The Grammar Basics of Ikoma

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About Ikoma

Ikoma is a Bantu language, classified as JE45 (Maho 2009), spoken in the Mara Region of Tanzania.

Purpose of this document

This document is intended to be a very basic reference to the common morphosyntactic structures of Ikoma. Though we hope that other linguists will be able to make use of it, its primary purpose is to help non-linguists (who have at least a small amount of linguistic training) who are working with the language, e.g. literacy workers, translators, translation consultants, spell-checkers, etc. For this reason, data is written in the Ikoma orthography, with the aim that it is more accessible to our intended audience.

A note about the Ikoma Orthography

The following language data is written in orthographic form. There are seven vowel phonemes in Ikoma, as well as fifteen consonants. Graphemes are shown below, along with the phonemes which they represent.

Vowels

graphemes	i	е	ë	а	ö	Ο	u
phonemes	i	е	3	a	Э	0	u

Consonants

graphemes	bh	ch	gh	h	k	m	n	ng'	ny	r	S	sh	t	w	у
phonemes	β	t∫	Ŷ	h	k	m	n	ŋ	ŋ	ſ	S	ſ	t	W	j
	~b														

Note that all seven vowel phonemes have long vowel counterparts. There is both contrastive and conditioned vowel length, but only contrastive length is written. See the Ikoma Orthography Statement (SIL International 2015) for more detail. Occasional reference to phonetic and underlying forms are made when helpful.

1. Noun classes

Ikoma nouns usually consist of a noun stem, a noun class prefix and an augment vowel. Augment vowels are invariable, but prefix vowels for many noun classes alternate based on an unusual type of vowel harmony. Mid prefix vowels **o e** are underlying, and they occur before roots which have **i u e o** as the first vowel in the root. Prefix vowels alternate to the high vowels **u i** when **ë ö a** are the first vowels of the root.

Other prefix variations are the result of Dahl's Law, a type of consonant dissimilation. In classes 7, 12 and 15, **k** in the prefix alternates to **gh** before a following voiceless consonant and before **gh**. The underlying form of the prefix for each class (including the augment) is listed in the left-hand column, and additional forms of the prefix are in the right column and additional rows.

Class	Prefix	Example	Gloss	Prefix	Example	Gloss
1	omo-	omoremi	farmer	omu-	omutëmi	king
1a	Ø	nööra	agama lizard			
2	abha-	abhatëmi	kings			
2a	bhaa-	bhaanööra	agama lizards			
3	omo-	omoghondo	farm	omu-	omughaate	bread
4	eme-	emeghondo	farms	emi-	emighaate	breads
5	erii-	eriishërë	hoe			
6	ama-	amashërë	hoes			
6a	ama-	amanche	water			
7	eke-	ekehoore	skull	eki-	ekimööri	calf
	eghe-	eghetumbe	chair	eghi-	eghisaka	thicket
8	ebhe-	ebhetumbe	chairs	ebhi-	ebhimööri	calves
9	an-	angibhö	clothing			
9a	a-	ahimbö	cane			
10	chan-	changibhö	clothing (pl)			
10a	cha-	chahimbö	canes			
11	oro-	orosiri	rope	oru-	orughëndö	journey
12	aka-	akahuuhe	small butterfly	agha-	aghakö	small gourd
14	obho-	obhorito	weight	obhu-	obhutööti	bracelets
15	oko-	okoreghesa	quarrel	oku-	okubhökö	arm

	ogho-	oghoghoro	leg	oghu-	oghughase	mold
16	aha-	ahaghiro	place			
18	mo-	mo-mihëtö	in the traps			
19	ehe-	ehetumbe	small chairs	ehi-	ehikö	small
						gourds
20	ogho-	oghosiri	large rope	oghu-	oghukö	large gourd

Usual singular-plural pairings include 1/2, 3/4, 5/6, 7/8, 9/10, 11/10, 12/19, 14/6, 15/6, and 20/6.

