

OBJECT CLITIC PRONOUNS IN BANTU AND
THE TOPICALITY HIERARCHY*

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Research in Bantu languages has revealed Topicality Hierarchies (TH) for NP arguments which follow certain parameters (person, function, animacy) and which determine relative likelihood that an NP will be available for various syntactic processes. In some Bantu languages, a verb complex may take more than one prefixed Object Marker (OM). Two Bantu languages where this is possible, Shambala and Haya, are investigated to see if the order of the OM's correlates in any way with TH's. It is found for both languages that NP's with "higher TH status" will govern OM's closer to the verb stem than those lower in the hierarchies. In cases where different TH's are in conflict, the languages differ: Shambala simply does not permit conflicting combinations, but Haya weighs the different factors to establish relative strength of TH combinations which will govern order. A Flexibility Principle allows some freedom of order among "low status" NP's.

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1. Introduction

The discussion of a so-called "Topicality Hierarchy" (hereafter TH) started a few years ago with a paper by Hawkinson and Hyman [1974] on a Bantu language, Shona. It examined the degrees to which different types of NP arguments were allowed to undergo Passivization. More recently, Morolong and Hyman [1977] have shown that the same hierarchy is at work with respect to other linguistic rules, e.g. Object Agreement in Sesotho. These works show that there are certain grammatical processes in Bantu languages that "favor" certain kinds of NP types (or Referents) over others. That is, given more than one "candidate" to undergo (or trigger) a certain rule, certain types of NP arguments will be "more likely" to do it than others. One version of the TH is here reproduced in (1) below. I have changed some of the names of the features involved in order to achieve more consistency, e.g. I have replaced "Dative" and "Accusative" with "Goal" and "Patient" respectively to be consistent with "Benefactive" and "Instrument", which are usually considered as "semantic cases", whereas "Dative" and "Accusative" are more often used for surface cases:

- (1) a. 1st > 2nd > 3rd
 b. Benefactive > Goal > Patient > Instrument/Locative
 c. Human > Animate > Inanimate

The sign > stands for "more likely to undergo/trigger certain grammatical processes than". I have left the relationship between Instrument and Locative unspecified because I do not think there is enough evidence of either one being "higher" than the other. The TH must be interpreted in a "loose" way so that not every language for which it is at work must draw all the distinctions made in (1). That is, a language may "collapse" any number (probably never more than two) of subsequent features along any branch of the hierarchy. Thus, a language may treat Benefactive and Goal or first and second person, or animate and human in the same way. In such cases the TH would read Benefactive/Goal > Patient ...; 1st/2nd > 3rd; animate > inanimate. However, no language should in any case reverse the features, e.g. no language should behave so that Patient > Benefactive, or 3rd > 1st/2nd, etc.

In this paper I will examine a number of properties of pronominal infixes in two Bantu languages (Shambala and Haya) and show that they follow the TH. More specifically, I will demonstrate that the sequential order and the combinability, i.e. which ones can cooccur, of the pronouns in the verb complex can be predicted on the basis of the ranks defined by the TH. Although I will here examine in detail only two languages, I believe the relevance of the TH with respect to pronominalization phenomena to be a characteristic of Narrow Bantu as a whole.

2. Defining "Object Clitic Pronouns"

It is typical of Narrow Bantu languages, given the appropriate pragmatic conditions, to express certain NP arguments of the verb by means

of pronominal infixes, which appear in the verb complex between the tense marker and the verb stem, as illustrated in the examples below:

NYAKYUSA (Tanzania)¹

- (2) a. Ambwene j - ku- lya inguku 'Ambwene is eating a/the
he- PR -eat chicken chicken'
b. Ambwene j - ku- ji- lya 'Ambwene is eating it'
he- PR- it- eat

KIMBUNDU (Angola)

- (3) a. Ngunza w - a - lambe o kudya 'Ngunza has cooked the food'
he- PST- cook the food
b. Ngunza w - a - ku- lambe 'Ngunza has cooked it'
he- PST- it- cook

