

Adjectives as Nominal Heads in Basaá

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1. Introduction

Adjectives in Basaá [basaá] (Bantu, A43: Cameroon) are morphologically nominal: they possess inherent noun class and distinguish singular and plural (Dimmendaal 1988, Hyman 2003). Additionally, adjectives in Basaá function as the head of the noun phrase in which they occur, in a sense to be made precise below. This challenges the standard assumption that noun phrases or DPs are projected (or headed) by nouns.¹ This paper provides an analysis of adjectives in Basaá which takes seriously the categorical status of adjectives as nouns, but proposes that these adjectives are syntactic predicates of the noun they modify, moving to their position as nominal heads by Predicate Inversion.

The status of adjectives as nominal heads can be seen in the example below, in which the adjective occurs in the position of the head noun and controls concord on its dependents, including the phrase containing the noun it modifies (Hyman 2003):

- (1) *mín-langá mí dí-nuní míní / *tíní* ‘these black birds’
4-black 4 13-birds 4.these / 13.these (*lit.* ‘these blacks of birds’)

In (1) the adjective *mínlangá* ‘black’ occurs initially in the noun phrase. This is the position of the noun in noun phrases without adjectives. The modified noun follows the adjective, but a connective intervenes between the adjective and the noun. The connective agrees with the adjective. In addition, higher modifiers, such as demonstratives, must agree with the adjective in noun class and number, and cannot agree with the modified noun.

This paper details properties of *nominal adjectives* (henceforth *nA*) in Basaá as well as the *nA-of-N* structure illustrated in (1). In section 2 we show that in addition to *nAs*, Basaá possesses a restricted class of “true” adjectives which occur in a more canonical modification construction. Section 3 examines properties of the *nA-of-N* construction and lays out arguments that *nAs* are the syntactic head in these structures, and that the nominal following the *of-N* component of the *nA-of-N* construction is structurally reduced, or not a full DP. Section 4 shows that *nAs* must agree with the noun in number, and that this presents a technical problem for current theories of agreement. This problem is used to motivate an analysis of *nA-of-N* in terms of Predicate Inversion, where *nA* is taken to form a small clause with a nominal subject before moving to its position as the nominal head. Evidence for this analysis comes from the distribution of number agreement when adjectives occur as clausal predicates and small clauses.

2. Three categories of adjectives in Basaá

All putative adjectives in Basaá are nominal, as they take low tone gender prefixes typical of nouns. However, this section demonstrates that there are actually three groups of adjectives with respect to their behavior in noun phrases. More specifically, there are two possible positions for adjectives in Basaá, either they occur in the *nA-of-N* construction illustrated in (1), or they follow and agree with the noun they modify, e.g. *mut nkéni* ‘big person.’ The three groups of adjectives are distinguished by their ability to occur only in one or the other of these constructions, or in both.

The first group of adjectives are those which only occur in the *nA-of-N* construction. This group of adjectives is the most plentiful, and examples can be found representing each noun class:

¹ E.g., “The DP represents the extended, and maximal, projection of the lexical head, the noun” (Bernstein 2001:536).

(2) GROUP 1 ADJECTIVES : *nA*-of-N

(N.B. L-tone is unmarked)

Class	Num	<i>nA</i>		<i>nA</i>	of	N	
1	SG	<i>n-lám</i>	‘beautiful’	<i>n-lám</i>		<i>hi-nuní</i>	‘beautiful bird’
2	PL	<i>ba-lám</i>		<i>ba-lám</i>	<i>bá</i>	<i>dí-nuní</i>	‘beautiful birds’
3	SG	<i>n-langá</i>	‘black’	<i>n-langá</i>		<i>hi-nuní</i>	‘black bird’
4	PL	<i>min-langá</i>		<i>min-langá</i>	<i>mí</i>	<i>dí-nuní</i>	‘black birds’
5	SG	<i>li-múgê</i>	‘taciturn’	<i>li-múgê</i>	[↓] <i>lí</i>	<i>hi-nuní</i>	‘taciturn bird’
6	PL	<i>ma-múgê</i>		<i>ma-múgê</i>	[↓] <i>má</i>	<i>dí-nuní</i>	‘taciturn birds’
7	SG	<i>lóngé</i>	‘good’	<i>lóngé</i>		[↓] <i>hi-nuní</i>	‘good bird’
8	PL	<i>bi-lóngé</i>		<i>bi-lóngé</i>	[↓] <i>bí</i>	<i>dí-nuní</i>	‘good birds’
9	SG	<i>mbóm</i>	‘big’	<i>mbóm</i>		<i>hi-nuní</i>	‘big bird’
10	PL	<i>mbóm</i>		<i>mbóm</i>	<i>í</i>	<i>dí-nuní</i>	‘big birds’
19	SG	<i>hi-peda</i>	‘small’	<i>hi-peda</i>	<i>hí</i>	<i>hi-nuní</i>	‘small bird’
13	PL	<i>dí-peda</i>		<i>dí-peda</i>	<i>dí</i>	<i>dí-nuní</i>	‘small birds’

Because a Group 1 adjective has inherent gender, controlling the noun class on the connective, we will call such an adjective a *nominal adjective* (*nA*). As the table above demonstrates, while the connective must agree with the *nA* in noun class and number, the noun in the *nA*-of-N construction must agree with the adjective in number (SG/PL), shown in the alternation between *hinuní* ‘bird’ and *dinuní* ‘birds’ above. We return to the issue of number agreement in more detail in section 4.

