not directly accessible to relativisation using the F- or O-construction.

(14) myé [yárèndì ñkògó]

myé í-à-rènd-ì ñ-kògó
1sg.PRO IX-REL.RPST-write-REL.RPST 9-fairy-tale.NTP

‘I, who wrote a fairy tale’

When the relativised NP is definite, the tense marker of the relative verb is always low (15b). When the relativised NP is indefinite, the tone of the tense marker of the relative verb form is identical to that of the corresponding non-relative verb.¹¹

(15) a. ó’ñwánt àkólí’z ábà

ó’ñw-ántò à-á-kól-iz-ì á-bà
1-woman.DTP I-PRF-buy-CAUS-PRF 6-mango.DTP

‘The woman has sold the mangoes.’

b. ó’ñwá’nt [á’kólí’z ábà]

ó’ñw-ántò á-à-kól-iz-ì á-bà
1-woman.DTP I-REL.PRF-buy-CAUS-PRF 6-mango.DTP

‘the woman who has sold the mangoes’

c. òñwánt [wákólí’z ábà]

òñw-ántò ó-á-kól-iz-ì á-bà
1-woman.NTP I.REL-PRF-buy-CAUS-PRF 6-mango.DTP

‘a woman who has sold the mangoes’

In the Remote past, the tone of the Final Vowel changes from High to Low in relative verb forms with a first or second person subject or a third person singular subject of class 1. A number of TAM-forms, such as the Present and the Recent Past, have a low tense marker. In these TAM-forms, subject relative clauses are not formally distinct from their corresponding main clauses (16), unless if they have a prefix of class 1.

¹¹ There is one minor exception in the Remote past when the relativised noun is of class 1.

(16) àlêṅgè mí'túwúnà mbyámbyê

à-lêṅgè má-ì-túw-un-à mbyámbyê

6-pumpkin.DTP VI-PRS-pierce-REV-PRS well

'The pumpkins grow well.' or 'the pumpkins that grow well'

Table 1 shows non-relative verb forms and their relative counterpart with a definite relativised NP in a number of TAM-forms of the verb 'go, leave'. The agreement prefix is of the third person singular, class 1.

	non-relative	relative
Perfect	àkéndì	á'kéndì
Remote past	àgèndí	ágèndì
Future	èbé'kéndá	ébèkéndá
Present	èkéndà	é'kéndà

Table 1: Relative versus non-relative verb forms in a number of TAMs

4. The distribution of the F-construction and the O-construction

As was pointed out in the introduction, the choice between the F-construction and the O-construction is determined by three types of characteristics of the target of relativisation: grammatical relations, thematic roles and referential properties. However, thematic roles and referential properties are only relevant for objects in double object constructions. This section describes the distribution of F-constructions and O-constructions starting with the simple cases, determined only by syntactic relations.

Subject relatives always use the F-construction, as illustrated in (1b) and (15b), repeated in (17).

(17) a. ònômè [áβàn' òwárò]

ò-nômè á-à-βàn-ì òw-ârò

1-man.DTP I-REL.RPST-carve-REL.RPST 14-canoe.DTP

'the man who carved the canoe'

b. ó'ɲwá'nt [á'kólí'z ábà]

ó'ɲw-ántò á-à-kól-iz-ì á-bà

1-woman.DTP I-REL.PRF-buy-CAUS-PRF 6-mango.DTP

'the woman who has sold the mangoes'

The F-construction is also used to relativise complements of the comitative-instrumental preposition *nà*, which is stranded in the relative clause (18).

(18) a. pógò yágógwì n ìzêgè

pógò í-á^H-gògw-ì nà ì-zêgè

9.rat.DTP IX-RPST-come out-RPST with 5-hole.DTP

'The rat came out of the hole.'

b. ìzêgè [nyágógwì n ìmpógò]

ì-zêgè í-á^H-gògw-ì nà ìm-pógò¹²

5-hole.DTP V-RPST-come out-RPST with 9-rat.DTP

'the hole out of which the rat came'

The position of the stranded preposition is relatively free. It cannot be in final position of the relative clause, where the prepositional phrase it represents has to be, nor in between the subject and the first object, but it can be either after the verb (19b) or after the first object (19c), or both (19d).