SHONA (Zimbabwe)

- (4) a. nda- ka- pa mwana tsamba 'I gave the child the letter'
I - PST- give child letter
b. nda- ka- mu- pa tsamba 'I gave him the letter'
I - PST- him- give letter
c. nda- ka- i- pa mwana 'I gave it to the child'
I - PST- it- give child

These pronominal infixes follow the rules of Bantu nominal concord system (cf. Welmers [1973:ch.6]), that is, they agree in noun class with the "corresponding" noun.² Thus, *ji* in (2b) is class 9 like *inguku* 'chicken', *ku* in (3b) is class 15 like *kudya* 'food' (lit. 'to eat'), *mu* in (4b) is class 1 like *mwana* 'child', and *i* in (4c) is class 9 like *tsamba* 'letter'. I will refer to these infixes as "object clitic pronouns" (OCP). The term "object" was primarily chosen to distinguish these pronominal forms from the Subject agreement prefixes (see examples above), which very often have the same phonological shape (except for class 1 and class 9). But I also believe that the types of NP arguments that can be expressed by such pronouns form a coherent set which has been identified as the grammatical role of "object" in Bantu (see Hyman, Duranti and Morolong [in press]).

¹In the interlinear glosses I will use the following abbreviations: PR = present tense, PST = past tense, FUT = future tense, A = aspect marker (Bantu "final vowel"), APP = Applicative suffix, INST = Instrumental suffix, LOC = Locative suffix. I wish to thank Prof. Jan Vorhoeve for pointing out to me some inadequacies in my transcription of Nyakyusa, Mshihiri Juma Abukabar for the Shambala examples, and Ernest Byarushengo for the Haya data. I would also like to thank Annarita Puglielli for having hosted in her Linguistics Department in Rome my Field Methods Course on Kimbundu in the academic year 1976-77.

²This is actually an oversimplification. See Wald [1975].

All the above examples show OCP's that express "basic" objects, that is, non-subject arguments whose semantic role and existence is implied by the verb in its "basic" form, i.e. with no "semantic markers". Examples (5) - (7) below show cases of non-basic objects whose semantic role is coded on the verb through semantic markers:

KIMBUNDU

- (5) a. o muhatu w - a - lambe o shitu phala o mona
 the woman she- PST- cook the meat for the child
 'the woman cooked the meat for the child'
- b. *o muhatu w - a - mu- lambe o shitu (phala)
 him
 'the woman cooked the meat for him'
- c. o muhatu w - a - mu- lamb- el- a o shitu
 him- cook- APP-A
 'the woman has cooked (for) him the meat'

SESOTHO [Morolong and Hyman 1977]

- (6) a. ke -phehetse mokete lijo 'I cooked-for feast food'
 I -cooked/APP feast food
- b. ke -o -phehetse lijo 'I cooked-for it food'
 I -it -cooked/APP food

SHONA

- (7) nda- ka- ri-chek - es- a nyama 'I cut-with it the meat'
 I -PST- it-cut -INST-A meat

Notice that when one tries to cliticize a prepositional phrase, keeping the verb unmarked with respect to that particular semantic relation, i.e. with no semantic markers as in (5b), the resulting structure is unacceptable. Cliticization of the object is instead possible if the verb has the Applicative suffix (APP), as in (5c) or (6), or the Instrumental suffix, as in the Shona example (7).

All the examples given so far are taken from languages that can have *only one OCP at a time* in the verb complex. There are, however, also languages that can have *more than one OCP* in the same verb form. Thus, Lomongo [Hulstaert 1965], Kirundi [Satukuru/Stevick, n.d.], Umbundu [Valente 1964], and Shambala can have *two OCP's*, and languages like Kinyarwanda [Kimenyi 1976] and Haya [Duranti and Byarusheng 1977] can have *more than two OCP's* in the same verb complex. Here are a few examples:

KIRUNDI [Satukuru/Stevick n.d.]

