25 Chichewa (Bantu)

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Chichewa is a Bantu language spoken principally in the area of Africa lying in the Great Rift Valley. It is found in Malawi, where, since 1968, it has served as the national language; in Mozambique, Zambia, and Zimbabwe. Malcolm Guthrie in his classification of Bantu languages (1967–71) places this language in zone N in the unit N31. This language also goes by the name of "Chinyanja" in the region, except in Malawi, where the label "Chichewa" was adopted. In its morphological structure Chichewa is typical of the Bantu languages. It is a tone language, displaying characteristics of grammatical and lexical tone. It has the elaborate system of noun classification and the highly agglutinative and complex verbal morphology that characterize Bantu languages in general. In this chapter I will highlight some of the salient morphological aspects of Chichewa as a special case of the morphological organization of Bantu languages. Because of the immense interest that the verbal morphology holds for the description of Bantu languages, it will be useful to begin the discussion of Chichewa morphology by looking at the morphological organization of the verb.

1 The structure of the verb

The nucleus of the verbal morphology in Chichewa is the verb root or radical (VR), which supports a number of prefixes and suffixes which have different functions. In citation form every regular verb radical terminates with the suffix [a], which is referred to as the "final vowel." When it appears in a simple sentence, the VR must be prefixed with subject or person marker and tense/aspect marker. This may be illustrated by the example below:

(1) chigawênga chi-ku-phwány-á maûngu. 7-terrorist 7SM-pres.-smash-fv 6-pumpkins 'The terrorist is smashing some pumpkins.'

The verb radical in this case is *phwany* 'smash', to which is attached the final vowel to create the verb phwanya. The subject marker chi, which duplicates the features of number and gender class of the noun chigawênga 'terrorist', which belongs to noun class 7 (see below for discussion of the noun classification system), and the tense marker ku, which marks present tense, are prefixed to the stem as required by the principles of sentence formation. The person markers in this language are *ndi*- (1st person sg.), *u*- (2nd sg.), *a*- (3rd sg. and pl.), ti- (1st pl.), and mu- (2nd pl.). Included in the tense-aspect markers are the following: -ma- (habitual or past progressive, depending on tone), -a-(perfective), -na- (past), naa- (remote past), -dza- (future). Some tense/aspect markers are realized simply by tone, as is the case with the immediate future. The simple construction given in (1) above can be expanded by the inclusion of an object marker that reflects the number and gender class features of the object noun phrase maûngu 'pumpkins', which belongs to noun class 6. The relevant object marker is wa, which is prefixed immediately before the verb stem, after the tense/aspect morpheme. This is given below:

(2)chigawênga chi-ku-wá-phwány-a maûngu. 7-terrorist 7SM-pres.-6OM-smash-fv 6-pumpkins 'The terrorist is smashing them, the pumpkins.'

The presence of the subject and object markers has consequences for word order. For a start, the placement of the noun chigawenga in relation to the verb is free; that is, it may be either preverbal or postverbal. The noun maûngu, on the other hand, must occur adjacent to, and immediately after, the verb, unless the object marker (OM) is in position, in which case its position relative to the verb is free. When the subject and object markers are both present, all the various possible orderings of the words in sentence (2) yield perfectly grammatical results, and are synonymous. The results, besides the ones already given, are:

chi-ku-wá-phwány-a chigawênga maûngu chi-ku-wá-phwány-a maûngu chigawênga maûngu chi-ku-wá-phwány-a chigawênga maûngu chigawênga chi-ku-wá-phwány-a

The nouns chigawênga and maûngu can also be omitted without inducing ungrammaticality, as shown in (4) below:

(4) chi-ku-wá-phwány-a. 7SM-pres.-6OM-smash-fv 'He (it) is smashing them.'

These facts raise a number of questions concerning the status of the subject and object markers in Chichewa and in other Bantu languages. In recent studies of Chichewa the object marker has been analyzed as an incorporated pronominal object (see Bresnan and Mchombo 1986, 1987). This explains the behavior of

the alleged object noun phrase (NP) which behaves in all relevant respects like a topic element in the presence of the OM. This is to say that the evidence points to its being outside the verb phrase, and it may actually be in a nonlocal relationship to the verb. As a matter of fact, in other Bantu languages - for example, Kikuyu – the OM and the postverbal agreeing NP do not co-occur (cf. Bergvall 1985), suggesting that the object function is fulfilled by the OM. The fact that the OM is in complementary distribution with the postverbal agreeing NP excludes its analysis as a grammatical agreement marker. The subject marker (SM), on the other hand, has been analyzed by Bresnan and Mchombo (1987) as functionally ambiguous between being a grammatical agreement marker and an incorporated pronominal. This stems from the fact that it is an obligatory element in the verbal morphology, which gives it the hallmarks of agreement morphology; yet it is like a pronominal subject when the subject NP is omitted. So far there has been hesitancy to analyze the SM simply as the subject of the sentence. Implicit in this proposed analysis of the SM is the view that the subject of the sentence should not be a bound morpheme. This view, probably inspired by ideas rooted in traditional grammar, is one that could be challenged, given the facts about Bantu languages. It appears that the SM is analyzable as the subject of the sentence, and that perhaps it is best to so analyze it. It does, after all, act as the relevant antecedent of the reflexive, a typical characteristic of subject NPs. This point should perhaps be illustrated.

The reflexive in Chichewa is realized by the invariant morpheme *-dzi-*, which appears in the OM slot. The reflexive observes the normal locality conditions associated with bound anaphora in its binding properties: to wit, that it must have an antecedent within the same simplex clause. The relevant antecedent in this case is the subject of the clause. Consider the following:

- (5) (a) Mkângo ú-ma-dzi-supûl-a. 3-lion 3SM-hab.-reflex-bruise-fv 'The lion always bruises itself.'
 - (b) Mkângo u-ku-dzíw-á kutí kalú lu w-a-mv-a 3-lion 3SM-pres.-know-fv that 1a-hare 1SM-perf.-hear-fv kutí ú-ma-dzi-supûl-a. that 3SM-hab.-reflex.-bruise-fv 'The lion knows that the hare has heard that it bruises itself.'

