Copular constructions in Makhuwa-Enahara

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This paper describes the possible predication strategies in Makhuwa-Enahara and under what circumstances each occurs. Makhuwa-Enahara (Bantu P31E) has three main copular constructions: Predicative Lowering, the invariant copulas *ti* (affirmative) and *kahi* (negative), and the verbal copulas *ori* and *okhala*. It was previously posited that the choice between predication strategies depended on the syntactic type of the predicate, but further analysis shows that deference is instead given to the semantic type of the predication. The underlying structures of Makhuwa-Enahara are identical for Equation, Predication, and Identification; Specification shows a different structure, and Locative predication yet another. Predicative Lowering and the invariant copula are argued to be different spell-outs of the Pred head, depending on its raised position within the syntactic tree and whether or not the initial element of the predicate is long enough to undergo Predicative Lowering.

Keywords: Bantu, morphosyntax, copula, non-verbal predication, Makhuwa

1. Introduction

This paper aims to describe the structure, semantics, and variation of copular constructions in Makhuwa-Enahara, a Bantu language (P31E (Maho 2009)) of northern Mozambique. The data for this research was collected by the second author on Ilha de Moçambique in various fieldwork visits between 2005 and 2022.[1] We will discuss the surface level variations between the different non-verbal predication types within Makhuwa-Enahara in order to understand their

1. A large part of the data is stored in an Online Language Database, which is accessible through Dative. Access can be granted by contacting the second author, and the database will in due course be archived and available.

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semantics and underlying structure. In Section 2, we provide some theoretical background on copulas; Section 3 presents the different strategies for non-verbal predication in Makhuwa-Enahara as well as non-verbal negation. In Section 4, we disentangle three factors influencing the choice of strategy. With all this information, Section 5 proposes and motivates the underlying syntactic structures of each strategy. Section 6 summarizes.

2. Copulas

The concept of copulas has been around for a long time, and yet continues to defy attempts at definition. Arche, Fábregas, and Marín (2019) discuss the differences between copular constructions not only cross-linguistically, but even within one language, with previously posited definitions ranging anywhere from "(i) copulas carry verbal inflection, (ii) copulas appear in contexts where the predicate is non-verbal, (iii) copulas are elements used to link the predicate and the subject – as the term itself suggests–from Latin copula 'link,' and (iv) copulas are semantically light, possibly empty" to "A copular element is an element needed to define a predication structure" (Arche, Fábregas and Marín 2019: 3,6). The latter definition is the one we will adopt for this paper.

While English uses just one full copula – *to be* – and one pseudocopula – *to become* – which are negated with the standard verbal negator *not*, Bantu languages tend to use several different strategies. One of the most important aspects of the study of copulas in these languages is determining what factors affect copula selection. Kinyarwanda, for example, uses the invariant copula *ni* for nominal and adjectival predicates (1a,b), and an inflecting copula for locative predicates (1c).

Kinyarwanda (JD61, Jerro 2015 cited in Schneider-Zioga 2019: 4, glosses adapted)

(1) a. *Kyle n' umwarimu.* Nominal
1.Kyle COP 1.teacher
'Kyle is a teacher.'

b. *Kyle ni munini.* Adjectival
1.Kyle COP 1.big
'Kyle is big.'

c. *Mukamana a-ri mu ru-go.* Locative
1.Mukamana 1SM-be 18 11-house
'Mukamana is at home.'

Hand in hand with the discourse on copulas is the discourse on predication types. Higgins (1979) defines four underlying types of predication: Predicational, Equational, Specificational, and Identificational (to be explained further in

Section 4.3); the current study follows this terminology, for ease of crosslinguistic comparison. The main aspect of debate for our purposes concerns how these different predication types are related to one another. While some authors claim each of these four types to be entirely separate (Heycock & Kroch 1999), many have proposed that Specificational constructions are simply inverse Predicational structures, i.e. they have the same underlying structure but different surface orders due to constraints on the subject position (Mikkelsen 2005; Moro 1997; Heggie 1988).

The importance of this debate again lies in the fact that not all non-verbal predicates are always expressed in the same manner. Gluckman et al. (2022: 23) finds a four-way split between copulas in Kihavu (JD52) based on the type of predication, shown in (2).

(2)

	Kihavu copula
Predication (SL)[2]	-li
Predication (IL)	-ba
Specification	-o
Equation	-o
Identification	∅

With this background, we can now explore how Makhuwa-Enahara expresses non-verbal predication with different predicates and predication types.

3. Predication strategies in Makhuwa

There are three markers of copular constructions in Makhuwa-Enahara: Predicative Lowering, the Invariant Copulas *ti* (affirmative) and *kahi* (negative), and the Verbal Copulas *o-ri* and *o-khala. We discuss each in turn.*

3.1 Predicative Lowering

The first predication strategy in Makhuwa is Predicative Lowering (PRL). Makhuwa is a two-tone language with a contrast between H(igh) and L(ow) tones, the first of which is marked with an acute accent while the latter is unmarked. Predicative Lowering involves the deletion of the initial underlying High tone of the predicate, and any surface tones created from it through doubling. When a

2. SL and IL here refer to Stage Level and Individual Level attributes, temporary and permanent attributes, respectively.

word in the phrase-final position would become all Low, a High is then inserted on the final vowel of the affected element (Van der Wal 2009). Predicative Lowering is found as a predication strategy in nominal (3a) and adjectival (3b) predicates. See Van der Wal (2006) for further discussion of Predicative Lowering.