(19) a. òɲwá'n ónòmè àzèrín ónèndzì ntínà y í'tótò n òkwára

òɲw-ànà ^Hò-nòmè à-à-zèr-in-í ò-nèndzì n-tínà y-á

1-child.DTP 1-male.DTP I-RPST-cut-APPL-RPST 3-teacher.DTP 9-plant.DTP IX-CON

ì-tótò nà ò-kwàrà

5-banana.DTP with 3-machete.DTP

'The boy cut the banana plant for the teacher with a machete.'

¹² The formal difference in the noun 'rat' between (18a) and (18b) is due to the fact that the nominal prefix of class 9 is dropped in front of a voiceless consonant in utterance initial position (i.e. after a pause).

b. òkwàrà [wázèrìni n òṅwá'n ónòmè ònênd̩̀ì ntínà y í'tótò]

ò-kwàrà ó-à-zèr-in-ì nà òṅw-àná Hò-nòmè
 3-machete.DTP III-REL.RPST-cut-APPL-RPST with 1-child.DTP 1-male.DTP
 ò-nênd̩̀ì n-tínà y-á ì-tótò
 3-teacher.DTP 9-plant.DTP IX-CON 5-banana.DTP

c. òkwàrà [wázèrìni òṅwá'n ónòmè ònênd̩̀ì n ìntínà y í'tótò]

d. òkwàrà [wázèrìni n òṅwá'n ónòmè ònênd̩̀ì n ìntínà y í'tótò]

'the machete with which the boy cut the banana plant for the teacher'

Temporal satellites that are not introduced by means of a preposition are also relativised with the F-strategy (20).

(20) a. ògùlà wá'pákílyà ègò'mbé mèzónó

ò-gùlà ó-à-pákíly-à è-gômbè ímèzónó
 3-storm.DTP III-RCPST-start-RCPST 7-moment.DTP VII.very that
 'The storm started at that very moment.'

b. àzwá'bómwà gó ṅkàlà ègômbè [zá'pákíly ògùlà]

àzó-à-bómw-à gó ṅ-kàlà è-gômbè zé-à-pákíly-à
 1PL-RCPST-arrive-RCPST LOC 9-village.DTP 7-moment.DTP VII-RCPST-start-RCPST
 ò-gùlà
 3-storm.DTP
 'We arrived in the village the moment the storm started.'

In contrast, the object of a single object clause is always relativised by means of the O-construction (21b).

(21) a. myáyèní nàgò

mí-à-yèn-í nàgò
 1SG-RPST-see-RPST 9.house.DTP
 'I saw the house.'

b. nâgò [yáyèno myè]

nâgò í-à-yèn-ó myè
9.house.DTP IX-RPST-see-O.REL 1SG.PRO

‘the house I saw’

Turning to objects in double object constructions, the thematic role and referential properties of the target of relativisation become relevant. With respect to relativisation, the Recipient in a double object construction has the same behaviour as single objects: it requires the O-construction. This was illustrated in (2), repeated here as (22).

(22) a. ó’ηwánt àgòlín ó’g ábà

ó’ηw-ántò à-à-gòl-in-í ó-gà á-bà
1-woman.DTP I-RPST-buy-APPL-RPST 1-chief.DTP 6-mango.DTP

‘The woman bought mangoes for the chief.’

b. ógà [wágòlìnò n ó’ηwá’nt ábà]

ó-gà wá-à-gòl-in-ò nó ó’ηw-ántò á-bà
1-chief.DTP I-REL.RPST-buy-APPL-O.REL REL.A 1-woman.DTP 6-mango.DTP

‘the chief for whom the woman bought the mangoes’

As for Themes in double object constructions, their referential status determines the choice of a relative construction. Non-human Themes use the F-construction, as illustrated in (23), repeated from (13).