In (5a) it is clear that the lion is the antecedent of the reflexive. The lion still remains the antecedent of the reflexive in sentence (5b), despite the apparent violation of the locality requirements. It turns out that the locality conditions are satisifed because the reflexive is bound to the SM u, which, in turn, is anaphorically linked to the NP $mk\hat{a}ngo$ 'lion'. Here is a case where the SM is the relevant antecedent subject NP. Cases where the SM assumes the full responsibilities of the subject NP could be readily proliferated. This seems to suggest that the SM should be analyzed as the subject, a conclusion that Demuth

and Johnson (1989) have reached for Setswana, a Bantu language of Southern Africa. The possible extension of their proposal to Chichewa and other Bantu languages should reward investigation.

The subject and object markers and the tense/aspect marking do not exhaust the range of verbal prefixes. Negation, realized by the morpheme *si*, gets prefixed to the verb in the main clause. In a simple declarative sentence, the negative (NEG) morpheme is initial among the verbal prefixes. When the NEG is followed by a vowel, the *i* of *si* is dropped. This is illustrated by the following:

(6) Mkângo s-ú-ku-wá-phwány-a maûngu. 3-lion NEG-3SM-pres.-6OM-smash-fv 6-pumpkins 'The lion is not smashing them, the pumpkins.'

The NEG is placed immediately after the SM in a subordinate clause, traditionally expressed in the subjunctive form. The subjunctive, normally signaled by the change of the final vowel to [e], can be found in sentential complementation, among other things. In this case, the NEG is realized by the morpheme sa. Note the following:

Kalúlú a-ku-fún-á kutí mkângo u-sa-phwány-é maûngu. 1a-hare 1SM-pres.-want-fv that 3-lion 3SM-NEG-smash-subjun. 6-pumpkins 'The hare wants that the lion not smash the pumpkins.'

Other elements that appear as verbal prefixes include modals – for instance, -ngo- 'just, merely' – as well as directional elements -ka- 'go' and -dza- 'come'. These are placed in the immediate pre-OM position, after the tense. This is shown by the following:

- (8)(a) Mkângo s-ú-ná-ngo-wá-phwány-a maûngu . . . 3-lion NEG-3SM-past-just-6OM-smash-fv 6-pumpkins . . . 'The lion did not just smash them, the pumpkins . . .'
 - Mkângo u-ku-ká-phwány-á máûngu. 3-lion 3SM-pres.-go-smash-fv 6-pumpkins 'The lion is going to smash some pumpkins.'
 - Mkângo u-ku-dzá-phwány-á máûngu. 3-lion 3SM-pres.-come-smash-fv 6-pumpkins 'The lion is coming to smash some pumpkins.'
 - Mkângo s-ú-na-ká-ngo-wá-phwány-a maûngu,... 3-lion NEG-3SM-past-go-just-6OM-smash-fv 6-pumpkins . . . 'The lion did not just go smash them, the pumpkins...'

Other verbal prefixes include the conditional form -ka- and -sana- 'before'. This latter induces the change of the final vowel to [e], putting it in the subjunctive. These are shown in the following:

- (8) (e) Mkângo u-ka-phwany-a maûngu, u-send-é nzímbe. 3-lion 3SM-cond.-smash-fv 6-pumpkins, 3SM-peel-subjun. 9-sugar cane 'If (when) the lion smashes pumpkins, it should peel the sugar cane.'
 - (f) Mkângo ú-sána-phwány-é maûngu u-b-é nzímbe. 3-lion 3SM-before-smash-subjun. 6-pumpkins 3SM-steal-subjun. 9-sugar cane 'Before the lion smashes pumpkins, it should steal the sugar cane.'

The conditional -ka- which, besides its position relative to the tense/aspect marker, is also tonally different from the directional -ka-, normally comes immediately after the SM and precedes the tense/aspect marker. The following illustrate this observation:

(8) (g) Mkângo ú-ka-na-phwány-á maûngu, u-ka-ná-wá-dy-a. 3-lion 3SM-cond.-past-smash-fv 6-pumpkins, 3SM-cond.-past-6OM-eat-fv 'If the lion had smashed the pumpkins, it would have eaten them.'

These facts provide some insight into the functions of verbal prefixes in the Chichewa verbal morphology.

2 Suffixes

Perhaps the most engaging aspect of Bantu verbal morphology lies in the verbal suffixes. The suffixes, also known as "extensions" in Bantu linguistics, affect the number of NPs that the verb can "support" in the syntactic configuration. The suffixes can be conveniently subdivided into three groups: those which increase by one the number of NPs that can appear in the sentence, those which reduce by one the number of NPs the suffixed or extended verb can support, and those which do not alter the array of NPs. In correlation with these functions Guthrie (1962) classifies the extensions as O+, O-, and neutral (where O is really for 'object'). Typical examples of the O+ extensions are the causative and the applicative morphemes; the O- extensions are typified by the stative, the passive, and the reciprocal morphemes, and the neutral is shown by the reversive. The suffixes constitute argument-structure-changing morphology, and mark the verbal suffix domain as that of morphological processes which have functional unity. The extensions will be reviewed in the order given.

