

The Structure of the Bantu Noun Phrase

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1. Introduction

Studies of the noun in Bantu languages have traditionally concentrated on the morphology of the noun with its elaborate class system and the underlying semantic strands. When treatment of the noun and its dependents is undertaken or mentioned it is usually with special focus on the concord system (Nurse & Philippson 2003). Rarely have scholars paid attention to the syntax of the noun and its dependents.¹ References to the structure of the noun phrase are usually very brief (see among others Massamba et al. 1999, Harjula 2004, Ngonyani 2003, Meeuwis 1998, Mous 2004).

Part of the interest in the structure of the noun phrase relates to questions of syntactic categories and their determination. Of interest too is the question of what recursive structures are processable in natural language. This paper discusses the syntax of the noun phrase in several Bantu languages. It examines the larger syntax of the noun and its dependent elements and addresses the following questions:

- (i) what elements can modify the Bantu noun and in what order?
- (ii) which elements can co-occur and/or recur in the modification structure and what criteria are relevant in categorizing the dependents of the noun?
- (iii) is there a saturation point in the modification structure?

2. Categorization criteria of elements in the noun phrase

The criteria for establishing the types of elements that can become dependents of the noun in the noun phrase are based on morphological properties, syntactic behaviour, and semantic features. Table 1 (overleaf) on Mashami shows that different types of noun dependents take different sets of agreement affixes. For example the agreement affixes for adjectives are different from the agreement affixes for numerals.

In other words, the morphology maintains a distinction between adjectives and numerals as belonging to different categories. It will be noted though that there are many overlaps in the affixes across categories. The perfect example of identical affixes across categories is provided by classes 7/8: the *ki/fi* markers are found in all cells across the table. Similarly, the markers for that², possessive *my*, and connective are almost identical (with the usual glide formation and vowel deletion processes); the mismatches are in classes 1, 14, and 16. So the morphological properties alone do not provide a sufficient basis for identification of categories.

The syntactic criteria pertain to the positions that an element may occupy in the noun phrase as well as the possibilities of, and limits on, co-occurrence of an element with other elements. If an element cannot co-occur with another it may be because the two occupy the same syntactic position and stacking is not permitted. This would be a strong basis for considering such elements as belonging to the same syntactic category (e.g. the determiners in the phrase *the my book*).

¹ See Cinque (2000, 2005) for theoretical discussions and references to typological literature.

Table 1 Mashami Noun Class affixes

Cl	Prefix	example	gloss	s/aff	obj. aff.	adj. agr.	Num. one/two	Demonstratives			Poss. my	Ass. con
								this	that1	that2		
1	N	ńndû	<i>person</i>	a	N	mu	umwi	eu	ito	ulya	akwa	wa
2	bha	bhándû	<i>people</i>	bha	bha	bha	bhabhii	bhandi	wando	bhalya	bhakwa	bha
3	N	nRí	<i>tree</i>	u	u	mu	umwi	eu	ito	ulya	wakwa	wa
4	mi	miRí	<i>trees</i>	i	i	bha	ibhii	ei	iyo	ilya	yakwa	ya
5	i	iyái	<i>egg</i>	lyi	lyi	i	lyimwi	ilyi	ilyo	lilya	lyakwa	lya
6	ma	mayái	<i>eggs</i>	a	ya	ma	abhii	andi	ando	alya	akwa	a
7	ki	kíndô	<i>thing</i>	ki	ki	ki	kimwi	iki	ikyo	kilya	kyakwa	kya
8	fi	fíndô	<i>things</i>	fi	fi	fi	fibhii	ifi	ifyo	filya	fyakwa	fya
9	N	mbuRû	<i>goat</i>	i	i	shi	imwi	ei	iyo	ilya	yakwa	ya
10	N	mbuRû	<i>goats</i>	ti	ti	shi/ti	ibhii	iti	eto	tilya	takwa	ta
10a	ngi	ngíbángâ	<i>swords</i>	ti	ti	shi/ti	ibhii	iti	eto	tilya	takwa	ta
11	u	úbángâ	<i>sword</i>	lu	lu	lu	lumwi	ilu	elo	lulya	lwakwa	lwa
12	ka	kambuRû	<i>small goat</i>	ka	ka	ka	kamwi	aka	ako	kalya	kakwa	ka
14	u	úndû	<i>human-ness</i>	u	lu	u	lumwi	eu	elo	ulya	lwakwa	lwa
15/5	i	íoRâ	<i>marrying</i>	ku/lyi	ku/lyi	ku	lyimwi	ilyi/kunu	ilyo	lilya/kulya	lwakwa	lya
16	a	ándô	<i>place</i>	ku	ku	ku	amwi	andi	ando	alya	kwakwa	kwa/a
17	ku	kúndô	<i>place</i>	ku	ku	ku	kumwi	andi	efo	kulya	kwakwa	kwa
18	-	nRín	<i>in the tree</i>	ku	ku	ku	kumwi	kunu	efo	kulya	kwakwa	kwa

