Non-verbal predication in Bantu

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1. Introduction

Predication is one of the most basic relations found in syntax, where a sentence most commonly consists of a verb predicated of a subject. Moreover, it is possible for non-verbal categories to function predicatively, as well. A leading idea in the syntax of predication is that predication, at least of non-verbal categories, requires a functional head to mediate it (Bowers 1993, den Dikken 2006, Baker 2003). The study of predication in Bantu languages is particularly inviting in this regard, as Bantu languages are typically rich in the means available to establish non-verbal predication. They employ a rich variety of non-verbal particles, verbal copulas, null copulas, directly inflected non-verbal predicates, and tone to establish non-verbal predication. A taxonomic and a semantic question will also addressed: what do Bantu languages tell us about how many types of copular clauses there are, and how many copulas are there from the perspective of meaning?

2. The structure of predication

The following examples illustrate non-verbal predication in the Bantu language of Kinande (JD42). As is typical for Bantu languages, an invariant copular particle signals that a predication relation holds between a subject and non-verbal predicate in the present tense. Here an invariant copular particle *NI* mediates predication when the predicate can be nominal, adjectival, and (in certain cases) prepositional:

(1) a. Joháni ni   mugalímu   (Nominal predicate)   **Kinande (JD42)**
        1John   COP 1teacher
        'John is a teacher.'
    b. Magulú   ni   mú:li   (Adjectival predicate)
        1Magulu COP 1tall
        'Magulu is tall.'
    c. Magulú   ní   w' eBútembo   (Prepositional predicate)
        1Magulu   COP 1of 24Butembo
        'Magulu is from Butembo.'

2.1 Predication and non-verbal projections

Stowell (1981, 1983) drew attention to non-verbal predication in particular where he noted that a number of lexical projections such as APs, NPs/DPs, and PPs could stand in a predicational relation with subjects:

(2) a. I considered [Marya [predicate=AP brilliant]]
    b. I considered [Marya [predicate=NP/DP a genius]]
    c. They wished [George [predicate=PP out of their life]]

He introduced a minimal syntactic unit of predication known as a *small clause* which he argued was headed by a lexical predicate and had the subject of the predication in the specifier position of the

maximal projection. His evidence for the lexical element-as-head of the predication was based on selectional properties of various verbs where some verbs select small clause predicates of only a particular lexical category. However, it was observed that lexical phrases that appeared to serve as predicates of small clauses could have specifiers[1] in addition to a subject of the predication being present:

(3) a. I considered [Marya [predicate=specificed AP more brilliant (than anyone else)]]

b. I considered [Marya [predicate=specified NP/DP my friend]]

This suggests that the head of the lexical phrase cannot be the head of the small clause. If it were, there would be no position for the subject of the predication since the specifier position of the lexical phrase is already occupied.

In light of this and other arguments, a number of linguists (most famously, Bowers 1993, building on Chierchia 1985, Chierchia and Turner 1988, as well as Baker 2003, Dechaine 1993 and den Dikken 2006, among others) have argued that predication is necessarily mediated by a functional head. That is, a lexical phrase must combine with a functional head in order to enter into a predication. The most widely accepted view is that the functional head that is hypothesized to underlie predication constructions is unique to predication structures (for example, Bowers' (1993) Pr head, or Adger & Ramchand's (2003) or Baker's (2003) Pred head) and so a Pr/Pred Phrase has been proposed.[2] Schematically, a structure of the following type has been proposed for predication, where Pred[3] can be either a specific predicator head or another functional element, depending on the exact theoretical view:

(4) [PREDP ZP [PRED Pred [XP]]]

A related issue, assuming the existence of a PredP specific to predication structures, is whether verbal and non-verbal predication alike both involve such a phrase. As noted by Buell and de Dreu (2013), since the work of Baker (2003), PredP has been reinterpreted as the quasi-functional vP when verbal predication is considered. Non-verbal predication, from this perspective, is generally assumed to fall under the purview of PredP (for extensive discussion of this issue, see Buell and de Dreu 2013, and Zeller 2012, 2013 for a partially dissenting view).

2.2   Evidence for PredP in Bantu languages

Non-verbal predication in Kinande (JD42) provides convincing evidence for a PredP. We saw in (1) that there are invariant copular particles in nominal, adjectival, and (certain) prepositional predications. I repeat (1a) here:

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[1] In (2), "more" and "my" are considered specifiers of AP and NP respectively.

[2] While the specific idea of a PredP headed by a head, Pred, is located within a minimalist approach, the concept of a connector mediating predication is very traditional. For instance, in Stover's 1885 work on Umbundu, he remarks, 'Having discussed the subject and its modifiers, we next look most naturally for a copula, or some connecting link between the subject and predicate…' The concept of PredP is a way of formalizing this intuition about the structure of predication. A somewhat different modern formal view of predication, that of den Dikken (2006), argues there is no specific predication phrase projection, instead any functional head that mediates a predication can be identified functionally as the "relator" between a predicate and the subject of that predication.

[3] I use Pred in a relatively theory-neutral sense here.

(5) Joháni ni   mugalímu   (Nominal predicate)   **Kinande (JD42)**
    1John   COP 1teacher
    'John is a teacher.'

Invariant particles also occur in secondary predication in Kinande. Consider first small clauses with nominal and adjectival predicates: (from Schneider-Zioga & Mutaka 2015c: 86)

(6) a. Nĩkwa omugulu   basonda-sonda erihamba Yesu, mobubaha   esyondeko,
       then   aug.3time 3pl.want-want aug.5seize 1Jesus 2are.afraid aug.10crowd

    kusangwa   mobaganza [Yesu   *mo* mũmĩnyererĩ]   **Kinande (JD42)**
    because   3pl.counted 1Jesus MO 1prophet
    'They wanted to arrest him, but they were afraid of the crowds, who considered Jesus
    a prophet.'   (Matthew 21:46, *Kinandi New Testament*)

    b. ngálangira [Nadíné   mo mubúya]
       1sg.see   1Nadine MO 1beautiful
       'I find Nadine beautiful.'

Depictives require the same invariant particle:

(7) a. Kámbale mwálya [enyamá   *mó* mbísi]   (object depictive, p.90)   **Kinande (JD42)**
       Kambale 3s.ate aug.9meat MO 9raw
       'Kambale ate the meat raw.'
    b. Twátsuká [__   mo bánwáni]   (unaccusative-subject depictive, p.93)
       1pl.began   MO 2friend
       'We began as friends.'

The invariant particle cannot occur in small clauses that involve verbs as predicates:

                                                                  Kinande (JD42)
(8) mó-n-á-láng-ir-e [Magulú (*mo) á-ka-wâ]   (verbal small clause predicate, p.94)
    aff.1s.saw   1Magulu   MO 3s.ASPECTfall
    'I saw Magulu fall.'

We see then invariant particles in both primary and secondary predication. Furthermore, the invariant particle can, under certain circumstances, co-occur with tensed copulas in Kinande.[4] This is discussed in more detail in section 4.

(9) ómwibí   abyá   í-ni Magúlu   **Kinande (JD42)**
    AUG-thief   was   NI Magulu
    'The thief was Magulu.'

    We see then that the distribution of invariant particles in Kinande falls out exactly as expected if they are an instance of Pred and in a theory where vP is distinct from PredP; in other words, PredP is reserved for non-verbal predication. Kinande offers especially persuasive evidence for PredP because of its extensive use of invariant particles in contexts of predication, including in secondary predication. Invariant particles in non-verbal predications are common in Bantu languages in general as will be demonstrated through this chapter, but especially in section 3.

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[4] An anonymous reviewer notes that invariant particles marking predication co-occur with tensed copulas in Swahili, as well. I cite the reviewer: "Cooccurrence is very robust in Swahili. Using Google I find over 500,000 hits for the string *alikuwa ni* 'he/she (NC1) was' and around 150,000 for *walikuwa ni* 'they (NC2) were'."

