SOME FEATURES OF THE ZULU NOUNS

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1. INTRODUCTION

Analyses of the phonological and morphological variations of the noun coupled with the different positions in which the noun occurs in the Zulu sentence have been somewhat circuitous and incomplete. The failure of the grammarians to take cognisance of the fact that the semantic structure of the predicate (the verb or copulative) largely determines the nature of a following noun has led to inconclusive description.

This article attempts to demonstrate that the use of the noun in the three main types of sentence, the exploration of case relations, and the transposition of the noun in the sentence could be used to good advantage to determine the nature of Zulu nouns.

2. THE STRUCTURE OF THE PRIMARY NOUN

Zulu primary nouns are made up of a regular morphological and tonal structure. They have a disyllabic class prefix and a monosyllabic or polysyllabic stem. The class prefix has a VCV combination of phones, whereas the stem mainly has a CV combination. As a rule, the tonal structure of the class prefix has a /HH/ sequence of tones. We recognise the following tone patterns of Zulu noun stems identified by Cope (1970:120–121): /LL/; /LH/; /HL/; and /FL/.

The primary noun occurs mainly in the subject “slot” of a declarative sentence in Zulu. It also occurs less regularly in the object “slot”. However, in its secondary function, the primary noun undergoes morphological, semantic,
tonological or phonological modification. The changes to primary nouns predominantly occur at the beginning and/or end of the word.\(^4\)

The structural changes of the primary noun in its secondary function appear to be attributable to the following factors:

- the nature of sentence in which the noun is used
- the relationship of the verb with the noun; case relation
- the relationship of the noun with another word with which it is juxtaposed.

An examination of the causes of the structural changes of the primary noun according to the manner proposed in the foregoing, offers greater scope of explaining changes to nouns than merely cataloguing the environment in which a noun occurs in relation to other words with which it may co-occur in the sentence. It is accordingly the aim of this article to explore some of the major causes of changes to the primary noun along the lines indicated in the foregoing paragraph.

The phonological, tonological, morphological and semantic changes to nouns entail, inter alia, the more covert ones such as the elision of vowels, vowel assimilation, vowel coalescence, the use of prefixal and/or suffixal formatives.

### 3. THE USE OF THE PRIMARY NOUN

#### 3.1 The Interjective Sentence

The interjective sentence is characterized by the absence of penultimate length. Interjectives and ideophones identifiable by their extra-normal sounds, extra-normal pitch and extra-normal duration are the prime candidates for use in an interjective sentence. However, nouns are also used in the interjective sentence. When nouns occur in an interjective sentence, they have their pre-prefix elided and their intonation adapted to the intonation of the interjective sentence.

**Examples**

(a) Proper Nouns\(^5\): ūBongáni > Bongáni; ūCeliwe > Celiwe.

(b) Common Nouns:  

<table>
<thead>
<tr>
<th>Indoda</th>
<th>Ndoda</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a man)</td>
<td>(man!)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inkósi</th>
<th>Nkósi</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a chief/king)</td>
<td>(chief/king)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Umalume</th>
<th>Malume</th>
</tr>
</thead>
<tbody>
<tr>
<td>(my uncle)</td>
<td>(uncle)</td>
</tr>
</tbody>
</table>
Co-occurrence with Interjectives

wé mfána (hey boy!)
shwele babá (pardon me, Sir!)
yebo mzála (yes, cousin).

3.2 The Interrogative Sentence

The interrogative sentence has a quick tempo, a high pitch and has no downstepping.

Examples:

(yi)sikhathi sini mànje (what’s the time, now)
(yi)mali ni ámáqanda (what’s the price of eggs?)
inkómazi izale nkómó ni? (what’s the sex of the newborn calf?)
wená ufíña motó ni? (What kind of car do you want?)
ungubó ngakt? (how many blankets have you?)

The secondary function of primary nouns results in the modification of the prefix, the elision of the pre-prefix or the substitution of the pre-prefix by a subject concord.

3.3 The Declarative Sentence

This type of sentence is characterized by a cadent intonation with unchecked length on the penultimate syllable of the only word or the last word in a sentence. It has a low pitch and occurs in the indicative mood.

The declarative sentence occurs as the superordinate sentence in a complex sentence and as the superordinate and co-ordinate sentence(s) in a compound sentence.

The verbal and non-verbal predicate may be used in a declarative sentence.

3.3.1 Verbal and non-verbal predicates

(a) The verbal predicate

(i) When the noun is used as an auxiliary verb:

sá:fika mhlá ebóshwa (we arrived on the day he was arrested)
ásihámbe khathi simbe uzofika (let’s go, maybe he will arrive)
(ii) When the noun is accompanied by a qualifier to express “same” or “other/another”:

sizohámba (nga)sikhathi sinye (we’ll leave at the same time)
(nga)langa lithize wáfika éphuzié (one day he arrived under the influence of liquor)

(iii) When the noun in the object “slot” is not a direct object in a negative construction:

(iv) (k)angifuni ndoda lápha ékhaya (I want no man at this house)
(k)asithengânga zinkomó éndalíni (we bought no cows at the auction sale)
ákayi ndáwo (he/she is going nowhere).

N.B. Only a direct object is capable of concordial relationship with the verb as expressed by means of an object concord (OC).

(v) When the comparative prefix njenga- is preplaced to a post-verbal noun. e.g.

úThóko úsebenza njengónína
(Thoko works like her mother)
ló mfána úvilápha njengómfówabo
(this boy is lazy like his brother)

(vi) na- preplaced to the noun in the object “slot” meaning “with” or “together with” is also involved in effecting a relationship between the verb and the object. e.g.

izisebénzi zixóxa nómqashi
(workers are conversing with the employer)
ábázukúlu bálala nógógo
(grandchildren sleep with grandmother)

(b) Non-verbal predicate

The subject of the sentence comprising a primary noun may be related to a noun in the predicate position as follows:

(i) by means of an identificative noun:

inkomó (y)isílwane (a cow is an animal)
obabá (ng)amaqháwe (father and his mates are heroes)

(ii) by means of the SC:

thiná singamákholwa (we are believers)
izinsizwa zingónógada (the young men are guards)

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The noun which forms the subject of the sentence may be related to the non-verbal predicate in the negative where the latter is shorn of the pre-prefix:

- indoda *(k)*ayinamåli (the man is penniless)
- izigebéngu *(k)*azinasihé (criminals are merciless)
- úmzála ákanankomó (my cousin has no cattle)

Negative forms of the positive construction with *ku-* as the SC prefixed to *khona* have the nouns occurring without the pre-prefix:

- kûkhoná úkudlá > ákûkho kudlá
  (there is food) (there is no food)
- kûkhoná umgwáqo > ákûkho mgwaqo
  (there is a road) (there is no road)

(iii) The prefixal formative *nganga-* is preplaced to a noun in the predicate “slot” to indicate equality in size with the noun in the subject “slot”. e.g.

- úgilonci úngangéntinginôno
  (the blue heron is as big as the secretary bird)
- úBafana úngangó Muziwákhe
  (Bafana is as big as Muziwakhe)

(iv) the comparative prefixal formative *kuna-* is preplaced to the noun in the object “slot” to contrast it with the noun in the subject “slot”:

- úqinisêla mdálá kunoGijimâni (Qinisela is older than Gijimani)
- úmtháfí únzima kûnethúsí (lead is heavier than copper)

4. CASE FORMS

4.1 The identification of the agent case

The identification of the direct and indirect object (DO and IO) has been dealt with fairly exhaustively in an earlier publication. Accordingly, it is unnecessary to repeat that analysis in this article. Suffice to say that the feature of permutation resulting in the transposition of the DO to the subject “slot” and the noun in the object “slot” to the object “slot” explains the word-initial morphological and/or phonological modification of the subject of the sentence. e.g.

- inkomó íséngwa *(ng)*úmfâna/!úmfâna
  (The cow is milked by the boy)
- cf. úmfâna úsénga inkomó
  (The boy milks the cow)
4.2 Identification of the instrumental case

The instrumental formative *nga-* is preplaced to the noun. In the deep structure, the subject of the activity/achievement verbs is invariably an agent noun, whereas that of the process/stative verbs is a neutral noun.

Instrumental nouns

(a) “by means of”/“manner of execution of an action”.

- *ümáma úlima ngégeja*  
  (mother ploughs with a hoe)
- *thiná sihámba ngébhasi*  
  (we travel by bus)
- *isigebéngu sáthatha ímáli ngénkáni*  
  (the bandit grabbed the money by force)
- *ízingáne zipháthwa ngénhlonípho namúhla*  
  (children are treated with respect nowadays)

(b) Spatial/temporal significance:

- *bázoñika ngéSonto*  
  (they will arrive on Sunday)
- *áñibombhéka ngothú ntámbáma*  
  (please expect him at 2 o’clock in the afternoon)
- *wená wakhé ngasémñöleni*  
  (your homestead is by the river)
- *bágañúla ngakwáDlamini*  
  (they are hewing wood near Dlamini’s place)

4.3 Identification of the locative case

Stative verbs have both a locative and temporal significance. In addition, process verbs also have this quality.