The second group is comprised of “true” adjectives. These adjectives cannot occur in the *nA*-of-N construction, and instead must follow and agree with the noun they modify.

(3) GROUP 2 ADJECTIVES : N-A

Class	Num	N	A	
1	SG	<i>mut</i>	<i>η-kéηí</i>	‘big person’
2	PL	<i>bot</i>	<i>ba-kéηí</i>	‘big people’
3	SG	<i>n-tómbá</i>	<i>η-kéηí</i>	‘big sheep’
4	PL	<i>min-tómbá</i>	<i>miη-kéηí</i>	‘big sheeps’
5	SG	<i>li-pan</i>	<i>li-kéηí</i>	‘big forest’
6	PL	<i>ma-pan</i>	<i>ma-kéηí</i>	‘big forests’
7	SG	<i>éé</i>	<i>i-kéηí</i>	‘big tree’
8	PL	<i>bi-éé</i>	<i>bi-kéηí</i>	‘big trees’
9	SG	<i>η-gwó</i>	<i>i-kéηí</i>	‘big dog’
10	PL	<i>η-gwó</i>	<i>i-[↓]kéηí</i>	‘big dogs’
19	SG	<i>hi-nuní</i>	<i>hi-kéηí</i>	‘big bird’
13	PL	<i>dí-nuní</i>	<i>dí-kéηí</i>	‘big birds’

There are few Group 2 adjectives. A nearly exhaustive list that the third author uses or has heard includes *-kéηí* ‘big,’ *-tídgi* ‘small,’ *-púbí* ‘pure,’ *-híndí²* ‘black,’ *-súní* ‘cold,’ *-léégá* ‘warm,’ and *-yomí* ‘live.’ Many of these adjectives are deverbal (Bot Ba Njock 1977). The prefixes on postnominal As closely resemble class prefixes on nouns — they are not connectives, which are generally characterized by H tone. The syntax of Group 2 adjectives is similar to the syntax of adjectives in many other Bantu languages, though some of these require the use of a connective between the noun and a following adjective (cf. Bresnan and Mchombo 1995:239-240).

The third group of adjectives is the smallest, and is comprised simply of those items which can occur either in the *nA*-of-N construction or the N-A construction typical of Group 2 adjectives. Group 2 adjectives form a small, variable group, including *n-lám* ‘beautiful’ and *m-bé* ‘ugly.’ These adjectives are members of class 1/2, as is visible when they head the *nA*-of-N construction in the column.

² The third author does not use this word, though he has heard others use it as an adjective.

The examples below show that adjectives in the *nA*-of-*N* construction agree with *nA* rather than *N*:

(7) DEPENDENTS IN *nA*-OF-*N* AGREE WITH *nA*

- | | | | | | | |
|----|------------------|-----------|----------------|------------------|-----------------------|------------------------|
| a. | <i>min-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>mí Victor</i> | (* <i>dí Victor</i>) | ‘Victor’s black birds’ |
| | 4-black | 4 | 13-birds | 4 | 13 | |
| b. | <i>min-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>ɣwêṃ</i> | (* <i>cêṃ</i>) | ‘my black birds’ |
| | 4-black | 4 | 13-birds | 4.my | 13.my | |
| c. | <i>min-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>mítân</i> | (* <i>dítân</i>) | ‘five black birds’ |
| | 4-black | 4 | 13-birds | 4.five | 13.five | |
| d. | <i>mín-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>míni</i> | (* <i>tíni</i>) | ‘these black birds’ |
| | 4-black | 4 | 13-birds | 4.these | 13.these | |

When multiple *nAs* occur, the *nA*-of-*N* construction can iterate. In such cases, nominal modifiers must agree with the leftmost *nA*.³

(8) DEPENDENTS AGREE WITH LEFTMOST *nA*

- | | | | | | | | |
|----|-----------------|-------------|------------------|-----------|----------------|------------------|-----------------------------|
| a. | <i>bi-lóṅgé</i> | ↓ <i>bí</i> | <i>mín-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>bí Victor</i> | ‘Victor’s good black birds’ |
| | 8-good | 8 | 4-black | 4 | 13-birds | 8 | |
| b. | <i>bi-lóṅgé</i> | ↓ <i>bí</i> | <i>mín-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>gwêṃ</i> | ‘my good black birds’ |
| | 8-good | 8 | 4-black | 4 | 13-birds | 8.my | |
| c. | <i>bi-lóṅgé</i> | ↓ <i>bí</i> | <i>mín-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>bítân</i> | ‘five good black birds’ |
| | 8-good | 8 | 4-black | 4 | 13-birds | 8.five | |
| d. | <i>bi-lóṅgé</i> | ↓ <i>bí</i> | <i>mín-laygá</i> | <i>mí</i> | <i>dí-nuní</i> | <i>bíni</i> | ‘these good black birds’ |
| | 8-good | 8 | 4-black | 4 | 13-birds | 8.these | |

