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Relativization in Kambaata

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Abstract

Kambaata (Highland East Cushitic) marks relative clauses in the affirmative supra-segmentally. In the negative, a morpheme *-umb* is used, which is not attested in related Cushitic languages. Whereas affirmative relative verbs are shown to share features with genitive nouns, negative relative verbs are adjectival in nature. Relative clauses are characterized by the absence of a relative pronoun or particle and, therefore, any indicator of the function of the head noun in the relative clause. Nevertheless, all arguments and adjuncts can be relativized upon. Adverbial and complement clauses are parasitic on the relative construction.

Relativization in Kambaata (Cushitic)*

Kambaata is spoken by several hundred thousand speakers in the Ethiopian highlands around the Hambarrichcho massif, about 300 kilometers southwest of the capital, Addis Ababa. The language is classified as a Highland East Cushitic language (Hudson 1981) and until now has been poorly documented. Sketchy phonological and morphological information is provided by Leslau (1952, 1956), Hudson (1976), and Korhonen et al. (1986). Previous works concentrate on verbal morphology and on morphophonological processes (M.G. Sim 1985, 1988), case marking (Treis 2006), and ethno-linguistic aspects (Treis 2005a, b). Lexical data is available in Hudson (1989). Virtually nothing is known about the syntax of the language. Therefore, the present article is intended to deal with a hitherto unexplored domain of Kambaata grammar.

Kambaata is a language which makes abundant use of relative clauses (RC). Its complex, often paragraph-like, sentences usually contain at least one RC. Once the mechanisms of relativization are understood, RCs are found almost everywhere in oral and written texts. They do not only modify nouns, but they are also the base of many adverbial clauses. Besides this, they are used in cleft sentences to encode the non-focused background information. Based on data collected during recent fieldwork, this paper discusses the morphological and syntactic aspects of relativization and sheds light on the function and use of RCs. The features of

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relativization in Kambaata are compared with those in the most closely related Highland East Cushitic languages, Qabeena (Crass 2005) and Alaaba (Schneider-Blum 2006).

1. Typological profile

Kambaata has four open word classes: nouns, attributes, verbs, and ideophones, and at least one closed word class of pronouns. The language possesses hardly any conjunctions, only very few adverbs, and no adpositions. In this section, important inflectional categories of the major word classes (except for ideophones) and the word order rules are discussed briefly.

Kambaata is a suffixing language. Its case system, a marked nominative system (König 2006), is elaborate and distinguishes not fewer than eight case forms (Table 1) in various nominal declensions (Treis 2006). The accusative case form serves as citation form.¹

[Insert Table 1 here]

Nouns, attributes, and pronouns are obligatorily marked for case. Case and gender (masculine vs. feminine) are jointly encoded by portmanteau suffixes. Nouns of certain noun classes additionally encode case and gender through the morphemes *-ha* (M) / *-ta* (F) (1).

¹ The Kambaata data in this paper are written in the official orthography (Maatewoos 1992). The following graphemes are not in accordance with the IPA conventions: ph = p', x = t', q = k', c = tʃ', ch = tʃ, sh = ʃ, y = j and ' = ʔ. Length is indicated by double letters, e.g. a: = aa, b: = bb, and ʃ: = shsh. Due to an idiosyncratic convention, the second consonant of a glottal stop-sonorant cluster is generally written as double, although the cluster only consists of two phonemes, e.g. 'mm = ʔm. Word-final unaccented *i* does not occur orthographically, irrespective of its phonological status.

- (1) masculine nouns: *adab-áa(-ha)* ‘boy’, *faashsh-ú* ‘horse; stallion’,
hagas-ó ‘type of bird’, *boos-ú* ‘water pot’
 feminine nouns: *mesel-ée-ta* ‘girl’, *faashsh-ú-ta* ‘mare’, *seegg-ó* ‘ostrich’,
xorb-ó ‘ball’, *zaal-í-ta* ‘largest clay pot’

The word class of attributes encompasses adjectives, cardinal numerals, and demonstratives, i.e. elements that are prototypically used as modifiers of a head noun. Attributes such as *maa’nn-á(-ta)* ‘younger’ in (2) agree with their head noun in case and gender.

- (2) *maa’nn-á* (M.ACC) *hiz-óo* (M.ACC) ‘younger brother’
maa’nn-á-ta (F.ACC) *hiz-óo-ta* (F.ACC) ‘younger sister’

máa’nn-u (M.NOM) *hiz-óo* (M.NOM) ‘younger brother’
máa’nn-a-t (F.NOM) *hiz-óo-t* (F.NOM) ‘younger sister’

Verbal inflection in Kambaata serves to encode aspect, modality, subordination, and subject agreement. Tense is expressed analytically. The verb forms may be grouped into main verb forms (final verbs) and subordinate verb forms (non-final verbs); see Table 2. Main verb forms are the only verb forms that may complete a sentence. Non-main verb forms always require a superordinate main verb or a copula (with the exception of converbs, which may be used as final verbs in questions; see, for instance, (85)). The subordinate verbs are further subdivided into those that are based on relative verbs and those which are not. The latter are converbs and purposive verbs as well as the infinitive.

[Insert Table 2 here]

Kambaata is a rigid head-final language. In the noun phrase all modifiers precede the nominal head, i.e. adjectives, numerals, demonstrative, genitive nouns, and RCs are found consistently in front of the head noun. Verbs are situated at the rightmost end of the clause. The unmarked word order is (S) (O) V. A finite verb alone may constitute a complete sentence. Subordinate clauses precede superordinate clauses or are located inside of them. A sentence can have one or several subordinate verbs, whereas it hardly ever contains more than one main verb form. Several main verb forms may only occur in a single sentence if they are coordinated (which is rarely attested in the corpus) or if one of them is part of an embedded chunk of direct speech.

2. Morphology of relative verbs

Indicative main verbs can be relativized. This statement implies, first, that **non-indicative** verb forms such as jussive, imperative, and preventive verbs cannot be turned into relative verbs (RVs), second, that **subordinate** verbs (e.g. converbs) cannot be relativized, and third, that **non-verbal** copulas do not have relative forms.

Before turning to the morphological mechanism of relativization, the structure of indicative main verbs is to be introduced. A verbal stem in Kambaata consists of a root which may be extended by derivational morphemes. As shown in Table 3, each affirmative indicative main verb has two subject agreement markers. Aspect morphemes are placed in the slot between these markers. In some persons, the discontinuous subject agreement morphemes and the inserted aspect markers have merged, so that the boundaries between them are blurred. From a synchronic point of view, it is, therefore, often more appropriate to analyze the three components as constituting one complex portmanteau morpheme of person, gender, number, and aspect. Pronominal object suffixes may be added to the right of the inflectional morphemes. The enclitic *ikke* characterizes an event as situated in the past and no longer relevant for the present situation or as unreal (hypothetical).

[Insert Table 3 here]

Two segmented indicative main verbs are given in (3).

(3) *daguddóont* ‘you ran’

< *dagud*_[STEM] -*t*_[SBJ.AGR, 2SG] -*oo*_[ASP, PVO] -*nt*_[SBJ.AGR, 2SG]

sazános ikke ‘he used to advise him’

< *saz*_[STEM] -*∅*_[SBJ.AGR, 3M] -*a*_[ASP, IPV] -*no*_[SBJ.AGR, 3M] -*s*_[OBJ, 3M] *ikke*_[PST]

2.1. Affirmative relative verbs

Kambaata does not have relative pronouns or particles. Affirmative RVs are primarily marked by a final accent, as illustrated in Table 4. In the main verb column, the accent is always located in a non-final position, whereas in the RV column the accent is consistently found at the rightmost end of the verb (see the boldfaced vowels). The accent shift from a non-final to a final position triggers voicing of formerly unaccented and devoiced verb-final vowels; see *xuundáamm/i/* ‘we will see’ and *xuundaammí* ‘which we will see’. Unaccented and devoiced final /i/ is generally not written in the Kambaata orthography. The reader should keep in mind that all Kambaata words ending in a consonant orthographically do actually end in an unaccented and devoiced /i/, which is voiced as soon as another morpheme is added or as soon as an accent settles on it.

[Insert Table 4 here]

Apart from the accentual differences between main verbs and RVs there are also minor segmental dissimilarities. The main verb forms of the first persons are either realized with a sim-

plex or with a geminate final consonant; see, for instance, the verb forms *kul-áamm* ~ *kul-áam* 1SG.IPV ‘I will tell’, which are in free variation. Their corresponding RVs, however, are always pronounced with a geminate consonant, *kul-aammí* (**kul-aamí*) 1SG.IPV.REL ‘which I will tell’. Furthermore, some main verb forms, e.g. *kul-táa’u* 3F.IPV ‘she will tell’, have sub-morphemic glottal appendices which only occur in careful speech and when the verb has no further suffixes after the inflectional morphemes. These appendices are dropped before a verb undergoes relativization; see *kul-táa* (**kul-taa’ú*) 3F.IPV.REL ‘which she will tell’.

In order to generate the relative form of a main verb such as the perfective main verb of (4), the accent is moved to the rightmost syllable, which is the aspect vowel in this particular example. The supra-segmentally marked RV is then placed in front of the noun that it modifies. An RC and a head noun constitute a complex NP.

(4)	adab-óo	dagújj-o	→	[[dagujj-ó]	adab-áa]
	boy-M.NOM	run-3M.PVO		run-3M.PVO.REL	boy-M.ACC
	‘The boy ran.’			‘the boy who ran’	

The accent of an affirmative RV is always placed on the rightmost syllable, irrespective of the number of syllables the verb consists of. Therefore, the accent is found on the pronominal object suffix in (5).

(5)	adab-óo	xúujj-o-se	→	[[xuujj-o-sé]	adab-áa]
	boy-M.NOM	see-3M.PVO-3F.OBJ		see-3M.PVO-3F.OBJ.REL	boy-M.ACC
	‘The boy saw her.’			‘the boy who saw her’	

The supra-segmental relative marker even moves to the tense enclitic *íkke* (6).

- (6) háanno [[hittigáam-u háww-u yóo-s ikké]
 please such-M.NOM problem-M.NOM COP1.3-M.OBJ PST.REL
 mát-o manch-í]-tann-ée xuundáamm
 one-M.OBL person.SG-M.GEN-NOMIN-M.DAT see.1PL.IPV

‘Please, we will look at a man who had such a problem before.’ (K4: 44)²

Affirmative RVs share two important features with genitive nouns, another pre-nominal modifier. They show the same accentual behavior. The accent on a genitive noun is always found on the rightmost syllable, irrespective of the number of syllables the noun consists of. The accent moves across possessive and plurative morphemes (7). Likewise, the relative accent traverses all morphemes of a verb.

- (7) N-M.GEN N-M.ACC **ann-í** hiz-óo ‘father’s brother’
 N-M.GEN-POSS N-M.ACC ann-i-**sé** hiz-óo ‘her father’s brother’
 N-PL-F.GEN-POSS N-M.ACC ann-aakk-a-**sé** hiz-óo ‘her fathers’ brother’

In contrast to other modifiers (adjectives (2), cardinal numerals and demonstratives), affirmative RVs and genitive modifiers cannot show agreement with their head noun. The forms of the RVs and genitive nouns in (8)-(10) are not influenced by the gender or case of the head noun. Note that the head noun in (8) is feminine, in (9) masculine. The head noun of example (9) is encoded in the accusative case, that of example (10) in the ablative case.

² Notes on cited data: Data from Kambaatissata (1989) were segmented, glossed, and translated; accents were added. Qabeena data from Crass (2005) were translated from German to English. The interlinear morphemic translation was adjusted to the conventions of this paper. In order to enable a better comparison of the Qabeena, Alaaba, and Kambaata data, all accents on the Qabeena examples were marked orthographically. According to Crass’s orthographic conventions (Crass 2005: 30), the word-final accent is not marked overtly. In the Qabeena data, small raised characters mark devoiced vowels. The glosses of the data cited from Schneider-Blum (2006) were adjusted to the conventions of this paper. In the Alaaba data, devoiced vowels are indicated by brackets. Kambaata data from Berhanu (1986) were segmented, glossed, and converted to the official orthography. Xambaaro data cited from Korhonen et al. (1986) were segmented and glossed.

Relative modifier	Genitive modifier
(8) [[barg-aqq-ineemmí] maxin-íta] add-MID-1PL.PVE.REL salt-F.ACC ‘the salt that we added for our benefit’	[[zazzalaan-ch-í] maxin-íta] salesmen-SG-M.GEN salt-F.ACC ‘the salt of the salesman’
(9) [[barg-aqq-ineemmí] shukkaar-á] add-MID-1PL.PVE.REL sugar-M.ACC ‘the sugar that we added for our benefit’	[[zazzalaan-ch-í] shukkaar-á] salesmen-SG-M.GEN sugar-M.ACC ‘the sugar of the salesman’
(10) [[barg-aqq-ineemmí] shukkaar-íichch] add-MID-1PL.PVE.REL sugar-M.ABL ‘from the sugar that we added for our benefit’	[[zazzalaan-ch-í] shukkaar-íichch] salesmen-SG-M.GEN sugar-M.ABL ‘from the sugar of the salesman’

2.2. Negative relative verbs

The formation of negative RVs is more complex than the formation of affirmative ones. Negative RVs are not simply generated by an accent shift. They are not formally related to negative imperfective and perfective main verb forms.