Zulu possesses static and directional locative predicates. The former indicate the position of the subject at a certain place or time and the latter indicate movement *away from* or *towards* some place.
Static locative predicates

The nouns comprising the complements to static locative predicates may preplace:

(a) **PB classes pa-, ku- or mu-**

- izinkomó zilikala phandle (cows sleep outside)
- hamba kimáma (go to mother)
- úNómasono wáqéda muvá (Nomasono finished last)

(b) most noun-like nominals

Preplace prefixal locative formative e-/o- and suffix locative suffix -ini

- úgógo uhleli éndlini (granny is sitting inside the house)
- ingóla ibhajwé odakéni (the wagon is stuck in the mud)

Preplace prefixal locative formative e-, o- or kwa-

- sizovúna ébusíka
  (we will harvest in winter)
- úsíke émíni
  (he arrived during the day)
- izingâne zihambélé ólwándle
  (children are visiting the sea)
- isithá básihóelela óPhathé
  (they led the enemy into an ambush)

(c) **PB class pa- nouns or covert locative nouns with the prefix e-** may enter into a genitive relationship with such nouns where the possessive prefix kwa- or na- is preplaced to the noun used as a qualificative.

- ábántu baléle phánsi kómuthi
  (people are lying under a tree)
- súka phézu kwéndlu
  (get off from the roof)
- kwáSwayimâne kúsedúze násèMgungúnòlu
  (Swayimane is relatively close to Pietermaritzburg)
- wá:banjwá émuva kwéhhotéla
  (he was arrested behind the hotel)

The foregoing **PB class pa- nouns and covert locative nouns describe the action, state or process of the predicate in relation to the noun in the genitive case form. Further, they have a qualificative function.**

Normally, the qualificative nominals follow the noun in word order except
where they precede the noun so qualified to express emphasis or when they are
used without the noun which has previously been mentioned in discourse.

The PB class pa- nouns and covert nouns are not the only ones that have a
qualificative function and precede the noun in the genitive case in Zulu. A large
number of these nouns have a stem similar to that of the verb or ideophone.
e.g.

\[(k)\text{á}bamázi ló, lísiphuhlá séngáne\]  
\[\text{cf. -phuhlá (blurt out)}\]

\[\text{they do not know this one, he’s a child that blurs out uncontrollably}\]

\[\text{úmhlola wámi!}\]  
\[\text{cf. -hlolá (predict evil)}\]

\[\text{an exclamation of surprise and indignation}\]

\[bénzé ísiphihi sédili\]  
\[\text{cf. phihi (of abundance)}\]

\[\text{they held a huge party}\]

\[\text{igingáne zídla ímvuthú yésímkwa}\]  
\[\text{cf. vuthú (of falling off)}\]

\[\text{the children are eating bread crumbs}\]

\[kúbikwa ínhlelele yéngózi éXobho\]  
\[\text{cf. hlekélele (of being widespread)}\]

\[\text{there’s a report of a serious accident at Ixopo}\]

\[úthuswé úbhambalála lwényoka\]  
\[\text{cf. bhambalala (of lying stretched out)}\]

\[\text{(he/she was frightened by a big snake lying on the ground)}\]

\[íngiphakéle íntimentíme yókudlá\]  
\[\text{cf. timé (of darkness)}\]

\[\text{(he gave me insipid food)}\]

\[ísídumúídumu sëndaba lési\]  
\[\text{cf. dumú (of booming sound)}\]

\[\text{(this is a very important affair)}\]

It is common to find qualificative nouns used without the accompanying noun
in the genitive case form. e.g.

\[ísìqúkaqúka\]  
\[(big heavy object); úbhúmselézhle (riotous, uncontrolled fighting); ísidídi (difficulty); ínsámbathéka (confusion); ámanângánângá (frivolous excuses); ínhlokohléla (a powerful and destructive gun).\]

Directional locative predicates with the feature “remote”

The directional locative predicates with the feature “remote” may take locative
complementary nominals identified under static locative predicates. The case
“source” may be posited for the directional locative predicates with the feature
“remote”.

Verb stems such as the following constitute directional locative predicates:
-velâ (appear); -phûma (emerge, appear); -yâ (go); -sûka (leave, give way);
-vuzâ (leak); -milâ (grow); -khûla (grow in size), etc.

Examples:

úJójo úvela éThekwini
(Jojo is from Durban)

îgûla livûza èsingéni
(the gourd is leaking at its base)

igolide líphûma émgodini
(gold is mined in the ground)

5. TRANSPOSITION OF THE NOUN IN THE SENTENCE

The primary noun constituting the subject of the sentence generally occurs at the beginning of the sentence. It co-occurs with secondary nouns without any modification. The secondary nouns juxtaposed to the primary noun may occur in the genitive, instrumental, identificative, agent or locative form.

Other nominals also co-occur with the primary noun. When the primary noun precedes the accompanying nominal no modification of the primary noun takes place. A transposition of the primary noun to occur immediately after a nominal such as the demonstrative, interjective or the absolute pronoun the primary noun’s pre-prefix is elided. e.g.

lé ndoda (this man)
lési sinkwa (this bread)
lába bántu (these people)
wê madoda (hey, men!)
thulâni zingâne (keep quiet children)
ninâ bafâna (you boys)
wenâ mzâla (you, my cousin)

The interjective and the absolute pronoun cause changes in the second and third persons only.

The reason for the modification of the class prefix of the primary noun appears to be that the concordial element of the demonstrative already possesses a morphological relationship with the noun class prefix. In respect of the interjective and the absolute pronoun the noun is used in an interjective sentence.
6. CONCLUSION

The traditional analysis of the environment where the modification of the noun occurs appears unnecessary in the light of the foregoing discussion.

This article goes some way towards explaining the reasons for the changes of the structure of nouns in different syntactic environments and it is hoped that it charts a new path to more intensive study of syntax.

ENDNOTES

1. Zulu verbs are classifiable into four semantic types, viz. activity, process, achievement, and stative verbs. The agentive and instrumental adverbs identified by Doke (1968) are restricted to relations between achievement and stative verbs and a following noun. This is misleading. It is not clear from his analysis how activity and process verbs behave towards following nouns. Further, it is not clear how the incorporation of radical extensions to all four semantic types of verbs, influence the relationship between the verb and the following noun.

2. The interjective, interrogative, and declarative sentence.

3. The occurrence of the primary noun in both the subject and object "slots" generally without modification.

4. Morphological and phonetic changes are more easily detectable.

5. Proper nouns used in a nuclear sentence as subject or direct object use a prefix which has a function of reference.

6. See Introduction to Zulu syntax.

7. The prefixal formative na- functions as a possessive prefix. It should be distinguished from the connective formative na- as used in ubaba nomama.

8. Together with eMkhambathini and oZwathini these are irregular derivations of locatives from place names. This may be due to the fact that these place names originate from general nouns and not geographic specific names.

REFERENCES


Wilkes (1976) supported later by certain scholars (among them Louwrens (1981, 1985, 1990), Prinsloo (1987), Mndawe (1989), Kosch (1991) and Jiyane (1994), claims that the so-called pronouns in Zulu (and also Northern Sotho and Ndebele, are determiners which gain their pronominal status only after the nouns with which they occur in appositive structures have been deleted. Only after this kind of deletion has occurred, he argues, do they assume their emphatic and/or contrastive function. In this manner he concludes that pronominalization is a deletion-hypothesis. This theory leads him and some of his contemporaries to claim that every so-called theory of pronominalization is a theory of co-reference, that every anaphor in a co-referential relationship between expressions is a pronoun, and that there must be agreement-morphosyntactic agreement in principle between words and or word groups that yield co-referential relationship between them.

The aim of this article is to challenge the view expressed above i.e. that pronominalization is a deletion process. It will be argued that co-referential antecedent-anaphor relations do not result from the so-called pronominalization process only; that antecedent-anaphor relations do not necessarily result in coreference; that anaphors in these relations are not always necessarily the so-called “pronouns” and that agreement, especially morphosyntactic agreement, does not necessarily guarantee co-referentiality. It will be indicated that the so-called pronouns are anaphoric expressions which are used to show emphasis and or contrast to antecedent(s) mentioned earlier in the discourse; that they can occur with other expressions in appositive structures as determiners to show emphasis and/or contrast i.e. anaphorically to an antecedent in a discourse. (In both cases, however, they can be used deictically to refer to entities in the physical environment.) Examples from
Venda, a language spoken in South Africa and a sister language to those mentioned above, will be used to challenge the views expressed.

In the quest for match-making antecedents and anaphors so that they can yield co-reference, thereby determining topicality through two expressions, Wilkes (1976) challenges Doke's (1954) substitution theory between an antecedent and a pronoun. Doke (1954:90) defines a pronoun as a word "*which signify(ies) anything concrete or abstract without being its name*". For instance in

1. **Ndi funa Onndisa.** (I like Onndisa.)

Doke would replace *Onndisa* with a pronoun *ene* as in

2. **Ndi funa ene.** (I like him.)