The fact that the leftmost *nA* controls agreement on dependents indicates that the leftmost *nA* is the head of the noun phrase, following the claim by Zwicky (1985) that heads determine concord. Furthermore, the *nA* can be taken to be a nominal head, as the ability to control concord on nominal modifiers is a defining characteristic of nouns in Basaa, along with the possession of inherent gender, another property of *nAs*.

Another argument that *nAs* are nouns comes from degree modifiers. While predicative adjectives (9a-b) and postnominal (i.e. Group 2) adjectives (9c) can take degree modifiers, including *ɣgandak* ‘many, very’, *ndek* ‘few, a little’; *nAs* appearing in *nA*-of-*A* cannot occur with degree modifiers (19d):

(9) DEGREE MODIFIERS WITH PREDICATIVE AND ADNOMINAL ADJECTIVES

- | | | | | | | |
|----|------------------------------------|---------------------|----------------|------------------|---------------------|--------------------|
| a. | <i>di-nuní</i> | <i>dí</i> | <i>yé</i> | <i>di-kéni</i> | <i>ɣgandak</i> | (<i>ɣgandak</i>) |
| | 13-birds | 13.AGR COP | 13-big | very | very | |
| | ‘The birds are very (very) big.’ | | | | | |
| b. | <i>di-nuní</i> | <i>dí</i> | <i>yé</i> | <i>mín-laygá</i> | <i>ɣgandak</i> | (<i>ɣgandak</i>) |
| | 13-birds | 13.AGR COP | 4-black | very | very | |
| | ‘The birds are very (very) black.’ | | | | | |
| c. | <i>di-nuní</i> | <i>di-kéni</i> | <i>ɣgandak</i> | | | |
| | 13-birds | 13-big | very | | | |
| | ‘very big birds’ | | | | | |
| d. | <i>mín-laygá</i> | (* <i>ɣgandak</i>) | <i>mí</i> | <i>dí-nuní</i> | (* <i>ɣgandak</i>) | |
| | 4-black | very | 4 | 13-bird | very | |

³ Hyman (2003:278) reports that the speakers he worked with prefer to agree with the closest adjective. This pattern would be less easily accommodated by the analysis outlined below.

The inability of *nAs* to receive degree modification in (9d) follows if degree modifiers are restricted to true adjectives, and the putative adjective in the *nA-of-N* construction is, in fact, a noun. Under this view, *nAs* do function as adjectives when they occur in predicative environments such as (9b). Thus, the distribution of degree modifiers corroborates the claim that *nAs* in the *nA-of-N* construction are categorically nouns rather than adjectives.

3.2. Properties of the *of-N* constituent

The nominal (*of-N*) component of the *nA-of-N* construction consists of a connective which agrees with the *nA* and a noun. This section demonstrates that the noun in the *of-N* component of the *nA-of-N* construction lacks functional structure, i.e., it is structurally reduced. The first piece of evidence that this N lacks functional structure is the inability of the N to occur with higher modifiers, such as demonstratives and genitives. This was shown in example (7). If such modifiers attach at the level of functional projections above NP, such as DP, it follows that these functional projections are not present with the N in the *nA-of-N* construction.

Two additional observations support this conclusion. The first relates to the connective in *nA-of-N*, which is morphologically distinct from the connective in genitive DPs. The second piece of evidence that N lacks functional structure comes from the behavior of possessive pronouns.

For most noun classes, the connective which occurs with full genitive DPs is identical to the connective in *nA-of-N*, but there are several notable exceptions. In particular, the connectives of the singular classes 1, 3, 7, and 9 reveal that there are two connectives (Con₁, Con₂) in Basaá with syntactically distinct distributions:

(10) TWO CONNECTIVES IN BASAÁ

Class>	1	2	3	4	5	6	7	8	9	10	19	13
Con ₁	<i>nú</i>	<i>bá</i>	<i>ú</i>	<i>mí</i>	<i>lí</i>	<i>má</i>	<i>í</i>	<i>bí</i>	<i>i</i>	<i>i</i>	<i>hí</i>	<i>dí</i>
Con ₂		<i>bá</i>		<i>mí</i>	<i>lí</i>	<i>má</i>		<i>bí</i>		<i>i</i>	<i>hí</i>	<i>dí</i>

The connectives in classes 1, 3, 7, and 9 contain a vowel in Con₁ series, which occurs with possessive DPs, but are marked with only a H or L tone in the Con₂, which is the connective in *nA-of-N*.