(3) a. *Wé nlattú.* cf. nláttu
2SG.PRO 1.problem.PRL
'You are the problem.'

b. *Eparáthú y-ankhaáni.* cf. yáńkhaáni
9.plate 9-small.PRL
'The plate is small.'

Expanding on the word classes, note that adjectives can be distinguished as a class in Makhuwa by their concord with the head noun, e.g. *nrátthá n-áńkhaáni* 'small goose' (class 5), *Amína mw-áńkhaáni* 'little Amina' (class 1). Since adjectives can be used pronominally (i.e. be nominalised), as in (4) below, it is logically possible to analyse (3b) as 'the plate is the small one'.

(4) *Ki-weh-alé y-uúlúpale e-mor-alé.*
1SG.SM-look-PFV.CJ 9-big 9-fall-PFV.REL
'I saw the big one that fell.'

Note that in certain contexts, PRL can co-occur with the verbal copula, to be discussed in Section 4.1.

3.2 The invariant copula

The invariant copula has the form *ti*, but in classes 4 and 10 it may surface as *pi*, and with 1st and 2nd person singular subjects as the corresponding subject marker (Van der Wal 2009). The invariant copula is used for predication of nominal (5a) and adjectival (5b) constituents, as well as more specific (pro)nominals such as questions with *pani* 'who' (5c), demonstrative-headed predicates (5d), and (free) relatives (5e).

(5) a. *Namwíýva ti kutsínyéro.*
1.murderer COP 1.cook
'The murderer is the cook.'

b. *Mí ki oókhúveya.*
mi ki o-a-o-khuveya
1SG.PRO 1SG.SM 1-CON-INF-be.short
'I am short.', lit. 'I am of being short.'

c. *O-ri=vó ḿmo ti paní?*
1-be.REL=16.DEM.MED 18.DEM.MED COP 1.who
'Who is in there?', lit. 'The one who is in there is who?'

d. *Porosóóri t'* *uúle.*
1.teacher COP 1.DEM.DIST
'The teacher is him/her.'

e. *Alúfiáti t'* *ály'* *á attaman any ááka* *vále.*
alufiati ti ale a-attaman-ale-aka vale
1.tailor COP 2.DEM.DIST 2-be.close-PFV.REL-POSS.1SG.SM 16.DEM.DIST
'The tailor is the one who lives near me.'

Notably, adjectival predicates featuring *ti* are always those headed by a connective (as in 5b), rather than adjectives which directly inflect for class. The connective always shows concord with the noun it modifies, and is used to express possession, as in *ekofió* ***y-a*** *Saálíímu* 'hat of Salimo,' but also adjectival concepts when connecting to a noun or verb, as in *ehantísí* ***ts-a*** *khálái* 'stories of old times.'

3.3 The verbal copulas

There are two verbal copula strategies in Makhuwa: *o-ri* 'to be' and *o-khala 'to become, stay.'* The latter, while not a prototypical copula, exemplifies the pseudo or semi-copula class: a class which follows most copular tendencies in terms of use, with the exception of having more semantic content than standard copulas, like the English verb 'become' (Arche, Fábregas and Marín 2019).

While the copula *-ri* does carry some inflection, it is far reduced from a typical Makhuwa verb, an occurrence common among verbal copulas in Bantu languages (Gibson, Guérois & Marten 2019). Standard verbs in Makhuwa-Enahara can have up to five possible slots preceding the verb root and four following, including TAM, subject/object marking, derivations, and more (Van der Wal 2009). *Ori*, however, maximally inflects for a subject marker and a situative or past marker, both of which appear as *a-* in (6).

(6) *Latáráwu a-a-rí* *Omaari.*
1.thief 1SM-PST-be Omar
'The thief was Omar.'

Alternatively, *okhala* is inflected to an extent slightly more typical of a Makhuwa verb, as shown in (7).

(7) *Kampiáú* *o-nró-khal-a* *Penfííka.*
1.champion 1SM-FUT-become-FV 1.Benfica
'The champion will be Benfica.'

Both verbs are used for non-present copular constructions of all types, as well as locative predication in all tenses (8). *Okhala* is used for future constructions (see (7) above), and *ori* for past (9).

(8) *Kwaátú o-rí watarátu*
cat 1SM-be 16.roof
'The cat is on the roof.'

(9) *Ekól' éele y-aa-rí e-kithí.* cf. ekíthi
9.coconut 9.DEM.DIST 9SM-PST-be 9-unripe.PRL
'This coconut was unripe.'

Note that while *ori* is used in (9), the predicate still appears in its lowered form – this is further discussed in Section 4.3.

3.4 Non-verbal negation

Present constructions that use PRL or *ti* are negated with the negative copula *kahí*, without the presence of PRL or *ti* (10). Predicates that are headed by the verbal copulas show negation through verbal marking, as shown by the prefix *kha* in (11).

(10) *O-ttúkútta kahí saána.* cf. saána
INF-complain NEG.COP well
'To complain is not good.'

(11) *A-shí-thíyáná kha-ya-á-rí=vo Waḿphúla.*
2-DIM-woman NEG-2SM-PST-be=16 16.Nampula
'The women were not in Nampula.'

Having seen each of the strategies, we can now discuss when each is used.

4. Predication strategy selection

Van der Wal (2009) briefly stated that any predicate which can use PRL must do so, as shown by the ungrammaticality of (12b) – regardless of the tone. However, when the example set in (12) is juxtaposed with that in (13), we see that there must be an underlying division beyond simply syntactic content of the predicate.