2. Personal pronouns and their agreement

The following table lists the personal pronouns and their subject and object agreement prefixes. The final column lists the possessive pronoun root for each person and number.²

Person	Pronoun	Subject prefix	Object prefix	Poss. pronoun
1SG	eni	ne- / ni- / n-	ne- / ni- / n-	-Vne
2SG	iye	o- / u-	ko- / ku-	-Vcho
3SG	iwe	a-	mo- / mu-	-Vche
1PL	itu	to- / tu-	to- / tu-	-ito
2PL	inyu	mo- / mu-	bha-	-Vnyu
3PL	ibho	bha-	bha-	-Vbho

The prefixes above follow the same vowel harmony and Dahl's Law alternations as exemplified in the previous section. These prefix alternations occur in similar prefixes in the remainder of the document but will not always be listed. Only underlying forms are shown.

 $^{^{2}}$ Note that the possessive pronoun roots (all except for 1PL) have a root-initial unspecified vowel (represented as V). See the table in Section 3.3 for data supporting this analysis. There are a variety of forms in Ikoma which are most easily analyzed as having an unspecified vowel, since vowel hiatus resolution with these morphemes does not follow the expected pattern of desyllabification of high and mid vowels before a low vowel. See similar phenomena in some verbal tense and aspect prefixes (see Section 4.1).

3. Noun class agreement

The following table shows the nominal prefixes for each class, as well as the corresponding pronominal, enumerative and verbal agreement prefixes. The nominal prefix is used for nouns and adjectives. The pronominal prefix is used for a variety of pronominal forms (§3.1), associatives (§3.2), possessives (§3.3), and demonstratives (§3.4). The enumerative prefix is used for numerals (§3.5) and the 'how many' form (§3.1).

NC	Nominal	Pronominal	Enumerative	Subject	Object
1	omo-	0-	u-	a-	mo-
2	abha-	bha-	bha-	bha-	bha-
3 ³	omo-	0-	u-	0-	WO-
4	eme-	ghe-	e-	ghe-	ghe-
5	eri-	re-	ri-	re-	re-
6	ama-	gha-	a-	gha-	gha-
7	eke-	ke-	ki-	ke-	ke-
8	ebhe-	bhe-	bhi-	bhe-	bhe-
9	an-, a-4	e-	i-	e-	ye
10	chan-, cha-	che-	i-	che-	che-
11	oro-	ro-	ru-	ro-	ro-
12	aka-	ka-	ka-	ka-	ka-
14	obho-	bho-	bhu-	bho-	bho-
15	oko-	ko-	ku-	ko-	ko-
16	aha-	ha-		ha-	ha-
19	ehi-	he-	hi-	he-	he-
20	ogho-	gho-	ghu-	gho-	gho-

Note that each of these prefixes are subject to vowel harmony, Dahl's Law, and glide formation. The enumerative prefix, however, does not undergo vowel harmony; class 4 is invariably mid, while others are invariably high, despite the quality of the numeral's root vowel.

³ Note that classes 1 and 3 seem to have entirely merged in terms of their agreement prefixes, with the exception of the set pronouns **omwene** (class 1) and **oweene** (class 3), as in §3.1.

⁴ When used with adverbs, this prefix sometimes occurs as **in-** or **i-.** E.g. 'tall' can be **ande** or **inde**. The **a** in classes 9 and 10 is an Ikoma-Nata innovation.

3.1 Quantificational, Set and Interrogative Pronouns

The following four pronouns (quantificational **–ose**, set pronouns **-ene** and **–nde**, and interrogative **–Vhe**) take the pronominal prefix. The set pronouns, however, also have the augment vowel. Note some irregularity in the set pronoun prefixes for classes 1 and 3. The interrogative **–renge** 'how many' is also listed, which takes the enumerative prefix.