(23) ábà [mágòlìn ó’ηwánt ‘ógà]

á-bà má-à-gòl-in-ì ó’ηwántò ó-gà
6-mango.DTP VI-REL.RPST-buy-APPL-RPST 1-woman.DTP 1-chief.DTP

‘the mangoes that the woman bought for the chief’

Human Themes, in contrast, are relativised with the O-construction (24).

(24) ò-sâkà [wáyìngìn ógà n ó'ηwántò]

ò-sâkà wá-à-yìṅ-in-ò ó-gà nó ó'ηw-ántò

1-slave.DTP I-REL.RPST-nurse-APPL-O.REL 1-chief.DTP REL.A 1-woman.DTP

'the slave that the woman nursed for the chief'

In the right context, some Themes with a human reference can be treated as being non-human in that they are relativised with the F-construction. In (25), for instance, the Theme 'slave' is portrayed as merchandise and grammatically de-humanised.

(25) òsâkà [wá'kólí'n ó'ηwántò ógà]

ò-sâkà wá-à-kól-in-ì ó'ηw-ántò ó-gà

1-slave.DTP I-REL.PRF-buy-APPL-PRF 1-woman.DTP 1-chief.DTP

'the slave that the woman has bought for the chief'

Conversely, body part Themes grammatically behave as human NPs in relative constructions, as can be seen from the use of the O-construction in (26b).

(26) a. ògâṅgà àyìṅí òṅwàná ó'gò (*wè)

ò-gâṅgà à-à-yìṅ-í òṅw-âná ó-gò

1-healer.DTP I-RPST-treat-RPST 1-child.DTP 3-arm.DTP

'The healer treated the child's arm.'

b. óyò wáyìṅò òṅwánà n óyàngà

ó-gò wá-à-yìṅ-ò òṅw-âná nó ò-gâṅgà

3-arm.DTP I-RPST-treat-O.REL 1-child.DTP REL.A 1-healer.DTP

'the arm that the healer treated for the child'

Double object constructions with two non-human objects show that thematic relations are needed to predict the choice of a relative clause construction and that referential properties are not enough. This is illustrated in (27), where the non-human Recipient of (27a) is relativised with the O-construction (27b).

(27) a. óg àβèní lèkólì yàngò

ó-gà à-à-βèn-í lé'kólì y-àngò
 1-chief.DTP I-RPST-give-RPST 9.school.DTP 8-book.NTP

'The chief gave the school books.'

b. lé'kólì yáβèno n ôgà yàngò

lé'kólì í-à-βèn-ò nó ó-gà y-àngò
 9.school.DTP IX-REL.RPST-give-O.REL REL.A 1-chief.DTP 8-book.DTP

'the school that the chief gave books to'

Although thematic roles and referential properties are thus clearly relevant for the choice of a relative construction, syntactic relations are crucial. This is obvious when we consider the same participant (same thematic role, same referential properties) in alternative constructions, as in (28-29). In (28a = 27a), the NP *yàngò* 'books' is the Theme in a double object construction and the F-construction is used to relativise it (28b). In (29a) the same Theme participant is a single object, and the O-construction is used (29b).¹³

(28) a. óg àβèní lèkólì yàngò

ó-gà à-à-βèn-í lé'kólì y-àngò
 1-chief.DTP I-RPST-give-RPST 9.school.DTP 8-book.NTP

'The chief gave the school books.'

b. yàngò [yáβèn ógà lékólì]

y-àngò í-à-βèn-í ó-gà lé'kólì
 8-book.DTP VIII-REL.RPST-give-RPST 1-chief.DTP 9-school.DTP

'the books that the chief gave (to) the school'

¹³ The two constructions in (28a) and (29a) cannot be compared to the dative alternation in English, for instance, since they are not semantically equivalent. The construction with the locative preposition *gó* can only be used for situations that involve physical transfer of the theme from one location to another. The complement of *gó* is a Goal, never a Recipient or a Beneficiary. What counts here, is that the Theme relation is semantically equivalent in both constructions.