3. Non-verbal predication and syntactic category of predicates

Having established that Pred is involved in non-verbal predication in Bantu, I consider now specific ways non-verbal predication is established in Bantu languages, and note the overarching schemata. Firstly, a very widespread phenomenon is for a language to employ a variety of copular particles and/or copular verbs or other morphological means for establishing non-verbal predication. The means employed usually depend on the syntactic category of the predicate in the non-verbal predication. For example, nominal predication might be marked differently from adjectival or locative predication. Secondly, in some languages nominal predicates are indicated via changes in tone or changes in the augment, an initial vowel that occurs on a nominal in some Bantu languages. Thirdly, the way predication is syntactically and morphologically indicated can differ markedly when first and second person subjects are involved in non-verbal predication as compared to third person. For example, first and second person subjects might use a different copula or copular particle than third person subjects. Fourthly, in many Bantu languages, negation of non-verbal predications either employs a syntax that makes use of verbal copulative lexical items, even if the affirmative uses a copular particle, or there are distinct negative copulas. Finally, the predicational marking is distinct for different syntactic categories of predicates only in the present tense.

3.1.1 Nominal and adjectival predication versus locative predication

One instantiation of the use of a variety of copulas and/or particles in a language is for nominal and adjectival predication to use one strategy and locative/PP predication a different one.[5] Kinyarwanda (JD61) (Jerro 2015) exemplifies this possibility for non-verbal predication in the present indicative. Specifically, there is an invariant copular particle *ni* for nominal and adjectival predication (= Jerro's (10a&b), p.94)

> (10)a. Kyle n' umwarimu.　　　(Nominal predication)　　　　　　　**Kinyarwanda (JD61)**
> 　　　 Kyle NI teacher
> 　　　 'Kyle is a teacher.'
> 　　 b. Kyle ni mu-nini.　　　　(Adjectival predication)
> 　　　 Kyle NI 1-big
> 　　　 'Kyle is big.'

In addition, there is a copular morpheme –*ri* which is involved in locative predication. The copular morpheme inflects for subject agreement in all persons (= Jerro's (5a), p.93):

> (11) Mukamana　a-ri　　mu rugo.　　　　　　　　　　　　　　　　**Kinyarwanda (JD61)**
> 　　　 Mukamana　1S-COP in　house
> 　　　 'Mukamana is at home.'

Other Bantu languages such as Kikuyu (E51) and Nsenga (N41) also use invariant particles to establish nominal and adjectival predication and the inflecting verbal copula or another distinct strategy is used for locative predication. Zentz (2016: 160) indicates a more complex situation for Shona (S11-15) where a raised tone alone is a possible allomorph of the invariant copula. Finally, nominal and adjectival

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[5] The possibility that not syntactic category but, instead, a semantic distinction determines this (such as copular choice being based on status of the predicate as stage versus individual level) has been discussed in detail and rejected by Jerro (2015). This possibility has been explored in a more limited way in grammars such as that of Nzadi (Crane, Hyman, and Tukumu 2011) and others.

predication can involve no overt copula or particle, with locative predication involving the Proto-Bantu *-li* verbal copula or other subject-agreeing particle. Some languages with this pattern, as reported in Lanham (1953), are Herero (R31), Mbundu (H21), and Luvale (K14).

Swahili (G42) allows either an invariant particle or no overt marking of predication for nominal and adjectival predication. Specifically, in the present tense, nominal and adjectival predication is either mediated by the invariant copular particle *ni*, or no overt marker of predication is apparent. The following examples illustrate nominal and adjectival predication respectively in Swahili:

(12) a. Hamisi (ni) mpishi.   **Swahili (G42)**
            Hamisi COP cook
            'Hamisi is a cook.'   (adapted from McWhorter 1994: 63)
       b. Shati (ni)   ø- chafu.
          shirt5 COP   AA5- dirty
          'The shirt is dirty.'   (adapted from Matushansky & de Dreu 2009: 7)

McWhorter (1994) notes that locative predication in Swahili follows a different strategy from nominal and adjectival predication;[6] a locative particle occurs which expresses agreement with the subject:

(13) Hamisi yu-ko nyumba-ni.   **Swahili (G42)**
            Hamisi AGR-LOC house-LOC
            'Hamisi is in the house.'   (McWhorter 1994: 57)

3.1.2 Nominal predication versus adjectival and locative predication

A different instantiation of the use of a variety of copulas and/or particles in a language is for nominal predication to use one strategy and adjectival and locative/PP predication a different common one. Zulu (S42), most recently investigated with respect to predication by Buell and de Dreu (2013), as well as Zeller (2010, 2012), exemplifies this type of language. Specifically, nominal predication in the present indicative involves an invariant copula *ngu-* that bears person agreement ((14)a). *Ngu-* can also carry inflection of various types such as the persistive marker, however it can only be interpreted as present tense and cannot bear future or other tense markers. Examples here are from Buell and de Dreu (2013: 427):

(14) a. Ngi-ngu- mfundisi.   **Zulu (S42)**
              1SG.SM-COP-1teacher
              'I am a teacher.'
        b. Ngi-se-ngu-mfundisi.
              1SG.SM-PRST-COP-1teacher
              'I am still a teacher.'

Buell and de Dreu (2013) also note an alternative means of nominal predication in Zulu: the copula can be omitted. In this case the nominal predicate bears a downstepped tone (Matushansky and de Dreu 2009: 5) and breathy voice phonation (Buell and de Dreu 2013: 438) on the initial syllable of the nominal predicate. Strategies for marking predicates will be discussed in more detail in section 3.2. It is relevant

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[6] Marten (2013) is also a detailed and informative reference for locative predication and other copular constructions in Swahili.

here to observe that regardless of how it is signaled, nominal predication maintains a distinct strategy from adjectival and locative/PP predication, which pattern together.

With adjectival predication in Zulu, the subject agreement affix that typically is prefixed to verbs occurs directly on the lexical adjectival predicate, or more correctly, it affixes to a null copula (Matushansky and de Dreu 2009: 13) and receives prosodic support from the predicate. There can also be additional agreement morphology on the adjectival predicate, depending on its status as an "agreeing" or "non-agreeing" adjective, a distinction that plays a role in the grammar of Zulu.[7] With agreeing adjectives, subject/predicate agreement in noun class occurs as a prefix on the adjectival predicate, nearest the root, and the agreeing predicate expresses subject agreement with the subject of the predication (examples from Buell & de Dreu 2013: 434, 435). In the example below ((15)a), the agreeing predicate *ncane* 'small' is prefixed with a class 2 (plural human class) marker because the subject of the predication is first person plural (human). With non-agreeing adjectives, there is no predicate agreement with the subject; instead subject agreement directly occurs:

(15) a. Thina   si-ba-ncane.   (agreeing adjectives)   **Zulu (S42)**
          1PL.PRON   1PL.SM-2-small
          'We are little/young.'
      b. Thina   si-lusizi.   (non-agreeing adjectives)
         1PL.PRON 1PL.SM-sad
         'We are sad.'

Locative and other prepositional predicates in Zulu show a predication strategy that is virtually identical to that of adjectival predication. In positive affirmative examples, there is a prefixing of subject agreement to the predicate:

(16) A-bafana   ba-s-e-sikol-eni.   **Zulu (S42)**
         DET-2boys 2SM-EPEN-LOC-7school-LOC
         'The boys are at school.'   (Buell & de Dreu 2013: 435)

Some languages outside of zone S that follow this distribution of copulas/particles—nominal predicates having one strategy and adjectival and locatives sharing a different strategy—are Mpongwe (B11a) and Ngala (C36d) (discussed in Lanham 1953).