(12) a. *Ólé porosoorí.*
1.DEM.DIST 1.teacher.PRL
'S/he is the teacher.'
b. **Ole ti porosoori.*
1.DEM.DIST COP 1.teacher
'S/he is the teacher.'

(13) a. *Namwíýva kutsinyeró.*
1.murderer 1.cook.PRL
'The murderer is a/the cook.'

b. *Namwíívva ti kutsínyéro.*
1.murderer COP 1.cook
'The murderer is the cook.'

In the rest of this section, we provide an analysis of what determines the choice of predication strategy. Section 4.1 discusses selection for tense and the use of the verbal copula in the nonpresent, Section 4.2 discusses the phonological constraints affecting the occurrence of PRL and *ti*, and Section 4.3 shows the division between predication types.

4.1 Selection for tense

The most consistent factor among copular constructions in Makhuwa is that all non-present clauses include one of the two verbal copulas, no matter the substance of the construction. All future predications use the semicopula *okhala* (15) while past predications use the copula *ori*. Consider the examples in (14). In the present, (14a) would surface as a predicatively lowered predicational phrase, while (14b) would have the invariant copula, due to its connective (see Section 3.2), but in the past tense both have to use the verbal copula – in combination with PRL where applicable (for combinations see Section 4.3).

(14) a. *Ekól' éele yaarí ekithí.*
ehópá *yaarí* *ya* *safáráwo*
ekole ele e-a-ri e-kithi
9.coconut 9.DEM.DIST 9SM-PST-be 9-unripe.PRL
'This coconut was unripe.'

b. *ehópá yaarí ya safáráwo*
ehopa e-a-ri *e-a* *safarawo*
9.fish 9SM-PST-be 9-CON yellow
'The fish was yellow.'

(15) *Meéló purésídeńté o-nró-khal-a porosóori.*
tomorrow 1.president 1SM-FUT-stay-FV 1.teacher
'Tomorrow the president will be(come) a teacher.'

This wholesale use of the verbal copula for non-present tenses is common and even expected among Bantu languages, including those with many different copula types, as discussed by Schneider-Zioga (2019). We can understand this given the fact that Predicative Lowering and the invariant copula do not have any way to show tense on their own. Copulas are semantically light or even empty cross-linguistically and Makhuwa is no exception, thus the verbal copula must be used to communicate the tense of the clause without affecting meaning.

This is supported by the predication of verbal adjectival concepts. One of the main ways to create a semantically adjectival phrase is through the use of a connective preceding an infinitive, shown in (16).

(16) *Ekattáká ya Alí ti yoóríipa.*
ekattaka e-a Ali ti e-a-o-riipa
9.skin 9-CON 1.Ali COP 9-CON-INF-be.dark
'Ali's skin is black.' lit. 'Ali's skin is of being black.'
Interpretation: This is a permanent quality; it is naturally so.

However, example (17) shows that this verb can also be directly inflected for the present tense under a different context.

(17) *Ekattáká ya Alí enááríipa.*
ekattaka e-a Ali e-naa-riip-a
9.skin 9-CON 1.Ali 9SM-PRS.DJ-be.dark-FV
'Ali's skin is black.'
Interpretation: Only when his skin was first another color, it is not a permanent quality.

A comparison of (16) and (17) shows that the copular example is viewed as a permanent, inherent quality, while the inflected verb form is true in this moment, but not always. Further consider (18), deemed infelicitous by the speaker because "there are walls that are cold!"

(18) #*Ntsúwá noótthékuwa, eparíti ti tsoóvíha.*
ntsuwa n-a-o-tthekuwa epariti ti tsi-a o-viha
5.sun 5-CON-INF-? 10.walls COP 10-CON INF-be.hot
'In the afternoon, (the) walls are hot.' lit. 'In the afternoon, (the) walls are of being hot.'

The sentence was deemed felicitous only if one is saying that the walls are always hot. In order to say that the walls are hot just in the afternoon, 'be hot' must be conjugated in the present tense, as in (19).

(19) *Ntsúwá noótthékuwa, eparíti tsináávíha.*
ntsuwa n-a-o-tthekuwa epariti tsi-naa-viha
5.sun 5-CON-INF-? 10.walls 10SM-PRS.DJ-be.hot
'In the afternoon, (the) walls are hot.'

The examples shown imply that "present" predication as we have seen up to this point is not canonically present, and the speaker insights given in regard to (18) and (19) show that "present" predication tells something that is universally true. We thus analyse Makhuwa non-verbal predication as not truly "present" in the sense of it being current, but rather expressing a tenseless state.

This analysis also helps in explaining locative predication. Van der Wal (2009: 123) shows that locative predication obligatorily uses the verbal copula, as shown in (20). Crucially, it does not communicate any state inherent to the subject. This can be compared to example (21) which is not locative predication (i.e. it does not indicate the location of the subject), but predicates a locative, in this case equating 'city' and '(at) Maputo,' and does so through the use of PRL.

(20) *Or' úwáani.*
o-ri o-waani
1SM-be 17-home
'He's at home.'

(21) *Esitáti y-uúlúpalé, O-maputú.*
9-city 9-big 17-Maputo.PRL
'The big city (it) is Maputo.'