Con₁ is shown to introduce possessive DPs below in the relevant noun classes:

(11) POSSESSIVES WITH CON₁

Cl.	N-	Con ₁	-N	Gloss
1	<i>maangé</i>	<i>nú</i>	<i>mút</i>	'the person's child'
3	<i>ntómbá</i>	<i>ú</i>	<i>mút</i>	'the person's sheep (sg.)'
7	<i>nugá</i>	<i>í</i>	<i>mút</i>	'the person's animal'
9	<i>njeé</i>	<i>i</i>	<i>mut</i>	'the person's lion'

Con₂ is found in compound-like N-of-N expressions which often have conventionalized meanings, as shown below. These meanings are not available if Con₂ occurs in this position:

(12) N-OF-N COMPOUNDS WITH CON₂

Cl.	N-CON ₂ -N			N-CON ₁ -N	
1	<i>mut</i>	<i>wím</i>	person-of-theft	'thief'	* <i>mut nú wím</i>
3	<i>ñ-yín</i>	<i>njók</i>	fem.-of-elephant	'elephant cow'	* <i>ñ-yín ú njók</i>
7	<i>nugá</i>	<i>mút</i>	animal-of-person	'idiot'	<i>nugá í mút</i> 'the person's animal'
9	<i>njeé</i>	<i>mut</i>	lion-of-person	'brave person'	<i>njeé i mut</i> 'the person's lion'

The connective in the left columns above is only apparent in the change in tone on the following word. This can be seen most clearly by comparing the falling tone on *mut* 'person' in *nugá mút* 'idiot' to the low tone in *njeé mut* 'brave person.' When Con₁ is used in these latter cases, the idiomatic meaning is lost, and instead the second noun is interpreted referentially, as a possessor.

As with lexicalized N-of-N compounds, only Con₂ can occur with the *nA-of-N* construction:

(13) CON₂ IN *nA*-OF-N

- | | | | | | | | |
|----|-------------|---------------|--------------------------|----|-----------------|---------------|----------------------------|
| a. | <i>mbóm</i> | (<i>*i</i>) | <i>wǒm</i> | b. | <i>ban̄ga</i> | (<i>*i</i>) | <i>m-alêt</i> |
| | big | | 9.CON ₁ field | | great | | 9.CON ₁ teacher |
| | 'big field' | | | | 'great teacher' | | |

So the noun in *nA*-of-N forms a natural class with the second noun in N-of-N compounds in that they are both selected by Con₂. A natural explanation for this connection is that both of these nouns are structurally reduced.

Measure constructions in Basaá further support this conclusion, as well as the connection between the occurrence of Con₂ and the inability to license higher modifiers. Measure constructions allow both Con₁ and Con₂, but the interpretations differs. Additionally, while nouns following Con₁ can license higher modifiers, such as possessives, nouns after Con₂ cannot license these modifiers.

(14) MEASURE CONSTRUCTIONS WITH CON₁ AND CON₂

- | | | | | | | | | | |
|----|---------------|---|--------------------|-----------------|----------------|----|--------------------------|----|---------------------------|
| a. | <i>mbógól</i> | [| <i>i</i> | [_{DP} | <i>di-loba</i> | | <i>cêm</i> |]] | 'a hundred of my peppers' |
| | 9-hundred | | 9.CON ₁ | | 13-pepper | | 13.my | | |
| b. | <i>mbógól</i> | [| - | [_{NP} | <i>di-loba</i> |]] | <i>yem</i> / <i>*cêm</i> | | 'my hundred peppers' |
| | 9-hundred | | 9.CON ₂ | | 13-pepper | | 9.my 13.my | | |

In (14a), the interpretation is partitive: the noun phrase picks out a hundred peppers of a presupposed larger set which belong to the speaker. In (14b), on the other hand, no larger set is assumed, similar to English pseudopartitives. Partitives differ from pseudopartitives in requiring that DP be projected in the complement of *of*. Thus, the interpretive, syntactic, and morphological differences come together in this example to show that Con₂ reliably selects a structurally reduced complement.

A final argument for the absence of functional projections in of-N comes from the distribution of possessive pronouns. Possessive pronouns usually occur immediately after the head noun in Basaá, but they can sometimes scramble with other nominal elements to their right. In (15a), we see that a possessive pronoun can occur both after *nA* (15a) and after N (15b) in *nA*-of-N; (15b) demonstrates that the possessive pronoun can occur after both Ns in N-of-N compounds:

(15) POSSESSIVE PRONOUNS BEFORE AND AFTER OF-N

- | | | | | | | |
|----|------------------|-----------------|------------------------------|----------------|-----------------|------------------|
| a. | <i>min-langá</i> | { <i>ɣwêm</i> } | <i>mí</i> | <i>di-nuní</i> | { <i>ɣwêm</i> } | 'my black birds' |
| | 4-black | 4.my | 4.CON ₁ | 13-birds | 4.my | |
| b. | <i>nugá</i> | { <i>yêm</i> } | <i>mút</i> | | { <i>yêm</i> } | 'my idiot' |
| | 7.animal | 7.my | 1.CON ₁ -1.person | | 7.my | |

However, when true possessives occur, introduced by Con₁, the possessive pronoun must occur after the head noun; it cannot follow the possessive noun phrase. In the following example the possessive noun phrase is a full DP by virtue of the fact that it does not have to agree in number with its head and its ability to be modified by a demonstrative in (16b). While not shown, *di-nuní* 'birds' could also be modified by a distinct possessive pronoun in this case.

