# The definite article and its range of definiteness in Moghamo <br> Achiri Blasius, University of Buea 


#### Abstract

Two morphologically distinct definite articles are used in Moghamo to mark definiteness in the N (oun) P (hrase). ${ }^{1}$ One type consists of the vowel stem $-e$ that takes one of five different singular and plural concord consonant prefixes, each corresponding to a set of noun classes and their prefixes. Another type which invariably occurs as the morpheme $n g u$ is used with any noun irrespective of class and number. The indefinite article also occurs as a stem -mò?ว that marks noun class agreement, though differently by rather taking the class prefix of the noun itself. In addition, both definite and indefinite NPs may occur without any visible article, thus a null article. Attempts have been made to explain how definiteness is marked in languages with/without obvious markers as in Cheng and Sybesma (1999, 2012) and Dikken (2007) for example. In this paper, I discuss definiteness in the Moghamo NP, looking at (a) the consequences of these Moghamo facts on existing analyses of definite NPs, and (b) what levels of definiteness are denoted by the various forms of both the definite and indefinite articles in the language.


## 1. Introduction

In many languages, a definite noun phrase is usually accompanied by an overt definite article (pre-posed or post-posed depending on the language) as exemplified in the following English examples:
(1) a. John Paul is the man whom we spoke about last night.
b. I have spoken with the man. I think the man is not honest.
c. Mary-Christy has come with the baby.
d. The lion doesn't bask in the sun.

In (1a) for example, the highlighted expression the man that includes the definite article the, has a definite referent John Paul, construed through the definite article to be known already or recently talked about by the hearer. The highlighted expressions in ( $1 \mathrm{~b}-\mathrm{d}$ ) are all definite in nature by virtue of containing the definite article the. In (1b), there are two sentences, the highlighted definite NP in the second one having the same definite reference as in the first sentence, and the latter is well established within the context of the conversation. In (1c), the baby in question is also well established within the context of the conversation. In (1d), the noun lion is used to denote a whole unrestricted set/class of individuals and therefore could be a definite noun used with the definite article; meanwhile sun is used in the construction as the only entity of its kind within the context of the relevant conversation, and so is definite and occurs with the definite article.

The definite article in Moghamo may occur as the root vowel $-e$ which takes one of five consonant beginnings depending on the noun class of the corresponding definite noun, and so can surface as we, $\mathbf{z e}$, or $\mathbf{f e}$ when the noun is singular, and te, or mbe when

[^0]the noun is plural. If we render (1a) into Moghamo, one of these five forms, precisely we, will appear with the Moghamo word for man, we being used normally in the environment of a noun of the singular human class. If the same is done for (1b), the $-e$-type definite article will be used in the first of the two sentences, but will not be used in the second, given the level of definiteness of the noun - rather, a completely different type of definite article will surface, namely, $n g u$, which remains invariable and is not marked for concord. In (1c), either of the two types may surface with the noun, or, literally speaking, none of them may surface, yielding a null definite article, also depending on the level of definiteness of the noun. Finally, in (1d), both nouns would occur with a null definite article each. Consider the Moghamo examples in (2) below.

| a. | Ngó' Regwì | ye'e | wèd | we | ne | tè | ná | ghàm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -- | COP | man | the | REL | SUJ1PL | T | speak |
|  | 'N. R. is the man whom we spoke about last night.' |  |  |  |  |  |  |  |
| b. | Mé fe | ghàm | mbi | wèd | we. the | Mé |  | kond think |
|  | SUJ1SG T | speak | with | man |  | SUJ1SG |  |  |
|  | wèd | ngú |  |  |  |  |  |  |
|  | man | the |  |  |  |  |  |  |
| c. | 'I have spoken with the man. I think the man is not honest.' |  |  |  |  |  |  |  |
|  | Bigh Lùm | fe | ye'e | mbi | wan. |  |  |  |
|  | --- | T | come | with | child |  |  |  |
|  | 'B. L. has com | e with | the ba |  |  |  |  |  |
| d. | Ėrfòn er | ze | tséí | er | sàng | nyot | ka' | ertshwè |
|  | c.lion C(AGR) |  | NEG | $\mathrm{C}(\mathrm{AG}$ | ) bask | self | in | C.sun | 'The lion doesn't bask in the sun.'

Thus, three different forms of the definite article are used in Moghamo, and the occurrence of each one of them certainly depends on the degree of definiteness they represent.

Like the definite noun phrase, the indefinite noun phrase in many languages is also usually accompanied by an overt indefinite article. In Moghamo, like the $-e$-type definite article, the indefinite article also occurs as a stem -mò? 3 that marks noun class agreement, though differently by rather taking the class prefix of the noun itself as illustrated in (3a-b), and the indefinite noun phrase may occur without it as in (3c).

| a. | Wán | mò30 | na | yene | nga | nep. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | C.child | C.a | T | walk.IMPT | in | house |
|  | 'A child was walking in the house.' |  |  |  |  |  |
| b. | Me fe | zeh | fibig | fimò? | gu | mbò'. |
|  | SUJ1SG T | see | C.kni | С.a | on | shelf |
|  | 'I have seen a knife on the shelf.' |  |  |  |  |  |
| c. | Ghím ne time REL | a |  | yè'ê, | níng | fíká'à. |
|  |  | SUJ2S |  | come. IMPT | take | C.stick |

(3c) thus shows that the Moghamo indefinite article also exhibits a null form.
In this paper, I examine the morpho-syntactic and semantic ramifications of the use of the definite article in Moghamo, and establish the different degrees of definiteness represented by the different forms of it. The paper thus proceeds into three main sections. In section 2 that follows, I consider the noun class system of Moghamo with its concord system to gain insight knowledge of the various forms of the article in the language. In section 3, I consider works by Cheng and Sybesma (1999, 2012) and den Dikken (2007) that attempt to explain how definiteness is marked in languages with/without obvious markers, and look at the consequences of the Moghamo facts on them. In section 4, I then present an analysis of the various forms of the definite and indefinite articles in the language, showing that each of them corresponds to the semantic context within which it is used. The paper ends with a brief conclusion in section 5 .

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# Competing Babanki anaphors: Theoretical implications 

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#### Abstract

This paper explores the anaphora strategies used in Babanki, a Grassfields language of Northwest Cameroon. It identifies up to six strategies, namely, Body-Part, PronounPronoun Self-Pronoun, Pronoun, Yì, and Null Object. It is illustrated in this paper that Body-Part anaphor is in complementary distribution with Pronoun-Pronoun for local reciprocal readings, with Self-Pronoun, and Pronoun for local reflexive readings. It is also shown that the Null Object is in fact the absence of Pronoun-Pronoun. This paper explores the similarities and differences between the contexts where the Body-Part anaphor and the Pronouns are acceptable bringing into focus the reflexive and/or reciprocal interpretations the strategies command. While the Body-Part anaphor can have both reflexive and reciprocal readings (1), the Pronoun-Pronoun strategy has only a reciprocal reading (2), while Self-Pronoun, and Pronoun can have only reflexive interpretations (3).


1a) dzǒyn yì kòn ə̀wén á wén

| d3ǒyn | yì | kòn | ə̀-wén | á | wén |
| :--- | :---: | :---: | :--- | :--- | :--- |
| John | P2 | admire | c5-body | AM | 3s |
| 'John admired himself.' |  |  |  |  |  |

b) vàwá ná ghá?á tàwéntá və̀wá(ná)

| vàwá | ná | gháá tà-wén | tá | vàwá(ná) |
| :--- | :--- | :--- | :--- | :--- |
| 3P | always | hold c13-body | AM | them |

'They always criticize each other/They always criticize themselves.'
2a) kyǐ vyí né shìtà mánshí? à vàwá vàwź

| kyǐ | vyí né | shìtò | mó-nshí? | à | və̀wó vòwá |
| :--- | :--- | :--- | :--- | :--- | :--- |
| c2.woman | c2.the F2 | arrange | c6-oil | for | them them |

'The women will make oil for each other.'
b) nshà?tàshìsź zhú lí màť̌tì byì vàwé vàwó

| nshà?tə̀-shì-sá | zhú | lí | mə̀-títì | byì vàwá vàwá |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| priest-the-c10 | hear | P1 | c6-story | about 3 p | $3 p$ |

'The priests heard stories about each other.'

3a) dzǒyn yì gà? á zhí? ŋkà wén
dzǒyn yì gà? á ò-zhí? ŋkà wén

John P2 speak for c5-name self 3s
'John spoke for himself.'
b) ják á kílí lá jós kù à wén

| ják á | kf́lí lá | jós | kù | ò | wén |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Jack | PRES | know that | George | like | PRES | him |

'Jack knows that George likes him.'

In (2 and 3) the Body-Part anaphor is either unnatural or will derive a different meaning. If used in (3b) for example it will rather mean that 'Jack knows that George likes himself'. This suggests that the rest of the strategies are used only when the BodyPart anaphor is not available, that is, when it loses the competition. This complementarity is viewed as the result of a competition of forms to represent an interpretation in a specific syntactic context, in keeping with the Competition-based theory (Safir, 2004).

The relationship between the anaphor and pronouns provides support for the Competition-based theory. For example where Body-Pronoun and Pronoun-Pronoun can be used in the same syntactic contexts they are given different interpretations, as expected within the theory. The body part strategy is possible if the interpretation is reflexive, but if the interpretation that is sought is reciprocal then only the pronounpronoun strategy is used as shown in (4).

4a) tàsóp tá váwá vźwá kô yì lán

| tà-só? | tá | vàwá vàwá |  | kô | yì | lán |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| c13-law | AM | 3 p | 3 p | NEG | P 2 | clear |

'Their instructions to each other were not clear.'
b) mèrí yì ḑì? vwú lyúmá vyí à vàwá vźwź
mèrí yì dzì? vwú lyúmá vyí à vàwź vàwá
Mary P2 show c2.child c2.male c2.the to 3p 3p
'Mary introduced the boys to each other.'

The pronoun-pronoun strategy is prefered for reciprocal interpretations, but it is
only licensed in a small number of environments. The body part strategy appears only where the duplicate pronoun strategy is not available (and this is in most places). Therefore, the strategies have contexts where only they can appear as shown in (5).

5a) dzǒyn tà nè vwú lyumá vyí shù tàwéntá váwá(ná)
dyǒyn tà nè vwú lyumá vyí shù tò-wén tá vàwź(ná)

John P3 do c2.child c2.male c2.the wash c13-body AM 3ps
'John made the boys wash themselves.'
b) dzǒyn nà mèrí yì kù?sá tà vàwé vźwé
ḑǒyn nò mèrí yì kùpsá tà vòwé váwé

John and Mary P2 praise only 3p 3p
'John and Mary praised only each other.'

However, instances where Body-Pronoun and other pronouns overlap by allowing the same reflexive reading have been found in violation of the prediction of the theory that there should be no domains where both anaphors and pronouns overlap, in keeping with their exclusivity. This situation is illustrated in (6) where Body-Part and Self-Pronoun are shown to have the same interpretation.

6a1) dzǒyn tà dzì? ygàn yi à àwén á wén

| d3ǒyn tà | d3ì? ygə̀n | yi | à | ə̀-wén | ə́ | wén |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| John P3 | show c9.house | c9.the | to | c5-body | AM |  |

'John showed the house to himself.'
6a2) d3ǒyn tà d3ì? ŋgàn yì à ŋkà wén
d3ǒyn tà d3ì? ygày yì à ykà wén
John P3 show c9.house c9.the PREP self 3s
'John showed the house to himself.'
6b1) lúmá vyí tà wù kàfó kyì à tàwéntá vàwé

| lúmá vyí tà | wù | ò-fó | vyí à à-wén | tá | vàwé |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| men | c2.the P 3 | keep | c8-thing | c8.the | PREP | c13-body | AM | $3 p$ |

'The men kept the things for themselves.'
6b2) lúmá vyí tà wù kàfó kyì à jkà vàwé
lúmá vyí tà wù ̀̀-fó vyí à ŋkà vàwé
men c2.the P3 keep c8-thing c8.the PREP self 3p
'The men kept the things for themselves.'

This raises the question of why both strategies are coconstrued with the same antecedent whereas the theory assumes 'that a 'less anaphoric' form cannot be coconstrued with the antecedent if a 'more anaphoric' form is available (Burzio, 1989; Richards, 1997, Williams, 2003, and Safir, 2004, amongst others). The distribution of these morphemes points to a weakness in the Competition-based theory in that they can co-occur in some contexts with the same meaning, but they each have contexts where only they can appear.

The paper concludes that the one true anaphor that occurs in most contexts, and is capable of having both reflexive and reciprocal interpretations - the Body-Part anaphor can take many shapes which apparently compete with it.

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# The Morphosyntax of Applicative Markers in Amharic 

## Ruth Kramer and Mark Baker

In Amharic, there is often a marker on the verb when an applicative argument is present, as there is in many other languages, notably including Niger-Congo languages. However, looking closer, the morphosyntax for applicatives in Amharic is rather unusual, in that the so-called applicative marker often supplements rather than replaces adpositional marking on the NP, and in that it includes a kind of verbal agreement (see (1) and (2)).

# $\begin{array}{lll}\text { dañña-w } & \text { lä-Aster } & \text { färräd-ä-11-at } \\ \text { judge.M-DEF } & \text { for-Aster.F } & \text { judge-3MS-BEN-3FS }\end{array}$ 

'The judge judged in Aster's favor.' (Amberber 1996:164 (5a))
dañña-w bä-Aster färräd-ä-bb-at
Malefactive
judge-DEF.M against-Aster.F judge.PF-3Ms.S-BB-3FS.A
'The judge judged against Aster.' (Amberber 1997:3,(9a))
In (1), the benefactive Aster is marked with the preposition lä- 'for.' On the verb, there is a benefactive marker that resembles the preposition (ll-) as well as a third person feminine agreement marker referring to $A$ ster $(-a t)$. In (2), there is the "applicative" marker, $b b-$, which resembles the preposition $b \ddot{a}$, and again -at appears. The meaning of this $b b$ - is roughly the opposite of $l l$-, i.e., it is a malefactive.