Thus, by delineating tense as the first factor influencing copula selection, we account for the use of the verbal copula in Locatives and non-present (but Individual Level) predicates, and the lack of the verbal copula or other direct tense inflection in the canonical four predication types. There are further aspects of this analysis to discuss, namely that some predicates appear in the past with either PRL or *ti* as well as the verbal copula, while others do not. This will be addressed in (4.3). Here, we continue with the second factor, which is phonology.

4.2 Selection for phonology

The examples in (22) show the names *Alí* and *Anítu* as predicates of the same sentence. *Alí* is only judged as grammatical when following the invariant copula, whereas *Anítu* is only grammatical in lowered form.

(22) a. *Porosóóri Zanairá, patéró Natsaariyó, alúfiáti* ****Alí / t' Alí.***
1.teacher 1.ZanairaPRL 1.baker Nazario.PL 1.tailor 1.Ali.**PRL COP 1.ALI**
'The teacher is Zanaira, the baker is Nazario, the tailor is Ali.'

b. *Porosóóri Zanairá, patéró Natsaariyó, alúfiáti* ***Aniitú /*t'***
1.teacher 1.Zanaira.PRL 1.baker Nazario.PRL 1.tailor 1.Anito.**PRL COP**
Aníitu.
1.Anito
'The teacher is Zanaira, the baker is Nazario, the tailor is Anito.'

As the same sentence is used for both names, we can determine that there is no semantic or syntactic difference between the two predicates and must look for answers elsewhere. Similarly, it cannot be an inability for names to be predicated one way or the other. The most likely remaining explanation is the phonological structure of the two names, namely that if *Alí* were to undergo PRL, the process

would result in a tone pattern identical to that of the citation form (LH). The predication is in that case made explicit through the unambiguous occurrence of the invariant copula.

This proposal is strengthened by the fact that this same tonal ambiguity is shared by other short words that occur in the first position of the predicate. Since only the initial word of any given predicate undergoes lowering, the connective construction is another environment where we might see the restriction. This accounts for the distinction between the two adjectival construction types: true adjectives use PRL (23a),[3] whereas adjectival phrases based on the connective use the copula (23b). If this is indeed due to phonology, we predict that in the past tense, connectives (which are too short to be lowered) are left bare rather than inserting the invariant copula, as the verbal copula *ori* disambiguates. This is borne out, as shown in (23d).

(23) a. *Ehóp' éelá safarawó / amareelú*
9.fish 9.DEM.PROX yellow.PRL / yellow.PRL
'This fish is (a) yellow (one).'

b. *Ehóp' éelá ti y-a safáráwo.*
9.fish 9.DEM.PROX COP 9-CON yellow
'This fish is yellow.'

c. *Mwaánúni a-a-rí safarawó.*
1.bird 1SM-PST-be yellow.PRL
'The bird was (a) yellow (one).'

d. *Mwaánúni a-a-rí a safáráwo.*
1.bird 1SM-PST-be 1.CON yellow
'The bird was yellow.'

4.3 Selection for non-verbal predication type

The final determing factor in predication strategy choice is the predication type. This step assigns either *ti* or PRL based on the comparative referentiality of the subject and predicate. If phonological constraints have been met, Predicational, Equational, and Identificational constructions trigger Predicative Lowering, and Specificational constructions use the invariant copula.

Take the examples in (24) and (25), shown with the contexts that prompted each attestation and their predication type. Here, *kutsinyero* 'cook' is shown being acceptably predicated through PRL, but also through the use of the invariant cop-

3. As mentioned before, adjectives can be used pronominally and therefore we cannot be sure whether in predicative function they should be analysed as adjectives or nouns. This is reflected in the translation.

ula. This variation is due to the differences between the stimuli that produced the examples.

(24) Context: Between the waiter, the manager etc, we identify the murderer. SPEC
Namwíýva ti kutsínyéro.
1.murderer COP 1.cook
'The murderer is the cook.'

(25) Context 1: Who is the murderer? EQ
Context 2: What does the murderer do for a living? PRED
Namwíýva kutsinyeró
1.murderer 1.cook.PRL
'The murderer is a/the cook.'

In (24), with the invariant copula, the sentence was produced when identifying which member of a specific set of people was a murderer. "The cook" in this case is already a known entity, our referent within the construction. By putting the referential element in the post-copular position, we have a Specificational construction, and thus the invariant copula is necessarily selected over Predicative Lowering.

Next, (25), the PRL example, was given as a response to either of two questions. The question "Who is the murderer?" necessitates an Equational clause so as to ratify the two identities of 'murderer' and 'cook,' a slightly more sinister counterpart to the oft-cited English example of an Equational construction: "Superman is Clark Kent" (Arche, Fábregas & Marín 2019; Gluckman et al. 2022). In response to the question 'What does the murderer do for a living?', 'the murderer' is the referential element, the known entity, and 'cook' is a profession being attributed to said referent, making the construction Predicational. (The possible alternation in definiteness is due to the fact that the former question would require one specific cook to be chosen, whereas the latter would not.)

Interestingly, this division holds in the past as well, shown in (26), which can lead to 'double' marking: as already indicated above, Predicative Lowering still applies to the Predicational, Identificational, and Equational predicates following past tense *-a-ri*, as in (26a–c), and in Specificational predication, the invariant copula is present in addition to the past tense verb (26d). The exception to this is that the invariant copula is not used with short predicates (26e), presumably because there is no ambiguity of predication when the non-verbal copula is present. Whether PRL applies here therefore cannot be determined.

