

**AN ANALYSIS OF VERBAL AFFIXES IN KIKONGO WITH SPECIAL  
REFERENCE TO FORM AND FUNCTION**

By

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## *Declaration*

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I hereby declare that **AN ANALYSIS OF VERBAL AFFIXES IN KIKONGO WITH SPECIAL REFERENCE TO FORM AND FUNCTION** is to the best of my knowledge and belief, original and my own work. The material has not been submitted, either in whole or part, for a degree at this or any other institution of learning. The contents of this study are the product of my intellect, except where due acknowledgement is made in the text or somewhere else. The strengths and weaknesses of this work are wholly my own.

.....  
Mbiavanga Fernando

## Abstract

The relation between verbal affixes and their effect on the predicate argument structure of the verbs that host them has been the focus of many studies in linguistics, with special reference to Bantu languages in recent years. Given the colonial policy on indigenous languages in Angola, *Kikongo*, as is the case of other Bantu languages in that country, has not been sufficiently studied. This study explores the form and function of six verbal affixes, including the order in which they occur in the verb stem. The study maintains that the applicative and causative are valency-increasing verbal affixes and, as such, give rise to double object constructions in *Kikongo*. The passive, reciprocal, reflexive and stative are valency-decreasing and, as such, they reduce the valency of the verb by one object. This study also suggests that *Kikongo* is a symmetrical object language in which both objects appear to have equal status.

## *Dedication*

In memory of my father, and  
for my mother who always believes that  
*'mungwa kani kunsuka zenzila'*  
better late than never

## Acknowledgements

'If the LORD does not build the house, the work of the builders is useless; if the LORD does not protect the city, it does no good for the sentries to stand guard. It is useless to work so hard for a living, getting up early and going to bed late. For the LORD provides for those he loves, while they asleep.' PSALM 127

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## Abbreviations and symbols

Adj	Adjective
APPL	Applicative
ASP	Aspect
CAUS	Causative
FREQ	Frequentative
GB	Government and Binding
GND	Gender
HABIT	Habitual
INTENS	Intensive
ITERAT	Iterative
LFG	Lexical Functional Grammar
LMT	Lexical Mapping Theory
LOC	Locative
Neg	Negative
NP	Noun phrase
NEUT	Neuter
NUM	Number
OBJ	Object
OBJ1	Object one
OBJ2	Object two
OM	Object marker
PASS	Passive
PN	Personal name
POT	Potential
POSIT	Positional
PST	Past
REC	Reciprocal
REFL	Reflexive

REL	Relative
SM	Subject marker
SG	Singular
SUBJ	Subject
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
V	Verb
Viz	Namely
VP	Verb phrase
Y or X	Variable elements
*	Ungrammatical sentence
Ø	Unexpressed prefix



**Figure1:** Map of Angola

Site web: <http://www.tlfq.ulaval.ca/axl/afrique/Angola-carte.htm>. [Accessed on 12 June 2006]

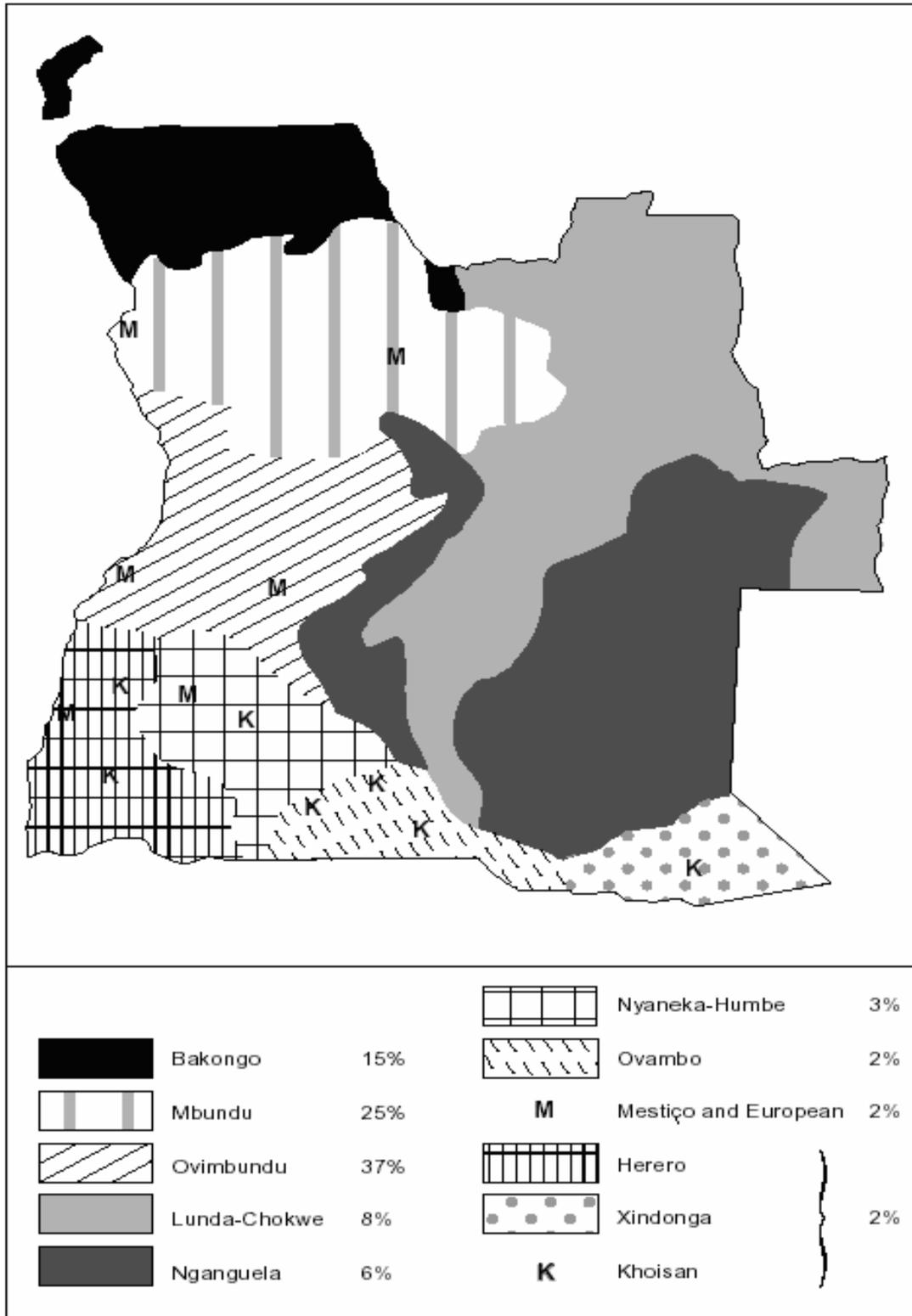


Figure 2: Map of ethnic groups of Angola

Source: [http:// memory.loc.gov/frd/cs/angola](http://memory.loc.gov/frd/cs/angola). [Accessed on 02 February 2006]

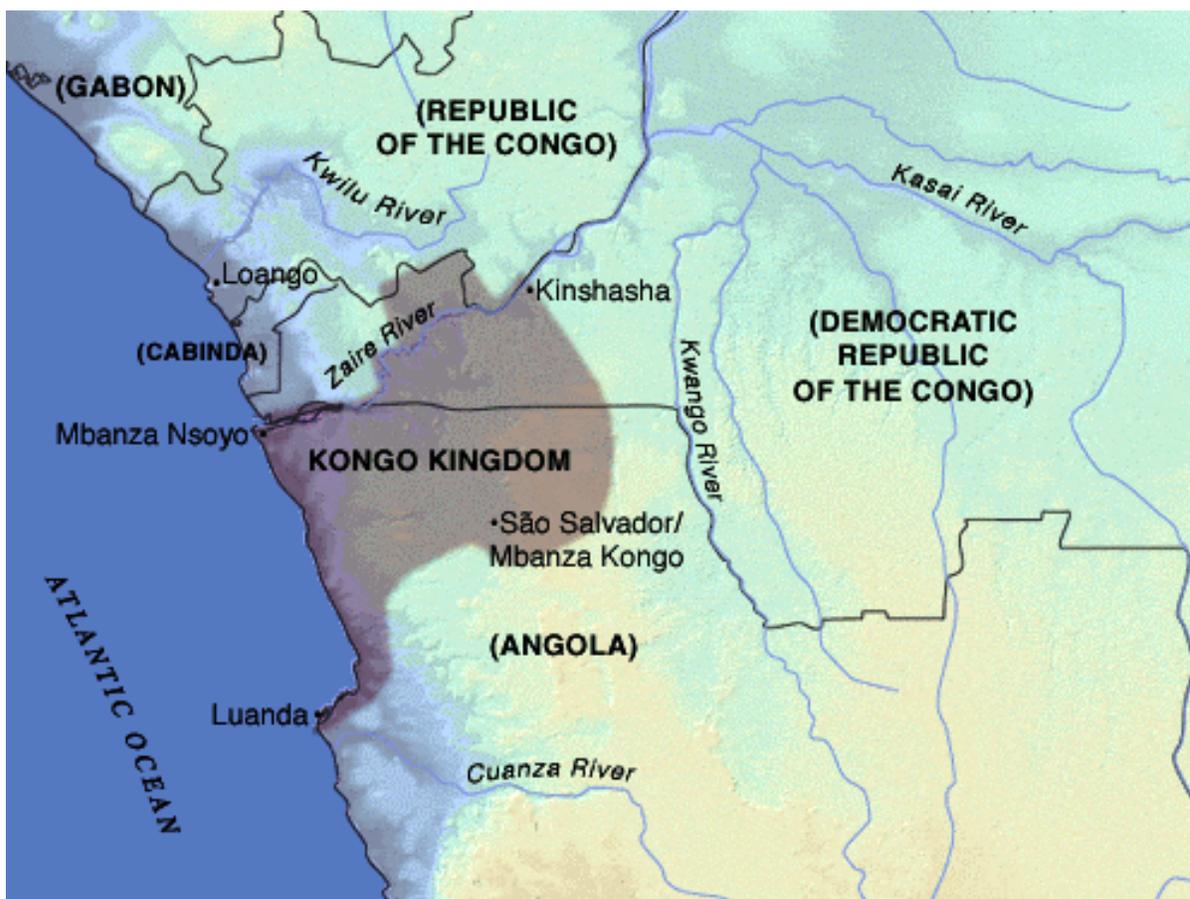


Figure 3: Map of the former Kongo Kingdom

Source: [www.metmuseum.org/toah/hd/acko/hd\\_acko.htm](http://www.metmuseum.org/toah/hd/acko/hd_acko.htm). [Accessed on 15 June 2006]

## CHAPTER I: THE RESEARCH BACKGROUND

“The first best time to plant a tree is twenty  
years ago; the second best time is now.”  
Nakimura -West Africa

### 1.1 Introduction

This study intends to examine the *Kikongo* verbal affixes, also traditionally known as verbal extensions. *Kikongo*, as will be seen later, is a cross-border language, that is, it is spoken in Angola, the Democratic Republic of Congo (DRC), Republic of Congo, and in Gabon. For this reason information about the country, Angola, will be given first to serve as background to the discussion, followed by the statement of the research problem, the classification of *Kikongo* as a Bantu language, the main characteristics of the *Kikongo* language, the context of this research, the objectives of the study, the relevance of the study and finally the organisation of the study.

### 1.2 The Country

As described by Lencastre (2006:246), Angola, home to a population estimated at about 15,561,000 inhabitants, is situated on the south Atlantic coast of West Africa, south of the equator and north of the Tropic of Capricorn. The total surface area of Angola is 1,246,700 square kilometres, including the 7,270 square kilometres that makes up the enclave of Cabinda. Angola is bordered on the north and east by the DRC, on the east by Zambia, on the south by Namibia, and on the west by the Atlantic Ocean. A small enclave, Cabinda, is located some 30km to the north and is bordered on the north by the Republic of Congo, on the east and south by the DRC and on the west by the Atlantic Ocean, as shown in Figure 1 (page xiv).

Although no census of the population has been conducted since 1970, recent studies<sup>1</sup> based on estimates, indicate that the vast majority of the Angolan population is of Bantu<sup>2</sup> descent, represented by nine ethnic groups, namely *Ovimbundu*, *Ambundu*,

*Bakongo, Tulunda-Cokwe, Vangangela, Ovanyaneca-Humbe, Ovambo, Ovahellelo and Ovandongga*, as illustrated in Figure 2 (page xv). In addition to these nine groups, some Bushmen (Khoisans) are found in the south of Angola. The Portuguese community is regarded as one of the largest non-African populations, though many native-born Angolans claim Portuguese nationality under Portuguese law.

The Bakongo of Angola are of Bantu origin and they share related linguistic and cultural characteristics with their corresponding groups of Central Africa, viz. the ones in the DRC, Republic of Congo and Gabon, as shown in Figure 3 (page xvi). One of the reasons for these similarities is related to the fact that they all belonged to the *Kongo* Kingdom, one of the most powerful kingdoms in Africa during the 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> centuries.

The European influence, however, reached the *Bakongo* of Angola in 1483 when Diogo Cão, a Portuguese navigator, sailed up the *Kongo* River (currently known as Zaire), and by the end of the 15<sup>th</sup> century the Portuguese had sent Catholic missionaries and trained workers to the *Kongo* Kingdom. At the same time, some *Kongo* citizens had gone to Portugal to further their studies. It is important to mention that the first African diplomat sent to the Vatican in 1535, *Manuel* [I], father of *João Manuel* and brother of *Ntotela Afonso I (Mbemba Nzinga)*, came from the *Kongo* Kingdom (Parreira 2003:151). He died before being received by the Vatican authorities, though. According to the same author, the Portuguese authorities did not allow the *Kongo* Kingdom to establish direct contact with the Vatican authorities, as this would jeopardize the relations between *Kongo* and Portugal.

Although these early contacts between Europeans and *Kongo* people were harmonious and, therefore, characterized by mutual respect, the demand for low-cost labour in the sugar plantations in Brazil and the agricultural areas of the central part and north of America was satisfied by African slaves captured in the *Kongo* Kingdom by their fellow Africans and sold to Portuguese. History suggests that a large number of slaves taken to the Americas came from *Kongo*-Angola territory. Later, Portugal ruled the *Bakongo* of

Angola from the beginning of the 1600s until 1975, when the country received its independence.

Angola, like other African countries, is a multilingual country, and the overwhelming majority of its languages belongs to the Bantu family. According to Guthrie's (1970, vol. 2:14-15) classification, the Bantu languages of Angola are grouped in zones H, K and R, where *Kikongo* is part of group *Kongo* in zone H, codified with the number 16.

In Angola, *Kikongo* is spoken in the provinces of *Uige*, *Zaire* and *Cabinda*. According to some estimates, *Kikongo* ranks as the third most widely used indigenous language, viz. 15 percent after *Umbundu*, which has 37 percent and *Kimbundu*, which has 25 percent of native speakers (Estermann 1960; Redinhas 1975 cited in Lusakalalu 2005:16). *Kikongo* is neighbored by *Kimbundu* on the south and southwest and *Cokwe* on the east.

In the DRC approximately 1.7 percent of *Kikongo* speakers are found in Lower-Congo province and *Bandundu* and some scattered communities are along the *Kongo* River from Brazzaville to the north; while in the Republic of Congo, *Kikongo* is spoken on the southeast of Brazzaville – *Boko*, *Pointe-Noire* up to Cape Lopez (Gabon) (Lumwamu 1973:3). This scholar estimates that forty-five percent of the Congolese are *Kikongo* native speakers.

As a result of the national language policy adopted by the DRC and Republic of Congo authorities, who promoted *Kikongo* through active educational programmes, media usage and other research activities, a considerable number of people in these two countries have functional literacy of *Kikongo*. This language is the base for *munukutuba*, a Bantu Creole and lingua franca spoken throughout Central Africa. In addition, many Africans taken as slaves to America came from this region, as suggested by certain forms of *Kikongo* found in ritual speech in countries such as Brazil, Jamaica and Cuba<sup>3</sup>.

*Kikongo* is regarded as one of the earliest Bantu languages committed to writing (Doke 1969:2) and, indeed, the earliest *Kikongo* dictionary was published in 1648, and a

*Kikongo* catechism was produced under the authority of *Diogo Gomes*, a Jesuit of European parents born in Congo in 1557<sup>4</sup>. A *Kikongo* translation of the New Testament was completed in 1893 and in 1905 a complete *Kikongo* Bible was completed and published.

After this brief description of the country, its population, and a discussion about the Bantu languages of Angola in general and *Kikongo* in particular, the next section will focus on the research problem.

### **1.3 The Research Problem**

As seen in Section 1.2, *Kikongo* was one of the first Bantu languages committed to writing. The purpose, however, was not to study the language scientifically, but only to make the word of God accessible to the colonised people. Maia (1936: V) supports this view when he points out that

[...] as these languages lack a writing system, it would not be advantageous to create a writing system and develop it if the purpose is not to make such languages a tool for evangelization and penetration.

Indeed, in 1919 the Portuguese authorities passed decree 5,778, which assigned the Catholic Church the task of civilizing through education<sup>5</sup>, but article 30 of this decree stated that all texts written in any African language should include a concurrent Portuguese translation. Moreover, in 1921, Norton de Matos, the then governor of the overseas province of Angola, passed decree 77 of 9 December 1921, published in the official Gazette of the province of Angola series 50, which forbade the use of indigenous languages in schools.

It should be noted that the above situation was repeated in most of the African colonies, especially in the former French and Portuguese territories. In the British and Belgian colonies, however, primary instruction was given in the indigenous languages, while Portugal adopted the assimilationist model of colonisation aimed at suppressing the

culture of the colonised, language being the vehicle of that culture (Matsinhe 2005:122). This is in accordance with Spencer (1974:170) when he states that:

In pursuance of their restrictive assimilation policy, the Portuguese authorities discouraged the vernacular languages to the extent of a legal requirement that nothing appear in print in an African language without a concurrent translation in Portuguese. Portuguese is the only language permitted in education but so far there have not been very extensive opportunities for Africans to receive schooling, especially in rural areas.

Portugal's philosophy of colonisation was governed by the concept of 'identity', which means the colonial strategies employed in these territories were motivated by the belief that in the long term the metropolitan community and the African peoples subject to their rule had to share a common political and cultural identity (Spencer 1974:169). According to the same author (*ibid*), out of half a million inhabitants in the current Guine-Bissau, only 1,478 achieved such status, while in Mozambique, out of over five million inhabitants only 92,619 were assimilated. Of these only 4,353 were Africans, the remainder being classified as whites or Indians. Angolan statistics were not given.

Contrary to the situation of indigenous languages in the Portuguese colonies, the approach of the Belgians and British to indigenous languages, and their interest in standardising languages, appeared to have a paternalistic flavour (Spencer 1974:168) and because of that, in many of these countries Bantu languages have been subject to much research, e.g. *Chichewa* (Mchombo 1991, 1993, 2004; Baker 1988a, 1988b; Alsina & Mchombo 1993; Bresnan & Mchombo 1987; Bresnan & Moshi 1993), *Ciyao* (Ngunga 2000), *Chinsenga* (Simango 1995), *Tsonga* (Matsinhe 1992, 1994), and *Ikalanga* (Mathangwane 2001), to name but a few.

Following independence in 1975, the educational and language policy was a top priority of the Angolan authorities. A considerable portion of the resources available was invested in the sector and this reduced the illiteracy rate from 90 percent after independence to 72 percent by 1982 (Huth 1994:76). Such efforts received recognition by the United Nations (UN), and in the early 1980s Angola was awarded a UN prize for its literacy campaign.

This involvement of the Angolan authorities in promoting indigenous languages, convinced UNESCO to support a language project and a language expert, *Boubakar Diarra*, was sent to Angola in the 1980s. However, the armed conflict that emerged after independence changed the linguistic situation of Angola, as Huth (1994:84) succinctly observes:

Factors such as the ethnic tensions and the conflict that devastated the country, the strict colonial policy in the field of culture aimed at the exclusive use of Portuguese in all domains, the many years of military conflict, and the immense economic problems, under the urban conditions, the needs for a means of inter-ethnic communication was felt by broad sections of populations.

Due to the situation described above, the move to have Portuguese adopted as the official language and the only language of instruction in all aspects of formal education, to the detriment of the indigenous languages, gained ground. Portuguese is widely regarded as the symbol of national unity and identity among Angolans. A main argument promoting this states that this common language fosters national unity. Such views regarding the Portuguese language have hindered any initiative aimed at researching and using the Bantu languages of Angola, especially and effectively as a medium of instruction. This is contrary to what is happening in countries such as the Republic of Congo, where *Munukutuba*, an indigenous lingua franca, is used in administration or in South Africa, where ten local languages along with English have official status<sup>6</sup>.

Angola's constitution, revised in 1992, remains silent on the role of indigenous languages. As a result of the present situation, *Kikongo*, like other Bantu languages of Angola, is not sufficiently studied, and few research activities in or about *Kikongo* are consequently available.

However, the recent involvement of Angolan institutions in the development of the Bantu languages of Angola is worth mentioning. In 2001 the Angolan National Assembly passed a decree assigning the Ministry of Education the task of introducing the teaching of six indigenous languages in public schools. Although these languages are not yet being

taught in primary and secondary public schools, two Departments of African Languages and Literature have been created at the University of Agostinho Neto. The first department was created at the Faculty of Letters and Social Sciences in 2002 for the purpose of training researchers in African languages and literature. The second department has been functioning since 2005 at the School of Education, also known as *ISCED-Luanda*, for the purpose of training future teachers and teacher trainers. Four indigenous languages, namely *Cokwe*, *Kikongo*, *Kimbundu* and *Umbundu*, were the selected languages as they had been documented by Diarra. Thus, this study is regarded as a contribution within this new context to the study of indigenous languages. Quoting Nakimuri, cited above, “the first best time to plant a tree is twenty years ago; the second best time is now.”

As will be seen in Chapter II, research in most Bantu languages indicates that the verb structure is formed by a verb root (VR) to which affixes are added. According to Doke (1935:45) an affix can be defined as “an element which is attached to or incorporated within a word, in order to modify its function, meaning, value [...] etc.” Indeed the function of the verbal affixes is associated with the capacity of the argument to support (i) an extra object, (ii) suppress one object, (iii) or maintain the same number of objects (Guthrie 1962:94).

This means when a verbal affix is attached to the VR, it alters the predicate argument structure of the verb by adding one object (cf. Matsinhe 1992, 1994; Simango 1995; Matambirofa 2003; Nkolola 2000; Ngonyani 1988, 2000; Kioko 1995; Sepota 2000) or suppressing an object (Dlavedewa 2002; Matsinhe 1994; Mchombo 1991, 1993; Mchombo & Ngunga 1994; Ngunga 2000) or doing nothing (Guthrie 1970; Meeussen 1967; see also Ngunga 2000; Friesen 2002; Matsinhe 1994).

In spite of the immense coverage of various Bantu languages in the study of verbal affixes, there are still languages within the Bantu family that have not yet received attention. Also, although many generalizations are known about the effects of verbal affixes on the predicate argument structure, some characteristics that may seem to be

particular to some languages are still to be explored. Thus, as will be made evident in Section 1.7, it was deemed appropriate to analyze the form and function of verbal affixes in *Kikongo* as well as the order in which they occur in the VR. The analysis will be made with the Lexical Mapping Theory (LMT) in mind.

Such objectives, however, may not be satisfactorily achieved if a brief description of the language is not provided to help the readers perceive certain phenomena under discussion. Proceeding from this premise, the next section will provide information on the language, starting from the classification of *Kikongo*.

## **1.4 The *Kikongo* Language**

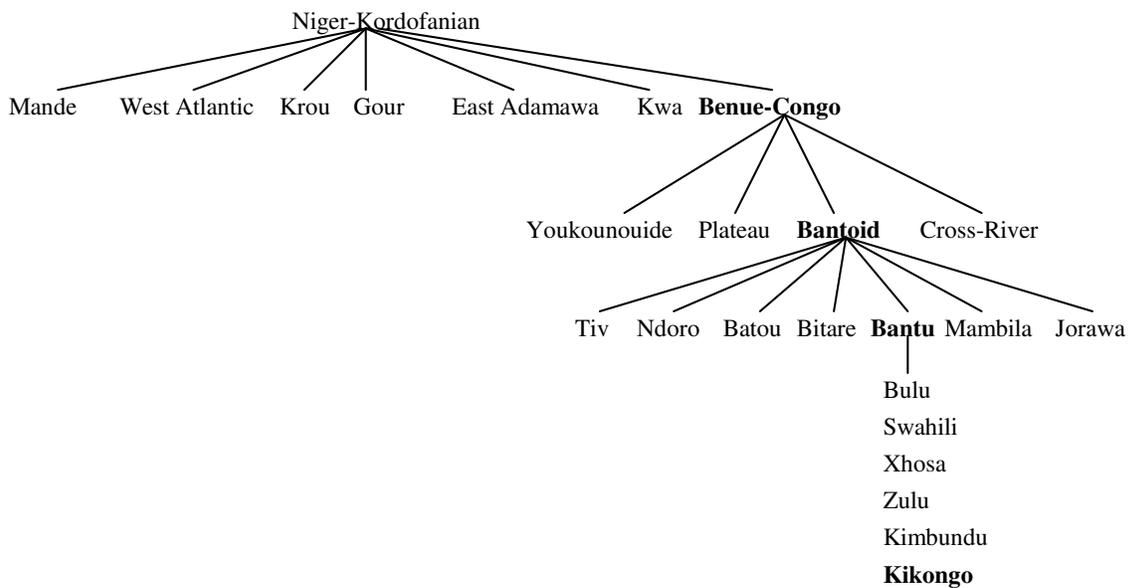
### **1.4.1 Classification of the *Kikongo* Language**

The suggestion that languages of a significant part of sub-Saharan Africa have common characteristics with corresponding ones from Western Africa was first acknowledged in 1776 by a Catholic missionary, Abbé Proyart (Maho 1999:28). Liechtenstein (1808) also noted the relation between southern and eastern Bantu languages, while William Marsden commented on the relation between western and eastern ones (ibid.). But the first effort to provide a comprehensive scientific study of Bantu languages and their relations was proposed by Bleek (1862, 1869); the same researcher first coined the word ‘Bantu’. Bleek used the term Bantu as a suitable label while cataloguing books in the library of George Grey, who was British governor of the Cape Colony in the early 19<sup>th</sup> century.

However, it was Meinhof (1899, 1906, and 1932) who first suggested the most influential model when he developed his seminal ‘Proto-Bantu’ (PB). Meinhof used five Southern African languages and applied the comparative method to reconstruct hypothetical previous languages, PB, from which, it was suggested, all other Bantu languages had developed.

Following on from this, various studies in Bantu language classification have been put forward, most importantly the work of Greenberg (1963) and that of Guthrie (1967-71).

The work of Greenberg first appeared in the 1950s, but it was in 1963 that Greenberg established the relation of Bantu languages to the Niger-Kongo family using the genetic approach classification. He regarded Bantu as a branch of Benue-Kongo, i.e. the group of languages of Southern and Eastern Nigeria. To Greenberg (1963:23), Bantu languages belong to a subgroup of an already established genetic subfamily of western Sudanic (Niger-Kongo). In fact, this hypothesis is now broadly accepted by many researchers in Bantu languages. Greenberg's classification is illustrated below, as it was adapted by De Tshiangolo (2005).



**Figure 4:** Greenberg's (1963) classification of Bantu languages (adapted by De Tshiangolo 2005:38)

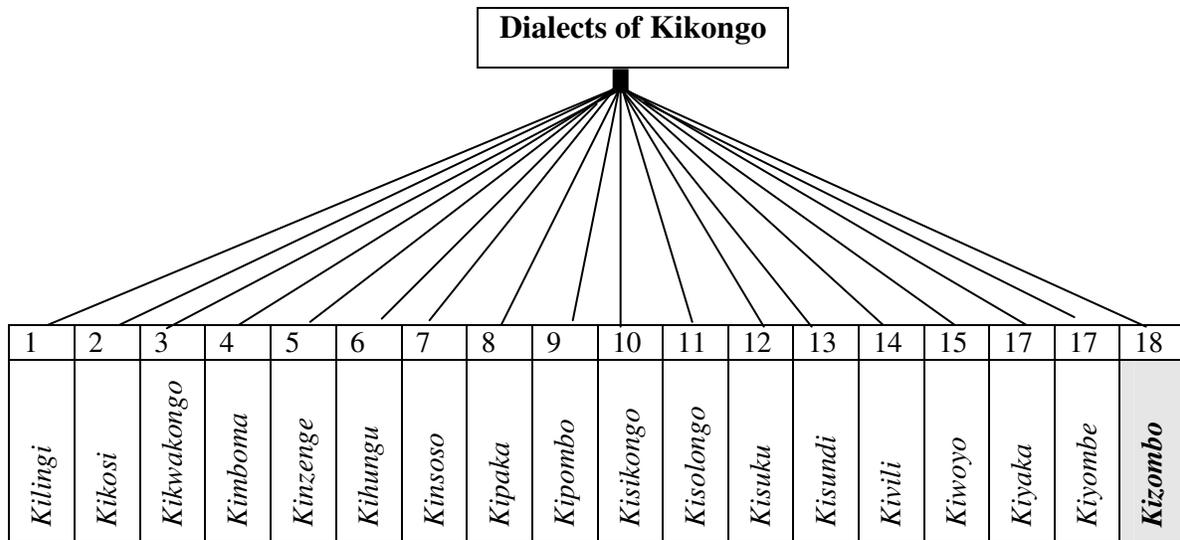
In addition to Greenberg, Guthrie's classification, which established an alphanumeric zoning of Bantu languages, is still widely used, even by those, such as Maho (2007)<sup>7</sup>, who disagree with his method and conclusions. Guthrie's methods are logically lucid in the sense that he started zoning Bantu languages from Cameroon as A and continued

eastwards, ending in South Africa as S. He also used linguistic facts, which made his classification contentious in comparison to that of Greenberg. Guthrie (1971, vol. 2:51), classifies the languages of the *Kongo* group as follows:

- Zone H11 *Bembe* (Congo Brazzavile, abbreviated CB),
- zone H12 *Vili* (CB),
- zone H13 *Kunyi* (CB),
- zone H14 *Ndingi* [Cabinda (Angola)],
- zone H15 *Mboka* [*Cabinda* and *Kongo Kinshasa*, abbreviated KK],
- zone H16a S. Kongo [Angola and KK],
- zone H16b C. *Kongo* [KK],
- zone H16c *Yombe* [KK],
- zone H16d W. Kongo (*Fiote*) [Cabinda and KK],
- zone H16e *Bwende* [CB and KK],
- zone H16f *Laadi* [CB],
- zone H16g E. Kongo [KK], and
- zone H16h [Angola and KK].

Maho (2007:86) updating Guthrie's classification, codified *Kizombo*, a dialect of *Kikongo*, as a member of zone H16h along with *Nkanu* and *Pende*. As will be observed in Chapter III, *Kizombo* is the dialect of *Kikongo* studied in this work.

In addition to the seminal work by Greenberg and Guthrie, Redinhas (1975, cited in Fernandes & Ntongo 2002:46), who studied the culture and languages of Angola, documented 18 dialects of *Kikongo*, as illustrated in Figure 5 on the next page.



**Figure 5:** Dialects of *Kikongo* as presented by Redinhas (1975, cited in Ntongo & Fernandes 2002:46)

It is worth noting that Redinhas' work has remained a reference point for scholars undertaking research to the Bantu languages of Angola (cf. Fernandes & Ntongo 2002; Lusakalalu 2005; Kukanda 1992), but little is known about the method he used for documenting such dialects.

Comparing Guthrie and Redinhas' studies, one may notice that in Guthrie's classification, *Yaka*, codified (H30), is an independent language, while Redinhas placed *Yaka* as a dialect of the *Kikongo* cluster. In addition, Redinhas documented *Kinsoso*, admittedly spoken by the ethnic group *ansoso*, and *Kipombo* spoken by the ethnic group *apombo*, both of them in the province of *Uige*, as well as *Kihungu*, spoken in the north of Bengo province, a former territory of *Uige*. Thus, it can be concluded that the issue of classifying Bantu languages has been the subject of continual debate and controversy and, as such, requires further research, as Maho (2007:19) acknowledges:

Any update of Guthrie's classificatory list is bound to remain a half done job. There are many regions in Bantu area where data is lacking for proper statements about demography. Hence any revisions, be they aiming towards historical validity like this of Tervuren and SIL, or towards being referential, as the present will most certainly have to be re-revised or updated again in the future.

This study is based on Guthrie's classification. After discussing the place of *Kikongo* in the classification of Bantu languages, the next section will deal with a brief description of that language.

## **1.4.2 Main Characteristics of the *Kikongo* Language**

### **1.4.2.1 Noun Class System**

The phenomenon of noun classification has long been of interest to linguists (cf. Jacquot 1967; Maho 1999; Demuth 2000; Senft 2000), whose interest may be piqued by the possibility that understanding the basis for grouping nouns together as members of a class resides in a system of cultural classification that underlies the system of linguistic classification. However, as will be seen below, the question of whether semantic principles can inform the groupings of nouns into classes in Bantu languages has been contentious. The reason why noun classes are studied here is because they have been part of the verb structure represented by a subject marker, as will be seen in Figure 6 (page 26).