In principle stacking, i.e. repetition of a word or a category is prohibited as is clearly demonstrated in the case of restricted sets of determiners and modifiers, e.g. demonstratives, possessives, numerals and general quantifiers. The examples below are from Mashami.

- (1) * *fitabu fíngi fyoose* many all books (general quantifiers)
 * *ikusáro lyilyá ilyi* that this thought (demonstratives)
 * *fitabu fyakwa fyakwe* my your books (possessives)
 * *makusáro abhii aghaanu* two five thoughts (numerals)

On the other hand it may be that two or more items of the same category can co-occur because a degree of stacking is permitted. In that case co-occurrence may not be evidence of different category membership as the examples below demonstrate.

(2)

	Language	Noun	Dem.	Poss.	Dem
a.	Mashami	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	-
		'Those people of mine'			
b.	Swahili	<i>kitabu</i>	-	<i>changu</i>	<i>kile</i>
		'That book of mine'			
c.	Nyambo	<i>omuti</i>	-	<i>gwanje</i>	<i>ogu</i>
		'This tree of mine'			

In the three languages above in (2) it is possible to stack two determiners (a possessive and a demonstrative). Similarly it is possible to stack two or more adjectives in many languages (3).

(3)

	Language	noun	adj	adj
a.	Mashami	<i>kitabu</i>	<i>kasha</i>	<i>kidodori</i>
		'a good red book'		
b.	Swahili	<i>kitabu</i>	<i>kipya</i>	<i>kizuri</i>
		'a nice new book'		
c.	Nyambo	<i>omuti</i>	<i>gugúfu</i>	<i>guhângo</i>
		'a big short tree'		

Cases of this apparent stacking raise the possibility that the categorization is not proper, i.e. that in (3c), for instance, the adjective label is not appropriate for both *gúfu* "short" and *hângo* "big". Alternatively, it may be reasonable to recognize levels of sub-categorization as the examples in (2) show: that, for instance, in (2b) *changu* 'my' and *kile* 'that' are determiners belonging to the subcategories of possessive and demonstrative, respectively.

A further syntactic criterion concerns the phrasal properties of a category. Adjectives may be modified by intensifiers (adverbs), whereas demonstratives, possessives, and quantifiers may not. This test would distinguish quantifiers *-ona/-ote/-ósê* 'all' and *-ombi* 'both' from *-ingi* 'many' and *-ce/-chache* 'few', which are adjectives (4).

(4)

	Adjectives	Quantifiers	
Swahili	<i>vitabu vingi sana</i>	<i>vitabu vyote *(sana)</i>	
Mashami	<i>fitabu fingi nnu</i>	<i>fitabú fyóósê *(nnu)</i>	
Nyambo	<i>ebitabo binji</i> <i>muno</i>	<i>ebitabo byôna</i> <i>*(muno)</i>	<i>ebitabo byômbi *(muno)</i>
	books many very	books all *very	books both *very

Thus the quantifiers are like the numerals in not taking an intensive modifier. Similarly the ordinals may be categorized together with the associative phrase since both take the connective + noun as exemplified by the Swahili data below.