In Doke's approach, a pronoun is used in the place of a noun. This has been challenged by Wilkes (1976), Louwrens (1981, 1985, 1990), Prinsloo (1987), Mndawe (1989) and Kosch (1991) and Jiyane (1994). Their argument is that in the second sentence, *ene* (he) expresses emphasis whereas Onndisa, which is being replaced, does not have such emphasis. To them there are semantic differences between the two structures and as such the pronoun in (2) cannot be said to be replacing or substituting the noun in (1).

Wilkes goes on to give further examples to argue his case, e.g.

3. **Ndi funa vhone.** (I like them.)
   **Ndi vhidza ene.** (I call him/her.)

and explains that the above cases imply that their underlying noun phrases for *vhone/them* and *ene/him* could be *vhathu/people* and *mutukana/the boy*; as in

4. **Surface structure**
   **Ndi funa vhone.** (I like them.)
   **Deep structure**
   **Ndi funa vhathu.** (I like people.)

5. **Surface structure**
   **Ndi vhidza ene.** (I call him.)
   **Deep Structure**
   **Ndi vhidza mutukana.** (I call the boy.)

and concludes:

Doke se uitgangspunt kom naamlik daarop neer dat hy die voornaamwoorde van Zulu [Venda TMS] as woorde beskou wat in 'n koreferensiële relasie tot naamwoorde kan staan en wat op grond daarvan in die plek van naamwoorde in sinne gebruik kan word (Wilkes 1976:61).

*(Doke's point of departure is namely that he regards the pronouns of*
Zulu as words which can occur in a co-referential relationship with nouns and which can resultantly be used in sentences instead of nouns.

Wilkes (1976:62) says that if this is the case then:

In 'n meer moderne idioom geformuleer, kom Doke se bogenoemde uitgangspunt dus daarop neer dat die onderskeie voornaamwoordtipes van Zulu as transformasies van onderliggende naamwoorde gesien moet word, min of meer op dieselfde basis as wat die voornaamwoorde van Afrikaans of Engels dit van die sogenaamde delisie-hipotese.

(Formulated in a modern idiom, the above point of view of Doke implies that the various pronouns of Zulu should be seen as transformations of underlying nouns more or less on the same basis as the pronouns of English and Afrikaans with regard to the deletion hypothesis.)

Wilkes' deletion hypothesis is modelled on the classical theory of the deletion hypothesis or pronominalization transformation (Lees & Klima 1963) although he tries to modify it. Deletion presupposes an underlying structure, i.e. one which is abstract and not uttered. When one has elements that are identical, one deletes or pronominalize the other in generative grammar.

According to this theory, there are two structures, i.e. the deep and surface structures. In the deep structure are two identical NPs, the second of which is replaced with a pronoun in the surface structure, e.g.

6. Surface structure  The boy say he is sick.
    Deep structure  The boy say the boy is sick.
    Surface structure  Die seun sê hy is siek.
    Deep structure  Die seun sê die seun is siek.

The case in Afrikaans, as it would in English, indicates that the pronoun hy(he) in the surface structure has replaced the second of the identical NP in the deep structure. In the case above, according to the deletion theory, there is co-reference between the antecedent die seun(the boy) and the anaphor hy(he). This approach will be challenged later as the anaphor can refer to an antecedent mentioned earlier on or point deictically to one that is in the extralinguistic situation.

However, Wilkes (1976:63) argues further against Doke and says:

_Sy referensiële van voornaamwoorde impliseer namlik dat hirdie woorde in die plek van naamwoorde waarmee hulle korefereer kan optree._
Wilkes then claims that a case such as

7. Deep structure:  *Vhana* vha a tamba. (*The children* play.)
cannot be the underlying form of

8. Surface structure:  *Havha* vha a tamba. (*These* (the children in particular) play.)
or

   (*Takalani says* *Takalani* is sick.)
cannot be the underlying form of

10a. Surface structure  *Takalani* u ri *ene* u a lwala.
   (*Takalani says* he (in particular) is sick.)

The reason here is that the pronouns *havha* (these in particular) and *ene* (him in particular) are emphatic, whereas the underlying noun phrases *vhana* (the) children and *Takalani* are not. Wilkes and his contemporaries rightly indicate that pronouns are used to show emphasis and contrast as in

10b. *One* mavhele o no kanwa.  (*It* the mealies has been harvested.)

Here *one* (it) shows emphasis and in

   Sandani u funa *Itani*, fhedzi *ene* ha mu funi.
   (*Sandani likes* *Itani* but *he* (on the other hand) does not like her.)

*ene* (he) (on the other hand) expresses contrast but is also anaphoric to *Itani*. Wilkes, Louwrens, Prinsloo, etc., argue that Doke’s co-referentiality is unfounded and Louwrens (1981:36) in support of Wilkes’s stand writes:

In Wilkes (1976) neem die outeur die Dokeaanse siening van pronominalisasie in Bantoe onder die loop, en le hy die vinger op verskeie inkonsekwenthede en leemtes in die tradisionele pronominalisatieorie.

(In Wilkes (1976) the author critically evaluates the Dokean view of Bantu pronominalization and points out various inconsistencies and inadequacies in the traditional pronominalization theory.)

Again Wilkes and his contemporaries give reasons why Doke failed to see the
position of pronouns in African languages. Prinsloo (1987:23) in support of Wilkes and Louwrens says:

By means of careful analysis of the relevant data of Northern Sotho and Zulu, these authors have succeeded in unveiling the real character of pronomina in Bantu without being preoccupied or influenced by criteria holding good for European languages.


Die delesiehypoteses bring waardevolle nuwe inispte oor pronominalisasie in Bantoe mee.

(The deletion hypothesis provides valuable new insights on pronominalization in Bantu.)

The deletion-hypothesis, they postulate, is different from the classical theory of pronominalization of Lees and Klima (1963) in which there are two structures, i.e. a deep structure and a surface structure with the antecedents and anaphors far apart. In their case, there are two structures, one with an appositive structure consisting of a determiner and a noun and another in which the noun has been deleted, they claim, by pragmatic factors as in

11. *Mutukana ene u a gidima.*

   *Ene u a gidima.*

   (The boy (on the other hand) runs.)

   (He (on the other hand) runs.)

   or

12. *Ene mutukana u a gidima*

   *Ene u a gidima*

   (The boy, particularly, runs.)

   (He, particularly, runs.)

In the case of concordial elements it occurs as in


   *U a gidima*

   (The boy runs.)

   (He runs.)

They claim here that for pronominalization to take place, the noun is deleted and that accordingly the deletion is determined by discourse or pragmatic factors. In the words of Louwrens (1985:58),

The conditions under which the deletion of the antecedent takes place are determined by the pragmatics of discourse, namely when the noun's referent is presupposed to be known, i.e. given.
For instance, according to these scholars, in examples 11 and 12 the appositive structures consist of a noun and a determiner (the so-called pronoun). 11 has a contrastive structure in which the noun is deleted by pragmatic factors because it is known and the so-called pronoun is pronominalized and subsequently refers to the deleted noun with which it agrees and the two become coreferential, i.e. in both structures contrast is expressed, and in 12 the appositive structure is emphatic. When the noun is deleted by pragmatic factors, the determiner (the so-called pronoun) is pronominalized and it too refers to the deleted noun with which it agrees and the two become coreferential. The remaining pronoun also expresses emphasis. Example 13 is not a new case, as they note that even in traditional grammar for a concordial element to be pronominal the noun is deleted. In this manner, pronominalization, according to them, becomes a deletion-hypothesis.

The deletion hypothesis was challenged and also rejected by many scholars in the seventies (Bach 1970; Bresnan 1970; Carden 1970; Kayne 1971; Lasnik 1976; Bolinger 1977, 1979; Billy 1977). Bach went on to endorse that the so-called pronominalization hypothesis was a problem, hence the notion "problominalization".

He endorses that

... one conclusion might be that there is no such thing as pronominalization except as a name for a semantic relation between independently chosen NP’s and pronouns ... a relation which must then be determined (at least) on the basis of surface structure relations (Bach 1970:122).

Lasnik (1976:2) is seen as one scholar who laid the issue of the deletion-hypothesis to rest and in support of Bach and others he writes the following on antecedent-anaphor relations:

What we have is simply a principle of co-operation. By this I mean that a speaker must provide every reasonable means for his listener to know what he is talking about. Stated this way, the explanation can readily be seen not to be a claim about pronouns but rather about getting along with people, not about language, but about communication.

He further adds that, “a principle of co-operation limits the indiscriminate use of pronouns (as well as many other noun phrases)”.

Whilst Wilkes and his contemporaries have tried to correct Doke (1954) and Van Eeden (1956), they fail and in fact compound the problem further. In the first place, the appositive structures they use are all anaphoric, be they
emphatic or contrastive. It is impossible for one to emphasize or show contrast without referring to an earlier mentioned. When one emphasises or shows contrast, there is always a known antecedent mentioned earlier on. In fact, if the cases above were occurring in the natural language, no deletion would take place. The noun they claim is deleted by the pragmatics of discourse is the one that is being referred to by the emphatic appositive structure and/or by the contrastive appositive structure and it is the one that has been mentioned earlier on. This is the antecedent that introduces information in the discourse. The pronouns in the second structures do occur as they explain but not through any deletion, e.g.