3.1.3   Locative predication strategies

One distribution of copulas/particles is completely missing from the data: no Bantu language marks nominal and locative predication the same and adjectival predication differently. Baker (2003) in his study of lexical categories suggests that PPs are most like adjectival predicates in that they also function as modifiers. Furthermore, he argues that they are distinct from both adjectival and nominal predicates in that they are functional phrases rather than lexical predicates. Therefore, in non-verbal predications, we might expect that PP's, including locatives, will either pattern with adjectival predicates since both are modifiers, or they will mark predication in a way that is distinct from nominal and adjectival predicates since they are not themselves predicates. Indeed, the data we have examined until now shows this is the case in Bantu languages. The *-li* verbal copula, which is by far the most widespread way

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[7] Buell (p.c.) notes that the distinction between agreeing and non-agreeing adjectives in Zulu mirrors that of agreeing and non-agreeing adjectives in Swahili. Non-agreeing adjectives include adjectives that are loan words as well as ones originally derived from nouns.

of establishing predication when locatives are involved, also occurs as an auxiliary in the verbal complex in most if not all Bantu languages. This suggests that the function of –*li* is not to mediate predication directly as a Pred head if it consistently occurs high in the auxiliary region of a sentence, rather than in PredP.

In Nzadi (B865) an invariant particle marks all types of predication—nominal, adjectival, and prepositional (Crane, Hyman, & Tukumu 2011). Note that this particle is linearly closer to the predicate than the tense morpheme. Therefore, from a generative syntactic perspective that assumes binary branching of trees, it occurs lower in the tree than tense:

(17) a. Tukúmu é   ye   lɔ̂ŋ   (p.144)   **Nzadi (B865)**
         Tukumu PRES COP teacher
         'Tukumu is a teacher'
      b. Mɛs é   ye   mpfyô   (p.89)
         table PRES COP   cold
         'the table is cold'
      c. mi é   ye   kó   ńdzɔ   (p.145)
          I   PRES COP LOC house
          'I am in the house'

If it can be established that *ye* is an instance of Pred, rather than a verb, this would suggest that the locative is not a functional phrase after all, but instead, at least in Nzadi, a predicate.

3.2   Deriving predicates

We have considered the distribution of both overt and non-overt copulas and copular particles. Additionally, we noted that for some languages there was an optionality between using overt or null copulas/particles. Moreover, in some languages, such as Zulu, we saw that subject agreement occurs on the non-verbal predicate, presumably mediated by the null copula (which following Buell and de Dreu (2013) is an instance of Pred). Here, we consider additional ways a predicate can be marked in Bantu languages to distinguish it as a predicate—namely via tonal marking of a predicate and via removal of the augment from nominal predicates. These are specifically instances of predicate marking in the absence of an overt copula/copular particle, although for some languages at least, the marking of the predicate can co-occur with a copula or copular particle.

3.2.1   Predicates derived via tone

One widespread way of indicating that a noun is a predicate is by means of tone. Either a distinctive tonal pattern must occur on a predicate or a high or a low tone occurs on the initial syllable of the noun when it functions as a predicate. Schadeberg (1986) refers to syntactically conditioned tonal behavior as "tonal case" and he notes that Umbundu (R11) tonally distinguishes 3 groups of nouns according to their syntactic function: predicates, objects, and all other nominals. Schadeberg calls the distinctive tonal pattern that signals that a nominal functions as a predicate 'predicative case.' Here are minimal pairs from Schadeberg (1986: 436, glosses mine) illustrating predicative case:

(18) a. óciɲamà   címosí   **Umbundu (R11)**
         animal.PRED one
         'It's one animal.'

b. òciɲama   címosí
animal.OC one
(e.g.: I saw) 'one animal' (OC= Schadeberg's object case)

This type of predicate marking is well attested in S zone languages. Matushansky and de Dreu (2009: 5) give the following example (gloss adapted) from Zulu (S42) of tone marking a predicate:

(19)a. u-mú-ntu   **Zulu (S42)**
AUG1-1-person
'a person'
b.↓Ụ-mú-ntu.
   AUG1-1-person
   'It is a person.'

Citing Welmers (1973: 323), Matushansky and de Dreu provide the following examples to illustrate the tonal marking of predicates in Shona (S11-15):

(20)a. mùnhù   **Shona (S11-15)**
person
b. múnhù
person.PRED

Lanham (1953: 146) observes for Lamba (M54), that raising the tone on the class marker of the nominal and deleting the augment is one way of establishing it as a nominal predicate:

(21)a.⁺Ŵantu   **Lamba (M54)**
people.PRED
'They are people.'
b. aŵantu
AUG-people

The tonal pattern is stated more precisely in Doke's (1922: 91) grammar of Lamba, "all nouns having duo-syllabic prefixes form the Predicative by eliding the initial vowel of the prefix, and heavily stressing the remaining vowel, raising the tone at the same time."

Van der Wal (2006: 224) discusses tonal predicative case in Makhuwa (P31). In Makhuwa, there is an alteration of the tonal pattern to indicate that a nominal is functioning as a predicate. This alteration is generally referred to as predicative lowering because the first high tone of the nominal is lowered when the nominal is a predicate.[8]

(22) a.nakhúku   (tonal pattern: LHL)   **Makhuwa (P31)**
        'crow'
     b. mwaánúni ulá nakhukú   (tonal pattern: LLH)
        1.bird 1.DEM 1a.crow
        'this bird is a crow'

The tonal marking of a predicate is also evident in Mwera (P22), where the tone of the noun prefix is lowered when the noun functions as a predicate (Harries 1950; Lanham 1953: 146):

(23)a. liji   **Mwera (P22)**
        'egg'

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[8]The final high tone in utterance final position has an independent origin.

b. Cindu   aci   ꜛliji
        7thing 7this egg.PRED
        'This thing is an egg.'
Nominal predicates in Mpongwe (B11a) also undergo tonal-like changes in the absence of a copula. Lanham (1953: 145) states "the second syllable of *iyami* is said to be 'accentuated'.":
   (24) Nkala   yino   iyami   **Mpongwe (B11a)**
        Village that   mine
         'That village is mine.'

     Although the notion of case is sometimes invoked to describe and name this phenomenon of marking a nominal predicate, it should be noted that adjectival predicates also undergo tonal changes in some languages. Adjectives marked in this way as predicates contrast tonally with adjectives used attributively.

     As an illustration of this kind of tonal marking, adjectival predicates in Mpongwe can be tonally marked in the absence of a copula (Lanham 1953: 152):
   (25)Nkal'iyami mpolo   **Mpongwe (B11a)**
        village my great
        'My village is great.'
Lanham (p.152) states '… the second syllable of *mpolo* is said to be "accentuated".'
     In Lamba (M54), as with nominal predicates, so too with adjectival predicates, the tone is raised on the adjectival predicate. The description of the tonal effect and the following example is based on Doke (1922: 91, 95, 96):
   (26)Umuntu   mùkulu   (attributive adjective=umukulu)   **Lamba (M54)**
        AUG.person big.PRED
        'The person is big.'
     Mwera (P22) is reported by Lanham (1953: 153) to have the following pattern, but no illustrative data is included: "[adjectival predicate] formation [is] by modification to the tone pattern in which a trisyllabic adjective raises the tone on the penultimate syllable and disyllabic adjectives the tones on both syllables."
     Letsholo (2008: 20) observes tonal marking of predicates for Ikalanga (S16) where tonal changes signal the predicative status of both nouns and adjectives. Here an adjectival predicate is illustrated (glosses adapted):
   (27) Nlume ńlefú   **Ikalanga (S16)**
        1Man   1tall
        'The man is tall'
She points out that "when tone is used to express the copula, a high tone is placed on the first syllable of the predicate i.e. … on the syllabic ń in [(27)]" (p.20). She demonstrates that when an adjective is used attributively, there is a low tone on the first syllable instead (glosses adapted):
   (28) Nlume nlefú   **Ikalanga (S16)**
        1Man 1tall
        'The tall man'   (Letsholo 2008: 20)
In short, there are a variety of tonal means of deriving predicates.