As in other Bantu languages, *Kikongo* nouns fall into classes distinguished by pairs of prefixes, one denoting singular and the other plural, as shown in Table 1 on the next page.

Classes	Prefixes	Semantic domain	Examples	Gloss	Nominal agreements
1	mu-,	human beings	<i>muntu</i>	Person	wa
2	a-,	plural of 1	<i>Atu</i>	People	a
3	mu-	object and food	<i>mwinda/munsambu</i>	lamp/dry fish	wa
4	mi-	plural of 3	<i>miinda/minsambu</i>	lamps/dry fishes	mya
5	di-, Ø-	fruit/kinship	<i>dinkondo/se</i>	banana/father	dya
6	ma-	liquid/plural of 5	<i>maaza/mankondo/ma se</i>	bananas/fathers	ma
7	ki-, Ø-	things/places	<i>kima/fulu</i>	thing/place	kya
8	i-, Ø-	plural of 7	<i>ima/fulu</i>	things/places	ya
9	Ñ-	animals/things	<i>nkombo/nzo</i>	goat/house	wa/ya
10	(Zi)N-	abstract/plural of 9	<i>nsoni/nzo/nkombo</i>	shyness/houses	za
11	lu-	place	<i>luumbu</i>	enclosure	lwa
13	tu-	plural of 11	<i>tuumbu</i>	enclosures	twa
14	u-	abstract nouns	<i>unkete</i>	tidiness	wa
15	ku-	verbal/nominal	<i>kwenda/kuulu</i>	go/foot	kwa
16	va-	locative (surface)	<i>vanzo</i>	at home	va
17	ku-	locative (movement)	<i>kuzandu</i>	into the market	ku
18	mu-	locative (inside)	<i>musuku</i>	in the bedroom	mu
19	fi-	diminutive	<i>finuni</i>	a small bird	fya

**Table 1:** *Kikongo* noun classes and their nominal concords

Nominal classes are referred to by numbers as shown in glosses following Meinhof's (1932:170-171) system. The prefixes determine verbal agreement, modifier, and quantifier agreement. The agreement prefix must be present or else the sentence will be considered ill-formed. Consider the sentence in (1a) and (1b) in *Kikongo*.

- (1) a) *Mbati mya-mpa mi-sukul-w-e.*  
Ø- trousers 4SM-new-4SM-wash-PASS-PST  
'The new trousers were washed.'
- b) *Ye mi-tud-il-w-e mu-suku dya Luvwalu.*  
And 4SM- put-APPL-PASS-PST 18LOC-room 5-of 1PN  
'And (the trousers) were put in Luvwalu's bedroom.'

In discourse in the initial sentence (1a), the subject is expressed by a noun phrase (NP). After an appropriate contextual situation has been established, the subject may very well

be filled up by a subject marker (SM), as indicated in (1b). It is important to say that the selection of a subject or an object marker (OM) to substitute the subject NP or object NP argument is determined by the class prefix of the noun in case as illustrated in (5-17).

According to Meinhof (1932:174), OMs in *Kikongo* are prefixes for nouns that denote human beings, as shown in (2) and (3) respectively.

(2)	1 <sup>st</sup> person singular	-n- (-m-, ñ-)	1 <sup>st</sup> person plural	tu-
	2 <sup>nd</sup> " "	-ku- (often drops off)	2 <sup>nd</sup> " "	lu-
	3 <sup>rd</sup> " "	-m- (-n-, -ñ-)	3 <sup>rd</sup> " "	a-

- (3) a) *Mono i-n-veen-e ma-dya.*  
 1SG SM-3SG OM-give-PST 6-food  
 I I him/her gave food  
 'I gave him/her the meal.'
- b) *Ngeye i-(Ø) veen-e ma-dya.*  
 You SM- 2SG OM give-PST 6-food  
 You I you gave food  
 'I gave you the meal.'
- c) *Yani i-n-veen-e ma-dya.*  
 He/she SM-1SG OM-give-PST 6-food  
 He/she I he/she gave food  
 'I gave him/her the meal.'
- d) *Yani u-tu-veen-e ma-dya.*  
 He/she SM-1PL OM-give-PST 6-food  
 He/she him/her us gave food  
 'He/she gave us the meal.'
- e) *Mono i-lu-veen-e ma-dya.*  
 I SM-2PL OM-give-PST 6-food  
 I I you gave food  
 'I gave you the meal.'
- f) *Mono y-a-veen-e ma-dya.*  
 I SM-3PL OM give-PST 6-madya  
 I I them gave food  
 'I gave them the meal.'

The examples in (3a-d) suggest that when an object NP is a human being, the use of the OM together with lexical NP it refers to is obligatory. For other noun-classes an independent pronoun is used, which follows the verb as illustrated in (4).

- (4) a) *Di-nkondo bosi i-ku-vaan-a dyo.*  
 5-banana will 1SG SM-2SG OM-give-FV it.  
 Banana will I you give banana  
 'I will give you the banana.'
- b) *Ma-nkondo i-n-veen-e mo.*  
 6-banana SM-1SG- OM-3GS give-PST them  
 Bananas I him/her gave bananas  
 'I gave him/her bananas.'

The sentences in (4a) and (4b) are seen as implying that the object pronouns *dyo* 'it' and *mo* 'them', which belong to class 5/6, denote non-human and are thus independent from what follows after the verb. Also the object pronoun for the second person singular is sometimes omitted as seen in (3b), but in other contexts such *ku-* may be present, as shown in (4a).

With reference to the number of classes a language can host, Meinhof (1932) commented that "Bantu languages have a total of 22 noun classes but no single language is known to express all of them yet. The overwhelming majority have at least 10 noun classes." *Kikongo* hosts 19 classes. Some nouns belong to a pair of classes, the singular being one and the other indicating plural, as shown in the examples below.

- (5) class 1/2  
*mu-/ a-*
- a) *Mu-ntu lemb-e ma-dya.*  
 1-person cook-PST 6-food  
 'The person cooked the meal.'
- b) *A-tu a-lemb-e ma-dya.*  
 2-person 2SM-cook-PST 6-food  
 'The people cooked the meal.'

- (6) class 1a/2a  
*mu-, /a-*
- a) *Mwa-ana lemb-e ma-dya.*  
1a-child Ø-cook-PST 6-food.  
'The child cooked the meal.'
- b) *A-ana a-lemb-e ma-dya.*  
2a-children 2SM-cook-PST 6-food  
'The children cooked the meal.'
- (7) class 3/4  
*mu-/mi-*
- a) *Mu-nsambu wa Luzolo u-vid-idi.*  
3-dry fish 3-of Luzolo 3-disappear-PST  
'Luzolo's dry fish disappeared.'
- b) *Mi-nsambu mya Luzolo mi-vid-idi.*  
4-dry fish 4-of Luzolo 4SM-disappear-PST  
'Luzolo's dry fish disappeared.'
- (8) class 5/6  
*di-/ma-*
- a) *Di-nkondo dya Luzolo di-vid-idi.*  
5-banana 5-of Luzolo 5SM-disappear-PST  
'Luzolo's banana disappeared.'
- b) *Ma-nkondo ma Luzolo ma-vid-idi.*  
6-banana 6-of Luzolo 6SM-disappear-PST  
'Luzolo's bananas disappeared.'
- (9) class 7/8  
*ki-/i*
- a) *Ki-nkutu kya Luzolo ki-vid-idi.*  
7-shirt 7-of Luzolo 7SM-disappear-PST  
'Luzolo's shirt disappeared.'
- b) *I-nkutu ya Luzolo i-vid-idi.*  
8-shirt 8-of Luzolo 8SM-disappear-PST  
'Luzolo's shirts disappeared.'

(10) class 9/10  
N-/ (Zi)N-

a) *Nzo ya Luzolo ya nene i-na.*  
9-house 9-of Luzolo 9-of big 9SM-is.  
'Luzolo's house is big.'

b) *Nzo za-Luzolo za-nene zi-na.*  
10-house 10-of Luzolo 10-big 10-are.  
'Luzolo's houses are big.'

(11) class11/13  
*Lu-/tu*

a) *Lu-umbu lwa Luzolo lwa mbote lu-na.*  
11-enclosure 11-of Luzolo 11-beautiful 11-is  
'Luzolo's enclosure is beautiful.'

b) *Tu-umbu twa Luzolo twa mbote tu-na.*  
13-enclosure 13-of Luzolo 13-beautiful 13-are  
'Luzolo's enclosures are beautiful.'

(12) class 14  
*u-*

*Luzolo ke-na u-nkete ko.*  
1PN Neg-be 14-tidy Neg.  
'Luzolo is not tidy/clean.'

(13) class 15  
*Ku-* (verbal and nominal)

a) verbal *Ku-lamba ma-dya.*  
15-cook 6-food  
'To cook the meal.'

b) nominal *Ku-ulu kwa Luzolo ku-tolok-ele.*  
15-leg 15-Luzolo 15-break-PST  
'Luzolo's leg broke'.

*Ma-alu ma-Luzolo ma-tolek-ele.*  
6-leg 6SM-Luzolo 6SM- break-PST  
'Luzolo's leg broke.'

- (14) class 16  
*Va-*  
*Va-zandu ka ve-na atu ko.*  
 16LOC-market Neg 16LOC-be 2people Neg  
 ‘Nobody is at the market.’
- (15) class 17  
*Ku-*  
*Nzumba w-ele ku-zandu.*  
 PN go-PST 17LOC-market  
 ‘Nzumba went to the market.’
- (16) class 18  
*Mu-*  
*Mu-nzo mu-kot-ele nyoka.*  
 18LOC- house 18LOC-enter-PST 9snake  
 In the house the snake entered  
 ‘A snake entered the house.’
- (17) class 19  
*Fi-*  
*Luzolo lumb-idi fi-kaalu fya fyoti.*  
 1PN buy-PST 19-car 19-of 19-small  
 ‘Luzolo bought a small car.’

According to Hockett (1958, cited in Cobertt 1991:1), genders may be defined as classes of nouns reflected in the behaviour of associated words. The examples (5-17) suggest that *Kikongo* forms class genders, namely 1/2, 1a/2a, 3/4, 5/6, 7/8, 9/10 and 11/14, while classes 14, 15, 16 17, 18 and 19 are monogenders. Class 15 (*ku-*) marks both the verbal infinitives and nominals. The latter form their gender with class 6 (*ma-*), which is reproduced in (18).

- (18) b) nominal     *Ku-ulu kwa Luzolo ku-tolok-ele.*  
 15-leg 15-Luzolo 15-break-PST  
 ‘Luzolo’s leg broke.’
- Ma-alu ma-Luzolo ma-tolek-ele.*  
 6-leg 6SM-Luzolo 6SM- break-PST  
 ‘Luzolo’s leg broke.’

As was seen in Table 1 (page 13), however, some nouns that denote human beings are included in class 5/6, which means fruits and human beings share the same classes, as shown in (19) and (20) respectively.

- (19) a) *Se dya Luzolo di- sumb-idi di-nkondo dya-nene.*  
 Ø –father 5-of Luzolo 5SM-buy-PST 5-banana 5-big  
 ‘Luzolo’s father bought a big banana.’
- b) *Ma-se ma Luzolo ma- sum-idi ma-nkondo ma-nene.*  
 6-father 6-of Luzolo 6SM-buy-PST 6-banana 6-big  
 ‘Luzolo’s parents bought some big bananas.’
- (20) a) *Mwa-ana kwel-ele nketo a mu-ndeke.*  
 1a-child got married-PST woman of 1a-white.  
 ‘The child got married to a white woman.’
- b) *A-ana a-kwel-ele a-keto a-mi-ndeke.*  
 2a-children 2SM-get marry-PST 2aSM-woman of 4-white  
 ‘The children got married to white women.’

The example in (20a), the prefix *mu-* in the NP *n’keto a mundeke* ‘white woman’ belongs to class 1, while in (20b) the plural is formed by the prefix from class 4 *mi-* instead of class 2 *a-*; that means, class 2 was disqualified by class 4. This is in accordance with Cobertt (1991:273) when he says that “Bantu languages have several genders, which correspond to semantic classifications only partially: nouns of 1/2 gender are human, but not all nouns denoting human beings belong to class 1/2.”

When an NP is formed by nouns that denote human and non-human, the human agreement is used, as illustrated in (21).

- (21) *Mu-ntu ye nkombo a-kot-ele mu-nzo.*  
 1-person and 9-goat 2SM-enter-PST 18LOC-house  
 ‘A person and a goat entered the house.’

In the example in (21), the noun *mntu* ‘person’ denotes a human being that belongs to class 1, while the noun *nkombo* ‘goat’ denotes a non-human being, therefore belongs to class 9/10. The gender agreement in (21) marks human being. This agrees with Cobertt’s

(1991:273) gender resolution rule, which states that if there is at least one conjunct denoting a rational or rationals, then gender 1/2 agreement will be used. Likewise, Hawkinson and Hyman (1974:148-50) argue that conjoining noun phrases headed by nouns denoting humans and non-humans are acceptable, and in most cases class 2 agreement is used.

Indeed, the discussion above suggests that there is no conventional method of describing semantic models yet, which is why Maho (1999: 63) observes that “[...] all noun classes appear to have what grammarians term ‘miscellaneous nouns’ [...] the only agreed difference among grammarians is that of ‘animate’ and ‘inanimate’.” Given the irregularities and idiosyncrasies of each language, any semantic classification of a noun class system should be regarded as merely tentative rather than a complete work. Many nouns denoting human beings, animals, tools, etc, can be found in a range of classes within individual language, as seen in (19) and (20) respectively.

The status of the prefix of classes 9 and 10 in (10), which is reproduced in (22a and 22b) suggests an abstract complex analysis because the prefix in these two classes can only be distinguished from each other by examining their agreements, as shown in (23).

- (22) a) *Nzo ya Luzolo ya nene i-na.*  
 9-house 9-of Luzolo 9-of big 9SM-is.  
 ‘Luzolo’s house is big.’
- b) *Nzo za-Luzolo za-nene zi-na.*  
 10-house 10-of Luzolo 10-big 10-are.  
 ‘Luzolo’s houses are big.’

(23)	Class 9	gloss	agreement	class 10	gloss	agreement
	<i>Nzo</i>	‘house’	<i>i-</i>	<i>nzo</i>	‘houses’	<i>zi-</i>
	<i>Mbwa</i>	‘dog’	<i>wa-</i>	<i>mbwa</i>	‘dogs’	<i>za-</i>
	<i>Nkombo</i>	‘goat’	<i>wa-</i>	<i>nkombo</i>	‘goats’	<i>za-</i>
	<i>Nkala</i>	‘crab’	<i>wa-</i>	<i>nkala</i>	‘crabs’	<i>za-</i>
	<i>Mpuku</i>	‘mouse’	<i>wa-</i>	<i>mpuku</i>	‘mice’	<i>za-</i>

Since nouns from class 9 and 10 are identical in form (cf. Meinhof 1932:170), they may be analyzed as consisting of a ( $\emptyset$ ) zero prefix and a stem as analysed in (Wa Misha 2006:44). However, such analysis may not be correct because some studies of these two classes in other Bantu languages, as in the case of Zulu, Doke (1930, cited in Miti 2001:27) presents a clear distinction between the two classes. According to Meinhof (1932:170), who also studied noun classes in *Kikongo*, classes 9 and 10 present identical prefixes, namely [*ny-*, *n-*, *m-*, *ń-*]; no examples were given, though. While Doke (cited in Miti *ibid*), observed that the class 9 prefix in *Zulu* consists of variants [*im-*, *in-*, *iny-*, and *ing'-*], class 10 prefix is represented by variants [*izim-*, *izin-*, *iziny-*, and *izing'-*] as illustrated in (24).

(24)	class 9	gloss	class 10	gloss
a)	<i>imbuzi</i>	'goat'	<i>izimbuzi</i>	'goats'
	[ <i>im-</i>	<i>buzi</i> ]	[ <i>izim-</i>	<i>buzi</i> ]
	cl 9	stem	cl 10	stem
	prefix		prefix	
b)	<i>indaba</i>	'affair'	<i>izindaba</i>	'affairs'
	[ <i>in-</i>	<i>daba</i> ]	[ <i>izin-</i>	<i>daba</i> ]
	cl 9	stem	cl 10	stem
	prefix		prefix	
c)	<i>inyoni</i>	'bird'	<i>izinyoni</i>	'birds'
	[ <i>iny-</i>	<i>oni</i> ]	[ <i>iziny-</i>	<i>oni</i> ]
	cl 9	stem	cl 10	stem
	prefix		prefix	

According to Miti, the examples in (24) suggest that class 9 in *Zulu* is represented by [iN-] and class 10 is represented by [iziN-] where /N/ may be realised as a bilabial nasal /m/ if followed by a bilabial stop (e.g. [b, p]), alveolar nasal (e.g. [n]) if followed by an alveolar segment (e.g. [t, d, ts, tz]), palatal nasal (e.g. [ɲ]) if followed by a palatal segment or a vowel (e.g. [j]) and as velar nasal (e.g. [ŋ]) if followed by a velar stop (e.g. [k, g]).

Furthermore, Miti argues that convincing evidence in favour of the analysis of /N-/ as the prefix in classes 9/10 in *Cinsenga*, as may also be the case in *Kikongo*, may be arrived at by comparing *Zulu* classes 9/10 with classes 7/8, as shown in (25).

(25)	class 7	gloss	class 8	gloss
a)	<i>isi-</i> cl 7 prefix	<i>hlalo</i> ‘seat’ stem	<i>izi-</i> cl 8 prefix	<i>hlalo</i> ‘seats’ stem
b)	<i>isi-</i> cl 7 prefix	<i>thupa</i> ‘thumb’ stem	<i>izi-</i> cl 8 prefix	<i>thupa</i> ‘thumbs’ stem

The examples in (25) suggest that the /N-/ in class 9/10 should be regarded as part of the prefix in *Zulu*. For if /N-/ is regarded as part of the stem, there will be no distinction between the class 8 prefix and that of class 10. The same problem would arise with class 8 nouns and class 9 nouns in *Kikongo* as shown in (9a) and (9b), which is reproduced in (26a and 26b).

- (26) (a) *Ki-nkutu kya Luzolo ki-vid-idi.*  
7-shirt 7-of Luzolo 7SM-disappear-PST  
‘Luzolo’s shirt disappeared.’
- (b) *I-nkutu ya Luzolo i-vid-idi.*  
8-shirt 8-of Luzolo 8SM-disappear-PST  
‘Luzolo’s shirts disappeared.’

For that reason the /N-/ in classes 9/10 nouns in *Kikongo* should be regarded as the class prefix and not as part of the stem for such a /N-/ is regarded as a homorganic nasal. This agrees with Hyman (1980:179) when he comments that classes 9/10 have a nasal homorganic prefix in Bantu.

In addition, examples (14), (15) and (16) show that *Kikongo* makes use of locatives, that are reproduced in (27) on the next page.

- (27) a) class 16  
*Va-*  
*Va-zandu ka ve-na atu ko.*  
 16LOC-market Neg 16LOC-be 2people Neg  
 ‘Nobody is at the market.’
- b) class 17  
*Ku-*  
*Nzumba w-ele ku-zandu.*  
 PN go-PST 17LOC-market  
 ‘Nzumba went to the market.’
- c) class 18  
*Mu-*  
*Mu-nzo mu-kot-ele nyoka.*  
 18LOC- house 18LOC-enter-PST 9snake  
 In the house the snake entered  
 ‘A snake entered the house.’

While the diminutive is expressed with class 19, as reproduced in (28).

- (28) Class 19  
*Fi-*  
*Luzolo lumb-idi fi-kaalu fya fyoti.*  
 PN buy-PST 19-car 19-of 19-small  
 ‘Luzolo bought a small car.’

As will be seen in Subsection 4.2.1.1.3, class 18 (*mu-*) also indicates instrument.

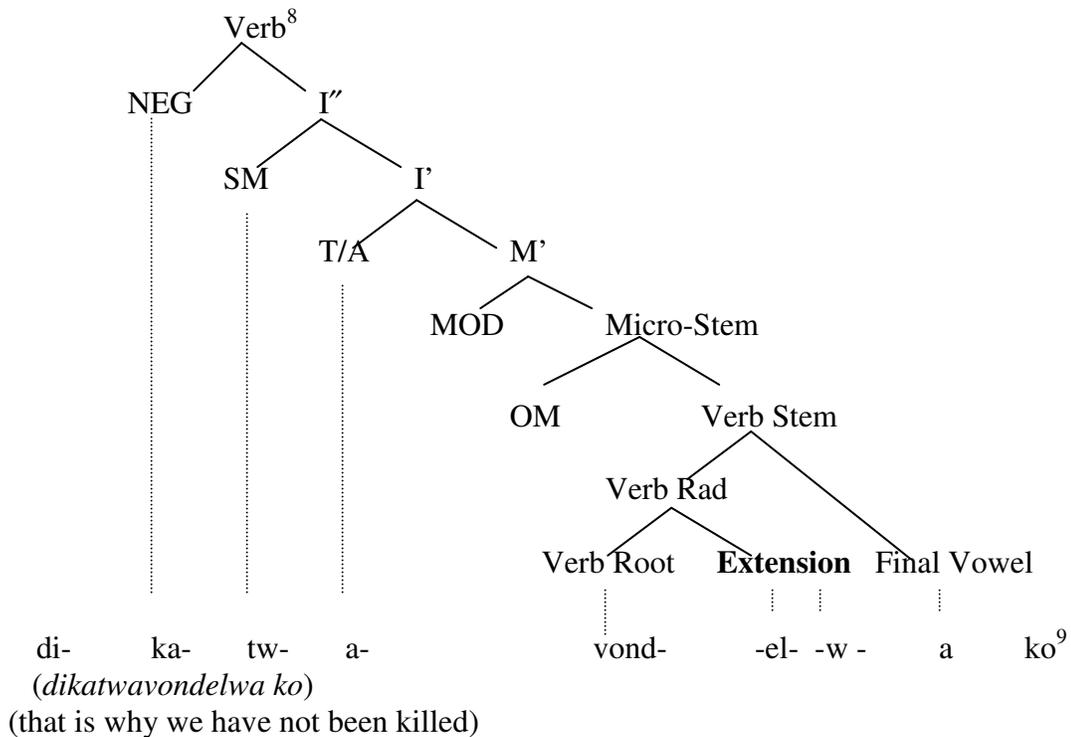
#### 1.4.2.2 The Verb System

Verbal affixes in *Kikongo* are the main concern of this study. It is therefore appropriate to first consider the system of the verb that hosts them in this language, before undertaking the discussion on the various verbal affixes in Chapter IV.

In *Kikongo*, like in many Bantu languages, the verb has a robust structure traditionally, referred to as agglutinative, which accommodates affixation of variety of morphemes both to the left of the root (prefixes) as well as to the right of the root (suffixes) before the final vowel as illustrated in Figure 6 (page 25). Furthermore, the verb in *Kikongo* has two types, namely base verb and derived verb.







**Figure 6:** Bantu verb structure as presented in Matambirofa (2003:246)

Prefixes and suffixes encode syntactical information, which includes the expression of negation, tense/aspect, verbal affixes, modals and conditional markers. Many of such prefixes and suffixes are attached before and after the verb root (VR), which is the central element, as indicated above.

Furthermore, Figure 6 illustrates that OM is part of the verb structure. In fact, all Bantu languages allow at least one object to be marked on the verb allowing that object to be omitted or dislocated see also example 3a (page 13). The morpho-syntactic status of OMs was the subject of debate (cf. Wald 1970; Bergvall & Whitman 1982) among others, but the debate was resolved in favor of a pronoun analysis by Mchombo (1984) and especially in Bresnan and Mchombo (1987). These scholars argued that Bantu OMs are pronominals with clitic status, which are incorporated into the verb structure. Nowadays this conclusion is broadly assumed in the Bantu literature.

It should be noted that, although Figure 6 is generally used by generative linguists (cf. Matambirofa 2003; Mchombo 2004:70), its application depends on the specificities obtaining in particular languages. Thus, in *Kikongo*, for example, negation is marked by *ka-* that precedes the verb root and by *-ko* that follows the final vowel. Furthermore, in Figure 6, *di-* is part of the complex verb structure, although it does not seem to have a slot. In fact, Nurse (2003:90-91) argues that

the initial verb structure expresses [...] two categories common to many Bantu languages, negative and relative, but individual languages express a range of other categories at initial because this is a slot where new material often becomes grammaticalised [...]. The final also includes a small, closed set originally having to do with mood and aspect, but now including negation and tense in some languages.

Although this is presented in detail on Chapter IV, while dealing with the analysis of verbal affixes in *Kikongo*, it is important to consider the effects as to verbal affixes that are attached to the verb root. According to (Guthrie 1962:107), three kinds of verbal affixes may be found in Bantu languages: first, those that can introduce an object and, thus increase the valency of the verb; second, those that can remove an object and third, those that do nothing, as shown in (34).

- (34) a) *Luzolo u-ta lamb-ulul-a ma-dya.*  
 1PN SM- be -cook- again- PRES 6-food  
 ‘Luzolo is cooking the meal again.’
- b) *Luzolo u-ta lamb-il-a aana ma-dya.*  
 1PN SM- be cook-APPL-PRES 2-child 6-food  
 ‘Luzolo is cooking the meal for the children.’
- c) *Luzolo u-ta lamb-is-a aana ma-dya.*  
 1PN SM- be cook-CAUS-PRES 2-child 6-food  
 ‘Luzolo is causing children (to) cook the meal.’
- d) *Ma-dya ma-lemb-w-e.*  
 6-food 6SM-cook-PASS-PST  
 ‘The meal was cooked.’

- e) *A-ana a-ki-lamb-idi ma-dya.*  
2-children 2SM-REFL-cook-PST 6-food  
'The children cooked the meal themselves.'
- f) *A-ana a-wan-an-e va-zando.*  
2-child 2SM-meet-REC-PST 17LOC 5-market  
'The children met each other at the market.'
- g) *Luzolo mon-ek-ene mu-nzila zandu.*  
1PN see-STAT-PST 18LOC- 9 way 5 market  
Luzolo made visible in the way to market  
'Luzolo appeared on the way to the market.'

Looking closely at (34), one may notice that in (34a), the suffix *-ulul* did not affect the predicate argument structure; it simply adds the meaning 'again'. In (34b) and (34c), the morphemes *-il-* and *-is-* introduced an object, *aana* 'children'; while in (34d), (34e), (34f) and (34g), the morphemes *-w-*, *-ki-*, *-an-* and *-ek-* suppressed and bound the object.

### 1.4.2.3 The Vowel System

*Kikongo* displays five vowel sounds, namely: front closed [i], front back [u], front mid-open [e], back mid-open [o] and open central [a], as represented in the left side of the trapezium in Table 2.

Closed	i		u	ii		uu
Mid-open	e		o	ee		oo
Open			a			aa

**Table 2:** Kikongo vowel phonemes

Vowels in *Kikongo* hold quantity opposition; that is, they make a distinction between short vowels [i], [u], [e], [o], [a] and long vowels [ii], [uu], [ee], [oo] and [aa], as demonstrated in the right side of the trapezium in Table 2. This phenomenon has been

scarce in Bantu languages, as Meeussen (1979:1) comments: “Nowhere in the reconstruction of Meinhof, Dempwolf, Humbueger, or Bourquim is there any mention of an opposition in Proto-Bantu between long and short vowels.” This linguist continues to argue that it was only after the appearance of publications, such as those by Laman (1936) on Kongo and Burssens (1939) on Luba-kasay, in which vowel length was carefully noted, that it became apparent that this phenomenon was found in Bantu. The examples in (35), aim to illustrate this.

- |      |    |              |                   |
|------|----|--------------|-------------------|
| (35) | a) | <i>kooko</i> | ‘hand’            |
|      |    | <i>koko</i>  | ‘masculinity’     |
|      | b) | <i>yaala</i> | ‘to govern’       |
|      |    | <i>yala</i>  | ‘to expand’       |
|      | c) | <i>suka</i>  | ‘to get old’      |
|      |    | <i>suuka</i> | ‘to get up early’ |

The semi-vowel sounds [y] and [w], in *Kikongo* are obtained from the gliding process. That is, the closed front [i] combined with mid-open front [e] results in *ye*, with mid-open back [o] it results in *yo* and with central open [a] results in ‘*ya*’. Likewise, front back [u] combined with central open [a] results in *wa*, with mid-open back [o] it results in *wo*. As will be seen in Section 1.6, the earlier records of *Kikongo* words by missionaries (cf. the work of *Cardoso*, cited in Doke 1969:8-9) and some books written after independence (cf. *Sambu kya Lumingu* by Father *Afonso Nteka*) did not observe these rules, as the writing resorted to Portuguese spelling rules.

#### 1.4.2.3.1 Vowel Harmony

As Trask (1996:383) correctly observes, vowel harmony is the phenomenon in which only certain combinations of the language’s vowel phonemes are permitted to occur within some specified phonological domains, most often a single phonological word. As examples (36) and (37) suggest, vowel harmony is common in *Kikongo* and may help explain why the applicative and the causative affixes are realized as *-el-/il-* and *-es-/is* respectively.

36)	a)	<i>-lamba</i>	‘cook’	<i>lamb-il-a</i>	‘cook for’
		<i>-suumba</i>	‘buy’	<i>suumb-il-a</i>	‘buy for’
	b)	<i>-vova</i>	‘speak’	<i>vov-es-a</i>	‘cause to speak’
		<i>-zola</i>	‘love’	<i>zol-el-a</i>	‘love for’
		<i>-leeka</i>	‘sleep’	<i>leek-es-a</i>	‘cause to sleep’

The examples in (36b) suggest that if a VR has mid-open front [e] and mid-open back [o], the next vowel must convert into mid-open front [e]. Also a VR in which the last consonant ends in bilabial nasal [m] and alveolar nasal [n] forms the perfective and applicative form in *-in-* or *-en-* details on these issues will given in Chapter IV. Thus, Katamba (1989:211) defines this phonological phenomenon as a process whereby words are required to share one or more phonological properties.

The examples above are verb-to-verb derivation where the derived suffixes hold two allomorphs. The verbs in the right hand column are derived from those in the left-hand column via a suffixation process of the so-called applicative and/or causative with the form of *-il-*, *-el-* and *-is-*, *-es-* respectively. As was said before, in *Kikongo*, the distribution of the allomorphs of the derivation suffixes is determined by the height of the first vowel of the root. This means that if the first vowel of the root is mid-open (/o/, /e/), the suffix will take the mid-open front sound /e/. In other contexts the suffix will take sound /i/. The same is true of the perfective, as shown in (37a) and (37b).

(37)	a)	<i>-vanga</i>	‘to do/make’	<i>vang-il-a</i>	‘do/make for’
		<i>-vonga</i>	‘to get fat’	<i>vong-el-a</i>	‘get fat for’
	b)	<i>-vova</i>	‘to speak’	<i>vov-ele</i>	‘spoke’
		<i>-seva</i>	‘to laugh’	<i>sev-ele</i>	‘laughed’

#### 1.4.2.4 Consonant System

*Kikongo* displays a variety of sounds, including plosives, fricatives, affricates, nasals, laterals and semi-vowels, pertaining to the consonant system. Plosives and fricatives are also subdivided into orals, aspirates and pre-nasals, as shown in Table 3 on the next page.

		Place of articulation								
		Bilabial	Labio-dental	Dental	Alveolar	Post-Alveolar	Palatal	Velar	Glottal	
Manner of articulation	<b>Plosive</b>	Voiceless	P			t			k	
		Aspirate	p <sup>h</sup>			t <sup>h</sup>			k <sup>h</sup>	
		Voiced	B			d				
	mb				nd			ŋg		
	<b>Fricative</b>	Voiceless		f		s				
		Aspirate		f <sup>h</sup>						
		Voiced		v		z				
			ɱβ							
	<b>Affricate</b>	Voiceless				nts				
		Voiced				ndz				
	<b>Nasal</b>		m			n		ɲ		
	<b>Lateral</b>					l				
	<b>Semi-vowel</b>		w					y		

**Table 3:** The Kikongo consonant system

In orthography, the alveolar lateral [l] is in allophonic variation with the alveolar plosive [d] when preceded by a front, closed vowel phoneme [i], as exemplified in (38). However, the alveolar lateral [l] should not be changed to alveolar plosive [d] after /a, o, u, e/.

(38)	verb				gloss	
	<i>sala</i>	>	<i>sal-il-a</i>	>	<i>sadila</i>	‘work/work for/at’
	<i>katul-a</i>	>	<i>katul-i</i>	>	<i>katudi</i>	‘take away/took away’

When precedes bilabial nasal /m/ and alveolar nasal /n/, unvoiced stops and fricatives in *Kikongo* produce aspiration, as illustrated in (39a), whereas voiced stops become nasalized, as seen in (39b) on the next page.