NC	-ose 'all'	-ene 'self'	-nde 'other'	-Vhe	-renge 'how
				'which'	many'
1	woose	omwene	owonde	uhe	
2	bhoose	abheene	abhande	bhaahe	bharenge
3	woose	oweene	owonde	uuhe	
4	ghyose	eghyene	eghende	ghiihe	erenge
5	ryose	eryene	erende	riihe	
6	ghoose	agheene	aghande	ghaahe	arenge
7	kyose	ekyene	ekende	kiihe	
8	bhyose	ebhyene	ebhende	bhiihe	bhirenge
9	yoose	eyeene	eyende	yiihe	
10	choose	echeene	echende	chiihe	irenge
11	roose	orwene	oronde	ruuhe	
12	koose	akeene	akande	kaahe	
14	bhoose	obhwene	obhonde	bhuuhe	bhurenge
15	koose	okwene	okonde	kuuhe	
16	hoose			haahe	
19	hyose			hiihe	hirenge
20	ghoose			ghuuhe	

3.2 Associatives

Note that Ikoma associatives do not have the final **–a** vowel which is typical of associatives in many Bantu languages. The associative causes a following augment vowel to elide, but the vowel of the associative is unchanging in both pronunciation and writing.

NC	Associative
1	0
2	bha
3	0
4	ghe
5	re
6	gha
7	ke, ghe
8	bhe
9	e
10	che

NC	Associative
11	ro
12	ka, gha
14	bho
15	ko, gho
16	ha
19	he
20	gho
	11 12 14 15 16 19

3.3 Possessive Pronouns

There are six possessive pronoun forms, and each form is listed below with noun class agreement prefixes for each class.

NC	1SG 'my'	2SG 'your'	3SG 'his'	1PL 'our'	2PL 'your'	3PL 'their'
	-Vne	-Vcho	-Vche	-ito	-Vnyu	-Vbho
1	waane	waacho	waache	wiito	waanyu	waabho
2	bhaane	bhaacho	bhaache	bhiito	bhaanyu	bhaabho
3	waane	waacho	waache	wiito	waanyu	waabho
4	gheene	gheecho	gheeche	ghiito	gheenyu	gheebho
5	reene	reecho	reeche	riito	reenyu	reebho
6	ghaane	ghaacho	ghaache	ghiito	ghaanyu	ghaabho
7	keene	keecho	keeche	kiito	keenyu	keebho
8	bheene	bheecho	bheeche	bhiito	bheenyu	bheebho
9	yaane	yaacho	yaache	yiito	yaanyu	yaabho
10	cheene	cheecho	cheeche	chiito	cheenyu	cheebho
11	roone	roocho	rooche	rwito	roonyu	roobho
12	kaane	kaacho	kaache	kiito	kaanyu	kaabho
14	bhoone	bhoocho	bhooche	bhwito	bhoonyu	bhoobho
15	koone	koocho	kooche	kwiito	koonyu	koobho
16	haane	haacho	haache	hiito	haanyu	haabho
19	heene	heecho	heeche	hiito	heenyu	heebho
20	ghoone	ghoocho	ghooche	ghwito	ghoonyu	ghoobho
23	awaane	awaacho	awaache	awiito	awaanyu	awaabho

3.4 Demonstratives

There are three types of demonstratives in Ikoma, and each type agrees with the class of the noun which it modifies.

NC	Proximal	Referential	Distal (far)
	(near)		
1	uno	uyo	ure
2	bhano	bhayo	bhaare
3	uno	uyo	ure
4	ghino	ghiyo	ghiire
5	rino	riyo	riire
6	ghano	ghayo	ghaare
7	kino	kiyo	kiire
8	bhino	bhiyo	bhiire
9	ino	iyo	yiire
10	chino	chiyo	chiire
11	runo	ruyo	ruure
12	kano	kayo	kaare
14	bhuno	bhuyo	bhuure
15	kuno	kuyo	kuure
16	hano	hayo	haare
17	kuno	kuyo	kuure
18	muno	muyo	muure
19	hino	hiyo	hiire
20	ghuno	ghuyo	ghuure
23			yiire

3.5 Numerals

The following table shows numerals as they are inflected for noun classes 1-10. The numerals 7, 9 and 10 are invariable. Class 9/10 is used for general counting. The enumerative prefix for each class is invariable; it does not follow normal vowel harmony patterns.