(29) a. óg àβèní yàngó gó lèkólì

ó-gà à-à-βèn-í y-àngò gó lé'kólì
 1-chief.DTP I-RPST-give-RPST 8-book.NTP LOC 9-school.DTP

'The chief gave books to the school.'

b. yàngò [yáβèndò n ógà gó lèkólì]

y-àngò í-à-βèn-ò nó ó-gà gó lé'kólì
 8-book.DTP VIII-REL.RPST-give-O.REL REL.A 1-chief.DTP LOC 9.school.DTP

'the books that the chief gave to the school'

The alternation illustrated by (28a, 29a), in which a non-Theme object in a double object construction can be alternatively expressed as a complement of the verb or as the complement of the locative preposition *gó*, could partly explain why both the O-construction (30b) and the F-construction (31b) can be used to relativise complements of this preposition. A minor complication for this explanation is that the O-construction can also be used where the complement of *gó* cannot alternatively be expressed as an object in a double object construction. The preposition *gó* is never stranded in the relative clause.

(30) a. ó'ηwántò àgùnd ézàngà g òηwêmbò

ó'ηw-ántò à-à-gùnd-í èz-àngà gó òηw-êmbò
 1-woman.DTP I-RPST-add-RPST 7-salt.DTP to 3-soup.DTP

'The woman added salt to the soup.'

b. òηwêmbò [wágùndò n ó'ηwánt èzàngà] (wátwén ánòηgá)

òηw-êmbò ó-à-gùnd-ò nó ó'ηw-ántò èz-àngà
 3-soup.DTP III-REL.RPST-add-O.REL REL.A 1-woman.DTP 7-salt.DTP

'The soup to which the woman added salt (is too salty now).

(31) a. ó'ηwántò àróm áwànà gó ηkâlà

ó'ηw-ántò à-à-ròm-í àw-ànà gó η-kâlà
 1-woman.DTP I-RPST-send-RPST 2-child.DTP LOC 9-village.DTP

'The woman sent the children to the village.'

b. kálà [yáròmì ó'ɲwántò àwánà]

kálà í-à-ròm-ì ó'ɲw-ántò àw-ânà

9.village.DTP 1-REL.RPST-send-RPST 1-woman.DTP 2-child.DTP

'the village where the woman sent the children'

To summarise, the distribution of the F-construction and the O-construction over targets of relativisation can be schematically represented as in (32), where P is short for the object in a single object construction, G for the Recipient/Goal/Beneficiary in a double object construction and T for Theme in a double object construction. The discontinuous range of the F-construction is underlined.

(32) SU > P/G > T_[+human] > T_[-human] > OBL

5. Synchronically, the O-construction is not a relative clause construction derived from a passive construction

In this section, we provide arguments for claiming that the O-construction is a construction in its own right. Relative clauses of which the verb form ends in *-o* and the agentive NP is introduced by the preposition *no* are not (always) subject relatives based on a passive clause. The section starts with a description of passive clauses.

5.1. The passive construction

Since the O-construction has many of the formal properties of passive clauses, from which it is historically derived, it is useful to provide a brief formal description of passives here. Passive verbs are formed by means of the suffix *-o*. This suffix is normally an extension in the Bantu languages (i.e. a derivational suffix immediately following the root, see Section 2.3). In Orungu, it occupies the Final Vowel slot, replacing the segmental form of the Final Vowel, but keeping its tone, and thereby partially neutralising between some TAMP forms. Nominal agents can be either omitted or demoted to an oblique introduced by the agentive preposition *nó*. We are not aware of restrictions on accessibility to passivisation in terms of syntactic position in simple sentences. Constituents of subordinate clauses are not accessible to passivisation. When an object in a double object construction is promoted to subject position via passivisation, the thematic role of the passive subject is ambiguous, as illustrated by the alternative translations of (33b) and (33c).