(39)	a)	<b>Example</b>	<b>Phonetic Transcript</b>	<b>Gloss</b>
		<i>mfumu</i>	/f <sup>h</sup> umu/	‘chief’
		<i>nsambu</i>	/ntshambu/	‘blessing’
		<i>mputu</i>	/p <sup>h</sup> utu/	‘poor’
		<i>nkaaka</i>	/k <sup>h</sup> aaka/	‘grandfather/mother’
	b)	<i>mbongo</i>	/mbonɔŋo/	‘money’
		<i>nvangi</i>	/ŋβaŋgi/	‘creator’
		<i>nzala</i>	/nzala/	‘nails’
		<i>ngunga</i>	/ŋguŋga/	‘bell’

*Kikongo* nouns that begin with such consonant clusters are mostly included in class 9/10, as exemplified in (40a) and (40b)

- (40) a) *Mfumu zi-tatu zi-fw-idi.*  
 10-Chief 10-three 10-die-PST  
 ‘Three chiefs passed away.’
- b) *Nkombo za-Luzolo zi-vid-idi.*  
 10-Goats 10SM-1 NP 10SM- disappear-PST  
 ‘Luzolo’s goats disappeared.’

Phonologically, *Kikongo* acknowledges the following consonant sounds:

[ɲ]	<i>nyoka</i>	‘snake’
[ŋg]	<i>ngunga</i>	‘bell’
[k <sup>h</sup> ]	<i>nkaaka</i>	‘grandfather/mother’
[f <sup>h</sup> ]	<i>mfumu</i>	‘chief’
[p <sup>h</sup> ]	<i>mpangi</i>	‘brother/sister’
[t <sup>h</sup> ]	<i>ntangu</i>	‘time/sun’
[ŋβ]	<i>mvangi</i>	‘creator’
[nts]	<i>nsapatu</i>	‘shoes’
[mb]	<i>mbongo</i>	‘money’
[nd]	<i>ndozi</i>	‘dream’
[ndz]	<i>nzo</i>	‘house’

[f]	<i>futa</i>	‘to pay’
[v]	<i>vutula</i>	‘to give back’
[b]	<i>baaka</i>	‘to tear’
[p]	p <sup>a</sup>	
[m]	<i>mankondo</i>	‘bananas’
[n]	<i>ńnata</i>	‘to take’
[s]	<i>sala</i>	‘to work’
[t]	<i>taata</i>	‘father’
[d]	<i>diinu</i>	‘tooth’
[l]	<i>lwaka</i>	‘to arrive’
[nl]	<i>nleembo</i>	‘finger/toe’
[k]	<i>kaya</i>	‘to offer’
[j]	<i>yoka</i>	‘to burn’
[w]	<i>wana</i>	‘to meet’

Contrary to some other Bantu languages, cf. *Chichewa* (Mchombo 2004:11) and *Tsonga*, (Matsinhe 1994), *Kikongo* does not use the approximant alveolar [r] in its consonant inventory. Borrowed words with the above sound are adapted to the lateral, alveolar [l], as shown in (41).

- (41) ‘Radio’ from Portuguese is converted into *ladi*  
‘Carro’ from Portuguese is converted into *kaalu*

With regard to tone, *Kikongo* uses pitch to indicate the lexical. Basically, two levels of tone are found in *Kikongo*, namely high (H) and low (L), as demonstrated in (42).

- (42) a) *Zínga* ‘to live’  
b) *Zìnga* ‘to wrap’  
c) *káánga* ‘toast’  
d) *kàànga* ‘close’

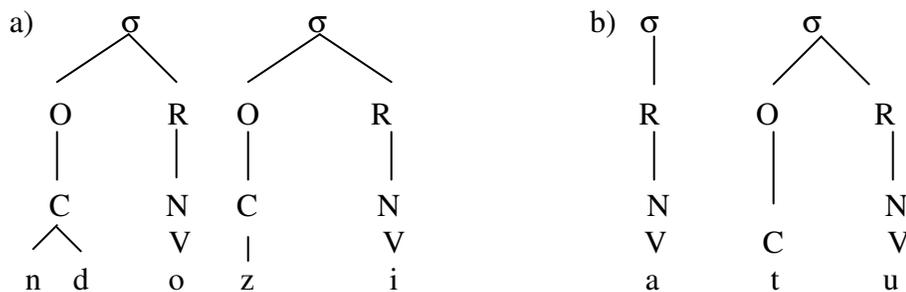
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<sup>a</sup> This sound is only used in word of foreign origin (see also Meinhof 1932)

### 1.4.2.5 Syllable Structure

Syllable structure is the requirement and constraint which determines the shapes of possible syllables, usually formulated in terms of sequences of consonants and vowels as well as in terms of onset plus rhyme, or onset plus nucleus plus coda (Trask 1996:346). The onset is the initial part of the syllable structure and is usually represented by a consonant. The nucleus is the part of the syllable that carries the pitch (the most prominent part of the word), while the coda is the part of the syllable that comes after the nucleus.

Most languages through out the world allow two types of syllable structure: the CVC and CV sequences. When the syllable ends in a vowel sound (without coda) it is called an open syllable, as is the case in most Bantu languages, and when it ends in a consonant (with coda) it is called a closed syllable, as in the case of English. Although words in *Kikongo*, as in the case of many Bantu languages, are typically composed of the type CV-CV as shown in Figure (7a) below; also syllable structure in this language may vary from V- to CV-CV, as Figure (7b) indicates.



**Figure 7:** Syllable structure in Kikongo

As will be seen later, CV- roots can be expanded with various suffixes that normally have a -VC- structure and prefixes with a CV- structure. In fact the word *ndozi* ‘dream’ in (a) is formed out of two syllables, of which the first is represented by a complex onset composed of the alveolar nasal [n] and the alveolar plosive [d] and the nucleus is represented by the mid-open back [o] while the second syllable consists of an onset represented by the fricative alveolar [z] and the nucleus is represented by a closed front

[i]. The word *atu* ‘people’ in (b) is composed of two syllables but the first syllable is only represented by the open central [a], which is also the rhyme, while the second syllable is composed of an onset represented by the plosive alveolar [t] and the rhyme which is represented by the closed back [u].

This section provided a brief linguistic analysis of *Kikongo*, namely the noun class system, the verb system, the vowel and consonant sounds, and the syllable structure. The following section will deal with the research question.

## 1.5 The Research Question

A research question is defined as the questions that the researcher will try to answer in a study (Brown & Rodgers 2004:242). This intellectual exercise is absolutely essential and academically useful because it helps the researcher to build up a single and substantiated argument. In addition, the research question allows the researcher to define the objectives of the research and its scope. This is bolstered by Selinger and Shohamy (2004:44) when they state that “there is a close relationship between the development of a research question and the fine-tuning of the research question that will contribute to reliable, valid and significant results.”

In Section 1.3 it is stated that due to the colonial policy and the civil war that devastated the country after independence, *Kikongo* has not been sufficiently studied. Consequently, little is known about verbal affixes as well as the sequence in which they occur in the VR in this language. Therefore, in order to undertake this study, three research questions are posed:

- a) What form does each *Kikongo* verbal affix exhibit?
- b) What effects do they have on the VR they are attached to?
- c) What constraints are imposed on verbal affix ordering in *Kikongo*?

The first question intends to review the form of verbal affixes in *Kikongo*. The second and third questions seek the answer about the effect that each verbal affix has on the

argument structure when attached to the VR. In order to achieve this desideratum, a questionnaire was devised and given to *Kikongo* native speakers (see Appendix A). In addition, more than 80 verbs were collected and tested with the proposed verbal affixes (as shown in Appendix B).

To reiterate: the reason for this scholarly exercise is to enable the researcher to delimit the research in terms of the number of phenomena to be examined and the scope. This is in line with Welman *et al* (2006:27) when they argue that “after formulating the research problem, the researcher should translate the research problem into a researchable hypothesis in order to:

- a) Discuss the problem, its origin and the objectives in seeking a solution;
- b) Examine data and records concerning the problem (also known as secondary research);
- c) Review similar studies (literature review);
- d) Interview relevant native speakers and individuals on a limited scale to gain greater insight into the practical aspects of the problem.”

## **1.6 Context of the Research**

As stated in Section 1.3, the colonial authorities encouraged the use of *Kikongo* for church documents and religious instruction, as well as to establish communication with local people who could not speak Portuguese, rather than for academic purposes. In reducing the language to writing, however, the Portuguese language system was used; consequently, many of these works, for instance Cardoso’s 1624 translation of Jorge’s *Doutrina Cristãa*, (cited in Doke 1969:09; and Mia 1936), contain Portuguese spelling, (e.g. *quicongo* instead of *Kikongo*, *ia* instead of *ya*, as in *Nzo ia Nzambi* instead of *Nzo ya Nzambi* ‘church’).

In addition, indigenous languages were not used in formal instruction, or business and most African names were adapted to Portuguese spelling, e.g. *Bié* instead of *Viyé*, *Uige* instead of *Wiji*<sup>10</sup>, *Mbiavanga* instead of *Mbiyavanga*, to mention only a few.

As was previously referred to, the above situation remained unchanged in post-independence Angola. Those who could only speak indigenous languages had little chance to be accepted in society and/or get a job in either the public or the private sector; indeed, the most unpleasant effect was that these citizens were regarded as strangers. Ngũgĩ (1987) criticises this behaviour when he says that “the possibility of using mother-tongues provokes a tone of levity in phrases like ‘a dreadful betrayal’ and ‘a guilty feeling’; but that of foreign languages produces categorical positive embrace.”

Moreover, until recently, a child could not be registered with African names. As a result, currently most Angolan citizens, mainly those born in urban areas, have Portuguese names as well. Ngũgĩ (op. cit) disapproves this attitude when he says that “even at their most radical and pro-African position in their sentiments and articulation of the problems they still took it as axiomatic that renaissance of African culture lies in the languages of Europe.”

*Kikongo*, like the other Bantu languages of Angola, is predominantly used in the rural areas, in churches and sometimes in music. In terms of research activities, as will be seen in Section 2.5, few studies are available.

It is also important to mention that the Institute of National Languages, created in the 1980s, has been experiencing great difficulties in promoting the Bantu languages of Angola, indeed, its activities are hardly known across the country.

As mentioned earlier, in 2001 the National Assembly passed decree 13/2001, which assigns the Ministry of Education the task of introducing the teaching of indigenous languages in schools and some of these languages are already being tested in pilot studies in some schools. Two Departments of African Languages and Literature were created at

the University of Agostinho Neto, but no referential study materials are available for either teachers or learners. This compounds the problem that indigenous language teachers do not benefit from any formal training. However, one of the criteria for admission is to be fluent in the language one intends to teach. The same criterion is true for the journalists of *N'gola Yeto*, a radio station that broadcasts news in indigenous languages, as well as for the Angolan television.

## **1.7 Objectives of the Study**

In Section 1.3 it was mentioned that because of the colonial policy against the Bantu languages of Angola and the armed conflict that devastated the country soon after independence, *Kikongo*, as in the case of other Bantu languages of Angola, has not been sufficiently studied. As a result little research about verbal affixes in *Kikongo* is available. Considering this fact, this dissertation will on the whole pursue the following objectives:

### **1.7.1 General Objectives**

- To analyze the form and function of the verbal affixes in *Kikongo*, namely applicative, causative, passive, reciprocal, reflexive and stative. The main reason for choosing these six affixes is that while some – applicative and causative – increases the valency; others – passive, reciprocal, reflexive and stative – reduce the valency of the predicative argument structure.

### **1.7.2 Specific Objectives**

- To determine the effect of the above verbal affixes on the predicate argument structure, as well as their interaction with different types of verbs;
- To establish the possible co-occurrence of the above affixes in *Kikongo*.

Verbal affixes in Bantu have featured prominently in the study of syntax in recent years (Bresnan & Kanerva 1989; Alsina & Mchombo 1993; Mchombo 2004, 1993; Mchombo & Firmino 1999; Bresnan & Moshi 1993; Matsinhe 1992, 1994; Baker 1988a, 1988b; Marantz 1984; Simango 1995; Matambirofa 2003; Ngonyani 1996, 1998; to name but a few). The reasons are twofold: firstly, their effects on the predicate argument structure of the host verb; secondly, their status and place in the study of syntax in particular and of grammar/linguistics in general, and taking this into consideration the verbal affixes mentioned above will be examined.

### **1.8 Significance of the Study**

This study is regarded as a contribution to the development of Bantu languages, especially to the *Kikongo* language. More importantly, as seen in Section 1.6, some indigenous languages are being introduced in schools, and *Kikongo* is one of those languages, but reference grammars in such languages are practically non-existent. Therefore, this study will undoubtedly be useful for both teachers and learners of *Kikongo*.

### **1.9 Organisation of the Study**

This dissertation contains the following chapters:

**Chapter I** focuses on the research background. Section 1.1 introduces the chapter while Section 1.2 gives information about the country; Section 1.3 states the research problem. Section 1.4 deals with the *Kikongo* language; Section 1.5 describes the research questions. In addition, Section 1.6 focuses on the context of the research while Section 1.7 focuses on the objectives of the study; Section 1.8 reflects on the relevance of the study while Section 1.9 deals with the organisation of the study.

**Chapter II** addresses a review of relative literature and is divided into distinct sections. Section 2.1 introduces the chapter and Section 2.2 reviews the work of descriptive

grammarians in the study of verbal affixes in Bantu languages. Section 2.3 gives an historical background to theories of syntax while Section 2.4 discusses the status of those theories in the studies of verbal affixes in Bantu languages, while Subsection 2.4.6 revises the earlier studies of the six verbal affixes. Section 2.5 focuses on earlier studies of verbal affixes in *Kikongo*. Each section is an account of what accredited scholars have studied on the subject under investigation. The major goal is to review what knowledge and theoretical framework have been established (a) in descriptive studies, (b) in theories of syntax in relation to Bantu verbal affixes, and (c) in *Kikongo*. Throughout this process, the principles of critical appraisal are applied. Finally, Section 2.6 states the reason for this study, followed by the summary.

**Chapter III** discusses the research methodology used in this study. Section 3.1 introduces the chapter, while Section 3.2 shows the research design, including the three strategies used, namely (i) introspection, (ii) elicitation and (iii) corpus linguistics. Section 3.3 focuses on the theoretical framework used in order to analyse the verbal affixes, followed by the summary.

**Chapter IV** deals with the analysis of the form and function of verbal affixes in *Kikongo*; Section 4.1 is an introduction to the chapter. Section 4.2 gives the analysis of the form and function of the six verbal affixes. This section is divided into three main subsections, which cover affixes that increase the valency; affixes that decrease the valency, and double object. Section 4.3 examines the possible affix ordering in *Kikongo* and the constraints and limitations, followed by the summary.

In **Chapter V** conclusions about the study are drawn and suggestions concerning further research on *Kikongo* are made.

## CHAPTER II: LITERATURE REVIEW

Most evolved characteristics of organisms show aspects of poor design due to historical accident. It would be surprising if languages were different. [...] the existence of morphology, distinct from syntax, is a good example of poor design. Yet there are things that morphology is good at which help account for otherwise mysterious and apparently functionless morphological phenomena.  
(McCarthy 2004:141)

### 2.1 Introduction

In Chapter I it was seen that Bantu verbal affixes have been subject to substantial research in both descriptive and theoretical orientation. The reason for this body of research rests upon the fact that when attached to a VR, affixes have three effects: they can add to or reduce the valency, or do nothing. However, the same cannot be assumed with certainty in *Kikongo*, for no similar study has been conducted.

Bearing this in mind, this chapter will review the scholarship that pertains to the early studies of verbal affixes in Bantu languages. At this stage the focus is on the landmark contributions, firstly on those of descriptive grammarians, for example Meinhof (1932), Meeussen (1967), Guthrie (1967-71), Givón (1971), Diarra (1990) and Dereau (1957)<sup>11</sup>; secondly on those of generativists and relationalists who have focused their studies on individual affixes and in particular language(s), for example Baker (1985a, 1988a), Marantz (1984, 1993), Li (1990), Alsina (1992), Mchombo (2004), Bresnan and Moshi (1993), Ngonyani (1996), Hyman (2002), Matsinhe (1992, 1994), Matambirofa (2003) and Simango (1995). Some of these studies, if not most of them, will occasionally be used/referred to in appropriate sections throughout this study.

The reason for reviewing the current literature is that it will firstly give a better understanding of what has been done so far in the field and secondly help avoid unnecessary repetition that may arise in this study.

This diachronic look on the theory of syntax is the result of changes that have been witnessed over time in terms of the research line changing from descriptivism to theoretical linguistics, as Matambirofa (2003:33) puts it:

Bantu descriptive grammarians [...] are important for the comparative data that their studies avail in wider context of Bantu linguistics in southern Africa before the advent of Generative linguistics which seem to have currently taken over the floor as seen by the studies of southern African linguistics.

Thus the following section is on the earlier work of descriptive grammarians.

## **2.2 Early Studies of Bantu Verbal Affixes by Descriptive Grammarians**

### **2.2.1 Introduction**

The idea that verbal affixes in Bantu languages allow the formation of new types of verbs with a new meaning has long been discussed by some descriptive grammarians. The same grammarians had agreed that the form and the number of affixes that such a VR hosts may differ from language to language. However, the common denominator is the fact that their effects on the predicate argument structure are similar. The following section will outline the contribution of descriptive grammarians to the study of verbal affixes in Bantu languages.

### **2.2.2 Meinhof (1948)**

Meinhof is one of the first scholars who studied verbal affixes in Bantu languages. As cited in Voeltz (1977:1), Meinhof's reconstructed series of verbal affixes are as follows on the next page:

*aka	- hat intransitive function und wechselt mit –eka.
*ala	- mid medialer (neutroaktiver) Bedeutung findet nur beschränkte Anwendung.
*ama	- Bezeichnet das Einnehmen einer Stellung.
*ana	- [hat] reziproke Bedeutung.
*ata	- ist mehrfach belegt, ohne daß eine bestimmte Function allegemain nachgewiesen ware.
*eka	- [ist] als Intransitive –Endung ganz allgemein.
*ela	- [hat] applicative Bedeutung und [wird] für mancherlei ander Bezerhungen gebraucht, die wir in euro-päischen sprachen häufig durch Präpositionen wiedergeben.
*↑ a (a)	- kansativendung.
*↑γ wa	- Passive
*ik	- ist - kausative

**Table 4:** Meinhof's list of verbal affixes quoted from Voeltz (1977:2)

Commenting on Meinhof's list, Voeltz states that he remained uncertain whether such a list was intended as an inventory of Ur-Bantu verbal affix or whether it constituted a typology of extensions that could have occurred in one of the Bantu languages. The same scholar reflects that such a list does not include any reversive form. This fact may be comprehensible if one considers that such constructions of verbal affixes were based on *Zulu*, a language where reversives are fossilized for most part. But if Meinhof had taken other Bantu languages into consideration, then such an omission would be inexplicable.

### 2.2.3 Meeussen (1967)

Meeussen is regarded as one of the forerunners regarding Bantu reconstruction. He provided a PB reconstruction considering the verb-to-verb derivational process. Of relevance to this study, Meeussen distinguished two types of affixes: the expansions and the deverbatives, and his list of expansions and deverbatives prove to be sharing similar

properties, which, in turn justify the conclusion that they are all extensions. Meeussen's list is provided in Table 5, below.

Deverbative		Expansions
-i- (and -ic)	causative	u-
-id	applicative	i-
-ik <sup>1</sup> -	impositive	im- and om
-ik <sup>2</sup> -	neuter	un-
-am-	stative	ing-
-an	reciprocal	ong-
-at-	contactive	ab-
-ú-	passive	ag-
-ud-(trans)	reversive	ut-
-uk- (intrans)	reversive	ak-
		id-
		ik-
		am?
		at-?
		ud-
		uk-

**Table 5:** Meeussen's (1967:89-92) list of deverbatives and expansions

Meeussen (1967:89) describes expansions as having a structure of [V(N)C] in which V may be represented by any vowel and provides the structure of derivational extensions as [VC-], but Meeussen has not named the expansions as he did with the deverbatives. In addition to that, although he commented that there are intermediate cases, in which the expansions are formally identical with some of the suffixes, he did not specify the context in which they should be used.

With reference to the combination of verbal affixes, Meeussen (1967:92) originally suggested that a verb root can bear more than one suffix, but such sequences are difficult to illustrate with reconstructed basis, since these forms are productive and highly unstable. But later on he suggested a sequence of suffixes, as represented in (43).

- (43) (ad) at am/ik, ud/uk, an, id, i, ú

The example in (43) reads as follows: contactive comes closer to the VR then neuter/impositive, reversive (transitive) and then reversive (intransitive) followed by applicative, causative and finally an expansion. Considering the validity of such orderings and taking into account the data in Bantu languages in general (see Ngunga 2000; Mathangwane 2001; Hyman 2002) and in *Kikongo* in particular (cf. Section 4.3) one may assume that such ordering does not display a canonical form.

Nevertheless, the merit in Meeussen's contribution lies in the fact that he provided solid guidelines (PB) which are still valuable and widely used (see Ngunga 2000, Miti 2006, Ntongo 2006, among others).

#### **2.2.4 Guthrie (1967-71)**

Another scholar who made a valuable contribution to the study of verbal affixes in Bantu languages is Malcolm Guthrie. Guthrie's (1967-71) seminal work – Bantu Comparative, which appeared in four volumes in 1967 (Vol. 1), 1970 (Vol. 3 & Vol. 4) and 1971 (Vol. 2) remains influential in understanding the status of verbal affixes in Bantu languages. As in other related areas, Guthrie's discussion on verbal affixes is far-reaching, because firstly he studied a good number of Bantu languages, including *Kikongo*; secondly, he provided significant information with examples from those languages. He typified two kinds of evidence in reconstructing verbal affixes for Bantu languages: in the first evidence Guthrie considered data from a range of languages in which a simplex-CV (N) C- stem is matched by a form which is enlarged by a –VC extension; in the second he abstracted verbal affixes from complex reconstructions with the canonical form -CV (N) CV (N) C- by suggesting that the underlined segment constitutes an extension and distinguished three main criteria in identifying an extension, as shown in (44).

- (44) a) The shape;  
b) The meaning;  
c) The function.

This study follows Guthrie’s criteria, which can be judged as a reference in the study of any Bantu language.

### 2.2.5 Givón (1971)

Following the work of Meinhof, Meeussen and Guthrie, Givón hypothesised that complex predicates are derived from an abstract series of atomic predicates. This is widely accepted and considered in the study of Bantu languages. Givón (1971, cited in Voeltz 1977:15) proposes a possible diachronic origin of Bantu language verbal affixes in suggesting that apart from reciprocal, nearly all verbal affixes are derived from historical verbs. Givón agrees that verbal affixes in Bantu languages originated as verbs that participated in serial verb constructions, regular in the *Kwa* languages of West Africa with which Bantu languages are associated. In the case of Bantu languages, these verbs underwent morphological alterations, reducing them to mere affixes. Givón divided this historical movement into two distinct periods.

The first period is termed ‘Pre-Bantu’ where the precursor language was believed to have an SOV word order with the complement sentence to the left of the verb in the higher sentence (op. cit.). The Bantu verbal affixes developed when the verb in the higher sentence became affixed to the verb of the lower sentence, as exemplified in (45).

- (45) Stage 1. [S NP1 [NP[S NP (NP) V2]NP] V1 S]  
 Stage 2. [S NP1 NP2 (NP) V2 + V1 S]  
 Stage 3. [NP1 NP2 (NP) [V V2 -EXT V]S]  
           S | O | V

During the development of the “pre-Bantu” period, the SOV order remained unchanged. In stage 1, the complement structure did not change while in stage 2 the structure turned into serial in which some verbs were allowed in simplex sequence. As regard stage 3, the higher verb, V1, fused into the lower verb, V2, and it continued to behave as a productive

derivational affix. According to Givón, affixes such as *-il-*, *-ik-*, *-ul-*, *-am-*, *-al-*, *-at-*, *-u-* (see Table 5, page 44) originated from the movement mentioned above. The reciprocal *-an-* was singled out as probably having a different etymology (Voeltz (1977:16). Givón remained silent regarding the reflexive.

The second period is named PB, (to date) the precursor language had moved to an SVO word order. Throughout the aforementioned period, perhaps up to now, the higher verb in part developed into tense/aspect (T/A), found in the vast majority of Bantu verbal structures. Givón's second period is illustrated in (46).

- (46) Stage 4. [S NP1 V1[NP[S NP2 V2 (NP) S] S]  
 Stage 5. [S NP1 V1 ? V2 (NP) S]  
 Stage 6. [S NP1 T/A + V2 (NP) S]

Given that V<sub>1</sub> is believed to function as a modal verb, it can be inferred that stages 4 and 5 may belong to similar synchronical periods. Following the above reasoning, the usual and expected conditions for modal verbs is to be governed by a subject. To be true, the NP1 and NP2 must be similar for this reason and considering the Equi-NP rule<sup>12</sup>, the NP2 will be deleted, as in stage 5.

Indeed, some Bantu languages, such as *Kikongo*, have been undergoing grammaticization of the pronominal OM into an OM agreement, comparable to the one hypothesized in the earlier evolution of Givón. However, according to Bresnan and Mchombo (1987:777), what seems to be the case is that once the pronominal OM of PRED has lost its feature, the functional uniqueness will no longer prevent the co-occurrence of the OM with an NP within the verb phrase. In so doing, such a condition of uniqueness will necessitate that all the pronominal features (number, gender class and person) must be in accordance with the feature of the NP object, as in the example in (3a, page 14), which is reproduced in (47) on the next page.

- (47) Mono *i-n-veen-e madya*.  
 1GS SM-3GS OM-vaana +PST 6-food  
 I I him/her gave 6-food  
 'I gave him/her the meal.'

As regards the nomenclature, it should be noted that throughout the revision of descriptive grammar it has been observed that verbal affixes are regarded as extensions (Guthrie 1967-71, Meeussen 1967, Givón 1971). This definition, however, appears to be misleading because not every morpheme attached to the verb root increases the VR physically. Taking into account their effect on the predicate argument structure, some morphemes reduce the valency on the argument structure. This is in agreement with Matsinhe (1994:168) when he exemplifies that “when [-an-] is attached to a base verb, it binds two arguments together, e.g. the agent and theme.” For that reason, and as this study deals with form and function, the term verbal affix is more appropriate for a number of reasons and it is the one assumed in this study.

This section reviewed the work of descriptive grammarians in the earlier study of verbal affixes in Bantu languages. The bulk of the discussion revolved around their contribution to the study of Bantu verbal affixes and of course the principle of critical appraisal was applied. Next the discussion will focus on the contribution of some theoretical linguists who studied Bantu verbal affixes, namely the applicative, the causative, the passive, the reciprocal, the reflexive, and the stative.

### **2.3 Introduction to Theories of Syntax**

The most significant development in theories of syntax in the 1960s and 1970s is the rise of Generative Grammar. Prior to this, the task of syntacticians was to construct grammars of individual languages, each consisting of a set of particular rules. In other words, languages were discussed among scholars as an abstraction or in texts (Jackendoff 2003, Newmeyer 1996). In the 1960s, Chomsky's (1965) *Aspect of the theory of syntax* set the agenda for the development of generative linguistics and introduced two central concepts relevant to the construction and evaluation of theories of syntax. The first concept regards

the difference between *competence* (the subconscious control of a linguistic system) and *performance* – the speaker's actual use of that linguistic system, i.e. language (Brown *et al.* 2002).

Chomsky observed the obvious fact that a speaker in the real world often makes linguistic errors (for example starting a sentence and then abandoning it halfway through, some slips of the tongue). These errors are not regarded as the main concern in the study of linguistic competence. The task of the linguist, however, becomes studying an idealized version of the language.

An important aspect of Generative Grammar is language acquisition; that is, the definition of how children acquire their language, given that knowledge of language is unconscious. A large body of studies in psycholinguistics, (Deese 1970; Radford *et al.* 1999; Steinberg *et al.* 2001) and in second language acquisition (Ellis 2000; Brown *et al.* 1996) confirms the hypothesis that children acquire grammars in accordance with the core principles of universal grammar.

The second concept is related to the evaluation of theories of grammars. Chomsky made a distinction between grammars which achieved descriptive adequacy and those that went further and achieved explanatory adequacy (Meyer 2002:2). Undeniably, these two concepts are still valid in the analysis of grammars of languages. A descriptively adequate grammar for a particular language defines the infinite set of grammatical sentences in that language, while a grammar which achieves explanatory adequacy gives an insight into the universal properties of language, that result from the innate linguistic structures in the human mind. Therefore, if a grammar has explanatory adequacy, it must be able to explain the various grammatical nuances of the languages of the world as relatively minor variations in the universal pattern of human language. In other words, if universal grammar is genetically encoded in human mind, then the properties of universal grammar may be established on the basis of the study of any specific language, for whatever principles obtain in one language must per definition also obtain in any other language.

In contrast to the advancement mentioned above, Transformation Grammar could not successfully describe some of the issues of verbal affixes in Bantu languages. For example, although passivization in Bantu languages is similar to English in that the subject NP of the sentence in active voice is either eliminated or expressed by an oblique function and the object NP realizes the functional role of subject, Bantu languages do not require setting be + en for the passive formation (Mchombo 2004). Consider the example in (1a), which is reproduced in (48).

- (48) *Mbati mya-mpa mi-sukul-w-e (kwa Madiya).*  
 Ø-trousers 4SM-new 4SM-wash- PASS-PAST  
 ‘The new trousers were washed (by Mary).’

As it can be observed in (48) no insertion of be + en is required in the sentence above, but its counterpart in English sounds ungrammatical. Thus it may be concluded that Transformational Grammar failed to explain the grammars of the Bantu languages adequately. This fact has some detrimental effects on its application in the study of these languages. In an attempt to adequately explain the grammars of natural languages across the world, various approaches have emerged.

The most compelling theories in studies of Bantu verbal affixes are the MP (Baker 1985a), Incorporation<sup>13</sup> (Baker 1988a), Morphocentric (Hyman 2002) and Lexical Functional Grammar (LFG) (Bresnan 2001). The reason for choosing these theories lies in the fact that they have been very active in Bantu verbal affix research activities and an understanding of these approaches will help to choose the one that may best fit the analysis of verbal affixes in *Kikongo*. This idea is borne out by Falk (2001:xi) who observes that “it is a mistake for any student of contemporary linguistic theory to be taught a single theoretical framework as if it represents an overriding consensus in the field.”

Thus, the next section will focus on the status of theories of syntax in early studies of Bantu verbal affixes.

## **2.4 Theories of Syntax and Early Studies of Verbal Affixes in Bantu Languages**

### **2.4.1 Introduction**

As noted in Section 2.1, the study of verbal affixes in Bantu languages has been the subject of a protracted debate that revolved mainly around their status and place in linguistic studies. The centre of discussion has been whether verbal affixes in Bantu languages should be treated within the domain of syntactic (Baker 1985a, 1988a 1988b; Marantz 1984; Li 1990), semantic (Bybee 1985, cited in Hyman 2002) or morphology (Bresnan & Kanerva 1989; Bresnan & Moshi 1993; Hyman & Mchombo 1992; Alsina 1992; Alsina & Mchombo 1993). In what follows, a review of the most influential approaches is undertaken.

### **2.4.2 Incorporation**

In Incorporation, a sub-theory of Government and Binding (GB), verbal affixes (e.g., applicative, causative and passive) are regarded as instances of a syntactic movement whose side effects are grammatical function changing (Baker 1988a:1). This approach involves head-to-head movement and, as such, it is subject to the Head Movement Constraint and Empty Category Principle (ECP<sup>14</sup>) (Simango 1995:81).

As will be seen in Section 2.4.6.1.1, in the analysis of applicatives, Incorporation differentiates between benefactive and instrumental applicatives. The benefactive applicative is regarded as a D-structure preposition, which incorporates into the verb at an S-structure, as shown in Figure 8a (page 59), while the D-structure of instrumental applicative reads that the  $\theta$ -marks directly by the verb, as exemplified in Figure 8b (page 59). Incorporation distinguishes between two types of causatives: The first is derived by moving VP to COMP before incorporating the verb into the main verb, whilst the second type is formed by moving the verb alone from the head position to another head position, which means from I to C the higher V, as illustrated in Figures 9 (page 63) and 10 (page 64) respectively.

With reference to the passive, this approach considers the movement of a word as the focus of grammatical function changing processes. The primary sense of ‘passive clause’ in Incorporation is any clause that contains a passive morpheme, where this is defined as an argument which either appears in INFL or is required to incorporate into INFL to force V-I incorporation (Baker 1988a:356). This will generally force the so-called V-I incorporation, and subsequently the passive will have a lexical root to attach to at the surface structure. As will be seen in Chapter III, this movement constitutes a violation of the lexical integrity principle.

The merit of this approach lies in that for the very first time a transformational approach account for data from languages across the world, including Bantu languages, was taken. Besides, Incorporation may account for the effects of the verbal affixes on the argument structure. Nevertheless, this approach failed to deal with the nominalized forms of affixes found in most of Bantu languages, including *Kikongo*. As will be seen in Chapter IV, in *Kikongo*, once an applied verb, such as *sambila* ‘to pray for’, is derived, one can obtain a nominalized form, *sambilu* ‘church/temple’. Therefore one may say that this approach has syntactic orientation and nominalizations are morphological processes. A syntactic theory may not deal with nominalizations satisfactorily if regarded as morphological processes. Also, Incorporation could not deal with the range of verbal affixes found in Bantu languages.