14. B: Nna mathina *ene Odaho* u ngafhi?
14. C: Kana *ene* u ngafhi?
15. A: *Odaho* is going to town.
15. B: Tell me in fact where is *she* (*Odaho*) (in particular)
15. C: Where could *she* (*Odaho*) (in particular) be?

For any co-reference to take place, there should be an ongoing discourse and not a series of repeated structures as they suggest. Their kind of deletion-hypothesis has been tailor-made to yield a co-referential relationship between an antecedent and an anaphor which does not occur in any African languages. Pronouns in Venda and other related African languages can in fact be used on their own as anaphoric expressions to show emphasis or contrast. Concordial elements do function as anaphors in discourse but they refer to their antecedents as the discourse continues, i.e. being far apart from their antecedent. No antecedent is deleted, but it is mentioned or understood and the discourse continues. Any deletion in most of these scholars’ examples is a forced case which speakers of the language never experience.

Another misrepresentation and misinterpretation is illustrated in the examples Louwrens (1985:59) uses from Ramaila (1960:135):

"7. *Mmadipola o be a šetše a na le nywaga e senyane ge a thoma go lemoga bošuana ba gagwe. Ba be ba tsena sekolo ka babedi ba bitšwa Bertha Molapo le *Louisa* Molapo ka sekologong. Ka mo ntle le kua gee,

7a. *Louisa yena* o be a bitswa ka la Mmadipola. Le ge go le bjalo go be go le phapano e kgolo mo gare ga Bertha le Louisa. Ya pele, Bertha o be a apara mašelana a mabotse a a swanelago ngwana wa sekolo, mole"
7b. *Louisa yena* a leša dihleng.
Ge go ka laelwa ka sekolog gore go nyakega dipuku tše mpsha goba mokgwanyana o mongwe o mofša, go be go dula go kgona Bertha, eupša

7c. *Louisa yena* a hloka.
(Mmadipola was already nine years old when she started to realize that she was an orphan. They went to school together and in school they were called Bertha Molapo and Louisa Molapo. Outside the school and at home, (7a) *Louisa, however,* was called Mmadipola. But even if this was the case, there was a great difference between Bertha and Louisa. Firstly, Bertha was always neatly dressed as a schoolgirl ought to be, while (7b) *Louisa, on the contrary,* was shameful. If new books or anything new was needed, Bertha always succeeded in providing it, while (7c) *Louisa, on the other hand,* couldn't.)

Note also in the following passage from Ramaila (1960:135):

8. Ge go ka laolwa leeto la bana ba sekolo, gwa thwe yo mongwe a tle le šeleng ya go namela, Louisa o be a atiša go e hloka. *Tseo le, le tše dingwe,*

8a. ke *ona masetlapelo* a Mmadipola a godilego ka *ona,* go se na yo a lorago therešo ya lefoko la ba batala ge ba re. Tshuana e sa hwego, e leta monono.

(If a tour was arranged for the schoolchildren, and they were expected to contribute ten cents for transport, Louisa was continuously unable to provide it. *These and others* then, (8a) are the very miseries in which Mmadipola grew up with (them). Nobody was ever contemplating the truth of the saying of the old people which goes: “An orphan which survives awaits prosperity.”)

In example 7, the discourse is about *Bertha Molapo* and *Louisa.* There are three cases where the appositive *Louisa yena* (as for Louisa), occurs to show contrast and in each case it refers anaphorically to *Louisa* in contrast to Bertha. Louwrens sees contrast only, but does not show any deletion, which is his cornerstone.

In example 8 *ona masetlapelo* (that kind of misery) refers emphatically to what has been mentioned earlier on, i.e. *tseo le tše dingwe* (these and others) and it is also anaphoric to it. For instance *tseo* (these) refers to the problems that Louisa used to face such as being without money etc., and *ona* (that) refers
again to *ona masetlapelo* (that kind of misery) mentioned earlier on. *Tseo* (these) for instance has not occurred through any deletion but it is here as both anaphoric and emphatic to the misery *Louisa* faced *go hloka šeleng* (to be out of pocket.) Equally *ona* (that) does not occur through any deletion but, it is in fact anaphoric and emphatic to *ona masetlapelo* (that kind of misery.)

Prinsloo (1987:52) says that in *Ke reka* *yona* (I buy it,) *yona* (it) is not anaphoric but emphatic only. However, if it refers to *baisekela* (a bicycle) mentioned earlier on, then it can never be emphatic without being anaphoric, unless it has been used deictically to refer to a referent that is in the extra linguistic situation.

More misrepresentations and misinterpretations emerge from the pen of Louwrens (1981). He believes that any expression which enters into a co-referential relationship with an antecedent is a pronoun; that all cases of pronominalization yield co-referentiality and that antecedent-anaphor agreement leads to co-reference. It will be indicated below that this is not the case. Louwrens (1981:37) says:

> Essensieel is enige pronominalisasie teorie ‘n teorie van koreferensie. Hiermee word bedoel dat ‘n voornaam-woord sy pronominale karakter daaraan te danke het dat dit na dieselide saak ‘n verswee naamwoord verwys, en dus met die naamwoord korefereer.

(The essence of any theory of pronominalization is a theory of co-reference, i.e. a pronoun owns its pronominal nature to the fact that it refers to the same referent as a “disappeared” noun, it as such co-refers the noun.)

He goes on to illustrate his case with an example in Afrikaans, e.g.

16. *Die studente se hulle* is moeg. *(The students say they are tired.)*

where *hulle* (they) is pronominal and together with its antecedent *die studente* (the students) are co-referential. It is important to note that the anaphor *hulle* (they) can also be anaphoric to a previous antecedent or be deictic to a referent that is visible besides being anaphoric to the given antecedent *die studente* (the students.) The same applies to *hy* (he) in 6.

He goes on to conclude that:

> Omdat koreferensie ‘n noodsaaklike voorwaarde is vir ‘n woord om tot voornaamwoord te kwalificeer, geld die teendeel eweseer, naamlik dat alle woorde wat in ‘n toal oor koreferensiele eienskappe beskik, as voornaam-woorde gewaardeer behoort te word. (Louwrens 1981:37).
(As co-reference is an essential condition for a word to qualify as a pronoun, the opposite also applies, viz. that all words which have co-referential properties in a language should be appreciated as pronouns.)

What Louwrens states above is a misrepresentation and a misinterpretation. Co-referentiality does not always result from the so-called pronominalization; neither are anaphoric expressions that refer co-referentially with their antecedents always only pronouns. For instance, one can repeat a lexical expression as an anaphor as in

17. \textit{Takadzani}^{1} \ u \ a \ dina,mara \ o \ tou \ ita \ hani \ \textit{Takadzani}^{2}.
   \textit{(Takadzani}^{1} \ \text{is very troublesome, but what is wrong with}
   \textit{Takadzani}^{2}.)

\textit{Takadzani}^{2} \ \text{is anaphoric to} \ \textit{Takadzani}^{1} \ \text{and it is not a pronoun. It has been used}
\text{as an anaphoric proper name. Equally one can use a definite expression}
\textit{muthannga} \ (the guy), \ \text{his surname} \ \textit{Rapakatani}, \ \text{his clan name} \ \textit{Bakali} \ \text{or}
\textit{Mukwevho}, \ \text{an epithet} \ \textit{ligwena} \ (the boss) \ \text{and many others which do not result}
\text{from the so-called pronominalization process as anaphors.}

There are many other cases which involve pronominalization but which do not result in co-referentiality. For instance, note cases of bound variable anaphora like in the example below,

17(a) \ \textit{Arali muthu/munna e na donngi }\ u \ a \ i \ \textit{rwa}.
   \textit{(If a man has a donkey he beats it.)}

In this example, the anaphors may be seen in terms of pronominalization, but there is no co-reference between them and their antecedents. This is a case of generic reference in which the two expressions refer to random referents.

The example below and all instances of the so-called pronouns of laziness or lazy anaphora, including what in English is known as the one-anaphora, which in Venda is expressed by anaphoric concords, involve what is seen as pronominalization, but do not yield co-reference between them, e.g.

17(b) \ \textit{Munna we a fha musadzi wawe tsheke yawe }\ u \ \textit{khwine kha we a i fha}
\textit{mufarekano wawe}.
   \textit{(The man who gave his paycheque to his wife is better than the one who}
\textit{gave it to his mistress.)}

This is a case of multi-reference and not coreference.
All these cases violate the pronominalization constraint. Louwrens and his contemporaries put elements together, delete a noun and then claim that any remaining one is a pronoun, but what they do is in fact pack elements together so that after the deletion of, say, the noun then their prophesy should become true – but this is a man-made case; it has nothing to do with any natural discourse. The point is that there is no real deletion – the pronoun that they claim remains after deletion in natural discourse is determined by discourse-pragmatic factors and refers to the appositive NP used earlier on.