NC	1/2	3/4	5/6	7/8	9/10
Num					
1	umu	umu	rimu	kimu	imu
2	bhabhere	ebhere	abhere	bhibhere	ibhere
3	bhatato	etato	atato	bhitato	ishato
4	bhane	ene	ane	bhine	inye
5	bhataano	etaano	ataano	bhitaano	ishaano
6	bhasaasabhe	esaasabhe	asaasabhe	bhisaasabhe	ishaasabhe
7	mohungate	mohungate	mohungate	mohungate	mohungate
8	bhanane	enane	anane	bhinane	inyanye
9	kende	kende	kende	kende	kende
10	ikomi	ikomi	ikomi	ikomi	ikomi
11	ikomi na umu	ikomi na	ikomi na	ikomi na	ikomi na imu
		umu	rimu	kimu	
14	ikomi na	ikomi ne ene	ikomi na ane	ikomi na	ikomi na
	bane			bine	inye

Additional numerals, with class 9/10 inflection, are as follows.

20	mirongo ebhere		
21	mirongo ebhere na imu		
30	mirongo etato		
40	mirongo ene		
50	mirongo etano		
60	mirongo esaasabhe		
100	eriighana		
1000	egheku		

4. Verb Tense/Aspect/Mood

This section lists Ikoma verb forms, beginning with basic (single-word) forms, followed by negative forms, copular forms and some multi-word forms.

4.1 Basic forms

Ikoma has one past tense, one non-past tense and several aspects and moods. Most of these are illustrated below with a 3PL subject prefix **bha-** and the verbs 'dig' and 'build'. Some examples use other subject prefixes and verb roots. For each example, the first line shows the orthographic form, the second shows the constituent morphemes of each form⁵, and then each morpheme is glossed. The template columns shows the combination of affixes which make up each verb form, including the subject agreement prefix (SBJ) and the verb root (R).

<u>TAM</u>	<u>Template</u>	<u>tuka 'dig'</u>	<u>abhëka 'build'</u>		
non-past (NP)	n-SBJ-Vko-R-a	mbaghotuka	mbakwabhëka		
		m-ba-gho-tuk-a	m-ba-kw-abhëk-a		
		FM-3PL-NP-dig-FV	FM-3pl-np-build-fv		
		'they are digging'	'they are building'		
	* The V of the –Vko- prefix is an unspecified vowel. That is, it has no				
	vowel quality of its own, but it lengthens a preceding vowel. This also				
	occurs in the inceptive and narrative prefixes, shown below. For these				
	three tenses, this lengthening is not written in the orthography. The				
	nast tense also cor	tains an unspecified your	profix but this length is		

past tense also contains an unspecified vowel prefix, but this length *is* written since this morpheme creates contrast with the anterior aspect (see below).

past (PST)	n-SBJ-V-R-iri	:mbaatukiri	:mbaabhëkiri
		m-ba-a-tuk-iri	m-ba-a-abhëk-iri
		FM-3PL-PST-dig-PST	FM-3PL-PST-build-PST
		'they dug'	'they built'

* The V of the –V- prefix is an unspecified vowel. That is, it has no vowel quality of its own, but it lengthens a preceding vowel. The colon in the orthography marks the past tense, disambiguating it from the anterior. These forms are segmentally identical in the case of vowelinitial verb roots, since the vowel length contrast is neutralized.

⁵The example verbs are simply broken up into morphemes; underlying forms of morphemes are not represented. Morphophonemic alternations such as Dahl's Law and vowel harmony are not dealt with here.

n-SBJ-R-iri	mbatukiri	mbaabhëkiri
	m-ba-tuk-iri	m-ba-abhëk-iri
	FM-3PL-dig-ANT	FM-3PL-build-ant
	'they have dug'	'they have built'
	n-SBJ-R-iri	m-ba-tuk-iri FM-3PL-dig-ANT