Applicative markers have inspired a great deal of controversy in the Amharic literature. They have been analyzed in various ways including as incorporated prepositions, as Appl(icative) heads, and as complex agreement markers (see e.g., Hetzron 1970, Mullen 1986, Amberber 1996 et seq., Demeke 2003, Yabe 2007). In this paper, we develop further, and provide novel support for, an agreement approach to the applicative marker (cf. Mullen 1986, Amberber 1996, Demeke 2003 in part). By focusing on the similarities between applicative markers and object agreement, we construct a new line of argument that the applicative marker is a bi-morphemic agreement marker, composed of agreement in phi-features with the applicative argument itself (e.g., manifested as -at) together with agreement in one additional feature, $[ \pm$ goal $]$, borne by the PP containing the applicative argument (e.g., manifested as $-l l$ or $-b b$ ).

Amharic verbs can generally agree in phi-features with Theme and Goal arguments. An example of agreement with a Theme ('the female student') is in (3).
(3) Almaz tämari-wa-n ayy-ätftf-at Object/Theme Agreement

Almaz.F student-DEF.F-ACC see-3FS-3FS
'Almaz saw the female student.'

We can enumerate many substantive similarities between object agreement markers like -at in (3) and applicative markers like $-l l+a t$ in (1) or $-b b$-at in (2).

First, the paradigms are nearly identical for the phi-feature component of agreement with the applicative argument and object agreement with the Theme; the third feminine singular agreement is exponed as -at in both (1) and (3), for example. Second, the applicative marker as a whole (-llat) and the object agreement marker both occupy the same position in the verbal stem with respect to auxiliaries and negation. Third, just as the object marker agrees with the highest argument if there
are two potential controllers (e.g., with the Goal in a ditransitive construction in (4)), so the applicative marker agrees with the highest applicative argument if there is more than one (e.g., with the benefactive instead of the instrumental in (5)).

| Girma lä-Almaz | mäs'haf-u-n $\quad$ sät't'-at | (*sät't'-ä-w) |
| :--- | :--- | :--- | :--- |
| Girma.M to-Almaz.F | book-DEF.M-ACC give-(3MS.S)-3FS.O | give-3MS.S-3MS.O | 'Girma gave the book to Almaz.'

(5) Gìrma lä-Almaz yähonä däő̧ bä-mät'rägiya-w t'ärräg-ä-ll-at (*t'ärrägäbbät) Girma for-Almaz some doorway with-broom-DEF.M sweep.PF-3Ms.S-LL-3FS.A 'Girma swept some doorway with the broom for Almaz.'

Fourth, there can only be one object agreement marker per clause, and likewise there can be only one applicative marker per clause. Fifth, and perhpas most notably, the object agreement and applicative marking cannot co-occur: if an applicative construction includes a theme, the verb can be marked either with object agreement or with the applicative marker, not both; an ungrammatical sentence that results from marking both is in (6).

## (6) Applicative Marker and Object Agreement Marker Cannot Co-occur *Almaz bet-u-n bä-mät'rägiya-w t'ärräg-ät $\int t f$-iw-ibbb-ät

 Almaz house-DEF.M-ACC with-broom-DEF.M sweep.PF-3FS.S-3MS.O.BB-3MS. Intended: Almaz cleaned the house with the broom.(Note that putting the object agreement marker on the other side of the applicative marker still results in an ill-formed verb: *t'ärräg-ät $f t$ - $\boldsymbol{i} b b-a ̈ t-\ddot{a} w$. .) If the applicative marker is simply another type of object agreement, this restriction follows immediately from the general restriction that there can be only one object marker per clause.

An additional similarity between applicative marking in Amharic and normal object agreement is that both applicative markers and object agreement markers can only register semantically specific arguments, and both trigger a poorly-understood effect of emphasis (perhaps topic-hood for the argument they refer to). This means that object agreement is in a sense optional;
(3) remains grammatical if the final verb is ayyät $f t$ f, for example. The applicative marker is also optional, as shown in (7). Moreover, a particularly important fact about this is that the applicative marker is optional only as a whole unit.
(7) dañña-w lä-Aster färräd-ä /*färräd-at /*färräd-ä-ll judge.M-DEF for-Aster.F judge-3MS judge.(3MS)-3FS judge-3MS-BEN
'The judge judged in Aster's favor.'
(7) is a version of (1). The sentence is grammatical if the entire $-l l+a t$ unit is omitted. However, it is ungrammatical if just the benefactive marker - $l l$ or just the phi-feature agreement marker -at is left out. In other words, the benefactive or malefactive marker and its following agreement marker are inseparable: one cannot appear without the other. In this way, Amharic is quite different from applicatives in (say) Bantu languages, which allow an object marker on the verb to express the applied argument along the applied affix, but in Bantu it is perfectly possible to have an applied affix
without an object marker, and the two do not form a morphological constituent in any sense (the applied affix is a suffix and the object marker is a prefix/proclitic).

We conclude from the array of similarities between the applicative markers and object markers seen in Amharic, as well as the morphological integrity of the applicative marker, that the applicative marker is a bi-morphemic agreement marker. We propose that the first morpheme manifests agreement with an extra feature of the ( PP ) applicative argument ( + goal $=l l-;$-goal $=b b$ ). The second part manifests agreement with the applicative argument in phi-features, using the same endings as other non-subject verbal agreement.

For comparison, French and Italian have prepositional clitics $(y, e n)$ as well as nominal ones. The difference between these languages and Amharic, we claim, is that in French and Italian clitics that express adpositional features do not have the ability to express phi-features as well, whereas in Amharic, the direction and phi-feature pieces are individually exponed. Note also that it is not too surprising that the agreement with a given PP (lä+NP or $b \ddot{a}+\mathrm{NP}$ ) is phonologically (and perhaps etymologically) related to the P ( $l l-$ and $b b$-, respectively). This is similar to the fact that agreement with class X in a Bantu language is shown by a prefix similar to the exponent of class X on the agreed-with nominal more often than not.

Elaborating the theoretical details, we propose that all object agreement in Amharic involves the functional head $v$, in part because object markers and applicative markers remain 'low' on the verbal stem in clauses containing auxiliaries (the morphological order is [ $\mathrm{Agr}_{\text {subj }}-\mathrm{Verb}-$ Agr $_{\text {Obj }}-$ Aux$\left.\mathrm{Agr}_{\text {subj }}\right]$ ). We also propose that applicative arguments in Amharic are introduced in the specifier of an $\operatorname{Appl}$ (icative) P which is sister to $v$. The little $v$ that selects for ApplP has unvalued phi features as well as (optionally) an unvalued goal feature. It searches into its c-command domain for a phrase with which to Agree (under the minimalist definition of Agree). The closest phrase is the PP specifier of ApplP, which contains all the right features to value the $v$. The $v$ and PP enter into an Agree relationship, and the $v$ 's features are valued. The establishment of the Agree relation between $v$ and the PP for (1) is shown in (8).


This analysis results in the right values ending up on the features of $v$, but it does not explain how the phi features and the goal feature are exponed separately. We propose that the explanation for this lies in the morphological operation Fission (Halle 1997, Noyer 1997). Fission is a postsyntactic operation that splits a syntactic terminal node into two terminal nodes before any nodes are exponed (before Vocbaulary Insertion, in Distributed Morphology terminology). Exponence proceeds node by node, so two exponents are inserted at (what used to be) one single syntactic terminal. We propose that the syntactic terminal node $v$ splits into two terminal nodes via Fission at PF , one containing the phi features, and the other containing the goal feature.


In (9), Fission breaks apart the $v$ from (8), resulting in the goal feature having one exponent ( $-l l$ and the phi features having another ( $-a t$ ).

By analyzing $l l$ - and $b b$ - as agreement with PPs rather than as normal applicative heads, we capture two additional facts. First, $l l$ - and $b b$ - are continuous with the phi-object agreement markers because they are also agreement with that same argument. The syntactic integrity of $v$ expresses the fact that that $-l l+a t$ seems to be a functional unit in the Amharic verb, even though it is split into two distinct exponents after the syntax. Second, treating this as agreement (not P-incorporation or applicative formation) makes sense of the fact that Amharic has exactly two "applied affixes", which seem to be (roughly) opposites of each other. That makes sense if agreement systems depend on the existence of feature systems, where features are typically binary in nature.

In sum, the applicative marker in Amharic taken as a whole has many of the same characteristics of object agreement markers. We have argued therefore that the applicative marker is a bi-morphemic agreement marker that agrees in direction and in phi-features with the same PP argument. Substantially similar facts are found across Ethiosemitic (e.g., Chaha, Gumer) and in other language families (e.g., Cushitic: Somali) for applicatives, and we submit that the analysis here provides a promising new avenue for future research on agreement-related applicative markers more generally.

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# Mixed Categories in Jóola Eegimaa Derived Nominals 

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#### Abstract

: This paper examines the properties of Eegimaa derived nominals and offers a comparative analysis between agentive and manner nominals on the one hand and instrumental and locative nominals on the other hand. At first sight, all four types of nominals display a mix of nominal as well as verbal properties. However, a closer look at these nominals revealed a significant difference in their ability to accommodate verbal properties. Instrumental and locative nominals are very restricted in terms of the type of verbal properties they can accommodate. They can take an object but they don't allow any of the verbal negative markers, they don't permit adverbial and aspectual modifications, whereas agentive and manner nominals allow all these verbal properties. The examples below clearly show that adverbs cannot modify instrumental and locative nominals.


(1) Adverbial modification in derived nominals
a) A-lob-a jon

CL-speak-AGT well
'speaker well'
b) Ba-lob-er-ol jon

CL-speak-MAN-POSS ADV
'his/her manner of speaking well'
c) \#Gu-lob-um jon

CL-speak-INS ADV
\#'language well'
d) \#Fu-womun-or-um çab

CL-gather-RCM-LOC quickly
\#'venue quickly’
One of the basic tenets of Distributed Morphology (DM) is that roots are categoryless (Halle and Marantz 1993, Harley and Noyer 1999, Panagiotidis 2011). Proponents of DM even argue that lexical items such as nouns, adjectives and verbs are not assigned to their respective categories in the lexicon. Categorization is argued in DM to be a syntactic operation. Lexical items, according to DM proponents, are inserted into the syntax free of category membership, and they acquire their categories in the syntactic structure where they occur. In this theoretical framework, nouns, verbs, and adjectives are assigned categories in the syntactic structure in which they appear, by the categorizers $n, v$, and $a$, respectively. The hypothesis of Root Categorial Neutrality (RCN), which will be followed in this paper, is passionately pursued further by Borer $(2005,2012)$ who not only claims that root morphemes (which she refers to as listemes) are category neutral but also argues that they do not have an internal structure either. According to Borer, syntax is the only component of Grammar which is responsible for structure formation. She argues that roots
are inserted into syntactic structures in the course of the (syntactic) derivation process and once merged, roots take on the syntactic category of their merger. In other terms, roots are contextually categorized; they acquire their syntactic category in the context where they occur and they do not have an independent category outside of that context. Assuming a RCN approach helps provide a straightforward account of why agentive and manner nominals differ from instrumental and locative nominals in terms of the mix of properties they allow. I argue that Eegimaa agentive as well as manner nominals have an active event property and that the event is induced by $v$ in the derivation process, whereas Instrumental and locative nominals have an inactive event feature. In instrumental and locative nominals, the event induced by $v$ has been suppressed in the course of the derivation with the addition of the morpheme -um and therefore, the verbal base in these two nominals cannot accommodate the verbal properties we find in agentive and manner nominals. I further argue that Eegimaa agentive and manner nominals are verb-like whereas instrumental and locative nominals are noun-like.

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## On DP positions and the location of subjects: report on 2 projects

Vicki Carstens (with Michael Diercks, Juvenal Ndayiragije, Loyiso Mletshe, Justine Sikuku)

## 1. Introduction

### 1.1 The issues targeted in our questionaires

DPSQ: explores differences between some African languages and more familiar Indo-European ones in the possible locations of DPs.

SSQ: probes syntactic and sematic properties of pre-verbal subject position in (some) Bantu languages.

## Some specifics that we sought to ascertain:

-Is there raising from infinitives and/or tensed clauses?
-Is there multiple agreement with subjects?
-What inversion constructions are permitted?
-Are overt subjects possible in infinitives?
-What is the distribution of NPIs?
-Expletive constructions?
-Scope rigidity?
-Comparing DP versus CP positions
-ECM/raising-to-object
-Whether/what can tropicalize

### 1.2 The motivation

-Long-standing controversy over the role of Case in Bantu, owing to recurrent Case-theoretic anomalies. Is there no abstract Case? (Diercks 2012; Carstens \& Diercks 2009, 2013; Harford Perez 1985). Or does inherent Case make full DPs extra-mobile and "agreeable"? (Halpert 2012)
-Conroversy over the location and properties of preverbal subject position in Bantu. Is it a leftdislocated position? (Baker 2003 and Schneider-Zioga 2007 on Kinande; Kinyalolo 1991 on Kilega, among others). Does it lack Case-licensing? (Halpert 2012 on Zulu).

## 2. Summary of results <br> 2.1 By language

Kinyarwanda (Kayigema Jacques)
DPSQ: SA in number, gender, person; subject agreement that iterates on all verbal heads in a clause (henceforth hyper-agreement; raising from tensed clauses (henceforth hyper-raising (with passive matrix verb also okay); no overt subjects in infinitives.

## Lubukusu (Justine Sikuku)

DPSQ: hyper-raising possible with either full or default SA in higher clause; overt preverbal subject in infinitives OK but not after passive matrix verb and not in perception verb complement (in English, a gerundive environment); some OVS and locative inversion.

## Xhosa (Loyiso Mletshe)

DPSQ \& SSQ: hyper-agreement in number, gender, person; hyper-raising (with passive matrix verb also okay); no overt subjects in infinitives; two classes of NPIs with very different
distributions; expletive constructions including transitive ECs and impersonal passive; indefinites OK as preverbal subjcts; scope rigidity (inverse scope seems very limited)

## Fe'efe'e (Djomani Gabriel)

DPSQ \& SSQ. No SA at all or evidence of other agreement; no locative inversion; no hyperraising; inverse scope readings possible; indefinites OK as preverbal subjects

## Limbum (Francis Wepnong)

DPSQ. Complementizer agreement with higher subject. Overt subjects in infintives OK.
Hyper/copy-raising possibilities somewhat opaque; require follow up. Great idioms! No passive.