3.2.2 Marking with respect to the augment

The predicate can be marked in other ways as well. For instance, we already saw that the augment can be deleted along with variation in tonal patterns. However, as van der Wal (2006) points out, in some languages, a predicate is derived when the augment is simply deleted with no change in tone. Van der Wal (2006: 231) gives the following example from Lusoga (JE16) and cites Luganda (JE15) as behaving in the same way:

(29) a. o-mú-géní   **Lusoga (JE16)**
        AUG-1-guest
        'guest'
     b. mu-géní
        1- guest
        'it is a guest'

In addition, the augment can be deleted without an accompanying tonal change in the presence of a copular morpheme that "replaces" the augment. Kinande (JD42) derives predicates in this way:

(30) a. ibó   **ni**   bagalí:mu   **Kinande (JD42)**
        2they COP   2teacher
        'They are teachers.'
     b.*ibó   **ni**   a-bagalí:mu
        2they COP   AUG-2teacher

      In sum, we see that non-verbal predication in Bantu languages is characterized by the existence of an array of copulas/copular particles/null copulas in non-past tense. These copular elements are sensitive to the syntactic categories of their predicates. In addition to the specialized copular elements, we saw that there are a variety of ways of indicating predicates that are independent of the copular elements themselves.

3.3 Types of copulas and copular particles

We noted that there are invariant copular particles, null copulas, and verbal copulas. However, in some Bantu languages there is an additional type of copula: a pronominal copula. Some languages that have pronominal copulas are Nyakyusa-Ngonde (M31), Kinande (JD42), and Gogo (G11).

      For Nyakyusa-Ngonde, Meinhof (1906: 39) notes a copula that is based on the pronominal stem –o. He gives the following example (gloss adapted):

(31) j-o   mundu   **Nyakyusa-Ngonde (M31)**
        1-o   1person
        'Das ist ein Mensch.' [= "That is a person."]

Persohn (2017) also discusses the pronominal copula in Nyakyusa-Ngonde, which he points out is most likely related to focused interpretations, as, he notes, the pronominal copulas also occur in cleft sentences. He gives the following example (=his (8c), p. 305, with gloss slightly adapted):

(32) ɪ-mi-piki   ɪ-gɪ   gyo   mi-nywamu   **Nyakyusa-Ngonde (M31)**
        aug-4-tree aug-prox.4   ref.4[COP]   4-big
        'These trees, they are big.'

Kinande (JD42) has a pronominal copula based on the pronominal –o stem.[9] Here, we also see a connection between the pronominal copula and focus: i) a sentence initial focused expression is always followed by what appears to be a pronominal copula; ii) whenever there is a pronominal copula, it must agree with the focused expression. Therefore, it agrees with the focused precopular noun phrase in cleft-like sentences ((33)a), and with the post copular noun phrase in specificational sentences ((33)b):

(33) a. olúhi   **ló**   mbúga   **Kinande (JD42)**
         aug.11war 11COP   9.problem
         'It is the war that is the problem.'
      b. émbugá   **l'**   **ô**lúhi
         aug.9problem   11COP   aug.11war
         'The problem is the war.'

Here the final –o in the pronominal copula has undergone elision due to the immediately following vowel. There is, however, a phonological residue of the pronominal -o's high tone on the augment of the focused phrase following the copula in the form of a falling tone.

Pronominal copulas in Kinande are primarily reserved for identificational and specificational sentences, as will be discussed in more detail in section 4. The pronominal copula agrees with the post copular noun phrase in specificational sentences, as evident in ((33)b), but can only occur if the post copular focused phrase in principle takes an augment.[10] Therefore, pronominal copulas are not possible in specificational sentences if the post copular noun phrase belongs to class 1a ((34)b), the class of proper names and titles. Instead, an invariant copular particle must occur:

(34) a. ómwibí   ní   ndi?   **Kinande (JD42)**
         aug.1thief   COP who
         'Who is the thief?'
      b. ómwibí   **ni/*yo**   Magúlu
         aug.1thief COP   1a.Magulu
         'The thief is Magulu.'

Pronominal copulas, i.e., ones that are based on pronouns, appear to be relatively rare among Bantu languages. In the languages where they have been identified, they are closely connected to focus.

3.4   Person and copula form

The picture presented until now for the distribution of copulas and copular particles holds for third person subjects in particular. In many Bantu languages, first and second person subjects have a distinctive behavior: they must specify a different copula than the copula/copular particle/predication

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[9] The historical origin of the pronominal copula in Kinande has not yet been explored. In the general cross-linguistic literature on pronominal copulas, a common proposal/observation is that the pronominal copula in a language originated from a demonstrative pronoun which resumptively marked the topic—for example: 'war, **that** is the problem.' In Kinande, the pronominal copula is not directly related formally to demonstrative pronouns in the language. However, it looks formally similar to relative pronouns in the language. Specifically, the pronominal copula looks like a relative pronoun with its augment removed. It remains for future research to see to what extent its distribution could be captured by analyzing copular clauses that have pronominal copulas as covert clefts/pseudo clefts.

[10] The presence versus absence of augments is not tied to focus per se in Kinande. Unaugment expressions can be focused, at least contrastively.

strategy that co-occurs with third person subjects. In Kinande, for example, first and second person subjects of nominal and adjectival predications do not co-occur with the invariant particle that characterizes predications involving third person subjects. Instead such predications employ the verbal -*li* copula, used with locatives in Kinande (Schneider-Zioga and Mutaka 2015a: 60, 62, 63).[11]

(35) a. *ingyé **ni**   mugalímu   **Kinande (JD42)**
         I   COP teacher
         'I am a teacher.'
     b. *iwé **ni**   mugalímu
          you COP teacher
          'You are a teacher.'
     c. Question: u-lí ndi?
                        2s-be who
                        'What are you?'
     d. Answer: nyi-ri   mugalímu ná   kandi nyiri   kóyô
                        1sg-be 1teacher   also and   1sg-be mother
                        'I am a teacher and a mother.'
     e. Uwe uli   mwiga   wuwe, ….
          you 2s.li 1disciple 1his,   ….
          'You are this fellow's disciple! ….'   (John 9:28)

It is possible that the special status of first and second person subjects is related to Baker's (2008) proposal that first and second person pronouns behave with respect to their agreement morphology as operators binding variables rather than the straightforward A-binding-like behavior of third person pronouns and their related third person subject agreement. The invariant copula that co-occurs with third person subjects in Kinande is incompatible with third person focused subjects. That is, the invariant copula cannot accept being bound even by a third person operator let alone a first or second person one if Baker is correct about their inherent operator status. The resistance of the invariant copular particle to operator binding, including by first and second person pronouns, might be a type of anti-agreement effect.

An essentially identical split between first and second person on the one hand, and third person on the other in choice of copulas/copular particles is found in a number of other Bantu languages. More precisely, first and second person subjects take a verbal copula, whereas the third person specifies an invariant particle. Lanham in his 1953 survey of grammars states, "Note, however, that practically all languages which have simple impersonal copulative predicates for 3rd person reference in all classes, will use the verbal method for 1st and 2nd persons" (p. 149). However, he does not provide illustrative examples to support his observation. Jerro (2015) observes such a split for Kinyarwanda (JD61) and provides examples and discussion. Doke (1922) gives the following examples (adapted) from Lamba

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[11] Note that locatives use different copulas from other PPs in Kinande. Locatives use –*li* and other PPs use the invariant *ni*—similar to what we saw for Nzadi, the invariant copular particle selecting PPs is problematic for the idea that PPs are not predicates but functional phrases instead. In Kinande, there is convincing evidence that invariant *ni* is a Pred head, as we will see in more detail when specificational clauses are considered.