(26) a. *Mwaánúni a-a-rí safarawó.* PRED
1.bird 1SM-PST-be yellow.PRL
'The bird was yellow.'

b. (Context: Which animal did you see in Malawi?)
A-a-rí kharamú. ID
1SM-PST-be 1.lion.PRL
'It was a lion.'

c. *Presidénté o-múnísipiyú a-a-rí porosoorí.* EQ
1.president 17-municipality 1SM-PST-be 1.teacher.PRL
'The president of the municipality was the teacher.' (one person happens to have two functions)

d. Hare and Gazella are being compared to decide who is smarter, but Hare is no longer present/alive at this point of the story.
Nlávílavi a-a-rí tí namárókolo. SPEC
1.smartass 1SM-PST-be COP 1.hare
'The smart(est) one was Hare.'

e. *Mwaánúni a-a-rí a safáráwo.* PRED
1.bird 2SM-PST-be 1.CON yellow
'The bird was (of) yellow.'

Regarding the ambiguity in short predicates, we see that in (27), despite the sentence being Identificational, Alí still appears with the copula rather than PRL, which confirms that phonological constraints (or: the avoidance of ambiguity) override semantic constraints.

(27) Context: Who do you think is the murderer? ID
Mí kinimúúpuweléla wiírá kutsinyeró/ t' Aalí.
mi ki-n-n-upuwel-el-a wiira kutsinyero /ti Ali
1SG.PRO 1SG.SM-PRS.CJ-1OM-think-APPL-FV COMP cook.PRL COP 1.ALI
'I think that it's the cook/it is Ali.'

Another illustration of the role of phonological shortness is found in the question words for 'who' and 'what'. Their predication comes out as the PRL form for *esheení* 'what is it?', but must use the copula for *ti paní* 'who is it?', since the former has three syllables but the latter only two.

In light of the examples presented here, we formalize the ordering of motivations in the flowchart in Figure 1.

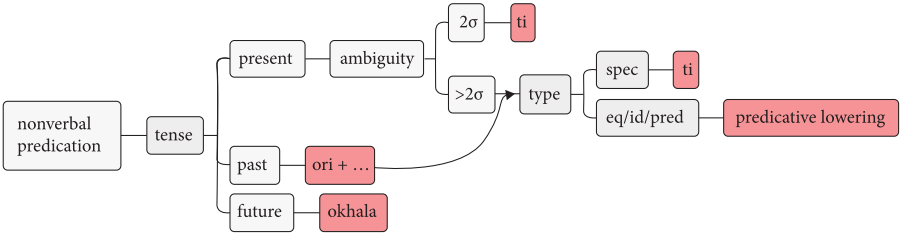


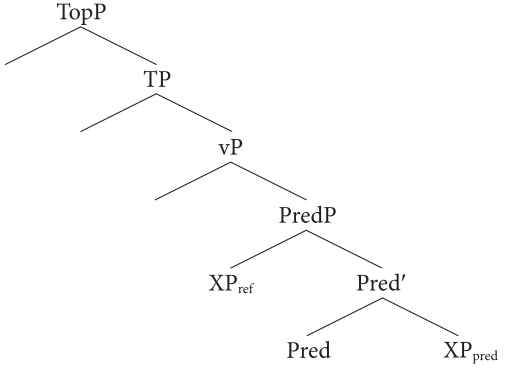
Figure 1. Ordering of motivations in copula selection in Makhuwa-Enahara

Having established the factors influencing non-verbal predication strategy, we can now dive deeper into their underlying structures.

5. The structure of non-verbal predication

In this section, we propose an analysis of the underlying structure of each predication type, and highlight the key differences between them. We follow the PredP hypothesis, in the vein of (Bowers 1993; Mikkelsen 2005; den Dikken 2006; Stowell 1981), illustrated in (28). PredP is the domain of the functional Pred head which allows non-verbal predication to differ in structure from canonical verbal predication. PredP is located under the verb phrase, though it is still debated as to whether verbal predication necessarily includes a PredP, or whether it can stand alone as a pseudo-vP (Baker 2003). PredP takes two arguments, of which the predicative is found in the complement position, and the referential is found in specifier position of the PredP, as discussed at length by Mikkelsen (2005). One of these elements is always raised to subject position. We posit that the subject position for copular clauses in Makhuwa is SpecTopP. This follows in part from Van der Wal (2009)'s analysis of the preverbal slot as dedicated to topics in Makhuwa, and with a lack of any evidence to the contrary we assume this is mirrored in the precopular position. Furthermore, the differentiation between Predicational and Specificational predication arises due to the intentional topicalization of what would otherwise be the predicational (postcopular) element, as will be discussed in 5.2, which strengthens the argument for TopP as the subject's landing site.

(28)



It should be noted that the previous discussion of predication as inherently tenseless leads to two possible non-verbal tree structures: one with TP but having some sort of null head, and one without TP. We have chosen to represent the following tenseless trees with an empty TP domain, simply because there seems to currently be no great argument either way.

We start our analysis by looking at constructions with Predicative Lowering, used for Predicational, Equational, and Identificational clauses in Section 5.1, followed by Specificational constructions in Section 5.2, showing that the PRL/copula variation is simply due to different spell-outs of the Pred head depending on which constituent moves to subject position. In Section 5.3, we briefly illustrate how the structures work for short predicates and negation. Section 5.4 then discusses non-present predication, illustrating the argument that "present" predication is actually syntactically tenseless and the verbal copula is only present as a spell out of TAM (thus the PRL/copula variation can be maintained without interference in the PredP domain). Section 5.5 briefly shows locative predicates, which do not involve PredP.