(16) POSSESSIVE PRONOUNS ONLY OCCUR BEFORE POSSESSIVE NOUN PHRASES

- | | | | | | | |
|----|----------------|-------------|------------------------|----------------|------------------|---------------------------|
| a. | <i>bi-fóto</i> | <i>gwém</i> | [↓] <i>bi</i> | <i>di-nuní</i> | (<i>*gwém</i>) | 'my picture of the birds' |
| | 8-picture | 8.my | 8 | 13-bird | 8.my | |
| b. | <i>bi-fóto</i> | <i>gwém</i> | [↓] <i>bi</i> | <i>di-nuní</i> | <i>tíní</i> | (<i>*gwém</i>) |
| | 8-picture | 8.my | 8 | 13-bird | 13.this | 8.my |

In summary, possessive pronouns treat the of-N components of N-of-N compounds and the *nA*-of-N constructions on par in their ability to follow them, correlating with the fact that both nouns are introduced by Con₂. In contrast, these pronouns cannot occur to the right of a possessive noun phrase introduced by Con₁.

One puzzle introduced by these facts is that possessive DPs and possessive pronouns have a distinct syntactic distribution despite the fact that their syntactic status is similar: both indicate

possession. Possessive pronouns related to the possessee must precede possessive DPs, and they also interrupt the ‘small’ *nA*-of-N and N-of-N constructions above. This latter fact is particularly surprising of possessive pronouns are taken to be higher nominal modifiers. A plausible account of this problem is that pronouns are shifted to the left due to their lightness. Support for this view comes from the distribution of pronominal objects of verbs, as described by Hyman (2003:278). While two DP objects must be ordered *recipient-theme* (17a-b), if one of these objects is pronominal, it must occur immediately after the verb, resulting in an otherwise impossible *theme-recipient* order (17c-d).

(17) PRONOUNS WITH DITRANSITIVE VERBS (Hyman 2003:278)

- | | | | | | |
|----|------------|--------------|---------------|---------------|---|
| a. | <i>a</i> | <i>ŋ-ébá</i> | <i>máàngé</i> | <i>kaat</i> | ‘He/she showed the child the picture.’ |
| | 1.AGR | P1-show | child | picture | |
| b. | * <i>a</i> | <i>ŋ-ébá</i> | <i>káát</i> | <i>maàngé</i> | (i.e. ‘He/she showed child to the picture’) |
| c. | <i>a</i> | <i>ŋ-ébá</i> | <i>mé</i> | <i>maàngé</i> | ‘He/she showed the child to me.’ or |
| | 1.AGR | P1-show | me | child | ‘He/she showed me to the child.’ |
| d. | * <i>a</i> | <i>ŋ-ébá</i> | <i>máàngé</i> | <i>mé</i> | |

As with possessive pronouns, object pronouns must be positioned closer to their head than their full DP counterparts. Returning to the distribution of possessive pronouns in (15) and (16), it seems that the ordering requirement on pronouns relative to full DPs is not enforced relative to of-N constituents, perhaps because they lack functional structure. In contrast, pronouns must occur to the left of full possessive DPs and object DPs.

Summarizing, the *nA*-of-N construction has the following properties. First, the *nA* constituent is morphosyntactically a noun which heads the noun phrase in which it occurs. Second, the connective in this construction is distinct from the connective which introduces possessive DPs. The distribution of this connective, modifiers, and the unique distributional properties of possessive pronouns all point to the conclusion that the second, true, noun in *nA*-of-N lacks functional structure.

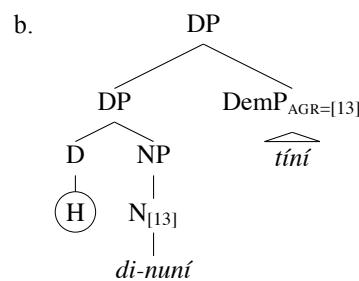
3.3. An analysis of *nA*-of-N

This section presents a first-pass analysis of Basaá noun phrases the *nA*-of-N construction based on the discussion above. However, this analysis encounters theoretical problems related to agreement which set the stage for the discussion of number agreement and Predicate Inversion in section 4.