### 2.2 Analytical findings summarized <br> 2.2.1 DPSQ:

-Case-theoretic anomalies in DP positions give rise to the appearance that there is no Case in Bantu. Among the problem facts are multiple subject agreement, hyper-raising, inversion constructions, preverbal subjects of infinitives (as also reported in Diercks 2012; Harford-Perez 1985) or, adapting Halpert 2012, that noun class morphology includes intrinsic Case licensing.
-BUT there is novel evidence from the syntax of VSO constructions that Case is present in Bantu, only manifested differently due to a conspiracy of factors. These findings came out of Xhosa responses to the Afranaph questionaires and subsequent follow-up work. They are described and analyzed in detail in Carstens \& Mletshe 2013, now under peer review. For convergent conclusions about Case based on a completely different domain of evidence see Diercks, Ranero, \& Cramerus 2013 discussion of Kuria object marking.

### 2.2.2 SSQ:

-While scope is pretty rigid in the Bantu languages we explored, this does not correlate with clear diagnostics for left-dislocation of preverbal subjects (indefinite and non-referential subjects are permitted). We found that augmentless NPIs are barred from preverbal subject position in Xhosa and Zulu, a state of affairs that Baker 2003 and Schneider-Zioga 2007 attributed to preverbal subjects being left-dislocated. But close inspection argues for quite a different conclusion: they are negative concord items which must participate in an A'-Agree relation with the operator of sentential negation (adapting Zeijlstra 2008).

## 3. Surveying the evidence: a detailed case-study of Xhosa 3.1 Case anomalies

(1) Licit in situ subjects of passives

Ku-bon-w-é u-m-tana w-am
17SA-see-PASS-PST1 1-1-child 1-my
'My child has been seen' (e.g. by a doctor at a hospital)
(2) Multiple subject agreement in mono-clausal constructions

Wena u-be u-soloko u-fund-a lapha
2SIndPron 2sSA-RFUT 2sSA-often 2sSA-study-FV here
'You will often study here'
(3) Raising to object out of agreeing clauses

Ndi-funa u-Nomahlubi [okokuba a-phek-e a-ma-qanda]
1sSA-want 1-1Nomahlubi that 1SA-cook-SUBJ 6-6-eggs
'I want Nomahlubi to cook eggs' [Lit: I want Nomahlubi that she cook eggs]
(4) Subject raising from finite clauses preserving idiomatic readings and feeding passive
a. U-Hili u-bonakala [okokuba u-phum-ile e-ngcongolwe-ni] 1-1Hili 1SA-seem that 1SA-exit-PST LOC-10weeds-LOC 'The secret seems to have come out' [Lit: the troll seems that exited the weeds]
b. U-Nomsa u-khol-w-a [okokuba u-phum-ile]

1-1Nomsa 1SA-believe-PASS=FV that 1SA-depart-PST-FV
'Nomsa is believed to have left' [Lit: Nomsa is believed that left]
(5) Post-verbal subjects licit when something else occupies Spec, TP and controls $S A^{1}$

I-cephe li-tya u-Sipho
5-5spoon 5SA-eat 1-1Sipho
'Sipho is eating with a spoon' Can answer the question, "Who is eating with the spoon?"

### 3.2 Non-traditional sources of evidence for Case

### 3.2.1 TECs: obligatory subject focus = obligatory raising to Spec, FocP

(6) a. Ku-cula uSindiswa

17SA-sing-FV 1Sindiswa
'Sindiswa sings/It's Sindiswa who sings.'
b. Ku-theth-a i-ndoda ende i-siXhosa.

TEC has obligatory subject focus
17SA-speak 9-9man 9tall 7-7Xhosa
'It's the tall man who speaks Xhosa.'
Optional subject focus for intrans EC

### 3.2.2 The experiencer verb restriction

| a. *Kw-a-bon-a <br> 17SA-PST2-see-FV <br> '(It was) a/the woman (who) saw the bird' <br> 1-1woman 9bird | *TEC of an experiencer verb with 2 |
| :--- | ---: |
| nominal arguments |  |

c. Ku-bon-é u-gqirha ukuba u-mntwana u-ya-gula. OK: replace $D P 2$ w/CP 17SA-see-PST1 1-1docor that 1-1child 1SA-DISJ2-be.sick '(It was) the doctor (who) saw that the child was sick' Problem isn't the argument structure

Proposal: SU of intransitive ECs CAN raise to Spec of a low FocP but SU of TECS MUST raise.

[^1]
$\qquad$
Various potential accounts include linearization problems (Richards 2001) labeling problems (Chomsky 2013); Case problems (Alexiadou \& Anagnostopoulou 2001). But the experiencer verb restriction is powerful evidence that abstract Case is involved. Nothing else captures (7).
(9) Arguments of experiencer verbs have inherent Cases in many languages (Bhatt 2003).
a. ti-la rag ala [Marathi] she-Dat anger came 'She got angry'
b. hamraa ii naa miilal
[Bhojpuri]
I-Gen.Obl this not find 'I didn't find it'

Proposal: uCase is a property of $\mathrm{D}=$ the augment layer. $\mathrm{v}^{*}$ of Xhosa TECs is defective and cannot value accusative. Hence all and only augmented nominals require Case-licensing.


Accusative unavailable in TECs

In the grammars of speakers who accept TECs, raising the subject to Spec, Foc provides noncanonical Case licensing of the object from Foc (see Haegeman \& Lohndal 2010 for a serial interpretation of Hiraiwa's 2001 Multiple Agree).
(11) Foc probes and raises the subject to Spec, Foc, then probes and Case licenses the object:



But the inherent Cases borne by arguments of experiencer predicates are not compatible with this strategy for valuing uCase, because it violates the constraint in (12). Leaving off the augments or replacing the DP object with a CP yields a licit result because augmentless nominals and CPs do not have uCase.
(12) The semantic Case constraint: no argument can bear more than one semantically linked Case.

### 3.2.3 Supporting evidence for defective $\mathbf{v}^{*}$ : the ban on object pronouns

Additional evidence that $\mathrm{v}^{*}$ is defective in TECs: the object in a TEC cannot be pronominalized. Following Diesing \& Jelinek 1995 pronouns must undergo object shift out of VP.


Pronouns cannot escape VP in TECs

Case-anomalies like (1)-(5) must have alternative explanations; see Carstens 2011; Carstens \& Mletshe 2013 for proposals.

### 3.3 Preverbal subject position

Indefinite, non-specific OK
(14) Xa u-lahl-eka, buza nje e-ba-ntw-ini. If 2sSA-lost-STAT ask just LOC-2-people-LOC

U-m-ntu u-ya ku-nceda wena
1-1-persn 1SA-FUT 15-help you
'If you get lost, just ask people. Somebody will help you'
NPI subjects not OK, even with c-commanding negation
(15) $\sqrt{ }$ A-ndi-fun-i $\quad$ okokuba u-Sabelo a-bon-e $\underset{1-\text { m-ntu }}{1-\text { pers }}$ [Xhosa]

NEG-1sSA-want-NEG that 1-1Sabelo 1SA-see-SUBJ 1-person[-A]
'I don't want Sabelo to see anybody'
(16) *
A-ndi-fun-i
NEG-1sSA-want-NEG that

'I don't want anybody to see Sabelo

We will show that the distribution of Xhosa NPIs aligns with that of negative concord items, which must move leftwards in many languages (see (17)). We relate the contrast between (15) and (16) to that in (18) (see Kayne 1981's proposal that personne must undergo LF movement and hence (18) is a that-trace or ECP violation).
(17) a. da Valère van niemand ketent en-was [West Flemish Haegeman 1995] that Valère of no one contented en-was 'that Valère was not pleased with anyone'
b. *da Valère ketent van niemand en-was that Valère contented of no one en-was
(18) a. Je n' ai exigé qu' ils arête personne
[French: Kayne 1981] I ne have required that they arrest(subj) nobody 'I didn't require that they arrest anybody'
b. *Je n' ai exigé que personne soit arêté I ne have required that no one be arrested (I didn't require that anybody be arrested')

## 4. Conclusion

Our Afranaph projects were undertaken to explore the ways that DP-positions in some African langauges (particularly Bantu) contrast with English and other well studied langauges, and to probe some characteristic properties of Bantu preverbal subjects. We began with the impression that abstract Case was not present in Bantu, but the results changed our minds. They also show that there is more than one way to account for restrictions on preverbal subjects.

## Afranaph New Research Topic proposal Antecedentless subjects, impersonal constructions and passives Patricia Cabredo Hofherr (UMR 7023 CNRS/Paris-8 \& Surrey Morphology Group)

The Anaphora in the African Languages Questionnaire focuses on bound anaphora and notably the syntax, semantics and morphology of reflexive and reciprocal anaphors.

The present projet proposal focuses on a complementary phenomenon, namely antecedentless human uses of personal pronouns (these uses are also variously called arbitrary or impersonal), comparable to the following examples from English and French:

1) a. Ils ont encore augmenté les impôts
(French) They raised taxes again.

| b. Ils ont | volé mon vélo. | (French) |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | 3Pl have.3pl | stolen my.ms bike.ms |  |  |  |
|  | They stole my bike. |  |  |  |  |
| c. | En France, ils | mangent des | escargots. | (French) |  |

Constructions with antecedentless subjects such as (1) are particularly relevant to the analysis of passives crosslinguistically. In generative analyses of passives it has been proposed that passives contain a morpheme that is assigned the external theta-role of the underlying predicate (Jaeggli 1986, Baker, Johnson, Roberts 1989). Proposals differ on two points (i) whether this morpheme is the passive morpheme (e.g. -en in English) or a silent pronoun pro in a lower specifier position and (ii) whether the morpheme that absorbs the external theta role should also be analysed as absorbing accusative case.

This analysis views passives as similar to constructions with a backgrounded subject. As Blevins (2003) points out, however, this analysis blurs the distinction between (intransitivised) passives and (fundamentally transitive) impersonal verb forms. This distinction has fundamental consequences as the studies of reflexive passives in Romance (se-constructions) and participal -no/-to passives in Slavic have shown. In Romance, for example, languages differ with respect to the syntax of se-constructions that background an agentive subject. In certain Italian varieties the reflexive se has been reanalysed as an arbitrary human subject clitic, allowing co-occurrence with a reflexive se and 3sg agreement on the verb with a plural DP object (as well as passive $s e$ ), while in other Romance varieties such as Romanian the seconstruction always has the behaviour of a passive with promotion of the logical object DP to grammatical subject (Dobrovie-Sorin1998).

Contrastive studies of participial -no/-to passives in Polish and Ukrainian have further shown that accusative case on the logical object DP is not incompatible with a passive analysis of the construction in Ukrainian.

Given the observations made on the basis of Slavic and Romance a subject-less construction with an accusative underlying object is then amenable to three analyses: (i) an impersonal subject analysis, comparable to lexical impersonal subjects like one in one doesn't eat with one's fingers or they as in (1), (ii) and impersonal verb analysis with a subjectless but otherwise transitive structure (as proposed for Baltic in Blevins 2003) and (iii) a passive analysis with an intransitive syntactic structure.

Antecedentless 3 pl constructions as in (1) have been studied in some detail in the recent literature in contrast with lexical human impersonals such as one or Germanic man/men (see Siewierska 2011 and references cited there). The present proposal aims to widen the empirical base of these studies in two related domains: (i) extending 3pl subjects to null subjects in languages without person-number agreement on the verb (classifier-languages and agreement-less languages), and (ii) the distinction between impersonal verb forms and passives for subjectless constructions.

Null subjects without person-number agreement Most languages considered by Siewierska (2011) have either lexical subjects (French, English) or person-number agreement on verbs (Spanish) and the subjects are consequently marked 3 pl either lexically or by agreement with the predicate. Similarly, based on data from Modern Hebrew, Russian and Spanish, Cabredo Hofherr (2006) proposes that antecedentless $3^{\text {rd }}$ person subjects receive quasi-argumental interpretation when mass (with 3sg agreement) and human interpretation when countable (3pl) agreement. Notice however, that person is independent of countability and the amalgamation of person and number is language specific. Some languages without person-number marking allow a wider range of constructions, including null subjects that have no person-number specification:

| (2) a.Dan Linn, zot manz avek lame. <br> In India $\quad 3 \mathrm{pl}$ eat with hand |  |
| :--- | :--- |
|  | In India, they eat with (their) hands. |
| b. $\quad$Lalmagn, $[\varnothing] \quad$ al lekol wit-er. <br> Germany $\quad$ to school eight-o'clock |  |
|  | In Germany, they/ one goes to school at eight-o'clock. |

(Alleesaib \& Cabredo Hofherr 2013)
As Mauritian Creole has no person-number agreement on verbs, the null subject does not have person or number features. As indicated by the translation, the sentences with zot " 3 pl" are semantically $3^{\text {rd }}$ person in that they exclude the speaker (indicated by a translation with they). The example with a null subject is not marked for person as it allows a reading including the speaker (comparable to "one") as well as a reading where the speaker need not be included. This correlation between person-marking co-occurring with zero pronouns is also found in Modern Hebrew: in the tenses where the verb marks only number-gender, the reading including the speaker is possible, in person-marking tenses the interpretation is speaker-exclusive.

The questionnaire study of antecedentless subject constructions and the co-occurring agreement is necessary to test the following generalizations:
(3) a. $3^{\text {rd }}$ person antecedentless pronouns exclude the speaker (like antecedentless they)
b. antecedentless pronouns that are unmarked for person include the speaker
(4) Countability correlates with interpretation of the antecedentless pronoun:
a. countable pronouns are interpreted as animate (3pl)
$\varnothing \quad$ tocan a la puerta (Sp)
Knock.3pl at the door
They/ somebody are knocking at the door. (Not: something is knocking at the door)
b. mass pronouns are interpreted as inanimate (3sg)

Ø $\quad$ llovió ayer $(\mathrm{Sp})$
Rained.3sg yesterday
For the hypothesis in (4), classifier-agreement languages could provide a more differentiated picture of how agreement features are interpreted by default. Regularities in the default semantics of agreement may also provide an insight into the features that allow a human 3sg generic pronoun in Finnish (Holmberg 2005).