2.1 The causative

Causativization has received a lot of scholarly attention because of the range of problems associated with the description and analysis of the facts about causative constructions. The causative in Chichewa is realized by the morphs *-its-* and *-ets-*, the choice of the morph being determined by vowel harmony (cf. Mtenje 1985, 1986). The causative morpheme is suffixed to the verb, with the result that there is a new NP introduced into the structure. Consider (9), which illustrates the causativization of an intransitive verb:

- (9) (a) Chigawênga chi-ku-sék-a. 7-terrorist 7SM-pres.-laugh-fv 'The terrorist is laughing.'
 - (b) Kalúlú a-ku-sék-éts-a chigawênga. 1a-hare 1SM-pres.-laugh-caus.-fv 7-terrorist 'The hare is making the terrorist laugh.'

The presence of the causative suffix *-ets-* is accompanied by the introduction of a new NP *kalúlú* 'hare', into the structure, which becomes the grammatical subject. The causativization of a transitive verb is shown in (10) below, which is the causative of sentence (1) above:

(10) Mkângo u-ku-phwány-íts-a chigawéngá maûngu. 3-lion 3SM-pres.-smash-caus.-fv 7-terrorist 6-pumpkins 'The lion is making the terrorist smash pumpkins.'

In this sentence the presence of the suffix -its- is accompanied by the introduction of the NP *mkângo*. This NP would not otherwise have appeared in the construction, as shown below:

(11) *Mkango u-ku-phwany-a chigawenga maungu. *3-lion 3SM-pres.-smash-fv 7-terrorist 6-pumpkins

The subject NP of the noncausative construction no longer appears as the subject in the causative construction. Chichewa provides two strategies for the realization of the subject of the noncausative sentence in cases where the input structure is transitive. It can appear either as the object NP, an in (10) above, or as an oblique, marked by $kw\acute{a}$, as in (12) below:

(12) Mkângo u-ku-phwány-íts-a maûngu kwá chígawênga. 3-lion 3SM-pres.-smash-caus.-fv 6-pumpkins by 7-terrorist 'The lion is getting pumpkins smashed at the hands of (by) the terrorist.'

These two versions of the causative have semantic differences. First, when the causee surfaces as the object, the causative is "direct." In sentence (10) the lion must be making the terrorist smash the pumpkins. In sentence (12), on the other hand, the lion is merely having pumpkins smashed at the hands of the terrorist. The idea of direct force is not a necessary part of its interpretation. The causative is one of the valence-increasing operations. The other one that has received a lot of attention is the applicative.

2.2 The applicative

The applicative construction in Chichewa is typified by the suffixation of *-ir-* or *-er-* to the verb, which also introduces a new NP. Consider the following:

- (13) (a) Kalúlú a-ku-phík-á maûngu.

 1a-hare 1SM-pres.-cook-fv 6-pumpkins

 'The hare is cooking pumpkins.'
 - (b) Kalúlú a-ku-phík-ír-a mkángó maûngu. 1a-hare 1SM-pres.-cook-appl.-fv 3-lion 6-pumpkins 'The hare is cooking (for) the lion some pumpkins.'

The most obvious difference between the causative and the applicative has to do with the semantic role and the grammatical function associated with the new NP. In causative constructions the new NP is agentive, and gets realized as the grammatical subject of the sentence. The applicative, on the other hand, introduces non-agentive NPs which are not directly associated with the subject function. In (13) above, the applied argument (NP), <code>mkângo</code>, is introduced as the direct object, and it is associated with the semantic role of beneficiary. The applicative construction is complex, in that the NP associated with the presence of the applied suffix can be associated with a number of semantic roles. We have already had an example of the benefactive-applicative, in which the applied argument is a beneficiary. The applicative is also used to introduce instrumentals as well as locatives into the range of arguments which the applicative can support. Note the following:

2.2.1 Instrumental-applicative

- (14) (a) Kalúlú a-ku-phík-á maûngu ndí mkóndo.

 1a-hare 1SM-pres.-cook-fv 6-pumpkins with 3-spear

 'The hare is cooking pumpkins with (using) a spear.'
 - (b) Kalúlú a-ku-phík-íra mkôndo maûngu. 1a-hare 1SM-pres.-cook-appl.-fv 3-spear 6-pumpkins 'The hare is cooking pumpkins with a spear.'

In this the instrumental argument *mkóndo* behaves like the object on the applied verb *phik-ir-a*.

2.2.2 Locative-applicative

(15) (a) Kalúlú a-ku-phík-á maûngu pa chulu.

1a-hare 1SM-pres.-cook-fv 6-pumpkins 16-on 7-anthill

'The hare is cooking some pumpkins on the anthill.'

(b) Kalúlú a-ku-phík-ír-a pa chulu maûngu. 1a-hare 1SM-pres.-cook-appl.-fv 16-on 7-anthill 6-pumpkins 'The hare is cooking on anthill the pumpkins.'

In these examples the resultant sentences show some of the hallmarks of double object constructions (but see Alsina and Mchombo 1990, 1993, for important observations). The applicative is further utilized to introduce a reason or purpose NP, which has also been referred to as the "circumstantial" (cf. Hyman and Mchombo 1995). This is shown in the following sentence:

Kalúlú a-ku-phík-ír-a njala maûngu. 1a-hare 1SM-pres.-cook-appl.-fv 9-hunger 6-pumpkins 'The hare is cooking the pumpkins for the sake of hunger.'

This sentence says that the hare is cooking the pumpkins because of hunger. There are constraints on word order in this case. The reordering of maûngu before njala yields ungrammatical results. Besides, the applied argument njala lacks the characteristics of a true object, according to the diagnostics given above. It cannot control the OM; neither can it be the subject under passivization. It is this ability to introduce NPs that have a wide range of semantic roles that has contributed to the interest in studies of the applicative in Bantu languages and in their relevance to matters of theoretical interest (cf. Bokamba 1976, 1981; Bresnan and Moshi 1990; Mchombo 1993).