Postnominal modifiers in Basaá can be analyzed as rightward adjuncts to different functional projections of the noun. For example, demonstratives can be seen as adjoining to the DP projection, which we take to be headed by the definite H tone augment.⁴

(18) BASIC NOUN PHRASE STRUCTURE IN BASAÁ

- a. *dí-nuní tǐní*
 13-bird 13.these
 ‘these birds’



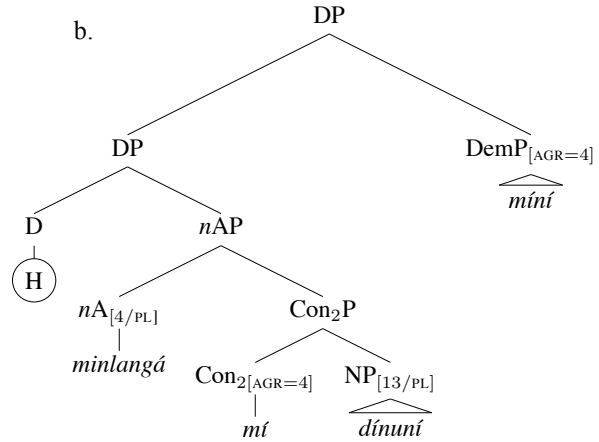
Concord between the demonstrative and the head noun in (18b) is established by the Agree operation of Chomsky (2001), wherein an uninterpretable ϕ -feature on the modifier must be matched by interpretable ϕ -features. Matching takes place via a downward search procedure initiated by the modifier which copies the closest interpretable ϕ -features, here the features of the noun.

⁴ This analysis differs from the analysis of Jenks, Makasso, and Hyman (2012) wherein the demonstrative attaches to a projection between NP and DP. The simpler analysis is adopted here for expository clarity.

A search-based analysis of agreement accounts for the observation that modifiers which occur with *nA*-of-N must agree with the *nA* rather than N, which is more deeply embedded, because Agree looks for the closest interpretable ϕ -features. In light of the discussion above, we take *nA* to combine with a Con_2 complement, forming *nAP*, which itself selects a bare NP complement, forming a Con_2P . Because *nA* is structurally higher than the embedded NP, the demonstrative must agree with *nA*:

(19) STRUCTURE FOR *nA*-OF-N

- a. *mín-langá mí dí-nuní míní*
 4-black 4 13-bird 4.these
 ‘these black birds’



Thus, standard assumptions about the Agree mechanism are able to capture the agreement facts if we adopt the structure in (19b). Higher modifiers such as the demonstrative in (19b) cannot occur inside the complement of Con_2 as it does not contain a DP. This restriction does not hold for possessive modifiers introduced by Con_1 , as these do project DP.

While this analysis seems to be on the right track, it encounters two theory-internal problems. First, if agreement is initiated by a downward-searching probe, it is not clear how Con_2 itself can agree with *nA*, as *nA* c-commands Con_2P . Second, We observed in section 2 that the definitive property of adjectives was that they agreed with the noun they modified in number, though not in noun class. If number agreement is an instance of syntactic agreement, then it is not clear how Con_2 can agree with *nA* in number in gender while *nA* simultaneously agrees with the lower NP in only number. The following section revises the analysis in (19b) to avoid these problems.

5. Number agreement, small clauses, and predicate inversion

This section articulates a more abstract analysis of the *nA*-of-N construction which avoids the problems with agreement faced by the analysis in (19b). Evidence for the revised analysis comes from the distribution of number agreement on adjectives in Basaá, which differ in small clauses and in clausal predicates. The *nA*-of-N construction derived from a small clause via Predicate Inversion, movement of the *nA* from the predicate position of a small clause (Kayne 1994:106; Moro 1997; Corcer 1998; den Dikken 1998; *see also* Birner 1994, 1996; Mikkelsen 2005).

5.1. Number agreement in copular clauses and small clauses

Another property that *nAs* share with nouns in Basaá is that both occur after the copula *ye* when they are predicates of a main clause, or matrix predicates:

(20) PREDICATE NOMINALS AND *nAs*

- a. *a ye m-alét*
 1.AGR COP 1-teacher
 ‘He is a teacher.’
- b. *a ye n-tómbòk*
 1.AGR COP 3-tired
 ‘He is tired.’

Like in the *nA*-of-N construction, when predicate nominals are matrix predicates they must agree with their subject in number in Basaá.

(21) NUMBER AGREEMENT REQUIRED WITH PREDICATE NOMINALS

- | | | | | | |
|----------------|-----------|---------------|---------------|-----------|---------------|
| a. * <i>bá</i> | <i>yé</i> | <i>m-alét</i> | b. * <i>a</i> | <i>ye</i> | <i>6-alét</i> |
| 2.AGR | COP | 1-teacher | 1.AGR | COP | 2-teacher |

Unlike predicate nominals, however, *nAs* do not have to agree with their subject in number when they are matrix predicates. With plural subjects, predicate *nAs* can be either singular or plural. The choice of number corresponds to a collective versus exhaustive distributive reading of the predicate:

(22) NUMBER AGREEMENT NOT REQUIRED WITH PREDICATE *nAs*

- | | | | | | | | |
|---------------------------------------|-----------|-----------------|-----------------------------|-----------|-------------------|-----|------------|
| a. <i>bá</i> | <i>yé</i> | <i>η-hát</i> | b. <i>bá</i> | <i>yé</i> | <i>mi-hát</i> | | |
| 2.AGR | COP | 3(SG)-rich | 2.AGR | COP | 4(PL)-rich | | |
| ‘They are rich (collectively).’ | | | ‘They are each rich.’ | | | | |
| c. <i>mángolo má</i> | <i>yé</i> | <i>η-hóólak</i> | d. <i>mángolo má</i> | <i>yé</i> | <i>miη-hóólak</i> | | |
| 6.mango | 6.AGR | COP | 3(SG)-ripe(sg.) | 6.mango | 6.AGR | COP | 4(PL)-ripe |
| ‘The mangos are ripe (collectively).’ | | | ‘The mangos are each ripe.’ | | | | |

The contrast between *nAs* and predicate nominal in allowing number disagreement makes sense from a semantic perspective; predicate nominals such as ‘teacher’ must be distributively predicated of the subject, as being a teacher is a property of an individual.

Within noun phrases, specifically the *nA-of-N* construction, *nAs* do not have this flexibility in number agreement; mismatches are impossible:

(23) NUMBER AGREEMENT REQUIRED IN *nA-OF-N*:

- | | | | | | |
|-------------------|--------------------|-------------------------------------|---------------------|--------------------|------------|
| a. * <i>η-hát</i> | <i>bot</i> | (< / <i>η-hát</i> ‘ <i>bot</i> ’) | b. * <i>min-hát</i> | <i>mí</i> | <i>mút</i> |
| 3-rich | 3.CON ₂ | 2.people | 4-rich | 4.CON ₂ | 1.person |

The glossing in (23a) indicates that the tonal Con₂ has been associated with the noun *bot* ‘people,’ leading to the surface falling tone (cf. 12).

Another context where mismatches are impossible is small clauses. Small clauses are reduced predicational structures, which are introduced by verbs such as *téhé* ‘see, consider’:

(24) NUMBER AGREEMENT REQUIRED IN SMALL CLAUSE

- | | | | | | | | |
|-------------------------|---------------|---|------------|---------------|---|----------------|---|
| <i>mé</i> | <i>n-téhé</i> | [| <i>bot</i> | <i>mi-hát</i> | / | * <i>η-hát</i> |] |
| 1P.SG | PRES-see | | 3P.PL | 4-rich | | 3-rich | |
| ‘I consider them rich.’ | | | | | | | |

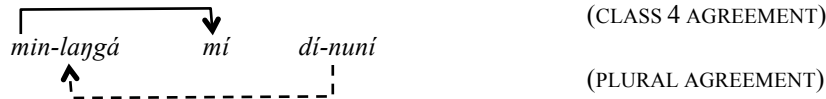
To summarize, while *nAs* do not need to agree in number with subjects when they occur as matrix predicates, number agreement is obligatory in small clauses and the *nA-of-N* construction.

There is no *a priori* semantic or syntactic reason why number agreement should have this distribution. The semantic contrast of distributivity vs. collectivity should in principle be available both for small clause predicates and internal to small clauses, but we find that such a contrast cannot be expressed in these contexts, at least with disjoint number agreement. While no explanation is provided for why these two contexts should pattern differently from predicative *nAs*, in the following section it is proposed that small clauses and *nA-of-Ns* pattern as a class because *nAs* are derived from small clauses.

5.2. Predicate inversion

Now recall from section 4.3 the problem with number agreement in *nA-of-N*, unanalyzable within a search-based theory. While Con₂ agrees with *nA* in number and gender, the *nA* simultaneously must agree with the N which is located across the connective. In other words, there is a kind of agreement paradox, as two different agreement operations must take place simultaneously in opposite directions. This paradox is represented below; arrows proceed from the controller of agreement to the controllee:

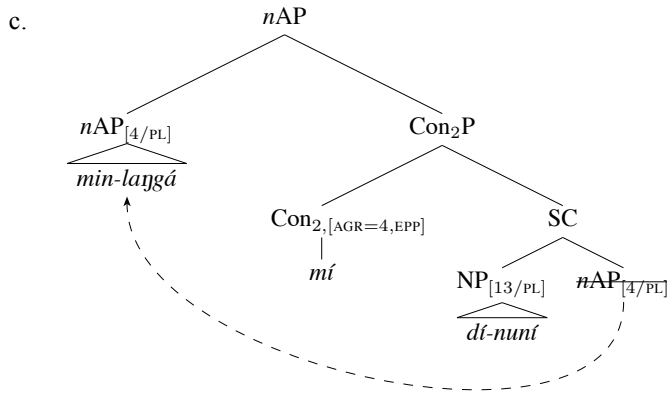
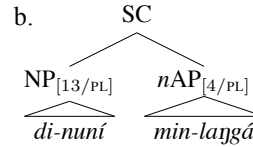
(25) THE AGREEMENT PARADOX IN *nA*-OF-N