*The anterior and past differ in two ways: the past has the **a**- prefix and a high tone which surfaces on the root and spreads rightward. In the case of vowel-inital roots such as **abhëka**, the vowel length contrast is neutralized and the only remaining contrast is tonal. In this case, a colon is used on the past: PST <:mbaabhëkiri > vs. ANT <mbaabhëkiri >

inceptive (INC)	SBJ- Vka- R-a	^bhaghatuka	^bhakaabhëka
		bha-gha-tuk-a	bha-ka-abhëk-a
		3pl-inc-dig-fv	3pl-inc-build-fv
		'they are digging'	'they are building'

*The prefix **Vka**- causes the vowel of the subject prefix to be lengthened in pronunciation, but this lengthening is not written. The caret ^ is written before all inceptive verbs to distinguish them from the narrative tense, which differs only by tone. The inceptive is pronounced with a high tone on the TAM prefix [βaayátuka] vs. the toneless narrative [βaayatuka]. The inceptive forms above could alternatively be glossed as 'they have begun to dig' and 'they have begun to build.' The general sense is that an action has recently started and is continuing.

narrative (NAR)	SBJ- Vka -R-a	bhaghatuka	bhakaabhëka
		bha-gha-tuk-a	bha-ka-abhëk-a
		3pl-nar-dig-fv	3pl-nar-build-fv
		'they dug'	'they built'
habitual (HAB)	n-SBJ-haa-R-a	mbahaatuka	mbahaabhëka
		m-ba-haa-tuk-a	m-ba-haa-abhëk-a
		fm-3pl-hab-dig-fv	FM-ЗPL-НАВ-build-fv
		'they dig (often)'	'they build (often)'

progressive	SBJ- ra -R- a	bharatuka	bharaabhëka
(PROG)		bha-ra-tuk-a	bha-ra-abhëk-a
		3pl-prog-dig-fv	3pl-prog-build-fv
		'they are digging'	'they are building'

*This form has three functions. It acts as a progressive aspect when combined with the past or non-past tense in a multi-word form (see §4.4). It can also occur by itself in a narrative text, in which case its use is identical to the narrative tense. It can also function as a conditional. In these cases, its use is very much like the conditional **raa-** prefix (see below), but the vowel is clearly short.⁶

subjunctive	(n)-SBJ-R-e	bhatuke	bhaabhëkë
(SBJV)		bha-tuk-e	bha-abhëk-ë
		3PL-dig-SBJV	3pl-build-sbjv
		'they should dig'	'they should build'
conditional	SBJ- raa -R-a	bharaatuka	bharaabhëka
(COND)		bha-raa-tuk-a	bha-raa-abhëk-a
		3pl-cond-dig-fv	3pl-cond-build-fv
		ʻif they dig'	'if they build'
persistive (PER)	SM- ke -re	akeere	bhakeere bharooghu
		a-ke-re	bha-ke-re bha-ra-oghu
		3sg-per-be	3PL-PER-be 3PL-CONT-hear
		'he is still'	'they still hear'
	vm1 • .•	C 1	1 /1 1 / T/ ·

*The persistive prefix always occurs with the copular root **re**. It is often combined with other tenses and aspects in compound forms, as in the second example above.

⁶ For more more information on these various uses of the -ra- formative, including some tonal distinctions between these different forms, see Aunio 2013.

hypothetical	n-SM-nga-R-iri	nengabheere	nangamobhoriire
(HYP)		n-e-nga-bha-iri	n-a-nga-mo-bhorer-iri
		FM-9- HYP-be-HYP	FM-3SG-HYP-3SG.OBJ-tell-HYP
		'it would be'	'he would tell him'
imperative (IMP)	R- a	tuka	abhëka
		tuk-a	abhëk-a
		dig-FV	build-FV
		'dig!'	'build!'

Note that the focus marker (FM) **n**- is a regular part of some forms, including the past, non-past, anterior and habitual. It is optionally present with the subjective as well, but this is less common. In each of these cases, the FM is only present in affirmative, independent clauses. That is, it does not occur with negative forms or in dependent clauses.

4.2 Negative verbs

Negative verbal constructions usually involve the prefix **ta**-, which occurs after the subject prefix but before the TAM prefix. Also, if the verb has the focus marker **n**- in independent affirmative clauses, this prefix is not present when the verb is negated. The most basic negative forms are listed below, alongside their affirmative counterparts.