2.2.1. The negative relative morpheme *-umb*

Before proceeding to the negation of RVs, it is necessary to demonstrate how main verb forms are negated. Negative imperfective main verbs (12) are merely marked by the addition of a morpheme *-ba’a* to the affirmative form (11). The accentual structure of the imperfective verb is not altered by the additional negative morpheme.

(11) Imperfective affirmative

Stem	Subject agreement	Aspect	Subject agreement	(Object suffix)
------	-------------------	--------	-------------------	-----------------

e.g. xuud-deenánta-s < xuud-teen-á-nta-s

see-2PL.IPV-3M.OBJ

‘you (PL) see him’

(12) Imperfective negative

Stem	Subject agreement	Aspect	Subject agreement	(Object suffix)	-ba'a
------	-------------------	--------	-------------------	-----------------	-------

e.g. xuud-deenánta-si-ba'a < xuud-teen-á-nta-s-ba'a

see-2PL.IPV-3M.OBJ-NEG

'you (PL) do not see him'

Perfective and progressive main verbs (13) share one negative paradigm (14), which is characterized by a morpheme *-im* (a marker for non-imperfective aspect) after the first subject agreement morpheme and by a subsequent negative morpheme *-ba('a)*. The negative morpheme attracts the accent. The negative perfective lacks the second subject agreement marker. Object suffixes occur after the negative morpheme and trigger the loss of the "glottal appendix", i.e., before an object suffix the negative morpheme is realized as *-ba* (14).

(13) Perfective affirmative

Stem	Subject Agreement	Aspect	Subject Agreement	(Object suffix)
------	-------------------	--------	-------------------	-----------------

e.g. xuud-déenta-s < xuud-teen-nta-s

see-2PL.PVE-3M.OBJ

'you (PL) saw him'

Progressive affirmative

Stem	Subject agreement	Aspect	Subject agreement	(Object suffix)
------	-------------------	--------	-------------------	-----------------

e.g. xuud-deenáyyoonta-s < xuud-teen-áyyoo-nta-s

see-2PL.PROG-3M.OBJ

'you (PL) are seeing him'

(14) Perfective [“non-imperfective”] negative

Stem	Subject agreement	<i>-im</i>	<i>-ba('a)</i>	(Object suffix)
------	-------------------	------------	----------------	-----------------

e.g. xuud-deenim-bá-s < xuud-teen-im-ba-s

see-2PL.NIPV-NEG-3M.OBJ

‘you (PL) did not see him, you (PL) are not seeing him’

Kambaata has several unrelated negation morphemes. Apart from the morpheme *-ba'a*, whose use for the negation of indicative main verbs was exemplified in (12) and (14), the morpheme *-u'nná* serves to negate converbs, the morpheme *-ka* is applied to negative jussive verbs, and the morpheme *-oot* signals negative imperative verbs.

Relative verbs are marked as negative by the morpheme *-umb*, which does not seem to be related to the aforementioned negative morphemes. The negative RVs, whose paradigm is presented in Table 5, are not derived from negative main verb forms. The morphemes preceding *-umb* are the first subject agreement markers (cf. Table 3). Some person oppositions are neutralized, because the second subject agreement morphemes are missing (as in the paradigms of negative perfective verbs (14), converbs, and purposive verbs). The function of the final *-ú* is explained in the next section.

[Insert Table 5 here]

Example (15) contains two coordinate negative RVs.

(15) [[móos-u ul-umb-ú té abbíshsh qoh-umb-ú] wees-é hagar-á]
 disease-M.NOM touch-3M.NREL-M.ACC or exceed.3M.PCO harm-3M.NREL-M.ACC enset-F.GEN type-M.ACC

káas-u danáam-u-a

plant-M.NOM good-M.PRED-M.COP2

‘It is good to plant enset species that the disease does not touch or harm very much.’

(K8: 33)

2.2.2. Double agreement

Not only is the unique morpheme *-umb* in negative RVs noteworthy, but the clear adjectival features of negative RVs are equally remarkable. We will, therefore, turn to the function of the element *-ú* which is situated after the negative relative morpheme (Table 7).

Attributive adjectives distinguish three case forms (nominative, accusative, and oblique) and two genders (masculine and feminine) (Table 6). The nominative is used in front of nominative nouns, the accusative in front of accusative nouns (2). The oblique form signals agreement with all non-nominative, non-accusative nouns.

[Insert Table 6 here]

In contrast to affirmative RVs (recall the examples (8)-(10) above), negative RVs indicate case and gender agreement with their head noun. Negative RVs have the same case and gender markers and the same accent pattern as adjectives; compare Table 6 and Table 7. Table 7 exemplifies the inflection of *it-umb-ú* 3M.NREL ‘which he does not eat’.

[Insert Table 7 here]

In Table 5, only the negative RV forms that modify a masculine accusative head noun have been given. However, each negative RV form distinguishes an accusative, nominative, and oblique form in two genders, as was demonstrated with the 3M.NREL form in Table 7.

In spite of the gender and case agreement with the head noun, agreement with the subject in person, number, and gender is not lost. Negative RVs may, therefore, be said to combine features of two word classes, of verbs and adjectives. Example (16) illustrates how a **non-**relative verb agrees with its subject in person, gender, and number.

(16) *cíil-at* *ichch-áta* *it-táa-ba'a* / *it-tim-bá'a*
 baby.girl-F.NOM food-F.ACC eat-3F.IPV-NEG / eat-3F.NIPV-NEG



person/gender/number agreement with the subject

‘The baby girl does / did not eat the food.’

Negative RVs demonstrate double agreement: they agree with the subject of the RC, *cíilat*, and with the head noun, *ichcháta*, (17).

(17) [[*cíil-at* *it-tumb-úta*] *ichch-áta*]
 baby.girl-F.NOM eat-3F.NREL-F.ACC food-F.ACC



person/gender/number

case/gender agreement

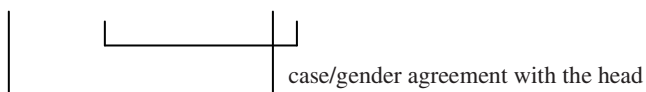
agreement with the subject

with the head noun

‘the food that the baby girl does not eat’

In example (18), the negative RV *aassitúmbut* agrees with the head noun *óosut* in case and gender. In addition, the RV displays subject agreement with *óosut*, because the head noun is also the subject of the RC.

- (18) [[xabbeen-áta fanqashsh-úta aass-itúmb-ut] óos-ut] ir-á áass-itun-ke
 correct-F.ACC answer-F.ACC give-3F.NREL-F.NOM children-F.NOM land-M.ACC give-3F.IUS-2SG.OBJ



person/gender/number agreement with the subject

‘The children who are unable to give the right answer must give you land.’

In sentence (19), the indirect object *qoqéeha* and the subject *sánut* are modified by RCs. While the affirmative RV *itanó* has no sign of case and gender agreement with its head, such agreement is present on the negative RV *ittúmbut*.

- (19) [[it-anó] qoq-éeha] [[it-túmb-ut] sán-ut] kan-táa’u
 eat-3M.IPV.REL throat-M.DAT eat-3F.NREL-F.NOM nose-F.NOM refuse.to.give-3F.IPV

‘The nose which does not eat refuses to give (food) to the eating throat.’ (Proverb)

Note, finally, that the rule stating that Kambaata negative RVs always have an adjectival accent pattern (Table 7) has one exception: for unknown reasons, negative RVs are accented on the final syllable if a pronominal object suffix is attached to them. In this restricted context, they demonstrate the same accent pattern as affirmative RVs; cf. (5) with (20) and (21).

- (20) [[esáa aag-umb-o³-’é] xáw-u] yóo’u
 1SG.DAT enter-3M.NREL-M.NOM-1SG issue-M.NOM COP1.3

‘There is something that I did not understand.’ (K4: 78)

- (21) [[béet-u-se reh-umb-u-sé-na reh-ée’u y-am-an-táa] mánc-ut]
 son-M.NOM-3F.POSS die-3M.NREL-F.ACC-3F.OBJ-CRD2 die-3M.PVE say-PS-PS-3F.IPV.REL person.SG-F.NOM

‘the woman whose son had not died (but) who was told “he died”’

2.2.3. Reduction of aspectual distinctions

Affirmative RVs distinguish between imperfective, perfective, and progressive aspect (22). These aspectual distinctions are neutralized in the negative relative paradigm. Imperfective,

³ The vowel *o* is probably a typing error. The expected case/gender suffix is *-u* M.NOM.

perfective, and progressive RVs are collapsed into a single negative relative paradigm. The most usual interpretation of a negative RV is that it refers to a constant, habitual, or repeated ‘not V-ing’, though the interpretation as a single instance of ‘not V-ing’ is also possible (23).

- (22) [[mogga’-óo] / [mogga’-áa] / [mogga’-ayyóo] óos-ut]
steal-3F.PVO.REL steal-3F.IPV.REL steal-3F.PROG.REL children-F.NOM
 ‘children who have stolen / who steal / who are stealing’

- (23) [[mogga’-úmb-ut] óos-ut]
steal-3F.NREL-F.NOM children-F.NOM
 ‘children who don’t steal’; other possible interpretations:

‘children who have not stolen’, ‘children who are not stealing’

If a single instance of ‘not V-ing’ is to be expressed explicitly, the RV has to be negated periphrastically. For this purpose, a negative converb is made dependent on a relative form of the verb *fa’*- ‘remain’ (24). Note that such periphrases are rare in my corpus and that the use of the potentially ambiguous negative RV even in the context of a single instance of ‘not V-ing’ is more common.

- (24) [[gizz-á mogga’-ú’nna fa’-óo] óos-ut] hiir-án-tee’u
money-M.ACC steal-3F.NCO remain-3F.PVO.REL children-F.NOM release-PS-3F.PVE
 ‘The children who had not stolen (lit.: “remained non-stealing”) money were released.’

2.2.4. Negative relative verbs in related languages

A look at the grammars of Kambaata’s closest relatives reveals that they apply mechanisms different from those of Kambaata for the relativization of negative verbs. A morpheme *-umb* is not attested in these languages, neither for the negation of RVs nor in another function. Nevertheless, the comparison of Qabeena and Alaaba with Kambaata is profitable, as it points to other interesting facets of relativization in Kambaata.

As in Kambaata, affirmative RVs in Qabeena are marked through a final accent (25). Negative verbs in Qabeena are relativized by the suffixation of the element *-’i* to the negation morpheme *-ba* (cf. Kambaata *-ba’a* NEG) (26). The accent moves from the negation morpheme onto the suffix. The addition of *-’i* elements is also observed on affirmative RVs ending in a certain vowel (Crass 2005: 287); i.e., it is not a unique feature of negative RVs. One may, therefore, state that Qabeena (unlike Kambaata) relativizes affirmative and negative verbs largely in the same way.

QABEENA

(25) [[ná’u-nⁱ nass-inoon-sí] c’úul-^u] (...) (Crass 2005: 287)

1PL.NOM-N raise-1PL.PVO-3M.OBJ.REL child-M.NOM

‘the child whom we raised ourselves (...)’

(26) [[t’e’-ane-’e-ba-’í] kallab-á] (Crass 2005: 287)

be.tasty-3M.IPV-1SG.OBJ-NEG-REL food-M.ACC

‘food which I don’t like’ (lit.: “food which is not tasty for me”)

Interestingly, there is also one negative main verb which can undergo direct relativization in Kambaata, namely, the locative copula *yoo-* ‘be (located)’, a defective verb which inflects in the perfective aspect only. The negative relative forms of *yoo-* do not contain the *-umb* morpheme; see the last column of Table 8. Instead, they are marked by a final accent (cf. affirmative RVs). Furthermore, the negation marker *-ba’a* changes its final vowel from *a* to *i*. The locative copula in Kambaata thus carries a negative relative marker which is identical to the general negative relative marker of Qabeena, namely, *-ba’i*.

[Insert Table 8 here]

The use of the negative relative copula is demonstrated in (27).

(27) [[cíi'-at yoo-ba'í] haqq-á]
 birds-F.NOM COP1.3-NEG.REL tree-M.ACC

‘a tree on which there are no birds’

Neither the Qabeena negative RVs nor the Kambaata negative relative copula *yoo-* show case and gender agreement with their head nouns. They lack this adjectival feature which characterizes the regular negative RVs of Kambaata. Irrespective of the head noun’s gender and case, the invariant negative relative marker *-ba'í* occurs with the locative copula; see the asterisked hypothetical feminine accusative form in (28).