On the issue of agreement which he claims leads to coreferentiality Louwrens (1981:38) says:

Woord kongruensie aldus vertolk, is dit moontlik om te konkludeer dat alle woorde wet met naamwoorde kongruer, in prinsipe met dergelike naamwoorde korefereer en byegevolg oor die vermae beskik om as pronominalisasievorme te funksioneer.

(If word congruence is interpreted in such a way, it is possible to conclude that all words which are in congruence with nouns co-refers in principle with such nouns, with the result that they have the potential to function as pronominal forms.)

and he further claims (Ibid 39):

... woorde en woordgroepie wat met naamwoorde kongruer beskik oor potensiele koreferensiele eienskappe en kan derhalwe, onder bepoalde voorwearde, 'n pronominale funksie vervul.

(Words and word groups which co-refer with nouns have potential co-referential properties and can, therefore, under certain conditions fulfil pronominal functions.)

Not all cases that display agreement, i.e. morphosyntactic agreement between the antecedent and anaphor, result in co-reference. In African languages agreement is not always morphosyntactic but can also be semantic or coherent. There are cases that involve morphosyntactic agreement but which do not result in coreference as in the one anaphora (in English) which is expressed by pronominal and concordial anaphoric expressions in Venda. The so-called bound variable anaphora (Reinhart 1986) and also the so-called pronouns of laziness (Karttunen 1969) are cases in point, e.g.

18(a) Takalani o renga goloi, na nne ndo i renga.
     (Takalani has bought a car, I have bought one too.)
Every student thinks that he will pass.

There is morphosyntactic agreement between goloi (a car) and anaphor i (one) but there is no co-reference as there are two different referents. The anaphor is a kind of the so-called “pronoun” of laziness which is multi-referential.

Note the morphosyntactic agreement between the antecedent mutshudeni munwe na munwe (every student) and the anaphor u (he,) there is no co-reference between them. The two refer to either random referents or if they are specific, to many.

Here we have cases of generic (in 18b) and multi-reference (in 18a).

Note also in:

   (I bought a car, they are now very expensive.)

The agreement between goloi (a car) and dzi (they) is not morphosyntactic but semantic or coherent and it does not result in co-reference because the referents are more than one. It is then a case of multi-reference.

There is also a type of semantic or coherent agreement which needs to be understood from a cultural point of view, as in

20. Ndo tangana na Maita mulovha, dzo vhuya lini?
   (I met Maita yesterday, when did he come back?)

the anaphor dzo (he) refers co-referentially with Maita, but there is no morphosyntactic agreement.

Another case in point is the use of the locative concord hu/ho (for ngeo/there) which can function with both singular or plural antecedents as in

21. A, ndi Maita naa, nna hu bviwafhi? (Oh, is it Maita, where do you come from?)
   Ho swikiwa lini? (When did you arrive?)

In this case the speaker is polite, the use of hu (ho) for inwi (you) implies politeness on the part of the speaker so as to avoid the use of ordinary pronominal forms. The agreement here is both semantic and cultural, and the two expressions are coreferential, but there is no morphosyntactic agreement.

Perhaps it is important to indicate why Doke on the one hand, and Wilkes and
his contemporaries on the other have similar approaches to a problem they both fail to resolve. Their approaches need to be seen in the South African languages perspective where traditionally non-mother tongue speakers learn and study them through repetitive structures or sentences in isolation instead of using them in context. Although such cases do occur in discourse, though, there is no deletion as such. In both cases co-reference is a forced process and is explained through either substitution or deletion. A natural case involving coreference for Doke, Van Eeden, etc., would be

22. *Tinae o vha e hone, ene o swika o neta.*
   *(Tinae was here, she (Tinae) (in particular) arrived being tired.)*

Here *ene/she* refers anaphorically and emphatically to *Tinae* in an ongoing discourse. The co-referential relationship is a result of a natural process unlike in

23. *Tinae u ri u do da.*
    *Ene u ri u do da.*

24. *Tinae says he will come.*
    *She (in particular) says she will come.*

where Wilkes et al allege Doke implies that *ene (he)* is anaphoric to *Tinae*. This very case cannot be seen as a natural discourse by mother-tongue speakers. These are mere sentences following each other. Doke seems to have been dealing with pure substitution at sentence level and not co-reference in an ongoing discourse. However, his approach led to the conclusion arrived at by Wilkes et al. It should be stated here that there is no substitution at sentence level too. What happens is that expressions refer to given antecedents or those which could have been mentioned before in an ongoing discourse.

The Wilkes et al case in real discourse would be as in

25. A: *Tinae u khou fanela u ya doroboni.*
    B: Nna mathina *ene Tinae u ngafhi?*
    C: Kana *ene u ngafhi?*

A: *Tinae* should go to town.
B: But where is *she (Tinae) (in particular).*
C: Oh, where is *she (in particular)*?

In this case, *ene Tinae* (she Tinae in particular) is an appositive structure which emphasizes anaphorically and refers to Tinae who is mentioned earlier on in A. *Ene (she)* in C is also emphatic and refers anaphorically to *ene Tinae* (she Tinae, in particular) in B and/or *Tinae* in A. Note that *ene* in C can be said to
refer to Tinae in A or ene Tinae in B and in both cases nothing has been deleted. A case that involves concordial anaphors would be as in

26. *Musadzi* u¹ bikela vhana zwiliwa, u² vha bikela ngauri vha na ndala. *(The woman cooks food for the children, she cooks for them because they are hungry.)*

Note that the non-local concord *u²* (she) is anaphoric to *Musadzi* (the woman) but the local *u¹* (she) is just an agreement marker. The mistake that is committed by Wilkes et al is that they do not use examples from purely natural discourse but resort to concocted sentences and employ a rigid method that would yield desired results. The noun that they delete in both cases involving pronouns and concords is the antecedent mentioned earlier. For instance *ene* (him, in particular) in 25 and *u²* (she) do not occur through deletion but are used here to refer to known or given information which has been mentioned earlier, i.e. without any deletion.

These scholars seem to have been somehow liberated by Wilkes’ deletion-hypothesis. For instance, Louwrens (1990:91) writes:

> As far as pronominalization is concerned, Wilkes (1976) made an important contribution in the sense that he reconsidered the whole theory of pronominalization in Bantu languages, and came to the conclusion that the traditional views on this issue are unacceptable.

In the words of Kosch (1991:134):

> Wilkes’ (1976) contribution was significant in that it provided Bantuists for the first time with a thorough theoretical framework within which the inadequacies of traditional views could be exposed. His deletion-hypothesis also enables the researcher to explain the unique character of pronominalization in Bantu.

Prinsloo (1987:34) says:

> Pioneering publications from researchers such as Wilkes and Louwrens brought new and exciting insights but regrettably have not received proper recognition and acknowledgement in recent publications.

In support of the scholars above, Mndawe (1989:25) says that they have been able to prove that

> ... the traditional conception of the so-called pronouns in African languages has been misguided.
There is a feeling of sympathy and empathy in the writings of these scholars. The fact that this approach has been found appealing to them is because it has been tailored to yield desired results. That it has not received any critical attention possibly from mother-tongue scholars is because, as it has been with Doke’s approach, the deletion-hypothesis does not solve any problem for them, because there is no problem that it identifies that mother-tongue speakers and scholars are beset with. However, there are among others Mndawe (1989) and Jiyane (1994) who merely repeat Wilkes’s views, more so because he happens to be their promotor. In the case of Mndawe, his M.A. dissertation (1989) is entitled Zulu grammar and the new syllabus for Zulu mother-tongue speakers and has clearly been based on Wilkes’s (1988) article entitled, Zulu grammar and the new school syllabuses for Zulu. The titles of their works are almost the same and so are their contents. There is no problem that Mndawe solves except to champion Wilkes’s views. However, the major problem for most students and scholars of language has been to impose theories on languages and further deal with language issues out of context. This approach compounds the problem because it deals mostly with reference out of instead of in context. The problems identified and solutions suggested are all of human creation: that of dealing with manufactured or concocted sentences instead of real natural language.

There are, however, similarities between Lees and Klima’s (1963) approach and that of Wilkes et al. Lees and Klima were challenging Bloomfield’s (1933) substitution theory and Wilkes was likewise challenging Doke’s substitution theory. Whereas the case of the classical theory can be accepted, save the ambiguities that result (though of course without deletion); in Wilkes’ case real deletion never takes place in African languages. It is such a rare case that to call it exceptional would be unfair. As a rule, this deletion-hypothesis implies that each time we use the so-called pronouns we first pack them into appositive structures, and as the discourse continues, we delete the nouns so as to remain with the pronominalized anaphors. This is far-fetched and unnatural in both spoken and written language. It is surprising that both theories do not use quantifiers, split antecedents, etc., and the co-reference that results is always predictable, mechanistic and prescriptive. In the end, the classical theory scholars merely renewed Bloomfield’s substitution theory, because where he spoke of a mentioned antecedent, Lees and Klima speak of an underlying form. Where he speaks of this form being substituted or replaced by a pronoun, they too speak of it being deleted and replaced by a pronoun. In Wilkes’ case, the antecedent is said to be a deleted noun which is given information, after whose deletion the remaining element is pronominalized, whereas Doke and others would have a substantive or antecedent which is replaced by a pronoun. Doke deletes a noun and replaces it with a pronoun, Wilkes et al delete a noun and pronominalize the remaining so-called pronoun.
All arrive at the same conclusion, though differently except that Doke's case needs a full discourse to be uttered, but in Wilkes' case in a discourse reference can occur to show emphasis and/or contrast though nothing should be deleted.

