

NAIROBI EVANGELICAL GRADUATE
SCHOOL OF THEOLOGY

THE APPLICATIVE CONSTRUCTION AND OBJECT SYMMETRY
IN KISWAHILI AND MARAGOLI

BY

PAUL MURRELL

A Linguistic Project submitted to the Graduate School
in partial fulfillment of the requirements for the Degree of
Master of Arts in Translation Studies

December, 2000

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Student's Declaration

THE APPLICATIVE CONSTRUCTION AND OBJECT SYMMETRY
IN KISWAHILI AND MARAGOLI

I declare that this is my original work and has not been
submitted to any other College or University for academic credit.

The views presented herein are not necessarily those of the Nairobi Evangelical
Graduate School of Theology or the Examiners

(Signed) Paul Murrell

Paul Murrell

December 1st, 2000

ABSTRACT

Many Bantu languages have recently been used in studying syntactic theory and there is much debate concerning double objects in applicative constructions and the symmetry, or lack of it, which can be observed operating on the object. It is currently argued that generative and relational grammars are unable to account for the complexity of such object behaviour. It would appear that object symmetry depends to some degree on the precise family that the language belongs to. This paper therefore investigates the applicative construction and object symmetry in two Bantu languages from different families, KiSwahili from Bantu (G40) and Maragoli from Bantu (J30). I shall refer to two syntactic theories which deal with the applicative construction and object symmetry, Relational Grammar and Lexical Functional Grammar.

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ABBREVIATIONS

1	1 st person
2	2 nd person
3	3 rd person
APP	applicative extension
em	final vowel
fut	future tense
NP	Noun Phrase
om	object marker (verbal pronominal prefix)
PASS	passive
past	past tense
pl	plural
pres	present tense
REC	reciprocal extension
rel	relative pronoun
s	singular

Bantu noun classes are indicated by a roman numeral. Thus, noun class 1 is represented as I.

For tables of data summary

×	not found in language
✓	found in language
n/a	not applicable
?	semantically odd

CHAPTER I

INTRODUCTION

1.1 Purpose of the Study

The purpose of this paper is to describe and compare the applicative constructions in Swahili and Maragoli, while classifying these languages as either more or less symmetrical in their object behaviour. The behaviour of the object in Swahili is intriguing, in that speakers of Swahili strongly disagree on its possible roles and properties. This has led to a number of difficulties for me while learning the language. This paper should help clarify some of the complexities of the object in Swahili with application across a range of Bantu languages.

In the context of current research, this paper enters the continuing debate about object symmetry in Bantu, which centres on the contribution of symmetry to syntactic theory and offers an adequate explanation for the phenomena observed. In this paper I shall therefore refer to one current syntactic theory which deals with the applicative construction. More recent work has also included a pragmatic/discourse dimension which makes this research increasingly relevant to the work of SIL in Bible translation.

It would appear that symmetry depends to some degree on the precise family that the language belongs to. For this reason I have chosen to investigate the applicative construction and object symmetry in two Bantu languages from different families, Swahili from Bantu (G40) and Maragoli from Bantu (J30). My hypothesis is as follows: Swahili is an asymmetrical language, Maragoli is a symmetrical language.

1.2 Background to Swahili

1.2.1 Language and Culture

KiSwahili or Swahili is the most widely spoken African language, with between 92,000 and 97,000 mother-tongue speakers in Kenya, a further 11,923,000 second language speakers and a total of 30,000,000 who speak it in East Africa. It is spoken as a mother tongue on the East African coast from Mogadishu in Somalia to Mozambique, but through trade has spread as a second language as far as Zambia and the Democratic Republic of Congo (Grimes 1996, 295). It is the national language of Tanzania, and with English, is an official language of Kenya. It has some fifteen dialects of which Kiunjugo and Kimvita are the most widely spoken (Grimes, 295). Swahili is a Bantu language belonging to the Niger-Congo or Niger-Kordofanian language family, classification G40 within Narrow Bantu (Grimes, 295). As much as 13% of its vocabulary consists of loan words, many from Arabic or English, but its structure remains Bantu with a number of noun classes which force prefixes to agree.

For many Kenyans Swahili has become a language of wider communication among a number of other languages spoken. City-dwelling Kenyans will frequently speak their mother-tongue, Swahili and English. In Nairobi, however, there is a growing generation who have learned Nairobi Swahili as their mother tongue irrespective of tribal origin. This dialect is notably different from the language as it is spoken on the coast.

1.2.2 Morphology and Syntax

Swahili contains five phonemic vowels and typically has a CV syllable pattern in most words. It has a normal constituent order of SVO or AVP when there is a full Noun Phrase in the direct object position, in an independent declarative clause. When an object Noun Phrase is deleted, but is still referred to, this is marked with a bound

pronominal prefix on the verb, occurring directly before the verb stem. This may give the appearance of SOV. Swahili is agglutinative, as can be seen by the numerous affixes taken by the verb, including grammatical relation concord and various inflections for tense, mood and aspect.

1.2.3 Previous Works on Swahili

There is an extensive literature on Swahili, ranging from the briefer works of Whiteley (1968) and Maw (1994b), to the considerable comparative study of Guthrie (1967-71). The contributions of Vitale (1981) and Ashton (1944) in providing formal grammars of Swahili have provided important context for this research. With respect to the applicative construction and object symmetry the major works in this field are Driever (1976), Ngonyani (1998) and Gary (1977), although the latter deals with Swahili only as it typifies the behaviour of certain Bantu languages.

Object asymmetry has been widely studied in a number of languages related to Swahili. Bresnan and Moshi (1993), Moshi (1998) and Alsina and Mchombo (1993) have investigated this topic in the Bantu languages Kichaga and Chichewa with a view to developing Lexical Functional Grammar (LFG). Marantz (1993) and Harford (1993) have used previously gathered data in Bantu to explain the asymmetries which can be observed. Hyman and Duranti's work (1982) provides a sound base for investigating the object in Bantu languages, but does not deal directly with symmetry. Since 1996 there has been an ongoing debate concerning the symmetrical properties of Bantu languages between Alsina (1996) and Woolford (1993), but where Swahili is mentioned in these articles, it is always assumed to be symmetrical. This paper will contribute to this debate, by rigorously testing Swahili for symmetry.

The language data for this project was provided by Lillian Awuor, a 25-year-old whose first-learned language is Swahili and best approximates a Nairobi dialect. She has subsequently learned Luo and English. It should be noted that the data

presented here may differ considerably from previous Swahili research, because where this bears an influence on the conclusions drawn from the data appropriate comments will be made in the text.

1.3 Background to Maragoli

1.3.1 Language and Culture

Maragoli or Logooli is spoken in the Kakamega area of Western Province of Kenya and is generally considered one of the eighteen regional dialects of Luyia. According to Grimes (1996, 292) there are 197,000 speakers of the language which is classified as Bantu, Narrow, Central J, Masaba-Luyia (J30), Luyia. As Mould points out, Maragoli may be considered part of a 'Greater Luyia' language family. Lexicostatistics suggest that Maragoli, and other 'Luyia' languages are indeed dialects of a single language (Mould 1981, 184). Nevertheless, Maragoli varies considerably from the majority of other Luyia languages except 'Southern Luyia' in a number of important phonological respects. For this reason Maragoli is considered a sub-family of 'Greater Luyia', distinct from Western, Central, Northern and Eastern Luyia (Mould, 183).

The Maragoli people are traditionally agriculturists keeping small herds of sheep and cattle to supplement their income. There is a literacy rate of between 50-75% and a small range of published material including the Bible, some novels and school textbooks (Grimes 1996, 292). While the Bible is considered to be accessible and readable there are few people today under the age of 50 years who own a copy. Increasingly, there are a number of Maragoli people living in Nairobi who have learned a Nairobi dialect of Swahili as their mother tongue and have therefore lost contact, to some degree, with the Maragoli language.

1.3.2 Morphology and Syntax

Maragoli contains seven phonemic vowels and typically has a CV syllable pattern in most words. It uses tone to mark grammatical features. It has a normal constituent order of SVO or AVP when there is a full Noun Phrase in the direct object position, in an independent declarative clause. Optional object marking as a verbal affix seems not to occur either for animate or inanimate objects which occur in the clause as a full Noun Phrase. However, the object is marked when the NP is deleted, serving as a bound pronominal prefix. Maragoli, like many Bantu languages is agglutinative, as can be seen by a number of affixes taken by the verb, including grammatical relation concord and various inflections for tense, mood and aspect.

1.3.3 Previous Works on Maragoli

There is currently only one published work which deals with Maragoli in any depth; however, Mould uses the language as a characteristic example of Southern Luyia dialects (Mould, 181). This work focuses on the classification of various Luyia dialects and places 'Greater Luyia' itself within the larger framework of Bantu languages spoken around Lake Victoria and the Great Lakes of Rwanda. As this author points out, one of the difficulties with research on Luyia is that the full range of dialects has not always been taken fully into account, rendering data incomplete (Mould, 186). From my own observations and data collection, it would appear that Maragoli is both continuing to change and is made up of a number of smaller dialects in itself.

The applicative construction and object symmetry in Luyia was investigated some years ago (Gary, 1977) and the Maragoli dialect used as part of the relevant data. The data for this project was collected from two mother-tongue Maragoli speakers, currently living and working in Nairobi. Iris is 20 years old from Kakamega

and Eva is 21 from Vihiga. Both have subsequently learned Swahili and English and are fluent in both.

1.4 Orthography

Both Swahili and Maragoli are written languages with established orthographies. I shall therefore be using these orthographies in all data records and examples. (It is worth noting that the Maragoli orthography uses only five vowels (i,e,o,u,a) where phonemically seven vowels are recognised (i,I,e,o,u,U,a) and represents the phoneme /z/ with two orthographic choices, z and ts, depending on its position in a word.) Since the pronunciation of data is of little significance in this paper I shall not mark tone, for the sake of typographical simplicity.

1.5 Methodology

I have used both elicited and natural text data in my analysis of Swahili and Maragoli. Where possible I have used text data as the basis for analysis; however, it has been necessary to complement this with significant amounts of elicited data. My text data was recorded and transcribed in consultation with language informants and subsequently glossed and given a free translation. My texts include narratives (personal and fictional), procedurals, hortatory advice, and letters. In addition I acquired one text in answer to a specific question aimed at producing a particular type of data.

I used a number of different methods to elicit further examples. Data marked as 'List' was elicited as translation from English (or in the case of Maragoli occasional Swahili) sentences. Data marked as 'Comment' was elicited by asking for further examples during the analysis of natural texts. Where this has taken place, the

corresponding link to the original data has been marked. Data marked as 'Utterance' was a construction uttered by me and checked for validity with a minimum of two mother-tongue speakers. Finally, further examples were elicited by asking for examples of sentences using a particular verb. These are marked as 'Verb'. Where possible, all data has been checked by a second mother-tongue speaker who is unaware of the focus of this research.

CHAPTER II

OBJECTHOOD AND ASYMMETRY

2.1 A definition of the object

The term 'object' refers to a grammatical/syntactic category which describes the behaviour of an argument in particular grammatical relation to a predicate. It is traditionally a term used widely in grammatical descriptions, but one which often remains ill-defined and may appear too broad a term to be of much practical use. Brown and Miller (1991, 313) make a helpful distinction in the discussion of grammatical relations by positing a difference between the grammatical, logical and thematic understandings of the arguments of a clause, which Payne (1997, 129-130) terms grammatical, semantic and pragmatic understandings. As the latter points out there is no direct relationship which maps a grammatical role onto its semantic or pragmatic functions and so for this reason it is necessary to define the term 'object' in these three dimensions.

The grammatical object of a clause is the necessary second argument of a transitive or two-place predicate. It is in direct grammatical relationship with this verb and may not be represented as an oblique adjoined to the clause by a preposition. In terms of its logical or semantic use, the prototypical object in a two-place proposition is the patient of the verb, which undergoes some physically discernible change as a result of the action of an agent (Givón 1984, 96). Traditionally this prototypical object is known as the direct object (DO). Less prototypical objects may have a variety of semantic roles including goal and object of concern or effect. In

pragmatic terms, the object usually supplies new information in the sentence and the applied object supplies old information. The object of a clause within a discourse plays an important role in determining the viewpoint of an activity's effect upon another entity.