(28) mat-íta [[ann-uhúu am-atíi yoo-ba'í (*yoo-ba'-íta)]
 one-F.ACC father-M.NOM.CRD1 mother-F.NOM.CRD1 COP1.3-NEG.REL (*COP1.3-NEG.REL-F.ACC)
 wotar-ch-úta] aass-íi iitt-an-tóo'u
 donkey.foal-SG-F.ACC give-M.DAT decide-PS-3F.PVO

‘It was decided to give (them) a donkey foal which had no father and mother.’ (K4: 34)

In Alaaba, there are two possible mechanisms for the relativization of negative verbs. The first mechanism corresponds to the one of Qabeena and also leads to negative RVs ending in *-ba'í* (Schneider-Blum 2006: 211) (29). The negative morpheme of non-relative main verbs is *-bá'a*. Alternatively, negative **converbs** may be used as heads of RCs. Affirmative RVs, however, cannot be replaced by affirmative converbs (30).

ALAABA

(29) [[’ameec-co-ba'í] mánc-(u)] t’ízzh(o)
 come-3M.PVO-NEG.REL person.SG-M.NOM become.sick.3M.PVO

‘The man who has not come is sick.’ (Schneider-Blum 2006: 211)

(30) [[táww-(u) dag-ibba] t’ul-oo-húu] (...)
 fly-M.NOM know-3M.NCO wound-M.NOM-CRD1

‘(...) wound without the knowledge of the fly (...)’ (Schneider-Blum 2006: 211)

(lit.: “wound which a fly does not know”, Y.T.)

In Kambaata, negative converbs may only occur as medial verbs in an RC; they always require a superordinate relativized main verb; see, for instance, *mogga'u'nnā* in (24).

3. Syntax

3.1. Word order

While the right boundary of a Kambaata RC is supra-segmentally marked, the left boundary is not formally indicated. All the above given examples have shown that RCs are prenominal. However, they need not precede their head nouns directly; other modifiers may be located between an RC and a head noun. In (31) and (32), genitive nouns and adjectives separate the RCs from their head nouns.

(31) [[min-íichch ful-án aff-ó] gabbán-ch-ua weer-ch-í qudd-íin]

house-M.ABL go.out-3M.ICO seize-3M.PVO.REL short-SG-M.OBL type.of.tree-SG-M.GEN club-M.ICP

[[onxákk yoo-sí] samaag-ichch-í qutt-áta] náqq áff-o

come.close.3M.PCO COP1.3-3M.OBJ.REL leopards-SG-M.GEN nape-F.ACC beat.3M.PCO seize-3M.PVO

‘With the short *weera*-club, which he had taken (with him) when leaving the house, he beat the leopard’s nape, which was close to him.’ (K8: 23)

(32) [[abbíss lall-itée] alas-í-na gardaam-í daabb-ó] tam-éechch

exceed.3F.PCO become.known-3F.PVE.REL wheat-M.GEN-CRD2 oat-M.GEN bread-F.GEN use-F.ABL

‘from the use of wheat and oat bread, which is very well known’ (K5: 28)

RVs can govern other subordinate verbs; see, for instance, the imperfective converb *fulán* and the perfective converb *onxákk* in (31) and the RC in an RC in (33).

(33) *hítta* [[[*wees-é* *zerett-íi* *ik-káa*] *fiish-úta*]
 DDEM2.F.ACC enset-F.GEN seeds-M.DAT become-3F.IPV.REL seedling-F.ACC
mut-is-íi *ass-eennó*] *qoorim-áta*] (...)
 sprout-CS1-M.DAT do-3HON.IPV.REL technique-F.ACC

‘This technique with which one makes seedlings sprout which will serve as (lit.: “which will be for”) enset seeds (...).’ (K5: 28)

Thus more or less complex subordinate clauses may be embedded into RCs. Like other modifiers, RCs are coordinated by the suffixation of the morpheme *-na* CRD2 ‘and’ to the first conjunct (34). In (32), two genitive nouns are coordinated by the same coordination morpheme *-na*. In case of disjunction, the free morpheme *té* ‘or’ is used (15).

3.2. NP accessibility and relativization strategies

The function of the head noun in the matrix clause (MC) and its function in the RC is not necessarily the same. In example (34), for instance, the modified noun *odáata* ‘pot(s); kitchen utensil(s)’ functions as the direct object of *aansh-* ‘wash’. The co-referent of the head noun in the RC is the instrumental object *odáan* of *inkiil-* ‘draw’ (and *ag-* ‘drink’), as demonstrated by the non-relative counterpart of the bracketed complex noun phrase (35)

(34) [[*wo’-á* *inkiil-eennó-na* *ag-eennó*] *od-áata*] *áansh-u*
 water-M.ACC draw-3HON.IPV.REL-CRD2 drink-3HON.IPV.REL utensil-F.ACC wash-M.NOM
moos-í *xiinxileenn-áta* *ka’mm-am-íi* *dandees-áno*
 disease-M.GEN germs-F.ACC remove.MID-PS-M.DAT enable-3M.IPV

‘Washing the pots with which one draws and drinks water can remove germs.’

(35) *wo’-á* *od-áan* *inkiil-éenno*
 water-M.ACC utensil-F.ICP draw-3HON.IPV
 ‘Water is drawn with the pot(s).’

As Kambaata deletes the co-referent noun (relativized noun) in the RC without a trace, the problem arises as to how the hearer is able to identify its function. The problem is referred to as

the “case recoverability problem” in the literature (Keenan 1985). The case marking on the remaining arguments in the RC and the agreement morphemes on the RV support the hearer in recovering the function to a large extent. Furthermore, what Comrie says about case recoverability in Japanese, a typologically related language, is also true for Kambaata: “[...] for the construction to make sense the speaker of Japanese has to be able to infer a plausible relation between the head noun and the modifying clause. [...] we can say that the speaker of Japanese will look for a relation by trying to interpret the head of the relative clause as one of the missing elements from the scene” (Comrie 1998: 68). With his/her knowledge of the text context and the speech situation as well as encyclopedic knowledge, the hearer sets up a link between the head noun and a missing (but possible) element of the RC.

In the following, the position (syntactic function or semantic role) of the relativized noun, the missing co-referent of the head noun in the RC, may have to be examined. Furthermore, the mode of expression of the missing co-referent is to be investigated. There is no overt marking of the semantic role of the head noun with respect to the predicate in the RC in example (34). However, Kambaata does not apply this “gap strategy” in all RCs.

Kambaata covers all positions on the Keenan and Comrie (1977) NP accessibility hierarchy (36). Nouns of any position or function in the RC are relativized.

(36) subject > direct object > indirect object > oblique > possessor

The head noun of example (37) functions as subject not only in the MC but also in the RC. The RV agrees with the missing subject of the RC and, therefore, also with the co-referential head noun in person, gender, and number.

(37) [[kohis-amm-ó] mánch-u] áyee-ti-ndo dug-íin kúl-e-’e!
 invite-PS-3M.PVO person.SG-M.NOM who.M.NOM.VV-COP3-Q brow-M.ICP tell-2SG.IMP-1SG.OBJ
 ‘Tell me in signs who the guest (lit.: “the man who was invited”) is!’

The head noun of (38) is the subject of the MC and the direct object of *xa’mm-* ‘ask’ in the RC.

(38) [[Loodáam xa'mm-ée] meent-íchch-ut] fanqashsh-itim-bá'a

L.M.NOM ask-3M.PVE.REL women-SG-F.NOM answer-3F.NIPV-NEG

'The woman whom Loodaamo had asked did not answer.'

It is justified to ask whether there is a real syntactic gap in the Kambaata RCs. Is there language-internal evidence for the former existence and subsequent deletion of the relativized noun? Or is the gap only a convenient assumption for the linguistic analysis? As in Japanese (Comrie 1998, Matsumoto 1997), NPs in Kambaata can be omitted if they are recoverable from the context; Kambaata is a *pro*-drop language. Although the RV in (37) has no an overt subject and the RV in (38) no overt direct object, one does not necessarily have to assume that these arguments were deleted, because finite verbs alone, e.g. *kohisámmo* 'he is invited' and *xa'mm-ée* 'he asked', are complete, though simple sentences. The RCs in (37) and (38) differ from such simple sentences only with regard to the accent pattern. Admittedly, there is thus no language-internal evidence for a syntactic gap. There is not necessarily a missing argument that is syntactically linked with the head noun.

While there is no trace of the relativized direct object in (38), sentence (39) seems to be, at first sight, an example of the strategy of pronoun retention, another common relativization strategy in the languages of the world. The head noun *óosut* 'children' is the direct object of the RC. A pronominal object suffix *-ssa* 3PL.OBJ on both RVs refers to the missing direct object. But is *-ssa* a trace of the relativized noun?

(39) [[ann-uhúu am-atíi hegeeg-í mann-uhúu gib-baa-ssá-na

father-M.NOM.CRD1 mother-F.NOM.CRD1 area-M.GEN people-M.NOM.CRD1 reject-3F.IPV-3PL.OBJ.REL-CRD2

xeleel-taa-ssá] óos-ut] hattigáam-it máan-at

tell.off-3F.IPV-3PL.OBJ.REL children-F.NOM what:kind-F.NOM character-F.NOM

yóo-ssa-a-rr-a?

COP1.3-3PL.OBJ.REL-M.COP2-RA-M.PRED

'What kind of character do the children have whom the father, the mother, and the neighbors reject and tell off?' (K4: 49)

Admittedly, the conditioning factors for the occurrence of pronominal object suffixes on verbs are not yet sufficiently investigated. As pronouns, the object suffixes substitute for aforementioned overt NPs that refer to human or personified beings (40). Object NPs precede the verb, whereas dependent object pronouns are suffixed to the verb.

(40) kichche'-íshsh-o-ssa

feel.pity-CS1-3M.PVO-3PL.OBJ

(An old man (HON) and a pitiful situation were introduced in the discourse before.)

'It made him (lit.: "them") feel sorry.' (K4: 76)

Furthermore, it is not uncommon to find in texts that an object is referred to twice in the same clause, by both a full NP and a pronominal suffix (41) or by an independent pronoun and a pronominal suffix (42). This double reference is definitely pragmatically conditioned, though it is not yet known exactly which pragmatic factors trigger it.

(41) ku hugaaxáann-u samaag-ichch-ú-s sh-itosíta

DDEM1.M.NOM hunters-M.NOM leopards-SG-M.ACC-3M.POSS kill-3F.PURP<3M.OBJ>

bagaz-z-áta áff sharr-itán-iyán-s hun-án (...) iill-ée'u

spear-PL-F.ACC seize.3F.PCO chase-3F.PCO-DS-3M.OBJ flee-3M.IC0 reach-3M.PVE

'In order to kill the leopard (lit.: "to kill him the leopard"), the hunters took their spears and chased him; fleeing he got to (a place where ...).' (K4: 76)

(42) esáa mexxurr-úu yoo-'e-ba'í-tannée (...)

1SG.DAT nothing-M.NOM.CRD1 COP1.3-1SG.OBJ-NEG.REL-BEC1

'Because I don't have anything, (...).' (lit.: "to me there is nothing to me") (K4: 77)

Considering the existence of perfectly grammatical examples in which the relativized direct object is deleted without a trace (see (38)) and the observance that objects can be referred to twice in the same clause under certain pragmatic conditions (see (41) and (42)), it does not seem necessary, or even reasonable, to assume that the object pronoun *-ssá* in (39) is a trace of

the deleted direct object. The occurrence of the object pronoun is not the result of the relativization of a direct object.

Apart from subjects and direct objects, indirect and oblique objects can be relativized; see the relativized beneficiary in (43) and the relativized source or “maleficiary” in (44). A pronominal suffix may be attached to the RV if a human indirect or oblique object is relativized.

- (43) [[harruuchch-ú-’ argishsh-oon-sí] mánych-u] jáww a’-ée-s
 donkey.SG-M.ACC-1SG.POSS lend-1SG.PVO-3M.OBJ person.SG-M.NOM mistreat do-3M.PVE-3M.OBJ
 ‘The man (to) whom I had lent my donkey did not treat it well.’

- (44) [[gízz-u mogga’-amm-o-sé] mesel-éeta] qaars-éen-se
 money-M.NOM steal-PS-3M.PVO-3F.OBJ.REL girl-F.ACC encourage-1SG.PVE-3F.OBJ
 ‘I encouraged the girl from whom money had been stolen.’

There are analogous examples in (45)-(46) in which there is no pronominal object suffix on the RV, i.e., the object suffixes on the RVs in (43)-(44) are not traces of the deleted NPs. The relativized NPs is a source in (45), a location in (46), and a beneficiary in (28).