It should be anticipated that the causative and the applicative can, and do in fact, co-occur. A particular co-occurrence restriction that Chichewa displays has to do with the ordering of the two suffixes. While applicativizing the causative is common, causativization of the applicative is rare. Consider the following:

- Kalúlú a-ku-phík-íts-ír-a mkángó maûngu (kwá chígawênga). (17)(a) 1a-hare 1SM-pres.-cook-caus.-appl.-fv 3-lion 6-pumpkins (by 7-terrorist) 'The hare is getting pumpkins cooked for the lion (by the terrorist).'
 - *Kalulu a-ku-phik-ir-its-a mkango maungu. *1a-hare 1SM-pres.-cook-appl.-caus.-fv 3-lion 6-pumpkins

There will be further comment below on constraints on verb stem morphotactics. At this juncture let us turn attention to the valence-reducing processes. These involve the passive, the stative, and the reciprocal, and they will be reviewed in that order.

2.3 The passive

The passive is marked by the suffix -idw- (and -edw-). It has the effect of 'demoting' the subject NP to the status of an oblique, marked as the object of the preposition *ndí*, while making the object NP the subject. The following is the passive of (13a) above:

(18) Maûngu a-ku-phík-ídw-a (ndí kálúlú). 6-pumpkins 6SM-pres.-cook-pass.-fv (by 1a-hare) 'The pumpkins are being cooked (by the hare).'

The oblique NP can be omitted, as in English. The passive verb does not allow the occurrence of the OM, as shown by the following:

(19) *Maungu a-ku-wa-phik-idw-a ndi kalulu. *6-pumpkins 6SM-pres.-6OM-cook-pass.-fv by 1a-hare

The passive does interact with causatives and applicatives subject to a number of restrictions. For a start, the passive can apply to causative or applicative constructions, but occurrence of the causative or applicative suffixes after the passive suffix is uncommon, with minor exceptions. Thus, the following, which are the passives of the causative sentence (10) and of the applicative sentence (13b) respectively, are grammatical:

- (20) (a) Chigawênga chi-ku-phwány-íts-idw-á máûngu (ndí mkângo). 7-terrorist 7SM-pres.-smash-caus.-pass.-fv 6-pumpkins (by 3-lion) 'The terrorist is made to smash pumpkins (by the lion).'
 - (b) Mkângo u-na-phík-ír-idw-á máûngu (ndí kálúlú). 3-lion 3SM-past-cook-appl.-pass.-fv 6-pumpkins (by 1a-hare) 'The lion was cooked pumpkins (by the hare).'

The passive can apply to causativized applicatives as well. Sentence (21) below is the passive of (17) above:

(21) Mkângo u-ku-phík-íts-ir-idw-á máûngu (kwá chígawênga)
3-lion 3SM-pres.-cook-caus.-appl.-pass.-fv 6-pumpkins (by 7-terrorist)
(ndí kálúlú).
(by 1a-hare)
'The lion is getting pumpkins cooked for it (at the hands of the terrorist)
(by (at the instigation of) the hare).'

Although the benefactive applicative can be passivized, other applicatives show some restrictions. For instance, the patient NP *maûngu* in the benefactive applicative cannot become the subject of the passive. Comparable restrictions apply to the instrumental applicative. The instrumental NP can be the subject of the passive of the instrumental applicative, but the patient NP may not. The reason applicative, on the other hand, is never passivizable. Consider the following, which is supposed to be the passive of 16 above:

(22) *Njala i-ku-phik-ir-idw-a maungu (ndi kalulu). *9-hunger 9SM-pres.-cook-appl.-pass.-fv 6-pumpkins (by 1a-hare)

There are at least two cases where the applicative suffix may be attached to the passive. These have to do with the locative and reason applicatives. This is illustrated by the following:

- (23) (a) Maûngu a-ku-phík-ídw-ir-á njala. 6-pumpkins 6SM-pres.-cook-pass.-appl.-fv 9-hunger 'The pumpkins are being cooked for reasons of hunger.'
 - Maûngu a-ku-phík-ídw-ir-á pa chulu. 6-pumpkins 6SM-pres.-cook-pass.-appl.-fv 16-on 7-anthill 'The pumpkins are being cooked on the anthill.'

The exact nature of the principles that regulate the co-occurrence restrictions among the verbal suffixes remains a topic of research interest (cf. Hyman and Mchombo 1995).

2.4 The stative

The stative suffix is signaled by the morpheme -ik- (and -ek-). It is very similar to the passive, in that it eliminates the subject NP and makes the object of the nonstative verb the subject. However, this similarity between the two processes should not mask the many differences that separate them. For a start, unlike the passive, the stative does not allow the expression of the agentive NP, even as an oblique. As a matter of fact, the stative is marked semantically by the lack of any notion of agency. The stative predicates of the subject that it is in, or is entering or (has) entered, a particular state without the intervention of an agent. Consider the following:

(24)Maûngu a-ku-phík-ík-a (*ndi kalulu). 6-pumpkins 6SM-pres.-cook-stat.-fv (by 1a-hare) 'The pumpkins are getting cooked (*by the hare).'

Secondly, the stative does not interact with the other suffixes as readily as the passive. For instance, statives of applicatives are not possible. Applicatives of the stative are possible, but in that case the applicative must be associated with either location, circumstantial (reason), or what may be termed the "maleficiary." This is the reading of something befalling someone. This is shown below:

(25) (a) Maûngu a-a-phwany-ik-ir-á pa chulu. 6-pumpkins 6SM-perf.-smash-stat.-appl.-fv 16-on 7-anthill 'The pumpkins have got smashed on the anthill."

- (b) Maûngu a-a-phwany-ik-ir-á phûzo. 6-pumpkins 6SM-perf.-smash-stat.-appl.-fv 5-spite 'The pumpkins have got smashed out of spite.'
- (c) Maûngu a-a-chí-phwány-ik-ír-a (chigawênga). 6-pumpkins 6SM-perf.-7OM-smash-stat.-appl.-fv (7-terrorist) 'The pumpkins have got smashed on him (the terrorist).'