- (8) nzoo- ki- kw- iiza 'I'll teach it to you'
 I/FUT- it- you -teach

LOMONGO [Hulstaert 1965]

- (9) ǎ - o - ko - n - kaa 'he gave you to me'
 he- PST- you- me- give 'he have me to you'

SHAMBALA

- (10) a - a - ji - m - kom - e - a 'he kills-with it him'
 he- PR- it -him -kill -APP -A

KINYARWANDA [Kimenyi 1976]

- (11) ba - ra- ki- ku- m- he - er -a
 they - PR- it -you -me -give -APP A
 'they are giving it to you for me'
 'they are giving me to it for you'

HAYA

- (12) Kat' a - ka - ki- bi - mu - cumb- il- il- a- mu
 he - PST- it -them -him -cook -APP - APP- A- LOC
 'Kato cooked them (bananas) in it (pot) for him (child)'

As noticed by some linguists, e.g. Hulstaert [1965], Grégoire [1975], Kimenyi [1976], when a language allows more than one pronoun in the same verb complex, the sequential orders of the OCP's are often constrained and reduced to fewer combinations than the ones theoretically possible. Thus, there is a tendency for the first person singular (usually a nasal consonant) to occur next to the verb stem, regardless of its semantic role. As shown below, this explains why structures like (9) and (11) are ambiguous.

In what follows, I will examine in detail the principles according to which the proper sequences of OCP's are determined in Shambala and in Haya. These two languages allow basically the same sequential orders (although Shambala can have no more than two and Haya up to four OCP's), but they deal quite differently with conflicting cases, e.g. in the case of two pronouns where one should occur in one slot because of its status in one hierarchy and in another slot because of its status in another hierarchy.

3. Shambala

I will now describe the sequential orders found in Shambala when two object clitic pronouns cooccur according to the following categories/features: (A) Person (first, second, or third); (B) Semantic Role (Patient, Benefactive, Instrument, etc.); (C) Humanness (nonhuman or human); (D) Number (plural or singular).

(13)

(A)	3RD	2ND/1ST	VERB STEM
(B) i.	PATIENT	GOAL/BENEFACTIVE	
ii.	INSTRUMENT	PATIENT	
(C)	NONHUMAN	HUMAN	
(D)	PLURAL	SINGULAR	

Further constraints: (i) First and second person pronouns cannot cooccur in the same verb complex; (ii) no other OCP can cooccur with a reflexive OCP; (iii) no sequence of two identical pronouns is allowed, e.g. *wa-wa; *mu-mu; *ji-ji, etc.

(14) GENERAL STRATEGY FOR CONFLICTING CASES (strong version):

When a conflict arises among the prescribed preferred orders (A) - (D) in (13), the sequence of clitics is ruled out.

I will now illustrate the way in which (13) and (14) work. Consider the following examples:

- (15) a. a -za -m -ni-et -e -a 's/he has brought him to me'
s/he-PST-him-me-bring-APP-A *'s/he has brought me to him'
- b. *a -za -ni- mw- et -e -a 's/he has brought me to him'
me- him 's/he has brought him to me'
- c. a -za -ni- eta kwa yeye 's/he has brought me to him'
s/he-PST-me- bring to him

In (15) we can see both (A) Person and (B) Semantic Role at work. Because of (A), only (15a) is acceptable and because of (Bi) only one interpretation is possible, i.e. in accordance with the general principle stated in (14) the reading in which the first person pronoun (ni) is a Patient is ruled out. The only way for having a third person Goal and first person Patient expressed by pronouns is given in (15c), with an OCP for the first person Patient and an independent pronoun for the third person Goal. (Notice that in this case there is no Applicative suffix on the verb, since the coding of the Goal role is done by means of a preposition.)