- (45) [[gízz-á le’eecc-eemmí] meent-íchch-ut]
 money-M.ACC borrow.MID-1SG.PVE.REL women-SG-F.NOM
 wáal-t gízz-á-se fanqáshsh-unta xa’mm-itóo-’e
 come-3F.PCO money-M.ACC-3F.POSS return-1SG.UNTA ask-3F.PVO-1SG.OBJ
 ‘The woman from whom I had borrowed money came and asked for her money back.’

- (46) [[át dikka’-aantí] mánych-u] ísoo-t
 2SG.NOM rely-2SG.IPV.REL man.SG-M.NOM 3M.NOM.VV-COP3
 ‘He is a man you (can) rely on.’

Apart from subjects and objects, adjuncts (adverbial of place (47), time (48), and manner (49)) can be relativized.

(47) [[cǐi'-at gassim-á gassim-á wod-dáa] háqq-u]
 birds-F.NOM morning-M.ACC morning-M.ACC chirp-3F.IPV.REL tree-M.NOM

urr-óon-ta-'ee-t.

front.yard-F.LOC-L-1SG.POSS.VV-COP3

'The tree on which the birds chirp every morning is in my front yard.'

(48) [[bux-íchch-u it-anó] bar-í] móoq-ut ba'-áa'a

poor-SG-M.NOM eat-3M.IPV.REL day-M.ACC spoon-F.NOM disappear-3F.IPV

'On the day on which a poor man has some food to eat his spoon cannot be found.'

(Berhanu 1986: 49)

(49) (...) [[dandee-toontí] woqq-éen] sarb-ít íll

be.able-2SG.PVO.REL way-M.ICP hurry-2SG.PCO arrive.2SG.IMP

'(...) come here quickly in a way that is possible for you.' (K8: 22)

Furthermore, Kambaata allows the relativization of possessor NPs. Close to the place where the co-referent of the head noun, the possessor, is removed, a possessive suffix is retained in the RC. Kambaata has two possessive constructions. The possessor is marked either by a genitive (pro)noun (50) or by a possessive suffix (51). The possessor may not be marked by both a genitive noun and a possessive suffix at the same time (52).

(50) Genitive (pro)noun + Noun, e.g. *lalí qegú* 'the blood of the cattle'

(51) Noun-Possessive Suffix, e.g. *qegú-s* 'its blood'

(52) *Genitive (pro)noun + Noun-Possessive Suffix,

e.g. **lalí qegú-s* 'the blood of the cattle'

In example (53), the head noun is co-referential with the possessor in the RC. The possessive suffix *-s* on the possessed is the obligatory trace of the non-occurring possessor. As possessive suffixes always substitute for but never co-occur with possessor NPs (52), one has to speak about pronoun retention in the case of possessor relativization.

(53) [[chár-it łal-í qeg-ú-s ag-góo] lál-u]
 type.of.bird-F.NOM cattle-M.GEN blood-M.ACC-3M.POSS drink-3F.PVO.REL cattle-M.NOM

fanqashsh-aqq-áno-ba'a

return-MID-3M.IPV-NEG

‘Cattle whose blood was drunk by *chare*-birds cannot be saved.’ (K1: 83)

Sentence (54) is a remarkable example insofar as the possessor of the possessor is relativized therein. The possessive suffix *-se* replaces the co-referent of the feminine head noun.

(54) [[~~meent-íchch-ó~~ min-i- sé ánn-u bagá reh-ée] meent-íchch-ut]

women-SG-F.GEN house-M.GEN-3F.POSS father-M.NOM recently die-3M.PVE women-SG-F.NOM

oos-ú-se méxxin le'-ís-u hasis-áno-se

children-F.ACC-3F.POSS alone grow-CS1-M.NOM be.necessary-3M.IPV-3F.OBJ

‘The woman whose “house father” (i.e. husband) has died recently must raise her children alone.’

Kambaata’s closest relatives, Alaaba (Schneider-Blum 2006: 297) and Qabeena (Crass 2006: 288f), allow relativization of subjects, direct, indirect and oblique objects as well as circumstantial NPs. For the relativization of possessors only examples from Alaaba can be cited; no such examples are found in the Qabeena grammar. In (55), the head noun *t'arapp'éezu* is co-referential with the possessive suffix of the relational noun *'aléen* ‘on top’. There are no postpositions in Alaaba (and Kambaata), but spatial relations are expressed with relational nouns. The noun ‘top’, for instance, governs genitive modifiers, i.e., ‘on the table’ is literally expressed as “on the top of the table”.

ALAABA

(55) [['al-éen-ka-s(i) kee'm-ano saatin-á 'afuussh-itoonti] t'arapp'éez-(u)] (...)

top-M.LOC-L-3M.POSS be.heavy-3M.IPV.REL box-M.ACC sit.CS1-2SG.PVO.REL table-M.NOM

‘the table on which you put the heavy box (...)’ (Schneider-Blum 2006: 256)

(lit.: “the table on whose top you put the heavy box”, Y.T.)

Kambaata does not seem to differentiate between RCs and other modifying clauses. The noun *tassóo* ‘hope’ in (56) is modified by a clause which contains the content of hope. While the use of a gerund in the English translation is necessary, Kambaata expresses the content of hope in an RC. This means that Kambaata extends the relative construction beyond translation equivalents of English RCs.

(56) [[mat-é am-á-s xuud-anó-na daqq-am-anó] tass-óo]

one-TIMES mother-F.ACC-3F.POSS see-3M.IPV.REL-CRD2 find.MID-PS-3M.IPV.REL hope-M.NOM

reh-ó tuns-óon door-ámm fájj-ee’u.

death-F.GEN darkness-F.LOC change-PS.3M.PCO do.completely-3F.PVE

‘The hope of seeing and meeting his mother once (again) was turned into the darkness of death.’ (K8: 22)

Unlike in the relative constructions discussed so far, there is no argument or adjunct position of the predicate of the modifying clause to which the head noun *tassóo* could correspond. In other words, the complex NP cannot be converted into a non-relative construction by assigning a case marker to the head noun and inserting it into the clause (which was done, for instance, in (35) with the head noun of (34)). As soon as more data on modifying but non-relative clauses are available, it can be investigated in detail whether Kambaata is a language with a unified noun-modifying construction like that found in various Asian languages (Comrie 1997), in Japanese in particular (Matsumoto 1997).

3.3. Headless relative clauses

3.3.1. Affirmative headless relative clauses

If the head noun of an RC is non-specific or if it can be deduced from the context, it may be deleted. Thus the RC becomes headless, or put differently, the RC itself becomes the head of the NP. Nominalizing the RC compensates for the absence of the head noun and allows the RC to be case-marked. Two nominalizing operations have to be distinguished here. The first

operation (NMZ 1) is applied when an accusative or nominative head noun is missing: The final vowel of the RV is lengthened (...V → ...VV-) and a case/gender marker is attached to the RV. Depending on the gender and case of the deleted head, the suffix *-ha* M.ACC (57), *-hu* M.NOM, *-ta* F.ACC (58), or *-t* F.NOM is added. If the final vowel of the RV is already long (58), a glottal element 'i, whose vowel can be lengthened, is attached to the RV (...VV → ...VV'íi-).

(57) [[laall-ó] bun-á] → [laall-óo(-ha)]
 become.ripe-3M.PVO.REL coffee-M.ACC become.ripe-3M.PVO.REL.VV-M.ACC
 ‘coffee which is ripe’ ‘the one (M) which is ripe’

(58) [[laal-tóo] mang-úta] → [laal-too'íi-ta]
 become.ripe-3F.PVO.REL mango-F.ACC become.ripe-3F.PVO.REL.VV-F.ACC
 ‘the mango which is ripe’ ‘the one (F) which is ripe’

If the RV carries a final object suffix (*-sé* in (59)), it is the vowel of this suffix which is lengthened when the head noun is deleted.

(59) [[qaqíchch-u béll-u yoo-sé] sirim-íta]
 tiny-M.NOM Y.shaped.end-M.NOM COPI.3-3F.OBJ type.of.stirring.stick-F.ACC
 ‘the *sirime*-stirring stick which has a tiny Y-shaped end’

→ [qaqíchch-u béll-u yoo-sée-ta]
 tiny-M.NOM Y.shaped.end-M.NOM COPI.3-3F.OBJ.REL.VV-F.ACC
 ‘the one which has a tiny Y-shaped end at one end’

Headless and nominalized RCs can refer to the same entities as nouns, namely, to animate and inanimate referents as well as actions and events. They can fulfill the same syntactic functions as nouns. Furthermore, head nouns of all possible functions in the RC may be deleted. The missing head nouns function as subjects of the RC in (57) and (58), as beneficiary/possessor of the RC in (59) and as direct object of the RC in (60).

(60) [denekk-á-g-a gaf-éen it-eemmáa(-hu)]
 potato-F.GEN-GA-M.OBL boil-3HON.ICO eat-3HON.PVO.REL.VV-M.NOM
 godab-íi iitt-am-áno-a
 stomach-M.DAT like-PS-3M.IPV.REL-M.COP2

‘The one (= the enset corm) which one boiled like potatoes and ate is easily digestible.’

The complete case and gender paradigm of headless RV forms is given in Table 9.

[Insert Table 9 here]

Table 9 is divided into two major parts. Nominalization operation 1 does not apply to the non-accusative/non-nominative cases. If a head noun encoded in such a case is deleted, nominalization operation 2 is activated: the head noun is replaced by a gender-sensitive morpheme *-hann / -tann* (61). The nominalizing morpheme *-hann / -tann* is historically related to the independent proximate demonstrative pronouns (‘this’); see, for instance, GEN *kann-í* (M) / *tann-é* (F) ‘of this (M/F)’, DAT *kann-íi(ha)* (M) / *tann-ée(ha)* (F) ‘for this (M/F)’. From a diachronic point of view, headless RCs are governed by a pronoun. The nominalizer *-hann / -tann* is probably best considered to be an enclitic element; the constituent [RV plus *-hann / -tann*] seems to carry two accents.

(61) [[laall-ó] bun-íichch] → [laall-ó]-hann-íichch]
 become.ripe-3M.PVO.REL coffee-M.ABL become.ripe-3M.PVO-NOMIN-M.ABL
 ‘from the coffee which is ripe’ ‘from the one (M) which is ripe’

The use of oblique headless RCs in sentential contexts is further illustrated in (62) and (63).

(62) [kabár ros-is-soonte-’é]-hann-íi] abbíshsh galaxx-áan-ke
 today learn-CS1-2SG.PVO-1SG.OBJ.REL-NOMIN-M.DAT exceed.1SG.PCO thank-1SG.IPV-2SG.OBJ
 ‘I thank you very much for what you taught me today.’

(63) [[Adisáab-a yóo] oddíishsh-at] [Duuráam-e yóo]-tann-éechch]
 A.-M.OBL COP1.3.REL clothes-F.NOM D.-F.OBL COP1.3.REL-NOMIN-F.ABL

ub-á hir-an-táa'u

cheap-M.ACC sell-PS-3F.IPV

‘The clothes that are in Addis Ababa are sold cheaper than the ones in Duuraame.’

3.3.2. Negative headless relative clauses

The nominalization procedures discussed with respect to affirmative RCs are also applicable to negative RCs (Table 10). That is especially evident in the oblique case forms. If a head noun in a non-accusative/non-nominative case is deleted, nominalization operation 2 is applied, irrespective of whether the RV is affirmative or negative; see, for instance, the genitive form in Table 10. The negative RV to which the nominalizing *-hann / -tann* morpheme is encliticized ends in *-úmb-o*. Recall from Table 7 that *-o* is the oblique case suffix of the negative RVs. Negative RVs agree with their heads in gender and case; *-o* signals here agreement with the oblique case-marked nominalizer *-hann / -tann*.

The headless nominative and accusative forms are discussed in more detail in §3.3.3.

[Insert Table 10 here]

The headless negative RC *xuud-deenúmb-o-hann-í* ‘of what you did not see’ in (64) precedes the similative morpheme *-g-a* ‘like, as’. The oblique case suffix *-o* of the negative RV agrees with the genitive-marked nominalizer *-hann-í*.

(64) [xuud-deentáa-n-ka] [xuud-deenúmb-o]-hann-í]-g-a ass-itéen (...)
 see-2PL.PVE.REL.VV-N-M.ACC see-2PL.NREL-M.OBL-NOMIN-M.GEN-GA-M.OBL do-2PL.PCO

‘You do as if you did not see what you saw and (...).’ (K4: 46)

(lit. ‘you make what you saw like what you did not see’)

3.3.3. Headless relative clauses and other headless modifiers compared

Considering the morphological differences between modifying affirmative and negative RCs, it is noteworthy that both types of RCs are often subject to the same operations when deprived of their heads. Recall that modifying negative RVs, in contrast to modifying affirmative RVs, are inflected like adjectives (see Table 6 and Table 7). However, when the head noun is deleted, negative RVs behave partly like affirmative RVs, partly like adjectives.