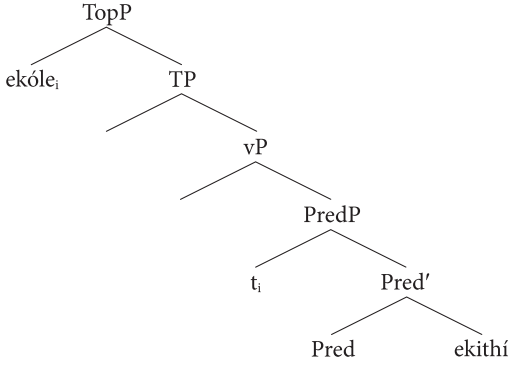
5.1 Predication, Equation, and Identification

Predicational, Equational, and Identificational constructions all have the same surface representation, and will be discussed together in this section.

The tree in (30) shows a Predicational construction. In this example, the predicate *ekithi* 'unripe' is generated in complement position of Pred, and the referential XP *ekóle* 'coconut' is generated in the specifier position. Also present is the Pred head, though no specific spell out is given in the diagram. This is because the exact spell out of the Pred head depends on the complement left in the PredP after movement. In this analysis, the referential DP (here *ekóle*) is moved to specTopP. The remaining PredP element (apart from the as-of-yet amorphous Pred head), *ekithi*, is over two syllables in length and in the canonical predicational position, and so PRL is chosen as the spell-out for the Pred head.

(29) *Ekólé ekithí.* cf. ekíthi
9.coconut 9-unripe.PRL
'The coconut is unripe.'

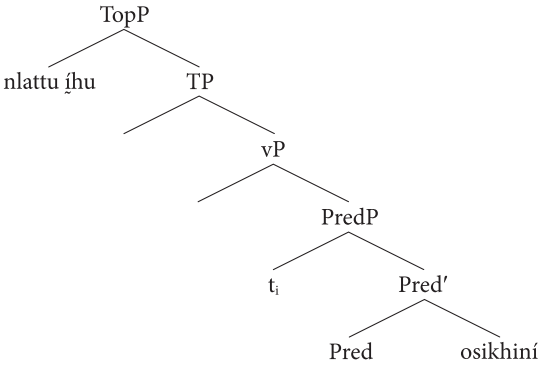
(30)



Similarly, the Equational structure in (32) shows two base-generated elements, this time both DPs, the first of which is moved to subject position. The Pred head[4] and TopP both appear as before: undefined. In this instance, both arguments of PredP are referential, though one is still generated in the predicational complement position and the other in specifier position. Either element in an equational structure could be generated in the specifier position, and likely the choice is made by the speaker to put the more topical DP in specifier position (functioning referentially rather than predicatively). Here too, the higher DP, *nlattu ihu* 'our problem', is raised to SpecTopP. This leaves only the complement in PredP which, while the DP is not inherently predicational, is still in the canonical predicational position. The Pred head therefore spells out as Predicative Lowering, its requirements being satisfied with the structural position and phonological length of the given DP.

(31) *Nlattu ɨ́hu osikhiní.* cf. osíkhíni
3.problem 3.POSS.1PL 14-poverty.PRL
'Our problem is poverty.'

(32)



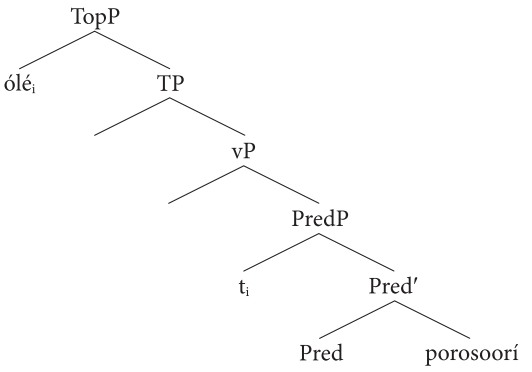
The Identificational structure in (34) is similar, with both XPs generated in the PredP. In this instance, the complement *porosoori* 'teacher', is a canonical NP while the SpecPred is the demonstrative *ólé*, which is moved to specTopP. Again, both elements are referential and thus either could theoretically take specifier position. However, a demonstrative is in this context more topical (and furthermore, since *ólé* does not meet the phonological requirement for PRL, a reversal

4. Not all analyses of Equational structures include the PredP domain, but Den Dikken (2006) shows that the copula in an equative structure is still a spell out of *some* functional head, and as equatives in Makhuwa are identical to Predicational structures, we take this to mean the Pred head is the most likely candidate.

of this subject-predicate combination would always surface with the invariant copula).

(33) *Ólé porosoorí.* cf. porosóori
1.DEM.DIST 1.teacher.PRL
'S/he is the teacher.'

(34)



5.2 Specification

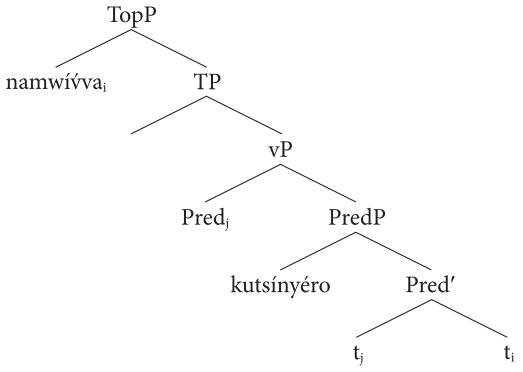
As mentioned above, Specificational clauses in Makhuwa have a surface structure unlike that shown for the other copular types, as they are the only copular clause that consistently uses the invariant copula. There are two main schools of thought with regard to the underlying structure of Specificational clauses: the inverse analysis (Mikkelsen 2005; Moro 1997; den Dikken 2006) and the equative analysis (Heycock & Kroch 1999). The equative analysis of Specificational clauses posits that two DPs are equally referential, though the element in specifier position has a subject feature. The inverse analysis argues that the SpecPred is referential and the complement is not, similar to the structure of a Predicational construction. Heycock (2012) proposes an intermediate position, in which two elements (generated in the FP domain) are equal, but the complement has more intentionality. All analyses raise the rightmost element to subject position.