### **2.4.3 Mirror Principle (MP)**

Like Incorporation, the MP is a theory of grammatical relations whose focal point rests on syntactic explanations rather than morphological ones. Baker (1985a:375) proposes that “morphological derivations must directly reflect syntactic derivations and vice versa”. And since verbal affixes (applicatives, causatives, passives, etc) are associated with syntactic operations, their orderings with regard to the other affixes are assumed to mirror the order in which the corresponding syntactic operations apply. Furthermore, Baker argues that the existence of suffixes CAUS-APPL and the way in which they combine explain the interaction between morphology and syntax.

In reaction to Baker, Alsina (1999:1) argues that there have been two kinds of approaches to build the MP into linguistic theory: firstly the lexicalist approach represented by Grimshaw (1986), and DiSciullo and Williams (1987), among others, assumes that all morphology takes place in the lexicon, and that the MP is just a consequence of the assumption that words are formed by combining morphemes with one another, which contribute semantic and morphosyntactic, as well as phonological information. For Alsina, such an approach gives an explanation of the lexical character of morphologically complex forms, but it fails to account for many syntactic effects of morpheme combinations.

Secondly, the syntacticist approach represented by Baker (1988a) allows that words are formed in syntax, and so, many phenomena that reveal a tight interrelation between syntax and morphemic structure are explained by having the syntax execute the morphological operations involved. According to Alsina neither approach explains the lexical properties of forms hypothetically derived in the syntax.

Therefore, he proposes a theory, described in Section 3.3.1, that accounts for both the lexical and syntactic properties of morpheme combinations and posits a principled system of syntax constraint interacting with composition argument structures involved in morphological word formation in the lexicon.

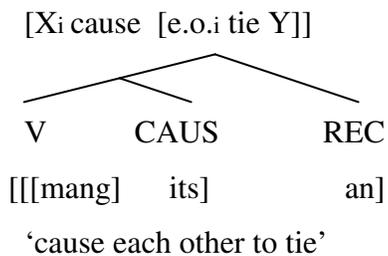
In fact, as will be seen in Section 3.3.1, Alsina's proposal is more compelling as it can accommodate the nominalization of the applicative, causative, passive, and the reflexive verbs in *Kikongo*.

#### 2.4.4 Morphocentric Approach

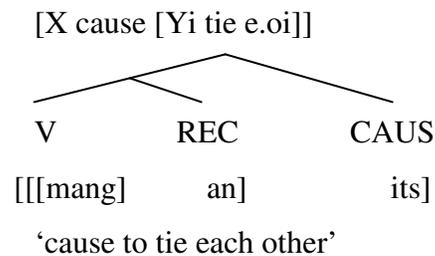
It is important, while analyzing affix ordering, to note Hyman's reaction to Baker (1985a), Alsina (1999) and Bybee (1985, cited in Hyman 2002:1). Bybee examined affix ordering and argued that those affixes with greater 'relevance' to the action of the VR appear close to it. Hyman, however, argues that none of the explications given with regard to the ordering of affixes has provided an account for the facts in Bantu languages. Hyman (2002:2) proposes a morphological approach in which an explanation is given for the reason why affixes are in the order they occur.

While analysing affix ordering in *Chichewa*, he observes that when the causative combines with another suffix, two scenarios arise: with reciprocal, *Chichewa* allows both orders, as shown in (49a) and (49b).

(49) a) Reciprocalized Causative



b) Causativised Reciprocal

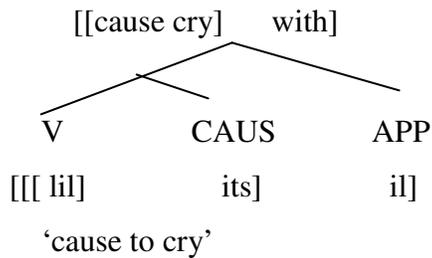


(Hyman 2002:4)

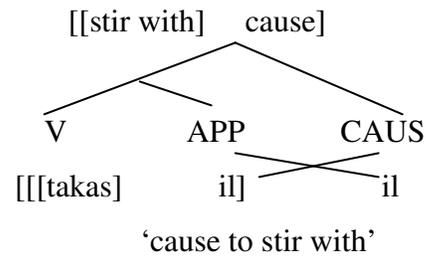
In 'reciprocalized causative' in (49a), the causative suffix *-its-* precedes the reciprocal suffix *-an-*, while in the 'causativized reciprocal' in (49b), the causative suffix *-its-* follows reciprocal *-an-*. As seen, two different morphotactic structures are proposed which correspond not only to the two suffix orders *-its-an-* and *-an-its-*, but also to differences in meaning.

But with applicative, causative in *Chichewa* only allows the order applicative-causative, as illustrated in (50a) on the next page.

(50) a) Applicativised Causative



b) Causativised Applicative



(Hyman 2002:5)

In order to account for such differences in *Chichewa* and in many other Bantu languages, Hyman proposes the Pan-Bantu default suffix linear ordering based on CARP, as shown in (51).

(51)	<b>CAUS</b>	<b>APP</b>	<b>REC</b>	<b>PASS</b>	
	-ic- >	-id- >	-an- >	-u-	Proto-Bantu
	-is- >	-il- >	-an- >	-u-	Shona
	-ih- >	-il- >	-an- >	-iw-	Makua
	-its- >	-il- >	-an- >	-idw-	Chichewa

For this linguist, the different suffix ordering possibilities found either across different Bantu languages or within the same language is obtained by different rankings of two families of constraints, namely MIRROR and TEMPLATE. Contrary to the suggestion made by Alsina (1999) and Baker (1985a), Hyman considers that suffix ordering in Bantu languages is driven by a Pan-Bantu default (Hyman 2002:5).

On the other hand, Hyman acknowledges that there are tendencies for suffixes in some languages to be ordered according to semantic compositionality and the scope of the individual suffix. In order to solve such conflicts that may derive between the CARP template and compositionality, owing to morphosyntactic input, the optimal suffix linear ordering should be determined by relative ranking of the default constraint TEMPLATE CARP vs. MIRROR, which varies according to specific suffixes and the language in question. In fact, the above factors of constraint will be taken into account while discussing affix ordering in Section 4.3.

The merit for this approach is that suffix ordering in Bantu languages is regarded as a morphological process and that each affix system may represent language specific resolution. Nonetheless, the Pan-Bantu default template idealized in this approach may be regarded as language-specific for only a few languages can apply it. In fact, Hyman (2002:14) states “[...] I do know one language, *Chimwini*, which, [...] obeys the template default CARP.”

Moreover, considering examples in (114), numbers (7a) and (7b) on page 134, the above template CARP faces challenges in dealing with affix ordering in *Kikongo* because both reciprocal and passive are constrained by the factor valency and as such they cannot co-occur. In other words, both passive and reciprocal reduce the valency of the predicate argument structure. While the former suppresses the subject of the sentence, the latter binds the object to the subject, creating co-referentiality.

#### **2.4.5 Lexical Functional Grammar**

Alternatively, LFG has been developed and used to consider data from many languages across the world, including the Bantu languages (Bresnan 2001). As will be seen in Chapter III, in this approach, verbal affixes are treated as manifestations of morphological operations which apply lexical rules on the argument structure of a given VS. In addition to that, LFG takes affixes (applicative, causative, passive, reciprocal, reflexive and stative) as lexical processes; this means they are treated like any lexical processes, including nominalization. This fact and the proposal of a mapping theory make LFG more appealing to account for data from Bantu languages, including *Kikongo*.

Although many scholars, e.g. Matsinhe (1994:174), who analyzed Bantu verbal affixes argue that this approach remains silent with regard to the lexicalized forms as well as the combination of verbal affixes, the analysis of verbal affixes in this study will be couched under LMT, a sub-theory of LFG that was postulated by Bresnan and Kanerva (1989), and elaborated on in Bresnan and Moshi (1993) and Alsina and Mchombo (1993). This is in agreement with McCarthy (2004:140) when he says that “[...] a design that is good

enough for survival is not necessarily the best design imaginable.” A description of LFG and one of LMT will be given in Chapter III.

As will be seen, in LMT the arguments of the predicator, depending on its lexical meaning, may be associated with different thematic roles such as agent, patient/theme, beneficiary, experiencer, locative, just to name but a few. LMT acknowledges and makes a full use of thematic roles by placing different thematic roles on a range of significance, usually referred to as hierarchy. The hierarchical ordering of thematic roles according to significance is said to be universal as corroborated by cross-linguistic evidence (cf. Bresnan & Kanerva 1989; Mchombo1993; Bresnan & Moshi 1993; Alsina 1992; Alsina & Mchombo1993). As it will be seen in Chapter IV, this thematic hierarchy plays an important role in the mapping of predicate arguments to syntactic functions in grammar of languages. In other words, the hierarchy imposes some restrictions that rigorously allow or disallow certain associations between thematic roles and syntactic functions.

After reviewing the status of theories of syntax regarding the studies of verbal affixes in Bantu languages, the next section will concentrate on the earlier studies of verbal affixes by scholars working according to different approaches. The focus will be on transformationists versus non-transformationists, including relationalists.

#### **2.4.6 Review of the Six Verbal Affixes**

In Chapter I it was said that this study intends to analyze the form and function of the six verbal affixes in *Kikongo*. The reason for choosing these six affixes is that while some add one object, others reduce the object of the predicate argument structure. Therefore, this section starts with the applicative.

##### **2.4.6.1 The Applicative**

Applicative constructions are used by some languages to structure clauses that allow the coding of a thematically peripheral argument or adjunct as a core-object. Such

constructions are signalled by overt morphology (Peterson 2007:1). This may be the reason why different approaches analyze applicative construction differently.

As regards the form, the applicative is morphologically formed by a PB *\*id* (Meeussen 1967). From this morpheme, various languages derive their applicative forms, e.g. *Chichewa -ir-* (Mchombo 2004), *Tsonga -el-* (Matsinhe 1992, 1994), *Kikongo -il-*.

With regard to function, an applicative suffix allows the verb to take one more object and in doing that, it creates the effect of converting an intransitive verb to transitive and a transitive one to ditransitive. As will be seen in Chapter IV, the new object derived from this process is associated with a range of thematic roles. In addition, the new object displays characteristic properties of a canonical direct object with regard to:

- a. Word order;
- b. Morphological case marking; and
- c. Passivization and object agreement on the verb.

Details on these issues will be provided in Section 4.2.3.

Various scholars studying applicative construction in Bantu languages using different approaches, not unexpectedly reached different conclusions. In the following section the analysis will revolve around the work of Baker (1988b), Alsina and Mchombo (1993) and Simango (1995).

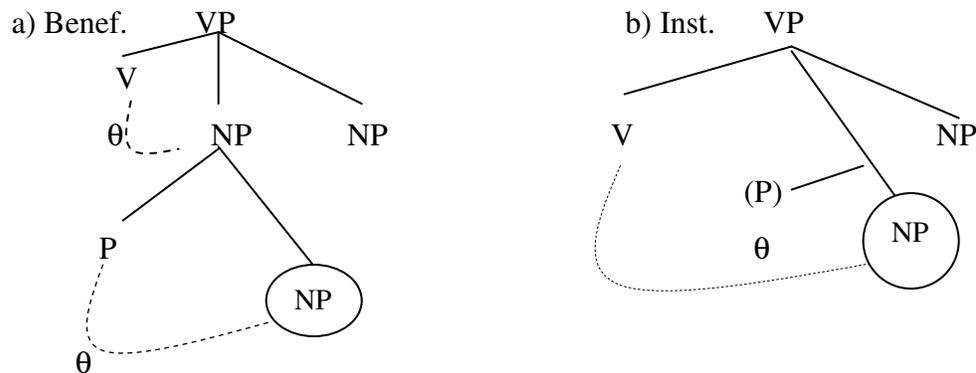
#### **2.4.6.1.1 Baker (1988b)**

Baker (1988b), who analysed applicative construction in *Chichewa* within the theory of Principles and Parameters and Incorporation, claims that beneficiary and instrumental phrases are treated as arguments of the verb in which their D-structure representations are different, as in (52a) and (52b) on the next page.

- (52) (a) *Mavuto a- na- umb- ir-a mfumu mtsuko.*  
 Mavuto SP PST mold-APPL- ASP chief waterpot  
 ‘Mavuto molded the waterpot for the chief.’
- b) *Mavuto a- na- ungiria mpeni mtsuko*  
 Mavuto SP PST mold-APPL-ASP knife waterpot  
 ‘Mavuto molded the waterpot with a knife’

(Baker 1988b:353-354)

A beneficiary applied object is regarded as the NP complement of a preposition from which it receives its  $\theta$ -role, as illustrated in Figure 8a. Whereas the NP *mpeni* ‘knife’ in (52b) is regarded as an NP sister of the verb, it depends on the verb for its  $\theta$ -roles, as shown in Figure 8b.



**Figure 8:** Trees of beneficiary and instrument D-structures (from Baker 1988b:359)

The D-structure in Figure 8a reads that the beneficiary is assigned a theta role indirectly for the verb  $\theta$ -marks the prepositional phrase and not for the NP itself; while in Figure 8b the D-structure of the instrumental applicative reads that the  $\theta$ -marks directly marked by the verb.

It should be observed that Baker’s analysis of applicative in *Chichewa* was influenced by two sub-theories of GB, namely “Theta Theory” and “Case Theory” without forgetting the Incorporation movement. GB assumes that overt NPs must receive the abstract case so that the structure can be considered grammatical. The two types of cases that an NP can obtain are inherent case and instrumental case. The inherent case is assigned to

transitive verbs while when the verb is ditransitive, the inherent case may be assigned to one of the object NP and the other object NP assigns structural case.

Beneficiary is accounted for as D-structure prepositional phrase, because it is not directly  $\theta$ -marked by the verb, therefore it can be assigned the inherent case. Accordingly it is bound to receive the structural case and appear adjacent to the verb while instrumental is taken to be identical to theme and patient at D-structure. That means, it is directly  $\theta$ -marked by the verb and assigned inherent case.

#### **2.4.6.1.2 Alsina and Mchombo (1993)**

Alsina and Mchombo (1993), who analysed applicative construction in the same language under LMT, reject Baker's claim of D-structure and propose a lexical approach. These scholars provide a set of principles for mapping the argument structure of verb onto grammatical functions without an intermediacy level. Alsina and Mchombo (1993:24) argue that "asymmetries among objects are not regarded from differences in structural configuration, but from the fact that the mapping principles treat different thematic roles differently." As will be seen in Section 3.3.1, syntactic functions in this theory are classified as [ $\pm$  r] thematic restricted or unrestricted and [ $\pm$  o] object or not.

#### **2.4.6.1.3 Simango (1995)**

Simango (1995:27), who studied applicative construction in *Chinsenga*<sup>15</sup> with Relational Grammar (RG) in mind, argues that each applicative predicate assigns a unique thematic role to its argument and determines the specific grammatical relation its argument bears at the point of initialization. According to this linguist, grammatical relations are language-specific rather than universal. Furthermore, he states that a benefactive applicative predicate may very well require a direct object relation in one language and select an indirect object in another.

Although Simango's argument seems to reflect the reality of some Bantu languages, in *Kikongo* the benefactive object behaves as a direct object rather than an indirect object, as illustrated in (53).

- (53) *Nzumba vond-el-e mwa-ana -nkombo.*  
1PN kill-APPL-PST 1child 9-goat  
'Nzumba killed a goat for her child.'

In example (53), the reverse of order of the two objects may result in an ungrammatical sentence, as in *Kikongo* the NP that denotes human beings must be adjacent to the verb.

After dealing with some studies on applicative, the next section will focus on the scholars who studied Bantu causative construction.

#### **2.4.6.2 The Causative**

The study of causative constructions in the languages of the world has attracted a lot of interest (cf. Alsina 1992; Baker 1988a; Li 1990; Mwangi 2001:387; Shibatani 1976; and Talmy 1976). Such interest falls into two major concerns: the first concern is related to a typological issue, e.g. Shibatani (1976) and Talmy (1976), and the second concern is associated with the formulation of linguistic theories (Baker 1988a; Li 1990; Alsina 1992).

Pertaining to form, causative in Bantu languages is represented by PB *-\*i-* and *-\*c-* (Meeussen 1967). From this PB, different languages derive their individual forms based on morphological and phonological processes. Bantu causatives are treated as a separate predicate that combines with another predicate to form a complex predicate. The topmost interest of linguists in the study of causative construction has been to establish the syntactic and semantic features of the two types of causative found in the languages of the world, namely lexical and non-lexical (Cooper 1976:374). Shibatani (1976:1), seeking to define the context in which causative may occur, establishes two conditions:

- a) The relation between the two events is such that the speaker believes that the occurrence of one event, the “caused event” has been realized at  $t_2$ , which is after  $t_1$  time of causing the event.
- b) The relation between the causing and the caused event is such that the speaker believes that the occurrence of the caused event is wholly dependent on the occurrence of the causing event; the dependency of the two events here must be to the extent that it follows the speaker to entertain a counterfactual inference that the caused event would not have taken place at that particular time if the causing event had not taken place, provided that all else had remained the same.

For the purpose for this study, the discussion will concentrate on the study of causative construction as analysed by Baker (1988a), Li (1990) and Alsina (1992).

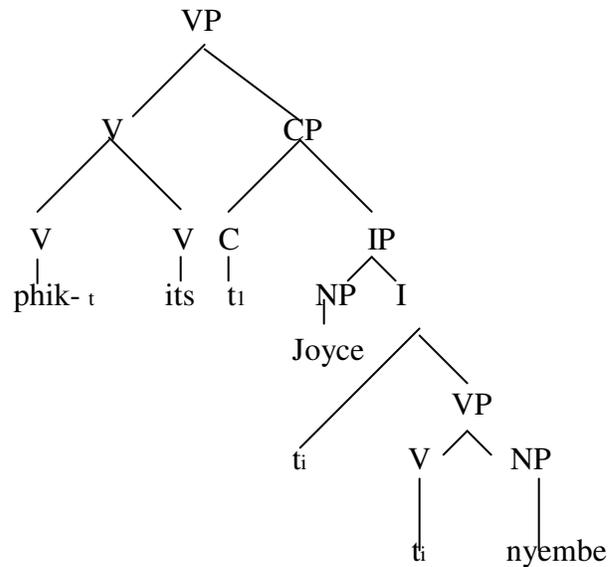
#### **2.4.6.2.1 Baker (1988a)**

Baker (1988a:62) argues that although morphological causative appears to be monoclausal (one clause) on the surface, in terms of meaning it is biclausal (two clauses) and its affix takes a CP complement. This assertion may have been suggested in Gibson’s (1980, cited in Baker *ibid.*) work, where it is argued that there must be two types of causative rules in the languages of the world, and that they differ in respect of grammatical functions assigned.

Following Gibson’s (1980) hypothesis, Baker assumes that such constructions in the *Chichewa* language reflect dialectal differences and therefore Baker provides two different ways in which each dialect derives causatives. He argues that while in each case the lower verb is incorporated into the causative verb, verb incorporation can be achieved in two different ways.

It is important to note here that it was decided to use Simango’s (1995) examples to illustrate what has been discussed, not for want of pertinent sentences in *Kikongo*, but for the sake of consistency as a similar discussion was conducted in *Chichewa*. Thus, the example in (54) was structured as in Figure 9 on the next page.

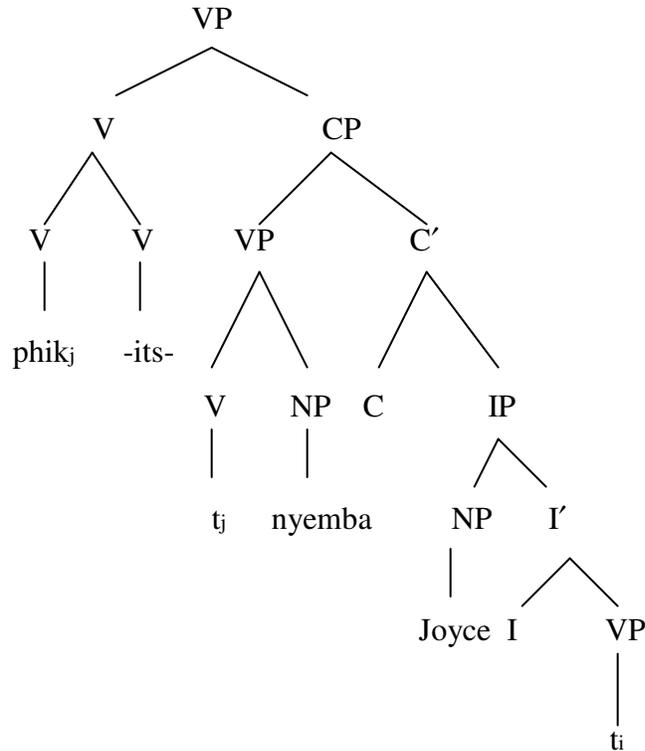
- (54) *Jacob a- na- phik - its- a Joyce nyemba.*  
 Jacob SB PST cook-CAUS-FV Joyce beans  
 'Jacob made Joyce cook beans.'



**Figure 9:** Baker's dialect 1 tree diagram of causative D-structure (Simango 1995:131)

The first way consists of the derivation of a two object causative. For example, in (54), where the causee appears as direct object, this involves the head-to-head movement of the lower verb which reads as follows: first the verb moves to I position and then from I to C position long before it is incorporated into the higher V *phik* 'cook', as shown in Figure 9.

In the second way, the VP is assumed to move Spec of CP, where the lower verb is incorporated into the higher verb. Accordingly, the embedded object *nyembe* 'beans' functions as the object of the sentence while the embedded subject (*Joyce*) occurs in a prepositional phrase, as can be seen in Figure 10 on the next page.



**Figure 10:** Baker's dialect 2 tree diagram of causative D-structure (from Simango 1995:133)

The tree in Figure 10 shows that *nyemba* 'beans' is no longer c-commanded by subject (*Joyce*), therefore the verb can only assign case on NP; so, in its new site, the embedded object receives a structural case from the complex verb. That means, the embedded subject (*Joyce*) is prevented from being assigned a case from the complex verb owing to two factors: firstly, it cannot be governed by the complex verb; secondly the complex verb can only assign one case.

In reaction to Baker's analysis of causative in *Chichewa*, Simango (1995:133) argues that Baker's analysis is not compelling. Citing Belletti and Rizzi's (1988) proposal that suggests that any verb that lacks an external argument cannot assign structural case, this scholar argues that unaccusative verbs have no ability to assign structural case. In other words, a causative verb formed out of unaccusative verb would assign structural case to the causee through the Case Frame Preservation Principle (CFPP). The implication of this is that a special case insertion rule would have to be required in order to ensure that the causee is visible at the Phonological Form (PF) level. To put it differently, the argument of unaccusative verb would require the presence of the preposition *kwa* so that case

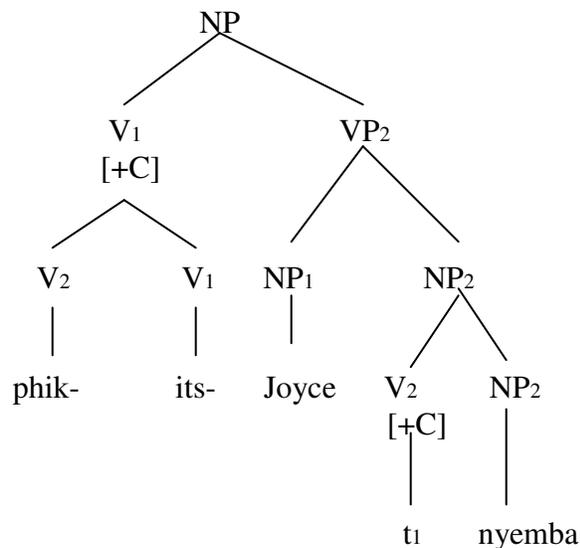
assignment would take place. However, according to Simango, the argument under which either the causee or the object of the lower verb can be the surface direct object of the sentence offers no reason why, for example, a structure like the one in (55) taken from Simango (1995:90) has no corresponding passive taking into account the fact that passivization operates freely on other types of causative constructions.

- (55) *Jacob a-na-phik-its-a nyemba kwa Joyce.*  
 SM-PST-cook-CAUS-FV beans to Joyce  
 ‘Jacob had Joyce cook the beans.’

Therefore Simango recommends a reformulation of the analysis of *Chichewa* causatives in order to deal adequately with the existence of the two causatives.

#### 2.4.6.2.2 Li (1990)

Li (1990) on the other hand, maintains that causative takes a bare verb rather than CP complement (see also Simango 1995). According to Li, the causative predicate may represent the feature [+C] or this feature may be unspecified. It should be observed that Li only examined derivational causatives formed by transitive verbs. The example in (54) above may be structured, as in Figure 11.

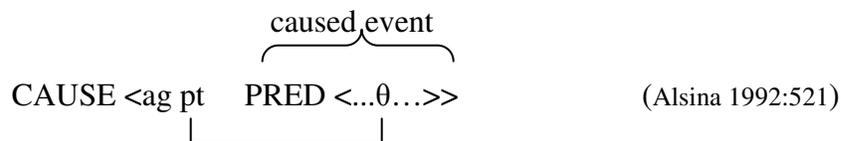


**Figure 11:** Li's tree diagram of causative D-structure (Simango 1995:136)

In the above derivation, V<sub>1</sub> indicates the causative while V<sub>2</sub> is the embedded verb; NP<sub>1</sub> is the causee and NP<sub>2</sub> is the embedded object. Given that the causative verb (V<sub>1</sub>) has the feature [+C], it means that the embedded verb (V<sub>2</sub>) can assign case to its external argument (NP<sub>2</sub>). Besides, the causee will receive case from V<sub>1</sub> since it is specified for case. Li proposes that NP<sub>2</sub> is case-marked in the pre-movement stage of the derivation. Therefore, when the lower verb moves to be incorporated into the higher verb (V), there is no restriction regarding to case assignment. For Li, in the above derivation, if a given language allows double causative cases in a single sentence, both NP<sub>1</sub> and NP<sub>2</sub> will be marked with accusative case, considering that Bantu languages lack overt case marking on NPs; it may be argued that such NPs surface as bare NPs.

#### 2.4.6.2.3 Alsina (1992)

Alsina (1992:21) analysed the causative construction within LFG, and argues that a causative suffix is introduced by a morphological rule par to that of applicative and it has three-place predicates in which the causer (or agent) acts on an individual, the patient, in bringing about an event, of which this individual is itself an argument. With this thought in mind, Alsina represented the analysis of causative as follows:



The above scheme reads that the combination of a causative morpheme with another predicate creates a new argument, namely a semantic argument of both the cause predicate and the embedded predicate. According to this scholar, this means the three-place causative predicate yields an argument that bears a semantic relation to both the causative predicate and the base predicate and he rejects the argument under which morphological causatives (as found in Bantu languages) can be formed from syntactic derivation.

Alsina (1992:518), while analyzing causative in *Chichewa*, argues that morphosyntactic expression of causative in this language appears to depend on the transitivity of the verb on which it is found. When the base verb is transitive the causee may be expressed as an oblique phrase introduced by *kwa*, as shown in (56), or as an object, as shown in (57).

(56) *Nzumba lamb-is-i madya kwa aana.*  
1PN cook-CAUS-PST 6-meal 2-child  
'Nzumba caused the children to cook the meals.'

(57) *Nzumba lamb-is-i aana madya.*  
1NP cook-CAUS-PST 2-child 6-food  
'Nzumba caused the children to cook the meals.'

For causatives based on intransitive verbs, the causee is invariably expressed as an object, as illustrated in (58).

(58) *Nzumba kosol-es-e mw-aana va-ntoto.*  
1PN sit-CAUS-PST 1-child 16-Loc-floor  
'Nzumba caused the children to sit on the floor.'

In fact the object causee *mwaana* 'child' in example (58) proves to display objecthood properties, which will be discussed in Section 4.2.3. It is adjacent to the verb and can be expressed by means of an OM, and can also be the subject of the passive.

### 2.4.6.3 The Reciprocal

The reciprocal has not enjoyed the same prominence as the study of applicative and causative construction. However, the review below outlines Mchombo (2004) and Matsinhe's (1994) analyses of the issue.

As regard the form, there has been a common sense that in Bantu languages reciprocalization is widely signalled by suffix *-an-* (see also Meeussen 1967) with possible allomorphs which are language-specific.

In regard to syntactic functions, the reciprocal suffix reduces the valency of the argument structure of the verb. Mchombo (1993:184), therefore argues that the reciprocal in Bantu languages is best analyzed as a derivational morpheme that affects the predicate argument structure of the host verb. In other words, as will be shown in Section 4.2.2, the reciprocal should be analyzed as a morphological operation that interacts with other morpholexical operations. This is in response to GB, which treats reciprocal along with the reflexive as bound anaphora.

Matsinhe (1994), who analyzed reciprocal with data from *Tsonga*, also argues that, as in the case of the reflexive, the reciprocal changes the predicate argument structure of the host verb by binding the object (theme) to the subject. Although these two scholars diverge as regards the reflexive, they agree that reciprocal is a morphological process and that this suffix reduces the valency of the verb.

Given its capacity of displaying an overt object NP, the reciprocal has also largely been used as a tool to test the object status of an NP while analysing the applicative or the causative. Mchombo and Firmino (1999, cited in Matambirofa 2003:156), list reciprocalization as an important criterion for determining the object status of an NP.

With reference to meaning, Satyo (1985:153) argues that in general, languages appear to favour one or two different ways of indicating the reciprocal meaning:

- (i) a special marking on one of the two co-referential arguments;
- (ii) a special marking on the verb whose arguments are co-referential in the reciprocal sense.

To illustrate this, Satyo suggests that in English reciprocity can be achieved in two ways: firstly by marking one of the two co-referential arguments to indicate reciprocal meaning by using ‘each other’, and secondly by using ‘one another’ as shown in his examples reproduced here as (59a) and (59b) on the next page.

- (59) a) The lecturers looked at one another.  
 b) Mr Smith and Mr Jones looked each other.

*Kikongo*, as is the case of many Bantu languages, uses both forms in (59). The VS is particularly marked for indicating reciprocal meaning by the attachment of the */-an-/* morpheme and the NP object will be bound to the NP subject.

#### 2.4.6.4 The Reflexive

The reflexive in Bantu languages is generally formed by a prefix that may vary its form from one language to another; *Tsonga ti-* (Matsinhe 1994), *Chichewa dzi-* (Mchombo 2004), and *Kikongo ki-* (see Section 2.5). In some languages, such as in *Mbonge* (Friesen 2002:33), this affix is represented by a prefix and a suffix.

Syntactically, this prefix has been the subject of a protracted debate in two competing trends. Grimshaw (1982, cited in Matsinhe 1994:170) favours this approach. Within this trend, when the reflexive affix is attached to the VR, it binds the object of the verb to the subject, creating co-referentiality, as shown in (60) and (61) taken from Matsinhe (1994:170).

- |      |    |   |        |       |
|------|----|---|--------|-------|
| (60) | a) | <i>ku luma</i> ‘to bite’                  | (SUBJ) | (OBJ) |
|      |    |   |        |       |
|      |    |   | <ag    | th>   |
|      | b) | <i>ku tiluma</i> ‘to bite oneself/itself’ | (SUBJ) | (OBJ) |
|      |    |   |        |       |
|      |    |   | <ag/th | ∅     |
| (61) | a) | <i>ku ba</i> ‘to beat’                    | (SUBJ) | (OBJ) |
|      |    |   |        |       |
|      |    |   | <ag    | th>   |
|      | b) | <i>ku banana</i>                          | (SUBJ) | (OBJ) |
|      |    |   |        |       |
|      |    |   | <ag/th | ∅     |

As examples (60) and (61) suggest, in *Tsonga*, both the reciprocal and the reflexive reduce the valency of the host verb by one object. The only difference lies in the fact that while the reciprocal binds the object NP to the subject NP, with the action of the verb performed by more than one subject, the reflexive binds the object, but the meaning may or may not involve more than one subject.

Mchombo (2004:104) favours the second trend. While acknowledging that in many Bantu languages reflexivization is marked by an invariant morpheme that is prefixed to the VR, Mchombo maintains that the reflexive should be regarded as an OM, as suggested in the *Chichewa* example in (62), taken from Mchombo (2004:104).

- (62) \**Nkángó u-na-dzí-wá-pats-a alenje.*  
3-lion 3SM-PST-REFL-2 OM-give-FV 2-hunters  
'The lion gave itself (them) the hunters'.

The main reason why this sentence is ungrammatical is because the presence of the OM *dzi* that satisfies the requirements of the transitive verb *-wa* 'give' excludes the occurrence on any post-verbal object that does not refer to the subject *Nkango* 'lion'.