Notice that languages that allow null antecedentless subjects do not necessarily allow full pro-drop.
Mauritian Creole is not a full pro-drop language since it does not allow null pronouns referring to a discourse antecedent (Syea 1993). Mauritian Creole is a partial pro-drop language allowing antecedentless null subjects and in particular antecedentless human null subjects (Syea 1993). In particular, the null subject in Mauritian allows existential (5a) and universal (5b) readings.

| (5) | a. | [Ø] | finn | koke | Pyer so loto | (Mauritian Creole) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | asp | stole | Pierre his car |  |
|  |  | "They/ someone stole Pierre's car". (Syea 1993) |  |  |  |  |
|  | b. | [Ø] | fer | rom | ar disik |  |
|  |  |  | make | rhum | with sugar |  |
|  |  | One/ they make rhum with sugar" (Syea 1993) |  |  |  |  |

The interpretation of null antecedentless subjects may also be subject to additional restrictions. According to Law \& Muyskens (2001), Papiamentu only allows the generic use of the null subject.

The proposed questionnaire study will therefore also aimsto establish (i) which non-pro-drop languages allow antecedentless null subjects and (ii) which readings are available for the antecedentless null subject (argumental vs. quasi-argument, types of argumental subjects: human, agents, causers, and for human agents: type of reading universal \& existential, universal only, existential only).

Data from African languages offer a possibility to tease apart person from other agreement factors to establish whether (i) whether person-independent classifier agreement may serve to disambiguate antecedentless readings in a way compatible with the mass/ count hypothesis in Cabredo Hofherr (2006) (ambient quasi-argument/ natural causes vs. human agents) (ii) whether classifier agreement may further disambiguate types of antecedentless human readings (e.g. universal vs. existential).

Impersonal verb forms vs. passives The availability of antecedentless null subjects in non-null subject languages gives rise to structures that contain no surface subject. These forms are semantically akin to passives in that they suppress the logical subject of the underlying predicate. As pointed out by Blevins (2003), however, impersonal verb forms found in Baltic languages have clearly distinct properties from passives. Blevins' criteria (a.-e.) are complemented by criteria f.-g. proposed by Maling (2006:203).

|  |  | Passives | Impersonal verb forms |
| :--- | :--- | :--- | :--- |
| a. | Agentive by-phrase | yes/no | No |
| b. | Compatible with unaccusative Vs, (come, go) | No | Yes |
| c. | Logical object retains object properties | No | Yes |
| d. | Human interpretation of the implicit actor | Not necessarily | Yes |
| e. | Changes transitivity | Yes(derived intransitive) | No (derived subjectless <br> transitive) |
| f. | Logical subject retains subject properties: <br> Binding of anaphors (reflexive and reciprocal) by <br> logical subject is possible | No | Yes |
| g. | Logical subject retains subject properties: <br> Control of subject oriented adjuncts is possible | No | Yes |

The English passive fulfills the passive criteria, while sentences with lexical impersonal pronouns such as French on and Germanic man/men fulfill the impersonal criteria (Maling 2006).

For subjectless forms the diagnostic tests do not align neatly however. This is illustrated for syntactic properties by Ukrainian and for semantic properties by Celtic impersonal verb forms.

As argued in detail in Lavine (2005) the Polish and Ukrainian cognate -no/-to participle constructions are diachronically syntactically distinct. This is shown by contrasts wrt to the possibility of a $b y$-phrase, and binding by the implicit agent. While the Polish construction is a transitive impersonal, the Ukrainian counterpart has the hall-marks of a passive, albeit with accusative marking on the logical object (see Lavine 2005 and references cited there):

> a. Znaleziono niemowlę w koszu. found-NO babyACC in basket 'They found a baby in a basket.'
b. Nemovlja bulo znajdeno u košyku. (Ukrainian) babyACC aux.past found-NO in basket
'A baby was found in a basket.' (Lavine 2005)
This analysis implies that direct-object syntax of the single DP argument of a construction does not guarantee transitive syntax (contra Burzio's generalisation).

Celtic impersonal verb forms differ syntactically and semantically from typical impersonal forms. First, they contrast semantically with impersonal pronouns in that the implicit subject is not limited to humans but allows implicit causers (McCloskey 2007 for Irish). Secondly, Celtic impersonals have been described as being compatible with byphrases. These facts pose two puzzles: First, transitive subjects in Romance and Germanic are incompatible with byphrases:
a. \#Someone_i built the house by the builder_i.
(German) Intended: "The house was built by the builder."
b. Jemand hat das Haus von dem Maurer gebaut.

Only: Somebody built the house of the builder. Not: "The house was built by the builder."
c. \#Quelqu'un a construit une maison par l'ouvrier. (French) Not: "The house was built by the builder.

This raises the question why subjectless sentences that have hall-marks of transitivity allow by-phrases. Two possibilities could be the locus of variation: (i) the feature content of the subject in null-subject constructions and (ii) the type of by-phrase (see e.g. Timberlake 1976 for differences between by-phrases in North Russian $u+N \_$dative and in Standard Russian $N_{-}$instrumental).

Secondly, why do certain transitive impersonal verb forms allow natural causes as implicit subjects (e.g. Irish)?
Data from African languages may shed light on these questions by providing answers to the following questions:
(8) a. does the type of (classifier-)agreement correlate with
(i) the possibility of combining by-phrases with a particular antecedentless null-subject construction (ii) the possibility of having implicit natural causes as subjects?
b. do different types of by-phrases correlate with the possibility of having by-phrases in syntactically transitive subjectless constructions?

Binding properties further distinguish passives from impersonal constructions. Lexical impersonal pronouns like

English one, French on and Germanic man/men can bind possessives in universal contexts (but not in existential contexts):
(9) a. One should look after one's children.
b. Man sollte sich um seine Kinder kümmern.
(German)
Man should refl prep poss. 3 sg children take-care. (=9a)
a. One's children are taken care of. ( $\neq$ One takes care of one's children).
b. Es wird sich um seine Kinder gekümmert.
(German)
His children are taken care of. $(\neq$ One takes care of one's children $)$.

Methodology The proposed project will use the questionnaire developed within the project Towards a typology of impersonal human pronouns (Volker Gast, Jena \& Patricia Cabredo Hofherr, Paris, funded by the ANR and the DFG). This questionnaire proceeds in three stages.

A base questionnaire elicits the constructions that appear in typical human impersonal contexts. These constructions are then analysed and only finite constructions will be considered (as the relationship between impersonal subjects and the PRO_arb of uncontrolled infinitves is not yet clear)

The second questionnaire elicits the range of impersonal contexts that a particular strategy (such as null subjects, lexical pronouns, different agreement-types) can appear in.

For the binding properties, the project will be able to build on the results of the AfrAnaph questionnaire. Like the AfrAnaph questionnaire, the Jena-Paris questionnaire is modeled on the Questionnaires developed in Utrecht for reflexives and reciprocals (Dimitriadis \& Everaert).

For those languages that have impersonal null subjects, a complementary questionnaire based on the criteria proposed by Blevins and Maling will be developed to chart the passive-like and impersonal-like properties found for null-subject constructions.

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# Wh-movement, Remnant movement and Clause typing in Màdûmbà 

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#### Abstract

Mòdt̂mbà is a Grassfield's Bantu language spoken in the Western region of Cameroon, Central Africa. The word order in the language is SVO and the standard analysis places the subject in Spec, TP. There is no verb movement to T as this head is occupied by the tense marker. This paper sets out to investigate how left edge wh-phrases are derived in this language. The assumption underlying this analysis is that, in wh-movement languages, the wh-phrase must front to a position within the CP domain in overt syntax (Rizzi 1997, Cheng 2009). But, contrary to English-type languages in which the wh-phrase moves to Spec, CP, the wh-phrase in Mòdûmbà occurs to the right of the complementizer mb̀̀ (that) above TP. It is also noticed, the obligatory presence of the question morpheme at the sentence final position. This is a prima facie evidence that wh-phrases in Mòdûmbà do not move to $\mathrm{Spec}, \mathrm{CP}$ and that they might be a position between CP and TP that hosts the moved wh-phrase in the language as shown in the examples below based on my introspective judgement as a native speaker:



Nana say that foc WH Numi P4 buy QM
"Nana said that what did Numi buy?"
b. *Nana tfub mbù a ku Numi fò 3 un? ${ }^{2}$

Nana say that foc WH Numi P4 buy
In order to account for this situation, the analysis proposed in this paper is based on the following theoretical assumptions:

## a. Chomsky (2000): Agree

Under the Agree principle proposed in Chomsky (2000), feature checking is established under a probe - goal relation. A probe is a head with uninterpretable features searching for a goal in its c-commanding domain. The goal is that c-commanded constituent having matching feature with the probe. When these two elements enter the derivation, their matching uninterpretable features are checked under agree and no movement is required. But, a head with a strong feature must have that feature checked in overt syntax immediately after that head is introduced in the structure. Consequently, a category B is displaced from its based position if and only if it is attracted by the strong feature of a c-commanding category A .

[^2]
## b. Chomsky (2001): Derivation by phase

Derivation by phase is an economy principle proposed by Chomsky (2001). In order to solve derivational complexities, this principle requires that derivations proceed by phases. A phase is a domain within which all derivations operate at the same time and where all features are checked. It is constituted of the phase head and the phase domain. When any derivation reaches a phase and all the features are checked, the phase domain (complement) is spelt-out and is invisible to further computations. Therefore, any movement must obey the Phase Impenetrability Condition (PIC) as stated by Chomsky (2001):

The domain of $H$ is not accessible to operations outside HP. Only H and its edge are accessible to such operations (Chomsky 2001:13).

Chomsky in his analysis argues that CP and vP should be considered as phases as illustrated below in (2):


As far as the derivation of the left edge wh-phrase is concerned in Màdûmbà, I first adopt the adjunction analysis by creating another CP slot below the one headed by the complementizer. Although this analysis correctly accounts for the linear order of constituent (such as topic and moved wh-phrases) in the CP domains, it fails to account for the word order restriction in this domain. For instance, the order Topic - Wh-P is licit whereas the order Wh-P - Topic is illicit in the language as illustrated by the ungrammaticality of the sentence in (3b) below:
(3) a. Nana tfub mbù Numi ki a ku à fò zun a?

Nana say that Numi Top Foc WH Pro P4 buy QM
"Nana said that as for Numi, what did he buy?"
b. *Nana tfub mbù a ku Numi ki à fò $3 u n a$ ?

Nana say that foc WH Numi Top Pro P4 buy QM
Then, I follow Rizzi $(1997$, 2004) Split-CP Hypothesis. Rizzi proposes that the CP should split into different functional projections such as Force Phrase, Topic Phrase and Focus Phrase and Finiteness Phrase. He argues that the Force Phrase by virtue of carrying the illocutionary force of the clause specifies if the latter is interrogative or declarative in force and therefore hosts the complementizer. Along the line of the preceding theoretical assumptions, it has been proposed
that wh-phrases move to the specifier position of a focus projection cross-linguistically (Rizzi 1997; 2004, Aboh 2004, Biloa 2013). It is argued in this paper that:
(1) There is a position Int(errogative) at the left periphery (following Rizzi 2001) that hosts the question morpheme and that types the clause as interrogative in Mòdûmbà.
(2) Wh-phrases move to the specifier position of the Focus Phrase, located at the left periphery as represented in the following tree diagram in (4):
(4) ForceP

(3) After movement of the wh-phrase to Spec, FocP as represented above, the remnant TP moves to Spec, IntP and strands the question morpheme in final position as illustrated in (5) below:
(5) ForceP


It follows from this analysis that the focus head in Màdûmbà is associated with a strong Focus feature which triggers movement of the wh-phrase to the Spec, FocP. Also, it is argued that whmovement in Màdûmbà does not type the clause as interrogative. The interrogative force is assigned to the clause by the question morpheme as one can see from the ungrammaticality of the construction without the question morpheme in (1b). ForceP and vP are assumed to be strong phases in Màdûmbà. The resulting outputs also provide strong evidence in favor of the need of splitting the complementizer system. This approach is more suitable to provide an elegant account of the derivation of the left edge wh-phrases in Màdûmbà.

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## Pooling resources: Afranaph and SSWL/Terraling

This presentation addresses the question how to best combine the resources of the Afranaph project and the SSWL/Terraling database project. It will make a concrete proposal for a sister project on documenting the internal structure of the noun phrase in African languages, which will eventually be part of a broader SSWl project, and propose the develop a detailed questionnaire mixing SSWL and afranaph methodology, and allowing automated extraction of the data.

SSWL (The Syntax of the World's languages http://sswl.railsplayground.net/) is a a community based, open ended, expert crowdsourced database, that, in the long run, aims to document the syntactic properties of the world's languages, at a level of garnularity not previously undertaken. SSWL was conceived of and developed by Chris Collins and Richard Kayne, in collaboration with Dennis Shasha, professor of computer science at NYU and architect of the database. Shasha's research interests include computational biology, large data and pattern matching, and machine learning. SSWL comes with flexible and powerful search and mapping tools set up to allow pursuing any research questions. Terraling (http://terraling.com) is the next generation of the project (same database, better platform). It is a single database that can be partitioned into groups, one of which will host SSWL. It provides a flexible platform for linguists, which can tailor their projects as they desire, (with an option to make the group private or public), giving full access to the search and mapping tools and to other groups (groups can be combined). In my presentation, I would like to show how we can use this platform for the Afranaph project, while keeping the integrity of the afranaph and existing database intact. Concretely, I propose a sister project on the systematic documentation targeting the internal structure of noun phrase in the languages of Africa, and the development of highly structured step-by-step questionnaire to generate the data for the project, using lessons from SSWL's property definitions, and lessons from working with native speakers from the aphranaph project. The questionnaire must technically be set up in such a way as to allow extraction of the data into a group of the terraling database, after data have been verified. Entry as a separate page of the terraling project (and perhaps also in the afranaph database) will give access to the use of the powerful mathematical search tools of SSWL/Terraling which allow exploring and testing theoretical predictions about expected patterns, gaps, and correlations. This sister project complements existing Afranaph sister projects, and is a self-contained part of the broader SSWL documentation project of the internal structure of the noun phrase cross linguistically.