(5)	Swahili:	Ordinals		Associative	
		<i>-a kwanza</i>	‘first’	<i>-a Tabora</i>	‘of/from /to Tabora’
		<i>-a tatu</i>	‘third’	<i>-a chuma</i>	‘of iron’

Semantic considerations may indicate that two elements cannot co-occur even if stacking of the category in question is permitted. The simple case may involve non-compatible semantic features. Consider the adjectives in *a red white book, *a tall short boy; but contrast these with the well-formed ”a thin red book”, “a tall clever boy”. Similarly, the mutually exclusive sets of demonstratives and possessives may be considered as involving incompatible semantic features rather than mere syntactic constraints (*this that book, *my your book, *very all books vs. very many books). A related case may involve repetition of a semantic feature e.g. the numeral and general quantifier in **watu wengi watano*/**watu watano wengi* *’many five people’; but contrast *watu wote watano* ‘all five people’

3. Elements in the Noun Phrase

3.1 Determiners

Nominal dependents in Bantu are post-head with a frequent exception, viz. the distributive determiner *each/every* (6):

(6)

	01	0	
	each	noun	gloss
Mashami	<i>wó</i>	<i>nndu</i>	‘each person’
	<i>wó</i>	<i>kilwa</i>	‘each frog’
Swahili	<i>kila</i>	<i>mtu</i>	‘each person’
Ha	<i>buri</i>	<i>muntu</i>	‘each person’

Determiners pick out the entity denoted by the noun. They belong to closed sets of mutually exclusive items. In Mashami there are two main sets, demonstratives and possessives, whose respective members may co-occur, in that fixed order. It is the items in each set that are internally mutually exclusive, meaning that demonstratives may not co-occur, and possessives may not co-occur. As will be shown below, no other element can precede the demonstrative or intervene between the demonstrative and the possessive in Mashami. In (7b) and (7d) the possessive precedes the demonstrative and so the construction is ill-formed.

(7)

	0	1	2	gloss
		determiners		
	Noun	Dem.	Poss.	
a.	<i>ńndú</i>	<i>ulya</i>	<i>wákwa</i>	‘that person of mine’
b.	* <i>ńndú</i>	<i>wakwa</i>	<i>ulya</i>	
c.	<i>ikusáro</i>	<i>lyilyá</i>	<i>lyákwa</i>	‘that thought of mine’
d.	* <i>ikusáro</i>	<i>lyakwá</i>	<i>lyilyá</i>	

3.2 Modifiers

In several other languages the possessive alone is strictly fixed immediately after the head noun. All other elements follow the possessive and their ordering is considerably free. These may be categorized as modifiers. In the following sub-sections data from various languages is presented.

3.2.1 Mashami

With a few restrictions, the numerals, ordinals, and general quantifiers enjoy considerable freedom in noun modification. In (8a-g) below the quantifier *bhóósê* ‘all’ occupies positions before and after the numeral and ordinal.

(8)

	0	1	2	3	4	5
	Noun	Dem.	Poss.	Num.	Ord.	Quant.
a.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bha mbê</i>	<i>bhóósê</i>
	‘All those first five people of mine’					
	Noun	Dem.	Poss.	Quant.	Ord.	Num.
b.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhóósê</i>	<i>bha mbê</i>	<i>bhagháánú</i>
	‘All those first five people of mine’ {gen. quantifier before ord. and numeral}					
	Noun	Dem.	Poss.	Num.	Ord.	Quant.
c.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	-	<i>bhóósê</i>
	‘All those five people of mine’					
	Noun	Dem.	Poss.	Quant.	Ord.	Num.
d.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhóósê</i>	<i>bha mbê</i>	-
	‘All those first people of mine’ {gen. quantifier before ord.}					
	Noun	Dem.	Poss.	Num.	Ord.	Quant.
e.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	-	<i>bha mbê</i>	<i>bhóósê</i>
	‘All those first people of mine’ {ord. before gen. quantifier}					
	Noun	Dem.	Poss.	Quant.	Num.	Ord.
f.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhoose</i>	<i>bhagháánú</i>	-
	‘All those five people of mine’ {general quantifier before numeral}					
	Noun	Dem.	Poss.	Num.	Ord.	Quant.
g.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	-	-	<i>bhóósê</i>
	‘All those people of mine’					

The miscellaneous modifiers *other* and *only* also follow the possessive and demonstrative as shown in (9). In (9c) a relative clause interpretation results from the attempt to place the possessive after *other*.

(9)

a.	<i>bhandu bhakwá bhéni/nsí</i> people my only 'my people only'
b.	<i>bhandu bhakwá bhéngí</i> people my other 'my other people'
c.	<i>bhandu bhengí bhákwa</i> people other who are mine [relative] 'other people who are mine'
d.	<i>bhandu bhalyá bhéni /nsi</i> people those only 'those people only'
e.	<i>bhandu bhalyá bhéngi</i> people those other 'those other people'
f.	<i>bhandu bhalyá bhákwa bhengi</i> people those my other 'those other people of mine'

The relative mobility of the modifiers gets severely restricted as the structure becomes bigger, e.g. with the introduction of the adjective in (10); (10b) is barely tolerable.