Thirdly, the stative differs from the passive in terms of what the semantic role of the subject NP must be. The passive can make the beneficiary, instrumental, locative, causee NPs the subject. The stative, on the other hand, appears to be confined to applying to transitive verbs which have agent and patient arguments. In other words, the subject NP in stative constructions is primarily associated with the patient role. The stative thus affects a proper subpart of the constructions that the passive applies to. The fact that the subject NP of the stative bears the patient role assimilates the construction to the unaccusativity phenomenon (cf. Mchombo 1992). In Bantu, the process of locative inversion has been analyzed as the hallmark of unaccusativity (cf. Bresnan and Kanerva 1989) exemplified in the sentence below:

(26) Pa chulu pa-na-phwány-ídw-á máûngu. 16-on 7-anthill 16SM-perf.-smash-pass.-fv 6-pumpkins 'On the anthill were smashed some pumpkins.'

The stative participates in locative inversion too:

(27) Pa chulu pa-na-phwány-ík-á máûngu. 16-on 7-anthill 16SM-past-smash-stat.-fv 6-pumpkins 'On the anthill got smashed some pumpkins.'

This raises the question of whether thematic information is relevant to the statement of morphotactic constraints in the verb stem. While the facts suggest that the response to this question should be in the affirmative, the issue will be left open here. Finally, we turn attention to the reciprocal.

2.5 The reciprocal

The reciprocal in Chichewa is marked by the suffix -an-. The verb appears with one NP which is plural in number. This is achieved either by having a subject NP that denotes a group or by having a coordinate structure in the subject position. Note the following:

(28) (a) Mikângo i-ku-phwány-an-a. 4-lions 4SM-pres.-smash-recip.-fv 'Lions are smashing one another.' (b) Mbûzi ndí nkhôsa zi-ku-mény-an-a. 10-goats and 10-sheep 10SM-pres.-hit-recip.-fv 'Goats and sheep are hitting each other.'

The cases involving coordinate NPs normally introduce some problems because of the noun classification system that is characteristic of Bantu languages. In brief, the coordinate NP structure in the subject position must have an appropriate subject marker. While this is relatively easy in the example given above, because the coordinate nouns have been taken from the same class, problems arise when the nouns come from different gender classes with different number features and there is no simple strategy by which a unique SM for the coordinate structure may be determined (cf. Corbett and Mtenje 1987). In that case the strategy appealed to is that of extraposing all but the first conjunct, which then determines the shape of the SM. This yields some version of a comitative construction. Consider the following:

- (a) (29)Mkango ndi kalulu ?-ku-pats-an-a mphatso. 3-lion and 1a-hare ?-pres.-give-recip.-fv 10-gifts 'The lion and the hare are giving each other gifts.'
 - (b) Mkângo u-ku-páts-án-a mphâtso ndí kálúlú. 3-lion 3SM-pres.-give-recip.-fv with 1a-hare 'The lion and the hare are giving each other gifts.'

In this sentence, the expression ndí kálúlú 'with the hare' is construed as going with the subject, mkângo 'lion'.

There is evidence that the reciprocal makes the verb intransitive or, at any rate, reduces by one the number of arguments the reciprocalized verb takes as its primary arguments. For instance, the reciprocalized verb cannot be passivized. Consider the following:

(30)*Mphatso i-ku-pats-an-idw-a ndi mkango ndi kalulu. *9-gift 1SM-pres.-give-recip.-pass.-fv with 3-lion by 1a-hare

Neither can it take the OM, which always bears the function of the direct object. This is shown in the following:

(31) *Mkango u-ku-i-pats-an-a ndi kalulu (mphatso). *3-lion 3SM-pres.-9OM-give-recip.-fv with 1a-hare (9-gift)

In brief, the reciprocal fails the simplest diagnostics of transitivity.

In its interaction with other suffixes, the reciprocal does not co-occur with the stative, or with the passive unless there is the intervention of the transitivizing affixes such as the applicative or the causative:

(32) anyání a-na-mény-éts-an-í dw-a ndí míkângo. 2-baboons 2SM-past-hit-caus.-recip.-pass.-fv by 4-lion 'The baboons were made to hit each other by the lions.'

In its co-occurrence with the applicative (as with the causative in other languages), the reciprocal is constrained to appear after the applicative suffix, irrespective of the nature of the applicative argument. We get examples such as the following:

(33) Mikângo í-ma-tung-ir-án-á má dzi. 4-lions 4SM-hab.-draw-appl.-recip.-fv 6-water 'Lions draw water for each other.'

However, note the following:

(34) *Mikango i-ma-meny-an-ir-a pa chulu. *4-lions 4SM-hab.-hit-recip.-appl.-fv 16-on 7-anthill.

Although this sentence is predicted to occur on the basis of semantic compositionality, it is bad because the reciprocal precedes the applicative. In order to meet the ordering constraints, either the appl—recip order is used, or, as in the case of the locative applicative, the reciprocal is repeated after the applicative to yield the form:

(35) Mikângo í-ma-meny-an-ir-án-á pa chulu. 4-lions 4SM-hab.-hit-recip.-appl.-recip.-fv 16-on 7-anthill 'Lions hit each other on an anthill.'

The morphotactic constraints in the verb-stem suffixes seem to derive partly from syntactic/semantic considerations, where these may crucially involve thematic information, and in part from purely morphological factors, which, at this stage, are not very well understood (for some discussion see Hyman and Mchombo 1995). We will now have a look at an example of a suffix that does not alter the number of arguments.