(M54). Note that first and second person subjects of nominal and adjectival predications use a verbal copula, whereas third persons use an invariant particle or a null copula with tonal lowering of the predicate (36).[12] For locative predications, all persons use a verbal copula (37). For example:

Lamba (M54)

(36) a. u li   muntu   b. mùntu   (Nominal predication, p.94)
        2s-BE 1person   person (lowered tone)
        'You are a person.'   'He is a person.'
     c. u li   mukulu   d. Umuntu mùkulu   (Adjectival predication, p.95-96)
        2s-BE 1big   person   big (lowered tone)
        'You are big.'   'The person is big.'
(37) a. u li muno   b. a li muno   (Locative predication, p.96)
        2s-Be in.here   3s-Be in.here
        'You are in here.'   'He is in here.'

    Previous data we considered suggested that –*li* is a locative copular verb. However, the data here shows that –*li* cannot mean "be at" *per se* because it can be used simply to solve a grammatical problem posed presumably by the syntax of first and second person pronouns. Moreover, -*li* functions as an auxiliary in the verbal complex as we will see in more detail shortly. In other words, there is a form/function problem[13] related to the –*li* verbal copula that again underscores that locative predication has a distinctive syntax and clearly merits further investigation.

3.5   Negation in primary non-verbal predications

In this section we consider the negation of copular sentences, with a focus on present tense sentences. A widespread negative morpheme is *si* and in negated copular sentences in a number of languages, it occurs instead of the affirmative copular particle. The following example from Swahili illustrates its use as a copular particle, but this strategy is also found in Kinande (Schneider-Zioga and Mutaka 2015a), Tswana (S31) and Herero (Torrend, 1891), Kol (A80) (Henson 2012), and other languages:

(38) a. Juma ni mwalimu   **Swahili (G41-43)**
        Juma BE teacher
        'Juma is a teacher.'
     b. Juma   si   mwalimu
        Juma   not.BE teacher
        'Juma isn't a teacher.'

    In some languages with invariant copular particles, negation co-occurs with, rather than instead of, the invariant particle. Lanham (1953) refers to this as a "contracted form." In one common type of "contraction," the invariant copula is closer to the predicate and the negative morpheme is further away from it. This is illustrated for Nyanja (N31):

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[12] There is more than one strategy for nominal and adjectival predications and not all of them involve using the verbal copula strategy. However, all of them are distinct from such predication with third person subjects.
[13] Of interest from the form/function perspective, although possibly only diachronically, is the often remarked on fact in the Bantu copula literature that there is a very close relation between the form of first person singular subject agreement and the form of the invariant copula.

(39) munthu ndi-mwana
    1person be-1child
    'The person is a child.'   (Lanham 1953: 147)

Lanham (1953: 147) gives no concrete examples but states 'in the negative formative, sindi [si-ndi] replaces [invariant] ndi.' There is an additional type of contracted form where negation is closer to the predicate than the invariant particle is. This is illustrated for Nsenga (N41) (Lanhan 1953: 147):

(40) a. ni-muntu
        BE-person
        'It's a person.'
     b. n-te-muntu
        BE-not-person
        'It's not a person.'

More challenging to theories of PredP is understanding the location of NegP with respect to the predicate in (40). In both (39) and (40), we can assume Neg selects PredP but in (40), the copular Pred prefix raises out of PredP and adjoins to Neg. In (39) there was no raising and the two morphemes simply concatenate. However, in some languages, such as Gogo (G11) (Lanham 1953: 146), a negative particle occurs between the copular particle and the predicate:

(41) Yo si nene   **Gogo (G11)**
      be not I
      'It is not I.'

If such an example is correctly understood not as a cluster of clitics where the copular particle has raised and adjoined above negation, but rather as an instance of two free standing words, then the head movement constraint should not allow movement of the copular particle across negation:

(42)* [COP$_j$ [NEG [$_{PREDP}$ [t$_j$ ...]]]]

    In a language like Zulu, which can be analyzed as having a null copular particle that bears verbal inflection (recall (14)), a negative morpheme can occupy the position of the affirmative null copula. A second negative morpheme occurs in the pre-initial position (example from Buell and de Dreu 2013: 438, adapting Poulos and Msimang 1998: 362):

(43) Ka- ku- si-muntu lona, yi-silwane.   **Zulu (S42)**
      NEG-17SM-si-1person 1this COP-7animal
      'This isn't a person; it's an animal.'

Buell and de Dreu (2013: 439) demonstrate that there are other possibilities within Zulu. Some speakers use only a negative affix in the pre-initial position ((44)a) or the single negative affix with a pronoun which Buell (p.c.) agrees conceivably functions as a copula here ((44)b):

(44) a. À- kú-   mùntù lónà.   **Zulu (S42)**
        NEG-17SM-1person 1this
        'That's not a person.'
     b. À-kú-yèná ú-múntù lónà.
        NEG-17SM-1PRON DET-1person 1this
        'That's not a person.'

There are languages where both an initial and a final negation occur in non-verbal predications. In Umbundu (R11), for example, an initial *ha-* negates a nominal or adjectival predicate. A *–ko* suffix must co-occur (Stover 1885: 42, 43, glosses adapted):

(45) a. ha-mbwa- ko   **Umbundu (R11)**
     NEG -dog-NEG
     'It is not a dog.'
   b. Ha-u-wa-ko
      NEG -3s-good-NEG
     'He is not good.'

In Nzadi (B865) two negations occur: a verbal complex initial and a sentence final one (Crane, Hyman, & Kutumu 2011: 144):

(46)a. Tukúmu é   ye lɔ̂ŋ   (affirmative)   **Nzadi (B865)**
       Tukumu PRS Be teacher
       'Tukumu is a teacher' (present)
   b. Tukúmu ké   ye lɔ̂ŋ   bɔ   (negative)
       Tukumu NEG+PRS   BE teacher NEG
       'Tukumu isn't a teacher'

In some languages with copular particles in the affirmative and in all instances of verbal copulas in the affirmative, the corresponding negative uses a verbal copula rather than using an invariant negative copula. In that case the negative occurs in the verbal complex. Doke's (1922) grammar of Lamba illustrates a common expression of negation when a verbal copula is involved. The affirmative is simply an augmentless predicate that has undergone tonal predicative lowering; the negative involves a negated verbal copula:

(47) a. mùntu   **Lamba (M54)**
     person(lowered tone)
     'He is a person.'   (Doke 1922: 94)
   b. ta   li   muntu
     not BE(verbal) person
     'He is not a person.'   (Doke 1922: 95)

Finally, an anonymous reviewer points out that 'negation in the first person singular also commonly exhibits distinct forms from [negation] in other person/class contexts' and suggests this might be relevant to the split concerning first and second person copular forms versus third person copular forms discussed in section 3.4. Systematic exploration of this question is still required.

In sum, negation in copular clauses in Bantu can make use of a negative copular particle or it can require a verbal copular construction. The possible positioning of negation both above and below the non-verbal predicate (depending on the language) raises interesting questions about the syntax of negation and of PredP itself.

3.6   Tense & aspect in copular clauses

Until now, we have considered predications in present tense, where we saw either a copular particle (perhaps null) is used or a verbal copula which is not marked for tense in the present. Moreover, we saw that copulas/copular particles in the present tense in Bantu languages seem to select specific syntactic

categories. Here we consider a fuller range of tense and aspect in past and future tense copular sentences. In non-present tenses, a verbal copula occurs, which can bear past or future (but not present) tenses. Moreover, the tense bearing copula makes no distinctions as to the category of its predicate and in that sense is suppletive. Finally, the copulas which can be marked for tense also occur as auxiliaries in complex tenses.