As for the reciprocal, Mchombo (*ibid.*) suggests that this suffix is subject to all processes that target the VS, namely the phonological process of vowel harmony as well as the morphological processes of reduplication and nominalization. The implication of Mchombo's suggestion is that the reflexive should be regarded as a syntactically independent but phonologically bound element. As is the case with any other OM, the reflexive fails to take part in the morphological processes that affects the VS. This leads Mchombo to the conclusion that the reflexive is an incorporated pronominal argument that is subject to the principle of bound anaphora.

Mchombo's argument that the reciprocal should be treated like applicative, causative, etc., because it is subject to morphological processes, may be taken as a language specific in that it could not be regarded as a general phenomenon in Bantu languages. As

examples in Section 4.2.2 indicate, the reciprocal in *Kikongo* is neither subject to any phonological processes nor to the morphological process of nominalization.

Furthermore, it is interesting to note that Bresnan and Mchombo (1987:744) argue that SM and OM show person, number and gender of the subject and object they refer to respectively. They argue that in a simple transitive sentence in *Chichewa*, when there is no OM on the verb, the object immediately follows the verb; but when the object is present, different word orders are possible, as indicated in the *Chichewa* examples in (63) taken from Bresnan and Mchombo (1987:744).

- (63) a) SuVO: *Njuchi zi-na-wa-lum-a alenje.*  
          bees SM-PAST-OM-bite-INDIC hunters  
          ‘The bees bit them, the hunters.’
- b) VOSu: *Zinawaluma alenje njuchi.*
- c) OVSu: *Alenje zinawaluma njuchi.*
- d) VSuO: *Zinawaluma njuchi alenje.*
- e) SuOV: *Njuchi alenje zinawaluma.*
- f) OSuV: *Alenje njuchi zinawaluma.*

As already mentioned, the presence of the OM in (63) allows mobility in terms of word order within the sentence, as illustrated in (a), (b), (d), and (f). The question is whether the same exercise can be done with the reflexive. Data in *Kikongo* suggest that the reflexive in VS does not allow any flexibility in terms of word order and it remains invariable with respect to the class and number of the nouns it refers to. As will be seen in Section 4.2.2, in *Kikongo*, the reflexive (similarly to the applicative, the causative and the passive), gives rise to lexicalised forms, which is never the case with any OM.

With regard to the place of the reflexive in verbal structure, Friesen (2002:33), who also studied verbal affixes in *Mbonge*<sup>16</sup>, observes that the reflexive in this Bantu language is marked by the prefix *á-* and suffix *ε-*. This scholar maintains that the reflexive reduces

the valency of the verb by one object; as her examples reproduced in (64) and (65) respectively show.

(64) *a- ma- lol- a munde.*  
3s-Pft-insult-FV friend  
'He has insulted his friend.'

(65) *a- ma- a lol- ε*  
3s- Pft-RO insulted-REFL-(FV)  
'He has insulted himself.'

It may be concluded that the study of the reflexive in Bantu languages needs more data to typify and clarify its place in the study of verbal affixes. As to the function, according to data in *Kikongo*, the reflexive will be treated par to the reciprocal.

#### 2.4.6.5 The Passive

Passive morphology is characterised by the insertion of the suffix *-\*u-* (Meeussen 1967) to derive a complex radical. In *Kikongo* this morpheme is marked by *-w-* with its allomorph *-ew-* and *-iw-* respectively (cf. Section 2.5).

With reference to function, the passive is treated on a par with the stative; that is, they both suppress the highest role (agent) on the predicate argument structure. The chief difference between them is that the passive may express the agent through a by - phrase (NP-oblique) while the stative cannot. Givón (1980, cited in Matsinhe 1994:168), characterises the relationship between the passive and the stative in this way:

in core-Bantu languages, the stative construction (*-ik-*, *-ek-*) is obligatorily agent deleting, fully promotional, and stative-resultative semantically. The canonical passive (*-w-*) allows an optional oblique marked agent. This passive is fully promotional and semantically less stative.

Passivization, as in the case of the reciprocal, has been ranked to be an important test for objecthood (Matambirofa 2003:138). Katamba (1993:278, cited in Matambirofa op. cit), defines passivization as the promotion of the object argument. This definition finds

credibility in the sense that the landmark of passivization is signalled by the change of the object NP argument to the subject grammatical function between the active and the passive alteration of a sentence.

Linguists working in GB (Baker 1988a, 1988b, 1985a; Marantz 1984; Li 1990) take this change as an NP movement or a transformation that takes place between D-structure and S-structure; as such, this movement is believed to be mediated by an operation termed Move  $\alpha$ . The LFG linguists, on the other hand, account for grammatical function changes from object-subject by morphological processes that occur in lexical structure as opposed to syntactic structure, as will be demonstrated in Subsection 4.2.2. This grammatical function change follows the suppression of the original subject (agent) due to the passive morpheme which has been acquired by the predicate. This operation confirms that object NPs have the ability to be realized as the passive subject of the syntactic structure in which they take part.

Semantically, the passive topicalizes the object (theme) (Matsinhe 1994:168), which means the speaker centralizes the attention on the object (theme) of the active sentence rather than on the subject (agent) of the active sentence.

#### **2.4.6.6 The Stative**

Stative in PB is marked by *-am-* (Meeussen 1967), but in many Bantu languages this affix is represented by *(-ik-)* with its allomorph *(-ek-)* (Givon, cited in Matsinhe 1994:168).

Syntactically, this affix suppresses the subject, promoting the object (theme) as the subject of the sentence. Given this characteristic, the analysis of the stative in Bantu languages has been synoptic and usually reduced to nothing more than a comment on similarity as regards the difference between stative and passive (cf. Mchombo 1993; Matsinhe 1994; Baker 1988a; Marantz 1984; Simango 1995 to name but a few).

While analysing the stative in *Chichewa*, Baker (1988a) observes that the stative is comparable to the English adjectival passive with regard to its function. This means, stative and passive verb types cannot assign case to the object (Simango 1995:161). The only difference between them lies in the fact that the passive is syntactically derived while the stative is lexically derived. For this reason, Baker argues that the external theta role becomes unavailable when the stative suffix *-ik-* is suffixed to the verb converting the verb type into unaccusative. Baker fails to exemplify the claim that stative is derived in the lexicon.

Along the same lines, Marantz (1984) classifies the stative verbs as a class of anticausative (Simango 1995:60) and equal to the passive, the stative exhibit the same feature [-log SUB]. Contrary to Baker, Marantz argues that the stative morpheme *-ik-*, *-ek-* can be regarded as part of the root. For that reason some languages have affixes for transitive verbs and others for intransitive verbs. Like Baker, Marantz agrees that the stative is derived in the lexicon in that its properties constitute part of the verb's lexical entry.

Mchombo (1993), on the other hand, gives the first formal analysis of the stative verb type in Bantu languages. In his analysis, he argues that stativization is a morphological process and alters the predicate argument structure of the verb. Put differently, when a stative morpheme is attached to the verb root it reduces the object NP by one. Mchombo (1993) summarises the main differences between the stative and the passive as follows:

- a) The stative allows only the patient object to be promoted to the subject, but the subject of the stative need not be a patient;
- b) The stative does not allow the subject of the transitive verb to be overtly expressed in a prepositional phrase; whereas in the passive the subject of the transitive can be optionally expressed in a prepositional phrase;

- c) The stative cannot occur with a purpose clause or an agent-oriented adverb, but the passive can;
- d) The stative can co-occur with an OM (in the presence of a maleficiary applicative); the passive never co-occurs with an OM.

Mchombo's list of differences between the stative and the passive is insightful, although line (d) is quite confusing when he assumes that object marking is only possible because the object has a maleficiary reading, as indicated in the *Chichewa* examples in (66) taken from Simango (1995) below:

- (66) *Njinga yanu y-a ndi-pind-ik-ir-a.*  
 Bicycle your SM-PRF-me-bend-STAT-APPL-FV  
 'Your bicycle has got bent on me.'

In fact, as will be seen in Chapter IV, the maleficiary reading of the applied object should be regarded according to the meaning of the verb. If the verb 'got bent' in (66) was replaced by the verb 'repair', the applied object would have a beneficiary meaning.

This section analyzed the work of scholars who studied verbal affixes in some Bantu languages. It has been observed that some differences in the analysis of verbal affixes are theoretical rather than empirical. The next section will review early studies in *Kikongo*.

## 2.5 Early Studies of Verbal Affixes in *Kikongo*

In Section 1.3 it was mentioned that earlier, after independence, the Angolan authorities invested huge resources in the development of the indigenous languages, and in 1985 the Institute of National Languages was established. The UNESCO Language Project, led by Malian Diarra, carried out preliminary studies of six languages, including *Kikongo*, and an alphabet for these languages was suggested.

Apart from the work of Diarra (1990) based on *Kisikongo*, a dialect of *Kikongo* spoken in the province of *Zaire*, the former capital of the *Kongo* Kingdom (see Figure 5), Ntongo (2006) studied the morphology and syntax of Ngangela<sup>17</sup>, spoken in *Kuando Kubango*, to the southeast of *Moxico* and *Bié* and to the west of *Huila* (Fernandes & Ntongo 2002:47). The other studies available are on the whole in Sociolinguistics (e.g. Kukanda 1992; Fernandes & Ntongo 2002; Lusakalalu 2005); some others are contrastive studies between some indigenous languages and Portuguese (cf. Mingas 2000), of course without forgetting religious literature.

Although Diarra documented verbal affixes (see Table 6) (page 77), he did not study either the effects of verbal affixes on the predicate argument structure or suffix ordering. Apart from the work of Diarra, the two other scholars who studied verbal affixes in *Kikongo*, are Dereau (1957) and Guthrie (1962), but they too remain silent on the issues under discussion.

As regards verbal affixes in *Kikongo*, the three studies show some differences concerning the terminology and concept; this means they named the same affixes differently, as illustrated in Table 6 on the next page.

Affixes	Dereau 1957	Guthrie 1962	Diarra 1990
APPL	- il -	- il -	- il -
CAUS	- is -	- is -	-is-, -es-
PASS	- w -	- w -	-w-, -iw-, -ew-
REC	- an -	-	-an-, -azyan- -asyan-
REFL	-	-	-
STAT	-ek-, -ik-	-	-am- , -an-
POT	-akan-		-akan-
REVER	One	-ol-	-ul-, -ol-
	Two		-uk-
INTENS	Active	-umun-	-alal-
	Neuter		-umuk-
ITERAT	Active	-ulul-	-zul-, -uzun-
	Neuter		-uzuk-
HABIT	-ang-	-	-
FREQ	- uzul-	-	-
POSIT	Active		-idik-, -inik-
	Neuter		- al- , - an -

**Table 6:** Summary of early studies on verbal affixes in Kikongo.

As shown in Table 6, the three authors interpreted the verbal affixes as follows: they all agree on the form of applicative, causative, passive and reciprocal, Diarra gives alternatives *-ew-* and *-iw-* for passive though; they all diverge with regard to the stative, reversive, and intensive.

While Dereau designates *-ik-* and *-ek-* as stative, Diarra calls stative the affixes *-an-* and *-am-*, whereas Dereau considered *-am-* as semi-passive. It is important to say that the three authors designate affix *-an-* as reciprocal. Guthrie divides reversive into two: reversive 1 is formed by *-ul-*, *-ol-*, while reversive 2 is formed by *-uk-*, whereas Diarra considers *-ul-* and *-uk-* as allomorphs of reversive. Besides, Guthrie named *-umun-* as

active intensive, and *-umuk-* as neuter intensive while Diarra called *-alal-* active intensive and *-umun-* and *-umuk-* neuter intensive.

Dereau designates *-ulul-* as iterative while Guthrie once again distinguished between *-uzul-* and *-uzun-* as active iterative and *-uzuk-* as neuter iterative. Guthrie appears to be the only one who documents the positional affix, dividing it into active positional represented by *-idik-* and *-inik-* and neuter positional represented, by *-al-* and *-an-*. It is worth saying that Diarra designates *-an-* as stative. He also names *-uk-*, *-ok-* and *-ek-* as passive affix for verbs that do not accept *-am-*.

## **2.6 The Reason for this Research**

The review of the studies on Bantu verbal affixes confirms that many studies in verbal affixes have been conducted in other Bantu languages rather than in Kikongo. The few studies available in Kikongo (cf. Dereau 1957, Guthrie 1962 and Diarra 1990) – the last being the only study conducted in Angola – do not discuss the issues under investigation. As it was said in Section 1.3, this study aims to fill this gap.

## **2.7 Summary**

This chapter laid the foundations for the main objectives of this study. It reviewed the earlier scholarship in Bantu verbal affixes in general and *Kikongo* in particular. This scholarly exercise was done with the statement of the research problem and the objectives of the study in mind. Indeed, this exercise was fruitful, for it helped the researcher to understand not only the place of verbal affixes in the study of syntax but also the status of synchronic theories.

Research indicates that the shift from descriptive grammar to theoretical grammar has brought a new vision of dealing with the grammars of natural languages. Yet some constraints encountered in the analysis of verbal affixes may be considered as theoretical problems rather than language problems. Regardless of the differences of the forms,

research reveals that the applicative and causative increase the valency of the argument structure while passive, reciprocal, reflexive and stative reduce the valency; yet there is a third group that does nothing. As to the language under investigation, it was seen that a similar study has never before been undertaken.

The next chapter will deal with the research method and the theoretical framework, LFG, assumed for the purpose of this study.

## CHAPTER III: RESEARCH METHODOLOGY

Data-driven consist of the researcher being informed by the corpus data itself and allows it to drive him/her in any direction. Phenomena in this research instrument are identified in the course of the research rather than at the beginning of the project.

(Rayson 2002:1)

### 3.1 Introduction

Chapter II gave a review of the early studies on Bantu verbal affixes. This chapter also summarised the contribution of descriptive and theoretical scholars who studied verbal affixes in Bantu languages in general and in *Kikongo* in particular. In addition, it shed light on ways to approach the analysis of *Kikongo* verbal affixes.

In this chapter, two main issues will be discussed: firstly, the research design used in this study, because this will help to define the nature of the study to be conducted in order to present acceptable responses to the research problem and the research questions presented in Chapter I. That is to say, the research design is always taken as the roadmap to help the researcher to choose adequate research tools for a study s/he intends to conduct. For this reason Mouton (2006:55) defines research design as “a plan to or blueprint of how you [the researcher] intend conducting the research”.

Secondly, given the close relationship between LFG and LMT or better LMT being a sub-theory of LFG, it was deemed prudent to provide a succinct description of LFG. This is in agreement with Matambirofa (2003:176) when he says that “One may even characterise LMT as a department of LFG that is devoted to the explication of object symmetries and the mapping of lexical arguments to syntax.” This description will serve as the basis for the understanding of the LMT, the sub-theory proposed to analyse the verbal affixes in *Kikongo*.

### 3.2 Research Design

Each task needs tools. In this case the tools needed for the present task are the research instruments that will ease the collection of the necessary information to analyse the issues under investigation. For the purpose of this study, it was decided to use qualitative research as this study deals with verbal affixes, usually referred to as verbal extensions, in the studies of Bantu languages.

The merit of qualitative research is that it is characteristically exploratory, fluid, flexible, data-driven and context-sensitive (Mason 2006:24). With regard to the verbal affixes in *Kikongo*, nothing is predicted; the researcher is driven by the data. This is in agreement with Rayson, cited above, when he says that “in linguistics, researchers traditionally use two hypotheses while conducting qualitative research – hypothesis-driven and data-driven.”

- a) Hypothesis-driven means in given specific research the question identified, leads to the collection or selection of a corpus and a phenomenon is investigated employing such a corpus. The only drawback with this type of research instrument is that during the research phase, one can only search for evidence or lack of it.
- b) Data-driven research consists of the researcher being informed by the corpus data itself and allowing it to drive him/her in direction. Phenomena in this research instrument are identified in the course of the research rather than at the beginning of the project<sup>18</sup>.

After discussing the research design, the next section will focus on the way the information is collected.

### 3.2.1 Data collection

In Section 1.7 three main objectives were identified, namely an overview of the forms, the effects that verbal affixes have on the predicate argument structure and the sequence in which such affixes occur in the VR. This exercise requires collection of *Kikongo* language data and in order to achieve that, three strategies were used (Widdowson, 2006:72-73).

The first strategy is introspection; that is, appealing to the researcher's intuitive proficiency as the data source, as a *Kikongo* native-speaker. Indeed, his linguistic competence as a native speaker will play a crucial role. As Newmeyer (1993, cited in Matambirofa 2003:30), observes "the typical practice of generativists has been to use themselves as informants in collecting data about the acceptability and interpretation of grammatical constructions." Thus, the researcher's personal judgement drawn from his grammatical competence, including his linguistic background of *Kikongo* makes him eligible to formulate an acceptable judgement on the grammaticality of *Kikongo* sentences used in this study.

Secondly, a strategy of elicitation was employed. Despite the researcher being a *Kikongo* native-speaker, it was also thought prudent to bring in other *Kikongo* native-speakers as informants, drawing on their intuitions; that is, seeking together more consensus on issues under discussion. So a sample of a questionnaire based on the six verbal affixes was designed in Portuguese and distributed to *Kikongo* native speakers (see Appendix A). Brown and Rodgers (2004:12) have said that "sometimes qualitative research also uses the [...] questionnaires that we have chosen here to categorise as survey research techniques".

In addition, some informal talks were held with the informants, and the questions sometimes changed without intent, and as Powney and Watts (1987:120) note:

It is all too easy in this case for the interviewer-researcher to change the question unwittingly, to slide into practical changes as results of the answers so far. Interviewers all do this to some extent, but researchers have more scope to modify their original ideas or emphasis and change the content or style of the interview.

Also, the author tested a number of *Kikongo* verbs with the six verbal affixes to observe the frequency in which they occur in the VR as illustrated in Appendix B.

Finally, the author studied the (data) corpus linguistics on the *Kikongo* language. Despite the paucity of works available, they received an in-depth review. It is hoped that the findings from this revision have established a good start, which contributed to the success of this study.

The term *Kikongo* has been used to designate a vast language group zoned as H with number 10 (Guthrie 1967:71). As was seen in Section 1.4.1, in Angola *Kikongo* has many dialects and to include all of them would exceed the scope of this study. Thus, the data used in this study are largely based on *Kizombo* spoken in the *Maquela do Zombo* and *Damba* districts in the Province of *Uige*. *Kizombo* is the linguistic community of the researcher. The primary reason why it was decided to study *Kizombo* is that it is the native language of the researcher; secondly, evidence indicates that few formal studies on verbal affixes have been undertaken before in this dialect.

The (*B*)*azombo*<sup>19</sup> people, mainly those from *Makela do Zombo*, are noted for their commercial activities and due to this, in addition to the armed conflict that devastated the country over 27 years, many people from this zone moved to neighbouring areas, such as the DRC and the Republic of Congo. Now, *Kizombo* can also be heard (though with some influence of *Lingala* and *French*<sup>20</sup>), in the Lower Congo and in *Kinshasa*, the capital city of the DRC, where (*B*)*azombo* have lived since the colonial period. Also, some *Kizombo* speakers use *di-* as a reflexive morpheme instead of *ki-* under the influence of other *Kikongo* dialects that they have acquired.

### 3.3 Theoretical framework (LFG)

The focus of the previous section was on the research tools used in this study. Now attention is turned to an overview of the theoretical framework assumed in this study. It is worth noting that this is the first time LFG has been used in the analysis of *Kikongo* verbal affixes.

However, as noted in Chapter II, LFG was developed and used to consider data from many languages across the world, including the Bantu ones (see also Bresnan 2001). In this approach, verbal affixes are treated as manifestations of morphological operations (details are found in Subsection 3.3.1) that apply lexical rules to the argument structure of a given verb stem. Also, LFG views verbal affixes (applicative, causative, passive, reciprocal, reflexive and stative) as lexical processes.

The description of LFG below is largely based on Bresnan (2001), Falk (2001), and Nordlinger and Bresnan (N.D)<sup>21</sup> while that of LMT is based on Bresnan and Kanerva (1989), Alsina and Mchombo (1993), Alsina (1999). Most examples are given in *Kikongo* to give the theory a local application.

LFG is a generative theory par to GB. The difference lies in that LFG is non-transformational. What is achieved through the deployment of transformational rules or movement in GB is obtained through lexical operation in LFG. That is to say, LFG rejects the notion of abstract underlying syntactic representations and transformations (Valin 2003:183). This approach is composed of multiple structures, each representing a different aspect of linguistic structure, and recognizes two independent levels of structure, to be precise constituent-structure (C-structure) and functional-structure (F-structure) (Bresnan 2001; Falk 2001; Matsinhe 1994:164). The third level takes account of argument structure, which is the level of predicate argument relations and semantic structure that contains the surface syntactic information. As will be seen later, the mapping theory was developed from this level. It is important to observe that these three

levels use the words of a song and melody metaphor when they describe the relationship obtained in different structures, as Bresnan and Kanerva (1989: 1) put it:

Thematic structure, constituent structure and functional structure are parallel information structures of different character. They are related not by proof-theoretic derivation, but by local structural correspondence, as a melody is related to the words of a song.

The C-structure is the overt expression of the features and functions that make up a syntactic expression (Falk 2001:33). This level contains the syntactic structure of language, which encodes linear order hierarchy, and according to Nordlinger and Bresnan (N.D: 2), it is at this level that surface precedence and dominance relations are encoded as illustrated in Figure 13 (page 87).

C-structures in this theory are phrase structure trees determined by a particular form of X'-theory<sup>22</sup> assigned to accommodate various types of phrase structure found in many languages of the world from configurational languages<sup>23</sup> (e.g. English) to non-configurational languages (e.g. *Kikongo*); these issues will be discussed shortly.

In addition, C-structure produces regular categories such as noun (N), verb (V), noun phrase (NP), verb phrase (VP), etc., as the example in (67), functional properties such as (IP, CP) which captivatingly provide exocentric category S lacking a fixed head, which enables analysis of the above non-configurational phrase structure.

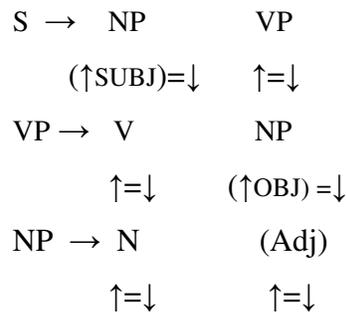
(67) *Makaya* (NP) *kwel-ele* (VP) *yakala dy-a mbote* (NP).  
1PN kwela-PST 3 husband 3 (di) + conn + good  
'Makaya got married to a good husband.'

The example in (67) explains that *Makaya* has the category of N, therefore it is an NP, *kwelele* 'got married' has the category of V therefore it is a VP and *yakala dyambote* 'good husband' has the word *yakala* 'husband' as the head which is a N, therefore it is an NP.

Considering that these types of phrase structure are always base-generated, the effect of movement is achieved by the fact that different C-structure positions can be mapped into the same F-structure via unification. There is simultaneous co-existence between F-structure and C-structure which integrates information from lexicon and F-structure and this co-existence can be represented in two different ways:

- a) by context-free rules enriched by annotations; or
- b) by the annotated phrase structure satisfying relations of precedence and dominance.

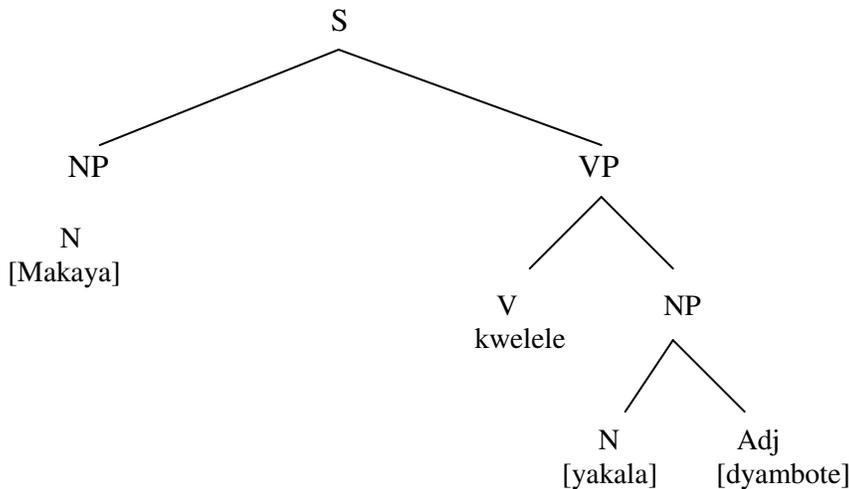
From the context – free rules, the sentence in (67) is represented as in Figure 12.



**Figure 12:** Representing the free rules structure

The representation in Figure 12 reads as follows: S is the initial symbol meaning sentence. A sentence is formed at least by an NP (the subject) and a VP; the VP comprises a V and an NP (object) and the NP is formed by an N and an Adj (adjective). The expression  $(\uparrow\text{SUBJ})=\downarrow$ ,  $\uparrow=\downarrow$  and  $(\uparrow\text{OBJ})=\downarrow$  are functional schemata. They point, in a way of speaking, to things above things below the location of schemata. For instance, the instantiation ‘ $\uparrow=\downarrow$ ’ for the VP node indicates that the functional information encoded in this VP node is passed to the F-structure of its mother node.

Using the annotated phrase structure and relations of precedence and dominance, sentence (67) (page 85), is represented as indicated in Figure 13 on the next page.



**Figure 13:** Representing the annotated phrase structure

The representation in Figure 13 suggests that S, the initial symbol of the sentence, dominates the NP *Makaya* and the VP *kwelele* ‘got married’; that is; the NP *Makaya* and the VP *kwelele* ‘got married’ are sisters. The V *kwelele* ‘got married’ and the second NP *yakala dyambote* ‘good husband’ are dominated by the VP and the N *yakala* ‘husband’ and the Adj *dyambote* ‘good’ are dominated by the NP.

Furthermore, in Figure 13, the C-structure does not take any movement and as was said before, any effect of movement can only be achieved by the fact that different C-structure positions can be mapped into the same F-structure through unification.

According to Nordlinger and Bresnan (N.D:8), C-structures are constrained by principles of structure-function correspondence designed to capture cross-linguistic phrase-structure variation. That means the mapping of grammatical functions in this theory is based on these two universal principles, namely *endocentricity* and *lexocentricity* (Falk 2001:50; Nordlinger & Bresnan op.cit).

In the principle of endocentricity, both the configuration and the hierarchy of phrases are rigorously based on the X<sup>1</sup>-bar theory. According to this theory, phrase structure is based on head; which means each phrase holds a head of similar category, for example a VP has the V as the head, an NP has the N as the head, as shown in (68) on the next page.

(68) *Makaya kwel-ele yakala dy-a mbote.*

1PN	Kwela-PST	3 husband	3 (di) + conn + good
'Makaya got married to a good husband.'			
NP	VP	NP	
N	V	N	

While in the principle of lexocentricity, besides the normal categories determined by X<sup>1</sup>-bar theory, the universal grammar of languages avails non-projected categories whose characteristic features are different from the projected categories. As will be seen in (70) (page 89), the arguments, including the subject, are part of the verbal complex structure and the syntactic relations of the constituents may be identified via case marking or verbal agreement.

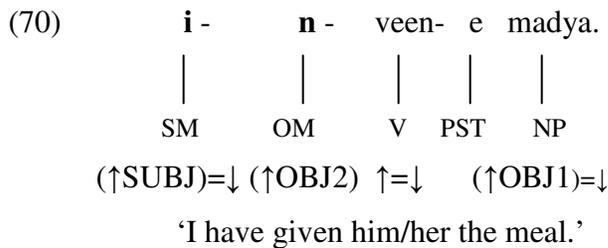
It can be said that the difference between endocentricity and lexocentricity rests upon the level of encoding of the grammatical relations. For example, going back to the sentence in (68), the relation between grammatical functions and the phrase structure is direct, as shown in (69).

(69) SUBJ      PRED                  OBJ

<i>Makaya kwel-ele yakala dy-a mbote.</i>			
1PN	Kwela-PST	3 husband	3 (di) + conn + good
'Makaya got married to a good husband.'			
NP	VP	NP	
N	V	N	

In (69) both subject and object are selected and distinguished on a structural basis. The structural relation is reflected in the word order and the position of argument functions in languages whose phrase structures are based on the endocentricity principle. Languages with these characteristics are also known as configurational languages and the phrase structure constituency relations are as follows: the subject (SUBJ) of the sentence, *Makaya*, is the higher sister to higher constituents composed of the verb and its complements, and the object (OBJ) of the sentence, *yakala dyambote*, 'good husband' is a sister of the verb.

In languages where the lexocentricity principle is used, also known as non-configurational languages, such evidence for configurational structure being responsible for identifying the nucleus of grammatical relations sometimes does not hold. In contrast, relations in this group of languages are sometimes defined at the level of morphology, usually by case marking (nominals) or by pronominal agreement in verbs, as was said above. Example 3a (page 14) derives from a complex structure whose relations can only be defined at the level of morphology, as demonstrated in (70).



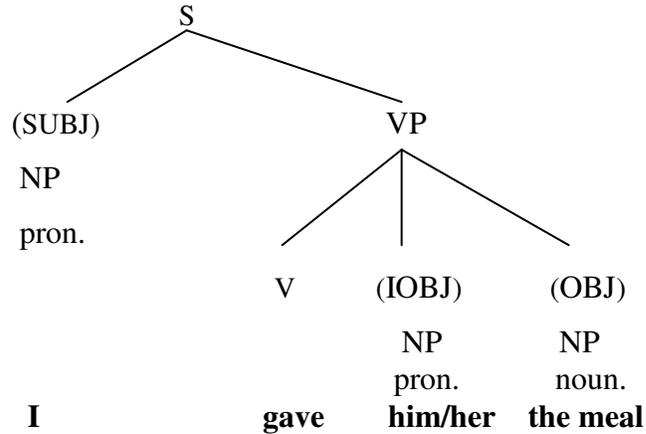
This example (70) is made up of no more than a complex verbal structure, an SM, which plays the role of subject and an OM, which plays the role of the recipient. This means the verb builds its SUBJ and OBJ2 via morphology. The subject marker **i**- encodes the masculine/feminine first person subject and the OM **-n**- encodes the object two (the beneficiary of the verb *vaana* ‘give’) third person (him/her), while the OBJ1 *madya*, ‘the meal,’ encodes the theme.

Since the above example is composed of two phrases: a VP *inveene* ‘I gave him/her’ and an NP *madya* ‘the meal’ this fact makes it hard to get back its relation either from phrase structure or from nominal morphology. This is supported by Nordlinger and Bresnan (N.D:13) when they conclude that “there are no syntactic processes that can identify VP-type constituents containing the verb and the subject [...] nor is there any evidence that freedom word order can be accurately analysed as the result of movement.”

Taking the foregoing into account, in order for a syntactic theory to satisfy the different types of structure represented either by configurational and/or non-configurational languages, such a theory will need to allow grammatical relations to be determined either

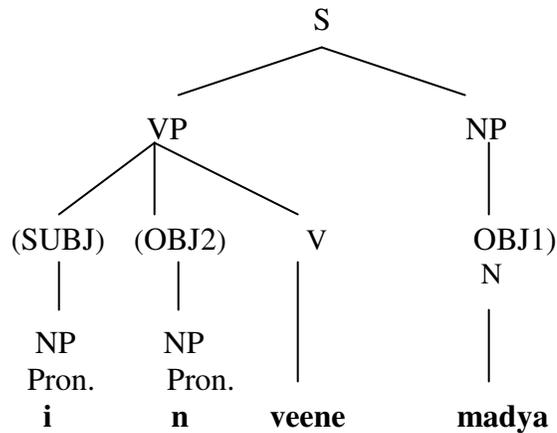
by syntax (via phrase structure configuration) as the English example in (71), represented in Figure 14.

(71) I gave him/her the meal.



**Figure 14:** Representing the annotated phrase structure of English sentence

Or by morphological processes (through case marking or verbal inflections) as the sentence in (70) formally represented, in Figure 15.

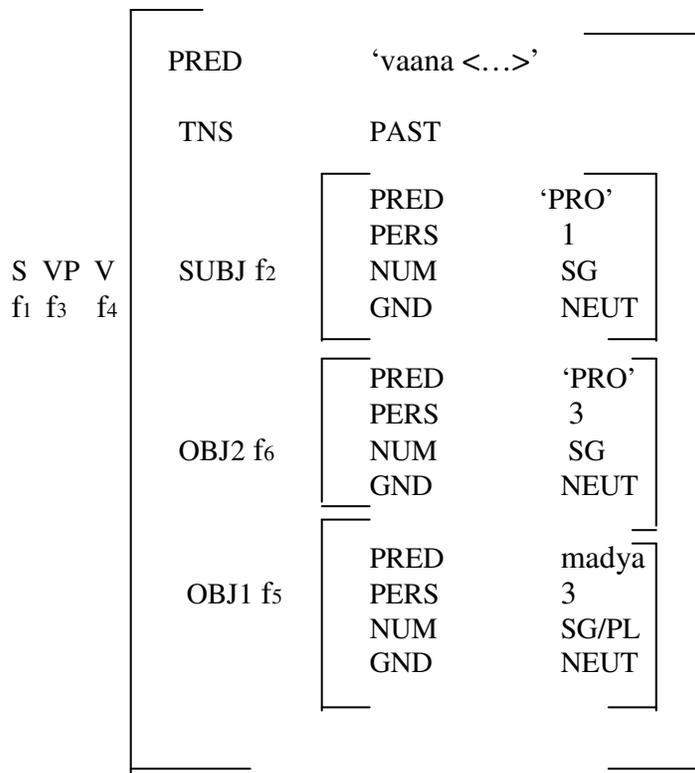


**Figure 15:** Representing the annotated Kikongo complex verbal structure

The English structure in Figure 14 represents a structural organization different from its *Kikongo* counterpart in Figure 15. In Figure 14, both SUBJ and OBJ2 are dominated by

the verb *vaana* ‘give’; however, in Figure 15 the SUBJ and the OBJ2 are represented under the node VP, which means the subject of the sentence is dominated by the VP and is a sister of the OBJ2, while the OBJ1 is a sister of the VP and they are both dominated by the symbol S.