With three-place predicates, there are two objects, one of which, in grammatical terms, will be the prototypical object and one of which will be the third argument of the clause. In such a ditransitive clause, this second object is still in direct grammatical relationship with the verb, but it will frequently be able to be expressed as an oblique, with a preposition. Semantically, this object may express a wide range of roles including beneficiary, goal, instrument, location and purpose. The range of semantic roles available to this object is dependent on the language; however, the prototypical second object is the beneficiary or goal. Double object constructions are common, but the important question is 'how do these objects relate to the verb they accompany?' To determine whether both objects in a three-place predicate possess equal qualities of 'objecthood' in Swahili and Maragoli is one of the major aims of this project.

2.2 Object promotion

As Palmer points out, the promotion to object of an oblique is a feature common to a number of languages (Palmer 1994, 161). In Bantu languages, this occurs in transitive clauses with the addition of a morpheme to the verb, frequently called an extension, and the addition of a second object following the verb. A verb undergoing causation or application, for example, gains one such argument. It could therefore be argued that the operation is one of increasing the transitivity of the verb, (i.e. changing the construction from transitive to ditransitive) by the addition of a second object (See section 3.1 below). The important question is whether such

promoted objects then have equally ‘object-like’ properties. It is well-attested that in such constructions the beneficiary rather than the original patient may become the second term of the clause, i.e. the beneficiary is identified as the main object of the clause in the place of the previous object/patient. This could be indicated by word order or morphological marking. This has led some to conclude that in each three-place predicate there is both a primary and secondary object, where the primary object is the most ‘object-like’ of the two arguments. In a comparable way to the definition of absolutive in the ergative-absolutive system of grammatical relations, the primary object may be defined as the (only) object of a two-place predicate but the beneficiary of a three-place predicate.

2.3 Tests of objecthood

The prototypical object has a number of observable qualities which make it possible to determine which of multiple objects in a three-place predicate acts most like a prototypical object and is therefore the primary object of the clause. These qualities may be both universal and language specific, so here I shall refer to the particular qualities of the object in Bantu languages, as described by various linguists. Firstly, the prototypical object of a clause may be promoted to subject by passivisation. If this is not possible for one of the two objects in a three-place predicate then this object lacks an essential objective property.

Secondly, it is widely acknowledged that the primary object in Bantu is the only one which may be marked with an object prefix on the verb it accompanies (Alsina and Mchombo 1993, 29). This is often called cliticization, because the object marker is expressed as a clitic (frequently labelled OM) within the verbal complex (Hyman and Duranti 1982, 220). Any object which is unable to be marked on the verb is not, therefore, a primary object.

Thirdly, there is a generally established word order in that the primary object will be more strongly linked to the verb. According to Hyman and Duranti (1982, 220), this is a general assumption of Bantu linguists. In this case, an object Noun Phrase which may not occur adjacent to the verb, perhaps separated from it by another object, would not be the primary object. In verbs which may take more than one object marker it would also be expected that the primary object marker would occur closer to the verb stem than a secondary object marker.

Fourthly, only a primary object of an applied construction can be reciprocalised. While reciprocal constructions can possess only one NP argument in addition to the subject of the clause, semantically two objects are present: a direct object and an applied object. If a construction does not allow the reciprocalisation of an applied object, this object does not have primary object qualities. (See 4.5 for a more detailed explanation of this principle.)

2.4 Object asymmetry

For a number of years it has been recognised that objects in different languages and indeed, objects with different semantic roles within a language behave differently. This is what is basically meant by the term object asymmetry. Unfortunately, a number of linguists have used the term asymmetry in different ways, leading to confused definitions of what asymmetry means (see Alsina and Mchombo [1993] and Bresnan and Moshi [1993] for an example of different definitions). Marantz (1993) established that there are in fact four different types of object asymmetry which are referred to in current linguistic research, and I shall briefly outline these below.

Marantz firstly identifies ‘c-command’ asymmetry in which one object in a three-place proposition asymmetrically c-commands the other object (1993, 116). In

transformational grammar this refers to the ability of the c-commanded object to agree with the verb at the expense of the second object. He argues that the second object lacks these qualities, making the language asymmetrical in this respect.

A second asymmetry concerns the different behaviour of arguments which have different thematic or semantic roles. Thus for example, there may be a distinction between how the beneficiary and instrument in applicative constructions behave even though they are both objects.

A third asymmetry relates to the ability of a language to have more than one prototypical or primary object in a clause. A language which is unable to have two equally object-like objects in double object constructions such as the applicative would therefore be asymmetrical. In other terms, one object of a double-object construction will always be primary, the other secondary. This is the most widely used definition of the term.

The fourth asymmetry is termed movement asymmetry between merger/incorporation (M/I) and raising/adjunction (R/A) structures and concerns the relationship between NP moveability and Wh-moveability. In merger incorporation languages there is no correlation between NP moveability and Wh-moveability. For example, an object NP in English may move in passivisation, but may not be able to move in a relative clause. In R/A languages, however, there will be a direct relation such that what takes place in NP-movement will also happen in Wh-movement.

Due to limitations of time and space, in this paper I shall be concentrating on the behaviour of objects with different semantic roles (henceforth 'symmetry A') and the symmetries of languages which have one or more than one prototypical or primary object in a clause ('symmetry B'). These symmetries have been much more widely discussed in recent linguistic articles and are therefore more directly relevant than the other symmetries to the current debate concerning objecthood and symmetry in Bantu.

Unlike Alsina and Mchombo, and Bresnan and Moshi, I shall make the distinction between these different asymmetries and shall evaluate Swahili and Maragoli with reference to both types of symmetry. Before I do this, however, it is necessary here to define exactly what is meant by each symmetry and how I shall attempt to classify the languages under discussion.

2.5 Symmetry A

This form of symmetry defines the different behaviour of objects having different semantic roles. Alsina and Mchombo argue that languages can be classified into two types. Some languages have applied objects where the semantic role of the object will determine its behaviour when undergoing certain syntactic tests, namely can the object be considered a primary object, with the prototypical qualities of an object (Alsina and Mchombo 1993, 20). A language where some semantic roles may be considered to have primary object properties while others cannot is asymmetrical. In other languages, applied objects with different semantic roles all behave in exactly the same way when undergoing these tests. Such languages are symmetrical. Specifically, the tests applied by Alsina and Mchombo determine which semantic roles of applied objects can be considered the primary object of the clause. Where languages are asymmetrical an explanation for the different behaviour of the semantic roles is required.

In Chapter IV I will determine whether the different semantic roles of the applied objects in Swahili and Maragoli behave differently when tested for passivisation, object marking, reciprocalisation and word order. For each semantic role of applied constructions I will discover which semantic roles of the objects can be passivised, which can be marked as object on the verb, which can occur adjacent to

the verb and which can reciprocalise. This will enable me to classify Swahili and Maragoli as symmetrical or asymmetrical languages (Type A).

It will be noted that these tests will also demonstrate which objects are primary in different constructions. Bresnan and Moshi also include a test for unspecified object deletion, which they claim indicates a difference in symmetric and asymmetric language types. The four remaining tests are much more widely acknowledged and used in determining object properties, however, and it appears that only Bresnan and Moshi use this test (Bresnan and Moshi 1993, 53).

2.6 Symmetry B

Alsina states that the fundamental claim of the theory of this object symmetry is that there is “a single underlying property of internal arguments [which] is responsible for the ability of an argument to display what we may call ‘primary object properties’” (Alsina 1996, 674). This underlying property he calls ‘U’. All languages may be classified depending on whether only one or more than one argument in a given clause may have this property U and thereby allow more than one primary object in this clause. A language which allows only one argument to have this property will be considered asymmetrical, whereas one which allows more than one argument to have this property will be considered symmetrical.

In Chapter V, I will determine whether Swahili and Maragoli allow one or more than one argument to have property U. This will enable me to classify each language as either symmetrical or asymmetrical (Type B). To test for property U, I will investigate the construction of sentences where primary object properties could be simultaneously evidenced for two different objects. Since it is clear that the objects of an applied construction cannot both become the subject of a passivised clause at the same time, it is necessary to construct clauses where different primary

object properties are tested for at the same time. This requires combining the tests for primary objects defined above in section 2.3, resulting in the following syntactic tests: Can passives co-occur with object marking? Can passives co-occur with reciprocals? Can reciprocals co-occur with object marking? Since word order depends very much on the type of construction used (e.g. Active/Passive), and on there being two objects in the clause (there is only one in reciprocal constructions), word order cannot be combined with other primary object tests to determine the existence of property U.

CHAPTER III

DOUBLE OBJECT CONSTRUCTIONS

3.1 Types of double object

There are three constructions common to Swahili and Maragoli which contain two objects in grammatical relation to the verb. In each of these constructions, the nature of the object is in question: what is the relationship between the verb and its object arguments? In this section of the paper, I will describe each double object construction in Swahili and Maragoli, and suggest a semantic role for each applied object, while providing examples to clarify the processes which are observed.

3.1.1. Semantic roles

The following definitions will be used to identify the semantic roles of the arguments throughout this paper. The prototypical AGENT is usually an animate argument acting with intent or volition, where an action is performed with a visible effect (Payne 1997, 49). The PATIENT is an entity undergoing the effect of such an action, where it will often experience a change in state (Saeed 1997, 140). An INSTRUMENT is an unconscious entity which is used by an AGENT to achieve a certain action. Typically, the INSTRUMENT will be inanimate. The BENEFICIARY is a conscious benefiter of an action performed by an AGENT (Givón 1984, 126). The BENEFICIARY is very similar in role to the recipient of an action and will be considered to have the same basic function in this paper, despite the differences noted by Palmer (1994, 47). The CAUSE role is a reason or motivating factor for the action of a verb

and may be animate or inanimate. The GOAL is an argument which receives a particular motion of another entity towards it (Saeed, 141). Interestingly, both Palmer and Givón are reluctant to classify this as a distinct semantic role, but include it under beneficiary/recipient. LOCATION is the place in which an action takes place or another argument is situated (Saeed, 141).

3.2 Morphological double objects

3.2.1 Swahili

There are a limited number of verbs in Swahili which may take two objects without any extension or change in the verb form. These may be defined as ditransitive verbs or three-place predicates. Frequently such verbs may also take a single object under certain circumstances. The morphology of these verbs does not distinguish them from any transitive verb, but they may take two nominal complements rather than one only. As shown in (1) neither nominal is marked to show which is the primary object.

1. a) **Lillian** **a-li-m-funz-a** **m-toto** **ki-swahili** (L)
 Lillian 3s-past-om_I-teach-em I-child VII-swahili
Lillian taught the child Swahili

- b) **Lillian** **a-li-m-funz-a** **ki-swahili** **m-toto** (L)
 Lillian 3s-past-om_I-teach-em VII-swahili I-child
Lillian taught the child Swahili

It can be seen that the two nouns follow the verb in either order, with no requirement of a preposition to indicate the semantic roles of the arguments. In Swahili ditransitive verbs include 'to teach' 'to give' and 'to apply' which are typical examples of morphological double objects in Bantu languages (Hyman and Duranti

1982, 218). In this double object construction the ‘child’ is marked in the object position in the verb (as underlined). At this stage it could be because it is animate or because it is an applied object. This will be discussed further at a later stage (4.4.1).

3.2.2 Maragoli

Like Swahili, Maragoli contains ditransitive verbs which require two objects to follow the verb. Neither object is marked as a primary object.

2. a) **Eva a-mwigiz-i umw-ana lulogooli (L)**

Eva 3s-teach-pres I-child Maragoli

Eva is teaching the child Maragoli

As in Swahili, the order of the object arguments may be reversed without any change to the meaning of the utterance.

b) **Eva a-mwigiz-i lulogooli umw-ana (L)**

Eva 3s-teach-pres Maragoli I-child

Eva is teaching the child Maragoli

There is one significant difference between Swahili and Maragoli in this simple construction: in Maragoli there is no object marker on the verb, either for the direct or for the applied object.

3.3 Affected possessor constructions

3.3.1 Swahili

There is a second construction which produces two objects following the verb. In this construction a nominal is directly affected by the action of a verb and there is a relationship of possession between the two objects. In example (3), the child is personally affected by the action of the verb, and the utterance suggests that the leg

b) nda-ku-vunany-a	mu-kono	umw-ana	(L)
I s-past-break-em	III-arm	I-child	

I broke the child's arm.