Adjectives (and cardinal numerals) may function as phrasal heads **without** being subjected to further operations, i.e., they do not need to be nominalized. As heads, they are simply inflected like a noun (compare Table 1 and Table 11) and may be marked by one of eight case forms (Treis 2006). The accusative-marked adjective *fayy-á* and the ablative-marked numeral *tordum-íichch* are used as phrasal heads in (65) and (66), respectively.

[Insert Table 11 here]

(65) *rehée-bíi íi fayy-á aaqq-itéent*

die-3M.PVE-BEC2 1SG.GEN healthy-M.ACC take-2SG.PVE

‘Because he (= your baby-boy) had died, you took my healthy one.’

(66) *tordum-íichchi-nne-n án qoxár-a-ta*

ten-M.ABL-1PL.POSS-N 1SG.NOM clever-F.PRED-F.COP2

‘From the ten of us I am the cleverest.’

Let us now have a look at the accusative and nominative columns of Table 10. There are two contexts in which negative RVs do not have to undergo nominalization in order to be used as phrasal heads, i.e., there are two contexts in which they behave like adjectives. If a nominative head noun is missing, the negative RV is not nominalized; see the nominative forms of the negative RV, *it-úmb-u* and *it-úmb-ut*, in Table 10 and example (67).

(67) [hujat-úmb-u] it-ú ígg-a-a

work-3M.NREL-M.NOM eat-M.ACC daring-M.PRED-M.COP2

‘The one (M) who does not work is bold in eating.’ (Proverb) (Berhanu 1986: 43)

In the accusative cell of the negative RVs, two forms occur: a non-nominalized and a nominalized form. Mostly, the first form is used when an accusative head noun is deleted (68).

(68) mánn-u gizz-á [mogga’-umb-úta] kassáshsh-o

people-M.NOM money-M.ACC steal-3M.NREL-F.ACC accuse-3M.PVO

‘The people accused the one (F) who had not stolen the money.’

For unknown reasons, however, the nominalized negative RV with the lengthened vowel is required for accusative complements of the verb *ih-* ‘become’ (69), which replaces ascriptive and identifying copulas in subordinate clauses (Treis forthcoming).

(69) úull-a-s [bobír-u qoh-umbúu-ta (*qoh-umb-úta)] íh-u

land-F.NOM-3M.POSS wind-M.NOM damage-3M.NREL.VV-F.ACC (*damage-3M.NREL-F.ACC) be-M.NOM

hasis-áno-se

be.necessary-3M.IPV-3M.OBJ

‘The land must be one (= a plot) that the wind does not damage.’ (K8: 6)

(70) Sabír-u [huj-íta iitt-umbúu] ikk-ó-tann-ée

S-M.NOM work-F.ACC like-3M.NREL.VV.M.ACC be-3M.PVO.REL-NOMIN.F.DAT

hor-ánta j-áata alachch-áanee-t

all-F.ACC.N time-F.ACC game-F.ICP.VV-COP3

‘Sabiro is playing all the time because he is someone who doesn’t like to work.’ (K8: 25)

After having compared headless RCs to adjectives, we must look at the similarities and differences between headless RCs and headless genitive nouns. The latter also have to undergo nominalization before they may be used as heads of NPs; see the starred form in (71).

(71)	meent-ichch-ó	ar-óo	*meent-ichch-ó	∅
	women-SG-F.GEN	husband-M.ACC	women-SG-M.GEN	
	‘the woman’s husband’		‘the one of the woman’	

The morpheme *-bíi* is required to nominalize genitive nouns whose accusative or nominative head is deleted; in contrast to headless RVs, genitive nouns cannot be nominalized through vowel lengthening. If the headless genitive nouns are used as oblique arguments, the well-known nominalizer *-hann / -tann* occurs (Table 12). See also the examples in (72).

[Insert Table 12 here]

(72)	meent-ichch-ó-tann-ée	manch-í-bíi-ta
	women-SG-F.GEN-NOMIN-F.DAT	person.SG-M.GEN-NOMIN-F.ACC
	‘for the one (F) of the woman’	‘the one (F) of the man’

3.3.4. The morpheme *-ra* on headless relative clauses

If a headless RC refers to more than one animate or inanimate referent or to an undetermined number of inanimate referents, it receives a dummy head *-ra*. The morpheme *-ra* is probably of nominal origin, because it inflects in all eight case forms. Note that the stem is *-r* and that *-a* is the accusative case marker. The complete paradigm of *-ra* is given in Table 13.

[Insert Table 13 here]

The *-ra* morpheme may be preceded by any modifier, i.e., apart from affirmative (73)-(74) or negative RVs (75), adjectives, numerals, demonstratives as well as genitive nouns (76) may be combined with *-ra*. Note that negative RVs agree in case and gender with the *-ra* morpheme (75). The morpheme *-ra* is inherently masculine.

(73) [fuuc-cayyóo-r-u] iill-ít (...)

pant-3F.PROG.REL-RA-M.NOM arrive-3F.PCO

‘The panting ones arrived and (...).’ (K4: 76)

(74) [aass-ano-ssá-r-a] sá’mm y-ít qoraphh-ít (...)

give-3M.IPV-3PL.OBJ.REL-RA-M.ACC silent say-3F.PCO wait.MID-3F.PCO

‘They quietly waited for what he would give to them and (...).’

(75) (...) [kann-íichch bír-e gambá y-umb-u-sí-r-a] xúujj-o

IDEM1-M.ABL front-F.OBL encounter say-3M.NREL-M.ACC-3M.OBJ-RA-M.ACC see-3M.PVO

‘He saw (...) what he had not encountered before (lit.: “what had never come across him”).’ (K8: 19)

(76) maal-í-r-a / quphph-á-r-a

meat-M.GEN-RA-M.ACC egg-F.GEN-RA-M.ACC

‘the ones of meat’ (here: the ones that are suitable for meat production)/‘the ones of eggs’ (here: the ones that are suitable for egg production) (K3: 69)

4. The ubiquitous relative clause

It is common to find about one RC per sentence on average in Kambaata narratives. This vast number of RCs can be attributed neither to the text type nor to the individual style of an author or speaker. The ubiquity of RCs has other reasons: Apart from using RCs as attributes of nouns, Kambaata draws on RCs for the formation of various adverbial and complement clause types; i.e., the traditional triptych of subordination (adverbial clauses—complement clauses—relative clauses)⁴ is covered largely by one single strategy. Furthermore, relativization is an essential ingredient of focus marking in Kambaata, which is also known in other Ethiopian languages (see, for instance, Appleyard (1989)). Focus constructions are cleft sentences in

⁴ Note, for instance, the tripartite division of the subordination domain in Shopen (1985) into complementation (Noonan 1985), relative clauses (Keenan 1985), and adverbial clauses (Thompson and Longacre 1985).

which the focused constituent is made the complement of a copula and in which the non-focused background information is turned into a headless RC. Focus constructions are not dealt with in this paper, but they are the subject of a future publication (Treis forthcoming).

It has been demonstrated in this section that most adverbial and complement clauses in Kambaata are parasitic on RCs. Not only are many locative and temporal adverbial clauses historically derived from RCs plus a head noun ‘place’ or ‘time’ (which is a common grammaticalization chain discussed in the literature), but also reason, purpose, and conditional clauses have the same diachronic source. Moreover, Kambaata does not make a formal distinction between adverbial and complement clauses. The potential to relativize all positions in an RC (36) is the prerequisite for the formation of subordinate clauses on the base of relative constructions.

4.1. Locative clauses

Locative clauses (77) are RCs headed by a dependent morpheme *-b-a*, which derives historically from a reconstructed masculine noun **b-áa* ‘place’. Due its nominal origin, the place morpheme can be case-inflected. The place morpheme can be attached to any modifier (genitive nouns, adjective, numerals, demonstratives, or RCs). In (78), an affirmative and a negative locative clause are coordinated. The negative RV agrees with the place morpheme in case and gender.

(77) [[ti maxáaf-f-at afuu'll-itáa]-b-a] kúl-e-'e
DDEM1.F.NOM book-PL-F.NOM sit-3F.IPV.REL-PLACE-M.ACC tell-2SG.IMP-1SG.OBJ

‘Tell me where these books are kept!’

(78) [[ih-é ta'mm-eenno]-b-áa] [[ta'mm-eenumb-u]-bb-áa]
i-M.ACC use-3HON.IPV.REL-PLACE-M.ACC.CRD1 use-3HON.NREL-M.ACC-PLACE-M.ACC.CRD1

‘where (the epenthetic vowel) *i* is used and where it is not used’ (Maatewoos 1992: 16)

4.2. Temporal clauses

Kambaata has several means of indicating temporal relations between two clauses. Most often a sequence of one or more converbs and a superordinate verb are used; see example (41) above, in which three converbs occur in a sequence. Kambaata distinguishes among perfective (PCO), imperfective (ICO), and negative converbs (NCO). Converbs receive a suffix *-iyan* (DS) if there is a subject change between converb and superordinate clause. Besides converb clauses, the language makes use of relative-based constructions to encode various temporal relations (named according to Kortmann (1997)) between subordinate and superordinate clause (Table 14). Depending on the type of temporal clause, headed or headless (nominalized) RCs occur.

[Insert Table 14 here]

A temporal clause expressing an event that is subsequent to the event encoded in the superordinate clause is governed by the relational noun *biríta* ‘front’. The relational noun occurs in the accusative case, which is, among others, the case form of adverbial constituents in Kambaata. Given that complements of *biríta* are encoded in the ablative case (see *soozim-éechch* ABL *biríta* ‘before dawn’), the RC governed by *biríta* is nominalized (NMZ2) and the ablative case is assigned to it (32). The RV is marked for imperfective aspect.

- (79) gó’r-u bún-u [[bíishsh y-aanó]-hann-íichch] bir-íta]
- green.berry-M.NOM coffee-M.NOM red say-3M.IPV.REL-NOMIN-M.ABL front-F.ACC
- haqq-i-sí zu’r-áan dag-am-áno-a gambáll-ata láal-o-a hagár-a
- tree-M.GEN-3M.POSS ear-M.LOC find-PS-3M.IPV.REL-M.COP2 black-F.OBL fruit-F.GEN-M.COP2 kind-M.PRED
- ‘*Gor’a* are black (coffee) berries (i.e. unripe, green berries) which are found on the ears of the tree before the coffee becomes red.’

Anteriority is expressed if a perfective RCs is nominalized, encoded in the ablative case, and made dependent on the ICP case form (*zakkūn*) of the relational noun *zakkú* ‘rear, back’. The

final verb of the *zakkīin*-clause in (80) governs two converb clauses, which indicate a sequence of events within the *zakkīin*-clause.

- (80) [[[[baad-i-sí wog-í-g-a qáw-ut óos-ut xaacc-ít]]]]
country-M.GEN-3M.POSS custom-M.GEN-GA-M.OBL small-F.NOM children-F.NOM gather-3F.PCO
[dul-í sakkí bar-í oll-ée mann-íiha zaraar-úta
slaughter-M.GEN third day-M.ACC neighborhood-F.GEN people-M.DAT flower-F.ACC
mass-ít] sunq-isiis-sóo]-hann-íichch] zakk-íin] kohis-éenno-ssa
bring-3F.PCO kiss-CS2-3F.PVO.REL-NOMIN-M.ABL back-M.ICP offer.food-3HON.IPV-3PL.OBJ

‘After small children have gathered, brought flowers to the people of the neighborhood on the third day of the slaughtering (i.e. on the third day of the *masaala*-festival) and made (the people) kiss (the flowers) according to the traditions of the country, one offers food to them (= the children).’ (K5: 9)

The occurrence of the *-hann* morpheme (for the purpose of nominalization) is not obligatory in *zakkīin*-clauses. As (81) illustrates, the ablative case marker *-VVchch* can also be directly attached to the RV. Moreover, the relational noun can be omitted, so that nothing but an ablative-marked finite verb governs the temporal clause (82).

- (81) [[hiirat-úta aass-itoontíichch] zakk-íin] (...) (< aassitoontí + ABL)
translation-F.ACC give-2SG.PVO.REL.ABL back-M.ICP

‘After/when you have provided a translation (...).’ (K9: 26)

- (82) [ichch-óochch] m-á háshsh-ee-la?
eat-3M.PVO.REL.ABL what-M.ACC want-3M.PVE-INDIGNATION

‘What (else) does he want after he has eaten!?’ (with indignation)

An RC headed by the underived noun *jáata* ‘time’ (ACC) or *jáan* (LOC), the singulative noun *jeechchúta* ‘time’ (ACC), or the loanword *saatá* ‘time’ (ACC) (< Amharic *sä’at*) indicates that the events of the subordinate and superordinate clause are overlapping (83) or in a sequence

(84). If the RV is in the imperfective aspect, a contingency relation (Kortmann 1997: 85) between subordinate and superordinate clauses is expressed (‘whenever’) (85).