These scholars go on to refer to Kunene (1975) on pronominalization, but she approaches pronominal anaphora quite differently. Kunene (1975:172), whom they rely on, does speak about deletion and goes on to show how deletion takes place, but later becomes more pragmatic when she says:

*When the subject of the sentence has been introduced in previous discourse, on second occurrence it may be deleted and the SVA will function as an anaphoric pronoun.*

This case is similar to the discourse that has been given in 22, 25 and 26. *One can understand her use of the term deletion as this was one of the cornerstone terms in pronominalization then.*

On the whole, Kunene (1975:181) has misgivings about the transformational approach to pronominalization applied in sentences and she writes further:

*The facts of Zulu cast strong doubt on the validity of any strict transformational approach to pronominalization since two pronouns may co-exist with their co-referent noun, and further the various combinations of pronouns with the nouns are used for distinct communicative purposes, to map different discourse situations. Pronominalization is just showing itself to be not a ................. syntactic process in Zulu, but rather a complex array of pragmatic devices used to elucidate subtle distinctions concerning the discourse context in which sentences are uttered.*

It should be noted that Wilkes (1976) published his paper on the deletion-hypothesis when Lasnik (1976) was laying this theory to rest. The Wilkes' deletion-hypothesis has managed to survive because he and his contemporaries deal more with self-made cases and not real language ones. Besides, there have been attempts to defend the theory at all costs by Wilkes's students.

A closer look at this theory shows that it deals more with tailor-made cases where the machine runs according to prescribed rules. Deletion cases do occur in, for instance, the equi-NP deletion (Wasow 1979) and verb and verb phrase anaphora (McCawley 1987). What happens here is that as the discourse continues, some expressions are mentioned and others are sort of deleted by some pragmatic mechanisms because they are understood and are evident in the language. Such cases do not occur in the Wilkes’ deletion-hypothesis. This type of deletion is rare in both the written and spoken language. In a topical
discourse, therefore, if one were to give it licence or, as Lakoff and Ross (1972) would say, "anmestisize" it, then it would imply that each time we want to use the so-called "pronouns", we must first pack them in appositive structures with nouns and immediately in almost the following similar (repeated) structure delete the noun so that the remaining element is pronominalized and then claim that this anaphor agrees with the deleted noun which is given information; we must further claim that the deletion has been determined by pragmatic factors and ultimately end up with a co-referential relationship. This whole process is unpalatable in African languages.

A lot of revision went into the classical theory of Lees and Klima (1963), and that of Ross (1967) and Langacker (1969), as has been the case with that of Wilkes. What has happened is that the scholars who support Wilkes' approach have tried to patch it wherever they disagree with him without openly disagreeing to make it workable and acceptable.

In conclusion it can be said that antecedent-anaphor relations that yield co-reference or any other anaphoric relation are not rule-based, but are determined by pragmatic factors in an ongoing discourse. The rules used and suggested in the theory above are rather predictive, mechanistic and prescriptive and yet communication is free and natural. Billy cited by Smyth (1986:28) alleges that the unending revisions to pronominalization "are often mere ad hoc patch works on the syntactic rule which does not work" and Bolinger (1979:289) seals the whole issue by stating that

After years of efforts at rule-making that have only led up one blind alley after another, a number of researchers have concluded that the key to "pronominalization" is not to be found in syntax, perhaps even "the key" does not exist.

Pronominal forms are in fact used and should be understood as such in ongoing discourses. This means that their occurrence, be it anaphoric or deictic, indicating contrast or emphasis, are indeed determined by pragmatic factors. The deletion referred to by Wilkes et al does not occur in this way.

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1. INTRODUCTION

This article attempts to explain one type of "bare form", a compromise strategy in codeswitching data. The bare form to be discussed is the "do" verb construction in Chichewa/English codeswitching. In this structure, the Chichewa ku-chit-a "to do" occurs in a fully inflected form followed by an English verb stem. The English verb conveys the semantic structure of verb. While the "do" verb construction is discussed in Myers-Scotton (1993), Myers-Scotton and Jake (1995), and Jake and Myers-Scotton (1997), its occurrence in Chichewa/English codeswitching is not mentioned. The goal of this article is to illustrate "do" verb constructions in Chichewa/English CS and to argue that because these occur frequently in such CS, but not in all other Bantu/English CS corpora, this may be evidence that the tense/aspect system of Chichewa and English may be different from that of other Bantu languages. That is, it may be the case that not all tense/aspect systems of Bantu languages are alike. Certainly, the use of these constructions in Chichewa/English seems to show that there is incongruence between English and Chichewa regarding their tense/aspect systems. However, another possible explanation of why the "do" verb construction is categorical in the Chichewa corpus studied may have to do with the sociolinguistic milieu in which Chichewa is spoken vs. the settings for other Bantu languages.

2. FRAMEWORK OF ANALYSIS

The data are discussed in terms of the matrix language frame (MLF) model developed in Myers-Scotton (1993) and extended in Myers-Scotton and Jake
This model is structured by two oppositions: the matrix language (ML) vs. embedded language (EL) and the content vs. system morpheme distinctions. There are three types of CS constituents: ML + EL constituents or mixed constituents; ML islands; and EL islands. Mixed constituents include morphemes from both the ML and EL, with the ML setting the grammatical frame. ML islands consist entirely of morphemes from the ML and are well formed according to ML requirements. Similarly, EL islands include only EL morphemes and are well formed according to EL requirements, although some aspects of EL islands may be determined by the ML (e.g. their position in the larger CP). Note that mixed constituents may contain EL islands. This article focuses on mixed constituents containing singly occurring lexemes from the EL. In general, the form which EL material takes, for example whether it can be inserted into a mixed constituent, depends on congruence between ML and EL abstract lexical entries.

3. THE UNIT OF ANALYSIS

Earlier work on grammatical constraints on CS structure referred to intra-sentential CS. However, the CP is a preferable unit of analysis because its domain is more exact than that of “sentence”. A CP is the projection of the COMP node; it includes a verb and its subject and arguments, plus the additional material to make the “clause” or “sentence” well formed. Using CP as the unit of analysis means that complementizers and other discourse elements occurring under COMP are constituents of a larger category participating in CS; they are not “between sentences”. A sentence, of course, may contain more than one CP. Example (1) illustrates two monolingual CPs, one embedded in the other. The embedded CP includes an overt subordinator in COMP position. The MLF model, however, applies only to the use of morphemes from two or more languages within the same CP, not to monolingual CPs.

(1) [ndiye iyeyo [akuti mtima wake sungatsaike]₂]₁ ...
    "[And so he says [that his heart will not rest]] ..."
    (Chichewa/English Simango 1995 VIII)

4. LEXICAL STRUCTURE

A crucial premise to this analysis and a discussion of language competence in general is that lexical structure is both abstract and complex. The analysis assumes three levels of lexical structure. These are lexical-conceptual structure, predicate-argument-structure, and morphological realization patterns. At the level of lexical-conceptual structure, intentions are bundled into semantic and
pragmatic features; how these features are bundled plays a role in the projection of thematic structure. Such thematic structure includes discourse-thematic roles such as topic, focus, contrast, and argument-structure thematic roles, such as agent, experiencer, and patient.

Predicate-argument structure deals with the mapping of thematic roles onto the hierarchical phrase structure of a CP. For example, in Bantu languages a locative NP is typically an NP argument of the verb, as opposed to a PP; in English it is a PP.

Morphological realization patterns include surface morpheme and constituent order and grammatical inflections and functional elements required by well-formedness conditions in a specific language. Noun class agreement marking is an example of morphological realization patterns. Another example is word order within NPs. In Bantu languages, nouns precede their modifiers; in English, they follow.

5. TYPES OF MORPHEMES

The content vs. system morpheme distinction plays a role in the structures observed in intra-CP CS. Content morphemes participate in the thematic structure of a sentence, both at the discourse-thematic level and the level of assignment of thematic roles to arguments. Morphemes which either assign or receive a thematic role are content morphemes. Therefore, nouns and verbs are prototypical content morphemes. In addition, we now consider discourse particles and subordinators to be content morphemes since they often assign discourse-thematic roles (e.g., however and because) (Myers-Scotton and Jake 1995). In contrast, system morphemes neither assign nor receive thematic roles. In addition, most system morphemes have the feature [ + quantification]. For example, tense is a system morpheme and it quantifies over events; articles quantify over NP reference.