	Affirmative		Negative	
ANT	mbaghoriri	'they have	bhataghoriri	'they have not
	m-ba-ghor-iri	bought'	bha-ta-ghor-iri	bought'
NP	mbaghoghora	'they are buying'	bhataghoghora	'they are not
	m-ba-gho-ghor-a		bha-ta-gho-ghor-a	buying'
PST	:mbaaghoriri	'they bought'	:bhataaghoriri	'they did not
	m-ba-a-ghor-iri		bha-ta-a-ghor-iri	buy'

4.3 Copular verbs

The most basic copular verb is the clitic **n**-, which is used in the present tense. Additional copular forms are shown below. Note that 'to be' verbs in past, present and future are each formed with different roots, shown in heading in the table below. Therefore, present and future tense are more clearly distinguished in these copular forms than they are with other verbs which are marked for the more general 'non-past'.

	present: nyi	past: re	future: bha
1SG	neenyi	neere	neekubha
2SG	noonyi	noore	nookubha
3SG	naanyi	naare	naakubha
1PL	ntoonyi	ntoore	ntookubha
2PL	moonyi	moore	mookubha
3PL	mbaanyi	mbaare	mbaakubha

The 3PL forms are parsed as follows:

present	past	future
mbaanyi	mbaare	mbaakubha
m-ba-anyi	m-ba-a-re	m-ba-aku-bha
FM-3PL-be	FM-3pl-pst-be	fm-3pl-np-be
'they are'	'they were'	'they will be'

Negative copular forms are below, formed with the same **ta-** prefix as other negative verbs. These are somewhat less regular, however, because in most cases **ta-** clearly follows the subject prefix, whereas in others (2SG, 3SG) **ta-** precedes it.

	present: nyi	past: re	future: bha
1SG	nteenyi	nteere	nteekubha
2SG	toonyi	toore	tookubha
3SG	taanyi	taare	taakubha
1PL	totaanyi	totaare	totaakubha
2PL	motaanyi	motaare	motaakubha
3PL	bhataanyi	bhataare	bhataakubha

In the present tense, the form **taanyi** can be used as a general negative copula without noun class agreement, much like *siyo* 'is not' in Swahili.

4.4 Compound verbs

Compound verbs are not uncommon in Ikoma, especially when combining tenses and aspects. When two verbs are used to express a tense/aspect combination, the first verb in the construction is copula (see §4.3 above) and carries either past or non-past tense marking. (Note: when the non-past tense is used in a compound construction, it usually has a future meaning.) The second word carries the lexical verb and is marked for aspect. The chart below shows the results when the tenses (left column) are combined with two of the more common aspects (top row).

Aspect	Anterior	Progressive	
Tense	-iri	ra-	
Past	mbaare bhatukiri	mbaare bharatuka	
n- Viri	m-ba-a-re bha-tuk-iri	m-ba-a-re bha-ra-tuk-a	
	FM-3PL-PST-be 3PL-dig-ANT	FM-3PL-PST-be 3PL-PROG-dig-FV	
	'they had dug'	'they were digging'	
Non-past	mbaakubha bhatukiri	mbaakubha bharatuka	
n- Vkoa	m-ba-aku-bha bha-tuk-iri	m-ba-aku-bha bha-ra-tuk-a	
	FM-3PL-NP-be 3PL-dig-ANT	FM- 3PL-NP-be 3PL-PROG-dig-FV	
	'they will have dug'	'they will be digging'	

5. Verbal extensions

The derivational extensions are below, showing two examples for each extension.