(83) [[án waall-oommí] j-áata] (> waallóon-jaata)

1SG.NOM come-1SG.PVO.REL time-F.ACC

íse hooshsh-ú shol-táyyoo íkke

3F.NOM lunch-M.ACC prepare-3F.PROG PST

‘When I came she was preparing lunch.’

(84) [[sú’r-u cíil-l-at il-an-tóo] j-áata]

umbilical.cord-M.NOM child-PL-F.NOM give.birth-PS-3F.PVO.REL time-F.ACC

am-áachch mur-éen annann-á ass-éenno

mother-F.ABL cut-3HON.PCO separate-M.ACC do-3HON.IPV

‘When/after children have been born the umbilical cord is cut off from the mother.’

(85) [[án waal-aammí] j-áata] át m-íi kichche’-án?

1SG.NOM come-1SG.IPV.REL time-F.ACC 2SG.NOM what-M.DAT become.sad-2SG.ICO

‘Why are you sad whenever I come?’

In most examples, the head noun *jáata* can be considered an independent word. However, optional assimilation and contraction at the boundary between the RC and the head noun are also observed. *Jáata* may develop into a dependent morpheme in the future (83).

From a cross-linguistic point of view, it is common that RCs modifying a noun ‘time’ develop into temporal adverbial clauses (see, for instance, Lehmann (1984) and Thompson and Longacre (1985)). Also Kambaata’s closest relatives make use of this construction: however, instead of *jáata*, the noun *woktí* (Schneider-Blum 2006: 273) / *wak’ti* (Crass 2005: 309) is the head of the temporal clause. In Hadiyya, temporal adverbial clauses are also relative-based; the head word is *ammáne* ‘time’ in the accusative or locative case (Sim 1989: 308).

Nominalized RCs in the locative case may function as temporal clauses too. The event of the subordinate clause constitutes the temporal setting against which the event of the

superordinate clause takes place. The subordinate clause expresses a continuous, the superordinate a punctiliar, event.

(86) [haquuchch-í aaz-éen afuu'll-eemmí]-hann-éen]

tree.SG-M.GEN interior-M.LOC sit-1SG.PVE.REL-NOMIN-M.LOC

abokad-íchch-ut al-íchch dirr-ít boq-ú-' naq-qóo'u

avocado-SG-F.NOM top-M.ABL descend-3F.PCO head-F.ACC-1SG.POSS hit-3F.PVO

'While I was sitting under a tree, an avocado fell on my head.'

Subordinate clauses expressing immediate anteriority consist of an RC and a dependent, internally complex formative *-gá-n(ka)*; see (87) and (91). The formative is probably of nominal origin and can be segmented further into the stem *-g*, the (primary) case/gender morpheme *-a*, the focus morpheme *-n*, and the (secondary) case/gender morpheme *-ka*, the latter being optional in this context.

(87) [[afuu'll-itóo]-g-a-n] huj-í-se ins-itóo'u

sit.down-3F.PVO.REL-GA-M.OBL-N work-F.ACC-3F.POSS start-3F.PVO

'As soon as she sat down, she started her work.'

The morpheme *-g* (or *-g-a* in its accusative and oblique case form) is poly-functional. It occurs not only in temporal clauses but also in manner (§4.6), purpose (§4.7), and complement clauses (§4.8).

4.3. Concomitance clauses

Concomitance clauses (Kortmann 1997: 89), or "absolute clauses" in the terminology of Thompson and Longacre (1985), encode accompanying circumstances. Formally, concomitance clauses are headless and nominalized (NMZ2) RCs in the accusative case. The semantic relation between the subordinate and the superordinate clause is not overtly specified but has to be inferred from the context. The events encoded in the concomitance clause and in the MC are usually interpreted as temporally and/or spatially close to each other. The event

verbalized in the subordinate clause headed by *yitoo'íi* '(they) saying' in (88) immediately precedes the event of the MC (relation of anteriority).

- (88) [hoga'áann-u (...) “waayy-íi qophphan-á ih-áno” y-itoo'íi]
 farmers-M.NOM probably.not.be-3M.PCO.CRD1 lie-M.ACC be-3M.IPV say-3F.PVO.REL.VV.M.ACC
 má'nn-e-n dagúd-d iill-itóo'u
 place-F.OBL-N run-3F.PCO arrive-3F.PVO
 '(...) the farmers (...) said “it might not be a false alarm again” and ran to (him) immediately.’ (K4: 135)

In negative concomitance clauses, the nominalized negative RV form with the lengthened final vowel is used (Table 10).

- (89) [ag-gumbúu] ít-tee'u.
 drink-3F.NREL.VV.M.ACC eat-3F.PVE
 ‘Without drinking (anything), she ate the food.’

The concomitance clause of (90) is in focus. It is, therefore, combined with a copula, while the MC, which contains the non-focused background information, is turned into a headless nominative-marked RC (NMZ1). Note that the semantic relation between the negative concomitance clause and the MC in (90) is a relation of posteriority.

- (90) [bere'-ée anka'rr-úta hiz-óo-' waal-umbúu-haa-n-t]
 yesterday-F.GEN last.evening-F.ACC brother-M.NOM-1SG.POSS come-3M.NREL.VV-M.ACC.VV-N-COP3
 ossa'-eemmíi-hu
 go.to.bed-1SG.PVE.REL.VV-M.NOM
 ‘Yesterday evening I went to bed **before my brother came.**’

In Qabeena, there is probably a similar, relative-based subordinate clause type. According to Crass (2005: 309), temporal clauses may be generated by shifting the accent of a finite verb form to the rightmost syllable. As RCs are also marked by a final accent in Qabeena, one may assume that the temporal (concomitance?) clauses with final accent are actually headless RCs.

4.4. Reason clauses

Kambaata has three synonymous reason clauses, all of which are relative-based (Table 15).

[Insert Table 15 here]

(91) [[makíin-u abbíshsh qocc-ee-sí]-tannée] haakiim-í min-í

car-M.NOM exceed.3M.PCO hit-3M.PVE-3M.OBJ.REL-BEC1 doctor-M.GEN house-M.GEN

iill-is-eemma-g-ánka da'll-í reh-ée'u

reach-CS1-3HON.PVE-GA-M.ACC.N do.quickly-3M.PCO die-3M.PVE

‘Because the car had hit him severely, he died immediately after he had been brought to the hospital.’

(92) [[ciil-í íib-u bata'-ó]-bíi]

infant-M.GEN fever-M.NOM become.much-3M.PVO.REL-BEC2

sarb-í doctor-ch-ú waashsh-isiishsh-óomm

do.fast-1SG.PCO doctor-SG-M.ACC come-CS1-CS2-1SG.PVO

‘I sent someone to bring the doctor quickly, because the child’s fever had risen.’

(93) [[ku wáas-u háss-a-s danáam-o-g-a

DDEM1.M.NOM waasa-M.NOM harvest.site-F.NOM-3M.POSS good-M.OBL-GA-M.OBL

qorab-an-tumbúu-ta ikk-ó]-bikkíi] hafúrr ba'-ée'u

keep-PS-3F.NREL.VV-F.ACC become-3M.PVO.REL-BEC3 be.exposed.to.sun.and.air.and.spoil.3M.PCO spoil-3M.PVE

‘This *waasa* (product from enset pulp) was exposed to sun and air and spoiled, because the harvest (and fermentation) site was not kept well.’

The diachronic origin of the first reason clause is transparent. It consists of an RC that is governed by the feminine dative form of the nominalizer, *-tann-ée* (Table 9). The second formative *-bíi(ha)* is probably related to the nominalizer of headless genitive nouns; it is not known how *-bíi(ha)* came to be attached to verbs. Schneider-Blum (2006: 330) interprets *-bíi(ha)* as the dative case form of the place nominalizer *-ba* in Alaaba. This interpretation does

not fit in Kambaata, where the dative form of *-ba* is *-bée(ha)*. The third formative *-bikkíi(ha)* is the dative case form of the noun *bikká* ‘size, extent, amount; capability, ability’, which encliticized to the preceding RC.

The negation test proves that the reason clauses are indeed relative-based. In negative reason clauses the morpheme *-umb* occurs (94).

- (94) [[oonn-áta mar-úmb-o]-tannée] min-í mánn-u amu’rr-ée-’e
 mourning-F.ACC go-1SG.NREL-F.OBL-BEC1 house-M.ACC people-M.NOM become.angry-3M.PVE-1SG.OBJ
 ‘My family is angry with me, because I do not go to funerals.’

While the imperfective reason clause of (94) says that the speaker habitually avoids funerals, the periphrastically negated reason clause of (95) states that the anger of the relatives is grounded in a single refusal of the speaker to attend a funeral. The use of the inherently negative *hoog-* ‘not do’ allows the subordinate clause to be marked for the perfective aspect.

- (95) [[oonn-áta mar-ú hoogg-oommí]-tannée]
 mourning-F.ACC go-M.ACC not.do-1SG.PVO.REL-BEC1
 min-í mánn-u amu’rr-ée-’e
 house-M.GEN people-M.NOM become.angry-3M.PVE-1SG.OBJ
 ‘My family is angry because I did not go to the funeral.’

Reason clauses of a similar structure, though not with cognate markers, are found in the dialects and languages that are closely related to Kambaata. Reason clauses in Xambaaro, a dialect of Kambaata, are headed by an element *daafiha* (possibly *daafiha*, Y.T.) (96), which seems to be the dative form of the noun *daaf-á* ‘reason’.

XAMBAARO

- (96) [[mac’ooc’-u hoogg-oommi] daaf-iha] ...
 hear-M.ACC not.do-1SG.PVO.REL reason-M.DAT
 ‘As I didn’t hear (...).’ (Korhonen et al. 1986: 104)

Reason clauses in Alaaba are marked by a formative *-beecc-íih(a)*, historically the dative form of the noun *beeccú* ‘place’, or by a formative *-b-íih(a)* (Schneider-Blum 2006: 303f, Korhonen et al. 1986: 104), which is also the regular reason clause marker in Qabeena (Crass 2005: 312). The negation test gives a clear indication that reason clauses are relative-based in Alaaba. Recall from (29) above that negative RVs are characterized by a negative morpheme with a final vowel *i*, *-ba’i*, whereas main verbs are negated with *-ba’a* (see the main verb of (97)). The typical “relative” vowel *i* is also found in the negative morpheme of the verb form preceding the RC marker (97).⁵ Furthermore, the reason clause marker may be preceded by a negative converb (98), which indicates that the reason clause is relative-based if one recalls from (30) above that RCs in Alaaba may also be negated with a negative converb.

ALAABA

(97) [[wokt-íin(i) ’ameec-coom-ba’i]-beeccíih(a)] ’icc-át(i) yóo-ba’(a)

time-M.ICP come-1SG.PVO-NEG.REL-BEC food-F.NOM COP1.3-NEG

‘There was no food because I did not come home in time.’ (Schneider-Blum 2006: 287)

(98) [[hayi y-eenibba]-beeccíih(a)] c’i’-út(i) bok’oll-ú finc’-itóo

INTJ say-3HON.NCO-BEC bird-F.NOM maize-M.ACC spread-3F.PVO

‘Because nobody said *hayi*, the birds spread the maize.’ (Schneider-Blum 2006: 287)

In Hadiyya, reason clauses are headed by a noun *bikkina*, the dative form of ‘side’ (cf. *bikk-íi* in Kambaata). The clause preceding *bikkina* is said to be “structurally similar to the relative clause” (Sim 1989: 315).

4.5. Conditional clauses

Conditional clauses in Kambaata are relative-based (Table 16).

[Insert Table 16 here]

⁵ Note, however, that Schneider-Blum glosses *-ba’i* only as NEG (not as NEG.REL) in adverbial clauses.

Although a hypothesis about the origin of the conditional marker *-da* cannot be proposed here, it is possible to show that the verb to which this marker is added has features of a RV. Firstly, the verb forms preceding the conditional marker show the typical accentual behavior of RVs. They are accented on the syllable preceding *-da*, which is the inflectional portmanteau morpheme in (99). If an object pronoun is suffixed to the right of the inflectional morpheme, the accent moves onto the last syllable of the rightmost suffix (100).

- (99) [[ku bóor-u reh-ée]-da] wol-ú hir-í gízz-u yóo-nne-ba'a
DDEM1.M.NOM bull-M.NOM die-3M.PVE.REL-COND other-M.ACC buy-M.DAT money-M.NOM COP1-1PL.OBJ-NEG
 'If this ox dies, we don't have money to buy another one.'

- (100) [[ís ga''-ee-'é]-da] án da'll-í mar-áamm
3M.NOMcall-3M.PVE-1SG.OBJ.REL-COND 1SG.NOM do.fast-1SG.PCO go-1SG.IPV
 'If he calls me, I will go (to him) immediately.'