6. CS AND THE CONCEPTUAL LEVEL

What happens when a speaker decides to engage in codeswitching? First of all, the language of the CP frame is chosen; that is, the ML is chosen. The choice of the ML is largely based on sociolinguistic and psycholinguistic considerations, even though it is the structural consequences of its choice which are of concern here. ML selection means that one language is more activated in the sense that it sets the grammatical frame for the entire CP.

6.1 Also at the conceptual level, the speaker's intentions select abstract
lexical entries underlying content morphemes in either of the participating languages. That is, lemmas are selected. Lemmas are abstract entries in the mental lexicon which contain all the structural information regarding lexical-conceptual structure, predicate-argument structure, and morphological realization patterns required to complete the constituent projected by the content morpheme supported by the lemma (Levelt 1989). The activated lemma sends directions to the formulator, and the formulator projects the predicate-argument structure and morphological realization patterns required to complete the constituent at the surface level. This constituent is the maximal projection of the lemma, e.g. NP, PP.

6.2 In addition, at the conceptual level, the lemmas supporting some system morphemes are selected or “pointed to” by the lemma supporting the content morpheme. These are “indirectly elected” (Bock & Levelt 1994) and contrast with the second class of system morphemes, which are “structurally assigned” at the functional and positional level (i.e. at the level of the formulator and surface structure). Indirectly elected system morphemes flesh out the speaker’s intentions at the conceptual level. For example, the lemma supporting the content morpheme look indirectly elects the lemma supporting the satellite/preposition/particle at as look at is used in The girl looked at the monkey. In order to express the telic activity on the part of the actor/experiencer, at is required (as opposed to look, look for, look up, etc.)

6.3 In contrast, structurally assigned system morphemes are not activated at the conceptual level because they do not contribute in any essential sense to the semantic/pragmatic information of the proposition encoding the speaker’s intentions. The presence of the grammatical features they encode is largely arbitrary and always language-specific. Case markers are examples of structurally assigned morphemes, as is subject-verb agreement.

6.4 The discussion above outlines a general model relating language competence to language production; it is applicable to monolingual or bilingual discourse. When a speaker engages in intra-CP CS, an EL content element is inserted into the grammatical frame prepared by the ML. Part of this process is the evaluation of its congruence with an ML counterpart (Myers-Scotton and Jake 1995). In general, two outcomes obtain. Either the EL content morpheme is sufficiently congruent so that it can be morphosyntactically integrated into the ML frame, or congruence is insufficient and one of several compromise strategies results. The compromise strategy discussed in this paper is the “do” construction in Chichewa/English CS.
7. POSSIBILITIES IN CS AND CONGRUENCE.

+ Congruent → mixed constituent
− Congruent → compromise strategies

7.1 Mixed constituents: If an EL lemma entry is sufficiently congruent with its ML counterpart, the EL content morpheme is inserted into a frame prepared by the ML counterpart and the result is a well-formed, integrated mixed constituent. The EL content morpheme occurs with the requisite ML system morphemes. From a psycholinguistic point of view, the optimal CS constituent is the mixed constituent. The reason is that if the ML and EL lemmas are congruent at the conceptual level, the formulator need only project the morphosyntactic structures of the ML rather than activate such structures from the EL as well. That is, the grammars of both languages do not have the same level of activation (Grosjean 1994), resulting in “psycholinguistic saving”. Examples (2) through (5) illustrate such “optimal” constituents from several language pairs for which the ML is a Bantu language.

(2) U-ki-j-a huku, u-na-CHANGE, mazee ... 2S-CONDIT-come-FV there 2S-PAST-change, old person ... “If you come there. You will change, my friend ...” (Swahili/English Myers-Scotton, 1993:103)

(3) A-mummy Justin Lewis a-na-li-be kalikonse mu-folder ya-ke HON-mummy Justin Lewis 3S-PAST-COP-without anything LOC-folder 9-3S/POSS “Mummy, Justin Lewis did not have anything in his folder.” (Chichewa/English Simango 1995 VI)

(4) nthawi ya news si-i-na-kwan-e time 9/ASSOC news NEG-9-PAST-arrive-FV “It’s not news time yet.” (Chichewa/English Simango 1995 VI)

(5) ... but di-lo tse di-cause-w-a ke sectional points, ... but 10-thing DEM 10-cause-PASS-FV COP sectional points le ma-bitso a tsona o a a utlw-a COP 6-name 6/POSS 10/EMPH 2S 1/PRES 6/OBJ hear-FV ha o le mo section-ing, ... COMP/TEMP 2S COP 18/DEM section-LOC, ... “But these [languages] are caused by sectional points, and from these names [which] you will hear when you are in a section, ...” (Sotho/English Finlayson, Calteaux, & Myers-Scotton 1995)
8. LACK OF CONGRUENCE: COMPROMISE STRATEGIES

8.1 In some language pairs there are fewer “optimal” mixed constituents than might be expected a priori. Instead, many EL Islands and bare forms occur, suggesting a lack of congruence of the ML and EL lemma counterparts. This article will only deal with bare forms.

8.2 Bare forms are EL lexemes which occur in a mixed constituent, with a frame prepared by the ML. In contrast with other EL material in a mixed constituent, a bare form is an EL element which is missing the required ML system morphemes. We will discuss one type of bare form in this article, the “do” verb construction. This construction consists of a non-finite EL verb with the requisite verbal inflections, which would make the verb well-formed in the ML, realized on a “do” (i.e. light/aux) verb. Thus, for example, in (6) the Turkish verb for “do”, yap-, appears with all the requisite Turkish inflections, but the “real” meaning of the verbal construction is carried by the Dutch infinitive, beheers-en “control”. Literally, the “do” construction means “do control”.

Examples (6) and (7) illustrate the “do” verb construction in Turkish/Dutch CS. In Backus’ 1992 corpus, 43 Dutch verbs occur in Turkish mixed CPs. All are bare Dutch infinitives. There are no instances in this corpus of Dutch verbs inflected with Turkish system morphemes. Similarly, Tturker (1996) finds no examples of Norwegian verbs inflected with Turkish system morphemes in her corpus of Turkish/Norwegian CS; however, there are many examples of the “do” construction (with the Turkish verb for “do” and a Norwegian infinitive).

(6) Bu bir sûrü taal-lar-I beheers-en yap-iyor-ken ...
DEM INDEF range language-P-ACC control-INF do-PROG-while
“While he knows a lot of languages ...”
(Turkish/Dutch Backus, 1992:83)

(7) Ama ben o-nu hep uitschrij-en yap-acag-im
But I that-ACC all transcribe-INF do-FUT-1S
“But I will transcribe it all.”
(Turkish/Dutch Backus, 1992:77)

“Do” verb verb constructions occur in CS corpora involving a variety of languages, from Japanese/English CS to Chichewa/English CS. They are very common in corpora in which an Indic language is the ML. They are also very common when a verb-final agglutinative language is the ML, such as Turkish, as illustrated above. While “do” verb constructions occur in such Southern Bantu languages corpora as Zulu/English CS, in these data sets English verbs
can also be inflected with Bantu affixes. In this regard, Chichewa seems to be different, since in the Simango (1995) corpus, 48 English inflected verbs, 42 (85%) occur in “do” verb constructions. This corpus comes from several different naturally-occurring conversations in a Malawian family which was resident in the United States at the time of the recording.

Of the six English verbs which occur with Chichewa inflections, sign occurs five times, and shoot occurs only once. The verb sign occurs all six times in the same conversation. Examples (8)–(10) illustrate “do” verb constructions in Chichewa/English CS: the Chichewa verb for “do” -chita, is inflected with all necessary system morphemes to make the verb well formed in Chichewa, and it is followed by a bare English verb stem (e.g. -chita think about in (8)). The example in (11) illustrates the infrequent inflection of an English verb with Chichewa affixes.

(8) a-ma-n-go-chit-a think about ku-ma-a-umbz-a a-nthu
3S-HAB-CONSEC-do-FV think about INF-HAB-2/OBJ-beat up-FV 2-person
‘He just thinks about beating up people.’
(Chichewa/English Simango 1995: II)

(9) a-chit-a swallow air y-ambiri apo
3S/do-FV swallow air 9-much there
“He’s going to swallow a lot of air there.”
(Chichewa/English Simango 1995: I)

(10) Ngoni, ku-khomo w-a-chit-a check, eti?
Ngoni, LOC-door 2S/SUB-PERF-do-FV check, right?
“Ngoni, you have checked the door, right?”
(Chichewa/English Simango 1995: III)

(11) ndi-sign-a bwanji?
1S/SUBJ-sign-FV how?
“How am I going to sign?”
(Chichewa/English Simango 1995: IV)

8.2 We hypothesize that the level at which congruence becomes a problem in the case of “do” verb constructions explains why this construction occurs rather than the other options which the MLF model allows. (Recall that the main other options under the model of relevance here are the mixed constituent, which would include an English verb with Chichewa system morphemes; and the EL island, a constituent entirely in English – including an English verb in this case – and well formed according to English requirements, but occurring within a larger mixed constituent.)