2.6 The reversive

There is one very common suffix which does not affect the number of the arguments that the derived verb takes. This is the reversive *-ul-*, as shown in the following:

(36) tsek-a 'shut' tsek-ul-a 'open'
v-al-a 'dress up' v-ul-a 'undress'
yal-a 'spread' yal-ul-a 'remove something that is spread'

mat-a 'stick' mat-ul-a 'remove something from surface' mang-a 'tie up' mas-ul-a 'untie'

- (37)(a) Anyání a-ku-tsék-á zenêra. 2-baboons 2SM-pres.-shut 5-window 'The baboons are shutting the window.'
 - Anyání a-ku-tsék-úl-a zenêra. 2-baboons 2SM-pres.-shut-rev.-fv 5-window 'The baboons are opening the window.'

This suffix is no longer productive, and it appears only with a small set of verbs. In other words, it is not freely affixed to other verbs. For instance, there is the verb kwer-a 'climb up' whose antonym is not *kwel-ul-a. There are even cases where it is conceivable that the -ul- that appears in them may have originally had to do with undoing, but where that aspect is no longer evident because the base form does not exist. These are suggested by words such as gwed-ul-a 'dismantle (e.g. a chair)' or gum-ul-a 'demolish (e.g. a building)'. There are no verbs *gwed-a or *gum-a.

There are other forms that may have originated as verbal suffixes: for example, -am-, found in some verbs which denote something about body posture or position, but which are completely unproductive in Chichewa and appear only in frozen forms. Indeed, the -am- suffix, sometimes referred to as the "positional extension," is found commonly in Bantu languages with a fixed set of verbal radicals that denote posture or body position. Chichewa affords such verbs as wer-am-a 'bend', pol-am-a 'stoop', gad-am-a 'lie on one's back', yand-am-a 'float', pend-am-a 'lean', l-am-a 'survive', z-am-a 'get stuck (e.g. a car in mud)'. This last one is tonally different from the rest, a fact that may be of some significance. There are cases where the notion of posture may be relatively abstract. Thus, there is the word chat-am-a 'keep quiet/shut up', which seems to be tenuously linked to this group. It probably has to do with the posture of the articulatory organs and the word *lung-am-a* 'be just', which has to do with mental disposition, rather than physical body posture. The -amsuffix, labeled the "stative" in past work on Bantu linguistics (cf. Dembetembe 1987, Meeussen 1967) is no longer isolable and productively attached to other verb stems in Chichewa.

3 Reduplication

One aspect of the verb stem that should be mentioned is that it is the part of the verb unit that gets reduplicated (cf. Mchombo 1991, Mtenje 1988). None of the verbal prefixes participate in this process. Thus, given an expression such as:

(38) (a) Anyání a-ma-mang-its-ir-án-á zisakasa kwá míkângo. 2-baboons 2SM-hab.-build-caus.-appl.-recip.-fv 8-huts by 4-lions 'The baboons get huts built for each other by (at the hands of) the lions.'

one gets the following reduplicated version to capture the idea of frequent or repeated activity:

(b) Anyání a-ma-[mang-its-ir-án-á]-[mang-its-ir-án-á] zisakasa kwá míkângo.'The baboons frequently get huts built for each other by the lions.'

The reduplication of the verb stem offers some evidence of the integrity of that unit and suggests the presence of a more refined structure to the verbal morphology. The reduplication of the verb differs from that of nouns, in that in the latter it applies to a prosodic structure. In Chichewa noun reduplication affects only the last two syllables or the final foot of the noun (see Kanerva 1990 for more details). This is shown in the following:

(39) mwamûna 'man, male' m-kâzi 'woman, female' mu-nthu 'person' mwamúnámuna 'real or macho man' mkázíkazi 'cute and cultured woman' munthumúnthu 'a real (humane) person'

It seems that in the case of the verb, the VR and the suffixes constitute a prosodic unit which is also a grammatical entity and is the domain of a number of linguistic processes. Besides the reduplication, it is the domain of vowel harmony (cf. Kanerva 1990, Mtenje 1985) and of verb derivation (see Mchombo 1978). The verbal suffixes derive verb stems which are also the input to nominalization processes, as shown below. In many respects, derivational morphology in Chichewa is primarily suffixing, while inflectional morphology is normally prefixal; and this holds, by and large, for nouns as well. The verb stem is the unit that is the sister constituent to the OM, with which it forms a higher unit which is referred to as the *macrostem* (see Hyman, in press) or *suprastem* (Goldsmith and Sabimana 1985). The other prefixes are added to the macrostem to form the larger construction. The prefixes to the verb stem appear to fall into the category of inflectional morphemes, making the domain outside the VS that of inflectional morphology.

4 Nominal derivation

The process of nominal derivation in Chichewa takes the verb stem as input. The nominals are derived through the replacement of the final vowel [a] by either [i] for agentive nouns or [o] for non-agentive nominals. Then an

appropriate gender-class prefix is added to obtain the noun. Consider the following examples:

(40) phunzíts-a 'teach' *m-phunzits-i* 'teacher' sangalats-a 'amuse' m-sangalats-i 'entertainer' lemb-a 'write' chi-lémb-o 'script' tsek-a 'shut' chi-tsek-o 'door'

That such nominalization takes the verb stem – that is, suffixed verbs – is readily demonstrated by the following:

(41) kond-a 'love' kond-an-a 'love each other' chi-kond-an-o 'mutual love' *m-d-án-i* 'enemy' d-a 'hate' d-an-a 'hate each other' kodz-a 'urinate' kodz-er-a 'urinate with' chi-kodz-er-o 'bladder' chi-fun-ir-o 'desire' fun-a 'want' fun-ir-a 'wish for'

While the prefixes appear to add information concerning number and gender class, which is clearly inflectional, there are cases where they seem to straddle the border between inflection and derivation. This is to say that there are instances where the prefixes are also derivational. Consider the following:

m-kodz-o 'urine' (42) kodz-a 'urinate' li-kodz-o 'bilharzia' *m-lémbo* 'handwriting' lemb-a 'write' chi-lémb-o 'script' lang-a 'advise, punish' ma-lang-o 'advice' chi-lang-o 'punishment'