The theoretically driven semi-automated questionnaires should also directly serve as a template to generate theoretically inspired descriptive papers, theses, ad could be more broadly adapted to other projects.

Besides the project's inherent interest (the systematic documentation of specific properties of the structure of the noun phrase in the languages of Africa), the specific research questions of the project derive from the theoretical
research around modeling Greenberg's (1966) Universal 20 (cf Cinque 2005), which in turn directly connect to my own research over the past 15 years (Koopman \& Szabolcsi 2000). The project aims to answer broad and more specific questions listed below.

- Is there a unique universal order of merge within the Noun Phrase from which all surface orders can be derived? One such proposed (small) fragment of the noun phrase can be found in (1) (cf Cinque, 2005) (brackets omitted) :

$$
\begin{equation*}
\mathrm{RC}_{\text {nonrestr.. }} \mathrm{Q}_{\text {univ }} \text {..Dem ..Num ord } \mathrm{RC}_{\text {restr.. }} \mathrm{Num}_{\text {card .. }} \mathrm{A} \text {.. NP } \tag{1}
\end{equation*}
$$

- A more specific question: how do other parts of the noun phrase (plural marking, adjectival hierarchies, compounding, inalienable and alienable possession, encoding of (in)definiteness fit into this fragment?

I will pursue answers to these questions guided by very specific theoretical predictions, which will structure both the questionnaire and the research. These predictions derive from Cinque (2005) modeling of the observed data patterns known as Greenberg's U20 (the order of demonstratives, numerals, A and N is invariant before the N, but varies postnominally). As Cinque proposes, the attested and unattested orders in the domain of U20 (and many other domains since) can be explained if these orders are derived from an invariant right branching hierarchical structure, with all surface patterns derived by leftward movement of a constituent containing the Noun, which may pied-pipe dependents on its way up the nominal spine or not. ${ }^{1}$. Languages vary as to how high this NP constituent moves up in the nominal spine. This proposal predict that prenominally, the order of merge will be invariant (there is no movement which induces reordering, while post nominally, much greater variability, is expected, because of the movement of the N and possible pied-piping.

An immediate question is whether this left-right asymmetry is indeed confirmed in African languages. Here, languages in and to the West of Cameroon/Nigeria will play a particularly important role, as we find languages with prenominal adjectives, numerals, noun class suffixes, Gen N orders, head final compounds, etc. The afranaph community will be an invaluable asset for this project. Systematic data from these languages should also provide important information about historical change. Since many African languages are known to be "heavy pied-piping" languages (cf Nkemnji 1996) we can expect privileged insights into its formal properties from this particular project.

As a concrete example of how we plan to investigate more specific theoretical questions listed above, consider the question how nominal plural marking fits into the hierarchical fragment given in (1)b. If we assume that nominal

[^3]morphology spells out the semantic plural head, we can ask the question if plural is merged below direct modification As, above direct modification A, or somewhere between direct modification As.
\[

$$
\begin{equation*}
\mathrm{Num}_{\text {card }} \xlongequal[? \mathrm{PL} . \mathrm{A} . . \quad ? \mathrm{PL} \mathrm{NP}]{ } \tag{2}
\end{equation*}
$$

\]

Does UG provide a unique solutions? Or are all options attested? Here is a preliminary case study that shows how to pursue this question theoretically.

There is considerable evidence that English plural is merged higher than A N, i.e. the order of merge is $\mathrm{Pl}>A *>N$. If this is the only order of merge UG allows (certainly the most restrictive option), the Cinquean program makes the following predictions about possible and excluded surface orders.

Expected orders under a Merge hierarchy $\mathrm{Pl}=1>A *=2>N=3$ :
a. 123 (no reordering) $\rightsquigarrow$ surface order Pl A N)

b. 132: Leftward movement of $3(=\mathrm{N})$ past $2 \rightsquigarrow$ surface order Pl N A

c. 312: leftward movement of 3 (past 1 ) $\rightsquigarrow$ surface order N Pl A

d. 321: Leftward movement 32 ("pied piping past $1 \rightsquigarrow$ surface order N A Pl)

e. 231: Leftward movement of 23 past $1 \rightsquigarrow$ surface order A N Pl$)$


Expected gap the 213 order (i.e. the order A pl N, with plural dependent on the N ) is excluded by the theory; this order can only arise by moving 2 (the A ) without the $\mathrm{N}=3$ to the left of Plural. Do we find such cases or not? Are they superficial counterexamples or not? Superficially, this pattern is attested in Nweh (Nkemnji 1996), who shows however that the Plural/ class marker depends on the presence of a silent N that occurs with the A .

The following table summarizes the patterns that are expected to occur, and list potential languages that potentially illustrate these particular patterns. The boxed african languages, Tuki and Nawdm are discussed below, with current data from SSWL.

$$
\text { Patterns expected to occur } \checkmark ; \text { and predicted gaps } 0 \text { ) }
$$

| 123 | Pl A N | $\checkmark$ | Tuki? | Shupamem? |
| :--- | :--- | :--- | :--- | :--- |
| 132 | Pl N A | $\checkmark$ | Tuki |  |
| 312 | N Pl A | $\checkmark$ | Romance? |  |
| 321 | N A Pl | $\checkmark$ | Nawdm (Gur), Vata |  |
| 231 | A N Pl | $\checkmark$ | English.. |  |
| 213 | A Pl N 0? |  |  |  |

## Tuki and Nawdm

Tuki (Tokombo) (SSWL data from Edmond Biloa) shows a somewhat unexpected pattern of plural noun class distribution. Noun class morphemes precede both prenominal adjectives and the noun. Postnominal adjectives are invariant, and do not show any plural marking, but postnominal numerals do.

Let us assume that the order of Merge is $P l>A *>N$, as in English. Post nominal adjectives (i.e. color adjectives which are low in the adjectival hierarchy ) must involve movement of the noun up in the adjectival hierarchy, leading to (3). Thus, the plural preceding pronominal A could simply be a spell out of the semantic plural (instead of an "agreement" with the N).

$$
\begin{equation*}
P l>A>N>A>N . \tag{3}
\end{equation*}
$$

The N is also preceded by a plural: which at present could be analyzed in various perhaps equivalent ways (probing, selection by Pl of a u Pl (or noun class/gender) head, which in turn selects for N , agreement with a silent subject of the nominal predicate as in Koopman 05)). Whatever the right formal account, the merge structure in (3) provides an excellent start for an explanation for why post nominal adjectives are not marked for plural: plural cannot see further than the surface position of the N. Postnominal numerals must agree. This will follow from the fact that Numerals are merged above Pl: ) $N u m>P l>A>N>A>N$, and the plural constituent pied-pipes to the left of Num, triggering the "upwards" (i.e. Spec Head) agreement so characteristic of the languages in the region. Given this structure, if the broad lines of this analysis are on the right track, we make further predictions. We expect to find languages without plural on the N , but with Pl preceding prenominal adjectives (cf (3)). This pattern is perhaps found in Shupamem. This state of affairs is in fact found in Nawdm (Gur), after reordering. In Nawdm, adjectives follow the noun, but precede the noun class marker.

Adjectives line up according to the order of merge of adjectives (size > color), which in the Cinquan theory can only be analyzed as a case in which the $N(P)$ moves to the left of the adjectives, stranding the lower adjective:.
(4) ḑèd bóbók hôn: dé
chair tall black CM(de)
the tall black chairs.
Plural merges with this constituent which pied pipes to merge with Pl. As in Tuki adjectives will not agree because they are never local to Pl. As in Tuki, numerals must agree for plural.


Thus, Nawdm and Tuki (and English) could have an identical order of Merge, and differences between the languages depend on how high the NP moves up into the nominal spine, and cyclic derivations, which shield the adjective from agreement. Whether this analysis can be independently supported, and alternatives ruled out, will of course depend on what the empirical picture turns out to be. This much is sure however, in order to answer such questions, we need both fine-grained data, and ways to generate them, databases to store the properties, powerful extraction and visualization tools to verify predictions, correlations, and a local community which collaborates towards the common goal of scientific progress. Pooling resources between Afranpah and SSWL/Terraling could be an important step forward.

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# Conjunctive and disjunctive verb forms <br> D. Langa (Edoardo Mondlane University) \& T. Taraldsen (University of Trosmø) 

## 1. The basic contrast

In certain tenses, the verb has two morpho-syntactically distinct forms with the same TAM-semantics, a conjoint (CJ) form and a disjoint (DJ) form, on many Bantu languages. The CJ (verb form) must be followed by a (VP-internal) complement or an (VP-internal) adverb, while a DJ need not be followed by anything. In other tenses. the same form appears in both environments. We will call such forms neutral.
We will consider CJ and DJ forms as morphologically distinct even in the absence of segmental morphology whenever the two forms have distinct tone patterns that cannot fully be accounted for by general tone rules.

## 2. Two approaches to the $C J$ vs. DJ contrast

We know of two main theoretical interpretations of the empirical facts. On the one hand, researchers following Hyman \& Watters (1984) take the CJ vs. DJ contrast to reflect focus placement. According to Hyman \& Watters, for example, the DJ forms appear if and only if the truth value of the sentence is in focus ("assertive focus"), i.e. the occurrence of DJ morphology is directly comparable to the appearance of the emphatic did in English sentences like He DID eat the apple.
A different view is taken by van der Spuy (1993) and others who claim that DJ morphology simply signals that the verb is VP-final. (Notice that "VP" in this context must stand for a constituent big enough to contain both the verb and (focused) adverbs.) Occasionally, it is suggested that focus-placement is the determinant factor in some languages, while other languages require an analysis along the lines of van der Spuy; cf. Buell \& Riedel (2008). But we will suggest that some characteristic properties of the CJ vs. DJ contrast are too stable cross-linguistically for this proposal to be plausible. Since those properties seem to speak in favor of an analysis akin to Hyman \& Watters's proposal, we are therefore led to favor approaches associating the CJ vs. DJ alternation with focus placement in all Bantu languages, even though there are well-known counterexamples that are taken to argue against. One of these is mentioned in section 6, where we suggest that it can be circumvented on a more elaborate analysis of focusing.

## 3. Properties favoring Hyman \& Watters (1984)

The following are the properties that seem to be characteristic of the CJ/DJ-alternation in all Bantu languages:
A. The DJ includes the CJ

Riedel (2009) notes that a CJ can be turned into a DJ by the addition of a morpheme to its left, reflecting Hyman \& Watters claim that "the focus variants are derived from the [focus] forms by the addition of something". But it does not appear to be the case that a DJ is ever turned into a CJ by the addition of an overt morpheme. This seems easier to understand under a focus-based analysis than in the analyses emanating from van der Spuy (1993) which would have to explain why there is an overt marker when the verb is VP-final, but none when it is not VP-final, rather than the other way around.

## B. Sensitivity to TAM properties

The CJ/DJ alternation is found only with certain tense/aspect combinations, typically the present (non-progressive) and the perfect. Other TAM categories are typically neutral, e.g. the future or the progressive forms. While Hyman \& Watters's account may provide the beginnings of an understanding of this (see section 6), analyses adhering to van der Spuy's view must take the limitation of the CJ/DJ-contrast to certain TAM-categories to be accidental. This will count as an argument against those analyses to the extent that the sensitivity to TAM-properties can be shown not to be random. We think that it is not, but to demonstrate this, we will need a precise characterization of the semantics of TAMs across the different Bantu languages.

## C. Sensitivity to negation

There is generally no contrast between CJ and DJ forms with identical TAM-properties in negative sentences. Only the CJ forms appear, e.g. the Nguni -ya- never appears under negation. Again, it seems that analyses incorporating van der Spuy's hypothesis have nothing to offer, while Hyman \& Watters can take the negation itself to be able to license "assertive focus". (However, the present perfect shows a DJ/CJ-alternation even under negation in Zulu according to Buell (xx).)

## D. Limitation to certain clause-types

The alternation between CJ and DJ forms with the same TAM properties is only found in indicative sentences. There are no purely DJ-forming morphemes like the Nguni $-y a$ with participial or subjunctive verbs, although real TAMs may occur. This too seems unexpected on van der Spuy's proposal, but Hyman \& Watters can account for it by showing that certain clause types are incompatible with assertive focus.

We would like to emphasize that claim that the CJ/DJ-alternation has these properties in all Bantu languages, must obviously be tested on the basis of data from more languages than we have been able to look at. But it is significant that they are shared both by Aghem for which a focus-based analysis seems plausible and Zulu, which van der Spuy's claim was based on.
In the next two section, we look at other empirical issue that need to be settled.

## 4. Objects in and out of VP

Saying that DJ morphology reflects assertive focus, makes predictions about the position of the object of a verb in its DJ guise only to the extent that one also assumes that assertive focus excludes associating the object with focus, and that non-focused objects must be "dislocated". In principle, there might be languages in which a DJ form allows the object to remain inside the VP. This obviously contrasts with analyses based on van der Spuy's proposal. Therefore, it is important to determine whether there are languages in which DJ morphology clearly is compatible with having an object in the VP. If there are such languages, the van der Spuy proposal simply cannot be the basis for a unified analysis of DJ vs. CJ contrasts across the Bantu languages. By contrast, finding languages in which the object must be evicted from the VP when the verb is a DJ form, doesn't contradict the focus-based analysis.

To this end, one needs to examine the position of the object with respect to VP-external elements in sentences with DJ verb forms. If the object must be dislocated when the verb appears in its DJ form, it would be expected to follow VP-external elements. But there is some evidence that this is not universally the case. For example, Hyman \& Watters' examples (1) and (2) from Aghem show that the object of a DJ verb precedes $n \varepsilon$ "today" just like the object of a CJ verb, and that $n \varepsilon$ only precedes the object, when $n \varepsilon$ itself is focused and the verb is in its CJ form.
Prosodic evidence may also bear on this issue. For example, Kraal (2009) provides examples from Makonde where a DJ form is followed by a constituent with which it seems to form a prosodic domain exactly as the CJ form does.