It is worth noticing that the affected possessor is not marked on the verb as an object as it is in Swahili (see examples (3a) and (3b) above).

3.4 Applied objects

3.4.1 Swahili

By far the most interesting and productive double object construction in Swahili is the applied or prepositional verb phrase. In this construction two objects follow the verb, and the relationship between the verb and the nominal is indicated by an 'applicative extension' which is marked on the verb, following the stem and preceding the end marker. The objects, which follow the verb, are not marked in any way to indicate which is the primary object. In applicative constructions, a normally transitive verb is enabled to gain an extra object argument, either as a full noun phrase, as an object marker (in the case of a deleted object) or both, where the object is animate. This makes the verb ditransitive. Semantically, applied object constructions will have two objects even where only one appears as a full NP. The valency of the verb is thus increased by one, making it a three-place predicate. In the following examples it can be seen how the transitivity of the verb is changed.

5. Mw-alimu	a-li-nunu-a	ki-tabu	(L)
I-teacher	3s-past-buy-em	VII-book	

The teacher bought a book

6.	Mw-alimu	a-li-m-nunu-li-a	m-toto	ki-tabu(L)
	I-teacher	3s-past-om _I -buy-APP-em	I-child	VII-book

The teacher bought a book for the child

Inherently ditransitive verbs may add a further object by the addition of the applicative extension.

7.	Lillian	a-li-m-funz-i-a	John	Ki-swahili	wa-toto(L)
	Lillian	3s-past-om _I -teach-APP-em	John	VII-swahili	II-child

Lillian taught John Swahili for the children

Such constructions, however, are extremely rare and will not be studied further in this paper.

As will be discussed below, there is a range of possible semantic roles for the ‘applied object’ (AO), but the extension does not alter to indicate which interpretation is required. The morphological causative in Swahili is a similar derived verb, with a suffix extension and is, in many ways, closely related to the applicative construction.

There is morphological variation in the form of the applicative suffix, as it is influenced by its preceding environment, the stem of the verb. Vowel harmony operates on the applicative morpheme, such that verb stems containing an /a/, /i/ or /u/ take the applicative extension /-i/ (examples [7] and [8]), those containing in /e/ or /o/ take /-e/ (examples [9] and [10]). Thus, close vowels and /a/ trigger a close vowel in the applicative, whereas open-mid vowels trigger an open-mid vowel in the applicative. Where the verb stem itself ends in a vowel the applicative morpheme varies:

/-li/ ~ /-le/, again determined by the vowel in question (see examples [6] and [16]).

(According to Ashton (1944), verb stems with Arabic origins follow a slightly

different pattern; however, I have not included verbs with Arabic origin in this study.)

Some examples are as follows.

8. **m-toto a-li-mw-imb-i-a mw-alimu ø-nyimbo (L)**

I-child 3s-past-om_I-sing-APP-em I-teacher IX-songs

The child sang songs for the teacher.

9. **mw-alimu a-ta-som-e-a m-toto ki-tabu (L)**

I-teacher 3s-fut-read-APP-em I-child III-book

The teacher will read the book to the child

10. **ongez-e-a chapati chumvi (T)**

add-APP-em chapati salt

Add salt to the chapatis

It is obvious even from these few examples that the semantic relationship between the two objects and the verb in each utterance is not the same. In example (8) one object has the semantic role of patient, the other of beneficiary, while in (10) one object has the role of patient and the other has the role of goal. There are a number of semantic relations which can be expressed by the applicative construction and it is for this reason that Ashton explains that ‘prepositional’ or applied constructions actually have different functions. More exactly, the semantic role of the applied object can vary, and where more than one interpretation is possible, pragmatics constrain the correct choice. The following examples illustrate the different semantic roles which the applied object (AO) may take, where the AO is underlined in the text.

11. **mw-alimu** **a-li-wa-nunu-li-a** **wa-nafunzi** **ki-tabu(L)**
 I-teacher 3s-past-om_{II}-buy-APP-em II-students VII-book
The teacher bought a book for the students. **(Beneficiary)**
12. **∅-mama** **a-li-wa-pik-i-a** **m-bwa** **wa-geni** **(L)**
 I-mother 3s-past-om_{II}-cook-APP-em I-dog II-visitor
Mother cooked the dog for the visitors **(Beneficiary)**
13. **wa-nafunzi** **wa-na-vunj-i-a** **ki-ti** **∅-nyundo** **(L)**
 II-student 3pl-pres-break-APP-em VII-chair IX-hammer
The students are breaking the chair with a hammer **(Instrument)**
14. **wa-toto** **wa-li-m-sukum-i-a** **ki-tabu** **∅-mama** **(U)**
 II-child 3pl-past-om_I-push-APP-em VI-book I-mother
The children pushed the book to mother **(Goal)**
15. **a-li-pik-i-a** **ch-akula** **soko-ni** **(L)**
 3s-past-cook-APP-em VII-food market-loc
She cooked food at the market. **(Location)**
16. **wa-li-onge-le-a** **taabu** **(L)**
 3pl-past-speak-APP-em problems
They talked about the problems **(Theme)**

It may be observed from these examples that all animate applied objects are marked with an object marker prefix on the verb, whereas inanimate applied objects are unmarked. As a general rule for Swahili, only animate objects are obligatorily marked with an object marker on the verb where the object/s are full noun phrases (Vitale 1981, 17). This is true for the objects of both transitive and ditransitive verb phrases. Since double object constructions are frequently of the beneficiary/patient type, the prototypical ditransitive involves an inanimate patient and an animate beneficiary (Vitale 1981, 47). In the unusual situation when there are two animate

objects (12), it can be seen that the applied object rather than the direct object is marked. The reasons for this will be discussed in section 4.4.1.

These semantic roles for the applied object are in common usage in Nairobi. It is important to point out, however, that there is some disagreement over the instrumental role given in example (13). While the instrumental use of the applicative is widely attested in Bantu languages generally, Ngonyani, writing on applied objects in Swahili and Kindendeule suggests that the instrumental is grammatically acceptable but semantically extremely odd (Ngonyani, 1998, 83-84). While collecting my data, I checked this particular example with a number of Swahili speakers, some of whom declared it unacceptable, some of whom considered it perfectly correct. On other occasions it was considered as a pragmatically acceptable variation, which would be understood only by its context.

The reasons for these differences will be discussed in the further research section 7.2. For the present purposes of this paper it is sufficient to highlight the fact that this data conflicts with numerous other articles and papers written on other dialects (usually coastal) of Swahili.¹ Accordingly, this data has been rigorously checked.

3.4.2 Maragoli

The applicative construction in Maragoli is very similar in form to that of Swahili. Like Swahili, the addition of an applicative extension alters the transitivity of the verb, such that intransitive verbs become transitive and transitive verbs become ditransitive. Inherently ditransitive verbs may not add a further object by the addition of the applicative extension, unlike in Swahili, which suggests that Maragoli may allow a maximum of two Object Noun Phrases.

¹ See Ngonyani (1998), Ashton (1944), Vitale (1981).

17. **umw-igizi** **a-gul-i** **iki-tabu** (L)
 I-teacher 3s-buy-pres VII-book
The teacher bought a book

18. **umw-igizi** **a-gul-ir -i** **ava-somi** **iki-tabu** (L)
 I-teacher 3s-buy-APP-pres II-student VII-book
The teacher bought a book for the students

Similar to the example mentioned above in 3.2.2, where there are two full noun phrases for the object in Maragoli, neither is required to be marked in the object marker position of the verb. My current data suggests that neither animate nor inanimate objects are obligatorily marked on the verb.

The form of the applicative extension in Maragoli closely follows the prototypical Bantu example *-il* (Hyman and Duranti 1982, 219). Vowel harmony dictates the precise form of the extension. In verbs containing the vowels /a/, /i/, or /u/ as the final vowel in the stem, the applicative extension is *-ir*, while with those containing /e/ or /o/, the extension is *-er*. In the data I have collected, there are no examples of stems ending with a vowel, thus it is not possible to say whether there is further variation in the suffix as in Swahili. In the passive voice, however, there are additional morphophonemic changes of interest. From the data elicited, it appears that when the applicative construction *-ir* is used with the passive morpheme *-w* there is an optional addition of *-y* to the passive morpheme following the applicative suffix but preceding the usual passive morpheme. The following example was collected from the same language informant on different days when data was being checked.²

² For further evidence of this phenomenon see examples 11 and 12 in Comment Data (p.15).

19. **iki-tabu ki-gur-ir-w-i va-somi (L)**
 VII-book VII-buy-APP-PASS-past II-students
The book was bought for the students
20. **iki-tabu ki-gur-ir-yw-i va-somi**
 VII-book VII-buy-APP-PASS-past II-students
The book was bought for the students

Why this should happen is not clear. It may be that in the process of producing an alveolar flap followed by lip-rounding, the flap may easily be lost. The distinction between an applicative with a passive and a passive alone could be difficult for a hearer to distinguish. By introducing a palatal approximant the sequence is more easily distinguished. However, it is unusual for sequences to become more complex rather than more simple. An alternative solution is that there may be some underlying *-y* in the passive marker which surfaces in this uncommon sequence. To confirm or disconfirm these hypotheses, a more detailed phonological analysis would be required.

The applied object in Maragoli can have a number of semantic roles, which are less controversial than those of Swahili. Each is well-attested and commonly used. The following examples demonstrate these different roles.

21. **ya-yinz-ir-a umw-hindi Adams Arcade (T)**
 3s-work-app-past Indian Adams Arcade.
She works for an Indian at Adams arcade. (Beneficiary)
22. **kur-ir-a ama-ganda i-rigina (T)**
 rub-APP-pres V-beans XI-stone
Rub the beans with a stone (Instrument)

23. **John a-kuz-ir-i** **mu-sogoni** (L)
 John 3s-die-APP-past loc-market
John died at the market (Location)
24. **John a-nyagur-ir-i** **mu-nyumba** (L)
 John 3s-run-APP-past loc-house
John ran to the house (Goal)
25. **a-rir-ir-i** **li-kuza** **ya John** (L)
 3s-cry-APP-past VII-death of John
She cried because of John's death (Cause)
26. * **va-morom-ir-i** **a-mang'ana** (L)
 3pl-discuss-APP-past V-matter
They discussed the matter (Theme)

This data shows that Maragoli has a different range of possible semantic roles for the applied object from Swahili. Unlike Swahili, the theme may not be an applied object of a simple clause. For the semantic roles of cause and goal it is much more common to find verbs with only one object argument; however, double object constructions may also be formed with these semantic roles.

27. **a-duyan-ir-i** **John** **ama-ng'ondo** (U)
 3s-hit-APP-past John V-money
She hit John for money (Cause)
28. **umw-igizi** **a-sugum-ir-i** **mw-ana** **mu-riango** (U)
 I-teacher 3s-push-APP-past I-child door
The teacher pushed the child towards the door (Goal)

3.5 Summary

This investigation of the applicative construction in Maragoli and Swahili demonstrates that the applied object can occupy a number of different semantic roles. In Maragoli the applied object can be the beneficiary, instrument, location, cause and goal. Swahili is limited to the same roles with the exception of cause which is ungrammatical, instrument which is controversial and theme which is additional. It can be seen that for both languages the AO may not be the agent.

Having described the three types of double object construction and explained the semantic roles of these objects with respect to the verb, it is now necessary to consider the properties of these objects and the syntactic patterns which may emerge through a number of syntactic tests.

CHAPTER IV
SYNTACTIC TESTS FOR SYMMETRY A AND PRIMARY OBJECT
PROPERTIES

4.1 Rationale for Tests

In chapter II it was established that a number of syntactic tests may be used to determine the primary object of a clause. Three tests have been commonly applied across a range of Bantu languages (see Hyman and Duranti 1982, Ngonyani 1998), namely passivisation, reciprocalisation and object marking on the verb. However, two further tests have been much less widely applied: constituent order and unspecified object deletion. In this chapter I shall apply the three ‘primary’ tests and word order to determine the objective qualities of the arguments in the double object constructions described in Chapter III. Having established which objects are primary, I will analyse the syntactic behaviour of the different semantic roles of these objects. This will determine whether Swahili and Maragoli have symmetry A as defined in Chapter II: applied arguments with different semantic roles behave differently in asymmetrical languages. For each test I shall deal first with Swahili and then Maragoli, giving relevant examples for each semantic role of the applied object. At the end of each section of data, I shall analyse the results of each test, providing a summary of Swahili and Maragoli distinctions as I proceed.