In these cases, the nominalizing suffix does not fully determine the meaning of the noun. Rather, the prefix plays a role in fixing the precise reading. The role of the prefix in deriving words is even more clear in the derivation of abstract nouns. Consider the modifier forms, wisi 'unripe', kulu 'big', modzi 'one', kali 'fierce'. From these the following abstract nouns are obtained through the prefixation of the class 14 marker u: u-ŵisi 'unripeness', u-kûlu 'magnitude', *u-môdzi* 'unity', *u-kâli* 'ferocity'. These raise questions relating to the delimitation of inflectional from derivational morphology. There is also what may be called 'manner nominalization' in Chichewa which involves the suffixation of -idwe or *-edwe* to the verb stem, and the prefixation of ka or ma to the result. The reading yielded is that of 'the manner of V-ing'. Note the following:

gumul-a 'demolish' ka-gumul-idwe 'the manner of demolishing' (43)ka-yendets-edw-e 'the manner of driving' *uendets-a* 'drive' lim-a 'cultivate' ma-lim-idwe 'the manner of cultivating'

The nouns that have the *ka* prefix use the same prefix as the subject marker. Those that have the ma prefix pattern like class 6 nouns (see below), in that they have a as the subject marker. This is shown in the following:

- (44) (a) Ka-gumul-idwe k-anú ká nyúmbá
 12-demolish-NOM 12SM-your 12SM-assoc. 9-house
 yá mkángo k-a-tí-khúmudwíts-a.
 9SM-assoc. 3-lion 12SM-perf.-1pl.-disappoint-fv
 'Your manner of demolishing the lion's house has disappointed us'.
 - (b) Ma-lim-idwe anú á mundá wá mkángo 6-cultivate-NOM 6SM-your 6-assoc. 3-garden 3SM-assoc. 3-lion a-a-tí-khúmudwíts-a. 6SM-perf.-1st pl.-disappoint-fv 'Your manner of tilling the lion's garden has disappointed us.'

5 Compounding

Another strategy by which nominals are derived is through compounding. The commonest form of compounding is that which takes a verb and its unmodified object noun or locative noun and creates a noun by adding an appropriate prefix. This is illustrated by the following:

(45) ph-a dzuwa 'kill the sun'
sw-a bumbu 'break vulva'
tol-a nkhani 'pick up news'
pal-a matabwa 'scrape timber'
low-a m'malo 'enter in place'
gon-a m'bawa 'sleep in bar'

ch-phadzuwa 'beautiful woman' chi-swabumbu 'vulva-breaker (large penis)' m-tolankhani 'reporter' m-palamatabwa 'carpenter' m-lowammalo 'substitute, pronoun' chi-gonambawa 'a drunk'

Cases of noun–noun compounding, while not impossible, are less common. Let us now look at the nominal morphology a little more closely.

6 The classification of nouns

The other main feature of Bantu languages is their system of noun classification. Nouns in Bantu languages traditionally display a bi-morphemic structure. A typical example is provided by the following:

(46) *chi-soti* 'hat' *zi-soti* 'hats' *m-kôndo* 'spear' *mi-kôndo* 'spears'

As these examples show, the nouns consist of a prefix and a stem. The prefix encodes information relating to number and gender, where the gender system is that of natural gender. The question of the basis for this classification of nouns still awaits a definitive response. The formal structure of the noun,

which does have some bearing on its class membership, has relevance to the regulation of the agreement patterns of the languages. In brief, noun modifiers are marked for agreement with the class features of the head noun, and these features are also what are reflected in the SM and the OM in the verbal morphology. By way of illustration, consider the following:

- (47) (a) chi-soti ch-ángá ch-á-tsópanó chi-ja 7-hat 7SM-my 7SM-assoc.-new 7SM-rel.pro. chí-ma-sangaláts-á a-lenje. 7SM-hab.-please-fv 2-hunters 'That new hat of mine pleases hunters.'
 - (b) m-kóndó w-angá w-á-tsópanó u-ja 3-spear 3SM-my 3SM-assoc.-new 3SM-rel.pro. ú-ma-sangaláts-á alenje. 3SM-hab.-please-fv 2-hunters 'That new spear of mine pleases hunters.'

In these sentences, the words in construction with the nouns are marked for agreement with that head noun (the actual agreement markers in these examples are *chi* and *u*. The 'i' vowel in 'chi' is elided when followed by a vowel, and the 'u' is replaced by the glide 'w' in a similar environment). It should be noted that in Chichewa the head noun precedes its modifiers within a noun phrase. The formal patterns that yield the singular and the plural forms are normally identified by a particular numbering system now virtually standard in Bantu linguistics. Consider the following data:

(48)m-nyamá ta 'boy' a-nyamá ta 'boys' a-lenje 'hunters' *m-lenje* 'hunter' m-kâzi 'woman' a-kâzi 'women' m-kôndo 'spear' mi-kôndo 'spears' mú-nda 'garden' mí-nda 'gardens' m-kângo 'lion' mi-kângo 'lions' tsamba 'leaf' ma-samba 'leaves' duwa 'flower' ma-luwa 'flowers' phanga 'cave' ma-panga 'caves' chi-sa 'nest' zi-sa 'nests' chi-tósi 'chicken dropping' zi-tósi 'chicken droppings' zi-pûtu 'grass stubble' chi-pûtu 'grass stubble'

These classes show part of the range of noun classification that is characteristic of Bantu languages. The singular forms of the first group above constitutes Class 1, and its plural counterpart is Class 2. These classes tend to be dominated by nouns that denote animate things, although not all animate things are in this class. In fact, it also includes some inanimate objects. The next singular class is Class 3, and its plural version is Class 4. This runs on to Classes 5, 6, 7, and 8. There is also class 1a. This class consists of nouns whose agreement patterns are those of Class 1 but whose nouns lack the m(u) prefix found in the Class 1 nouns. The plural of such nouns is indicated by prefixing a to the word. The noun kalulu 'hare' whose plural is akalulu typifies this class. Each of these classes has a specific class marker and a specific agreement marker. Beginning with Class 2, the markers are, respectively, a, u, i, i, a, chi, zi. Class 1 is marked by mu for syllabic m), u, and a, depending on the category of the modifier. Consider the following:

(49) m-lenje m-môdzi a-na-bwérá ndí mí-kôndo. 1-hunter 1SM-one 1SM-past-come-fv with 4-spears 'One hunter came with spears.'