(33) a. ó'ηwántò àrúmíη ôgà òηwâna

ó'ηw-ántò à-à-rùmíη-í ó-gà òηw-âna
 1-woman.DTP I-RPST-show-RPST 1-chief.DTP 1-child.DTP

'The woman showed the child to the chief.'

b. ôgà àrúmíη óηwâna (n ó'ηwántò)

ó-gà à-à-rùmíη-ó òηw-âna (nó ó'ηw-ántò)
 1-chief.DTP I-RPST-show-PASS 1-child.DTP AGN 1-woman.DTP

'The chief was shown the child (by the woman).'

or 'The chief was shown to the child.'

c. òηwâna àrúmíη ôgà (n ó'ηwántò)

òηw-âna à-à-rùmíη-ó ó-gà (nó ó'ηw-ántò)
 1-child.DTP I-RPST-show-PASS 1-chief.DTP AGN 1-woman.DTP

'The child was shown to the chief (by the woman).'

or 'The child was shown the chief (by the woman)'

Example (34) shows that complements of the preposition *ná* can be promoted to subject position via passivisation.

(34) a. ònóm àwèg ôbà n èrêmi

ò-nômè à-à-wèg-í ó-bà nà è-rêmi
 1-man.DTP I-RPST-fell-RPST 3-mango.tree.DTP with 7-axe.DTP

'The man felled the mango tree with the axe.'

b. èrêmi záwégó 'n óbà (n ónòmè)

è-rêmi zé-á^{II}-wèg-ò nà ó-bà (nó ò-nômè)
 7-axe.DTP VII-RPST-fell-PASS with 3-mango.tree.DTP AGN 1-man.DTP

'The axe was used to fell the mango tree with (by the man).'

(lit. 'The axe was felled the mango tree with (by the man).')

One minor restriction is that for complements of the locative preposition *gó* to be promoted to the role of subject of a passive clause, the agentive complement has to be expressed (35).

(35) a. òbèl(ì) àlèwí g ódò wínó

ò-bèlì à-à-lèw-í gó ó-dò w-ínó
 3-patient.DTP I-RPST-sleep-RPST in 3-bed.DTP III-.DEM

‘The patient has slept in this bed.’

b. ódò wáléwò *(n òbèlì)

ó-dò ó-á^h-lèw-ò nó ò-bèlì
 3-bed.DTP III-RPST-sleep-PASS AGN 3-patient.DTP

‘The bed has been slept in by the patient.’

The position of the passive agent is syntactically variable. It can occur in the immediately postverbal position, or in the clause final position (36).

(36) a. ìrêndè nárómbò g ó'gólò w óḡwàà n óyìḡísì

ì-rêndè ní-á^h-ròmb-ò gó ò-gólò w-á
 5-thorn.DTP V-RPST-extract-PASS LOC 3-foot.DTP III-CON

òḡw-âà nó ò-yí'ḡísì
 1-child.DTP by 3-doctor.DTP

b. ìrêndè náró:mbò n óyìḡísì g ó'gólò w óḡwàà

ì-rêndè ní-á^h-ròmb-ò nó ò-yí'ḡísì
 5-thorn.DTP V-RPST-extract-PASS by 3-doctor.DTP

gó ò-gólò w-á òḡw-âà
 LOC 3-foot.DTP III-CON 1-child.DTP

‘The thorn was extracted from the child’s foot by the doctor.’

5.2. Evidence for the constructionalisation of O-relatives

The goal of this section is to show that the O-construction is a relative clause construction in its own right, in other words, that examples of what we have called the O-construction are not merely subject relatives derived from passive clauses. We have formal as well as semantic arguments for this. The formal arguments show that the O-construction has

different restrictions and that it has enlarged its domain of application, i.e. it can do things that the passive construction cannot. The semantic argument is that those O-relatives that can be interpreted as subject relatives based on a passive clause from a formal point of view are ambiguous for native speakers. We start with the formal arguments, summarised in Table 2.