4.2 Constituent order

As established in Chapter II, the order of the object arguments in a clause indicates which of the two objects is primary. It has been argued that the object

closest to the verb is usually the primary object. If a clause can be re-ordered to place either object argument adjacent to the verb this suggests that both objects have primary object qualities.

4.2.1 Swahili

For the beneficiary, there seems to be a degree of freedom regarding the relative position of the objects in the examples given. The data below suggests that the ‘beneficiary’ may occur either adjacent to the verb or following the patient (see example [33b]).

29. a)	ni-li-jeng-e-a	kuku	nyumba	(T)
	1s-past-build-APP-em	chickens	house	
	<i>I built a house for the chickens</i>			
b)	ni-li-jeng-e-a	nyumba	kuku	(T)
	1s-past-build-APP-em	house	chickens	
	<i>I built a house for the chickens</i>			(Beneficiary)

Applied objects with the semantic role of goal must occur adjacent to the verb, preceding the patient.

30. a)	ongez-e-a	chapati	chumvi	(T)
	add-APP-em	chapati	salt	
	<i>Add salt to the chapatis</i>			
b)*	ongez-e-a	chumvi	chapati	(C)
	add-APP-em	salt	chapati	
	<i>Add salt to the chapatis</i>			(Goal)

[This is grammatical, but reverses the patient and goal]

Where the applied object is either an instrument or locative, it must occur non-adjacent to the verb (i.e. it must follow the patient).

31.a) a-li-pik-i-a ch-akula soko-ni (L)

3s-past-cook-APP-em VII-food market-loc

She cooked food at the market.

b) *a-li-pik-i-a soko-ni ch-akula (L)

3s-past-cook-APP-em market-loc VII-food

She cooked food at the market.

(Locative)

32. a) wa-nafunzi wa-na-wa-pig-i-a wa-limu vi-ti (L)

II-pupil 3pl-pres- om_{II}- hit -APP-em II-teacher VIII-chair

The pupils are hitting the teachers with chairs

b) *wa-nafunzi wa-na-wa-pig-i-a vi-ti wa-limu (L)

II-pupil 3pl-pres-om_{II}-hit-APP-em VIII-chair II-teacher

The pupils are hitting the teacher with chairs

(Instrument)

These examples show that the position of the applied object in Swahili depends on its semantic role in the clause. Bearing the thematic hierarchies of Bresnan and Moshi (1993, 72) in mind, this apparent freedom of the ‘beneficiary’ is surprising. It is contrary to their claim that if the beneficiary is the applied object it must occur adjacent to the verb (Bresnan and Moshi 1993).

On further investigation, however, a significant pattern emerges. In texts, I observed that the beneficiary role of the applied object always occurs before the patient. (See data collection.) Further, when eliciting additional data, I observed that I was initially always given examples with the beneficiary adjacent to the verb. Examples with the beneficiary placed after the patient were provided when I asked whether the sentence could be expressed in a different order, or where I checked the grammaticality of a hypothetical construction. When I questioned my language informant about this further, it was explained that in clauses where the beneficiary is

preceded by the patient, extra emphasis is given to the patient. In effect, where the patient precedes the beneficiary, the patient is being focussed by its position as the most prominent object in the clause, i.e. the object which is closest to the verb. The unmarked position for the beneficiary is therefore adjacent to the verb. Thus the communicated effect in (29b), repeated here as (33) is actually:

33. b) ni-li-jeng-e-a nyumba kuku (C)

1s-past-build-APP-em house chickens

*I built a **house** for the chickens*

where the focus is on the house and may be in answer to a question such as ‘What did you build for the chickens?’

From these examples it is clear that where constituent order is concerned, applied objects in Swahili behave differently depending on their semantic role. With respect to symmetry A defined above, this would suggest that Swahili is asymmetrical. It is possible to reconstruct a thematic hierarchy which establishes the respective likelihood of an object to be a primary object and therefore to occupy the primary object position adjacent to the verb depending on its semantic role. Although the precise order of the various roles has not yet been defined, on the basis of the data provided above, the hierarchy would be as follows:

Ben/Goal>Pat/Theme>Instrument/Location

This is very similar to the thematic hierarchy of Bresnan and Moshi, which places Patient/Theme between Instrument and Location (1993, 72). A less attractive explanation is that the primary object of a clause may not be determined by its position with respect to the verb and other object arguments. Rather, its position indicates only the semantic role of an object and is syntactically determined. This would suggest that, against the views of many Bantuists (Bresnan, Moshi, Mchombo, Harford among others), word order is an unreliable indicator of primary objecthood.

A second conclusion which may be drawn from this evidence of constituent order is that only one object (in a clause unmarked for focus) may possess primary object properties in Swahili.

4.2.2 Maragoli

In Maragoli, the word order of the two objects in a double-object construction is flexible. Either object may occur adjacent to the verb irrespective of semantic role.

34. a) **umw-igizi** **a-gul-ir-i** **ava-somi** **iki-tabu** (L)

I-teacher 3s-buy-APP-past II-student VII-book

The teacher bought a book for the students

b) **umw-igizi** **a-gul-ir-i** **iki-tabu** **ava-somi** (L)

I-teacher 3s-buy-APP-past VII-book II-student

The teacher bought a book for the students (Beneficiary)

35. a) **m-ed-er-i** **vy-abati** **i-jumbe** (C)

1s-add-APP-past VIII-chapati IX-salt

I added salt to the chapatis

b) **m-ed-er-i** **i-jumbe** **vy-abati** (C)

1s-add-APP-past IX-salt VIII-chapati

I added salt to the chapatis (Goal)

36. a) **va-dek-er-i** **mu-umba** **ch-ukuria** (C)

3pl-cook-APP-past XVIII-house VII-food

They cooked food at home

- b) va-dek-er-i ch-ukuria mu-umba (C)**
 3pl-cook-APP-past VII-food XVIII-house
They cooked food at home **(Locative)**
- 37. a) va-kur-ir-a i-rigina ama-ganda (C)**
 3pl-rub-APP-pres XI-stone VI-bean
They are rubbing the beans with a stone
- b) va-kur-ir-a ama-ganda i-rigina (C)**
 3pl-rub-APP-pres VI-bean XI-stone
They are rubbing the beans with a stone **(Instrument)**
- 38. a) ava-mama va-dek-er-i ama-ng'ondo ch-ukuria**
 II-mother 3pl-cook-APP-past V-money VII-food
The mothers cooked food for money **(L)**
- b) ava-mama va-dek-er-i ch-ukuria ama-ng'ondo**
 II-mother 3pl-cook-APP-past VII-food V-money
The mothers cooked food for money **(Purpose)**

This data demonstrates that Maragoli is very different from Swahili. With regard to constituent order, all semantic roles behave in exactly the same way. With reference to symmetry A, Maragoli displays properties of a symmetrical language because all objects behave in the same way, regardless of their semantic role. The thematic hierarchy defined in 4.2.1 carries much less influence in Maragoli. If both objects are entirely free to occur either adjacent to the verb or removed from it, how does a speaker decide which is appropriate? As Moshi points out for Kichaga, pragmatic and discourse considerations may play an important role in such a language (Moshi 1998, 150). According to my language informant, the order of words marks a

constructions, it may be concluded that each object displays primary object properties in that it can occur adjacent to the verb.

The results of this test may be schematically summarised in Table 1.

Table 1. Possible semantic role order in Swahili and Maragoli

Sentence structure	Swahili	Maragoli
V NP _{BEN} NP _{PT}	✓	✓
V NP _{PT} NP _{BEN}	?	✓
V NP _{GL} NP _{PT}	✓	✓
V NP _{PT} NP _{GL}	✗	✓
V NP _{LOC} NP _{PT}	✗	✓
V NP _{PT} NP _{LOC}	✓	✓
V NP _{INS} NP _{PT}	✗	✓
V NP _{PT} NP _{INS}	✓	✓

4.3 Passivisation

As defined in Chapter II, the ability of an object argument to become the subject of a passive construction is a prototypical quality of a primary object. Where two objects are able to become the subject of a clause they both demonstrate primary object properties. If only one object of a double object construction can become the subject, this will be the primary object. In the following examples each active applicative sentence will be followed by its passive forms.

4.3.1 Swahili

In beneficiary, goal and locative applied object constructions, either the direct or the applied object may become the subject of a passive clause.

43. a) **ni-na-wa-pik-i-a** **wa-geni** **m-kate** **huu** (L)
- 1s-pres-om_{II}-cook-APP-em II-visitor III-bread this
- I cook this bread for visitors*

- b) wa-geni wa-li-pik-i-w-a m-kate huu (L)**
 II-visitor 3pl-past-cook-APP-PASS-em III-bread this
The visitors were cooked this bread..
- c) m-kate huu u-li-pik-i-w-a wa-geni (L)**
 III-bread this III-past-cook-APP-PASS-em II-visitor
This bread was cooked for visitors. (Beneficiary)
- 44. a) ni-li-ongez-e-a ø-chapati ø-chumvi (C)**
 1s-past-add-APP-em X-chapati IX-salt
I added salt to the chapatis.
- b) ø-chapati zi-li-ongez-e-w-a ø-chumvi (C)**
 X-chapati X-past-add-APP-PASS-em IX-salt
The chapati was added salt (to).
- c) ø-chumvi i-li-ongez-e-w-a ø-chapati (C)**
 IX-salt IX-past-add-APP-PASS-em X-chapati
Salt was added to the chapatis. (Goal)
- 45. a) a-li-pik-i-a ch-akula ø-nyumba-ni (L)**
 3s-past-cook-APP-em VII-food XVII-home-loc
She cooked food at home.
- b) ø-nyumba-ni ku-li-pik-i-w-a ch-akula (L)**
 XVII-home-loc XVII-past-cook-APP-PASS-em VII-food
At home was cooked food.
- c) ch-akula ki-li-pik-i-w-a ø-nyumba-ni (L)**
 VII-food VII-past-cook-APP-PASS-em XVII-home-loc
Food was cooked at home. (Locative)

It is only in instrumental constructions that the applied object may not be the subject of a passive construction.

46. a) **wa-nafunzi** **wa-na-vunj-i-a** **ki-ti** **∅-nyundo** (L)

II-student 3pl-pres-break-APP-em VII-chair IX-hammer

The students are breaking the chair with a hammer.

b) **ki-ti** **ki-na-vunj-i-w-a** **∅-nyundo** (L)

VII-chair VII-pres-break-APP-PASS-em IX-hammer

The chair is being broken with a hammer.

c)* **nyundo** **i-na-vunj-i-w-a** **ki-ti**

IX-hammer IX-pres-break-APP-PASS-em VII-chair **(Instrument)**

These examples demonstrate that the patient, beneficiary, goal and locative semantic roles in Swahili double-object constructions can become the subject of a passive construction. An instrumental object, however, may not. This leads to two important conclusions. Firstly, as is also shown in 4.2.1, objects with different semantic roles behave differently to each other. With respect to the symmetry A, this evidence suggests that Swahili is an asymmetrical language. Alternatively, since four roles behave alike, one could conclude that Swahili is slightly symmetrical. Secondly, the data for the semantic roles of beneficiary, goal and locative demonstrates that either the patient or the applied object can be considered the primary object, because both arguments can become the subject of a passive construction. In addition to the patient, therefore, which may always be the subject of a passive construction, the beneficiary, goal and locative semantic roles display similar primary object properties.

The preceding conclusion would seem to suggest that more than one object has access to the position of primary object. This may well be the case, as further

tests will help to decide. Referring back to the thematic hierarchy which was suggested in 4.2.1, defining the respective likelihood of an object to be a primary object, it is possible to synthesise the results of 4.2.1 and 4.3.1 and posit a further distinction in the sequence. Clearly, an instrument is less likely than all other applied objects to have the qualities of a primary object of the clause.

Ben/Goal>Pat/Theme>Locative>Instrument

This thematic hierarchy will be useful in predicting which object of a clause will normally be the primary object.