The examples below show the relevance of (C) Humanness, and (D) Number for the sequential order of two OCP's:

- (16) a. na- i- mw- itang- i -a 'I call it (meeting) for him'
I - it-him-call -APP-A *'I call him for it'
- b. *na-mw- i- itang- i -a 'I call him for it'
I -him-it-call -APP-A 'I call it for him'
- (17) a. a- i- wa- mw- et -e -e 's/he brought them to him'
s/he-PST-them-him-bring-APP-A *'s/he brought him to them'

there seems to be some consistency within the exceptions. That is, as will be demonstrated below, violations of the sequential order constraints, when they occur, tend to occur with certain kinds of pronouns more than with others.

Let us go back now to the Topicality Hierarchy. As is apparent from the way the TH and the sequential (linear) order constraints are stated in (1) and (13) respectively, the two are in a "mirror image" relationship. That is, whereas Patient appears to the left of Benefactive in (13), it appears to the right of it in (1), and whereas the persons are listed as third before second and first in (13), third person is the last one in (1).

In what sense then is the actual linear order of the morphemes related to the hierarchical order of their features? I like to think of the slot next to the verb stem (the slot furthest to the right in (13)) as the "high status" place. This means that, given two pronouns, the one that is higher in the TH is the one that will be more likely to be in the slot immediately before of the verb stem. In this way, the ranking given by the TH allows us to predict, between two pronouns, which one is going to be immediately before the verb stem and which one is going to be in the other position. If a language allows more than two pronouns, the higher the status of the pronoun the closer to the verb stem it should get. This means that the Number branch of the TH will have to read

(1) d. Singular > Plural

We can return now to the violations of the sequential order constraints. The cases that do not conform to the prescribed orders tend to involve pronouns whose features are rather "low" in the Topicality Hierarchy. This tendency can be stated in the following principle:

(21) THE FLEXIBILITY PRINCIPLE:

Low status pronouns are looser about rules than high status pronouns.

The violations illustrated in (20), for instance, involve an Instrument and a Patient and third person inanimate referents. They are all quite low status features in the TH given in (1). In Kinyarwanda, Kimenyi [1976] cites the case of the locative clitic pronoun *ha*, which seems able to wander around in different spots ignoring the prescribed orders. In Haya, as I will discuss below, inanimate referent pronouns are looser with respect to some of the principles, e.g. Semantic Role order, and can appear in different orders.⁴

us, it will be satisfying to say that the strategy outlined in (14) is adequate enough to deal with the great majority of the possible combinations and therefore should be maintained as a valid generalization until (and if) a better one is found.

⁴There seems to be evidence outside Bantu as well that even the most

4. Haya

As mentioned earlier, Haya allows more than two OCP's at the same time in the verb complex. An example of four OCP's is given in (22):

- (22) ya- ga- gi-ba - mu -siig -il -il- a- mu
 he/PST-it- it-them-him-smear -APP-APP-A -LOC
 'he smeared it (ga) on them (ba) for him (mu) in it (gi)'

However, since examples like (22) above seem to be quite rare (native speakers seem also to have a hard time decoding them), I will discuss the sequential orders for Haya mainly on the basis of verb forms with *two* clitic pronouns.

Here are the sequential orders of OCP's for Haya, given according to (A) Person, (B) Semantic Role, (C) Humanness, (D) Number.

(23)

(A)	3RD	2ND	1ST	VERB STEM
(B)	INSTRUMENTAL/PATIENT		GOAL/BENEFACTIVE	
(C)	NONHUMAN		HUMAN	
(D)	PLURAL		SINGULAR	

Both the features involved and the orders prescribed for Haya are more or less the same as those illustrated above for Shambala, with the following differences: (i) first, second, and third person pronouns can cooccur, though, in the plural, Haya has the same morpheme for 2nd and 3rd person, i.e. *ba* can mean either 'you(pl.)' or 'them'; (ii) the reflexive pronoun (*ye* or *e*, according to the phonological environment) can cooccur with other clitic pronouns (I will discuss its order with respect to the other OCP's in 4.5 below); (iii) sequences of morphologically identical clitic pronouns are allowed, e.g. *ba-ba*, *mu-mu*, etc.; (iv) I found no evidence for ranking Instrument and Patient with respect to each other. Furthermore, an important difference between the two languages lies in the way they deal with conflicting cases. Whereas Shambala tends to avoid conflicting cases by simply ruling out such sequences as unacceptable, Haya establishes a rank among the different features (A) - (D) and decides each time which pronoun is going to "win" the higher status slot. This is stated in (24):