There are several different ways the past and future are indicated. In some languages, such as Chichewa (N31b), there is a distinct copular verb for future: *-khala* = 'to become, be, stay.' The copular verb *–li* is used for the past (See Kiso 2012 for discussion and examples. Note that despite the gloss, Kiso does not translate *–khal* as an inchoative copula):

(48) a. A-   dza-khal   -a   mphunzitsi   **Chichewa (N31b)**
        3.sbj-fut- become-fv   teacher
        'She/he will be a teacher.'   (Kiso 2012: 25)
    b. A   -na-li   mphunzitsi
        3.sbj-pst-cop teacher
        'She/he was a teacher.'   (Kiso 2012: 25)

Kiso (2012: 25-27) points out that in Citumbuka (N21) the verbal copula *–ŵa* (*-ba) is used in both the past and future and the appropriate tense morpheme (past or future) is prefixed to it. The invariant form *ni* is used in the present.

Matushansky and de Dreu (2009: 9) observe that in Xhosa (S41), while *–va* (*-ba) serves as a copular verb for all types of predicates in past and future, whether there is an inchoative or stative interpretation of the verb depends on whether or not participial agreement appears directly on the non-verbal predicate. When participial agreement appears directly on the non-verbal predicate in addition to being prefixed to the future tense, the interpretation is stative. When agreement is only prefixed to the future, an inchoative interpretation exists. They note that Venda (S21) behaves in the same way, whereas Swahili (G41-43) simply depends on the context to determine an inchoative or stative interpretation. Posthumus (2006: 115) observes that the copula *–ba* is reserved for inchoatives in Ndebele (S44), with a null copula marking stative and hence there is an opposition of inchoative and stative indicated by the copular stem as is typical of Bantu languages. Doke (1922: 88) notes three copular verbs for Lamba (M54), whose interpretations are the same in many Bantu languages: *-li*, which is stative and, hence, only takes perfective aspect; -ŵa, which is inchoative; and *–ikala*, which means "remain/stay."

It would appear, then, that in non-present copular sentences with tense morphology, there is no longer a distinction in categories for predicates selected by various copulas, and inchoative versus stative tends to be encoded by different copular bases. However, as pointed out by an anonymous reviewer, the disappearance of category distinctions in non-present tense copular clauses is only apparent. Once invariant Pred plays a role in non-present tense predications, category distinctions appear to re-emerge. To make this more concrete, recall that we noted in section 2.2 that invariant Preds could co-occur with non-present tense copulas in, for example, Kinande (9) and Swahili (fn4). For instance, as pointed out by the anonymous reviewer, in Swahili, category distinctions are still evident once invariant particles co-occurring with non-present tense copulas are considered. Recall, as we saw in fn4, that Swahili *NI* can (optionally) co-occur with the non-present 'be' (ku)wa. However, *NI* can neither occur nor co-occur when there is a locative predicate. Instead, the particle that signals

locative predicates (e.g., *yu-ko* in (49)) could optionally occur (examples adapted from those supplied by the reviewer):

(49) a. Yu-ko/*ni   nyumba-ni.
      1SM-17PRON/*be   9house-LOC
      'He's at home.'

    b. A-li-kuwa   (yu-ko/*ni)   nyumba-ni.
      1SM-PAST-be (1SM-17PRON/*be) 9house-LOC
      'He was at home.'

Likewise, the locative particle cannot co-occur with a nominal predicate, not even in presence of a non-present 'be,' but the invariant *NI* optionally can:

(50) A-li-kuwa   (*yu-ko/ok: ni)   mwalimu.
     1SM-PAST-be (1SM-17PRON/ be)   1teacher
     'S/he was a teacher.'

As noted by the reviewer, 'At least in Swahili, the neutralization stems from elements that can be omitted, but when they are not omitted, the distinction between predication types remains.'

4.   How many types of copular clauses and how many copulas?

An additional typological issue in non-verbal predication must be addressed for Bantu languages and this time with a focus on nominal predication. Two questions that arise from the general linguistic literature are: (1) how many types of copular clauses are there, and (2) is there more than one copula from the perspective of meaning? With respect to the first question, it has long been accepted that there are minimally two types of copular clauses which vary with respect to the referentiality of the second NP in the predication; schematically, in the following structure (word order irrelevant): *NP1 copula NP2*, where *NP1* is the subject, *NP2* can be either non-referential or referential. This taxonomy was elaborated in the seminal work of Higgins (1979), who postulated four distinct types of copular clauses: (a) predicational, (b) specificational, (c) identificational, (d) equative. This classification is based on intuitions about meaning and function, with the basis for the observations primarily being English. Here are examples illustrating the taxonomy based on **Kinande (JD42)**:

(51) a. Kambale **ni** mwibi   PREDICATIONAL
        Kambale is 1thief
        'Kambale is a thief.'

    b. ómwira   wage **k'**   ákákekulú   k'   omo   kisomó kyetu   SPECIFICATIONAL
      aug.1friend 1my   12COP aug.12.old_woman 12of 18LOC 7church 7our
      'My (best) friend is a little old lady from our church.'

    c. omúlumy' óliá   **yó**   omúkuló ów'edepartement.   IDENTIFICATIONAL
      aug.1man aug.1that 1COP aug.1head of aug.9department
      'That man is the head of the department.' (said while pointing out man)

    d. Eririma **ky'**   ekihugo;   n'embuto   yowene   EQUATIVE
      aug.5field 7COP aug.7world; &aug.9seed   9good

b'   abana   b' Obwami   (Matthew 13:38)[14]
2COP aug.2child 2of aug.14chieftancy
'The field is the world, and the good seed stands for the people of the kingdom.'

In the Kinande **predicational** example ((51)a), a property *mwibi* 'thief' is predicated of the subject *Kambale*. **Specificational** clauses, as in ((51)b), express who the subject is, rather than expressing a property of the subject. Mikkelsen (2011) and den Dikken (2005) provide insightful discussions of this taxonomy. Mikkelsen (2011), following Higgins (1979), notes that a specificational subject introduces a variable and the second NP provides a value for the variable. In the example above *ómwira wage* 'my (best) friend' is X (the variable); X = *ákákekulú…* 'a little old lady…' (value). **Indentificational** clauses, as in ((51)c), have demonstrative subjects and as Mikkelsen, following Higgins, notes: "are typically used for teaching the names of people or of things" (Higgins 1979: 237). **Equative** clauses, as in ((51)d), arguably involve two referential noun phrases where the subject and the second NP are asserted to be equivalent. There are two equatives in ((51)d). Note that the full range of copular clause types that are proposed in Higgins' taxonomy occur in Kinande as demonstrated above. This is of interest particularly with respect to equatives as some languages have been claimed to lack them.

    The second question posed in this section asks: is there more than one copula from a semantic point of view since there is more than one type of copula clause? There have been different answers in the literature, as thoroughly discussed in Mikkelsen (2011). One response asserts there is a single copula which derives the different types of copular clauses by virtue of its ability to combine with subjects and predicates in either order: the predicate can occupy either the specifier or the complement position of the copular clause. Equatives are possible through type shifting.[15] The other position is that there are two distinct copulas. From this perspective, there is one copula that is meaningless and is simply a copula of predication. The second copula is one of identification; essentially it has the meaning of an equal sign. As discussed in Mikkelsen (2011), holders of the two copula view have different opinions about the distribution of the two copulas across the sentence types in the taxonomy proposed by Higgins. Mikkelsen, for example, groups predicational and specificational clauses together and sets equatives apart as alone taking the copula of identification.

    In a language like English, the how-many-copulas question is made even more difficult by the fact that there is just a single morphological form associated with all the copula functions. In Kinande, there are two lexically distinct copulas in nominal predication contexts. One is the defective copula *ni* which accepts neither agreement morphology nor tense. It occurs in predicational copular clauses, where the post copular phrase is a predicate. The other copula occurs in specificational, identificational, and equative sentences under certain circumstances. It is built on the pronominal *–o* and agrees with the

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[14] All sentences from the Bible are from the *Kinandi New Testament*, translated by the United Bible Societies and The Bible Society of Uganda 1980. Sentences which are taken from the Bible do not have tones indicated in keeping with the fact that there are no tones in the source text.