In this, the numeral $m\hat{o}dzi$ 'one' is marked with the agreement marker m, but the verb has a for the subject marker. The u is used with demonstratives and when the segment that follows is a vowel. This seems to apply to most cases, regardless of whether the vowel in question is a tense/aspect marker, an associative marker, or part of a stem, such as with possessives. Consider the following:

(50) m-lenje w-ánú u-ja w-á nthábwala
1-hunter 1SM-your 1 1SM-that SM-assoc. 10-humor
w-a-thyol-a mi-kôndo.
1SM-perf.-break-fv 4-spears
'That humorous hunter of yours has broken the spears.'

In this sentence, the 'w' is the glide that replaces 'u' when a vowel follows, regardless of the function associated with that vowel. Although most of the nouns are bi-morphemic, there are a number of cases where a further prefix, which may mark either diminution or augmentation, is added to an already prefixed noun. This is shown in the following:

(51) Ka-m-lenje k-ánú ka-ja k-á nthábwala
12-1-hunter 12SM-your 12SM-that 12-assoc. 10-humor
k-a-thyol-a ti-mi-kôndo.
12SM-perf.-break-fv 13-4-spears
'That small humorous hunter of yours has broken the tiny spears.'

In this sentence, the pre-prefixes ka for singular and ti for plural are added to nouns to convey the sense of diminutive size. These pre-prefixes then control the agreement patterns (cf. Bresnan and Mchombo 1995), which provides the rationale for regarding them as governing separate noun classes. One other significant point to be made is that locatives also control agreement patterns. Consider the following:

Classes		Prefixes	Prefixes		Subject marker		Object marker	
SG	PL	SG	PL	SG	PL	SG	PL	
1	2	m(u)-	a-	a-	a-	m(u)	wa	
3	4	m(u)-	mi-	u-	i-	u	i	
5	6	*li-	ma-	li-	a-	li	wa	
7	8	chi-	zi-	chi-	zi-	chi	zi	
9	10	*N-	*N-	i-	zi-	i	zi	
12	13	ka-	ti-	ka-	ti-	ka	ti	
14	6	u-	ma-	u	a	u	wa	
	15 ku 16 pa			ku		ku		
			р		ì	pa		
	17		ku-		ku		ku	
	18		m(u)-		m(u)		m(u)	

Table 25.1 Noun classes in Chichewa

(52) Ku mudzi kw-ânu kú-ma-sangaláts-á alendo. 17-at 3-village 17SM-your 17-hab.-please-fv 2-visitors 'Your village (i.e. the location) pleases visitors.'

This gives such locatives the appearance of being class markers, and it has been argued that locatives in Chichewa are not really prepositions that mark grammatical case but, rather, class markers (for some discussion see Bresnan 1991).

The full range of noun classes for Chichewa is given in table 25.1. It should be noted that some classes are not present in this language. For instance Chichewa lacks Class 11, with prefix reconstructed as 'du' in proto-Bantu.

A few observations need to be made about some of these classes. The classes whose prefixes are asterisked normally lack the said prefix in the noun morphology. Samples of Class 5 nouns are given in (41) above. Most of the nouns in Classes 9 and 10 begin with a nasal, but there are no overt changes in their morphological composition that correlate with number. The number distinction is reflected in the prefixes rather than in the overt form of the noun. Examples of Class 9/10 nouns are <code>nyúmba</code> 'house(s)', <code>nthenga</code> 'feather(s)', <code>mphîni</code> 'tattoo(es)', <code>nkhôndo</code> 'war'. Class 15 consists of infinitive verbs. The infinitive marker <code>kuregulates</code> the agreement patterns, just like the diminutives (Classes 12 and 13) and locatives. The infinitives are thus regarded as constituting a separate class, although, just as is the case with the locatives, there are no nouns that are peculiar to this class. This is exemplified by the following:

(53) Ku-ímbá kw-ánu kú-ma-sangaláts-á alenje. 15INF-sg. 15SM-your 15SM-hab.-please-fv 2-hunters 'Your singing pleases hunters.'

7 Conclusion

In its morphological organization Chichewa is very typical of Bantu languages, most of which adhere very closely to the kind of nominal and verbal morphological patterns, as well as patterns of nominal derivation and compounding, exemplified by Chichewa. There are several questions of more theoretical significance that have not been addressed here or the discussion of which has been cursory at best, due to the limited scope of the chapter and the nature of its focus, on the structural patterns of this language. For more theoretical discussions of some of the issues touched upon slightly or even completely omitted here reference should be made to the works cited and to some of the references therein.

NOTE

1 This construction has also gone by a number of different labels. These have included such terms as "neuter," "neuter-passive," "quasi-passive," "neuter-stative," "metastatic-potential," "descriptive passive" (cf. Satyo 1985). In fact, in previous Bantu linguistic scholarship, the term "stative" has been applied to constructions involving the suffix -am- that is no longer productive in Chichewa (for recent illustration from Korekore, see Dembetembe 1987).