The second level is the F-structure. This level is considered to contain the full meaning of grammatical organization of this theory and carries grammatical relations. Contrary to C-structures, which are phrase structure trees, F-structures are attributes and value matrices. Bresnan (2001:47) defines this level as a finite set of pairs of attributes and values. These attributes may be grammatical functions represented by symbols such as (SUBJ, OBJ, COM) or morphosyntactic features such as TENSE or NUMBER, functional nominal categories (case, number, gender) or predicate (semantic) attribute PRED. While values may be atomic symbols represented by morphosyntactic features, like PAST or SINGULAR/PLURAL, in addition, there is the predicate attribute PRED, as illustrated in Figure 16.



**Figure 16:** Representing the F-structure of the sentence in (70)



assigns a unique, but not essentially distinct F-structure. This thought mirrors the principle of Economy of Expression as stated by Falk (2001:34) in this way: “all syntactic phrase structure nodes are optional and not used unless required by independent principles (completeness, coherence and semantic expressivity).”

The above principle requires that if a syntactic phrase structure node does not contribute to semantic expressivity or to the satisfaction of other independent principles, then it must be omitted. Economy of Expression ensures that where the entire semantic content can be expressed with just a group of words, the more articulated phrase structure found in configurational languages may not be necessary. In effect, words are thought to be more economical than phrases.

Looking back at the examples (70) and (71) (pages 89 and 90), one may realize that the SUBJ and the OBJ2 in (70) are under the node VP, therefore they are sisters of the verb. This means they are part of the complex verbal structure in that the sentence does not require any other word to express the subjecthood, whereas the corresponding English example in (71) needs an independent word to express the subjecthood.

Another difference that sets LFG apart from GB is the adoption of the principle of lexical integrity. Falk (2001:4) states this principle in this way: “words are the ‘atoms’ out of which syntactic structure is built. Syntactic rules cannot create words or refer to the internal structures of words, and each terminal node [...] is a word.” Bresnan (2001:92) concurs with Falk when she states that “morphological complete words are leaves of the C-structure tree and each corresponds to one and only one C-structure node.”

This principle reinforces the belief under which the word-internal and external phenomena are different and gives space to morphologists on the one hand and syntacticians on the other to look at the word-internal structure from new perspectives. On the morphological side of the coin, lexical integrity leads naturally to what (Lapointe 1980, cited in Aronoff 2000:199) calls the generalised lexical hypothesis also known as strong lexical hypothesis. According to this hypothesis, all morphology, including

inflection, is independent of syntax and no syntactic rules are permitted to modify or even refer to the internal structure of words.

According to Aronoff (2000:194), this hypothesis sets aside Harris' work, which ruled out the traditional distinction between morphology and syntax. Harris believed that the syntactic and morphological effect could be obtained by the very same procedures; for that reason no distinction could be drawn. In fact, this viewpoint was taken by Baker (1988b) on his incorporation movement in transformational approach. Looking back closely at this principle, the movement V-to-I claimed in Incorporation and related theories constitutes a violation of this principle, for the fundamental issues of the aforesaid principle is that syntax cannot see the internal structure of the words because word structures differ from phrase structure.

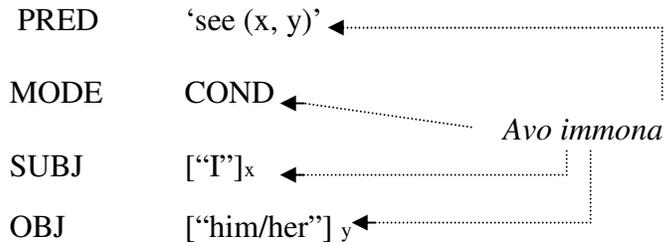
In LFG, lexical integrity distinguishes the morphological, lexical and syntactical components as being subject to different principles of comparison. Words make up the lexicon, while C-structure and F-structure make up the centre of syntactic components. The input to these levels of syntax is totally inflected words and that syntactic processes cannot control the internal morphological structure of these objects.

However, this does not suggest that morphological and syntactic constituents may not contribute the same type of information to the F-structure. In the morphological viewpoint, and based on the principle of lexical integrity, words are acknowledged as leaves of the C-structure tree and each leaf corresponds to one and exclusively one C-structure node.

Considering these two postulations, LFG allows a natural description of a number of phrase structure variations found in many languages as well as for dynamic relations between morphology and syntax. To put it differently, the lexical integrity principle implies that while morphologically complex words and syntactic phrases are different form of expression in C-structure, both may take over similar information in F-structure.

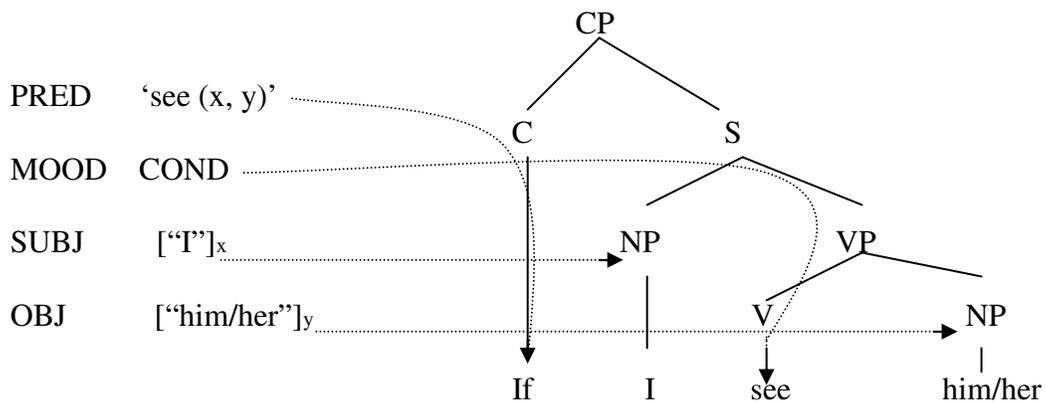
This different form of expression (words and phrases) may be functionally equal with reference to the F-structure content, as illustrated in Figures 18 and 19 respectively.

(72) *Avo immona* (if I see her/him)



**Figure 18:** Representing the relation between words and F-structure in Kikongo

And its counterpart in English is schematised as follows:

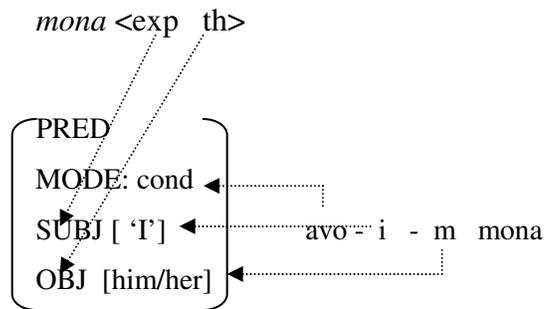


**Figure 19:** Representing the relation between words and F-structure in English.

Figure 18 suggests that the expression *avo immona* ‘if I see him/her’ is a sentence equivalent to its counterpart in English as illustrated in Figure 19. While in Figure 18 both the SUBJ and the OBJ are part of the verb structure, in Figure 19 SUBJ is a sister of the VP or simply both the NP and VP are dominated the S symbol.

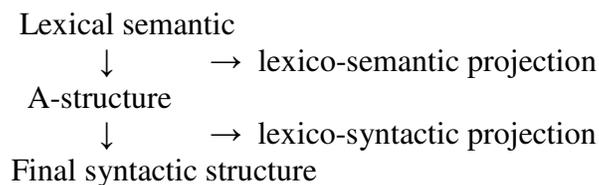
After dealing with the F-structure, the next and last level is argument structure. This level involves two facets, viz. semantic and syntactic. On the semantic facet, argument structure represents the core element in events (i.e. states and processes) assigned by

single predicator, while in respect of syntax A-structure represents the minimal necessary information needed to characterize the syntactic dependents of an argument-taking head (Bresnan 2001:304). Grimshaw (1990, cited in Matambirofa 2003:50), defines A-structure as, “the lexical representation of grammatical information about a predicate”. That is to say, A-structure is regarded as the connecting point between the semantics and syntax of predicators as represented in Figure 20.



**Figure 20:** Connection between semantics and syntax (from Bresnan 2001:304)

Various designs of the linking between the lexical semantic, the A-argument structure and the syntactic structure have been tailored within the LFG theory, among these are those of Rapport, Hovav and Levin (1998a), Hale and Keyser (1997, cited in Bresnan 1995:4-5). Without delving deeply into the reasons here, it should be noted that such designs have been rejected, for they do not reflect the principles of the theory. Instead Bresnan (2001:306) suggests the design that most clearly exemplifies the theory, as seen in Figure 21.



**Figure 21:** The interface between lexical semantic and syntactic structure

The A-structure in this approach requires adequate syntactic information to support direct mapping to the other levels, namely C-structure and F-structure. An A-structure consists of a predicator along with its argument roles, which represents relations and a syntactic classification of each role indicated by a feature. For example, different verbs may require/select one, two or three arguments.

The verb *vaana* ‘give’ in (70) (page 89), for example, selects three arguments, namely *Luzolo*, *mwaana* ‘child’ and *madya* ‘meal’, as illustrated in (73).

- (73)            *Luzolo veen-e mwa-ana madya.*  
                   1NP    give-PST 1-child 9- meal  
                   ‘Luzolo gave the meal to a child.’  
                   -*vaana*:    <x     y        z>  
                                   [-o]   [-r]   [-o]

The example in (73), reads that verb *vaana* ‘give’ select three thematic roles, namely the agent *Luzolo*, which is intrinsically classified with the feature [-o] that sets aside for functions that make up the natural class of non-object function composed of subject and oblique; the beneficiary *mwaana* ‘child’ which is intrinsically classified with the feature [-r]. Under passivization, this beneficiary can alternate with the subject function. The patient/theme *madya* ‘meal’ is intrinsically classified with the feature [-r], a non-restricted function which can be realized either the object or subject function.

The verb *-kwela* ‘get married’ in (67) (page 85) selects two arguments, namely *Makaya* and *yakala dya mbote* ‘good husband’, as shown in (74).

- (74)            *Makaya kwel-ele yakala dya mbote.*  
                   1NP    get married-PST 5-husband 5-of good  
                   ‘Makaya got married to a good husband.’  
                                   <x     y>  
                   -*kwela*: [-o]   [-r]

The example in (74) reads that verb *kwela* selects two thematic roles, viz. the agent *Makaya*, which is intrinsically classified with the feature [-o] and the patient/theme *yakala dyambote* ‘good husband’, which is intrinsically classified with feature [-r].

Finally the verb *-fwa* ‘die’, selects only one argument, as seen in (75).

(75)            *Madiya fw-idi.*  
                  1NP    die-PST  
                  ‘Madiya died.’  
  
                  <-x>  
                  *-fwa:* [-o]

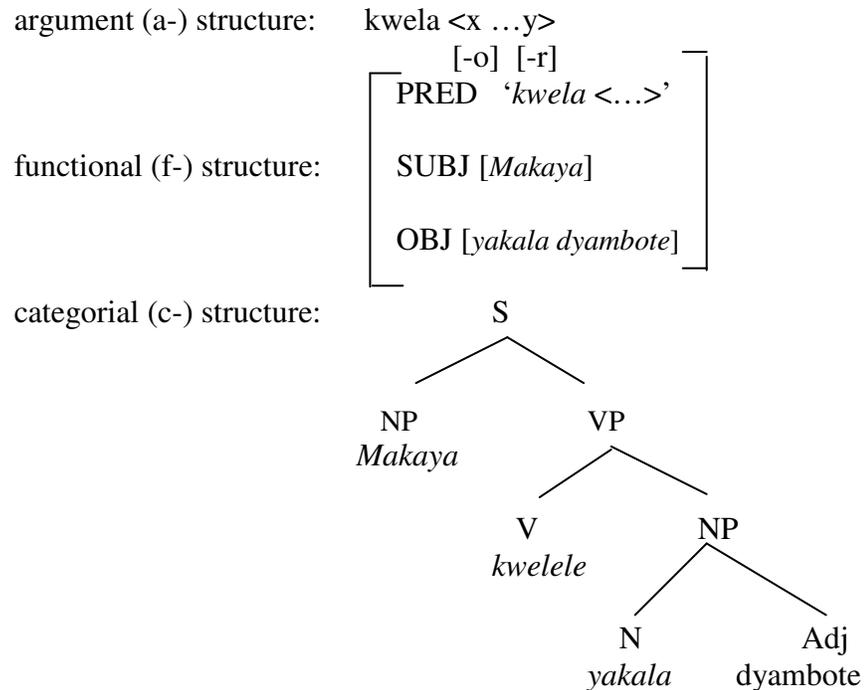
The example in (75) reads that verb *fwa* ‘die’ selects only one thematic role agent *Madiya*, which is intrinsically classified with the feature [-o].

Argument structure is the locus of the mapping between thematic roles and grammatical functions (GFs). As will be seen in Subsection 3.3.1, LMT maps from a semantic representation of thematic role to syntactic representation of grammatical functions, F-structure, by the use of A-structure. Jackendoff (cited in Falk 2001:101), underlines that:

There are two aspects to the way we conceptualize the meaning of a predicate. One such conceptualisation is that of an action involving an entity that acts and/or one that is acted on or affected. The two said entities are nominated actor and patient.

This level is the outcome of recent developments in LFG; it is exactly at this level where the mapping between thematic roles and grammatical functions takes place. The union and interdependency of separate but related components of linguistic manifestation is what is referred to by Bresnan and Moshi (1993:69) as the “syntactic architecture characterized by structural modularity”. The modularity aspect of the grammar is represented by a three-tie configuration comprising, “A(rgument)-structure, F(unctional)-structure, and C(onstituent)-structure”. Using the sentence in (67) (page 85), it can be seen that these

three parallel structures may be represented in the following hypothetical architecture, in Figure 22.



**Figure 22:** The three levels of structure in LFG (adapted from Bresnan 2001:19)

Figure 22 reads that each structure models a different dimension of grammatical substance. The a-structure models the grammatically expressible participants; in other words, verb *kwela* ‘get married’ has two arguments, namely *Makaya* and *yakala dyambote* ‘good husband’. Such arguments are assigned the thematic roles agent and theme/patient and are intrinsically classified with the feature [-o] and [-r] respectively. The f-structure models the abstract system of relators of roles to the expressions. The expression *Makaya* has the syntactic function of SUBJ and that of *yakala dyambote* ‘good husband’ has the function of OBJ while the verb *kwela* ‘get married’ has the syntactic function of PRED. The c-structure models the phrase structure categories, which are the overt expression. The expression *Makaya* has the category of NP therefore it is a noun; the expression *kwela* ‘get married’ has the category of VP therefore it is a verb and the expression *yakala dyambote* ‘good husband’ is an NP formed out of a noun and an adjective.

After reviewing the main tenets of the LFG, now the focus will be on LMT, a sub-theory of LFG, as it was developed by Bresnan and Kanerva (1989), Bresnan and Moshi (1993), Alsina and Mchombo (1993), followed by Matambirofa (2003), and Matsinhe (1992, 1994).

### **3.3.1 Lexical Mapping Theory**

#### **3.3.1.1 Background to the Theory**

In Section 3.3 it was maintained that LMT is a lexical theory that recognises the syntactic value of information that derives from the lexicon. Apart from the recognition of syntactic significance, this approach makes a clear distinction between the lexicon as the word formation component, and the syntactic level as the phrase formation component. Based on the principle of lexical integrity, LMT does not allow syntactic rules to be accounted for in the word formation process; instead it acknowledges syntactic functions that derive therefrom. For this reason Alsina (1992) observes that “a lexicalist theory emphasises the centrality of lexical module and syntactic functions.”

Given its configuration, LMT assumes a range of different but interrelated linguistic domains, which are in agreement with the domain of syntax. The word formation processes in this theory is accounted for within the domain of lexis/morphology. As regards the lexical meaning, it abides both semantic and syntactic structure. Therefore, Matambirofa (2003:181) observes that:

Lexical meaning and some of the components that derive therefrom such as the transitivity of predicates, arguments and their organisation which is sensitive to their semantic prominence and other elements that are part of a word’s lexical entry reside in both the semantic and syntactic structures of language.

This is confirmation of the prominence to thematic structure and semantic roles that is lent by the Universal Thematic Hierarchy. Linguists (even within LFG) differ on the number and order of the semantic roles, though.

Furthermore, LMT gives simple but general principles that account for syntactic valency of the predicator on the bases of its A-structure. In Section 3.3 it was argued that A-structure is derived from the predicator's lexical information and is used to derive its syntactic valency. This is the reason why A-structure is taken as the interface between the semantics and syntax of predicators (Bresnan 2001:304).

The semantic roles in A-structure are ordered. As will be shown in Section 4.3, such orderings reflect their prominence defined by their position in the hierarchy of thematic roles. This hierarchy has been subject to hot debate among linguists since it was first proposed by Fillmore (1968), but consensus has not yet been achieved. The version used in this study is the one suggested by Bresnan and Kanerva (1989:23).

In the introduction to this section, it was said that LMT is regulated by principles. The following section will thus focus on those principles. However, please note that for the purpose of this study it is deemed unnecessary to describe all the principles; only the ones which are intimately linked with the issues under discussion are described.

### **3.3.1.2 Principles of the Theory**

It has long been argued that the LMT theory is based on principles accounted for in the relationship between syntactic and thematic structures. Thus, Bresnan and Kanerva (1989:27) define it as the theory of the correspondence between thematic structure and syntactic functions. Mchombo (1993:24) also characterises the LMT as “a principled account of the relationship between syntactic and semantic structures”.

The above definitions are motivated by the fact that LFG analyzes the element of grammatical function changes and any theory which accounts for the element of grammatical function changes in its analysis must be able to avail rules and principles that should normalize the relation between thematic roles and grammatical functions. Mchombo (1993:3) observes that “in lexical mapping theory, grammatical function changing is, in effect, induced by morphological rules which alter argument structures



associated with the beneficiary thematic role. The OBJ1, linked to *madya* ‘meal’, is associated with the theme thematic role, which in this example is the lowest.

As was mentioned before, the number and the order of thematic roles have been subject to disagreement among linguists. While Givon (1984), Kiparsky (1987), and Jackendoff (1972, cited in Alsina 1999:35), place the locative above the patient, Alsina and Mchombo (1993), Bresnan and Moshi (1993), Bresnan and Kanerva (1989) place the locative lower than the patient. As will be seen later, data in *Kikongo* suggest that the locative is placed lower than the patient.

## 2. Decomposition of Syntactic function

The second principle deals with the decomposition of syntactic functions. In LMT syntactic functions are classified according to the features [ $\pm$ r] (thematically restricted or not) or [ $\pm$ o] (object or not). The restrictedness of a syntactic function refers to whether it can only be associated with a specific set of thematic roles [+r] or can be related to some other thematic roles [-r]. Object functions [+o] are the ones that can be selected by transitive verbs and cannot appear with intransitive verbs. This means that each grammatical function has a [+] and [-] specification for each feature.

The feature [+r] is used in relation to grammatical relations that can only be associated with specific thematic roles. In the specification of grammatical relations, this implies that secondary and oblique objects carry the feature [+r], since they are thematically restricted. On the other hand, grammatical relations designated by the feature [-r] indicate functions that can be related to different thematic roles. Those that benefit from this mobility are the subject and the primary object. The feature [+o] means that the grammatical relation has access to object properties. Primary and secondary objects are the ones which take these sites. The feature [-o] is associated with syntactic functions that have no access to object properties and these are the subject and the oblique functions.

Considering the two functional features with different value assignments, one can obtain four different kinds of syntactic functions:

$$\begin{array}{cc} \left[ \begin{array}{c} -r \\ -o \end{array} \right] \text{SUBJ} & \left[ \begin{array}{c} +r \\ -o \end{array} \right] \text{OBL}^{\#} \\ \left[ \begin{array}{c} -r \\ +o \end{array} \right] \text{OBL} & \left[ \begin{array}{c} +r \\ +o \end{array} \right] \text{OBL}^{\#} \end{array}$$

The above classification allows making reference to natural classes of syntactic functions:

- [-r]     SUBJ/OBL
- [+r]     OBL<sup>#</sup>/OBL<sup>#</sup>
- [-o]     SUBJ/OBL<sup>#</sup>
- [+o]     OBL/OBL<sup>#</sup>

The most appealing point is that each thematic role is assigned two features: the first is linked to its meaning while the second is associated with its position according to the order of thematic roles presented in the universal hierarchy.

### 2.1. Intrinsic Role Classification

The intrinsic role classifications partially specify syntactic functions according to the intrinsic semantic properties of arguments as determined by their thematic roles. Intrinsic classifications are defined as values for features that specify particular thematic roles or groups of roles. Bresnan and Kanerva (1989:25) note that the intrinsic role classifications associate characteristic syntactic functions with the intrinsic meanings of the roles. They

include the following principles: (a) the *agent encoding principle*, which states that the agent role can not be encoded as an agent function, but will alternate between subject and oblique as will be seen in (77); (b) *the theme encoding principle*, which states that a theme/patient role will be an unrestricted function, alternating between subject and object as shown in (77a) and (77b) respectively, and (c) *the locative encoding principle*, which states that a locative role will be encoded as a nonobjective function, as shown in (77b)

- (77) a) *Luzolo vond-ele nkombo mu-mbele.*  
 PN kill-PST 9-goat 18LOC- knife.  
 ‘Luzolo has killed a goat with a knife.’  
 [-o] [+o] [-o]  
 [-r] [-r] [+r]
- b) *Nkombo vond-el-w-e kwa Nzumba mu-mbele.*  
 9-goat kill-APPL-PASS-PST by Nzumba 18LOC-knife.  
 The goat has been killed by Luzolo with a knife.  
 [-r] [-o] [-o]

The example in (77a) suggests that *Luzolo* is linked to thematic role agent therefore must be intrinsically classified with the features [-o] and [-r]. *Nknombo* ‘goat’ is linked to the thematic role theme/patient thus must be intrinsically associated with the feature [+o] and [-r] whereas the word *mbele* ‘knife’ is marked by the preposition *mu-* ‘with’, that is , it is the instrument with which the goat was killed therefore it must be intrinsically associated with the feature [+o] and [-r]. Looking the example in (77b) it could be seen that the expression *mu-mbele* ‘with knife’ remains in the same slot intrinsically classified with the feature [-o], while the expression *Nkombo* ‘goat’ is now realized as the subject linked to agent thematic role therefore it is intrinsically classified with feature [-r]. This explains that both agent and theme/patient have unrestricted features whereas the instrument has restricted feature. These intrinsic classifications capture the observation that the patient/thematic role is able of showing the object properties associated with [+o] grammatical functions. The expression *Luzolo* is now realized an oblique NP, therefore it is intrinsically classified with the feature [-o].

This explains that a subject can take both sites of [-o] and [-r] while theme/patient can intrinsically be related to either object or subject. A locative cannot be associated with subject, for that reason it is marked as [-o]. Consider the example in (78b).

- (78) a) *Luzolo uta-lamb-il-a aana ma-dya.*  
 1PN SM -be-cook-APPL-ASP 2-child 6-food  
 ‘Luzolo is cooking the meal for the children.’
- b) *lamb-il-a* ‘cook for’    f-structure    (SUBJ) (OBJ2) (OBJ1)
- |             |      |      |      |
|-------------|------|------|------|
|             |      |      |      |
| a-structure | <ag  | ben  | th>  |
| intrinsic:  | [-o] | [-r] | [-r] |

As can be seen in (78b), the SUBJ is mapped onto the thematic role agent and therefore is intrinsically classified with feature [-o]. The OBJ2, which was introduced by the applicative verb, is mapped onto the thematic role beneficiary and thus is intrinsically classified with feature [-r], while OBJ1 is mapped onto the thematic role theme and is intrinsically classified as [-r]. Both OBJ1 and OBJ2 can be realized as the subject of the passive sentence.

It should be noted here that this principle was criticized by Rugemalira (1994) for not having an appropriate mechanism to appreciate combinations and systematically select thematic roles to all arguments of the verb. He, therefore, suggested that:

A linguistic theory needs only recognise a binary distinction between thematic roles, (e.g., actor and non-actor) and the process executed by the verb extension ought to be analysed in accordance with this organizational scheme. (Rugemalira 1994:79)

Another principle which regulates the good functioning of LMT is well-formedness conditions.

### 3. Well-formedness Conditions

According to (Alsina & Mchombo 1993:27), the output of the lexical mapping principles described above should satisfy the following well-formedness conditions:

- *Subject Condition:* Every (verbal) lexical form must have a subject.

This condition may be explained by stating that if the most prominent thematic role is [-o]; such [-o] will be realized as a subject. If there is no agent available, the role that follows, in this case [-r], will be realized as the subject. This means, the highest role ( $\hat{o}$ ) or the patient/theme role can be mapped to subject.

- *Function-argument Biuniqueness:* each expressed lexical role in the a-structure is associated with unique function, and conversely.

This condition implies that a thematic role must be associated with one, but only one grammatical function and that one grammatical function cannot be associated with more than one role.

### 4. Morpholexical operations

Morpholexical operations in LFG are taken as lexical-form-changing mechanisms that take place within the predicate either adding or suppressing predicate arguments and, in some cases giving rise to the nominalization of the verb. The verbal affixes that are the main subject of this study are a case in point. As already stated in Chapter II, this is the main reason why the term verbal affixes is preferred to verbal extensions.

In GB and Incorporation, morphological operations are taken as syntactic alterations explained in terms of NP movement, which is affected through an operation ‘Move  $\alpha$ ’ (Baker 1988a, 1988b; Marantz 1984; Li 1990).

In LFG, however, such operations are taken to be argument-changing processes that are confined to a lexical thematic structure. Passivization is an example of a morpholexical operation that alters the A-structure of a predicate to which it is attached. As seen before, the passive in *Kikongo* is formed by affixes; ‘-w-’, ‘-ew-’ and ‘-iw-’, as shown in Table 7 (page 111). Regarding its effect on the predicate argument structure, passivization suppresses the highest role (agent) of a lexical form. This operation can be represented as follows:

Passive:	Ô	highest thematic role
	∅	suppressed by the passive

The passive morpholexical operation above can be illustrated, as in (79b)

- (79) a) *Nzumba lemb-e ma-dya.*  
 1PN cook-PST 6-meal  
 ‘Nzumba cooked the meal.’
- b) *Ma-dya ma-lembe-w-e.*  
 6-meal 6SM-cook-PASS-PST  
 ‘The meal was cooked.’

In the example in (79a), the predicate *lamba* ‘cook’ has two arguments, the agent *Nzumba* and the patient *madya* ‘meal’. According to Bresnan and Moshi (1993), as well as Alsina and Mchombo (1993), the mapping of the predicate in (79a) is represented as follows:

(80) *-lamb-a* < ag pt >  
 ‘cook’

In the example (79b), the passive rule is applied on the predicate structure and the mapping is represented in (81).

(81) *-lamb-w-a* < ag pt >  
 ‘cook-PASS-FV’  
 |  
 ∅

As can be seen in (81), the agent that is the highest argument of the predicate, *lamba*, ‘cook’, on the thematic hierarchy, as seen in Principle 1, has been suppressed by the passive operation.

### **3.4 Summary**

In this chapter it was argued that research design is a roadmap/blueprint in order to achieve an acceptable outcome of the research activity, taking into account the research problem and the research questions. It was shown that when verbal affixes are to be analysed, qualitative research is the most appropriate, given its characteristics of being exploratory, fluid, flexible, data-driven and context-free. The LMT model explicitly addresses the issues of verbal affixes and the account of relation-affecting phenomena in Bantu languages in general and in *Kikongo* particular and will therefore be used.

## CHAPTER IV: ANALYSIS OF KIKONGO VERBAL AFFIXES

In many languages with complex morphologies, affixes may not be combined freely, but rather are subject to different kinds of sequential constraints.

(Hyman and Mchombo 1992:350)

### 4.1 Introduction

In the previous chapters it has been shown that there is a paucity of studies on verbal affixes in *Kikongo*. The few works available in this language neither explored the effects of verbal affixes nor the sequence in which they appear in the VR. As a result, little is known about the effects that they create on the argument structure. While in Chapter III it was maintained that qualitative research is the best way of collecting relevant information and LMT, actually a sub-theory of LFG can best describe the phenomenon in *Kikongo*.

This chapter will focus on the analysis of the six verbal affixes, namely applicative, causative, passive, reciprocal, reflexive and stative; that is, the morphological characteristics of each affix and their effect on the predicate argument structure and the order in which they occur in VR will be analyzed.

For this purpose, the discussion will be divided into two main parts: the first part will focus on the analysis of the form and function and the status of double object in *Kikongo*, while in the second part the combinations of the affixes will be discussed.

### 4.2 Analysis of verbal affixes

In Section 2.2.3, it was observed that Meeussen (1967) provided a PB form of verbal affixes; from which various languages, including *Kikongo*, have adapted their forms. Likewise, Section 2.5 maintains that Guthrie (1962), Dereau (1957) and Diarra (1990), who studied the *Kikongo* language, documented the forms of verbal affixes in this

language, as shown in Table 6 (page 77). Table 7 outlines the six affixes to be examined for the purpose of this study.

Effects on PAS	Name of affix	Form	Allophonic variation	Nasal condition	Proto Bantu <sup>24</sup>
<b>Valency Increasing</b>	Applicative	-il-	-el-	-in- -en-	*id
	Causative	-is-	-es	-	*i
<b>Valency reducing</b>	Passive	-w-	-	-	*u
		-ew-			
		-iw-			
	Reciprocal	-an-	-	-	*an
		azyan-			
	Reflexive <sup>25</sup>	ki-	-		-
Stative	-ik-	-ek-		-	*ik

**Table 7:** Kikongo verbal affixes

Table 7 displays nine forms and five allomorphs derived from phonological processes. The applicative *-il-* has *-el-* as its allomorph owing to phonological conditions and *-in-* and *-en-* due to nasal conditions; the causative *-is-* has *-es-* as its allomorph due to phonological conditions. Likewise, the stative *-ik-* has *-ek-* as its allomorph. The passive displays three forms, namely *-w-*, *-ew-* and *-iw-*, while the reciprocal has two forms, *-an-* and the historical form *-azyan-*. The reflexive holds only one form, *ki-*. details is in the subsequent sections.

The discussion will focus on the function of the six verbal affixes structured as follows: Section 4.2.1 will deal with valency increasing affixes; Section 4.2.2 will deal with valency decreasing affixes, while Section 4.2.3 will focus on double objecthood.

#### 4.2.1 Valency Increasing Affixes

As previously mentioned, affixes that alter the argument structure in Bantu languages are divided into two groups: those that increase the valency on the predicate argument structure, and those that reduce such valency. The applicative and causative have such an

ability of increasing the valency and the object introduced may assign various thematic roles, as will be seen below.

#### 4.2.1.1 The Applicative

The applicative in *Kikongo* is formed by the suffix *-il-* and has three allomorphs. The *-el-* indicates vowel harmony while *-in-* and *-en-* are realized under nasal conditions<sup>26</sup>. The examples below are aimed to illustrate this. As regards the meaning, this affix indicates that the action is applied on behalf of, toward or with regard to some object (Lodhi 2002:6). Consider the examples in (82):

- (82) a)     *-lamba*       *-lamb-il-a*  
          ‘cook’        ‘cook for’
- b)     *-vonda*       *-vond-el-a*  
          ‘kill’        ‘kill for’

With regard to the function, the applicative affix adds one object to the base verb to which it is attached and therefore the new object is referred to as an applied object (Ngonyani 1988:251). Such object can be associated with thematic roles ranging from beneficiary>maleficiary>instrument>locative, as pointed out by Bresnan and Moshi (1993:149), and converts the intransitive verb into transitive, the transitive verb into ditransitive, increasing in effect the number of arguments of the verbs.