(10)

	Noun	Dem.	Poss.	Adj.	Num.	Ord.	Quant.
a.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhasha</i>	<i>bhagháánú</i>	<i>bha mbê</i>	<i>bhóósê</i>
	people	those	my	good	five	of first	all
	'All those first five good people of mine'						
	Noun	Dem.	Poss.	Adj.	Num.	Quant.	Ord.
?b.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhasha</i>	<i>bhagháánú</i>	<i>bhóóse</i>	<i>bhá mbê</i>
	Noun	Dem.	Poss.	Adj.	Quant.	Ord.	Num.
*c.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhasha</i>	<i>bhóóse</i>	<i>bha mbê</i>	<i>bhagháánú</i>
	Noun	Dem.	Poss.	Quant.	Ord.	Num.	Adj.
*d.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhóósê</i>	<i>bha mbê</i>	<i>bhagháánú</i>	<i>bhasha</i>
	Noun	Dem.	Quant.	Ord.	Num.	Adj.	Poss.
*e.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhóósê</i>	<i>bha mbê</i>	<i>bhagháánú</i>	<i>bhasha</i>	<i>bhákwa</i>
	Noun	Dem.	Poss.	Num.	Adj.	Quant.	Ord.
*f.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhasha</i>	<i>bhóósê</i>	<i>bha mbê</i>

The associative phrase (connective + noun) is fairly mobile and perhaps less restricted than the adjective which appears to occur only in non-final position (11).

(11)

	0	1	2	3	4	5	6
	Noun	Dem.	Poss.	Num.	Ord.	Adj.	Con+N
a.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhá mbê</i>	<i>bhasha</i>	<i>bhá másama</i>
	‘Those first five good people of mine from Masama’						
	Noun	Dem.	Poss.	Num.	Con+N	Adj.	Ord.
b.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhá másama</i>	<i>bhasha</i>	<i>bhá mbê</i>
	Noun	Dem.	Poss.	Con+N	Num.	Adj.	Ord.
c.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhá másama</i>	<i>bhagháánú</i>	<i>bhasha</i>	<i>bhá mbê</i>
	Noun	Dem.	Poss.	Adj.	Num.	Con+N	Ord.
d.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhasha</i>	<i>bhagháánú</i>	<i>bhá másama</i>	<i>bhá mbê</i>
	Noun	Dem.	Poss.	Con+N	Num.	Ord.	Adj.
*e.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhá másama</i>	<i>bhagháánú</i>	<i>bhá mbê</i>	<i>bhasha</i>
	Noun	Dem.	Poss.	Num.	Ord.	Con+N	Adj.
*f.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhá mbê</i>	<i>bhá másama</i>	<i>bhasha</i>
	Noun	Dem.	Poss.	Num.	Con+N	Ord.	Adj.
*g.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhá másama</i>	<i>bhá mbê</i>	<i>bhasha</i>
	Noun	Con+N	Dem.	Poss.	Num.	Ord.	Adj.
*h.	<i>bhandu</i>	<i>bhá másama</i>	<i>bhalyá</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhá mbê</i>	<i>bhasha</i>
	Noun	Dem.	Con+N	Poss.	Num.	Ord.	Adj.
*i.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhá másama</i>	<i>bhákwa</i>	<i>bhagháánú</i>	<i>bhá mbê</i>	<i>bhasha</i>

In (12) only the relative clause appears to be fixed in final position after all other modifiers.