## 5. Types of focus and the syntactic feature +Focus

In Luganda, a noun can lose its initial vowel only if it is focused. In Aghem, the class marker of a noun is prefixed to the noun when the noun is focused, but is a suffix when the noun is out of focus. In both languages, the "in-focus form" of an object cannot cooccur with DJ-morphology on the verb. (Notice that Hyman \& Watters' example (1)b indicates that the out-of-focus form can still be VP-internal.) On Hyman \& Watters' approach this is accounted for by assuming that only one constituent per clause can be focused. But this seems to presuppose that assertive focus and object focus etc. at some level count as the same thing, i.e. assigning assertive focus is just one of several equivalent ways of providing a (unique) focus. On this view, certain clauses (essentially indicative clauses) come with a syntactic feature + Focus (possibly located in the upper region of the clause) which must be associated with some constituent in the clause, but doesn't care which. A DJ form appears just in case the (extended) VP is to be associated with +Focus and there is no TAM which can mediate this association.
If this is correct, the clause types in which DJ forms do not appear must lack the feature + Focus. But if focusing an object or an adverb also involves association with +Focus, this leads to the expectation that the distinct in-focus forms of object nouns should not appear in these clause types either with the important qualification that the object of a participial verb in certain constructions might be accessed by the matrix +Focus, while assertive focus on the participial VP would be blocked by the matrix verb. It is therefore important to verify if this correlation holds in all Bantu languages where nouns arguably have distinct in-focus forms. If it does, we have another argument against simple implementations of van der Spuy's idea, which provides no reason to expect that in-focus forms of nouns and DJ forms of verbs should fail to appear in exactly the same clausetypes.
We should add that contrastive focus cannot be dependent on +F within this scheme, since Hyman \& Watters show that a contrastive focus marker may be associated with an out-of-focus noun in Aghem.
Finally we look at one type of counterexample to the focus-based account of CJ/DJalternations.

## 6. Auxiliary focus vs. VP-focus

Buell ( xx ) shows that even in a main clause the verb always appears in the CJ form in Zulu when it is followed by kahle "well". even though kahle itself may not be focused.

This is hard to understand on Hyman \& Watters approach where DJ morphology is associated with assertive focus, since He DID sing well is perfectly fine.
To make Buell's observation consistent with the analysis outlined in section 5., we need to say that the appearance of kahle within the VP allows the VP itself to be focused without the intermediary of assertive focus, and that assertive focus in Zulu is a last resort mechanism invoked only when it is the only way of associating a constituent with +F . The first of these two claims embodies a claim about the way sets of alternatives are formed, assuming that focus is based on the existence of a set of alternatives, as in Rooth (1992): We suggest that a set of alternatives to a focused VP cannot be constructed by changing the verb or its arguments, but can be based on low modifiers like kahle (in a way that doesn't require kahle itself to be contrastively focused).
When the VP itself cannot be the basis for the construction of a set of alternatives, alternatives can only be formed with respect to TAM properties introduced at higher nodes. This is where auxiliary focus kicks in. In tenses that come with a TAM morpheme that expresses TAM values that can be used for the formation of alternatives, we then get neutral forms. If there is no such TAM morpheme, a DJ morpheme must be merged (assertive focus).
It is implicit in this that not all TAMs provide properties that allow the construction of alternatives. Departing from Hyman \& Watters account, we will suggest that some TAMs are so deeply embedded that their TAM values are already fixed and cannot be played with to form alternatives at the point where they are seen by the relatively high + Focus head. For example, the same auxiliary can mean both future "will" and deontic "must" in Kîitharaka, but has a DJ form only when it means "must", and we take this difference to reflect the fact that this auxiliary occurs low when it means "must", but high when it means "will", in a way consonant with the general thrust of Ramchand’s (2012) account of modals.

## 7. The project

This survey of analyses and the data bearing on them is meant to highlight the need to fill in certain gaps in our understanding of what the patterns really are. We propose to use AfrAnaph resources to this end while being aware of it that eliciting reliable judgments about fine-grained TAM semantics is a tall order.

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## Secondary nominal prefixes in Bantu

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## 1. Overview

In most Bantu languages, there are nominal prefixes that are either added on top of a regular class prefix or substituted for one to express a certain meaning. These include locative prefixes, augmentatives, diminutives and pluralizing prefixes. These are generally referred to as secondary prefixes in the descriptive literature.
Except for the locative prefixes, a secondary prefix is almost always identical in form to some regular class prefix (primary prefix) and triggers agreement in the same class as that prefix. The existing Noun Class Prefix Questionnaire elicits some information relevant to this in sections 1.3.-1.4., but we now want to enrich the questionnaire to chart the distributions and other properties of secondary prefixes in Bantu in a more detailed way, and give the reasons why we want to do this, in what follows.

## 2. The theoretical issues

Since secondary prefixes control concord and agreement, and concord and agreement reflects class-features, secondary prefixes must be associated with class-features. The first question that comes to mind, is where a secondary prefix gets its class-features from. It is generally assumed that a nominal prefix inherits its class-features from the nominal root they attach to, but this doesn't seem to be the case for secondary prefixes. A related question concerns the formal relation between a secondary prefix and a primary prefix with the same class-features.
We also believe that the properties of certain secondary prefixes bear on the relationship between the singular and the plural classes. To illustrate, we will outline preliminary conclusions from a pilot study of a secondary pluralizing prefix.

## 3. The double plural in Shona

As described by Fortune (1955), Shona allows the prefix $m a$ to attach on top of plural class prefix to form a "plural of plurals":
(1) $m a-m i-$-sha $=6-4-$ village $=$ "groups of villages"

Since such forms trigger class 6 agreement on modifers and verbs, the $m a$ in (1) must really itself be a class 6 form rather than just a variant of $m i$ used to avoid adjacent identical syllables.
But on the assumption that a class-prefix is selected on the basis of a combination of gender-features and number-features, (1) raises two questions. First, it seems that the number feature pl must occur twice in (1), but in general it seems that a single noun only supports a single number feature across languages, a fact attributable to the fairly uncontroversial assumption that a given feature occurs only once in the sequence of functional heads, and that the sequence of functional heads is merged just once on top of a single lexical head. Second, where do the gender-features associated with ma come from?

An analysis of plural formation in Bayso (Cushitic) (see Corbett \& Hayward 1987) suggests an answer to both questions. In Bayso, the plural form of a noun is formed with the suffix -jool. A striking feature of Bayso is that a plural subject continues to trigger singular agreement, but a pluralized feminine noun all of sudden triggers masculine agreement. The obvious account is to say that jool is itself a feminine singular noun with a meaning akin to "group" and is the head of the plural form. Caha (2012) extends this analysis to Czech to account for syncretism between the nominative plural form of a feminine or neuter noun and the genititive singular, but since Czech has no overt counterpart to jool, he posits a covert counterpart GROUP, adapting recent proposals by Kayne. We now propose to extend this to Bantu. On a first pass this gives (2):
(2) $m a-m i-s h a=\left[\mathrm{pl}_{5}\left[\mathrm{~N}_{\mathrm{N}} \operatorname{GROUP}_{5}\left[\mathrm{pl}_{3}\left[{ }_{\mathrm{N}} s h a_{3}\right]\right]\right]\right]$

This accounts for the double occurrence of the number feature (once per noun) and also provides a source for the gender-features associated with higher pl. It also directly accounts for the fact that the secondary $m a$ has the features of the primary class $6 m a$. But (2), which incorporates the traditional idea that the class-features of a plural prefix is the sum of pl and the gender-features of the corresponding singular class, also incorrectly predicts that there might be a corresponding singular form with the class 5 prefix meaning "a group of villages":
(3) $* R I$-mi-sha $=\left[\operatorname{sg}_{5}\left[{ }_{\mathrm{N}} \operatorname{GROUP}_{5}\left[\mathrm{pl}_{3}\left[{ }_{\mathrm{N}} \mathrm{sha}_{3}\right]\right]\right]\right]$

This suggests bringing the analysis even closer to Bayso by taking GROUP in (2) to be a singular noun with plural semantics whose gender-features are distinct from those of class 5, breaking with tradition:
(4) $m a-m i-s h a=\left[\operatorname{sg}_{6}\left[{ }_{\mathrm{N}} \mathrm{GROUP}_{6}\left[\mathrm{pl}_{3}\left[{ }_{\mathrm{N}} s h a_{3}\right]\right]\right]\right]$

On this analysis, the plural meaning "groups of villages" reflects the lexical meaning of GROUP rather than the presence of a functional head bearing the feature pl . The denotation of GROUP is the set of all aggregates that can be formed from things in the denotation of the noun phrase it combines with, hence aggregates of pluralities in the case of (4).
As for the syntax of (4), we assume that the embedded nominal projection is too small to host modifiers in a way akin to Hyman et al.'s (2001) proposal for the structures with prenominal adjectives in Basaá. Hence, all modifiers are expected to exhibit class 6 concord only.

## 4. The primary plural prefixes

The identity between secondary $m a$ and primary $m a$ must now be captured in one of the following two ways. We could say that the regular plural prefix $m a$ with class 5 nouns also reflects the presence of $\mathrm{GROUP}_{6}$ now applying to individuals rather than pluralities:
(5) ma-panka $=\left[\mathrm{sg}_{6}\left[\mathrm{~N} \mathrm{GROUP}_{6}\left[\mathrm{~N}\right.\right.\right.$ panka $\left.\left.\left._{5}\right]\right]\right]=$ "knives"

Alternatively, we can take class 5 nouns to be class 6 nouns like GROUP with the lexical property that they denote aggregates rather than singularities. Then, the fact that RI-panka ( = [banka]) denotes singularities must be attributed to the class 5 prefix $R I$ or more precisely to a covert class 5 noun embedding the class 6 noun. This might fit with the fact that $R I$ too occurs as a secondary prefix in Shona and other languages, albeit with an augmentative/pejorative meaning.
The second alternative has the advantage that it might more easily lead to an understanding of the fact that $m a$ as a primary prefix also combines with mass nouns, a fact that in itself already discredits the view that $m a$ is a plural form.
The second alternative also avoids a question that arises on the first approach: Why is it that GROUP only embeds class 5 nouns as a primary prefix?
On the other hand, this line of analysis faces some problems which we now turn to.

## 5. ma co-occurring with ri/li

It is independently plausible that $m a$ is not in general the plural counterpart of the singular class 5 prefix. In Tsonga languages the two co-occur. For example, in Changana and Rhonga, we see the sequence $m a-r i / l i$ - on monosyllabic nominal roots (the only roots that allow ri/li to surface in class 5), which is at least unexpected if plural vs. singular is taken to correspond to opposite values of a single binary number feature.
On the other hand, the existence in Tsonga languages of forms like ma-rhi-tu "words" seems inconsistent with the second of the two proposals about primary $m a$ in section 4 , since this proposal would connect primary $m a$ to class 5 nouns by saying that class 5 nouns are actually class 6 nouns which are brought into class 5 by being embedded under a covert class 5 noun. Tsonga ma-rhi-tu etc. rather suggests that the analysis in (5) is correct, leaving open the question what the privileged relationship between GROUP $_{6}$ and class 5 nouns might be:
(6) $m a-r h i-t u=\left[\operatorname{sg}_{6}\left[\operatorname{GROUP}_{6}\left[\operatorname{sg}_{5}\left[t u_{5}\right]\right]\right]\right]$

However, the plural prefix can co-occur with the corresponding singular prefix in other classes too, e.g. in class 4 mi-mu-, which leads to the further conjecture that more plurals than just the class 6 forms are formed via GROUP-like silent nouns of different genders. In Rhonga, class $2 v a$ and class $8 s w i$ may be the only plural prefixes that don't stack on top of the corresponding singular prefix.
However, a number of factors complicate the picture. In class 3, for instance, the singular prefix is an assimilating $N$ on polysyllabic roots and $m u$ on monosyllabic roots, but although both allomorphs may show up when class $4 m i$ is added, $m u$ can also fail to appear next to $m i$, e.g. we find both mi-mu-nti and mi-nti "houses" and $m i-m u-k w a$ and $m i-k w a$ in Changana, and more disturbingly some monosyllabic roots allow mi-mi in addition, e.g. mi-mi-si and mi-mi-kwa (without a double plural reading). Since the inexistence of singular *$т и-m u$ speaks against a general process reduplicating prefixes, we will not take mi-mi-si etc. to be reduplicated forms of mi-si etc. either. Rather, we suggest that $m i-m i$ is derived from $m i-m u$ - by vowel assimilation, which must then be constrained to apply only when the two vowels are sufficiently similar to begin to keep it from having an effect on ma-ri-. Conceivably, mi-si etc. might be the result of haplology applying to the output of vowel assimilation, extending proposals in Langa
(2012). This would be consistent with the observation that the allomorph $N$ on polysyllabic class 3 roots is generally maintained when $m i$ is added.
However, there are cases where the singular prefix fails to appear together with the plural prefix which require a different account. In Changana, the class 5 prefix $r i$ also appears on some polysyllabic nouns in the singular form, but not when $m a$ is added, e.g. ri-gaga "a green fruit" vs. ma-gaga, contrasting with ma-ri-to "words", ma-ri-fu "clouds" and other forms with monosyllabic roots. This is reminiscent of the way class 5 nouns behave in Xhosa, where the class 10 prefix $z i$ on polysyllabic roots drops, when the augment $i$ is present, but is retained on monosyllabic roots. Although we know of no formal account of this fact either, it seems plausible that $z i$ (or the morphosyntactic piece of structure that would be lexicalized by $z i$ ) is always present at an underlying level. By extension, we may therefore take it that $r i$ is underlyingly present in ma-gaga etc. too.
A separate question, which we will touch on briefly, is why stacking plural prefixes on top of their singular counterparts is not seen more widely in Bantu languages, e.g. not in Shona.