(24) GENERAL STRATEGY FOR CONFLICTING CASES:

When a conflict arises among any of the prescribed orders in (23), rank their status according to the features involved.

rigid systems must allow some "black sheep" pronouns to wander around. Vattuone [1977], for instance, must posit an optional Accusative Forward rule in his otherwise beautifully worked out system for Zenejze (Genoese). Something similar happens in Shambala, where the pronoun *wa* 'them', when expressing the Semantic Role Patient, can be switched to a position that should not otherwise assume.

4.1. Person and Semantic Role. Consider the following examples:⁵

- (24) a. a -ka -mu- n- deet- ela 'he brought him to me'
 he-PST-him-me-bring-APP 'he brought me to him'
- b. *a -ka- n- mu- leet -ela 'he brought me to him'
 me-him 'he brought him to me'
- (25) a. a -ka -ku- n- deet- ela 'he brought you to me'
 he-PST-you sing-me-bring-APP 'he brought me to you'
- b. *a -ka- n- ku- deet - ela 'he brought you to me'
 me-you
- (26) a. a -ka- mu- ku- leet- ela 'he brought him to you'
 him-you 'he brought you to him'
- b. *a -ka -ku -mu -leet -ela 'he brought you to him'
 you-him

Examples (24a,b) show that given first and third person singular/human pronouns, it is the first person singular pronoun (n) that gets the slot immediately before the verb stem, and the other order is not acceptable, regardless of Semantic Role. This means that since the reading with the first person pronoun as the Patient is still possible in (24a), Person is stronger than Semantic Role. That is, the order of the pronouns is still *third* - *first* even if the third person pronoun expresses a Goal and the first person pronoun expresses a Patient. The same thing happens with second (ku) and first person, and with second and third (mu), as illustrated in (25a,b) and in (26a,b). This can be summarized in the statement PERSON > SEMANTIC ROLE.

4.2. Semantic Role and Number. Haya assigns to Semantic Role and Number the same ranking, that is, SEMANTIC ROLE = NUMBER. This means that given two pronouns, if one should get into the slot next to the verb because it is higher in the Semantic Role Hierarchy (e.g. Goal > Patient) and the other should get in the same spot because of the Number Hierarchy, both possible orders will be acceptable. This is shown in (27):

- (27) a. a -ka -ba -mu -leet- ela 'he brought them to him'
 he-PST-them-him-bring-APP 'he brought him to them'
- b. a -ka- mu - ba -leet -ela 'he brought him to them'
 him -them *'he brought them to him'

⁵I will use the same verb (okuleeta 'to bring) over and over again simply to help the reader to follow the discussion without having to pay too much attention to the glosses. It is, however, implied that what is said about the examples with that verb should be true for other Haya verbs as well.

Thus, in (27a,b) both orders Singular - Plural (mu-ba) and Plural - Singular (ba-mu) are possible when the plural (ba) is the Goal, but only one order, viz. Plural - Singular (ba-mu), is possible when the plural is Patient and the singular is Goal.

4.3. Humanness and Semantic Role. I will now show Humanness and SEMANTIC ROLE are also ranked in the same way, that is HUMANNESSE = SEMANTIC ROLE. That Humanness does play a role in determining the order of the OCP's can be demonstrated by the following examples:

- (28) a. a -ka -ki-gu-shaza 'he cut it(ki) with it(gu)'
 he-PST-it-it-cut+INST
- b. a -ka- gu- ki- shaza 'he cut it(ki) with it(gu)'
- (29) a. a -ka- ki-mu- teeza 'he hit him(mu) with it(ki)'
 he-PST-it-him-hit+INST
- b. *a -ka- mu- ki-teeza 'he hit him(mu) with it(ki)'

Whereas the order of Instrument and Patient is not fixed when the two are expressed by pronouns from nonhuman noun classes, as in (28a,b), only one order is acceptable, viz. non-human - human, if the Patient is a person, expressed by the noun class 1 OCP mu, as shown in (29a,b).