(12)

	0	1	2	3	4	5	6	7
	Noun	Dem.	Poss.	Num.	Ord.	Adj.	Con+N	Rel.
a.	<i>bhandu</i>	<i>bhalyá</i>	<i>bhákwa</i> <i>a</i>	<i>bhagháán</i> <i>ú</i>	<i>bhá</i> <i>mbê</i>	<i>bhash</i> <i>a</i>	<i>bhá</i> <i>másama</i>	<i>bhééshi</i> <i>íghínâ</i>
	‘Those first five good people of mine from Masama who know the name’							
*b.	<i>bhandu bhalyá bhákwa bhééshi íghínâ bhagháánú bhá mbê bhasha bhá másama</i>							
*c.	<i>bhandu bhalyá bhákwa bhagháánú bhééshi íghínâ bhá mbê bhasha bhá másama</i>							
*d.	<i>bhandu bhalyá bhákwa bhagháánú bhá mbê bhééshi íghínâ bhasha bhá másama</i>							
*e.	<i>bhandu bhalyá bhákwa bhagháánú bhá mbê bhasha bhééshi íghínâ bhá másama</i>							

3.2.2 Swahili

As already noted the possessive (not the demonstrative as in Mashami) is the determiner that immediately follows the noun. The demonstrative follows after the possessive. However in order to resolve the apparent competition for determiner status, Swahili also allows the demonstrative to appear before the head noun (13).

(13)

	01	0	1		gloss
	Dem.	Noun	Poss.	Dem.	
a.	-	<i>mtu</i>	<i>wangu</i>	<i>yule</i>	‘That person of mine’
b.	<i>yule</i>	<i>mtu</i>	<i>wangu</i>	-	

There may be up to seven syntactic positions after the head noun and the possible variations in ordering and co-occurrence are too many to be individually tested. Two tests carried out with a small number of speakers are indicative. In the first test nine speakers were asked to arrange a given set of nine items in all possible ways so as to make a well-formed construction. The items (given in Table 14 below), included a head noun, an adjective, an ordinal phrase, an associative phrase, a relative clause, a possessive determiner, a demonstrative, and a numeral:

(14)

<i>wa kwanza</i>	‘first’	<i>wangu</i>	‘my’
<i>wazuri</i>	‘good’	<i>wa Tanzania</i>	‘of Tanzania’
<i>wanaokaa ulaya</i>	‘who live in Europe’	<i>watu</i>	‘people’
<i>wale</i>	‘those’	<i>wawili</i>	‘two’
<i>wote</i>	‘all’		

The respondents produced a total of fifty-two noun phrases altogether. In forty-three (83%) of these phrases the relative clause was in final position. In forty (77%) of them the possessive was positioned immediately after the head noun. In twenty-one (40%) of the phrases, the demonstrative was placed immediately before the head noun, and in five phrases (1%) the demonstrative came after the possessive. There was a clear indication that the other elements are freely mobile.

The second test presented a different set of nine speakers with a list of noun phrases made out of the same elements in (13) above, but which varied in the ordering of the numeral, the ordinal, the adjective, the quantifier “all”, the associative phrase, and the relative clause. In all phrases the positions of the demonstrative and the possessive were held constant at immediately before and after the head noun, respectively. The respondents were asked to mark each phrase as acceptable or not acceptable.

Only two out of the nine speakers (20%) rejected the phrase with the relative clause in final position, whereas six (70%) rejected the phrase with the relative clause in a non-final position. One problem with this test was that the list of phrases was not a representative sample of all co-occurrence and ordering possibilities, given the data in (14) and the restrictions imposed. Still it is possible to draw an important conclusion, viz. that with the exception of the demonstrative, possessive, and relative clause, all other elements in the noun phrase are considerably mobile.

In (15) a few of the possibilities are presented: the demonstrative has been confined to pre-head position throughout although it is also perfectly well-formed after the possessive. For the elements occupying positions 2 - 6 care has been taken to allow each item to appear at least once in every position.² On the whole it appears that the items after the possessive are relatively free to appear in any position, with the exception of the relative clause which is strictly final (cf. last example).

² There are up to 120 possible arrangements if only elements in positions 2-6 are allowed to vary, and 720 possibilities if a seventh position for the relative clause is included.