	O-relatives	passives
obligatory <i>nó</i> -phrase	+	-
pronominal agents	+	-
accessibility of constituents of subordinate clauses	+	-

Table 2: Difference between the passive construction and the O-relative construction

First, the agentive *nó*-phrase is optional in passive clauses, but obligatory in the O-construction. Second, pronominal agentive objects are ungrammatical in passives, where the agent has to be left out if pronominal (37b), but they are perfectly acceptable in the O-construction, where they follow the passive verb and are not introduced by the agentive preposition *nó* (38).

(37) a. *myáyèní nàgò*

mí-à-yèn-í nàgò
 1SG-RPST-see-RPST 9.house.DTP
 ‘I saw the house.’

b. **nàgò yáyénò (nó) myè*

(intended) ‘The house has been seen by me.’

c. *nàgò yáyénò*

nàgò í-á^H-yèn-ó
 9.house.DTP IX-RPST-see-PASS
 ‘The house has been seen.’

(38) nâgò [yáyèné myè]

nâgò í-à-yèn-ó myè
9.house.DTP IX-RPST-see-O.REL 1SG.PRO
'the house I saw'

Third, the O-construction is used to relativise constituents of subordinate clauses (39b), which are not accessible to passivisation (39c).¹⁴

(39) a. àwá' bú'lyá nè ó'ηwántò àgòlín óg àbá

àó-à-búly-à ínè ó'ηw-ántò à-à-gòl-in-í ó-gà à-bá
2SG-RCPST-say-RCPST COMP 1-woman.DTP I-RPST-buy-APPL-RPST 1-chief.DTP 6-m.NTP
'You said that the woman bought mangoes for the chief.'

b. ó'ηwántò [á' bú'lyó' wé nè àgòlín óg àbá]

ó'ηw-ántò á-à-búly-ò áwè ínè à-à-gòl-in-í
1-woman.DTP I-REL.RCPST-say-O.REL 2SG.PRO COMP I-RPST-buy-APPL-RPST
ó-gà à-bá
1-chief.DTP 6-mango.NTP

'the woman of whom you said that she bought mangoes for the chief'

c. *ó'ηwántò àbúlyò nè àgòlíní óg àbá

'The woman was said to have bought mangoes for the chief.'

When we ask native speakers what a phrase such as (40) means, the spontaneous answer is always 'the house that the teacher built.'¹⁵ When we propose the alternative meaning 'the house that was built by the teacher,' this is accepted as an alternative and the Orungu phrase is consistently characterised as "having two meanings," reflecting the fact that it is syntactically ambiguous, as shown in the alternative glossing. This corresponds to the native intuitions of the second author, who was initially puzzled to find passive morphology in some relative verbs.

¹⁴ The two objects 'mangoes' and 'chief' of the subordinate clause are also accessible to relativisation using the O-construction. They do use a different relativisation strategy in that they have to be represented by a resumptive pronoun.

¹⁵ We here have to rely on translation equivalents in French.

(40) *nágò yánògò n ónèndzi*

nâgò í-à-nòg-ò nó ò-nèndzi
9.house.DTP IX-REL.RPST-build-O.REL REL.A 3-teacher.DTP

‘the house that the teacher built’

or

9.house.DTP IX-REL.RPST-build-PASS by 3-teacher.DTP

‘the house that was built by the teacher’

Obviously, there is no such ambiguity in (38) and (39b), which can only be interpreted as O-relatives.¹⁶