Examples (30a,b) show that Humanness and Semantic Role are given the same rank, so that, other things being equal, two orders are possible when there is a conflict only between those two features:

- (30) a. a -ka- bi - ba - leet -ela
 he-PST-them-them-bring+APP
 non-hum-hum.
 'he brought them(bi) to them(ba)' (bi = inanimate;
 'he brought them(ba) to them(bi)' ba = human)
- b. a - ka- ba - bi - leet- ela
 'he brought them(ba) to them(bi)'
 *he brought them(bi) to them(ba)'

Example (30a) is ambiguous because the pronoun ba (noun class 2, human) can either be in the slot next to the verb stem because of its Semantic Role, Goal, or because of its Humanness. Example (30b), on the other hand, is accepted only in the case in which the human pronoun ba is the Patient and the inanimate pronoun bi (noun class 8) is the Goal. The starred reading ('he brought them (inanimate) to them (human)') would in fact violate both the Semantic Role and the Humanness hierarchies.

4.4. Person, Semantic Role and Number. Given the three features Person, Semantic Role and Number at play at the same time, it turns out that Person is the strongest one and can be counterbalanced only by both Semantic Role and Number combined together. This is shown in the following examples:

- (35) a. omukazy' a -ka -ki-gi-cumbila (gi = embwa 'dog')
 woman she-PST-it-it-cook+APP
 'the woman cooked it(ki) for it(gi)'⁶
- b. omukazy' a - ka- gi- ki- cumbila
 'the woman cooked it(ki) for it(gi)'

The examples in (36) show that the Number and the Semantic Role Hierarchies can be violated at the same time if two nonhuman pronouns are involved:

- (36) a. omukazy' a -ka -cumbil' obugeny' ebyakulya
 woman she-PST-cook APP+party foods(pl.)
 'the woman cooked the foods for the party'
- b. omukazy' a ka- bu - bi -cumbila
 it - them
 Goal-Patient
 'the woman cooked them for it'
- c. omukazy' a -ka - bi - bu- cumbila
 them- it
 'the woman cooked them for it'

In example (36b) the sequence bu-bi (Singular(Goal) - Plural (Patient)) violates both the Number and the Semantic Role orders.

5. Conclusions

I have shown above that the features and the ranking represented in the Topicality Hierarchy come into play in the linear order constraints of object clitic pronouns in two Bantu languages, Shambala and Haya. I have also speculated that this might hold true for Narrow Bantu as a whole. In particular, with respect to the relationship between the TH in (1) and the actual linear order of OCP's, I have proposed considering the position next to the verb stem as the *high status* slot, which only high status pronouns can occupy. If more than two pronouns must be expressed, their order will follow the principle *the higher the status, the closer to the verb stem*. The status of a pronoun is decided according to the ranking of its features in the TH. When a conflict arises among different hierarchies, e.g. when, given two pronouns, one is higher with respect to the Person Hierarchy, but the other is higher with respect to the Semantic Role Hierarchy, different solutions are possible: Shambala, as shown above, tends to rule out such cases treating them as ungrammatical. Haya, on the other hand, weighs the different factors involved and decides on the basis of their respective strength which pronouns can have access to which slots, with Person being the strongest factor, etc.

⁶The other reading ('the woman cooked it (= the dog) for it') is ruled out by pragmatic reasons.

I have also shown that although there might be exceptions to the constraints/hierarchies, they will tend to occur only with certain kinds of pronouns, namely those whose features are lower in the TH, e.g. inanimate 3rd person pronouns. Stated in different terms, this means that *the higher the status of a pronoun the more rigid its position* (and the lower the status of a pronoun the more flexible its position).

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