## 6. Conclusion

If the proposals presented above are correct, new items need to be added to our research agenda.
To the extent that the gender-features associated with plural class prefixes originate from a silent noun like GROUP 6 , we need to rethink the relationship between plural classes and the singular classes they are paired with.
If plural classes other than class 6 also involve a silent noun akin to GROUP, there must be different GROUPs with different gender-features and different semantics, and we need to find out if the relevant plural classes really exhibit different semantic properties, and, if so, whether the difference can plausibly be traced back to different GROUP-like silent nouns.
Finally, we must also determine not only how these nouns get to be silent, but also why they cannot be overt.
We also think that similar issues will arise from the study of singular prefixes with a secondary use as augmentatives or diminutives.

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Interaction between tense-mood-aspect and Negation in Makaa (A83)<br>IBIRAHIM NJOYA<br>University of Hamburg / Asien-Afrika-Institut.<br>Abteilung für Afrikanistik und Äthiopistik<br>Hamburg, Germany<br>Ibirahim_1980@yahoo.fr


#### Abstract

A keen look at the literature available on Makaa (A83) reveals that a sizeable amount of scientific works worthier to be mentioned has been carried out on the target language. These studies, generally, deal with various aspects of Makaa phonology, noun and verbal morphology, history of the people, some cultural aspects, and syntax. To put it clearly, the main goal of this paper is not to come out with a synopsis of these studies, rather, it will focus on the co-relation between tense-aspect-mood (Henceforth TAM) on the one hand and negation on the other. This analysis will be guided by the following questions any study based on negation have to address.


- How is negation marked in Makaa?
- Which element(s) of the sentence is/are effected or involved?
- What is/are the negator(s) distribution in the internal structure of the inflection?
- How does negation interact with TAM?
- Which meanings do negative constructions express?

Before presenting some results in connection with the questions above, let us revisit what has been previously said on TAM and negation in Makaa. Heath (1989, 1991), Heath (2003: 344), Nurse, Rose and Hewson (2010) and Hewson (2010) following an intuition by the aforementioned works of Heath and Heath distinguish five absolute tenses in Makaa, namely, distant past, recent past, present tense, near future and distant future; four aspects, Progressive, Habitual, Anterior and Perfective of which the latter is unmarked; and three moods, Indicative, Subjunctive and Imperative, the indicative being the unmarked or default form.
According to Heath (2003:345) 'Negation in the indicative is marked by both a pre-stem clitic and $a$ suffix in the position of Final Vowel. The clitic (toneless $a+H+$ suffix $\grave{\varepsilon}$ or $\dot{\varepsilon}$ ) varies somewhat from tense to tense. Hewson (2010:8) will add that the Final Vowel attaches to $\int i$ in past tense, and with tonal adjusment. In the subjunctive and Imperative (1b), negation is
expressed by $k u ́+L$, and the $L$ causes any following $H$ to downstep. See examples below from Heath (2003)

| 1.a. | mà̀ tálć málóndú | b | kú ${ }^{+}$wiíng ómpjô |
| :---: | :---: | :---: | :---: |
|  | mà à-tfàl-غ́ , mò-lóndú |  | kú ` wiíng ' ò-mpjâ |
|  | I NEG-cut-NEG MacH cl2-dog |  | NEG chase MacH cl2-dog |
|  | 'I do not cut down palm trees [sic]' |  | 'Do not chase the dogs!' |

However, even though the summary given above seems to show clearly that Makaa TAM and negation have received a very close attention, it will be shown in this paper that negation and the TAM system in Makaa is not as simple as it is described presently in the literature.
(a) Instead of five tenses, Makaa counts seven absolute tenses: three future tenses symmetrical to three past tenses in addition to a present tense. The additional tenses are immediate past and remote future (Ibirahim 2007, 2013).

| P3 | á | Remote past | earlier than yesterday and above |
| :--- | :--- | :--- | :--- |
| P2 | ámà | Recent past | earlier today; yesterday; two days ago |
| P1 | má | Immediate past | a while ago |
| P0 | ø | General present | now or a in a while |
|  | H-lò (Inf) | Gnomic present | undetermined |
| F1 | é | Immediate future | later today; can stretch till tomorrow and above |
| F2 | bá | Recent future | tomorrow and above |
| F3 | ébá | Remote future | several days, weeks, months or years |

(b) Though not mentioned in the literature, Makaa also counts relative tenses. In narrative discourse, the morphemes $k \grave{a} / k \grave{c}$ (used interchangeably) or mú, often translated as 'then' for both), are used to support verbs in enumeration of consecutive events.
(c) Instead of four aspects, it will be shown that Makaa uses Inflectional morphemes at PreStem, Post-stem position, reduplication, repetition and compounding to mark 11 distinct
aspects: factitive, progressive, habitual, iterative, inceptive, completive, Prioritive, proximate, counter-expectation, persistive and continuative.
(d) As for negation, it will be shown that negation in Makaa is much more complex due to the fact that it varies depending on the tense, the aspect, the mood; on whether the construction is focused or not. The various constructions just named are subjected to important tonal fluctuation. Below are few illustrations

| 2.a. | Mǒ Sal | Mà dut Sal |
| :---: | :---: | :---: |
|  | Mò-ó Sal | Mà dí Sal |
|  | 1Sg-FOC Sal | 1Sg FOC+NEG Sal |
|  | 'I am Sal' | 'I am not Sal' |
| b. | Mà đísàw | Mà: ¢ísàwc̀jè |
|  | Mà đísàw | Mò-à đ̌isàw-غ̀-j-غ̀ |
|  | 1Sg bear | 1Sg-NEG bear-NEG-Ce-NEG |
|  | 'I bear it' | 'I cannot bear it' |

3.a. Òmpúi ó bá ná ggà nwỗ.
ò-mpú: ó bá ná ngà nwồ
C2-rain SM $\mathrm{F}_{2}$ PER PROG rain
'Rains will be still falling'
b. Òmpú: bwá: bélé ná ggà nwô̂.

Ò-mpú: bwô-à bá-l-દ́ ná $\eta g \grave{~} \quad n w o \hat{0}$.
C2-rain SM-NEG F2-Ce-NEG PER PROG rain
'Rains will not be still falling'
4.a. Měbá kà:dá nà ìdâw

Mà ébá kà̀d-í nà ì-dôw
I $\quad \mathrm{F}_{3}$ dish-Ve him $\mathrm{Cl}_{8}$-food
'I will dish him food'
b. Mà̀ bálè bá kà̀dt́ nà ì idôw

Mà-à bá-l-દ̀ bá kà̀d-t́ nà ì-dâw
1 Sg-NEG F ${ }_{2}$-Ce-NEG $\mathrm{F}_{2}$ dish-Ve him $\mathrm{Cl}_{8}$-food
'I will not dish him food'

This study, we hope, will enrich Makaa with a detail study on negation and clarify the interaction between TAM and negation in Makaa verbal constructions.

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# Possessive Constructions in African Languages 

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The goal of this research is to explore how African languages express and conceptualize possessive relationships. Possessive constructions as used here refer to structures that express relationships between an item or entity that is possessed (the possessum) and the person or entity which possesses the item (possessor). Natural languages make available several means of marking possession that are predictably predicative or nominal, but which trigger varied patterns conditioned by morphology, syntax and semantics. There is evidence of morphological marking on either the possessor, or the possessum or on both, juxtaposition of the possessor and possessum, and clausal marking. Although investigations into the nature of possessive constructions is not new in linguistic inquiry (See, for example, Lyons 1977, Seiler 1993, Croft 2002 and Heine (1997), studies that focus exclusively on African languages and which take into account both morphosyntactic and semantic constraints are rare. A study of this nature will evaluate the existence of varied patterns of possession in the target languages, which in turn may result in fine grained descriptions for individual languages, in addition to the possibility of more cross-linguistic tendencies.

In order to capture the intricacies surrounding possessive constructions in African languages, the research will first determine how languages broadly represent possession. Following Heine (1997), two main types of possessive constructions occur across languages. Predicative or verbal possession usually relates to clausal syntax where the possessor and the possessum are both in argument slots. In English this type is typically represented by the verbs 'have' and 'belong' as shown in sentences (1) and (2) respectively.

1. I have a house.
2. The house belongs to me.

Notice however that as much as the possession is clausal the two verbs trigger subtle differences in relation to the argument status of the possessor and possessum, the definiteness of the possessum, and the information status. In (1), the possessor is the external argument whereas the possessum is the internal argument, and is also indefinite, while the possessor is in a theme position. On the other hand, in (2), the possessum is the external argument while the possessor is the internal argument, the possessum is definite, and is in a theme position.

Such a general distinction is not unique to English. Lubukusu (a Bantu language of Western Kenya) has a related distinction shown in parallel sentences in (3) and (4).
3. Wekesa a-li nende e-n-ju

Wekesa c1SM-has with c7-c7-house
Wekesa has a house
4. E-n-ju *(yi-no) (e-li) e-ya Wekesa

C7-c7-house c7-this c7-is c7-AM Wekesa
This house is Wekesa's
Consequently, several aspects will be worth investigating in the target languages. First, there will be need to establish the existence of predicative possession and how it is marked. Once this is done the research will consider several questions that may help unearth language specific characteristics: Is it possible, for example, to change the definiteness? If so what is the effect on the overall meaning? Does the meaning relate to permanent or temporary possession?

The second type of possession relates mainly to nominal or phrasal syntax where the relationship between the possessor and the possessum is established in a NP. Typical examples in English include phrases such as 'my car', 'a tail of a cow' and 'John's book'. In the literature (for example Croft (2002), Heine (1997)) focus has mainly been on how and where the link between the two nominals is established, and the resultant ordering. This research makes an assumption that languages differ in some or all of these aspects. Some involve simple juxtaposition of the two nominals (English), others use morphological marking on either (English, Swahili, Lubukusu) or both. Further still, there are variations in the nature of morphological marking. Different forms can be used in varied contexts conditioned by aspects such as number, gender, person, and position (as prefix or suffix), as in Amharic (see Deal (2012) for a detailed paradigm of the variations). Conversely, the same form can be used in varied circumstances as shown in the English examples in (5).
5. i) The man's shoes
ii) Men's shoes
iii) The shoes of Peter's

It is also notable that even within the same language, there can be variation in the way nominal possession is indicated based on the semantic properties of the head noun. In some languages, kinship nouns select juxtaposition only (Chinese) or in addition to morphological marking or word order change.

After establishing the general trend in possessive constructions, the research will consider additional properties which may have a direct effect on how possession is marked in language, and which in turn may help shed more light on the nature of possessive constructions in natural languages in general and on African languages in particular. First, whether or not possession is alienable or inalienable plays an important role in defining the nature of possessive relations. For example, the nature of the possessor may be restricted to human only and/or to non-human but animate or even to inanimate only. In other cases, morphological distinctions are made between alienable and inalienable, where the latter is typically unmarked (compare 'papa' (my father) and 'bapapa’ (fathers) in Lubukusu), may have a distinct grammatical category (Lubukusu-‘wandase' (my brother/sister)), and may generally be attributive.

Secondly, contexts where possessives occur in clausal complements may also be a fertile ground for unearthing more properties. In Lubukusu these typically involve infinitives and class 5 nominals (see Baker, et al (2012) and the Afranaph Sister Project on clausal complementation, for details). The third property is coordination where possessives occur as conjoined nominals. In English there are interesting questions that may arise from such contexts, and which can be extended to other languages. Consider the structures below.
6. Peter's and Hellen's house (s) Vs Peter and Hellen's house(s)
7. The car of a friend of mine Vs A friend of mine's car
8. My daughter in-law's car Vs My daughters in law's car(s)
9. Jesus, the forgiver of sins Vs Jesus, the sins' forgiver

The key variables here include compound nominals, type and place of possessive marking, pluralisation, apposition and pronominalization which may all result in intricate properties when tested in varied languages. A casual test in Lubukusu appears quite promising.

Additional issues that may also be worth investigating include double possessives (A picture of John's / a picture of John), possessives in addresses (My Lord, Your Lordship), and object marking of possessive constructions which involve the whole NP or one of the nominals.

Lastly, the research will investigate how possessive relations are affected by semantic properties. We focus on how the type of verb and other markers can be used to characterize possessive constructions in what can be termed as 'semantic fields'. A number of such fields are recognizable: Action (with verbs such as hold, seize, take, grab, and obtain); Locations
(the possessor is the place where the possessum is located as shown through a locative complement marked on the possessor e.g. Tomatoes are at Ken's); Topic (possessor functions as possessive modifier in a topic position with verbs of existence sometimes with topic morphology or phonology); Accompaniment (possessum is a comitative complement to the possessor subject e.g. she is with a dress); Source (the possessor is a complement of verbs of source e.g. medicine comes from plants).

We expect that collaboration with Afranaph will open doors for accessing resources which are instrumental in driving the research to greater heights. In fact, helpful data on possessive constructions already exists on the Afranaph website (see for example IDs 4408, 4409, 4533, 5601).

Although the intention is for this study to be as theoretically neutral as possible, I envisage consequences for Case and Agree relations within Generative grammar. Linguists can however use the data and generalizations therein to follow their own theoretical paths, or even simply make comparisons, and generalizations of their own.

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## A. The Issue.

The Bantu language Kinande has a cross-linguistically rare particle called the linker (Hyman 1985 (class lectures), \& Mutaka 1986) that occurs between internal arguments of the verb and sometimes also between arguments of the verb and adjuncts. The linker (LK) agrees in noun class with the DP that immediately precedes it:

| (1) a. Kámbale ágúlira ekitábú kyo Nadíne | b. Kámbale ágúlira Nadíné y' ekitábu |
| :---: | :---: |
| Kambale bought 7book 7LK 1Nadine | Kambale bought 1Nadine 1LK' book |
| 'Kambale bought a book for Nadine.' | 'Kambale bought Nadine a book.' |

The linker is absent when constructions involve only a single post-verbal XP:

| (2)a.* Kámbale ágúla ekitábú kyo |  |  |
| :---: | :---: | :---: |
| K. $\quad$ 3s.buy book.7 LK.7 | b. Kámbale ágúla kyo ekitábu <br> Kambale 3s.buy LK.7 book.7 | c. Kámbale ágúla ekitábu <br> Kambale 3s.buy book.7 |
|  |  | 'Kambale bought the book.' |

Baker and Collins (2006) propose that the purpose of the linker is to license the Case of a following nominal expression in the verb phrase. However, a Case theoretic solution cannot be correct as demonstrated by the fact that the linker can be followed by adverbs and other expressions whose distribution is not regulated by Case. Although many adverbs derive from nouns in Kinande, the post-linker adverb in (3a) clearly does not. (3b) involves a post-linker predicate which agrees in phifeatures with the subject of the sentence:

| (3)a.Kámbalé átuma ebarúhá yó lưbálứba |
| :---: | :--- |
| Kambale sent 9letter 9LK quickly |$\quad$| b. ábaná móbakáya okokalásí kó ba-tyâ |
| :--- |
| 2children 2went 17school 17LK 2thus |

These data also indicate that Richards' (2010) approach to the linker is inaccurate. Richards proposes that the distribution of the linker is regulated by a condition he calls distinctness, which prevents syntactic entities that are too similar to each other from occurring within the same phase. He specifically proposes that the problem is the occurrence of two XPs in the same domain (phase) that are too similar to linearize since they both bear the label DP. Richards proposes that the linker splits the domain into two phases so that spell out is not faced with the problem of linearizing two non-distinct XPs. However, the examples in (3) involve XPs with distinct labels: DP and AdvP and thus Richards' theory predicts that no linker should occur, contrary to fact.