		[-ATR] root		[+ATR] r	oot
Basic Form		ghutëgha	'to trap'	korema	'to cultivate'
Causative	-i	ghutëgh i	'to cause to trap'	korem i	'to cause to cultivate'
Passive	-u	ghutëgh u	'to be trapped'	korem u	'to be cultivated'
Applicative	-er	ghutëgh ër a	'to trap for'	korem er a	'to cultivate for'
Stative	-ek	ghutëgh ëk a	'to be trapped'	korem ek a	'to be cultivated'
Reciprocal	-an	ghutëgh an a	'to trap each	korem an a	'to cultivate one
			other'		another'

The causative **-i** and passive **-u** in Ikoma are unlike most other Bantu languages because these extensions replace the final vowel **-a**, thus preventing the process of glide formation which usually occurs with these extensions. The vowels of the applicative and stative extensions alternate between **ë** and **e** depending on the preceding root vowel.

Less productive extensions are the inversive **–or** and inversive stative **–ok**. There are three surface variations of each of these extensions, resulting from vowel harmony with a preceding stem vowel. Some examples are:

ghughar ur a	'to return'		
ghughar uk a	'to be returned'		
ghughörör ök a	'to be straight'		
kohor ok a	'to come from'		

6. Relative clauses

Relative clauses are formed with a demonstrative, which functions as a relative pronoun. Proximal (PROX) demonstratives are the most common relativizers, but referential (REF) and distal (DIST) demonstratives are also used. Relative clauses employ a wide variety of TAM forms, including the anterior, past, non-past, present copula (PRS COP), habitual, and compound forms. A variety of examples are given below, all taken from natural texts.

a.	uno aköriri riishaghe		'who (1PROX) has done (ANT) the gathering'
b.	. uno aghotora kobherekereri		'who (1PROX) will be able (NP) to explain to
			them'
c.	uyo anyi ni ishe	'who (1REF) has (PRS COP) a father'
d.	haare toore toraremera	'where	e (16DIST) we were farming (PST PROG)'
e.	wuure are asaghiri	'who (1DIST) had remained (PST ANT)'
f.	ino neere nebhabhoorire	'which	n (9PROX) I had (PST ANT) told them'
g.	ghano tohaaköra	'which	а (6prox) we do (нав)'

Example (a) uses the anterior and a proximal demonstrative. Example (b) uses the non-past tense. Examples (c) uses the present copula as a verb of possession. Examples (d), (e) and (f) all have multi-word verb forms involving a past copula as the first word and either a progressive or anterior verb as the second word. Also,

note that examples (c), (d), and (e) use a demonstrative other than the proximal as a relativizer.

7. Temporal adverbial clauses

There are a variety of types of temporal adverbial clauses, and many of them have a very similar construction to relative clauses. The proximal demonstrative for class 16, **hano**, is the relative pronoun used for temporal clauses. The verbs in these clauses are generally restricted to be either anterior or non-past. Anterior verbs indicate completed events, as in the following examples.

hano aghiire	'when he went'
hano ahikiri	'when he arrived'
hano ghokuure	'when it died'
hano bhamughëghiri	'when they carried him'

Clauses with **hano** and a non-past verb indicate simultaneous events, as in the following examples.

hano akwiha amariwa	'while he was digging out cassava'
hano bhakubha mwihi	'when they are at war'
hano bhakumara ghuköra erikwi	rera 'while they are finishing to do the
	wedding'

Finally, another type of temporal clauses found in the text corpus is exemplified here:

ghuche komera 'it should come (SBJV) to swallow' \rightarrow 'when it swallowed'

This type of construction, in which a subjunctive is combined with an infinitive, has temporal reference and seems quite similar in function to the other temporal clauses above.

Abbreviations

1	first person; Class 1	NC	noun class
2	second person; Class 2	NP	non-past
3	third person; Class 3	OBJ	object
4	Class 4, etc	PER	persistive
ANT	anterior	pfx	prefix
APPL	applicative	PL	plural
ASC	associative	PROG	progressive
CAUS	causative	PROX	proximal demonstrative
COND	conditional	PRS COP	present copula
DIST	distal demonstrative	PS	passive
FM	focus marker	PST	past
FV	final vowel	R	verb root
HAB	habitual aspect	REF	referential demonstrative
HYP	hypothetical	SBJV	subjunctive
INC	inceptive aspect	SBJ	subject
INF	infinitive	SG	singular
NAR	narrative	V	unspecified vowel

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