##### 4.2.1.1.1 Beneficiary

The new object introduced by the applicative affix *-il-* can be associated with the thematic role of beneficiary. Spencer (1991:190) defines beneficiary as “a person on behave of whom action is carried out”. This means that such an entity benefits or gains from the action expressed by the verb (Haegeman 1991:42). Givón (1984:88), on the other hand, defines beneficiary and experiencer as synonym of the case-role ‘dative’. According to Givón, the participant dative is a conscious participant, which is in a state or undergoing a change. Like Givón, Fillmore (1968) used the term ‘dative’ to describe the

animate participant who was affected by the state or action identified by the verb. Fillmore, therefore, defines both beneficiary and experiencer as ‘dative’. Consider the example in (83):

- (83) *Luzolo u-ta-lamb-il-a a-ana ma-dya.*  
 1PN SM-be-cook-APPL-PRES 2-child 6-food  
 ‘Luzolo is cooking the meal for the children.’

In the example in (83), the applied object (OBJ2) is linked to the beneficiary thematic role as *aana* ‘children’ benefit from the action expressed by the verb *-lamba* ‘cook’, that is performed by *Luzolo*. While the OBJ1 *madya* ‘meal’, is linked to the theme role.

According to Bresnan and Kanerva (1989), Bresnan and Moshi (1993), Alsina and Mchombo (1993) and Matsinhe (1992, 1994) the mapping of the predicate argument structure of the verb *-lambila* ‘pray for’ in (83) can be formally represented as in (84a) and (84b), where (84a) denotes the base verb while (84b) denotes the derived verb.

- (84) a) *-lamb-a* ‘cook’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag    | th>   |
- b) *-lamb-il-a* ‘cook for’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <ag    | ben.   | th>    |

#### 4.2.1.1.2 Maleficiary

The applicative affix may also introduce an object which is associated with the maleficiary thematic role. This thematic role obtains an opposite semantic meaning from the beneficiary. Matambirofa (2003:58) defines it as “the entity that is disadvantaged or

gets adversely affected by the action referred to by the predicate” as the example in (85) illustrates.

- (85) *Luzolo vond-el-e a-ana mu-ntu.*  
 1NP kill-APPL-PST 2-child 1-person  
 ‘Luzolo killed children person.’  
 ‘Luzolo killed person for his children.’

In (85), the object *aana* ‘children’ introduced by the applicative affix *-el-* does not benefit from the action carried by the agent *Luzolo*; consequently, the thematic role with which it is associated can only be regarded as a maleficiary. The mapping of the predicate argument structure of the verb *-vondela* in (85) may be formally represented as in (86).

- (86) *-vond-el-a* ‘kill for’
- |       |        |        |
|-------|--------|--------|
| (SUB) | (OBJ2) | (OBJ1) |
|       |        |        |
| <ag   | malef  | th>    |

#### 4.2.1.1.3 Instrument

The applicative affix *il-* can also introduce a new object linked to the instrumental thematic role, as show in (87). Matambirofa (2003:61) defines instrument as “the inanimate object employed to carry out the action referred to by the predicate”.

- (87) *Nzumba u-ta zub-il-a mwa-ana mu-tanzi.*  
 1PN SM-be beat-APPL-ASP 1-child Loc-machete  
 ‘Nzumba is beating the child with machete.’

The example in (87), the object *tanzi*, ‘machete’, was introduced by the preposition *mu-* ‘with’ forming a prepositional phrase, which serves as an instrument with which the object *mwaana* ‘child’ was beaten. Thus the thematic role with which it is associated can be termed instrument. The example in (88), on the next page, illustrates the formal representation of the predicate argument structure of the verb *zubila* ‘beat with’.

- (88)      *-zub-il-a* ‘beat with’
- |        |       |       |
|--------|-------|-------|
| (SUBJ) | (OBJ) | (OBL) |
|        |       |       |
| <ag    | th    | inst> |

#### 4.2.1.1.3 Locative

The applicative affix *-il-* can also introduce an object associated with the thematic role locative. Haegeman (1991:61) defines locative as “the place in which the action or state expressed by the predicate is situated.” Givón (1984:127) considers locative as a “concrete point of spatial reference with respect to which the position or change-in-location of another participant is construed.” Bresnan (1994:75) defines locative similarly when she says that “The term locative will be used to subsume a broad range of spatial locations, paths, or directions and their extensions to some temporal and abstract locative domain [...]” In *Kikongo* this thematic role is marked by the locative prefixes *va-* of class 16 as shown in (89) or *ku-* of class 17 and *mu-* of class 18 respectively.

- (89)      *Mwa-ana u-ta lamb- il-a va-ntoto.*  
 1-child SM-be cook-APPL-ASP Loc- floor  
 ‘The child is cooking (the meal) on the floor.’

The example in (89) suggests that when the applicative affix is used, the object *madya* ‘meal’ of the verb *-lamba* ‘cook’ may be omitted without affecting the grammaticality of the sentence. The sentence in (89) can be represented as in (90).

- (90)      *-lamb-il-a* ‘cook for’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag    | loc>  |

As mentioned before, an applicative suffix increases the valency of the verb by one. This means it has a transitivity effect when attached to an intransitive root that denotes an

action, as in the case of *kosoka*, ‘to sit down’. After the applicative *-el-* is attached to the base verb *kosok-a* it derives the verb *kosok-el-a*, literally ‘to sit down for’ or simply ‘solve’ a problem. As can be seen, *kosoka* ‘sit down’ is an intransitive verb; as such it does not take any object NP. However, when *-el-* is attached to the VR it introduces a new object converting the verb into a transitive.

In addition, applicative verbs in *Kikongo* usually acquire new meaning via a gradual lexicalization process. For example, once the applicative *-sambila*, *-kadila* and *-vundila* are derived, one can obtain nominalized forms, as shown in (91a, b, and c).

- (91)
- |                  |   |                   |   |                  |
|------------------|---|-------------------|---|------------------|
| a) <i>-samba</i> | > | <i>-samb-i-la</i> | > | <i>sambilu</i>   |
| ‘-pray’          |   | ‘- pray for’      |   | ‘temple’         |
| b) <i>-kala</i>  | > | <i>-kad-il-a</i>  | > | <i>kadilu</i>    |
| ‘-stay’          |   | ‘-stay for’       |   | ‘way of living’  |
| c) <i>-vunda</i> | > | <i>vund-il-a</i>  | > | <i>vundilu</i>   |
| ‘-rest’          |   | ‘-rest for’       |   | ‘-leisure place’ |

#### 4.2.1.2 The Causative

Earlier in this section it was noted that the causative in *Kikongo* is formed out of morpheme *-is-* with its allomorph *-es-* owing to vowel harmony. Semantically, this affix indicates cause to do or to be.

Syntactically, causative, as in the case of applicative, increases the valency of the verb by adding one object to the predicate argument. In other words, causative has the function of introducing new agentive NP as subject (causer), either demoting the original subject (causee), and the original object to the second object or demoting the original subject to some sort of indirect object. The new object may be linked to experiencer/goal thematic role, as shown on the next page.

#### 4.2.1.2.1 Experiencer/Goal

The thematic role experiencer is sometimes referred to as ‘recipient’ by some linguists (cf. Polinsky, cited in Matambirofa 2003:51), whereas Alsina and Mchombo (1993) and Bresnan and Moshi (1993) call it ‘goal’. Spencer (1991:190) defines this thematic role as a passive recipient of a sensation or mental experience, while Haegeman (1991:50) considers it as the entity that experiences some [psychological] state. As seen before, Givón and Fillmore consider recipient, experiencer and beneficiary as kinds of ‘dative’. Consider the example in (92).

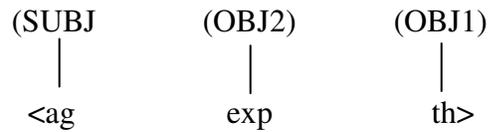
- (92) *Nzumba lamb-is-i a-ana madya ma-nzenza.*  
1PN cook-CAUS-PST 2-child 6-food 6-guest(s)  
‘Nzumba caused the children to cook the meal for the guest(s).’

The sentence in (92) reads that, the verb *-lambisa*, ‘cause to cook’, derives from the base verb *-lamba* ‘cook’, and the thematic roles are arranged as follows: the subject *Nzumba* is the causer (the agentive). The OBJ2 *aana* ‘children’, however, realizes two roles: on the one hand, it is the causee, the theme of the causing event; that means *aana*, ‘children’, were influenced to cook; on the other hand, *aana* ‘children’ is the agent of cooking. Thus, the verb *-lambisa*, ‘cause to cook’, takes two agents, and its object holds two thematic roles. It is important to say that there are two predicates involved; the two agents belong to different predicates, and the object receives its roles from different predicates. In this case, this situation does not violate the condition of Function-Argument Bi-uniqueness discussed in Subsection 3.3.1.2.

Following the principles of mapping theory as they were presented above, the example in (92) may formally be represented as in (93).

- (93) a) *-lamb-a* ‘to cook’  
(SUBJ) (OBJ)  
| |  
<ag th>

b) *-lamb-is-a* ‘caused to cook’



Similar to applicative, causative verbs in *Kikongo* usually acquire new meaning by means of a gradual lexicalization process. For example, depending on the context, the verb *-sambisa*, *zayisa*, *sadisa* may be used in its literal meaning, (i.e. to arbitrate, notice, and assistance) respectively, as shown in (94).

(94)	a) <i>-samba</i> ‘-pray’	<i>samb-is-a</i> ‘cause to pray’	<i>nsambisi</i> ‘arbitrator, judge’
	b) <i>-zaya</i> ‘-know’	<i>-zay-is-a</i> ‘-cause to know’	<i>-luzayisu</i> ‘-notice, advertisement, traffic sign’
	c) <i>-sala</i> ‘-work’	<i>-sad-is-a</i> ‘-cause to work’	<i>lusadisu</i> ‘assistance, help’

After dealing with the form and function of the applicative and causative, a summary of the main issues discussed is given in Table 8 on the next page.

Suffix	Name	Function	Effects on the Argument Structure	Nominalized Form	Gloss	Page in this study
-il-	Applicative	Increase the valency  Transitivise the intransitive verb and ditransitivise the transitive verb	-No change to the subject. One of the following is added: benefactive/malefactive, instrument, locative.  -Those which don't require prepositions are promoted to object status and the resulting sentence has the following order: S-V-AO-DO.	<i>Sambilu</i> <i>kadilu</i> <i>Vundilu</i>	Church/temple  Way of living  Leisure place	116
-is-	Causative	Increase the valency.  Also transitivise the intransitive verb and ditransitivise the transitive one.	<u>To intransitive</u> : Add causer subject (agent). The former subject becomes causee object (patient, experiencer/goal)  <u>To transitivise</u> : Add causer subject. The former subject becomes causee DO (or is left unspecified). The previous DO becomes the second object	<i>Nsambisi</i>  <i>luzaisu</i>  <i>lusadisu</i>	Arbitrator/judge  Notice/advertisement/traffic sign  Assistance/help	118

**Table 8:** Summary of valency increasing affixes.

## 4.2.2 Valency Decreasing Affixes

In Section 4.2.1 it was observed that the applicative and the causative increase the valency of the predicate argument structure and the new object introduced by these two suffixes may undergo various thematic roles. Also, the two suffixes may obtain progressively new meaning by means of a lexicalization process.

This section will address verbal affixes that reduce the valency of the predicate argument structure. The discussion will start with the passive.

### 4.2.2.1 The Passive

As was made evident in Table 7 (page 111), the passive affix displays three forms of which only *-w-* is more productive whereas the others, *-ew-* and *-iw-*, are restricted to monosyllabic verbs, as shown in (95a and b) respectively. The verbs in the left column indicate the base forms while the ones in the right indicate the derived form.

(95)	a)	<i>lamb-a</i> 'cook'	<i>lamb-w-a</i> 'be cooked'
		<i>zol-a</i> 'love'	<i>zol-w-a</i> 'be loved'
	b)	<i>dy-a</i> 'eat'	<i>di-iw-a</i> 'be eaten'
		<i>v-a</i> 'give'	<i>v-ew-a</i> 'be given'
		<i>t-a</i> 'resolve'	<i>t-ew-a</i> 'be resolved'

The verbs *-ta* 'resolve' and *-va* 'give' in (95b) are the consequences of the clipping<sup>27</sup> process that their original forms *-tala* 'look/resolve' and *-vaana* 'give' underwent over time. In their full forms these verbs rely on the passive form *-w-*, as illustrated in (96) on the next page.

- (96)            *tal-a*            *tal-w-a*  
                   ‘look/resolve’ ‘be looked/resolved’
- vaan-a*            *vaan-w-a*  
                   ‘give’            ‘be given’

With regard to the function, contrary to the applicative and the causative discussed above, the passive reduces the valency of the verb. The passive suppresses the agent of the active sentences converting the theme into the subject of the passive. In other words, the passive morpheme converts transitive verbs (subject = agent and object = patient) into intransitive verbs by promoting object to subject and demoting the subject to oblique NP or zero realization, as indicated in (97).

- (97) a)        *Mama lembe nsusu.*  
                   1PN cook-PST 9-chicken  
                   ‘The mother cooked the chicken.’
- b)        *Nsusu i-lembe-w-e (kwa mama).*  
                   9-chicken 9-cook-PASS-PST (by mother)  
                   ‘The chicken was cooked (by mother).’

As can be seen in (97b), the theme of the active sentence is realized as the subject of the passive sentence while the agent of the active sentence is demoted to the oblique NP of the passive sentence. When comparing (97a) and (97b), one will notice that in (97b), after the passive morpheme is attached to the verb, the valency of the verb is reduced by one, as a result topicalizing the theme. No movement is performed, as assumed in Incorporation.

According to Bresnan and Kanerva (1989), Bresnan and Moshi, (1993), Falk (2001), Matsinhe (1992 and 1994), and Alsina (1992), the sentence in (82b) is properly represented, as follows in (98b) on the next page.

- (98) a)        *lamb-a* ‘to cook’  
   (SUBJ        (OBJ)  
   |                    |  
   <ag                th>





### 4.2.2.3 The Reflexive

The reflexive morpheme in *Kikongo* is represented by *ki-* as already indicated in Table 7 (page 111). However, because of contact with speakers of other dialects of *Kikongo* and possibly other languages, many *Kikongo* speakers use the prefix *di-* to indicate the reflexive. Concerning its position in verb structure, the reflexive morpheme always precedes the VR (see examples 104b below). As can be deduced from the data in Appendix B, the reflexive in *Kikongo* is more productive than the reciprocal. This is because the latter is usually constrained to verbs that only denote the actions of living beings. As regards the meaning, the reflexive means that the actor performs the action on him/herself.

Syntactically, as was seen in Subsection 2.4.6.4, the reflexive has been the subject of a protracted debate. The trend represented by Matsinhe argues that when the reflexive morpheme is attached to the VR, the theme of the verb is bound to the subject, creating co-referentiality between the agent and the theme. On the other hand, the trend represented by Mchombo, argues that in Bantu languages such as *Chichewa* the reflexive affix is nothing more than an OM.

Taking into account the data in *Kikongo*, in this study it is maintained that the reflexive has a similar effect to that of the reciprocal, passive and stative and; that is, they bind the theme to the subject creating co-referentiality, as such, will be treated like these affixes, as illustrated in (104b).

- (104) a) *Nkosi vond-ele mbwa.*  
9-lion kill-PST 9-dog  
'The lion killed a dog.'
- b) *Nkosi u-ki-vond-ele.*  
9-lion -9SM-REFL-kill-PST  
'The lion killed itself.'

Following the analysis of the earlier examples in this study, the example in (104b) can formally be mapped as in (105b) on the next page.

- (105) a) *vonda* ‘to kill’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag    | th>   |
- b) *kivonda* ‘to kill oneself’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag/th | ∅>    |

As was the case with passive, reflexive can also acquire new meaning by means of a gradual lexicalization process. For example, in the verbs *-vonda* ‘kill’ and *tala* ‘visit/look’, once the reflexive verbs *kivonda* and *kitala* are obtained, one can have nominal forms, converting them into proper names, as illustrated in (106) (see also Appendix B).

- (106) a) *-vonda*      *-ki-vonda*      *Kivonda u-ki-vond-ele*  
‘kill’      ‘kill oneself/itself’      PN      SM-REFL-kill-PST  
‘Kivonda killed himself.’
- b) *-tala*      *-ki-tala*      *Nzumba u-ele ku-kitala.*  
‘look/visit’      ‘look/visit oneself’      PN      go-PST 17-LOC  
‘Nzumba went to a village (called kitala).’

#### 4.2.2.4 The Stative

The stative suffix in *Kikongo* is represented by the morpheme *-ik-* with its allomorph *-ek-* due to phonological conditions as indicated in Table 7 (page 111). This affix is the least productive affix in *Kikongo* (see Appendix B).

In linguistic literature, this affix has been interpreted in various ways and, thus, various names have been suggested, such as ‘stative’ (Guthrie 1962), ‘neutro-stative’ (Matsinhe 1994), ‘factative/causative’ (Diarra 1990), ‘potential’ (Sanderson 1954, and Whiteley 1966, both cited in Ngunga 2000), and ‘neuter-passive, quasi-passive’ (Mchombo 1993). For the purpose of this study, the term stative will be used as an umbrella to cover the range of meanings suggested in the literature by the aforesaid scholars. Here the common denominator is that stative has the same morphological shape and causes the same

syntactic effect on all inherently transitive roots to which it is attached (Ngunga, 2000:186).

The stative is also similar to the passive. They both involve an intransitive VR whose argument bears the thematic role of patient (Mchombo 1993:16) and this is regarded as the subject of the construction. However, they differ in the sense that the passive allows an overt expression of the in oblique subject function (cf. 97b) while the stative does not. Consider the examples in (107).

- (107) a) *Nzumba mwen-e Lumengo mu-nzila zandu.*  
 1PN see-PST 1PN 18LOC-9 way 5 market  
 ‘Nzumba saw Lumengo on the way to market.’
- b) *Lumengo mon-ek-ene mu-nzila zandu.*  
 1PN see-STAT-PST 18LOC- 9 way 5 market  
 ‘Lumengo was visible on the way to market.’

The example in (107b) is mapped, as in (108b):

- (108) a) *mona* ‘see’  
 (SUBJ) (OBJ)  
 | |  
 <ag> <th>
- b) *moneka* ‘is visible’  
 Ø (SUBJ)  
 | |  
 <Ø> <ag>

Table 9 summarises the discussion of the affixes that reduce the valency of the predicate argument structure.

Affixes	Name	Function	The role Subject	Treatment of agent	Specific aspect	Nominalized form	Gloss	Page in this study
-w-	Passive	Reduce the valency. Indicates the action done to patient, downplays agent	Patient, recipient, benefactor, theme,	Agent is intentionally and frequently left unexpressed, but can be an oblique NP	Can passivize DO or IO, Can be added to passivised clause by using applicative suffixes	<i>Vangwa</i> <i>Ntumwa</i>	Creature (God) Envoy/Ambassador	122
-ik-	Stative	Reduce the valency. Indicates state	Patient, experiencer	Never stated	Has low frequency in Kikongo			
-an-	Reciprocal	Reduce the valency. Indicates that two or more participants are acting upon each other equally	Both participants are agent and patient	Both participants are agent acting upon each other	Cannot reciprocalize the passive nor the reflexive nor stative.			
ki-	Reflexive	Reduce the valency. Specifies that subject and object are the same entity	Agent and patient at the same time	Agent is subject acting on itself	Requires the prefix ki- cannot be associated with passive, reciprocal and stative	<i>Kivonda</i> <i>Kitala</i>	Personal name Name of a village	125

**Table 9:** Summary of valency reducing affixes.

### 4.2.3 Double Objecthood

In Chapter II it was seen that linguists have paid great attention to the study of verbal affixes. This is many scholars wish to understand the phenomenon of the new element introduced by applicative and causative displaying properties similar to the object. As will be illustrated in example (110) (page 130), certain verbs carry two objects. Scholars who studied double objecthood in Bantu languages include Alsina and Mchombo (1993), Bresnan and Moshi (1993), Matambirofa (2003), Marantz (1993), Baker (1988b), Marantz (1993) and Simango (1995). Marantz (1993:114) notes a very elaborate nature of double object constructions in Bantu languages when he writes:

What informally characterises such double object constructions are the two NPs in a single surface clause marked with ‘direct’ cases, as opposed to oblique cases, as opposed to oblique cases or adpositions, (in Bantu, these NPs bearing ‘direct’ case marking are morphologically unmarked. Often, as in the case of applicative constructions in Bantu [...] one of the NPs is the ‘logical’ object of the verb stem while the second object is ‘added’ with the addition of the applied affix - ...ir...

According to Marantz of the two objects, only one (the theme) may be regarded as the truly object, the other being a consequence of the presence of suffix *-il-* or *-is-* in the VR. Hyman and Duranti (1982:218) also determine three conditions under which post verbal nouns follow each other without a preposition: (a) certain verbs such as give (*vaana* in *Kikongo*), also known as double object verbs, (b) certain verbal affixes (applicative and causative) introduce a second object, here in accordance with Marantz; and (c) an affected possessor can be realized as an object. Thus, double objecthood in this dissertation refers to constructions that involve more than one object.

In order to determine the grammatical relations between each noun in a post-verbal position, various scholars used different tests. Morolong and Hyman (1977:200) argue that in any study of the object relation two separate steps must be taken: firstly determine the general properties of the object; secondly determine the arguments which can have access to these properties. Hyman and Duranti (1982:220) agree that a true object should

(a) have access to the position immediately following the verb; (b) be capable of assuming the subject role through passivization, and (c) be expressible as a clitic OM within the verbal complex.

Hyman and Duranti's three criteria have been used widely in the study of double object constructions and are the ones to be followed in this study, as summarized below:

- a. The word order;
- b. The control of object marker;
- c. The subjectivization of the object.

It is important to notice that other scholars added other criteria to the above list; Matambirofa (2003) included reflexivization, reciprocalization and locative, while Simango (1995) added reciprocalization and unspecified object deletion. Bresnan and Moshi's (1993) list includes reciprocalization, unspecified object deletion and interaction of object properties, while word order is omitted.

Besides the above mentioned criteria, Hyman and Duranti (1982:223) provide three factors that may influence the possibility that an NP would exhibit, as described below.

- a. Semantic case relation;
- b. Animacy;
- c. Determinedness.

In respect to semantic case, it is believed that the higher semantic role hold greater access to object. Beneficiary holds greater access than recipient, recipient holds greater access than patient and patient has a greater chance than the instruments as illustrated in (109a) and (110) respectively. With reference to animacy, human has greater access to object than animate and animate in its turn holds greater access than inanimate, as exemplified in (109a), (109b) and (110) on the next page.

The last factor is determinedness. In this factor, individuated is believed to have greater access to objecthood than less determined (Hopper & Thompson 1980, cited in Hyman & Duranti 1982:224). The discussion that follows will focus on the three basic criteria, followed by examples in *Kikongo*.

#### 4.2.3.1 Word Order

Adjacency to the verb has been claimed to be one of the basic tests for objecthood. Given the word order constraint, the NP immediately following the verb is usual taken as the direct object. Compare the examples in (109a, b, and c) and (110) respectively.

- (109) a) *Nzumba lambidi a-ana madya.* (beneficiary)  
 1NP cook-APPL-PST 2-child 6-food  
 ‘Nzumba cooked the meal for the children.’
- b) *Nzumba vond-el-e a-ana mu-ntu.* (maleficiary)  
 1NP kill-APPL-PST 2-child 1-shirt  
 ‘Nzumba killed children person.’  
 ‘Nzumba killed a person for children.’
- c) *Nzumba sumb-id-i mwa-ana u-na ye nzala ma-nkondo.* (motive)  
 1NP buy-APPL-PST 1-child 1SM-be with hungry 6-banana.  
 ‘Nzumba bought a child who is with hunger bananas.’  
 ‘Nzumba bought bananas for the child who is hungry.’
- (110) *Nzumba veen-e mwa-ana di-mpa.* (recipient)  
 1NP give-PST 1-child 5-bread  
 ‘Nzumba gave the child bread.’

Examples from (109a), (109b) and (109c) with applied verbs and that in (110) with a base verb *vaana* ‘give’, illustrate that *aana* ‘children’, *Luzulo*, *mwaana* ‘child’ and *mwaana* ‘child’ occur immediately after the verbs *-lambila* ‘pray for’, *-vondela* ‘kill for’, *-sumbila* ‘buy for’ and *-vaana* ‘give’, therefore they display properties similar to the object. The default word order in *Kikongo*, as in the case of many other Bantu languages, is SUBJ-VERB-OBJ2-OBJ1 where object 2 may be a beneficiary in the applied verb or a recipient in the base verb while object 1 is the patient/theme in both cases.

#### 4.2.3.2 Object Marker

The object marker is another criterion used in determining the objecthood of an NP by checking whether an object can anaphorically deposit its pronominal marker in the relevant verb structure. Bresnan and Moshi (1993:50) suggest that “in *Kichaga* any of the multiple objects may be expressed by OM including both patient and beneficiary OM on an applied verb.” In *Kikongo*, however, a double OM can not occur, as shown in (111d) and (112c) respectively.

- (111) a) *Nzumba lamb-id-i aana ma-dya.* (Vstem - APPL object - NPpt)  
 1NP cook-APPL-PST 2-child 6-food  
 ‘Nzumba cooked the meal for the children.’
- b) *Nzumba u-n-lamb-id-i ma-dya.* (OM-Vstem-NPpt)  
 1NP 1SM-2OM-cook-APPL-PST 6-food  
 ‘Nzumba (Nzumba) him/her cooked for the meals.’  
 ‘Nzumba cooked them the meal.’
- c) *Nzumba lamb-id-i mo a-ana.* (Vstem Pron- NPRecipient)  
 1NP cook-APPL-PST 6-Pron 2-child  
 ‘Nzumba cooked it (the meal) for children.’  
 ‘Nzumba cooked it for the children.’
- d) \**Nzumba u-mo-n-lamb-id-i.* (OM OM Vstem)  
 1NP SM-6OM-2OM-cook-APPL-PST  
 ‘Nzumba cooked it (the meals) for them (the children).’
- (112) a) *Nzumba veen-e mwa-ana ma-dya.* (Vstem-Recip-NPpt)  
 1NP give-PST 1-child 6-food  
 ‘Nzumba gave a child the meal.’
- b) *Nzumba u-n-veen-e ma-dya.* (OM-Vstem-NPpt)  
 1NP SM-2OM-give-PST 6-food  
 ‘Nzumba (Nzumba) him/her gave food.’  
 ‘Nzumba gave him the meal.’
- c) \**Nzumba u-n-mo-veen-e.* (OM-OM-Vstem)  
 1NP SM-1OM-6OM-give-PST  
 ‘Nzumba it (the meal) him (*mwaana*) gave.’  
 ‘Nzumba gave it to him.’

The examples in (111d) and (112c) show that in *Kikongo* only one object can be expressed in the verb at a time, while the example in (111b) suggest that OM is obligatory whenever the co-referential NP is [+ human], as was argued in Chapter I. This means that *Kikongo* is a single object language, as opposed to *Kichaga* (Bresnan & Moshi 1993:51). Hualde (1989:180, cited in Friesen 2002:109), claims that the singular object language, as in the case of *Kirimi* is regulated by two principles:

1. Any object may control the prefix position if left unexpressed as lexical NP;
2. A definite animate is required on the verb.

#### 4.2.3.3 Subjectivisation

Subjectivisation is a process of converting the object into the subject position via passivization. In *Kikongo*, for instance, an object linked to a theme or to a beneficiary may become the subject of a passive construction. Similar to word order and OM, subjectivisation of the object has been used as a criterion for determining objecthood in Bantu languages. As the examples in (113b) and (113c) illustrate, *Kikongo* allows both OBJ2 and OBJ1 to be subjectivised.

- (113) a) *Nzumba lamb-id-i aana ma-dya.* (Vstem-Recip-NPpt)  
 1NP cook-APPL-PST 2child 6-food.  
 ‘Nzumba cooked the meal for the children.’
- b) *Ma-dya ma-lamb-il-w-e a-ana.* (NPpt-Vpass-NPben)  
 6-food SM-cook-APPL-PASS-PST 2-child  
 ‘The meal was cooked for the children.’
- c) *A-ana a-lamb-il-we ma-dya.* (NPben-Vpass-NPpt)  
 2-child SM-cook-APPL-PASS-PST 6-food  
 ‘Children were cooked the meal.’

Subjectivisation has also been used as a criterion for classifying languages as asymmetrical and symmetrical. Languages which allow both beneficiary and patient to be passivized are referred to as symmetrical while those that do not are asymmetrical (Falk 2001:98;

Bresnan & Moshi 1993:50; Woolford 1993:1). It may be concluded that *Kikongo* is a symmetrical language. Table 10 summarizes the status of double object in *Kikongo*.

Criterion	Double object with two-verb object	Double object with applied verbs
Word order	Subject-V-Recipient-Patient Or Subject-V- Object 2-Object 1	Subject-V-Applied Object-Theme
Object marker	Only Object 1 can appear as a prefix	Only Applied Object can appear as a prefix
Subjectivization	Both can apply	Both can apply

**Table 10:** The status of objecthood in *Kikongo*

### 4.3 Affix Ordering

In Section 4.2.1 it was shown that both applicative and causative suffixes augment the valency of the verb by introducing a new object. Such an object acquires various names according to the thematic role. It was also maintained that these two affixes apply to the process of nominalization, whereas in Section 4.2.2 it was observed that passive, stative, reciprocal and reflexive decrease the valency of the verb. While passive and stative suppress the object (theme), reciprocal and reflexive bind the theme to the subject of the sentence. In this group of affixes only passive and reflexive can apply to the process of nominalization.

One of the objectives of this study is to examine the sequence in which affixes in *Kikongo* occur in the VR. In fact, suffix ordering in Bantu languages has attracted much interest of linguists (cf. Bybee 1985 cited in Hyman 2002:1; Baker 1985a; Alsina 1999; Hyman 2002; Mathangwane 2001; Ngunga 2000). One of the crucial problems has been whether suffix ordering in Bantu languages should be treated within the realm of semantics (Bybee 1985), syntax (Baker 1985a), morphology (Hyman & Mchombo 1992; Bresnan & Moshi 1993; Alsina & Mchombo 1993) or combination of these (Hyman 2002). The LMT can, therefore, best describe this phenomenon in *Kikongo* for two

reasons: firstly it is a morphological process; secondly it provides principles which can account for language difference, as discussed in Section 3.3.1.

As will be seen, *Kikongo* verb morphology favours one-way combinations, imposing restrictions on reversibility. To help understand this phenomenon, the data in (114) will be used along with the theoretical framework proposed in this study. In addition to that, as will be seen later, Hyman (2002) and Ngunga's (2000: 222) four factors will be taken into account.

(114) Suffix Ordering		Gloss in English
1. a) APPL-CAUS	<i>*lamb-il-is-a</i>	caused to cook for/at
b) CAUS-APPL	<i>lamb-is-il-a</i>	caused to cook for/at
2. a) CAUS-PASS	<i>lamb-is-w-a</i>	caused to be cooked
b) PASS-CAUS	<i>*lamb-w-is-a</i>	be caused to cook
3. a) APPL-PASS	<i>lamb-il-w-a</i>	be cooked for/at
b) PASS-APPL	<i>*lamb-w-il-a</i>	be cooked for/at
4. a) CAUS-REC	<i>*wan-is-an-a</i>	caused to each other meet
b) REC-CAUS	<i>wan-an-is-a</i>	each other caused to meet
5. a) REFL-APPL	<i>ki-lamb-il-a</i>	cooks oneself for/at
6. a) CAUS-STAT	<i>*mon-es-ek-a</i>	caused to be visible
b) STAT-CAUS	<i>mon-ek-es-a</i>	caused to be visible
7. a) PASS-REC	<i>*lamb-w-an-a</i>	be cooked by each other
b) REC-PASS	<i>*lamb-an-w-a</i>	be cooked by each other
8. a) REFL-REC	<i>*wan-ki-an-a</i>	each other meet themselves
9. a) REFL-PASS	<i>*ki-lamb-w-a</i>	oneself be cooked

#### 4.3.1 Causative and Applicative Combination

- (115) a) *\*A-ana a-lamb-id-is-i nzenza madya.*  
 2-child 2SM cook-APPL-CAUS-PST 9-visitor  
 ‘\*The children caused to cook the meal for the visitor.’



### 4.3.2 Causative and Passive Combination

With reference to orderings in (118), (118a) gives the causative-passive where the sequence of affixes is *-is-*, *-w-* whereas the passive-causative in (118b) where the order of affixes is *-w-*, *-is-* cannot obtain.

- (118) a) *Madya ma-lamb-is-w-e.*  
 6-food 6SM-cook-CAUS-PASS-PST  
 ‘The food was made cooked.’  
 ‘The meal has been requested.’
- b) \**Madya ma-lamb-w-is-e.*  
 6-food 6SM-cook-PASS-CAUS-PST  
 ‘The meal has been requested.’

In Subsection 4.2.1.2 it was noted that the causative affix adds a new element to the argument structure of the host verb. This new element can undergo the thematic roles of experiencer/goal. The function of the passive, however, is to suppress the agent of the active sentence topicalizing the object. When the causative affix is attached to the base verb *-lamba*, the causativized verb *-lambisa* is derived. With the inclusion of the passive affix, the causative *-lambisa* becomes passivized *-lambiswa*. This combination can be formally represented as in (119).