Makhuwa's surface representation argues for an inverse analysis, in which the predicative element is raised from the Pred complement position to the subject position of the clause, leaving the referential element in the specifier position of the Pred domain, with the Pred head. The example in (35) shows the Specificational construction. Here, *kutsinyero* 'cook' is generated in the specifier position, while *namwivva* 'murderer' in the complement position. The set-up is identical to that of a predicational clause, however in this context the complement is raised instead of the specifier. Specificational clauses arise when the speaker wants to

topicalize the predicational DP rather than the referential DP and does this by moving the predicative DP to specTopP.[5] When this happens, as represented in (34), the Pred head spells out as *ti*.

(35) Context: Between the waiter, the manager etc, we identify the murderer. SPEC
Namwíýva ti kutsínyéro.
1.murderer COP 1.cook
'The murderer is the cook.'

(35)



Note that in this construction, Pred necessarily moves to (at least) v, to derive the correct constituent order. This brings us to two possible analyses. In a first analysis, Pred only moves to v in the specificational clause, and spell-out of Pred is dependent on its position (moved to v = *ti*, in situ = PRL) – in this analysis we have to explain why Pred only moves in the specificational case and not for predicational/equational/identificational. A second analysis posits that Pred always moves to v (with no effect on the linear order, as can be verified in the previous section), and spell-out depends on the derivational history or the content of v's complement: if the referential DP is left, spell out as *ti*; if the predicate is left, spell out as PRL. We have no arguments at this point to decide either way.

5.3 Short predicates and non-verbal negation

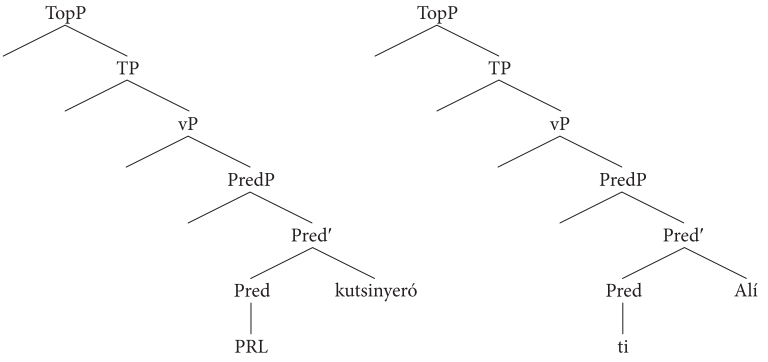
For short predicates, we assume the same underlying structures, as illustrated in (37), despite the spell-out with *ti* in the tenseless context. The proposed analysis is simply that when PRL results in ambiguity, the invariant copula is the default

5. This thinking follows from Mikkelsen's claim: "The reason why the subject of a specificational clause is always topic is that this is a precondition for getting a specificational clause at all" (Mikkelsen 2005: 163).

disambiguator, being added to or substituting PRL with no difference in structure or semantics.

(36) Context: Who do you think is the murderer? ID
Mí kinimúúpuweléla wiírá kutsinyeró/ t' Aalí.
mi ki-n-n-upuwel-el-a wiira kutsinyero /ti Ali
1SG.PRO 1SG.SM-PRS.CJ-1OM-think-APPL-FV COMP cook.PRL COP 1.Ali
'I think that it's the cook/it is Ali.'

(37)

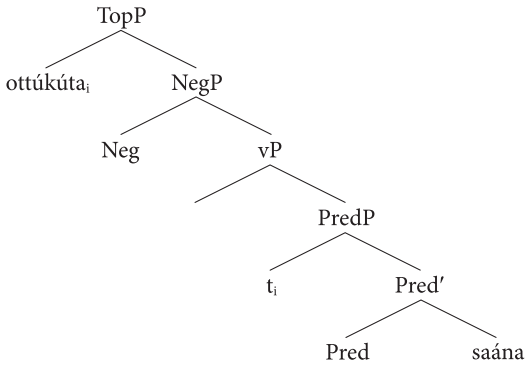


Negation has a rather straightforward underlying structure, shown in (39). The example given is Predicational; the subject and predicate are again generated in the PredP, but NegP is now present immediately below the Topic domain. *Kahí*, being the only visible element not accounted for on the tree, is clearly connected to the negative domain; furthermore, neither the invariant copula nor Predicative Lowering are present, which means the Pred head is not otherwise occupied, and we hypothesise that *kahí* is a combination of the Neg spell-out *kha* and the Pred head spelling out as *hi*.[6] This also fits the fact that the verbal copula negates not through use of *kahi* but through direct negative inflection of the verb. An alternative analysis would simply postulate that Pred spells out as *kahi* in the presence of negation.

(38) *o-ttúkkútta kahí saána.*
INF-complain NEG.COP well
'To complain is not good.'