4.3.2 Maragoli

In Maragoli, either object of a double-object construction may become the subject of a passive clause. Any object may become the subject of the passivised verb irrespective of semantic role.

47. a) **iki-tabu** **ki-gur-ir-w-i** **va-somi** (L)

VII-book VII-buy-APP-PASS-past II-students

The book was bought for the students.

b) **ava-somi** **va-gur-ir-w-i** **ik-itabu** (L)

II-students 3pl-buy-APP-PASS-past VII-book

The students were bought the book. (Beneficiary)

48. a) **i-jumbe** **e-med-er-w-i** **ama-ganda** (C)

IX-salt IX-add-APP-PASS-past VI-bean

Salt was added to the beans.

b) **ama-ganda** **ga-med-er-w-i** **i-jumbe** (C)

VI-bean VI-add-APP-PASS-past IX-salt

The beans were added salt to. (Goal)

49. a) **chu-kuria** **ke-dek-er-w-i** **mu-umba** (L)
 VII-food VII-cook-APP-PASS-past XVII-house
Food was cooked in the house.
- b) **mu-umba** **mu-dek-er-w-i** **chu-kuria** (L)
 XVII-house XVII-cook-APP-PASS-past VII-food
In the house was cooked food (Locative)
50. a) **ama-ganda** **ga-kur-ir-w-a** **i-rigina** (C)
 VI-bean VI-rub-APP-PASS-pres XI-stone
The beans are being rubbed with a stone.
- b) **i-rigina** **ri-kur-ir-w-a** **ama-ganda** (C)
 XI-stone XI-rub-APP-PASS-pres VI-bean
The stone is being used to rub the beans. (Instrument)
51. a) **chu-kuria** **ke-dek-er-w-i** **ama-ng'ondo** (L)
 VII-food VII-cook-APP-PASS-past VI-money
Food was cooked for money.
- b) **ama-ng'ondo** **ga-dek-er-w-i** **chu-kuria** (L)
 VI-money VI-cook-APP-PASS-past VII-food
For money food was cooked (Purpose)

This data demonstrates that, with regard to passivisation, Maragoli is again different to Swahili. Any object in a double object construction may become the subject of a passive clause, regardless of its semantic role. Since objects of each semantic role behave the same as each other with regard to passivisation, it can be concluded that Maragoli is a symmetrical A language.

Further, it was stated earlier that the ability to passivise is a property of the primary object of a clause. This leads to the conclusion that Maragoli allows more

than one primary object in a clause. The results of this test may be schematically summarised in Table 2.

Table 2. Possible combinations of semantic roles with passivisation in Swahili and Maragoli

Sentence structure	Swahili	Maragoli
NP _{PT} V _{PASS} NP	✓	✓
NP _{BEN} V _{PASS} NP _{PT}	✓	✓
NP _{GL} V _{PASS} NP _{PT}	✓	✓
NP _{LOC} V _{PASS} NP _{PT}	✓	✓
NP _{INS} V _{PASS} NP _{PT}	✗	✓
NP _{PUR} V _{PASS} NP _{PT}	n/a	✓

4.4 Object marking

As established in Chapter II, an object argument which is marked with an object prefix on the verb it accompanies may be considered to have primary object properties. Any object which is not marked on the verb cannot, by contrast, be a primary object. Since object marking is obligatory in Swahili only for animate noun phrases and where a noun phrase has been deleted (but is still referred to), this section will deal primarily with object marking for animate noun phrases and sentences where an object noun phrase has been deleted. I will use the basic applicative constructions which have already been introduced in sections 4.2.1 and 4.2.2 (repeated here for ease of reference) and test these clauses for object marking by deleting first the applied and then the direct objects. The various beneficiary constructions represent every possible combination of animacy/inanimacy and applied/direct object.

4.4.1 Swahili

When there are two full noun phrases where one object is animate and the other inanimate, the animate object must be marked on the verb, irrespective of

whether it is a direct or applied object (52a, 53a). However, if the applied object is deleted, irrespective of whether it is animate or inanimate, it must be marked on the verb (52b, 53b).

52. a) **ni-na-wa-pik-i-a** **wa-geni** **m-kate** **huu** (C)

1s-pres-om_{II}-cook-APP-em II-visitor III-bread this

I am cooking this bread for visitors.

b) **ni-na-wa-pik-i-a** **m-kate** **huu** (C)

1s-pres-om_{II}-cook-APP-em III-bread this

I am cooking this bread for them.

c) **ni-na-i-pik-i-a** **wa-geni** (C)

1s-pres-om_{III}-cook-APP-em II-visitor

I am cooking it for the visitors.

(AO-animate, DO-inanimate. Beneficiary)

A deleted inanimate direct object is marked on the verb (52c) but a direct animate object cannot be marked on the verb (53c). An independent pronoun must follow the verb which is marked for the applied object. This restriction is necessary to avoid ambiguity between an applied animate object and a direct animate object marked on the verb, which would otherwise occur if animacy determined the object marker in clauses with deleted objects.¹

53. a) **a-li-m-pik-i-a** **sherehe** **m-toto** (L)

3s-past-om_I-cook-APP-em IX-party I-child

He cooked the child for the party.

¹ An example of such an ambiguity, which is pragmatically unlikely, would be as follows:

a-li-m-pik-i-a **sherehe**

3s-past-om_I-cook-APP-em party

**He cooked him for the party/He cooked the party for him??*

Rather, an independent pronoun must follow the verb which is marked for the applied object. As in (53c) this is to avoid ambiguity between the two animate objects.

55. a) **a-li-wa-pik-i-a** **wa-limu** **m-toto** (L)

3s-past-om_{II}-cook-APP-em II-teacher I-child

He cooked the child for the teachers.

b) **a-li-wa-pik-i-a** **m-toto** (L)

3s-past-om_{II}-cook-APP-em I-child

He cooked the child for them.

c) **a-li-pik-i-a** **yeye** **wa-limu** (L)

3s-past-cook-APP-em him II-teacher

He cooked him for the teachers.

(AO, DO-animate. Beneficiary)

In general terms the object role of goal behaves in the same way as beneficiary. Similar rules of animacy and the various restrictions therefore apply. For the sake of space, only one example is given here.

56. a) **ni-li-ongez-e-a** **∅-chapati** **∅-chumvi** (C)

1s-past-add-APP-em X-chapati IX-salt

I added salt to the chapatis.

b) **ni-li-i-ongez-e-a** **∅-chapati** (C)

1s-past-om_{IX}-add-APP-em X-chapati

I added it to the chapatis.

c) **ni-li-zi-ongez-e-a** **∅-chumvi** (C)

1s-past-om_X-add-APP-em IX-salt

I added salt to them

(AO, DO-Inanimate Goal)

markers within the verb morphology. It would appear that there is only one object marker ‘slot’ in which an object may be marked.

59. *ni-na-i-wa-pik-i-a

1s-pres-om_{IX}-om_{II}-cook-APP-em

I am cooking it for them.

From this data it can be seen that the applied object can be marked on the verb only when its semantic role is either beneficiary or goal. If its semantic role is locative or instrumental it cannot be marked. The inanimate direct object of a clause can be marked on the verb for all semantic roles where its noun phrase has been deleted. The thematic hierarchy described in 4.2.1 partly determines which object roles can be marked.² Locatives and instruments, which are to the right of the patient on the thematic hierarchy, cannot be marked as objects, whereas beneficiaries and goals, which are to the left of the patient, can. This confirms previous evidence of this hierarchy, indicated by word order and passivisation. In terms of symmetry A, this confirms that Swahili is asymmetrical, since objects with different semantic roles behave differently.

When discussing beneficiaries the situation is more complex. Within the semantic role of beneficiary, it can be seen that when there are two noun phrases, only one can be marked as object on the verb. In terms of symmetry A defined in Chapter II, this suggests that Swahili is asymmetrical. When its noun phrase is deleted,

² Significantly, in constructions containing beneficiaries it is not the thematic hierarchy which determines whether the beneficiary or patient is marked on the verb. From example (52a) it could be concluded that the primary object is determined either by semantic role or by animacy. (The matter is confused because in the majority of cases the beneficiary in Swahili is also animate.) Where there is a conflict between an animate direct object and inanimate beneficiary applied object, however, the animate object will always be marked. Which object is marked is thus determined primarily by animacy rather than semantic role. This suggests that the animacy hierarchy has a stronger influence over object marking than the thematic hierarchy. Where objects have been deleted, the preference of applied object markers above animate objects is to prevent ambiguity.

however, either object in the clause can be object marked on the verb. This suggests that more than one object in a clause can possess primary object properties. One valid explanation for this is that in the absence of a noun phrase, the object marker assumes the role of bound pronoun and therefore obligatorily represents its full noun.

4.4.2 Maragoli

In a clause with two noun phrases, neither object is marked on the verb in the object position. This is true irrespective of the semantic role of the objects or their animacy. Where one object is deleted, however, it must then be marked on the verb. For this reason it is possible to see the object prefix on the verb as a pronoun marker.

60. a) **umw-igizi** **a-va-gur-ir-i** **iki-tabu** (L)

I-teacher 3s-om_{II}-buy-APP-pres VII-book

The teacher bought them a book

b) **umw-igizi** **a-ki-gur-ir-i** **ava-somi** (L)

I-teacher 3s-om_{VII}-buy-APP-pres II-student

The teacher bought it for the students (Beneficiary)

61. a) **mbi-med-er-i** **i-jumbe** (C)

om_{VIII}-add-APP-past IX-salt

I added salt to them.

b) **nge-med-er-i** **vy-abati** (C)

om_{IX}-add-APP-past VIII-chapati

I added it to the chapatis. (Goal)

62. a) **ava-mama** **va-ke-dek-er-i** **u-vugeni** (L)

II-mama II-om_{VII}-cook-APP-past XII-visit

The mamas cooked it for the visit

- b) ava-mama va-ke-dek-er-i chu-kuria (L)**
 II-mama II-om_{XII}-cook-APP-past VII-food
The mamas cooked food for it. (Beneficiary)

In a beneficiary construction where both objects are animate some ambiguity arises. Either object may be deleted and then be marked on the verb. When this occurs, however, the sentence could be interpreted in two equally valid ways. It is only pragmatics which determines which is correct. (It may be noted here that beneficiary constructions with two animate objects are rare. The typical beneficiary is animate while the direct object is inanimate.)

- 63. a) n-dek-er-i umw-ana av-igizi (L)**
 Is-cook-APP-past I-child II-teacher
I cooked the child for the teachers.

- b) mba-dek-er-i umw-ana (L)**
 om_{II}-cook-APP-past I-child
I cooked the child for them/I cooked them [animate] for the child.

- c) mu-dek-er-i av-igizi (L)**
 om_I-cook-APP-past II-teacher
I cooked him for the teachers/I cooked the teachers for him. (Beneficiary)

Locatives, however, cannot be marked on the verb as an object and must always be referred to using a type of pronoun outside the verb.

- 64. a) ava-mama va-ke-dek-er-i mu-umba (L)**
 II-mama II-om_{VII}-cook-APP-past XVII-house
The mamas cooked it in the house.

- b) *ava-mama va-[om] -dek-er-i ch-ukuria (L)**
 II-mama 3pl-XVII-cook-APP-past VII-food
The mamas cooked food there. (Location)

Where the applied object is a noun phrase, it can have the semantic role of purpose as demonstrated in (65a). As expected, it is not marked on the verb. When the applied object is deleted, however, the clause becomes ambiguous, with the object marked operating in a number of possible semantic roles. Note that the object marking in (65b) is exactly the same as (62b) where the semantic role is beneficiary rather than purpose. Again, the precise meaning of the clause is determined by pragmatic features and the context of the utterance.

65. a) **ava-mama va-dek-er-i chu-kuria ama-ng'ondo (L)**

II-mama 3pl-cook-APP-past VII-food V-money

The mamas cooked food for money.

b) **ava-mama va-ke-dek-er-i chu-kuria (L)**

II-mama 3pl-om_v-cook-APP-past VII-food

The mamas cooked food for it **(Purpose)**

66. a) **va-ga-kur-ir-a i-rigina (C)**

3pl-om_{VI}-rub-APP-pres XI-stone

They are rubbing them with a stone.

b) **va-ri-kur-ir-a ama-ganda (C)**

3pl-om_{XI}-rub-APP-pres VI-bean

They are rubbing the beans with it. (Instrument)

It is not possible for both objects to be deleted in Maragoli and be marked on the verb. This is true irrespective of the semantic role of the objects or the order of the markers within the verb morphology. It would appear that, as in Swahili, there is only one object marker 'slot' in which an object may be marked. This is in contrast to other symmetrical languages such as Kinyarwanda, where any number of objects may be marked on the verb.