[15] Type-shifting, following Partee (1987), is a relaxing of Montague's principle of one category: one type. Instead, as succinctly stated by Hedberg (1990: 173), the relaxing allows 'a single syntactic category to correspond to a family of semantic types. Partee suggests that the traditional distinction between referential, predicative, and quantificational noun phrases can be captured formally by allowing noun phrases to be interpreted, respectively, as individuals (type e), predicates (type <t>), or generalized quantifiers (type <<e,t>,t>) … [through various mapping principles].'

referential post copular noun phrase (recall (33)), as discussed in Section 3.3. This agreement pattern, with the post copular noun phrase, is striking because agreement in Bantu languages is overwhelmingly 'upward,' with the noun phrase in the specifier position that locally c-commands the agreeing element.[16] It is especially striking because what appears to be the same morpheme occurs as a focus marker in the left periphery. In that context, it agrees 'upward:'

(52) iyóndi **yó** wib 'ébitábu?   **Kinande (JD42)**
      1who 1YO stole aug.8book
      'Who stole the books?'

Schneider-Zioga and Hedberg (2015) propose that agreement in copular constructions is with the focused expression. This straightforwardly groups as the goal of agreement both the focused expression on the left edge in ((52)) and the post-copular expression in the specificational sentence in ((51)b), since the value in a specificational sentence is obligatorily focused. If a case can be made that postcopular focus is obligatory in equatives and identificational copular clauses as well, then the fact that they all use the 'focus' copula can be captured.

    In short, we observe two morphologically distinct copulas in contexts of nominal predication in Kinande. However, the distribution of the copulas in ((51)) is not as predicted by two-copula views from the literature discussed above. A possible account of the distribution of copulas in nominal predication contexts is given in Hedberg and Schneider-Zioga (2015), who, drawing on the work of den Dikken (2006) and others, argue for a syntactic explanation that assumes predication can directly make use of information structure. Their analysis is in accord with Mikkelsen's proposal that information structure is involved at least in specificational copular constructions.

    The observations about the taxonomy of nominal predications and the number-of-copulas issue bears on the earlier discussion about PredP and evidence for a functional head, Pred. In particular, we can see evidence for Pred in specificational sentences. Here, I consider Kinande and remind the reader that in many Bantu languages (but see Matushansky & de Dreu 2009 for discussion), copular particles are restricted to the present tense. There is an exception in Kinande for specificational copular clauses.[17] I note that the copulas that occur in specificational clauses: *AGR+o* and *ni* can occur in nominal predications that have fully tense-marked copulas as well, when the copular clause is specificational. Here are illustrative examples. The first example is of a present tense predicational sentence. The second sentence illustrates a predicational sentence in the past tense. We see in the third example that the predicational particle cannot co-occur with the past tense copula:

(53) a. Magulú ní mwíbi   **Kinande (JD42)**
      Magulu is thief
      'Magulu is a thief.'

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[16] The direction of agreement in Bantu languages is discussed in depth in Baker (2003, 2008), Carstens (2005), and Collins (2004). They all propose a dependency between agreement and movement, with Baker suggesting that 'upward' agreement (the agreeing head expresses agreement with a locally c-commanding expression) is obligatory in Bantu languages. Van der Wal (2012) demonstrates that there are Bantu languages where the EPP and agreement are dissociated and so downward agreement is possible. The languages she shows this for are Matengo (N13), Makwe (G402), Matuumbi (P13).

[17] It is possible that copular particles can occur in all the tenses for equative and presentational sentences as well. However, currently there is no available data that could clarify this.

    b. Magulú ábyá mwíbi

       Magulu was   thief

       'Magulu was a thief.'

    c.*Magulú ábyá (i)ní mwíbi

       Magulu was   NI thief

In contrast, in specificational contexts, where the referential noun phrase follows the copula, the NI copular particle[18] obligatorily occurs ((54)a), also in the past tense ((54)b&c):

    (54)a. ómwibí   ni Magúlu   **Kinande (JD42)**

         AUG-thief is Magulu

         'The thief is Magulu.'

       b.*ómwibí   ábya Magúlu

          AUG-thief   was Magulu

       c. ómwibí   abyá í-ni Magúlu

         AUG-thief   was   NI Magulu

         'The thief was Magulu.'

This generalization holds for other tenses as well. I illustrate here with future, where first we see a predicational future ((55)a) and then we see that in the specificational future, the copular particle is obligatory:

    (55)a. Magulú áberé   (*(i-)-ni) mwíbi   **Kinande (JD42)**

         Magulu has.become (*(i-)-ni) thief

         'Magulu has become a thief.'

      b.ómwibí áberé   *(í-ni)   Magúlu

         AUG-thief has.become *(NI)   Magulu

         'The thief has turned out to be Magulu.'

The same type of data exists when referential definite descriptions, rather than names are considered. In this case, the *AGR+o* copular particle occurs and we find it in all the tenses. The example here involves the recent past:

    (56)ómwibí   álwé   *(i-y') ômúlámya   **Kinande (JD42)**

       AUG-thief be.RECENT.PAST *(i-yo) AUG-doctor

       'The (one who was the) thief was the doctor.'

Since the copular particles are seen in a variety of tenses and therefore cannot be taken to be auxiliaries, we have then additional evidence for PredP, which occurs below T.[19] For completeness, I note that no such particles occur between T and the verbal complex, or within the verbal complex in any

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[18] When names are the referential post-copular phrase in copular sentences in Kinande, the copular particle NI must occur instead of the expected AGR+*o* particle. Why non-agreeing NI is required in specificational sentences when names, as opposed to other DPs, are post-copular, is discussed in Hedberg & Schneider-Zioga (2015) and Schneider-Zioga & Mutaka (2015).

[19] Note that the obligatoriness of Pred in specificational sentences is reminiscent of den Dikken's (2006) focus on the obligatoriness of a copula in small clause specificational contexts: I consider the thief *(to be) John. For den Dikken, the copula is necessary to facilitate the "inversion" of the predicate (here: the thief) past the subject of the predication (here: John). If this is true, since Pred is higher than the subject of the predication here, it indicates there is an additional functional category between PredP and T which Pred targeted.

tense. This is in accordance with the near concensus that the correlate of PredP when VP is the predicate is actually vP rather than PredP.

Although virtually every grammar of Bantu languages includes a section on types of copular clauses, there is little systematic investigation of copular clauses from the taxonomic perspective just mentioned. Equally problematic is sometimes inaccurate use of terminology and so a researcher might assert that X is an example of an 'equative.' But what he/she really means is that X involves a nominal predication. Equally problematic, the researcher declares that certain examples illustrate equative sentences, but he/she really means that a particular strategy of marking non-verbal predication happens whenever the predicate is a definite description. But contexts are seldom given for the predications with predicates that are definite descriptions, although they can also be used predicatively under the right circumstances. Therefore, exactly how data fits into the taxonomy is never clearly established. Also problematic in the literature is the giving of data without providing the context or question/answer pairs. Although the taxonomy is clearly sensitive to information structure (see especially Mikkelsen's 2005 proposal that relates information structure features such as +focus to specificational clauses), often information-structure-related information about the copular sentences that are investigated is not included. In addition, specificational sentences in Zulu have not been investigated. This is unfortunate because the claim is (Buell and de Dreu 2013) that postverbal subjects are always topicalized in copular clauses. In specificational clauses, the subject of the underlying PredP is both post copular and obligatorily focused and thus its structure is of interest given Buell and de Dreu's proposal concerning the topic nature of post-copular subjects.