6. Diachronic explanation: reconstructing a discontinuity in the accessibility hierarchy

As we have pointed out, the O-construction, used to relativise most objects in Orungu, is formally nearly identical to a relative clause construction that targets the subject of a passive clause. The two constructions share the tone pattern and class 1 agreement marker of relative verb forms, the suffix *-o* in their verb form and the fact that their Agent NP is introduced by means of the preposition *nó*. The formal link between both constructions is so strong that we initially did not recognise the O-construction as a separate relative clause construction. Since the O-construction has two formal properties that typically and uniquely characterise passive constructions in Orungu and the Bantu languages in general, viz. the suffix *-o* and the agentive preposition, it is clear that the O-construction has its origin in relative clauses that target the subject of a passive clause. The most straightforward historical scenario that can explain the current situation, in fact the only scenario we can think of, involves the reconstruction in an earlier stage of Orungu of the discontinuity on the accessibility hierarchy that we had initially wrongly thought to exist in the contemporary

¹⁶ An earlier version of this paper proposed another formal criterion for the grammatical distinction between the O-construction and relative clauses that target the subject of a passive clause, namely that the relativised noun in an O-relative can be indefinite, whereas the subject of a passive clause cannot in Orungu. As XXX rightly pointed out, this is not a valid criterion, because the indefiniteness of the head NP in a matrix clause does not entail the indefiniteness of the corresponding NP in the relative clause. Indeed, an indefinite relativised NP that corresponds to the subject of a passive clause is perfectly grammatical, as in *àná ìbá nágólínò ógà* ‘She ate a mango that had been bought for the chief.’

language. According to this scenario, the schematic representation of the distribution of the F-construction provided in (32), here repeated as (41), reflects the accessibility to relativisation by means of the F-construction in an earlier stage of the language. It is impossible, and in our view not necessary, to know whether the discontinuity in the middle of the hierarchy should be interpreted in terms of the ungrammaticality of direct relativisation of objects with the F-construction, or rather as a very strong disfavour in terms of frequency.

(41) SU > P/G > T_[+human] > T_[-human] > OBL

Despite being typologically rare and very unusual for the Bantu languages, which normally allow relativisation of positions very low on the hierarchy, such a discontinuity is easy to account for in typological terms. It is reminiscent of the main minority pattern already mentioned in Keenan and Comrie’s original work on noun phrase accessibility, and illustrated by the Toba Batak language in their original sample (1977: 68-69). Languages of the Toba Batak type contradict the strong claim that “if a language can relativize any position low on the AH, then it can relativize all higher positions,” in that they have a primary strategy to relativise subjects, a secondary strategy to relativise complements of prepositions (including indirect objects) and no strategy to relativise direct objects, which have to be promoted to subject position via passivisation prior to being relativised. This led Keenan and Comrie to propose the somewhat less strong generalisation that “if a language can relativize any position on the AH, then it can relativize any higher position either directly or by promoting it to a position that can itself be relativized directly.” What is relevant here is the strong crosslinguistic preference for subject relativisation over other types of relativisation, combined with the high accessibility to passivisation of positions higher on the hierarchy. Everything we need to assume for an earlier stage of Orungu is that the strategy of promoting objects to subject position via passivisation prior to relativisation was frequent enough for the resulting construction to be reanalysed as a construction that directly targets objects, whence it further evolved in a separate direction.¹⁷

¹⁷ An anonymous reviewer remarked that the relative clause construction with a periphrastic verb form that we mention in note 9 cannot “be easily ignored when looking at the historical picture, since its role in contrast with the other constructions should be clarified.” Presumably the reasoning is that if a relative clause construction that can directly target objects was available, the language had no “need” to “fix” a (strictly speaking non-existent) discontinuity in the accessibility hierarchy, which

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would be a problem for the plausibility of our historical scenario. We reject such teleological views on language change and insist that the existence of an alternative construction type is truly irrelevant for our scenario. In fact, nothing can be hypothesised about the existence or frequency of the periphrastic construction in earlier stages of the language. The only thing we can reconstruct is the high frequency of passivisation of objects prior to their relativisation.

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