## B. Our view.

We argue (together with Schneider-Zioga 2013) that the linker in Kinande behaves like a copula and is primarily a linker in the sense of den Dikken (2006). For den Dikken, a linker is the functional morpheme which connects a predicate to the subject in inverted contexts. Following Hedberg (1988), inversion creates a topic-focus structure. Here is an example of predicate inversion from English:
(4) a. John is [the culprit] (uninverted predicate)
b. [The culprit] is John. (inverted predicate)

The following examples illustrate inversion in Kinande when a copular clause is involved. Note that a copula that is identical to the linker in DOCs (bold-faced) occurs.

| copular sentence | inverted copular sentence |  |
| :---: | :---: | :---: |
| (5) a. emíberé yé baná <br> cl9.behavior of children 90 problémé néne | b. eproblémé nené y" êmíberé ya bána <br> cl9.problem big 9COP behavior of children |  |
| "The behavior of the children is a big problem." | "A big problem is the behavior of the children." |  |

(See Schneider-Zioga (2013) for the motivation for inversion in double object constructions being based on a dynamic interpretation of labeling along the lines of Chomsky (2013).)
C. Evidence for our view. Linker constructions share a number of properties with copular constructions and especially with predicate inversion constructions:

- The most compelling support of the linker analysis is the fact that, cross linguistically, copular inversion constructions are immune to Minimal Link Condition (MLC) effects and so are linker constructions (see, e.g., den Dikken (2006) for an account of MLC immunity in copular inversion constructions):
(6) a. Kambale is the teacher $\rightarrow$ The teacher is [Kambale is the teacher ] (MLC not respected) b. Kámbale yo mugalímu $\rightarrow$ Omugalimu yo [Kambale yo mugalimu] Kambale 1LK 1teacher 1teacher 1LK Kambale
Just as these copular examples do not abide by the MLC, neither do examples involving the linker that separates phrases within DOC/applied linker constructions:
(7) agulira [ LK Marya [ir [-gul- ekitabu ] $\rightarrow$ agulira [Marya LK Marya [ir [ -gul- ekitabu ] 3sg.buy.appl LK Mary appl -bゃy-7book 'He bought Mary a book.' (MLC not relevant) agulira [ LK Marya [ir [ -gul ekitabu] $\rightarrow$ agulira [ekitabu LK Marya [if [ -gul ekitabu] 3sg.buy.appl book LK Mary appl -buy-book 'He bought a book for Mary.' (MLC not respected)
Baker \& Collins (2006) specifically propose that the MLC does not hold in Kinande in order to account for the fact that the theme can precede the goal in DOCs in Kinande. Although their proposal captures the facts, it is a conceptually unsatisfying solution. The MLC, as a presumably third factor principle, should not be subject to parameterization that depends on a language specific instantiation of UG. Moreover, it is empirically inaccurate to parametrically exempt Kinande from the MLC: we will present data primarily from small clauses that demonstrate that the MLC is operative in Kinande. If the Kinande linker is a copula, there is no need to propose a parameterization of the MLC in Kinande with all of its attendant problems. Instead, whatever accounts for the possibility of predicate inversion in copular constructions across languages (cf. e.g., den Dikken 2006) will account for the possibility of the theme preceding the goal/benefactive where linkers are involved.
- Also compelling is the fact that in inverted constructions, only post inverted copular/post linker position can carry focus:
(8) a. The culprit is JOHN;
c. eproblémé nené y'êmíberé y'abána; 9problem big 9LK'9behavior of children
'The biggest problem is the behavior of the children.' *'It is the biggest problem that is the behavior of the children.' As is true of inversion in sentential copular clauses, contrastive focus appears to be limited to post linker positions in verb phrases:
(9) a. áh'ekitábú kyó BÁNA ;
b.*aha BANA b'ekitabu
gave 2CHILDREN 2LK'book
gave 7book 7LK CHILDREN
'He gave the book to the CHILDREN (not to the adults).'
If the linker is a copular linker, the distribution of contrastive focus falls out directly.
- Post linker definite pronouns are impossible, just as post copular definite pronouns are impossible: ${ }^{1}$
(10) a. *Kambale ni/yo iyê b. *atumira Kambale yo bo/ibô

Kambale COP/COP he. send.appl Kambale 1Lk them (clitic)/them(tonic)
*'Kambale is he.' *'He sent Kambale them.'

- Whereas the linker is normally obligatory between a DP and Locative XP (Baker \& Collins 2006), we note that it is optional in certain cases. The obligatoriness/optionality would fall out directly if the linker were a copula. It is obligatory when Pylkkanen's high applicatives (a relation between an individual and an event) are involved:
(11) Kámbale mo-a-téta-gul-a e-ri-túnda *(ry’) omo-sóko. (=(31b) Baker \& Collins 2006)

Kambale Aff-1S-Neg/Past-buy-Fv Aug-5-fruit Lk. 5 Loc.18-market
'Kambale didn't buy the fruit in the market.'
On our analysis, these are straightforward cases of inversion. The work of den Dikken (2006) provides extensive justification for the obligatoriness of copulas/linkers when predicate inversion is involved. In contrast, the linker is optional just in case it denotes a predication relation between an individual (internal argument) and a location:
(12) Kámbale ówa Marya (y') omokisomo.

Kambale heard 1Mary 1LK 18church
'Kambale heard Mary in church.' (=Mary is in the church, Kambale need not be.)
It has been observed in the literature that in non-matrix non-inverse predicational constructions (e.g.: I consider John (to be) the culprit), the copula is optional. In contrast, in the inverse constructions that are possible in this context, the copula is required (e.g.: I consider the culprit *(to be) John).

- Finally, the linker and certain instances of the copula are morphologically identical in Kinande. This is illustrated by the following copular sentences:
(13) a. omupresident yo Barack Obama (specificational copular construction)

1president 1LK 1Barack Obama
'The president is Barack Obama.'

[^4]b. Kámbale yo mugalí :mu. (specificational: non-inverted)

1Kambale 1LK 1teacher
'Kambale is the teacher.'
D. Expansion of the investigation. This final property prompts us to establish a more complete paradigm of copular sentences in Kinande including specificational, identificational, equative, and predicational copular sentences to solidify the picture of copulas and the linker in Kinande. In work still in progress, we have identified a number of copulas/linkers in Kinande. We do not investigate here the two inflected copulas -li, and -bya, noted in Mutaka (2009):

| COPULAS/LINKERS IDENTIFIED: | form of copula/linker | CONTEXT | sample sentences: |
| :---: | :---: | :---: | :---: |
| Ni | invariant ni | predicational | Kámbale ni mugalí:mu Kambale COP teacher 'Kambale is a teacher.' |
| "yo" | class marker <br> +pronominal "o" | a variety of contexts | Kámbale yo mugalí :mu <br> Kambale COP teacher <br> 'Kambale is the teacher.' <br> 'Kambale is the one who is the teacher.' <br> 'It is Kambale who is the teacher.' |
| Ne | class marker + ne | locative predicate | olutú lu-ny’ ómó múty’o :yu. 11nest 11-COP 18-3-tree 3-this 'A nest is in this tree.' |
| "Iwa" | class marker + associative marker | identificational copular constructions | olutú lwá lunô 11nest AGR-assoc 11 here 'Here is the nest.' |
| $\varnothing$ | $\varnothing$ | adjectival predicates | oyó ngátambá náye $\varnothing$ uwéne 1 that $1^{\text {st }}$. walk with. 1 1.nice 'My colleague is nice.' |
| mo | invariant mo | embedded smallish clauses | Kámbale mwálíe enyamá mó nyíbísi Kambale ate 9meat MO 9raw 'Kambale ate meat raw.' <br> Kámbale ábirikira Maryá mo musíre Kambale called Mary MO 1idiot 'Kambale called Mary an idiot.' |

As a natural result of examining copular constructions, we have also begun to establish prosodic properties that correlate with the syntactic instantiation of information structure, and in particular of focus in Kinande. We intend to use these generalizations concerning the relation between prosody and syntax in copular constructions to help us better understand information structure in the verb phrase of sentences involving linkers. At this point we have found in copular constructions (a) a lowered high or mid tone that marks focus, as well as (b) high tone that marks focus under certain circumstances.

The discovery of a mid-tone marker is particularly striking, as Kinande is not described as having a mid tone. The mid or lowered high tone occurs only when the post copular constituent is particularly emphasized. The examples we have at this point that show this are equational copular sentences:
(15) a. eZaíre yê Kó :ngo

24Zaire COP Congo
'Zaire is the CONGO.' (Uttered to correct a mistaken belief)
b. Munábwi:ré ni Pási :ka.
today COP Easter
'Today is EASTER.' (Uttered to correct a mistaken belief)
We also found that a high tone marks focus on the non-head of a post copular noun phrase:
(16) ekyó ni kitábu ky'ágé, (síkya Nadíne) 7that COP 7book 7-associate'my
'That is MY book (not Nadine's).'
Notice the tone on the last vowel. Whether the sentence is followed by something or not, that H tone remains, presumably to mark emphasis. This high tone is not present when the possessive is not emphasized:
(17) ekyó ky’ékitábu kyage, (bútsira ecompúter yage)
7.that COP 7book 7-associate'my (not computer my)
'That is my BOOK, not my computer.'
This part of the investigation will not only shed light on focus at the PF interface in Kinande, it will also contribute to a greater understanding of the phrasal phonology of Kinande.

Finally, our investigation of copular constructions reveals that Kinande does not always require upward/specifier head agreement. That is, in certain copular constructions, when the subject and predicate are mismatched in phi-features, an agreeing (linker) copula agrees with the post copular expression:
(18) ekyó tutásóndiré kó na háké, ry'érilangira Kámbalé mo mutamí :ri

7that we.not.need at all 5COP 5.see Kambale LK 1drunk
'What we do not need at all is to see Kambale drunk.'
In (18) the copula agrees with the noun class of the head of the post copular constituent. Here are a few more examples involving pseudo clefts. In these examples, the agreeing linker copula agrees with the post copular (focused) constituent:
(19) a. ebyálya ebyó nyánzire kutsibú w' ámatímo

8 food 8 that I.like strongly 6COP 6bananas
'The food that I like best is bananas.'
cf. also: Ebyálya ebyó nánzire kutsibú bó buhóti ( ... is beans)
Ebyálya ebyó nánzire kutsibú ló lukondi ( ... is sauce made from boiled beans)
Ebyálya ebyó nánzire kutsibú y' ênyáma ( ... is meat)
These examples also demonstrate that agreement in Kinande is not only with dislocated constituents.
We will present accurate empirical generalizations concerning the conditions under which agreement is post copular and we will relate this to the syntax of agreement in linker constructions in the verb phrase. We are still developing our understanding of this phenomenon, which we uncovered during the course of our systematic investigation of copular constructions.

In sum, our main focus is on the presentation of evidence that the linker behaves like a copula. Moreover, we broaden the empirical domain of inquiry to include other types of copular constructions in Kinande. Therefore, our research furthers the aims of Afranaph in that we: (a) provide further insight into the linker in Kinande through our linker-as-copula approach; (b) introduce a new perspective from which to investigate symmetric and non-symmetric double object constructions across African languages; (c) establish an essentially new empirical area of documentation for Kinande, namely, copular constructions.

Some further repercussions of our developing investigation of copular constructions in Kinande:
(1) We establish there are a number of copulas in Kinande, with unique semantic specializations. The copulas we uncover demonstrate that one relator (the identificational copula involving the associative marker)-cuts across nominal and verbal categories. Because the copulas are semantically specialized, their distribution and syntax potentially offer evidence bearing on issues in the copula literature such as whether copulas are semantically ambiguous and whether copular inversion actually exists. Moreover, the wealth of copulas in Kinande is of interest for diachronic research in Bantu languages.
(2) We introduce new data bearing on the properties of the syntax/prosody interface in Bantu languages.
(3) We demonstrate that agreement in Kinande is neither restricted only to a specifier/head configuration (upwards agreement) nor is it restricted only to dislocated constituents (Baker 2003), contra proposals in the literature.

## Selected References:

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[^0]:    ${ }^{1}$ Moghamo is a Grassfields Bantu language spoken in North-West Cameroon and the data I will use in this paper are drawn from the Ngamambo dialect of which I am a native speaker. The dialect is spoken in the Santa sub-region. In the paper, therefore, my use of Moghamo is restricted to this particular dialect.

[^1]:    ${ }^{1}$ This construction was first documented in Zulu by Zeller (2011), who names it instrument inversion.

[^2]:    ${ }^{1}$ P4 marked by the morpheme (fà) is known as yesterday past in the language.
    ${ }^{2}$ The absence of the Question Morpheme makes the construction ungrammatical.

[^3]:    ${ }^{1}$ The issue is not whether head movement exists as a theoretical option, but whether we can model the comparative picture if head movement is an instance of movement of a tiny phrase which does not trigger pied-piping

[^4]:    ${ }^{1}$ Evidence from vowel harmony domains, which we will present in our talk, allows us to distinguish between enclitic pronouns and linkers.