The occurrence of the negative relative morpheme *-umb* is the second indication of the relative origin of the conditional verb (101). It is unknown why the initial consonant of the conditional morpheme is realized geminate after negative verbs. The initial consonant of the place morpheme *-b-a* (78) and the poly-functional *-g-a* morpheme (111) is geminated in the same context.

- (101) [[ta ichch-áta xoo-phh-úmb-o]-dda] zákk-o górr-u af-áno-'e
DDEM1.F.ACC food-F.ACC finish.MID-1SG.NREL-M.OBL-COND back-M.OBL hunger-M.NOM seize-3M.IPV-1SG.OBJ
 'If I don't finish this food, I will be hungry later.'

Although Alaaba marks conditional clauses with a different morpheme, *-gór(e)*, the occurrence of the vowel *i* in the negation morpheme of conditional verbs substantiates my claim that most adverbial clauses in Alaaba are of the same structure as in Kambaata (102). Conditional verbs may be negated by negative converbs as well (103).

(102) [[t'een-á 'ub-bo-ba'i]-gór(e)] (...)

rain-M.ACC fall-3M.PVE-NEG.REL-COND

'Unless it rains, we can stay outside (...).' (Schneider-Blum 2006: 301)

(103) [[hiil-u jáal-(u) baad-óon(i) he'-ibba]-gór(e)] (...)

bad-M.NOM friend-M.NOM region-M.LOC live-3M.NCO-COND

'A bad friend, if he is not in the region (...).' (Schneider-Blum 2006: 301)

4.6. Manner clauses

Manner clauses are often headed by converbs (e.g. *da'll-éen* 3HON.PCO *mar-* 'go quickly') or instrumental infinitives (e.g. *fanqalaans-éen* 3HON.PCO *akeek-ín* ICP *woyyis-* 'improve (something) by trying again and again'). However, RCs headed by a dependent, case-inflecting morpheme *-g-a* may also encode the manner in which an action is conducted; see (104)-(105).

(104) ku wosh-íchch-u [[c'í'-at búrr y-itáa]-g-a] dagud-áno-a.

DDEM1.M.NOM dogs-SG-M.NOM birds-F.NOM fly say-3F.IPV.REL-GA-M.OBL run-3M.IPV.REL-M.COP2

'This dog runs like birds fly (i.e., his feet hardly touch the ground when he is running).'

(105) [[y-ée]-g-a-n] ass-éemma-s

say-3M.PVE.REL-GA-M.OBL-N do-3HON.PVE-3M.OBJ

'S/he (HON) did (it) as he said.'

The morpheme *-g-a* marks various subordinate clauses. In §4.2 it occurs as a marker of temporal clauses expressing a relation of immediate anteriority to the main clause. In the following sections, it is shown to mark purpose and complement clauses. Besides this, *-g-a* is a similitive and accord marker on nouns ('like, such as, according to'; see, for instance, *denekk-á-g-a* 'like potatoes' in (60) and *wog-í-g-a* 'according to the tradition' in (80)) and an adverbializer on adjectives (*danaam-ú* 'good' → *danáam-o-g-a* 'well' in (93)). All these functions are related, but a detailed historical explanation for this poly-functionality has to be relegated to future

studies. We are left here with the problem of interlinearization. In order not to obscure the poly-functionality of the morpheme, all instances of *-g-a* are glossed herein as GA.

The *-g-a* morpheme inflects for case. It distinguishes all the case forms of a Kambaata noun (see, for instance, the dative case form *-g-îi* in purpose clauses (§4.7)) and may, therefore, be assumed to be of nominal origin.⁶ A possible diachronic source noun of the *-g-a* morpheme (hypothetically **g-a*) could not yet be determined.

4.7. Purpose clauses

Purpose clauses in the affirmative are rarely relative-based (106) but usually have a dative-marked infinitive head (e.g. *alaphph-îi* ‘(in order to) play’) or a purposive verb form (e.g. *alaphph-óta* ‘so that he (SS) plays’, *aláphph-unta* ‘so that he (DS) plays’). In contrast to a dative-marked infinitive or a purposive verb, a purpose clause based on an RC allows the encoding of different verbal aspects. The RC is governed by the dative case form of the morpheme *-g-a*, which is *-g-îi(ha)*.

- (106) [[alaphph-anó]-g-îi] (~ alaphph-îi) oos-úta hegeeg-íichch ga’-ée’u
 play-3M.IPV-GA-M.DAT (play-M.DAT) children-F.ACC area-M.ABL call-3M.PVE
 ‘He called the children of the neighborhood to play.’

In the negation, the *-umb* morpheme occurs (107).

- (107) [[farr-áta roshsh-áta áf-f le’-úmb-ua]-gg-îi]
 bad-F.ACC habit-F.ACC seize-2SG.PCO grow-2SG.NREL-M.OBL-GA-M.DAT
 kabar-éechchi-n ke’-ís-s qoráphph-u hasis-áno-kke
 today-M.ABL-N get.up-CS1-2SG.PCO take.care-M.NOM be.necessary-3M.IPV-2SG.OBJ
 ‘You have to start from today on to take care not to develop bad habits.’ (K4: 19)

⁶ The distinction between accusative and oblique is neutralized in the case paradigm of *-g-a* (this syncretism is also attested in some nominal declensions). Accusative and oblique are both encoded by the vowel *-a*. Therefore, it is often unclear which case gloss should be assigned to this morpheme in the examples. Sometimes, the case of *-g-a* can be inferred from its modifiers; see example (111), in which the **oblique**-marked negative RV gives a clear indication that the head *-g-a* is encoded in a non-nominative/non-accusative case. In contrast, the occurrence of the secondary case/gender morpheme *-ha* on the subordinate clause with *-g-a* in (91) is a sign of the accusative case. Wherever this latter indicator is missing *-g-a* is glossed as OBL.

Likewise, negative purpose clauses are based on negative RCs in Alaaba (108).

(108) zoob-eecc-i 'am-át(i), (...) [[fook'-áan(i) ful-ano-ba'í]-g(a)]

lion-SG-M.GEN mother-F.NOM bottom-F.ICP leave-3M.IPV-NEG.REL-GA

fook'-á-s(i) gob-bóo

bottom-F.ACC-3M.POSS sew-3F.PVO

'The mother of the lion (...) sewed his (the lion's) anus so that he (the rat) cannot pass through the anus.' (Schneider-Blum 2006: 308f)

4.8. RC-based complement clauses

Kambaata has three types of complement clauses, two of which are relative-based. In the most common type of complement clause, the non-relative based complement clause is headed by an infinitive verb in the accusative case.

(109) beré Duuraam-íta waal-ús maccoocc-éemm

yesterday D.-F.ACC come-M.ACC-3M.POSS hear-1SG.PVE

'I heard that he came to Duuraame yesterday (lit.: "I heard his coming.")'

Attaching the morpheme *-g-a* to an RC is the second most common way to generate complement clauses. Moreover, nominalized and accusative-marked headless RCs may serve as complements.

[Insert Table 17 here]

In (110), an affirmative complement clause is dependent on the matrix verb *dag-áamm*. The clause headed by *-g-a* contains a converb clause (headed by *xúudd*) and a chunk of direct speech.

(110) [[daddaabb-ée al-éen su'mm-á-' xúud-d

letter-F.GEN top-M.LOC name-M.ACC-1SG.POSS look-2SG.PCO

“Bajíg-u-s áyee-ti-la?” y-itaante-'é]-g-a] dag-áamm

B.-M.NOM-3M.POSS who.M.NOM.VV-COP3-DISBELIEF say-2SG.IPV-1SG.OBJ-GA-M.OBL know-1SG.IPV

‘I know that you will see my name on the letter and then say to me, “Who is this Bajigo?”’ (K8: 21)

Negative complement clauses are based on negative RVs with the morpheme *-umb* (111).

(111) [[oonn-áta mar-eenúmb-o]-gg-a] kul-éemma-'e

mourning-F.ACC go-3HON.NREL-M.OBL-GA-M.OBL tell-3HON.PVE-1SG.OBJ

‘S/he (HON) told me that s/he (HON) would not go to the funeral.’

As the third type of complement clause is nothing but a headless RC in the accusative case, Kambaata does not formally distinguish, for instance, between ‘I heard what he said’ and ‘I heard that he said (something).’ The headless RC can be interpreted as referring to the content of saying or to the act of saying. In example (112), the content of telling should be believed; in example (113) the act of being happy should be thought about.

(112) (...) [án kul-aan-ki'nnée] amma'nn-u hasis-áno-'nne

1SG.NOM tell-1SG.IPV-2PL.OBJ.REL.VV.M.ACC believe-M.NOM be.necessary-3M.IPV-2PL.OBJ

‘(...) you should believe what I tell to you.’ (K4: 45)

(113) [[Makkis-ó ann-uhúu am-atíi Makkís-u dist-íta wez-íin-ta-s

M.-M.GEN father-M.NOM.CRD1 mother-C.NOM.CRD1 M.-M.NOM pot-F.ACC produce-M.ICP-L-3M.POSS

bajig-gaa'íi] agud-áno-he-ndo?

become.happy-3F.IPV.REL.VV.M.ACC seem-3M.IPV-2SG.OBJ-Q

‘Do you think that Makkiso’s father and mother were happy about the production of the pot?’ (K4: 61)

5. Conclusion

This paper gives an overview of relativization in Kambaata. Noteworthy features will be highlighted in this final section.

The morphology and morpho-syntax of RVs and other modifiers (especially adjectives and genitive nouns) were compared in Section 2. The major difference between affirmative RVs and non-relative main verbs is suprasegmental in nature: while main verbs carry an accent on a non-final syllable, affirmative RVs are accented on the rightmost syllable. Negative RVs are marked by a morpheme *-umb*, which is a unique morpheme of Kambaata (including its dialect Xambaaro), because it is not attested in Alaaba and Qabeena, the languages most closely related to Kambaata. Affirmative RVs have been shown to share features with genitive nouns, namely, the accent pattern and the inability to agree with the head noun. In contrast, negative RVs are adjective-like and able to agree in case and gender with their head noun. Their case and gender suffixes are identical to those of adjectives. All RCs have to be nominalized before they may be used as phrasal heads, apart from negative RCs in the accusative and nominative case, which may function as heads without being subjected to further operations. This means that as phrasal heads, negative RCs also behave to some extent like adjectives.

As shown in Section 3, all positions of the Comrie and Keenan accessibility hierarchy may be relativized in Kambaata although the language has no relative pronouns. The co-referent of the head noun in the RC is not overtly expressed (gap strategy), unless it is the possessor, in which case a pronoun is retained on the possessed NP (pronoun retention strategy).

It is the preponderance of relative clauses which makes Kambaata a language that deserves closer scrutiny. If the term “conjunction” is understood in the traditional sense as referring to a free-standing, morphologically invariant connector of words, phrases, and sentences, then Kambaata has only two coordinating conjunctions, namely, the disjunctive word, phrase, and sentence connector *té* ‘or’ and the adversative sentence connector *bagáan* ‘but’. There is no conjunction ‘and’. Instead, phrasal heads are marked as coordinate through accentual change

and final vowel lengthening; see, for instance, *am-áta* ‘mother’, *beet-úta* ‘daughter’ > *ama-táa* *beet-utáa* ‘mother and daughter’ and the coordinate SS-purposive *daqq-am-óta* ‘(in order) to meet you’ and *xuud-óta* ‘(in order to) see you’ in (114). Modifiers of various types are conjoined with *-na* (see (32) and (34)).

- (114) *daqq-am-ohetáa* *xuud-ohetáa* *Aayichch-é* *xa'mm-ú'nna*
find.MID-PASS-PURP<2SG.OBJ>.CRD1 see-PURP<2SG.OBJ>.CRD1 Mum-F.ACC ask-1SG.PCO
fa'-aammí *j-áat* *yóo-ba'a*
remain-1SG.IPV.REL time-F.NOM COP1.3-NEG
‘I always asked Mum to meet and see you.’ (K8:22)

Subordinate conjunctions are entirely absent. Subordinate clauses are instead marked by special subordinate verb forms (converbs, purposive verbs, and infinitives) or they are based on relative clauses governed by a (historically) (pro)nominal and case-inflecting formative or on headless relative clauses that are nominalized. Given the small number of true conjunctions, they constitute an entirely insignificant word class in Kambaata.

The relative accent pattern and the occurrence of the morpheme *-umb* in the negation prove which subordinate clauses are relative-based. Examples (115) and (116) provide evidence that the clause-final accent in the constructions discussed in section 4 is indeed a sign of relativization and not just a sign of a non-final (medial) clause in a complex sentence. The boundary of non-relative clauses is not marked by a final accent. The conjunction *bagáan* ‘but’ follows clauses headed by a non-relativized main verb (115). Embedded interrogative clauses are marked by a suffix *-ndo*, which attaches to non-relativized main verb forms. Take note of the starred forms with final accents.