6. The initial aspiration disappears due to Katupha's Law (Schadeberg 1999).

(39)

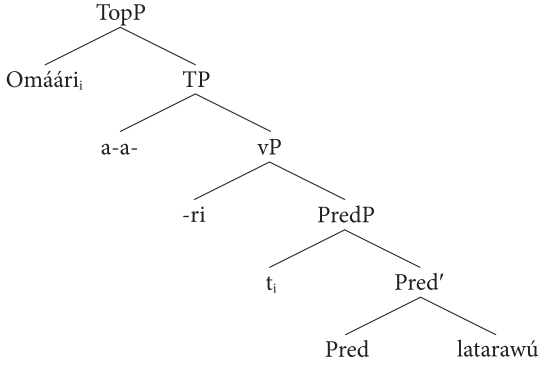


5.4 Non-present

Non-present copular constructions surface similarly to those in the present, but with the introduction of the verbal copula, which we suggest occupies v. Makhuwa verbs obligatorily show agreement for subject and tense/aspect, and subject marking on the verbal copula appears as on a full verb. The example in (40) is a past tense Predicational construction; the verbal copula shows agreement (the ϕ features on T spelling out as *a*) and inflects for past tense (T[+PST] here also spelled out as *a-*). The Pred head surfaces as Predicative Lowering, as in the tenseless form.

(40) *Omáári a-a-rí latarawú.*
Omar 1SM-PST-be 1.thief.PRL
'Omar was a thief.'

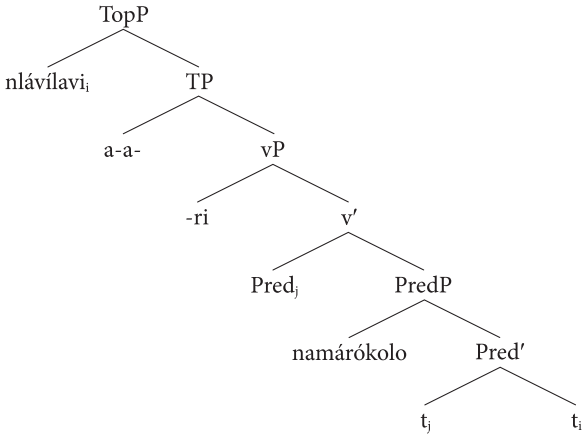
(41)



A past tense Specificational example is shown in (41), with the Pred head surfacing as *ti*, as in the present.

(42) *Nlávílavi a-a-rí tí namárókolo.*
1.smartass 1SM-PST-be COP 1.hare
'The smart(est) one was Hare.'

(43)



How subject agreement in these constructions works remains for future research – judging by example (44), the agreement is with the postverbal DP.

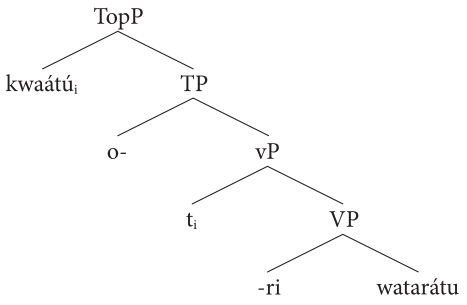
(44) *Latáráwu w-aa-rí ti wé.*
1.thief 2SG.SM-PST-be COP 2SG.PRO
'The thief was you.'

5.5 Locative

We propose the structure in (46) for locative non-verbal predication. Most important for the purposes of this paper is the presence of VP and not PredP. This is because Locative predication in Makhuwa is similar to canonical verbal constructions, having little in common with other non-verbal predication.

(45) *Kwaátú o-rí watarátu*
1.cat 1SM-be 16.roof
'The cat is on the roof.'

(46)



This structure straightforwardly explains why locative predication is incompatible with the two spell-outs of the Pred (PRL and *ti)* (see Section 3.3), as there is no Pred. Furthermore, possible co-occurrence of *ori* and the two Pred spell-outs seen in non-present predication clarifies that the locative's lack of ability to use other predication strategies is not simply due to the need of the verbal copula to express the tense and subject of the clause.

6. Summary

This paper described the expression of non-verbal predication in Makhuwa-Enahara. We presented the three copula types in Makhuwa: Predicative Lowering, the invariant copula *ti/kahi*, and the verbal copulas *ori* and *okhala* and determined the factors influencing the choice of non-verbal predication strategy. Tense turned out to be the first factor, followed by phonological length (disambiguation), and then predication type, with Predicational, Equational and Identificational predication taking the same form, and Specificational predication always expressed with the copula *ti*. These forms were then explained as resulting from different underlying structures on the one hand (with variation in the presence of PredP and VP), as well as movement of either the specifier or the complement of Pred, and their influence on the spell-out of the predicative head.

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Abbreviations and symbols

Numbers refer to noun classes unless followed by SG/PL, in which case they refer to persons. High tones are marked by an acute accent; low tones remain unmarked. The grapheme <tt> represents a retroflex voiceless stop, and nasalised vowels appear with a tilde under the vowel.

CJ	conjoint
COMP	complementizer
CON	connective
COP	copula
DEM	demonstrative
DIM	diminutive
DIST	distal
DJ	disjoint
FUT	future
FV	final vowel
IL	individual level
INF	infinitive
MED	medial
NEG	negative
OM	object marker
PFV	perfective
PL	plural
POSS	possessive
PRS	present
PRL	predicative lowering
PRO	pronoun
PST	past
REL	relative
SG	singular
SL	stage level
SM	subject marker

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