There are exceptions in the literature that address a number of the concerns just mentioned. For example, Jerro (2015) investigates the copular taxonomy for Kinyarwanda and Zentz (2016) discusses specificational copular sentences for Shona. Jerro and Zentz both conclude that specificational clauses occur in the respective languages they investigate. However, since they only investigate names as post copular expressions and not other types of definite descriptions, it is unknown if data from Kinyarwanda and Shona would reveal the existence of a second copula used in nominal predication. Cross, Kondo, and Mbaye (1967), written before Higgins' investigation of a copular taxonomy, is another exception. They provide a thorough discussion of issues relevant to exploring the taxonomy with detailed provision of contexts used to elicit various sentences.

In short, Bantu languages offer a great deal of potential to investigations of predication that are interested in the taxonomy of nominal predications and the how many copulas issue.

5. Secondary predication

We have already touched on secondary predication in Bantu languages in Section 2.1 when it was noted that depictives and small clauses in Kinande are immediately preceded by an invariant grammatical particle which is not a verbal copula and whose sole function is to mediate a predication relation. This was taken as evidence for PredP. Secondary predication in Bantu languages has also been investigated with respect to the distribution of secondary predicates compared to English (and orthogonally here, also with respect to their ability to diagnose the height of applicatives). The work of Pylkkanen (2008) and also Mukaro and Mugari (2015) is relevant here. Pylkkanen shows that in Luganda (JE15) the

distribution of secondary predication, specifically depictives, is the same as in English, but secondary predicates in Venda (S21) have a much broader distribution than is found in English and Luganda:

(57) a. OBJECT DEPICTIVE (p.31):   **Venda (S21)**
        Nd-o-la nama mbisi.
        1sg-PAST-eat meat raw
        'I ate the meat raw.'
    b. SUBJECT DEPICTIVE (p.32):
        Nd-o-bambela ndi bunyu.
        1sg-PAST-swim 1sg naked
        'I swam naked.'
    c. DEPICTIVE CAN MODIFY IMPLICIT EXTERNAL ARGUMENT (p.32):
        Nama yo liwa vho neta.
        meat was eaten 3pl tired
        'The meat was eaten tired.'
    d. DEPICTIVE CAN MODIFY A DP INSIDE A PP (p.32):
        Nd-o-tshimbila na Mukasa o neta.
        1sg-past-walk with Mukasa 3sg tired
        'I walked with Mukasa while he was tired.'

In contrast, Luganda, like English, allows object and subject depictives where the secondary predicate modifies either a subject or an object, but not an implicit argument or a DP that is inside a PP.
    Mukaro & Mugari (2015: 431) (with glosses adapted) investigate depictives in Shona:

(58) a. John   a - ka – dy -a   nyama mbishi   **Shona (S11-15)**
        1a-name 1SA-PST – eat-FV 9meat 9raw
        'John ate the meat raw.'
    b. John   a - ka –nw -a putugadzike i – chi   - pis-a
        1a-name SA-PST-drink-FV 9.tea   9OA-STATIVE-hot-FV
        'John drank the tea hot'

In ((58)a), the secondary predicate is an adjective and it agrees in noun class with the subject of the predication, as is typical of adjectives. In ((58)b), the predicate appears to be embedded in a fully inflected verb phrase which agrees with the subject of the predication, and so a more literal translation might appear to be: 'John drank the tea- (when) it is hot.' However, Mukaro and Mugari demonstrate that this is not parataxis or adverbial modification, but rather the clausal secondary predicate is part of the predication and cannot be preposed to the sentence initial position. They also demonstrate that, related to the possibility of agreement (they argue), secondary predication of direct objects is possible with activity verbs: (Mukaro and Mugari 2015: 435)

(59) Jones$_i$ a – ka – fon-er-a Smith$_j$ a – ka – suw-a$_{i/j}$ **Shona (S11-15)**
    1a – SA PST phone-APPL-FV 1a- name AM PST sad-FV
    'Jones called Smith sad.' =

John was sad when he called Smith.
Smith was sad when he was called by John.

Mukaro and Mugari (2015: 434) take the Shona data as evidence against the claim of Rapoport (1999), which they paraphrase as "activity verbs do not allow their direct objects to be modified by depictives." They point out that cross-linguistic work suggests this is not a universal property of depictives and suggest that it is the agreement possibilities of the secondary predicate that are responsible for this possibility.

    We see then that the syntax of depictive predication in both Shona and Venda, S zone languages, is distinct from English and that depictive predicates have a much broader distribution in those languages. We note with the authors of these works that these languages use agreement between the predicate and the subject of the predication and that is very likely to play a strong role in their abilities to have depictive predication in more configurations than in English. The other two languages mentioned here are also from closely related zones: JD and JE. Expanding the number of Bantu languages examined with respect to depictives will be a welcome step.

    Small clauses appear to be quite restricted and under-researched in Bantu languages. Kinande is an exception in this regard. It freely allows small clauses, where the predication is mediated by a functional category. The small clause is smaller than a copular clause as an inverse specificational predication is not possible without additional functional categories supporting the additional structure as noted in the general literature on small clauses and inverse copular constructions (den Dikken 2006, Heggie 1988, Moro 2000). In Kinande, Pred (*mo* here) must occur between the subject of the predication and the predicate:

(60) ngáconsidere Magulú mo   mulidére   **Kinande (JD42)**
        1s.consider   1Magulu MO 1leader
        'I consider Magulu the leader.'

An inverse specificational small clause, where the predicate occurs in initial position and the subject of predication follows the predicate, is not possible with the *mo* relator:

(61)*Ngáconsidere [omulidéré   mo Magúlu]   **Kinande (JD42)**
        1s.consider   aug.1leader MO Magulu
        'I consider the leader to be Magulu.'

Instead, a specificational clause is only possible if a verbal copula occurs. Pred must co-occur overtly in that case. Here, as discussed earlier, Pred will be *ni* because the postcopular noun phrase is a name (from Schneider-Zioga & Mutaka 2015c: 88)[20]

(62) a. Ngáconsidere [omulidéré   kó ni Magúlu]   **Kinande (JD42)**
        1s.consider   aug.1leader KO be 1Magulu

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[20] The functions of *KO* and *MO* are not well understood. *KO* can also serve as a sentential complementizer and *MO* is found as a pre-initial in the verbal complex where it possibly marks verbal focus. Zeller (p.c.) points out that both particles look like locative clitics—that is, the non-tonic pronominal forms of locatives class 17 and 18.

'I consider the leader to be Magulu.'

    b. Ngáconsidere [omulidéré   kw-álí   íni   Magúlu]

      1s.consider   aug.1leader KO 3s.be i-be 1Magulu

      'I consider the leader to be Magulu.'

We see then that the phrase projected from *mo* is smaller than a sentence, even a sentence that has no explicit tense morphology, such as present tense copular sentences.

Clearly, not least of all due to how relatively few languages have been examined with respect to secondary predication in Bantu, work remains to be done in this area.

6. Conclusion

In this chapter, we have examined the syntax of predication in Bantu languages. Copular clauses have been relatively well-studied across the language family and it is well-established that in the present tense, a variety of copulas and/or copular particles exist within a language that select different syntactic categories. Weaknesses in the study of non-verbal predication in Bantu languages exist, especially with respect to the investigation of nominal predication. In particular, the types of copular clauses have not been thoroughly investigated—neither with respect to the full range of copular sentence types proposed by Higgins and others, nor with respect to the properties of the post copular phrases found in such constructions. In addition, the abundance and distribution of functional elements that occur in non-verbal primary and secondary predications in Bantu languages lend support to the view that there is a PredP whose head, Pred, mediates the predication. Secondary predication has not been extensively researched, neither with respect to the breadth of languages examined nor with respect to the depth of possible issues explored. Clearly, non-verbal predication in Bantu languages offers fertile ground for exploring theories of predication.

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