However, if number agreement takes place at an earlier point in the derivation, this paradox can be avoided. Specifically, if the *nA* enters the derivation as the predicate of a DP-internal small clause, number agreement between *nAs* and *Ns* can be derived from the requirement that small clauses have number agreement (24), whatever its source. After this small clause is formed (26b), *Con*₂ merges with the small clause, probes its complement, and Agrees with *nA* while requiring that it move and reproject above *Con*₂P (26c):

(26) DERIVING *nA*-OF-N BY PREDICATE INVERSION

- a. *min-langá* *mí* *dí-nuní*
 4-black 4 13-bird
 ‘black birds’



When it reprojects, the *nA* serves as the head of the DP as in example (19). The derivation in (26c) avoids the problems with the proposal in (19b): number agreement takes place in the small clause at an earlier stage of the derivation, and *Con*₂ no longer must be c-commanded by *nAP* at the point that they agree. Additionally, the fact that the NP is structurally reduced may follow from the semantic requirements on DP-internal small clauses, interpreted by set-intersection.

Other cases of DP-internal Predicate Inversion have been argued to involve a *linker* element, alternately analyzed as a kind of complementizer (Kayne 1994) or a DP-internal copula (Moro 1997, den Dikken 1998).⁵ Under this view, *Con*₂ could be analyzed as a linker in Basaá. Incidentally, the contexts besides *nA*-of-N where *Con*₂ was observed in Basaá in section 3.2 resemble environments where Predicate Inversion has been proposed, both in N-of-N constructions (Kayne 1994, den Dikken 1998) and pseudopartitives (Corver 1998). Additionally, the Predicate Inversion analysis above formalizes with a context free grammar the intuition of Van de Velde (2011), phrased in the language of dependency grammar, that *nA*-of-N represents a *dependency reversal*.

One problematic aspect of this proposal, as with the original analyses of Predicate Inversion, is the motivation for moving *nAP* in this construction, rather than the NP. In other words, what prevents an N-of-*nA* construction in Basaá? One possible answer would be to identify morphological properties of the *nA* which require that it be a goal when probed by *Con*₂, but the identity of such a property is not obvious given the morphosyntactic similarities between *nAs* and “true” nouns. Another possibility would be to identify geometric properties of the small clause as triggering inversion, perhaps due to the fact that it violates a requirement that phrase structure be asymmetric (Moro 2000, Ott 2010).

⁵ See Aarts (1998) for an alternative view of these constructions.

However, movement of either the NP or the *nAP* would suffice to break this symmetry, and as such it is not clear why only movement of the *nAP* is allowed. As no easy answer to this question is forthcoming, we set it aside for further work.

One empirical issue that we have not addressed is whether N is obligatory with *nA*. Except for a few lexicalized cases, N is obligatory, and *nA* cannot be used in isolation. Even in contexts where NP-ellipsis would be expected, omission of the noun is dispreferred in Basaá. For example, the question *imbé ngwó a nsómb?* ‘Which dog did he buy?’ could be answered *nlangá ngwó* ‘(the) black (of) dog’ but not **nlangá* ‘(the) black.’ However, as NP-ellipsis in Basaá is generally more constrained than in English, the impossibility of deleting the noun in *nA*-of-N may not be evidence for or against the proposed analysis.

Despite these lingering questions, one benefit of the Predicate Inversion analysis is that it allows all instances of *nAs* in Basaá to be identified with *predicative* environments, rather than *attributive* ones, which are reserved for “true” postnominal As as described in section 2 (Bolinger 1967, Siegel 1980, Baker 2004: 205-11). In this light, the ability of *nAs* to occur in the *nA*-of-N construction can be seen in which Basaá overcomes the prohibition on using non-attributive adjectives noun-phrase internally, just as relative clauses allow exclusively predicative adjectives in English to occur noun-phrase internally, e.g. **the alive/asleep man* vs. *the man who is alive/asleep*. Thus, the distinction between *nAs* and As in Basaá can be identified with this more traditional distinction between predicative and attributive adjectives.

6. Conclusion

In this paper we have attempted to provide a well-motivated analysis of the *nA*-of-N construction in Basaá, and the nominal adjectives that occur in this construction.⁶ Noun phrases in which this construction appeared were shown to be headed by the *nA*, and the N occurring in this construction was shown to be structurally reduced. The connective in this construction was furthermore shown to be distinct from the connective occurring in possessive noun phrases, and was shown to take only structurally reduced nouns as its complement. A simple analysis of this construction was shown to induce problems related to the formal implementation of agreement. The solution to these problems we observed was an analysis based on Predicate Inversion, which also allowed the mysterious class of *nAs* to be identified with a known entity: exclusively predicative adjectives.

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⁶ We are aware that variations on the Basaá situation exist in other Cameroonian zone A Bantu languages (Van de Velde 2011). A particularly interesting case is found in Bafia (Guarisma 2000) which admits several different structures including both A-of-N and N-of-A. Additionally, the Grassfields Bantu language Nweh (Nkemnji 1995, Tamanji 2002) has a very similar construction as Basaá *nA*-of-N, though without a connective.

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