(15)

01	0	1	2	3	4	5	6	
Dem.	Noun	Poss.	Num.	Ord.	Adj.	Quant.	Assoc.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wawili</i>	<i>wa kwanza</i>	<i>wazuri</i>	<i>wote</i>	<i>wa Tz</i>	
those	people	my	two	first	all	good	of TZ	
All those first two good people of mine from Tanzania								
Dem.	Noun	Poss.	Quant.	Num.	Ord.	Adj.	Assoc.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wote</i>	<i>wawili</i>	<i>wa kwanza</i>	<i>wazuri</i>	<i>wa TZ</i>	
Dem.	Noun	Poss.	Quant.	Num.	Adj.	Ord.	Assoc.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wote</i>	<i>wawili</i>	<i>wazuri</i>	<i>wa kwanza</i>	<i>wa TZ</i>	
Dem.	Noun	Poss.	Assoc.	Quant.	Num.	Ord.	Adj.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wa TZ</i>	<i>wote</i>	<i>wawili</i>	<i>wa kwanza</i>	<i>wazuri</i>	
Dem.	Noun	Poss.	Ord.	Assoc.	Adj.	Quant.	Num.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wa kwanza</i>	<i>wa TZ</i>	<i>wazuri</i>	<i>wote</i>	<i>wawili</i>	
Dem.	Noun	Poss.	Adj.	Quant.	Num.	Ord.	Assoc.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wazuri</i>	<i>wote</i>	<i>wawili</i>	<i>wa kwanza</i>	<i>wa TZ</i>	
Dem.	Noun	Poss.	Assoc.	Quant.	Num.	Adj.	Ord.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wa TZ</i>	<i>wote</i>	<i>wawili</i>	<i>wazuri</i>	<i>wa kwanza</i>	
Dem.	Noun	Poss.	Ord.	Quant.	Num.	Adj.	Assoc.	
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wa kwanza</i>	<i>wote</i>	<i>wawili</i>	<i>wazuri</i>	<i>wa TZ</i>	
Dem.	Noun	Poss.	Ord.	Quant.	Num.	Adj.	Asso	Rel.
<i>wale</i>	<i>watu</i>	<i>wangu</i>	<i>wa kwanza</i>	<i>wote</i>	<i>wawili</i>	<i>wazu ri</i>	<i>wa TZ</i>	<i>wanaok aa Ulaya</i>
‘All those first two good people of mine from Tanzania who live in Europe.’								

3.2.3 Other languages

3.2.3.1 Ha

The preferred position for the demonstrative is before the head noun (16a); the next best position is immediately after the possessive (as in Swahili) (16b), but it may also occupy any other position after the head (16c). The preferred position for the possessive is immediately after the head noun (16a, b), but it is possible to position it after any of the other elements (16c).

- (16) a. bhaya abhantu bhanje bhasole bhataanu bhimbele
 Those people my good five first
 bhitabora bhamenya izina
 of.Tabora who.know the.name

‘those first five good people of mine from Tabora who know the name’

- b. abhantu bhanje bhaya bhataanu bhasole
 people my those five good
 'those five good people of mine'
- c. abhantu bhose bhaya bhataanu bhanje
 people all those five my
 'all those five people of mine'
- d. bhaya abhantu bhataanu bhose bhanje
 those people five all my
 'all those five people of mine'

3.2.3.2 Nyakyusa

The possessive always follows the head noun, and the normal position for the demonstrative is immediately after the possessive (17a).

- (17) Abhandu bhangu abho bhahaano abhanunu abha bhajimenye
 people my those five nice who know
 ingamu abha bhafuma kutabora
 the.name who come from.Tabora
 'those first five nice people of mine from Tabora who know the name'

Other positions for the demonstrative, including before the head noun, are possible but not preferred (18).

- (18) abhandu bhangu bhahano abho/abho abhandu bhangu bhahano
 people my five those/those people my five
 'those five people of mine'

3.2.3.3 Safwa

The possessive follows the head noun (19).

- (19) Abhantu bhani abhahuwandilo abhinza abhahu Tabora bhala
 People my first good of Tabora those
 bhasanu bhabhaliminye itawa
 five who.know the.name
 'those first five good people of mine from Tabora who know the name'

The demonstrative may be preposed before the head noun (20a), and may appear in any other position after the possessive, including final position, even after the relative clause (20b).

- (20) a. bhala abhantu bhani bhasanu/abhantu bhani bhasanu bhala
 those people my five /people my five those
 'those five people of mine'
- b. Abhantu bhani bhasanu abhinza abhahuwandilo abhahu Tabora
 people my five good first of Tabora
 bhabhaliminye itawa bhala
 who.know the.name those
 'those first five good people of mine from Tabora who know the name'

3.2.3.4 Nyambo

The possessive follows the head noun while the demonstrative follows the possessive, but the demonstrative may also be positioned before the noun (21a). Except for the relative clause which must be final, the other elements may occupy any position after the possessive and/or demonstrative (21b).