It can be seen from this data that object marking on the verb carries much less significance in Maragoli than in Swahili. Objects cannot be marked when there are two complete noun phrases and either object can be marked when deleted, (with the exception of locations which have no object marker). The semantic role of the deleted object is unimportant. On this evidence it can be concluded that Maragoli is a symmetrical A language, since its objects behave in exactly the same way, irrespective of semantic role.

It can also be seen that the object-marking test is less useful for Maragoli in determining which object is primary. It appears that since no objects are marked on the verb in clauses with two noun phrases, the primary object is unmarked. When a noun phrase is deleted all objects are marked, but this could also be interpreted as the necessary marking of the object as a bound pronoun. If we conclude that all objects are marked then more than one object in a clause can be said to be primary. However, if the marker is understood purely as a bound pronoun, this test has nothing to say to the status of Maragoli as a symmetrical or asymmetrical language. The results of this test may be schematically summarised in Table 3.

Table 3. Possible semantic roles of object markers in Swahili and Maragoli.

Sentence structure	Swahili	Maragoli
OM-OM-V _{ST}	✗	✗
OM _{PT} -V _{ST} NP	✓	✓
OM _{BEN} -V _{ST} NP _{PT}	✓	✓
OM _{GL} -V _{ST} NP _{PT}	✓	✓
OM _{LOC} -V _{ST} NP _{PT}	✗	✗
OM _{INS} -V _{ST} NP _{PT}	✗	✓

4.5 Reciprocalisation

When reciprocalisation takes place, the number of objects required by a verb is reduced by one (Bresnan and Moshi 1993, 53). One object is deleted and is

indicated by the reciprocal suffix on the verb. Depending on the semantics of the verb, this object may either be the direct or applied object, with the restriction that only a primary applied object can be reciprocalised. If a construction does not allow the reciprocalisation of an applied object in an applicative construction, this object cannot be a primary object.

4.5.1 Swahili

While my language informant was able to construct sentences in which the beneficiary and goal were reciprocalised, it was impossible to elicit clauses containing reciprocalised locatives or instruments.

67. **wa-li-imb-i-an-a** **∅-nyimbo** (U)

3pl-past-sing-APP-REC-em X-songs

They sang songs for each other.

(Beneficiary)

68. **wa-toto** **wa-li-sukum-i-an-a** **vi-tabu** (U)

II-child 3pl-past-push-APP-REC-em VIII-book

The children pushed books to each other.

(Goal)

Bresnan and Moshi seem to suggest that when the direct object of a clause is reciprocalised, the reciprocalised object cannot co-occur with an applied object which has primary properties (1993, 54). However, when the direct object of the clause is reciprocalised in Swahili all applied object roles can be present in the clause. It is worth noticing that the form of the reciprocalised verb depends on which object argument is reciprocalised. If it is the applied object (i.e. beneficiary or goal), the applicative morpheme precedes the reciprocal morpheme (67, 68), whereas if it is a direct object, the applicative morpheme follows the reciprocal morpheme (69-72).

Why this should be the case is not clear to me at this stage (see ideas for further research).

69. **wa-nafunzi** **wa-li-dung-an-i-a** **mw-alimu** (U)
 II-student 3pl-past-stab-REC-APP-em I-teacher
 The students stabbed each other for the teacher. **(Beneficiary)**
70. **wa-toto** **wa-li-sukum-an-i-a** **∅-mama** (U)
 II-child 3pl-past-push-REC-APP-em I-mother
 The children pushed each other to mother. **(Goal)**
71. **wa-nafunzi** **wa-li-dung-an-i-a** **vi-su** (U)
 II-student 3pl-past-stab-REC-APP-em VIII-knife
 The students stabbed each other with knives. **(Instrument)**
72. **wa-nafunzi** **wa-li-dung-an-i-a** **darasa-ni** (U)
 II-student 3pl-past-stab-REC-APP-em class-loc
 The students stabbed each other in the classroom. **(Locative)**

The data concerning the reciprocalisation of applied objects (Examples 67-68 and preceding text) demonstrates that objects with different semantic roles behave differently when undergoing reciprocalisation. As might be expected, bearing the results of the earlier three tests in mind, applied objects with a semantic role to the left of patient in the thematic hierarchy may be reciprocalised. In terms of symmetry A, Swahili may be seen to be asymmetrical. It is less clear what the reciprocalisation of the direct object demonstrates. It appears that when the direct object of a clause is reciprocalised, any role of an applied object may occur in the clause. According to Bresnan and Moshi's definition this suggests that Swahili also has symmetrical tendencies. It can also be observed that when the applied object is reciprocalised, the

beneficiary and goal applied objects may demonstrate primary object properties. Therefore more than one argument can display primary object properties.

4.5.2 Maragoli

In Maragoli, each applied object may be reciprocalised with the exception of location, where such a clause would be nonsensical.

73. **ava-na** **va-dek-an-ir-a** **chu-kuria** (L)
 II-child II-cook-REC-APP-pres VII-food
The children are cooking food for each other. **(Beneficiary)**

74. **ava-somi** **va-sugum-an-ir-a** **ama-karadasi** (L)
 II-student 3pl-push-REC-APP-pres VI-paper
The students are pushing papers to each other. **(Goal)**

75. **ava-na** **va-han-an-ir-a** **mu-riango** (U)
 II-child 3pl-block-REC-APP-pres XVII-door
The children are blocking the door with each other. **(Instrument)**

76. **ava-na** **va-lek-an-ir-i** **nyumba** (U)
 II-child 3pl-leave-REC-APP-past IX-house
The children left the house because of each other. **(Purpose)**

All direct objects may be reciprocalised, irrespective of the semantic role of the applied object.

77. **ava-somi** **va-duyan-ir-an-i** **mu-kilasi** (U)
 II-student 3pl-hit-APP-REC-past XVII-classroom
The students are hitting each other in the classroom. **(Location)**

78. **ava-somi va-duyan-ir-an-i ama-ng'ondo** (U)
 II-student 3pl-hit-APP-REC-past V-money
The students are hitting each other for money. (Purpose)
79. **ava-somi va-rumb-an-ir-i mu-riango** (U)
 II-student 3pl-push-REC-APP-past XVII-door
The students push each other to the door. (goal)
80. **ava-somi va-zi-duyi-an-ir-a e-ndeve** (U)
 II-student II-X-hit-REC-APP-pres IX-chair
The students are hitting each other with chairs. (Instrument)

This data suggests that Maragoli has symmetry A because, with the exception of the locative applied object, each object behaves in the same way when reciprocalised. This does not affect the symmetry of Maragoli, because such a construction with a location would be impossible and semantically nonsensical in any language (consider examples 73-76). There is, therefore no significant distinction between the different semantic roles of the objects. A second conclusion which may be drawn from this data is that both objects in reciprocal constructions have primary object properties.

The results of these tests may be schematically summarised in Table 4.

Table 4. Possible reciprocalisation of different semantic roles of applied and direct objects in Swahili and Maragoli

Sentence structure	Swahili	Maragoli
V-REC(AO) NP _{BEN}	✓	✓
V-REC(AO) NP _{GL}	✓	✓
V-REC(AO) NP _{INS}	✗	✓
V-REC(AO) NP _{LOC}	✗	✗
V-REC(AO) NP _{PUR}	n/a	✓
V-REC(DO) NP _{BEN}	✓	✓
V-REC(DO) NP _{GL}	✓	✓
V-REC(DO) NP _{INS}	✓	✓
V-REC(DO) NP _{LOC}	✓	✓
V-REC(DO) NP _{PUR}	n/a	✓

CHAPTER V

SYNTACTIC TESTS FOR SYMMETRY B

5.1 Rationale for Tests

In Chapter II it was established that a language having symmetry B will be able to contain two arguments displaying primary object properties simultaneously in a clause. A language which does not have symmetry B will be unable to contain two arguments displaying primary object properties simultaneously in a clause. As defined in Chapter II, the properties of a primary object in Bantu are: a) a primary object may become the subject of a passive construction; b) a primary object will be marked as a clitic on the verb; c) a primary object will be located closest to the verb; and d) a primary object can be reciprocalised. In most clauses in Bantu, only one primary object can be expressed at a time. For example, it is impossible for both objects of an applied construction to become the subject of a corresponding passive at the same time. By combining tests for primary object properties it is possible to investigate whether a clause can contain two different primary objects at the same time. For example, an applied construction may be reciprocalised, with one of the objects being marked as the reciprocal extension on the verb. This suggests that the reciprocalised object has primary properties. If the other object of the clause can then be marked as an object on this reciprocal verb, this object also demonstrates primary object properties. In such a case both objects are primary and have property U, and the language may be termed symmetrical.

Since word order depends very much on the type of construction used (e.g. Active/Passive) and on there being two object NPs in the clause (there is only one in reciprocal constructions), word order cannot be combined with other primary object tests to determine the existence of property U. I shall apply each test first to Swahili and then to Maragoli, summarising the results at the end of each section.

5.2 Co-occurrence of Passives with Object Markers

This test will demonstrate whether one object can become the subject of a passive construction while the other object is marked on the verb. Where any double object construction can be passivised with one object becoming the subject of the new clause and the second object being marked on the verb, the language displays symmetry B as defined in Chapter II. Where such a construction is unacceptable the language is asymmetrical.

5.2.1 Swahili

It is not possible for any passive constructions in Swahili to also contain an object marker. This is true irrespective of the semantic role of the objects.

81. **m-kate** **huu** **u-li-pik-i-w-a** **wa-geni** (T)
 III-bread this III-past-cook-APP-PASS-em II-visitor

This bread was cooked for visitors.

a) ***m-kate** **huu** **u-li-wa-pik-i-w-a**
 III-bread this III-past-om_{II}- cook-APP-PASS-em

b) ***wa-geni** **wa-li-u-pik-i-w-a**
 II-visitor sm_{II}-past-om_{III}- cook-APP-PASS-em (Beneficiary)

82. **∅-chapati** **zi-li-ongez-e-w-a** **∅-chumvi** (C)
 X-chapati X-past-add-APP-PASS-em IX-salt

The chapati was added salt (to).

- a) * \emptyset -chapati **zi-li-i-ongez-e-w-a**
 X-chapati X-past-add-om_{IX}-APP-PASS-em
- b) * \emptyset -chumvi **i-li-zi-ongez-e-w-a**
 IX-salt IX-past-add-om_X-APP-PASS-em **(Goal)**
83. \emptyset -nyumba-ni **ku-li-pik-i-w-a** **ch-akula** **(C)**
 XVII-home-loc XVII-past-cook-APP-PASS-em VII-food
At home was cooked food.
- a) *ch-akula **ki-li-ku-pik-i-w-a**
 VII-food VII-past-om_{XVII}-cook-APP-PASS-em
- b) * \emptyset -nyumba-ni **ku-li-ki-pik-i-w-a**
 XVII-home-loc XVII-past-om_{VII}-cook-APP-PASS-em **(Location)**
84. **ki-ti** **ki-na-vunj-i-w-a** \emptyset -nyundo **(L)**
 VII-chair VII-pres-break-APP-PASS-em IX-hammer
The chair is being broken with a hammer.
- a) *nyundo **i-na-ki-vunj-i-w-a**
 IX-hammer IX-pres- om_{VII}-break -APP-PASS-em
- b) *ki-ti **ki-na-i-vunj-i-w-a**
 VII-chair VII-pres-om_{IX}-break-APP-PASS-em **(Instrument)**

This data suggests that Swahili is an asymmetrical B language because only one primary object may occur in a clause at the same time.

5.2.2 Maragoli

Each passive construction in Maragoli may co-occur with an object marker on the verb. This is true irrespective of the semantic role of the applied object, with the exception of locatives (see example 64b, section 4.4.2).