8.3 The fact that English verbs cannot be easily inflected with Chichewa
system morphemes implies that Chichewa verb lemmas are not congruent in some way with English verb lemmas. However, since English verbs can occur as non-finite forms (infinitive, nominal-like forms), this indicates that they match a Chichewa counterpart regarding semantic or pragmatic requirements. Thus, congruence at the conceptual level is not a limiting issue. Congruence checking between Chichewa verbal inflections and those for English is not relevant at this level because verbal inflections for neither language are conceptually activated; only content elements are conceptually activated (e.g., nouns and verb roots). However, congruence does become a problem at the level of morphological realization patterns. Most grammatical theories recognize that these abstract levels of structure are necessary to satisfy the requirements of a language-specific grammar.

If the congruence problem is not in terms of lexical-conceptual structure, it may be in terms of information about morphological realization patterns contained in lemmas. That is, lemmas supporting Chichewa verbs may contain morphological information which is missing in lemmas supporting English verbs.

There is a difference in the Chichewa/English corpus discussed in this paper and the Turkish/Dutch corpora from Backus (1992, Backus & Boeschoten 1996). While a Dutch verb never occurs with Turkish inflections, in the Chichewa/English corpus, the interdiction against the inflection of English verbs with Chichewa inflections is not absolute. A major reason for the categorical absence of Dutch verbs with Turkish inflections may be the extent to which the two languages are incongruent at the level of morphological realization patterns. We have shown elsewhere that there are many ways in which Turkish and Dutch are not congruent at this level (Jake & Myers-Scotton 1997). These same differences do not hold for Chichewa and English. For example, case marking is an issue in Turkish/Dutch lack of congruence. In Turkish, nominals require suffixes marking case. In Dutch there is no overt case marking on nouns. We have also argued that Turkish postpositions and Dutch prepositions are not congruent. Word order (affecting thematic role assignment) is also different in Turkish and Dutch, since Turkish is uniformly verb final, although there is variation in Dutch order. An additional issue of incongruence involves the nature of verb complexes.

The implication is that the templates of Turkish verbs contain all of the morphological realization patterns which map lexical-conceptual structure onto the predicate-argument structure. In Dutch, no single template maps lexical-conceptual structure onto predicate-argument structure. Rather, this information is part of the directions of the lemmas supporting specific verb
lemmas or it is contained in the lemmas which support the specific indirectly-elected prepositional complements of the verb (i.e., the verb satellites/particles). Furthermore, as noted above, case marking in Dutch is typically not overt, and therefore, the lemma supporting the Dutch verb does not send the same type of grammatical information to the formulator which the Turkish template must send. Instead, in Dutch, adjacency to case assigners (e.g. lexical governors: INFL, verbs, and prepositions) is the surface realization of abstract case assignment.

9. CODESWITCHING AND CONGRUENCE IN “DO” VERB CONSTRUCTIONS

How are these differences in abstract structure played out in Chichewa/English CS data? As already noted, English verbs occur only infrequently with Chichewa inflections in such data; instead, they occur as non-finite forms with a Chichewa inflected “do” verb. We have suggested above that at the conceptual level, the English verb is sufficiently congruent with its Chichewa counterpart. Therefore, at this level, a mixed VP constituent is already projected by the Chichewa ML and the activated EL verb is ready to be inserted. However, since the EL verb does not meet the requirements which a Chichewa frame places on a finite verb, only a Chichewa verb may be inserted. Thus, the problem of congruence is at a lower level, the level of morphological realization patterns.

The data from Chichewa/English CS suggest that specifications for tense and aspect are different in English and Chichewa. In English, it appears that the way aspect, for example, interacts with other elements under INFL (e.g. tense, modal) shows that aspect and these other elements under INFL operate as a complex intersecting system. The assignment of meaning to a particular set of auxiliaries under INFL does not depend on context, but is indicated by the surface-level form of the morpheme. For example, *has* is the realization of perfect aspect in *the child has jumped on the bed*. It also realizes present tense and only present tense. Past tense is realized on *have*, as in *the child had jumped on the bed*. In Chichewa, however, it may be that the interpretation of the relation of tense to aspect encoded by elements under INFL (in the verbal complex) depends on the larger discourse context. For example, the interpretation of tense in relation to “perfective” *a* may depend on the larger context. In this sense, then, in Chichewa, tense and aspect may be more salient at the lexical-conceptual level and may also be more tightly integrated into the verb complex. That is, we suggest that the system morphemes realizing tense and aspect in Chichewa may be “pointed to” at the conceptual level by the lemma supporting the verb root; that is, they are “indirectly elected”. In
contrast, while the slot for tense and aspect in English may be indirectly elected as well (e.g. the slot for “have”), the specific system morpheme itself is only “structurally assigned” at a lower level (i.e. the level at which the formulator in language production assigns surface structure). That is, the rendition of “have” as has, had, have depends on the formulator.

In Chichewa, as in (12), for example, a is interpreted as present perfect because of the context, not because there is a different form of the morpheme for “present” vs. “past” or “third person singular” vs. “third person plural”.

(12) Mw-a-mu-pukut-a? Mw-a-chit-a change ma-wipes?
   2S/SUBJ-PERF-3S/OBJ-wipe-FV 2S/SUBJ-PERF-do-FV change 6-wipes
   “Have you wiped him [the baby]? Have you changed the wipes?”
   (Chichewa/English Simango 1995: VI)

An obvious question arises. Why does Swahili allow many English verbs with Bantu inflections in Swahili/English CS? Why is CS in Swahili/English so different from that in Chichewa/English? In the Nairobi corpus discussed in Myers-Scotton 1993, there are 91 English verbs inflected with Swahili system morphemes, and the “do” construction is not used at all. The same question applies to an extent to those other Southern Bantu languages, outside of Chichewa, which seemingly allow many English verbs with Bantu inflections.

To answer this question, more field work of a quantitative nature needs to be done on the Southern Bantu languages. To date, examples reported in the literature showing CS, from languages other than Chichewa, have been few (e.g. Khati 1992; Finlayson et al. 1995). While structural incongruence between Chichewa and English regarding how tense and aspect are encoded may explain the data, another suggestion comes to mind as well. Perhaps a social explanation will explain why so many “do” verb constructions occur in Chichewa and not in Swahili/English or Zulu/English CS. That is, it is possible that the difference in the sociolinguistic situations in which Swahili and Zulu are spoken, along with any use of English or CS involving English, is distinct from that in which Chichewa is spoken in contact with English. What might be the difference? Even though Chichewa is spoken as a second language by many people in Malawi, it is the primary African language in that country which is heard in public settings. In contrast, both Swahili and Zulu are spoken in more “visibly” multilingual communities. In addition, many of the speakers of either Swahili or Zulu speak it as a second language. Even though there is a large number of first language speakers of Zulu in South Africa and Zulu has a good deal of inter-ethnic prestige, especially as an urban lingua franca, it is still one indigenous language among a number of formidable competitors for
prominence. Further, and possibly most important, the history of Chichewa usage in Malawi has a very “prescriptive” flavor. In these ways, the sociolinguistic milieu for Chichewa/English CS may be such that any incongruence between Chichewa and English VPs, such as that discussed above in regard to tense and aspect, may be less tolerated in CS than it is in the case of Swahili or Zulu. That is, the fact that there is more of a history of CS in both Kenya and South Africa as an acceptable conversational strategy may make a difference.

Both of the suggestions offered here, that tense and aspect are differently organized in regard to their salience at the conceptual level in Chichewa and English, and that attitudes toward Chichewa “purity” are more restrictive than those toward some other Bantu languages, are only speculations. Further research by others, especially quantitative work on CS in the South African Bantu languages, will indicate the value of these suggestions.

10. CONCLUSION

The tension between the speaker’s desire to convey intended semantic-pragmatic information with an English verb and the grammatical requirements of the ML results in a compromise strategy: the English verb occurs as a non-finite form and a Chichewa “do” verb satisfies the requirements of the ML frame. The result is an integrated bare form.4

CS data provide evidence on how languages may differ regarding how grammatical information is activated and projected by the lexicon. Considering abstract lemma structure, as opposed to more surface morphemes and lexemes, could tell linguists more about the relationship between syntax and morphology and relations across lexical and syntactic categories. CS data, and in particular compromise strategies such as bare forms, give linguists insights into how language works: Where the grammatical structures of two languages come together, the internal—and often obscured—workings of a particular language may be better exposed, and, therefore, better understood.

ENDNOTES

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2. To “quantify” in this sense means that one element selected “quantifies” or “picks out” one member of a set. For example, this in this book is mine picks out a particular book from a set.
3. Recall that one of the original goals of syntactic movement rules was to capture the
regularity involved in English “affix hopping” (Chomsky 1965). In a sentence such as John had been running, the assumption was that past + perfect (have-en) + progressive (be-ing) occurred in that order under INFL. The have element of perfect combined with tense to give had; the be element of progressive combined with -en to give been and the verb run of the VP combined with progressive to give running.

4. Backus and Boeschoten (1996) have already demonstrated that Dutch infinitives in such constructions have nominal properties. They also argue that the yap-CS construction is an extension of a construction available in monolingual Turkish.

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