- (21) a. abhantu bháányu bháriya/bháriyá abhantu bháanyu
 people your those/ those people your
 ‘those people of yours’
- b. abhantu bháányu bháriyá bhátaano bha mbere bharunji bha
 people your those five of first good of
 Tabóra abharíkumanyá izíina
 Tabora who.know the.name
 ‘Those first five good people of yours from Tabora who know the name’

3.2.3.5 Sukuma

It appears that all elements, including the possessive, demonstrative, and the relative clause, may vary positions freely after the head noun. For instance the demonstrative is final in (22a), last but one in (22b), immediately after the head noun in (22c,d). The possessive even appears after the relative clause in (22d).

- (22) a. abhanu bha kwandya abhatano abhane abho
 people of first five my those
 ‘those first five people of mine’
- b. abhanu bhatano bho abho abhane
 people five all those my
 ‘all those five people of mine’
- c. abhanu abho abha kwandya abhatano abhawiza abhane
 people those of first five good my
 kwinga Tabhora abhamanile ilina
 come from.Tabora who.know the.name
 ‘Those first five good people of mine from Tabora who know the name’
- d. abhanu abho abhawiza abhatano abha kwandya kwinga
 people those good five of first come
 Tabhora abhamanile ilina abhane
 from.Tabora who.know the.name my
 ‘Those first five good people of mine from Tabora who know the name’

It is not clear how wide the Sukuma pattern is. Most languages impose restrictions on some of the dependents of the noun and accord special status to the position immediately after the noun, as shown in the other languages exemplified above. In Ngoni the possessive always follows the head noun (Ngonyani 2004:74), but the demonstrative appears to be freely variable. In Lingala, the possessive always “precedes all other determiners” (Meeuwis 2004:39). In Mbugwe “demonstratives are occasionally placed before the head noun” (Mous 2004:22).

3.3 Interrogative words

The interrogative word seeks further specification of the head noun; it occupies the position after all determiners and modifiers (23a, 24a). As the number of modifiers increases the interrogative is more likely to be superfluous (23b, 24b), implying that there is no further specification of the head noun needed or possible.

3.3.1 Mashami:

- (23) a. nndu ulya ungáu
person that which?
'that person, which one?'
- b. bhandu bhakwa bhasha bhabhii bha mbê bhangâ
people my good two of first which
'my first two good people, which ones?'

3.3.2 Swahili:

- (24) a. watu wangu wazuri wapi?
people my good which
'my good people, which ones?'
- b. watu wangu wawili wa kwanza wazuri wapi?
people my two of first good which?
'Which first two good people of mine?'

4. Summary

From the previous discussion of the data it is possible to present the structure of the noun phrase in Bantu as in (25) below:

(25)

01	0	1	2					3
Pred.	Noun	Det.	Modifier					Post Mod.
			a.	b.	c.	d.	e.	
Dem. Distr.		Poss. Dem	Num	Ord. Ass.	Qua.	Adj.	Rel. clause	Inter.

where;

Poss. = possessive pronoun	Ass. = associative	Pred = predeterminer
Dem. = demonstrative	Ord. = ordinal	Distr = distributive
Num. = numeral	Adj. = adjective	Mod = modifier
Det = determiner	*Qua = quantifier	
Rel = relative	Inter = interrogative	

Quantifiers include: *all, both, other, only*; adjectives include: *many, few*

Determiners include possessives and demonstratives, and to ease the competition between them for determiner status the pre-determiner position is readily available in many languages. The distributive occupies the pre-determiner slot and cannot co-

occur with the demonstrative when this latter is a pre-determiner. There is considerable variation in the ordering of the items in the modifier position but no such freedom in any other position. It would appear that the relative clause normally comes last of all modifiers on account of its syntactic complexity, which lends support to the principle of end weight. The interrogative is special in that it does not really modify the head noun, but seeks further information to specify that head.

Is there a limit on the size of the Bantu noun phrase? Given the various syntactic and semantic restrictions on the co-occurrence of the elements of the noun phrase, it is reasonable to argue that it is not possible to expand the phrase indefinitely since the restrictions have a cumulative effect. Indeed it does appear that the normal noun phrase is likely to select a (pre)determiner, a determiner and one modifier, i.e. slots **01- 0 -1- 2** in the diagram above.

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