(115) Aayíchch "daqq-an-teenánta" y-itáa-'e (*y-ittaa-'é) bagáan

Mum.F.NOM find.MID-PS-2SG.IPV say-3F.IPV-1SG say-3F.IPV-1SG.OBJ.REL but

kú'nn daqq-am-mu'nnáan kabar-ée iill-inéemm

INTJ find.MID-PS-1PL.NCO today-M.ACC reach-1PL.PVE

'Aayicce used to say to me "you will meet [one day]", but, see! we have not yet met.'

(K8:22)

(116) m-íi waal-ú hoog-góonti-ndo (*hoog-goontí-ndo) dag-im-bá'a

what-M.DAT come-M.ACC not:do-2SG.PVO-Q not:do-2SG.PVO.REL-Q know-1SG.NIPV-NEG

I don't know why you didn't come.

The lack of differentiation between adverbial and complement clauses characterizes Kambaata's syntax. In the same way as direct objects and (part of the) adverbial NPs lack formal differentiation (they are encoded in the accusative case; Treis 2006), complement and adverbial clauses may be formally completely identical, namely, based on an RV headed by *-g-a*, a case-inflecting formative. The separate treatment of relative, adverbial, and complement clauses follows the organization of syntax books, but is, admittedly, not a reasonable division of sections for a paper on Kambaata syntax.

Abbreviations

1	first person	with <i>-bii(ha)</i>	CRD2	coordination with <i>-na</i>	
2	second person	BEC3	reason clause	DAT	dative
3	third person	with <i>-bikkii(ha)</i>	DDEM	demonstrative attribute	
ABL	ablative	CS1	single causative	DS	different subject
ACC	accusative	CS2	double causative	F	feminine
AGR	agreement	COND	conditional clause	GA	poly-functional marker
ASP	aspect	COP1	locative copula		of subordinate clauses;
BEC1	reason clause	COP2	<i>-ha / -ta</i> -copula		adverbializer on ad-
	with <i>-tannée(ha)</i>	COP3	<i>-t</i> -copula		jectives; similative and
BEC2	reason clause	CRD1	coordination with <i>√V</i>		accord morpheme on

	nouns		PL	plural/plurative	
GEN	genitive		POSS	possessive	
HON	honorific; impersonal	NCO	negative converb	PRED	predicative
ICO	imperfective converb	NEG	negation	PROG	progressive
ICP	instrumental-comitative-perlative	NIPV	non-imperfective	PURP	purposive (SS)
		NMZ1	nominalization	PVE	-e perfective
IDEM	demonstrative pronoun		strategy 1	PVO	-o perfective
INTJ	interjection	NMZ2	nominalization	Q	question marker
IPV	imperfective		strategy 2	RA	plural nominalizer
IUS	jussive	NOM	nominative	RC	relative clause
K1-8	Kambaatissata	NOMIN	nominalizer	REL	relativization
	Grade 1-8	NREL	negative relative	RV	relative clause
L	linker morpheme	OBJ	object marker	SBJ	subject
LOC	locative	OBL	oblique case	SG	singular/singulative
M	masculine	PS	passive	SS	same subject
MID	middle voice	PST	past tense and	UNTA	purposive (DS)
MC	matrix clause		irrealis marker	VV	vowel lengthening
N	pragmatically condi-	PCO	perfective converb		

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Tables to be inserted above

Table 1. Case inflection: *boos-ú* (M) ‘water pot’

Accusative	Nominative	Genitive	Dative	Ablative	ICP	Locative	Oblique
boos-ú	bóos-u	boos-í	boos-íi(ha)	boos-íichch	boos-íin	boos-óon	bóos-o

Table 2. Classification of verb forms

I. Main Verbs	II. Subordinate Verbs
a. Indicative:	a. Relative and Relative-based Verbs
Imperfective	Temporal Verbs
-e / -o Perfective ⁷	Concomitance Verbs
Progressive	Reason Verbs
b. Non-Indicative:	Conditional Verbs
Jussive and Imperative	Complement Verbs, etc.
Preventive	b. Inflectionally Marked Subordinate Verbs
	(not relative-based):
	Converbs
	Purposive Verbs
	c. Infinitive

⁷ Most forms of the -e perfective and -o perfective paradigms are characterized by the occurrence of a vowel -e or -o, respectively. The functional difference between the -o and -e forms is not yet clear. There is a functional as well as a paradigmatic overlap. Both forms serve to encode that an event or a change of state is completed. The -o perfective paradigm is defective for some verbs.

Table 3. Structure of indicative affirmative main verbs

Stem (Root + Derivation)	I n f l e c t i o n			(Object Suffix)	(ikke)
	Subject Agreement	Aspect	Subject Agreement		
	1SG: -∅	IPV: -a(a)	1SG: -m(m)	1SG: -'e	
	2SG: -t	PVE: -e(e)	2SG: -nt	2SG: -kke	
	3M: -∅	PVO: -o(o)	3M: var.	3M: -s	
	3F/PL: -t	PROG: -áyyoo	3F/PL: (-'V)	3F: -se	
	3HON: -een		3HON: var.	3HON/PL: -ssa	
	1PL: -n		1PL: -m(m)	1PL: -nne	
	2PL/HON: -teen		2PL: -nta(a'u)	2PL/HON: -(kki)'nne	

Table 4. Main verb forms and their respective relative verb forms⁸

		MAIN VERB	RELATIVE VERB
1SG	IPV	- ám (m)	-aammí [⊗]
	PVO	- óm (m)	-oommí [⊗]
	PROG	- áyyoom (m)	-ayyoommí [⊗]
2SG	IPV	- téenta	-teentá
	PVO	- tóont	-toontí
	PROG	- táyyoont	-tayyoontí
3M	IPV	- áno	-anó
	PVO	´-o	-ó
	PROG	- áyyoo 'u	-ayyóo [♦]
3F/PL	IPV	- táa 'a ~ - táa 'u ~ - táa '	-táa [♦]
	PVO	- tóo 'u ~ - tóo '	-tóo [♦]
	PROG	- táyyoo 'u	-tayyóo [♦]
3HON	IPV	- éenno	-eennó
	PVO	- éemma (a'u ~ a'a ~ a')	-eemá(a) [♦]
	PROG	- eenáyyoomma	-eenayyoommá
1PL	IPV	- nám (m)	-naammí [⊗]
	PVO	- nóom (m)	-noommí [⊗]
	PROG	- náyyoom (m)	-nayyoommí [⊗]
2PL/HON	IPV	- teenánta	-teentánta
	PVO	- téenta (a'u ~ a'a ~ a')	-teentá(a) [♦]

⁸ In Table 4 only the *-o* perfective forms are given. The paradigm of the *-e* perfective forms was left out, because the accentuation of its 1SG and 3M forms is not safely known for all verbs and requires further investigation.

PROG

-teenáyyoonta

-teenayyoontá

⊗ The relative form must be realized with a geminate *mm*.

♦ The glottal appendix 'v is deleted before relativization.

Table 5. Paradigm of negative relative verb forms

1SG and 3M	-∅-umb-ú
2SG and 3F/PL	-t-umb-ú
3HON	-een-umb-ú
1PL	-n-umb-ú
2PL/HON	-teen-umb-ú

Table 6. Case and gender paradigm of attributive adjectives: the example of *muccur-ú* ‘clean’

	ACC	NOM	OBL
M	muccur-ú	muccúr-u	muccúr-o ~ muccúr-ua
F	muccur-úta	muccúr-ut	muccúr-o ~ muccúr-uta

Table 7. Case and gender paradigm of negative relative verbs: the example of *it-umb-ú*
 3M.NREL ‘which he does not eat’

		ACC	NOM	OBL
3M.NREL	M	it-umb-ú	it-úmb-u	it-úmb-o ~ it-úmb-ua
	F	it-umb-úta	it-úmb-ut	it-úmb-o ~ it-úmb-uta

Table 8. Paradigm of the verbal copula 1 *yoo-* ‘be (located)’

		AFFIRMATIVE		NEGATIVE	
		MAIN VERB	RELATIVE VERB	MAIN VERB	RELATIVE VERB
1SG	1PL	yóo-m(m)	yoo-mmí	yóo-m-ba’a	yoo-m-ba’í
2SG		yóo-nt	yoo-ntí	yóo-nti-ba’a	yoo-nti-ba’í
3M	3F/PL	yóo-’u	yóo	yóo-ba’a	yoo-ba’í
3HON		yóo-mma	yoo-mmá	yóo-mma-ba’a	yoo-mma-ba’í
2PL/HON		yóo-nta	yoo-ntá	yóo-nta-ba’a	yoo-nta-ba’í

Table 9. Case and gender paradigm of headless relative clauses

NMZ1		NMZ2					
	ACC	NOM	GEN	DAT	ABL	ICP	LOC
M	...ív(-ha)	...ív(-hu)	-hann-í	-hann-íi(ha)	-hann-íchch	-hann-íin	-hann-éen
F	...ív-ta	...ív-t	-tann-é	-tann-ée(ha)	-tann-éechch	-tann-éen	-tann-éen

Table 10. Affirmative and negative headless RCs: an excerpt of the paradigm

		Headed RC	Headless RC				Translation ⁹
			ACC	NOM	GEN	...	
Affirmative	M	laall-ó N _M 3M.PVO.REL	laall-óo(-ha)	laall-óo(-hu)	laall-ó-hann-í	...	‘the one (M) which is ripe’
	F	laal-tóo N _F 3F.PVO.REL	laal-too’íi-ta	laal-too’íi-t	laal-tóo-tann-é	...	‘the one (F) which is ripe’
Negative	M	it-umb-ú N _M 3M.NREL	it-umb-ú / it-umb-úu(-ha)	it-úmb-u	it-úmb-o-hann-í	...	‘the one (M) who does not eat’
	F	it-tumb-úta N _F 3F.NREL	it-tumb-ú-ta / it-tumb-úu-ta	it-túmb-ut	it-túmb-o-tann-é	...	‘the one (F) who does not eat’
			NMZ1 or no NMZ		NMZ2		

⁹ Only one possible translation is given here: the deleted head noun is assumed to be the subject of the RC.

Table 11. Adjectives as heads of an NP: the example of *qall-ú(ta)* ‘stupid’

	ACC	NOM	GEN	DAT	ABL	ICP	LOC
M	qall-ú	qáll-u	qall-í	qall-íi(ha)	qall-íichch	qall-íin	qall-óon
F	qall-úta	qáll-ut	qall-ó	qall-óo(ha)	qall-óochch	qall-óon	qall-óon

Table 12. Case and gender paradigm of headless genitive nouns

	ACC	NOM	GEN	DAT	ABL	ICP	LOC
M	-bí(-ha)	-bí(-hu)	-hann-í	-hann-íi(ha)	-hann-íichch	-hann-íin	-hann-één
F	-bí-ta	-bí-t	-tann-é	-tann-éé(ha)	-tann-ééchch	-tann-één	-tann-één

Table 13. Paradigm of the nominalizer *-ra*

ACC	NOM	GEN	DAT	ABL	ICP	LOC
´-r-a	´-r-u	-r-íi	-r-íi(ha)	-r-íichch	-r-íin	-r-áan

Table 14. RC-based temporal clauses

Nominalized imperfective RC in the ABL (<i>V-hann-úichch</i>) + <i>biríta</i> (ACC) ‘front’	Posteriority (‘before’)
Nominalized perfective RC in the ABL (<i>V-hann-úichch</i>) + <i>zakkín</i> (ICP) ‘behind’	Anteriority (‘after’)
Perfective RC + <i>jáata</i> (ACC) ‘time’	Simultaneity overlap (‘when, while’)
Perfective RC + <i>jáata</i> (ACC) ‘time’	Anteriority (‘when, after’)
Imperfective RC + <i>jáata</i> (ACC) ‘time’	Contingency (‘when(ever)’)
Nominalized perfective or progressive RC in the locative case (<i>V-hann-éen</i>)	Simultaneity duration (‘while’)
Perfective RC + <i>-gánka</i> (ACC)	Immediate anteriority (‘as soon as’)

Table 15. RC-based reason clauses

RC headed by the nominalizer <i>-tann-ée(ha)</i> (DAT)	Reason clause 1	Example (91)
RC headed by the formative <i>-bí(ha)</i> (ACC [?])	Reason clause 2	Example (92)
RC headed by the formative <i>-bikk-í(ha)</i> (DAT)	Reason clause 3	Example (93)

Table 16. RC-based conditional clauses

RC headed by the morpheme <i>-da</i>	Conditional clause	Example (99)-(101)
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Table 17. RC-based complement clauses

RC headed by the morpheme <i>-g-a</i>	Complement clause	Example (110)-(111)
Nominalized (NMZ1) RC in the accusative case	Complement clause	Example (112)-(113)