85. a) **iki-tabu ki-va-gur-ir-w-i** (L)
 VII-book VII-om_{II}-buy-APP-PASS-past
The book was bought for them.
- b) **ava-somi va-ki-gur-ir-w-i** (L)
 II-students 3pl-om_{VII}-buy-APP-PASS-past
The students were bought it. (Beneficiary)
86. a) **i-jumbe e-vi-med-er-w-i** (L)
 IX-salt IX-om_{VII}-add-APP-PASS-past
Salt was added to them.
- b) **vy-abati vi-ge-med-er-w-i** (L)
 VII-chapatis VII-om_{IX}-add-APP-PASS-past
The chapatis are being added it to. (Goal)
87. **mu-umba mu-ke-dek-er-w-i** (L)
 XVII-house XVII-om_{VII}-cook-APP-PASS-past
In the house it was cooked. (Locative)
88. a) **ama-ganda ga-ri-kur-ir-w-a** (C)
 VI-bean VI-om_{XI}-rub-APP-PASS-pres
The beans are being rubbed with it.
- b) **i-rigina ri-ga-kur-ir-w-a** (C)
 XI-stone XI-om_{VI}-rub-APP-PASS-pres
The stone is being used to rub them. (Instrument)
89. a) **chu-kuria ke-ga-dek-er-w-i** (L)
 VII-food VII-om_V-cook-APP-PASS-past
Food was cooked for it.
- b) **ama-ng'ondo ga-ke-dek-er-w-i** (L)
 V-money V-om_{VII}-cook-APP-PASS-past
For money it was cooked. (Purpose)

This data suggests that Maragoli is a symmetrical B language because two objects with primary object qualities can occur simultaneously in a clause.

5.3 Co-occurrence of Reciprocals with Object Markers

This test will demonstrate whether a reciprocal construction can also include an object marker. Where any double object construction can be reciprocalised with one object being deleted to be marked on the verb as the reciprocal suffix and the other object being deleted and marked as object on the verb, the language displays symmetry B as defined in Chapter II. Where such a construction is unacceptable the language is asymmetrical.

5.3.1 Swahili

A reciprocal construction cannot co-occur with an object marker, irrespective of semantic role. This is true for each semantic role listed here.

90. a) **wa-toto** **wa-li-sukum-an-i-a** **∅-mama** (U)
 II-child 3pl-past-push-REC-APP-em I-mother
The children pushed each other to/for mother.

b)***wa-toto** **wa-li-m-sukum-an-i-a**
 II-child3pl-past-om_I-push-REC-APP-em (Goal/Beneficiary)
The children pushed each other to/ for her.

91. a) **wa-nafunzi** **wa-li-dung-an-i-a** **vi-su** (U)
 II-student 3pl-past-stab-REC-APP-em VII-knife
The students stabbed each other with knives.

b)***wa-nafunzi** **wa-li-vi-dung-an-i-a**
 II-student 3pl-past-om_{VII}-stab-REC-APP-em
The students stabbed each other with them. (Instrument)

92. a) **wa-nafunzi wa-li-dung-an-i-a darasa-ni** (U)
 II-student 3pl-past-stab-REC-APP-em class-loc
The students are hitting each other in the classroom.

b) ***wa-nafunzi wa-li-ku-dung-an-i-a**
 II-student 3pl-past-om_{XVII}-stab-REC-APP-em
The students stabbed each other there. (Locative)

From this data it can be seen that reciprocal constructions cannot contain object markers. This means that two primary objects cannot be displayed in the clause simultaneously and suggests that Swahili does not possess symmetry B.

5.3.2 Maragoli

Each reciprocal construction can co-occur with an object marker, irrespective of the semantic role of the object.

93. **ava-na va-ke-dek-an-ir-a** (U)
 II-child II-om_{VII}-cook-REC-APP-pres
The children are cooking it for each other. (Beneficiary)

94. **ava-somi va-ki-duy-an-ir-a** (U)
 II-student 3pl-om_{VII}-hit-APP-REC-pres
The students are hitting each other for it. (Purpose)

95. **ava-somi va-mu-rumb-an-ir-i** (U)
 II-student 3pl-om_I-push-REC-APP-past
The students push each other to him. (Goal)

96. **ava-somi va-zi-duy-an-ir-a** (U)
 II-student II-om_X-hit-REC-APP-pres
The students are hitting each other with them. (Instrument)

This data suggests that Maragoli has symmetry B because more than one object can be marked as having primary object qualities simultaneously.

5.4 Co-occurrence of Reciprocals with Passives

This test will demonstrate whether a reciprocal suffix can occur within a passive construction. Where any applied construction can be reciprocalised with one object being deleted to be marked on the verb as the reciprocal suffix and the second object becoming the subject of this reciprocal verb when passivised, the language displays symmetry B as defined in Chapter II. Where such a construction is unacceptable the language is asymmetrical.

5.4.1 Swahili

In Swahili it is possible for one object to be reciprocalised and the second object to become the subject of this reciprocal clause when it is passivised. However, when this occurs, the meaning of the sentence changes significantly.

97. **vi-tabu** **vi-li-sukum-an-i-w-a** **wa-nafunzi** (U)

VII-book VII-past-push-REC-APP-PASS-em II-student

**The books were pushed to one another by students.*

The students pushed each other for the purpose of getting books.

It may be seen that, despite the agreement of the 'subject' and the verb, the books are not the semantic subject of the passive construction. This may be an example of a quasi-passive construction, and is extremely uncommon. It is impossible for the books to become the subject of the passive; each attempt to elicit this was considered ungrammatical.

This data demonstrates that it is not possible for one object to be reciprocalised while the second object becomes the subject of the passive reciprocal construction. Two objects are therefore unable to display primary properties in a given clause, which determines that Swahili is an asymmetrical language.

5.4.2 Maragoli

In Maragoli it is possible for one object of a clause to be reciprocalised, while the other object becomes the subject of this reciprocal clause when it is passivised. Unlike in Swahili, this passive reciprocal construction retains its passive meaning.

98. a) **ava-somi** **va-duy-an-ir-a** **e-ndeve** (U)

II-student II-hit-REC-APP-pres IX-chair

The students are hitting each other with chairs.

b) **e-ndeve** **i-duy-an-ir-w-a** **ava-somi** (U)

IX-chair IX-hit-REC-APP-PASS-pres II-student

The chair is being used by the students to hit each other.

c) **ava-somi** **va-duy-an-ir-w-a** **e-ndeve** (U)

II-student II-hit-REC-APP-PASS-pres IX-chair

The students are being hit by each other with the chair. (Instrument)

99. a) **ava-somi** **va-dek-an-ir-a** **chu-kuria** (L)

II-student II-cook-REC-APP-pres VII-food

The students are cooking food for each other.

b) **chu-kuria** **ke-dek-an-ir-w-a** **ava-somi** (U)

VII-food VII-cook-REC-APP-PASS-pres II-student

Food is being cooked by the students for each other.

c) ava-somi	va-dek-an-ir-w-a	chu-kuria	(U)
II-student	II-cook-REC-APP-PASS-pres	VII-food	
<i>The students are being cooked food by each other.</i>			(Beneficiary)

This data demonstrates that in Maragoli reciprocal constructions can also be passive constructions, where one object becomes the subject of the passive and the second object is reciprocalised. In such clauses two arguments are displaying primary object properties, which suggests that Maragoli has symmetry B.

From these results it is possible to conclude that Swahili does not demonstrate symmetrical properties with regard to symmetry B because only one object in a given clause may possess primary object properties. In terms of Alsina's analysis, only one object has property U.¹ Maragoli, in contrast, is symmetrical because both objects of

¹When Swahili was first tested for property U, using the combination of primary object tests described above, the verb stem *-piga* 'hit' was used. The results of the test were very different, suggesting that Swahili demonstrated both symmetrical and asymmetrical properties. While it was not possible for an object marker to co-occur with a passive construction, it was possible for reciprocals to co-occur with both an object marker and a passive construction. This suggested that in reciprocal constructions two objects were able to be primary in a given clause and therefore had property U. The property U, defined by Alsina, would therefore be dependent on the construction investigated in a particular language. It would no longer be possible to state that a language could be classified depending on whether only one or more than one argument in a clause may have this property U. For Swahili this would determine that it is basically an asymmetrical language, with symmetrical tendencies in reciprocal constructions. No discussion of object symmetry, however, suggests that such an analysis is possible. There were three plausible solutions to this problem:

a) Swahili is asymmetrical, with symmetrical tendencies.

This would imply that symmetry is a scalar property rather than binary. Relying on the passive/object marker test as a primary indicator of symmetry B, it would also be possible to state that some asymmetrical languages are more symmetrical than others. This would be a new theoretical suggestion.

b) Reciprocalisation is not a reliable test for primary object qualities.

This would imply that reciprocalisation is not a universally reliable test for primary object properties and that therefore Swahili is a symmetrical language based on the passive/object marker test alone. On this basis, the fact that Chichewa does not allow reciprocalisation with any other object quality is a co-incidence. This would question the work of a number of Bantuists such as Alsina, Ngonyani, Bresnan and Moshi who assume that reciprocalisation is a valid test for primary objects.

c) The verb stem *-piga* 'hit' has unique object properties which make it an unreliable verb to use for this test; more data should be investigated.

Although this seemed like an unlikely solution, it is well known that this verb has a number of unusual object properties (Vitale 1981, 42-43). When I tested the same basic examples with a different verb stem, *-dunga* 'stab', the results were as described above, suggesting that Swahili is consistently asymmetrical. Having checked with two further verb stems, I therefore hypothesise that the semantic neutrality of the verb may have influenced the data collected and that the typical pattern of Swahili undergoing these tests for symmetry B is as described in sections 5.2.1 and 5.3.1.

a clause may possess primary object properties. Both objects therefore have property U.

CHAPTER VI

THEORETICAL CONSIDERATIONS

6.1 Summary of Results

To briefly summarise the findings of Chapters IV and V, we can state the following:

- Swahili does not possess symmetry A or symmetry B.
- Maragoli possesses both symmetry A and symmetry B.

Under both definitions of symmetry we can conclude that Swahili is an asymmetrical language while Maragoli is a symmetrical language.

The theory of Lexical Functional Grammar (LFG) offers a theoretical framework to interpret these results.¹ According to LFG each grammatical role (i.e. subject, object and oblique) is made up of primitives which define them. Subject and Object have the primitive property of being semantically unrestricted. This means that they can be associated with any semantic role. This property is designated [-r]. Objects have the primitive property of complementing verbs (as opposed to nouns, adjectives etc.) which is a property designated [+o]. Obliques are both 'non-object-like' in that they complement nouns and adjectives rather than verbs [-o], and semantically restricted which means they are [+r]. As a result of these classifications, there is a second object defined which is semantically restricted but still objective [+r], [+o]. The full classification is as follows:

¹The framework presented here relies heavily on Bresnan and Moshi (1993, 70-71).

SUB [-r, -o]

OBJ [-r, +o]

OBJ_θ [+r, +o]

OBL [+r, -o]

Using this framework, the agent, theme/patient, applied object and location roles have been assigned 'intrinsic classifications' which determine that:

agent: [-o]

theme/patient: [-r]

locative: [-o]

applied object: [-r] or [+o]

Thus, in each sentence the arguments may be classified using these criteria. The classification of applied objects has an important restriction. As the classification stands here, an applied object may be either [-r], in which case it will be passivisable, or [+o] in which case it will be non-passivisable and restricted. However, it is further claimed that the apparent option for applied objects to 'choose' either [-r] or [+o] is restricted: beneficiary and goal roles lack the alternative [+o] and must be unrestricted [-r]. They will therefore always be OBJ. This implies that the applied object in a beneficiary construction *must* be the subject of its passive construction. Bresnan and Moshi make a number of further distinctions which are important. They claim that the semantic role furthest to the left in the thematic hierarchy (see 4.2.1) in any construction will be semantically unrestricted [-r] and that lower roles will be restricted [+r]. This is the default setting. Further they explain that each lexical role must be associated with one and only one function. This is the well-formedness setting. Having outlined these basic concepts they then posit a parameter which determines the behaviour of all applied objects in asymmetrical languages: only one

semantic role may be intrinsically classified unrestricted in a clause [-r]. This is the Asymmetrical Object Parameter (AOP). This definition corresponds exactly to Alsina's property U defined in Chapter II.

Using these classifications, it would be expected that in Swahili an applicative clause would be analysed in the following way:

‘cook-for’	<	ag	ben _{appl}	pt	>
AOP		[-o]	[-r]	[+o]	
default		[-r]		[+r]	
		S O O _θ			

This implies that the applied beneficiary object would be unrestricted [-r] and *must* therefore become the subject of a passive construction. Chapter V demonstrates that this is not the case.

Chapter V demonstrates that Swahili possesses certain properties which Bresnan and Moshi would consider symmetrical. In each test for primary object properties, some semantic roles of the applied object were observed to access primary object properties, albeit not at the same time as the other object. Whereas in Chichewa only one object of an applied construction can become the subject of a passive construction (the applied object), in Swahili both applied and direct objects of Beneficiary, Goal and Locative constructions may passivise. Whereas in Chichewa only one object of an applied construction may be marked on the verb (the applied object), in Swahili both applied and direct objects of Beneficiary or Goal constructions may be marked. Whereas in Chichewa it is not possible for the patient to be reciprocalised in the presence of any applied object, in Swahili the patient may be reciprocalised in the presence of all applied objects. In each case the data suggests that in Swahili applied constructions more than one object may have access to

The thematic rule of Bresnan and Moshi (1993, 71-72), stating that beneficiary and goal roles lack the alternative [+o] and must be unrestricted [-r], does not hold. Swahili disproves this as a universal rule. However it does hold for Chichewa. What we may suggest then, is that the difference between alternating and non-alternating languages is determined by whether they have this *optional* parameter which, in lexical functional terms, may be termed Alternating Object Parameter (XOP). Where a language has this feature, the language will be alternating, allowing several objects to possess primary object properties, but not simultaneously. The semantic role of the applied object determines which objects may have access to primary object properties in this case. Where a language does not have this parameter, the beneficiary and goal arguments of an applied construction will necessarily be unrestricted.

CHAPTER VII

CONCLUSIONS

7.1 Conclusions

Swahili allows only one primary object per clause, and where there are two objects within an applied clause, the primary object is determined by the relative semantic roles of the two objects. This defines Swahili as an asymmetrical language (symmetry type B). Where the applied object is to the right of the patient on the thematic hierarchy described in 4.2.1, the direct object will be the primary object. Where the applied object is to the left of the patient on this hierarchy, either the direct or applied object may be the primary object. This different behaviour of applied objects with various semantic roles defines Swahili as an asymmetrical language (symmetry type A). While Swahili does not allow two primary objects in a given clause, where the applied object falls to the left of the patient in the thematic hierarchy, the primary object may be said to be alternating. Either the patient or the applied object may be the primary object of the clause, but not both.

Maragoli allows two primary objects per clause. This defines Maragoli as a symmetrical language (Type B). The respective semantic roles of the applied and direct objects have no bearing on their behaviour within a clause; each role behaves in the same way undergoing passivisation, reciprocalisation, object marking and word order. This defines Maragoli as a symmetrical language (Type A).

This research also leads to a number of general conclusions about objects in Bantu languages. Firstly, it may be concluded that there is no universal thematic hierarchy which applies equally to all languages, or even Bantu languages. The

evidence presented here for Swahili conforms to Givón's thematic hierarchy, but clearly disagrees with that of Bresnan and Moshi. These thematic hierarchies agree in many of the roles, but disagree concerning the relative positions of Patient, Instrument and Location. The evidence presented here suggests that these hierarchies are language specific. Secondly, this research demonstrates that alternating passives, reciprocals and object markers are not restricted to symmetrical languages. This is significant support for Alsina's theory that an asymmetrical language may be either alternating or non-alternating depending on the availability of the primary object position to either object in a given clause. Thirdly, the consistent results for passivisation, reciprocalisation and object marking suggest that there is a common underlying property which determines whether a language is asymmetrical or symmetrical. This is consistent both with Alsina's property 'U' and Bresnan and Moshi's [-r]. Fourthly, the existence of alternating languages renders necessary an important qualification to Bresnan and Moshi's thematic rule that the semantic roles of beneficiary and goal must be unrestricted. It is rather the *optionality* of this parameter which determines whether an asymmetrical language is alternating or non-alternating. Finally, there is the tentative conclusion that Bantu G languages are asymmetrical while Bantu J are symmetrical. This confirms my original hypothesis, but would need considerably more evidence from a range of Bantu languages to be conclusive.

7.2 Ideas for Further Research

To investigate this area more fully, the following research could be carried out:

- Collect more data concerning the use of the Instrumental role in Swahili. The evidence presented in this paper is controversial data, which contradicts the

findings of Ngonyani and Vitale. A diachronic study might add considerably to an understanding of the processes at work in modern Nairobi Swahili.

- Collect data concerning the two additional double-object constructions not investigated here (see 3.2 and 3.3).
- Research the significance of the order of various extensions in Bantu languages. In Swahili there is an apparent difference in acceptability or meaning between verbs whether the applicative precedes or follows the reciprocal extension. Whether this is equally significant in Maragoli and other Bantu languages is not clear.
- Investigate other Bantu languages (e.g. Bantu C), to determine whether the symmetry of the language is predictable through the existing Bantu typology. This would require evidence from a range of other Bantu G and J languages, to back up the tentative conclusions presented in this paper, as well as other classifications.
- Fully investigate the two further definitions of symmetry given by Marantz for Swahili and Maragoli, to determine whether languages are always fully symmetrical across a range of definitions.

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APPENDIX I

Data Record Text data, type P, Maragoli

Informant: Iris

Date: Friday 22nd September 2000

PI01 Umu-duya ni chu-kuria ke-yanz-w-a nende va-luhya va-nyingi
 XII-umuduya be VII-food VII-like-pass-em with II-Luhya II-many

ku-tal-a Western.
 inf-come.from-em Western.

Umuduya is a type of food liked by many people who come from Western Province in Kenya.

PI02 Ku-lomb-a umuduya tsana yenye-kana uve na matsi,
 inf-make-em XII-umuduya well 3pl-should be with VI-water

ma-ganda guma kabisa, ts-ingu, ki-biriti
 VI-beans dry completely X-firewood VII-matchbox

chu ku-nambits-a, mu-lilu, iki-fulia, mw-iko,
 for inf-light-em XVIII-fire, VII-sufuria, XII-spoon

mukereka, ligina, nende ligunia lisafi li-kusisirak-a maganda
 XII-soda ash XI-stone, with XI-bag XI-clean XI-make-em VI-beans

gehaga.
 these.

To make umuduya well you should have water, very dry beans, firewood, a matchbox to light the fire, a cooking pot, a cooking spoon, some soda ash, a stone and a bag for cleaning these beans.

PI03 Vugul-a iki-fulia chu ku-deka u-t-e mu-mashiga na
 take-em VII-sufuria for inf-cooking 2s-put-em XVIII-fire with

matsi kukuduka ku-londekan-a si ma-ganda gogo ave.
 VI-water enough inf-depend-em how VI-beans 2s-poss be.

Take the cooking pot for cooking and put it on the fire with enough water depending on how much the beans seem to need.

PI04 **Dol-a ma-ganda gogo vulai vueue nuku-manyikits-a kabisa**
 sort-em VI-beans 2s-your carefully ? 2s-make.sure-em very

gave ma-safi, vugul-a ma-ganda tsana wogits-ir-i mki-fulia
 be VI-clean , take-em VI-beans then wash-APP-em XVIII-sufuria

matsi manyingi kuduka wa gava masafi.
 VI-water VI-much until they be VI-clean.

Sort the beans carefully, making sure they are very clean, take the beans and wash them in a cooking pot with a lot of water until they are clean.

PI05 **Vugul-a ma-ganda u-t-e mu-matsi ga-ni-gave niga-shuy-a**
 take-em VI-beans 2s-put-em XVIII-water VI-fut-be VI-boil-em

mu-mashika, dek-a ma-ganda ago ku-duk-a iwa mu-godoni
 XVIII-fire, cook-em VI-beans those inf-finish-em when III-husk fut

gave ni gajirinyi,
 be with shrunk.

Take the beans and place them in boiling water on the fire, and cook the beans until the husk becomes small and shrunken.

PI06 **Tulits-a ma-ganda ku-mashiga a-u-t-e gu kifulia kindi**
 remove-em VI-beans XVII-fire and-2s-put-em in VII-sufuria another

Remove the beans from the heat and put them in another cooking pot.

PI07 **Tulits-a ma-ganda tsana mu-matsi ga-ni-gave niga-tul-i**
 remove-em VI-beans then XVIII-water VI-fut-be VI-come-from-em

mu-kifulia ki-dech-ienje maganda.
 XVIII-sufuria VII-cook-rel beans.

Remove the beans from the water which would have come from the cooking pot which cooked the beans.

PI08 **Ukamulul-i kabisa matsi aga ku-duk-a iwa ga-va amumu**
 pour.away-em completely VI-water this inf-finish-em when VI-be dry

ka-rang-er-a mu-lujjo ki-bango.
 VI-them-fry-app-em XVIII-pot VII-cooking.stick.

Pour away all the water until they are dry and then fry them in a broken-bottomed pot with a cooking stick.

PI09 **Karang-a kabisa kuduk-a iwa ma-ganda tsana**
 fry-em completely inf-finish-em when VI-bean then

ga-magir-a **nye** **iranji** **yililova** **au-tulits-i** **mu-mashiga**
VI-turn to.its' IX-colour brown then-remove-em XVIII-fire

nu-ku-tsi **ku-va-gal-a** **ichova** **kumubasu** **tsi-sa** **shimbi** **tsi-nne.**
and-to-take inf-them-dry-em outside loc-sun X-hours about X-four.

Fry them completely until the beans turn a brown colour, then remove from the heat and take them to dry outside in the sun for about four hours.

PI10 **Vugul-a** **u-t-e** **mwi-gunia** **kur-ir-e** **ma-ganda** **i-rigina** **tudi**
take-em 2s-put-em XVIII-sack rub-app-em VI-bean XI-stone small

tudi **nu-tuits-a** **ma-godo** **gosi.**
small and-remove-em III-husk all.

Take them and put them in a sack and then rub those beans with a small stone and remove all the outer husk.

PI11 **T-a** **ma-ganda** **ga-tulits-i** **ma-godo** **u-t-e** **mu-ruderu**
put-em VI-beans VI-remove-past III-husk 2s-put-em XVIII-tray

uses-e **lunono** **ku** **ma-godo** **katuli** **gosi.**
winnow-em for.long.time to III-husk come.out all.

Put the beans from which the outer husk has been removed in a tray and winnow for a long time to make all the outer husk separate out.

PI12 **Vugul-a** **i-nyambeva** **yoyo** **u-t-e** **mu-mashiga** **ni** **matsi**
take-em IX-cooking-pot your 2s-put-em XVIII-fire and VI-with
water

ma-gerigeri.
VI-enough.

Take your cooking pot and put it on the fire with enough water.

PI13 **Wogits-a** **ma-ganda** **g-uiombi** **u-t-e** **mu-inyambeva** **yoyo**
wash-em VI-beans VI-made-rel 2s-put-em XVIII-cooking.pot 2s-your

i-ve **na** **matsi** **mu-mashiga.**
IX-be with VI-water XVIII-fire.

Wash the beans which you have prepared and put in the cooking pot on the fire containing water on the fire.

PI14 **Dek-a** **ma-ganda** **gehago,** **iwa** **ga-va** **shimbi** **ku-shi-a**
cook-em VI-beans those, when VI-be about inf-finish-em

u-tek-u **mu-kereka** **ku-medam-u** **vunulu.**
2s-add-em XII-soda.ash to-add-em taste.

Cook those beans and when they are almost cooked add soda ash to give a nice taste.

PI15 **Medam-u i-chumbe nu-chukany-ir-amu mw-iko kabisa i-vuli**
 add-em IX-salt and-stir-app-em XII-spoon completely neg-to

ku-nand-a mu-nyambeva.
 inf-stick-em XVIII-cooking.pot.

Add salt while stirring thoroughly with a spoon so as not to let it stick to the cooking pot.

PI16 **Utsitsagilil-e ndio ku-duk-a iwa ga-va kuli vusera**
 continue-em with inf-finish-em when VI-be like IX-porridge

vu-ndono au-tulits-e ku-mashiga.
 IX-heavy then-remove-em XVII-fire.

Continue stirring until it becomes like a heavy porridge and then remove from the fire.