- (119) a) *lamb-a* ‘cook’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag    | th>   |
- b) *lamb-is-a* ‘cause to cook’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <ag    | ben    | th>    |
- c) *lamb-is-w-a* ‘caused to be cooked’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <∅     | ben    | th>    |

### 4.3.3 Reciprocal and Causative Combination

As regards the orderings in (120), (120a) gives the causative-reciprocal where the sequence of affixes is *-an-,-is-* whereas the reciprocal-causative in (120b) where the order of affixes is *-is-an-* cannot obtain. As already indicated in Chapter II, this also undermines the claims made in CARP.

- (120) a) *Lukazalu lw-a Luzolo lw-a tu-vov-an-is-a.*  
 11-wedding 11SM-of 1PN 11SM-of p.pron 3PL-speak-REC-CAUS-ASP  
 ‘Luzolo’s wedding had made us speak to each other.’
- b) *\*Lukazalu lwa Luzolo lwa tu-vov-is-an-a.*  
 11-wedding 11SM 1PN 11SM 3PL-speak-CAUS-REC-ASP  
 ‘\*Luzolo’s wedding had made us speak to each other.’

As shown above, the causative *-is-* is known in the literature for its transitivizing effect, which consequently increases the valency of the verb by adding one more object, converting the verb into a two-object verb, (cf. 93b, page 118). In the case of the reciprocal *-an-*, this affix binds the object of the verb to the subject (agent). In fact, the order in (120a) has some theoretical implications because the reciprocal that comes before the causative makes a new argument available; as a result, the patient is bound to the agent leaving the newly derived argument as represented in (121b).

- (121) a) *vov-an-a* ‘cause to speak’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag    | ∅>    |
- b) *vov-an-is-a* ‘each other cause to speak’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <ag    | exp.   | ∅      |

Taking into account the principles of syntax, causative would make the new argument available and then when the reciprocal is attached it binds the new argument, as shown in (122b).

- (122) a) *vov-is-a* ‘cause to speak’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <ag    | exp.   | th>    |
- b) \**vov-is-in-a* ‘each other cause to speak’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <ag    | ∅      | th>    |

The ordering in (122b), however, is ungrammatical, and, therefore, it is ruled out in the grammar of *Kikongo*. To paraphrase Hyman and Mchombo (1992:350) cited above, in many languages with complex morphologies, affixes may not be combined freely, but rather are subject to different kinds of sequential constraints.

#### 4.3.4 Applicative and Passive Combination

In the case of the applicative and passive ordering, the situation remains unaltered. In (123), it is seen that only (123a) can provide the applicative-passive where the order of affixes is *-il-*, *-w-* whilst in (123b) the passive-applicative does not apply.

- (123) a) *Madya ma-lamb-il-w-e nzenza.*  
 -6food 6SM-cook-APPL-PASS-PST -9 visitor  
 ‘The meal has been cooked for the visitor.’
- b) \**Madya ma-lamb-w-il-e nzenza.*  
 -6food 6SM-cook-PASS-APPL-PST -9 nzenza  
 ‘The meal has been cooked for the visitor.’

The main characteristic of the applicative is that of increasing the valency of the verb by adding one more object and turning the verb into a two-place verb, as was already acknowledged in the preceding sections, whereas the passive *-w-* suppresses/deletes the subject NP, promoting the theme into the subject of the passive sentence. The inclusion of passive, in the VS *-lambila*, ‘to cook for’, gives *-lambilwa*, ‘be cooked for/at’, that is, the passive suppresses the NP subject and the theme of the active is realized as the subject of the passive as formally mapped in (124c). As in the case of the previous orderings, the passive-applicative does apply.

- (124) a) *lamb-a* ‘to cook’
- |        |       |
|--------|-------|
| (SUBJ) | (OBJ) |
|        |       |
| <ag    | th>   |
- b) *lamb-il-a* ‘cook for/at’
- |        |        |        |
|--------|--------|--------|
| (SUBJ) | (OBJ2) | (OBJ1) |
|        |        |        |
| <ag    | ben    | th>    |
- c) *lamb-il-w-a* ‘be cooked for’
- |     |        |        |
|-----|--------|--------|
| ∅   | (OBJ2) | (SUB1) |
|     |        |        |
| <ag | ben    | th>    |

#### 4.3.5 Reflexive and Applicative Combination

When referring to the combination of reflexive and applicative in (115), only the reflexive-applicative can be achieved in (125). The reason why the reverse order does not apply is because the reflexive is restricted in its distribution to pre-VS position.

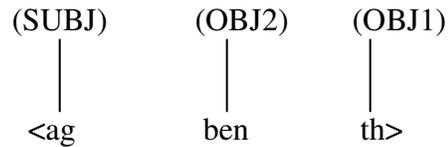
- (125) *Luzolo u-ta-ki-lamb-il-a ma-dya.*  
 1PN SM-be-REFL-lamb-APPL-PRES 6-food  
 ‘Luzolo is cooking the meal for herself.’

The applicative affix *-il-*, when attached to a VS, increases the valency of the verb by adding a new object, which may take semantic roles ranging from beneficiary>maleficiary>instrument to locative. When the reflexive prefix *ki-* is attached, the applied object is bound to the subject as it is formally mapped in (126c), meaning the actor is simultaneously the beneficiary.

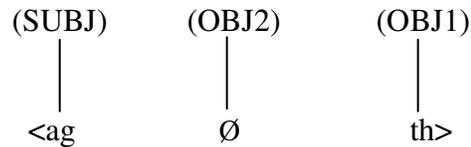
(126) a) *lamb-a* ‘to cook’



b) *lamb-il-a* ‘to cook for’



c) *ki-lamb-il-a* ‘cook oneself for’



In fact, the glosses in (126c) suggest that semantically the reflexive-applicative verb derived from a transitive verb shows that the action it expresses is for the benefit of the subject (agent) *Luzolo*. Conversely, when a reflexive-applicative is derived from an intransitive verb, as in (127), it may change the meaning of the verb or denote that the action takes place by itself (Matsinhe 1994:172).

(127) a) *Luzolo fw-idi.*  
 1PN die-PST  
 ‘Luzolo died.’

b) *Luzolo wa fw-il-a mwa-ana.*  
 1NP 1conn. die- APPL-FV 1-child  
 ‘Luzolo died for a child.’  
 ‘Luzolo has lost a child.’

- c) *Luzolo u-ki-fw-id-idi mu-vata.*  
 1NP 2SM-REF-die-APPL-PST 18Loc-village  
 ‘Luzolo died for himself in the village.’  
 ‘Luzolo did not go anywhere.’

Semantically, the intransitive verb *-fwa* ‘die’ in example in (127c) suggests that *Luzolo* did not go anywhere, simply died at home. The example in (127c) suggests that the reflexive affix *-ki-* can be used with an intransitive verb as long as the applicative affix *-il-* is also used. In other words, in order for reflexive *ki-* to occur with an intransitive verb, applicative *-il-* must be present to introduce the object, which is bound to the subject when the reflexive verb is applied. This fact confirms the idea that reflexivized applicative verbs can be freely derived from base verbs, whether inherently transitive or intransitive (Matsinhe 1994:172). However, the example in (127b), suggests that the applicative *-il-* can occur independently in transitive verbs.

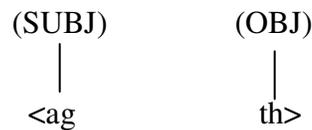
More importantly, the examples in (127b) and (127c) show that reflexivized applicative tend to lexicalize and gradually acquire a new meaning, which is different from the one of the base verb. In effect, such a meaning must be learned in context by the learners of *Kikongo*. In other words, the example in (127b) and (127c) suggests that the reflexive is no longer taken as an affix because it becomes part of the base verb. In fact, many such verbs are by now in the lexicon of the language. This means they have been completely lexicalized, and in that they should be learned as independent words.

#### 4.3.6 Stative and Causative Combination

- (128) a) *Lumengo monekese kinvwama.*  
 NP see-STAT-CAUS-PST 7-wealth  
 ‘Lumengo made her wealth visible.’  
 ‘Lumengo proved that she is rich.’
- b) *\*Lumengo moneseke kinvwama.*  
 PN see-CAUS-STAT-PST 7-wealth  
 ‘Lumengo made her wealth visible.’  
 ‘Lumengo proved that she is rich.’

In Section 4.2.2.1 it was seen that similar to passive, stative suppresses the subject of the active sentence. The only difference is the fact that while the passive may promote the suppressed subject to the position of NP oblique, the stative does not have this possibility. In ordering in (128a), when the stative affix is attached to the verb *-mona* ‘see’ it becomes stativized *-moneka*, ‘to be visible’, suppressing the subject of the sentence, as was already said. The inclusion of the causative affix converts the stativized verb into *-monekesa*, ‘cause to make visible’, adding a new element to the predicate argument structure, as represented in (129c). This fact brings changes to the meaning of the verb, as illustrated in the gloss. The meaning in this order suggests that *Lumengo* has performed an action or activity in the community which proved that she is in fact a rich woman.

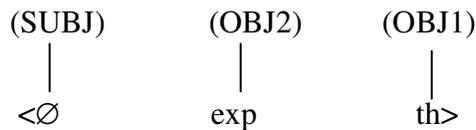
(129) a) *mon-a* ‘see’



b) *-mon-ek-a* ‘be visible’



c) *-mon-ek-es-a* ‘cause be visible’



### 4.3.7 Constraints and Limitations

Having presented the possible orderings and their effects to the predicate argument structure, the next task will be to examine the orderings which do not apply. In the introduction it was argued that affix ordering appear to be one of the most complex tasks to deal with in Bantu languages because different language morphologies present different conditions under which such ordering occurs. In spite of its complexity, scholars

who have worked in the field for example Hyman (2002) and Ngunga (2000:222) determined factors that may constrain the ordering of affixes:

- a) *Morphotactics*: suffix X must precede (or follow) suffix Y;
- b) *Valency*: suffix X may or may not be attached to inherently transitive or intransitive roots;
- c) *Phonotactics*: suffix X must occur (or must not occur) in phonological environment Y;
- d) *Compositionality*: suffix X and Y can only co-occur if they are semantically compatible.

Matsinhe (1994:173) agrees that “verbal affixes can only co-occur in the same verbal root under certain syntactic-semantic and pragmatic constraints.” In other words, while some VRs can select given affixes, others will disallow them under the conditions mentioned above. Therefore, the following section will discuss affix ordering constraints found in *Kikongo*, considering the data in (114) (page 134).

Regarding number (8), the reflexive and reciprocal perform related syntactical functions. That is, when a reciprocal *-an-* or a reflexive *ki-* is attached to a transitive verb, they bind the object of the verb to the subject, (cf. 103b, page 123 and 105b, page 125 respectively). They only differ in the fact that reciprocal means two or more individual are involved/engaged in the same activity whereas in reflexive means that the actor performs the action on him/herself. Given the reasoning from (103b) and (105b), their combination is regarded as impractical, in fact Hyman’s (2002) template default CARP, as discussed in Chapter II would face difficulties. It may be said that Ngunga’s factor b) valency decreasing is applied.

The same situation is true of numbers (7a), (7b), and (9) respectively. During the discussion in Section 4.2.2, it was underlined that the syntactic function of the passive is to suppress the subject of the active sentence and assign the object of the active sentence as the subject of the passive sentence. Attaching either reflexive or reciprocal, whose

function is to bind the theme to the agent will make the combination impossible because the subject which they should be bound to is suppressed. However, according to Mathangwane (2001), in the *Ikalanga* language this combination passivized reciprocal (and *vice versa*) can be obtained as in the *Ikalanga* examples in (130) taken from Mathangwane (2001:405).

- (130) a) *Kw-á-ká-bé kuténgés-áŋ-w-a.* (REC-PASS)  
 ‘There was selling of each other.’
- b) *Kw-á-ka-bé ku-tengés-iw-án-a.* (PASS-REC)  
 ‘There was selling of each other.’

Mathangwane argues that in *Ikalanga* it is possible to eliminate the argument requirements of the verb. This is the case in such constructions that encode a non-thematic subject as found in impersonal sentences on English.

It has also been observed that the ungrammaticality of some orderings is related to the VR restriction. Some affixes select the suffix which they precede, as is the case in (1a), (2b), (3b), (4a), and (6a) in (114, page 134). These restrictions are explained in the Morphocentric approach as a morphotactic factor which determines that ‘suffix X must precede suffix Y’ (see also Ngunga 2000).

One of the most remarkable constraints observed is that of irreversibility of the affixes. Put differently, when a sequence of affix ordering is obtained, its reverse becomes ungrammatical (cf.114). So it could be argued then that *Kikongo* morphology imposes one-way movement as regard to affix ordering and therefore discards the principle of contrastive affix orders as was proposed in the Mirror Principle.

Table 11 (on the next page) summarizes the possible affix combinations in *Kikongo* as they were described in the examples above. Allomorphs have been omitted as they were illustrated in Table 7 (page 111).

	<b>APPL</b>	<b>CAUS</b>	<b>PASS</b>	<b>REC</b>	<b>REFL</b>	<b>STAT</b>
Affixes	-il-	-is-	-w-	-an-	ki-	-ik-
APPL	*	*	√	*		*
CAUS	√	*	*	*		*
PASS	*	*	*	*		*
REC	*	√	*	*		*
REFL	√	√	*	*		*
STAT	*	*	*	*		*

**Table 11:** Affix ordering

- (√) combination applicable  
 (\*) combination not applicable

Table 11 shows that applicative could combine with passive, causative could combine with applicative, reciprocal could combine with causative and reflexive could combine with both causative and causative.

#### 4.4 Summary

As seen above, there are competing theories with regard to the status of affixes in Bantu languages. Given the data in *Kikongo*, it would seem that LMT is the most appropriate theory to account for verbal affixes. Baker’s (1985a, 1988a) “Mirror Principle” and “Incorporation” could probably deal with internal effects in the verbs, but would face challenges relating to the nominalized forms. As Alsina and Mchombo (1993) put it, “there is no reason why syntactic input should generate morphological input”. With reference to double objects, although *Kikongo* is closer to *Kichaga*, this language does not use two OMs at once, but patient, recipient and beneficiary can be passivized.

As regards affix ordering, it has been observed that *Kikongo*, like other Bantu languages, imposes ‘syntactic-semantic’, and ‘pragmatic’ restrictions. Importantly, *Kikongo* morphology imposes one-way movement and therefore rejects the principle of contrastive affix orders.

## CHAPTER V: CONCLUSIONS

### 5.1 Conclusions

The main purpose of this study was to examine the form and function of verbal affixes in *Kikongo*. Two affixes, applicative and causative, which increase the valency on the predicate argument structure as well as four affixes, passive, stative, reciprocal and reflexive, which reduce the valency on the predicate argument structure, have been examined. In *Kikongo*, as in the case of many Bantu languages, multiple affixes can be hosted by a single VR, resulting in complex morphological forms.

This study has attempted to deal with the affixes and their grammatical functions in these complex combinations. Some of the verbal affixes described in this study are typical of Bantu languages. However, *Kikongo* certainly has some idiosyncrasies, such as the combination of causative and reciprocal forms. The valency-increasing affixes, namely the applicative and the causative are very productive and allow for a broad range of thematic roles to be associated with the objects they introduce, while the valency-reducing affixes, namely the stative affix is the least productive in this language. It has also been shown that the new object added in the applicative and the causative constructions exhibit the same syntactic properties as the object of the base verb, making *Kikongo* a symmetrical language. Furthermore, this study has revealed that lexicalized applicative, causative, passive and reflexive verbs can easily occur in *Kikongo* whereas reciprocal and stative lexicalized verbs do not seem to occur in *Kikongo*.

The study also analyzed the combination of affixes and the generalization is that the affixes with similar effects on the predicate argument structure of the verbs where they are attached to may not coexist. Furthermore, it has become evident from the data, the VR can accommodate as many verbal affixes as semantically and syntactically permissible.

Chapter II discussed the competing theories on the status of affixes in Bantu languages. Given the data in *Kikongo*, the LFG appears to be the most appropriate theory to account for verbal affixes.

Finally, while the analysis presented in this study accounts for combination of two verbal affixes, the LMT does not seem to accommodate the lexicalized forms in a satisfactory manner. An approach aimed at mapping the predicate argument structure of the verb should take into account the *Kikongo* lexicalised verb form. Thus, further development of the LMT is desirable so that it can take into account these forms.

## **5.2 Further study**

The limited scope of this study could not allow exploring all aspects pertaining to verbal affixes, such as the non-occurrence of reciprocal and stative lexicalized forms; the occurrence of reciprocal and causative and stative and causative verbal affix combination, that seem to contradict the generalisation on verbal affixes in *Kikongo* made in this study. It is therefore desirable that all this be included in further studies on this language.

## End Notes

<sup>1</sup> Hodges (2002) who studied the languages and ethnicity of Angola using data from the National Institute of Statistics of Angola agreed that the country has three major ethno-linguistic groups, corresponding to about three fourths of its population.

<sup>2</sup> The term ‘Bantu’ was first used as a technical label for a certain group of languages in the mid-1850s by Wilhelm Bleek. Bleek used the term Bantu as convenient when cataloguing books in the library (Maho 1999:23). Thus, in this dissertation, the term Bantu is employed in the same spirit.

<sup>3</sup> [http://55.1911.encyclopedia.org/B/BANTU\\_LANGUAGES.htm](http://55.1911.encyclopedia.org/B/BANTU_LANGUAGES.htm), revised in May 2005, [accessed on 12 August 2006]

<sup>4</sup> [http://www.kongo-encyclopedia.com/History\\_Geography\\_and\\_Biology.htm](http://www.kongo-encyclopedia.com/History_Geography_and_Biology.htm), revised in February 2005, [accessed on 10 March 2006]

<sup>5</sup> [http://cesa.imb.org/Therregion/Angola/this\\_month's-focus.htm](http://cesa.imb.org/Therregion/Angola/this_month's-focus.htm), revised, in July 2006, [accessed on 28 July 2006]

<sup>6</sup> According to Chapter 1, Section 6.1 of the South African Constitution (1996), 10 indigenous languages plus English are regarded as official.

<sup>7</sup> Maho has been updating Guthrie’s (1967-71) referential classification.

<sup>8</sup> The abbreviations used in the verbal structure schema are as follows:

NEG	=	negative marker	SM	=	subject marker
T/A	=	tense aspect marker	MOD	=	modal inflection
OM	=	object marker	Rad	=	verb radical
I	=	inflectional node			

<sup>9</sup> Given an appropriate oral discourse context, -ko can be omitted without rendering the sentence ungrammatical. However, in written texts its presence is obligatory, as illustrated below:

### Oral

*Yeto ka-tu-lamb-a ma-dya*  
3P-PL NEG-SM3PL-cook-FV 6-meal  
We not we-cook-FV 6-meal  
‘We do not cook the meal.’

### Written

*Nzumba ka-lemb-e ma-dya ko.*  
PN NEG-cook-PST 6-meal NEG  
*Nzuma* not cooked meal not.  
‘*Nzumba* did not cook the meal.’

Arguably, *Kikongo* uses a double negation structure.

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<sup>10</sup> Recently the Angolan Government has attempted to indigenize the names of provinces, as could be found in Ntongo (2006). However, for the sake of consistency this work will use the name of *Uige* instead of *Wiji*.

<sup>11</sup> Dereau and Diarra are included here because they are some of very few authors who studied verbal affixes in *Kikongo*.

<sup>12</sup> Equi NP-rule is a syntactic operation in early Transformation Grammar which deleted one of two identical noun phrases. A sentence like, 'I asked Mary to come', is derived from 'I asked Mary [Mary come].

<sup>13</sup> Incorporation is a sub-theory of GB; for this reason the term Incorporation will be used interchangeably.

<sup>14</sup> Empty Category is a sub-theory of Government and Binding Theory.

<sup>15</sup> *Chisenga* is a Bantu language spoken in Southeastern Africa, codified N.41 according to Guthrie's (1967-71) referential classification (Simango 1995:2)

<sup>16</sup> According to Guthrie's (1967-71) referential classification, *Mbonge* is a dialect of *Oroko*, a language spoken in Cameroon, classified under zone A with number 10. This dialect is codified as A.11e (Friesen 2002:5)

<sup>17</sup> According to Guthrie's (1967-71) classification, *Ngangela* is codified in zone K with number 10.

<sup>18</sup> It is important to note that Rayson's assertion may be misleading arguments as quantitative research can also be data-driven.

<sup>19</sup> Although in *Kikongo*, as in the case of many Bantu languages, class 2 is formed by using the prefix *ba-*, in *Kizombo* this prefix is represented by *a-*, as indicated in Table 6.

<sup>20</sup> *Lingala* is a Bantu language also a lingua franca spoken in the DRC while French is the colonial language later adopted as the official language of the country.

<sup>21</sup> [http://www.linguistics.unimelb.edu.au/about/staff\\_docs/rachel/NordBres.pdf](http://www.linguistics.unimelb.edu.au/about/staff_docs/rachel/NordBres.pdf), revised, in July 2006, [accessed on 28 July 2007].

<sup>22</sup> X-bar is a restrictive theory of endocentric c-structure categories, according to which phrasal categories are projected from lexical categories.

<sup>23</sup> A configurational language is the one in which syntactic units appear in a fixed order, whilst in a non-configurational language the order of individual words is free where sentences hold structure that is difficult to be represented by phrase structure trees.

<sup>24</sup> Proto Bantu reconstructions are obtained from Meeussen (1967).

<sup>25</sup> The inclusion of reflexive in this study rests upon the fact that it behaves like any other affix; reflexive, as in the case of passive, reciprocal, stative reduces the valency of the predicate argument structure.

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<sup>26</sup> In Kikongo, verbs that end in bilabial nasal [m] and alveolar nasal[n] form their applicative verbs with -in- as seen below.

*Vaana* > *vaan-in-a*  
Give    give for  
*Swama* > *swam-in-a*  
Hide    hide for

<sup>27</sup> Clipping is a word formation process which consists of shorting word, e.g. Professor → Prof, or Susan → Sue.

## **APPENDIX A:**

### **Questionnaire**

Dear speaker of Kikongo (Kizombo, dialect),

I am carrying out research in verbal suffixes in Kikongo for my Master degree in African languages at the University of South Africa. In this regard, it would be helpful for the success of this study if you would honestly interpret/translate the sentences below into Kikongo to ease collection of the data for the final results.

#### **PART I: THE FORM OF VERBAL AFFIXES IN KIKONGO**

##### **How do you say in Kikongo?**

1. ... cook for/at:
2. ... wash for/at:
3. ... take for/at:
4. ...meet for/at

1. ... cause to cook:
2. ... cause to wash:
3. ... cause to take:
4. ... cause to meet:

1. ... be cooked:
2. ...be washed:
- 3.... be taken:
- 4.... be met:

1. ... cook each other:
2. ... wash each other:
3. ... take each other:
4. ...meet each other

1. ... cook oneself:
2. ... wash oneself
3. ... take oneself:
4. ...meet oneself:

1. ...be visible:

**PART II THE AFFIX ORDERINGS** (adapted from Mathangwane 2001)

**Which of the following affix combinations are applicable?**

1a... cause to cook each other (CAUS-REC) \_\_\_\_\_

1b... cause each other to cook (REC-CAUS) \_\_\_\_\_

2a... cook each other for/at (REC-APPL) \_\_\_\_\_

2b... cook for each other (APPL-REC) \_\_\_\_\_

3a...be cooked for/at (PASS-APPL) \_\_\_\_\_

3b...be cooked for/at (APPL-PASS) \_\_\_\_\_

4a...caused to cook for (CAUS-APPL) \_\_\_\_\_

4b...caused to cook for (APPL-CAUS) \_\_\_\_\_

5a... cause to be cooked (CAUS-PASS) \_\_\_\_\_

5b... be caused to cooked (PASS-CAUS) \_\_\_\_\_

6a...be cooked by each other (PASS-REC) \_\_\_\_\_

6b...be cooked by each other (REC-PASS) \_\_\_\_\_

7a...meet themselves each other (REFL-REC) \_\_\_\_\_

7b... each other meet themselves (REC-REFL) \_\_\_\_\_

8a ...cause themselves to (CAUS-REFL) \_\_\_\_\_

8b... themselves cause to (REFL-CAUS) \_\_\_\_\_

9a...caused each other to (CAUS-REC) \_\_\_\_\_

9b...caused each other to (REC-CAUS) \_\_\_\_\_

10a...cook herself for/at (REFL-APP) \_\_\_\_\_

10b...cook for herself (APP-REFL) \_\_\_\_\_

11a...be cooked itself (PASS-REFL) \_\_\_\_\_

11b...itself be cooked (REFL-PASS) \_\_\_\_\_

## APPENDIX B: Kikongo Verbal Affixes

Nº	Base verb	Gloss	Applicative	Gloss	Causative	Gloss	Passive	Gloss	Reciprocal	Gloss	Reflexive	Gloss
1	-baaka	Tear	kaak-il-a	tear for	baak-is-a	cause to tear	baak-w-a	be torn			ki-baaka	tear oneself
2	-baka	Fetch	bak-il-a	fetch for	bak-is-a	cause to fetch	bak-w-a	be fetched	bak-an-a	fetch each other	ki-baka	fetch oneself
3	-bwa	fall down	bw-il-a	fall for	bw-is-a	cause to fall	-	-	-	-	-	-
4	-dya	Eat	di-il-a	eat for	di-is-a	cause to eat	di-iw-a	be eaten			ki-dya	eat oneself
5	-dila	Cry	did-il-a	cry for	did-is-a	cause to cry	dil-w-a		dil-an-a	cry each other	ki-dila	cry oneself
6	-fukama	Kneel	fukam-in-a	kneel for	fukam-is-a	cause to kneel	-	-	fukam-an-a	kneel each other	-	-
7	-futa	Pay	fut-il-a	pay for	fut-is-a	cause to pay	fut-w-a	be paid	fut-an-a	pay each other	ki-futa	pay oneself
8	-fwa	Die	fw-il-a	die for	fw-is-a	cause to die	-	-			-	-
9	-kaanga	arrest/tie	kaang-il-a	tie for	kaang-is-a	cause to tie	kaang-w-a	be tied	kaang-an-a	tie each other	ki-kaanga	tie oneself
10	-kanga	Toast	kang-il-a	toast for	kang-is-a	cause to toast	kang-w-a	be toasted	kang-an-a	toast each other	ki-kanga	toast oneself
11	-kaangala	Walk	kaangad-il-a	walk for	kaangad-is-a	cause to walk	kaangal-w-a	be walked	-	-	-	-
12	-kaya	Offer	kay-il-a	offer for	kay-is-a	to greet	-	-	kay-an-a	offer each other	ki-kaya	offer oneself
13	-kala	Stay	kad-il-a	stay for	kad-is-a	cause to stay	-	-			-	-
14	-katula	take away	katud-il-a	take away for	katud-is-a	cause to take away	katul-w-a	be taken away			<b>ki-katula</b>	to exclude
15	-kina	Dance	kin-in-a	dance for	kin-is-a	cause to dance	-	-	-	-	-	-
16	-kola	Heal	kol-el-a	heal for	kol-es-a	cause to heal	kol-w-a	be a drunkard	-	-	-	-
17	-koomba	Sweep	koomb-el-a	sweep for	koomb-es-a	cause to sweep	koomb-w-a	be swept	-	-	ki-koomba	sweep oneself
18	-kosoka	sit down	kosok-el-a	sit for	-	-	kosok-w-a	be sat	-	-	ki-kosoka	sit oneself
19	-kota	get in	kot-el-a	get in for	kot-es-a	cause to put in	kot-w-a	be gotten in			<b>ki-kota (nsoki)</b>	do something wrong to oneself
20	-kovola	Cough	kovol-el-a	cough for	kovol-es-a	cause to cough	kovol-w-a	be coughed	-	-	-	-
21	-kuba	contribute	kub-il-a	contribute to	kub-is-a	cause to contribute	kub-w-a	be contributed	-	-	<b>ki-kuba</b>	to volunteer

22	-kusuna	Clean	kusun-in-a	clear for	kusun-is-a	cause to clean	kusun-w-a	ted be cleaned	-	-	ki-kusuna	clean oneself
23	-kwela	get married	kwed-il-a	get married for	kwed-is-a	cause to get married	kwel-w-a	be got married	kwel-an-a	get married to each other	-	-
24	-kwenda	Go	kwend-il-a	go for	kwend-is-a	cause to go	kwend-w-a	be gone	-	-	-	-
25	-kwika	Light	kwik-il-a	light for	kwik-is-a	cause to light	kwik-w-a	be lighted	-	-	ki-kwika	light oneself
26	-kwiza	Come	kwiz-il-a	come for	kwiz-is-a	cause to come	-	-	-	-	-	-
27	-lamba	Cook	lamb-il-a	cook for	lamb-is-a	cause to cook	lamb-w-a	be cooked	-	-	ki-lamba	cook oneself
28	-leeka	Sleep	leek-el-a	sleep for	leek-es-a	cause to sleep	leek-w-a	be slept	-	-	-	-
29	-lomba	Ask	lomb-el-a	ask for	lomb-es-a	cause to ask	lomb-w-a	be asked	lomb-an-a	ask each other	-	-
30	-lota	Dream	lot-el-a	dream for	lot-es-a	cause to dream	lot-w-a	be dreamt	lot-an-a	dream each other	ki-lota	dream oneself
31	-luka	Vomit	luk-il-a	vomit for	luk-is-a	cause to vomit	luk-w-a	be vomited	-	-	-	-
32	-lwaka	Arrive	lwak-il-a	arrive for	lwak-is-a	welcome (guest)	lwak-w-a	be arrived	-	-	-	-
33	-mata	Climb	mat-in-a	climb for	mat-is-a	cause to climb	mat-w-a	be climbed	mat-an-a	climb each other	ki-mata	climb oneself
34	-mona	See	mon-en-a	see for	mon-es-a	cause to see	mon-w-a	be seen	mon-an-a	see each other	ki-mona	see oneself
35	-nata	Carry	nat-in-a	carry for	nat-is-a	cause to carry	nat-w-a	be carried	nat-an-a	carry each other	ki-nata	carry oneself
36	-nika	Ground	nik-il-a	ground for	nik-is-a	cause to ground	nik-w-a	be ground	-	-	ki-nika	ground itself
37	-noka	Rain	nok-el-a	rain for	nok-es-a	cause to rain	nok-w-a	get wet	-	-	-	-
38	-nnanga	stay long	nnang-il-a	stay long for	nngang-is-a	cause to stay long	-	-	-	-	*ki-nnanga	PN
39	-samba	Pray	samb-il-a	pray for	<b>samb-is-a</b>	arbitrate	-	-	-	-	-	-
40	-sakana	Play	sakan-in-a	play for	sakan-is-a	cause to play	-	-	sakan-an-a	play each other	-	-
41	-sauka	Cross	sauk-il-a	cross for	sauk-is-a	cause to cross	sauk-w-a	be crossed	-	-	-	-
42	-seka	Brush	sek-el-a	brush for	sek-es-a	cause to brush	sek-w-a	be brushed	-	-	-	-
43	-seva	Laugh	sev-el-a	laugh for	sev-es-a	cause to laugh	sev-w-a	be laughed	sev-an-a	laugh at each other	ki-seva	laugh oneself

44	-sika	Shoot	sik-il-a	shoot for	sik-is-a	cause to shoot	sik-w-a	be shoot	sik-an-a	shoot each other	ki-sika	shoot oneself
45	-siimba	Hold	siimb-il-a	hold for	siimb-is-a	cause to hold	siimb-w-a	be held	siimb-an-a	hold each other	ki-siimba	hold oneself
46	-sikama	wake up	sikam-in-a	wake for	sikam-is-a	cause to wake	-	-	<b>sikam-an-a</b>	wake up early to do something	-	-
47	-sivika	Admire	sivik-il-a	admire for	sivik-is-a	cause to admire	sivik-w-a	be admired	-	-	<b>ki-sivika</b>	be big headed for achieving something
48	-soneka	Write	sonek-el-a	write for	sonek-es-a	cause to write	sonek-w-a	be written	-	-	ki-soneka	Write on oneself
49	-sotola	Drop	stool-el-a	drop for	sotol-es-a	cause to drop	stool-w-a	be dropped	-	-	ki-sotola	fall itself/oneself
50	-suba	Urinate	sub-il-a	urinate for	sib-is-a	cause to urinate	-	-	-	-	-	-
51	-sukula	Wash	sukud-il-a	wash for	sukud-is-a	cause to wash	sukul-w-a	be washed	-	-	ki-sukula	wash oneself
52	-suumba	Buy	suumb-il-a	buy for	suumb-is-a	cause to buy	suumb-w-a	be bought	suumb-an-a	buy each other	-	-
53	-suck	get old	suk-il-a	get old for	suk-is-a	cause to get old	-	-	-	-	-	-
54	-suuka	get up early	suuk-il-a	get early for	suuk-is-a	cause to get up early	-	-	-	-	-	-
55	-swama	Hide	swam-in-a	hide for	swam-is-a	cause to hide	swam-w-a	be hidden	swam-an-a	hide each other	ki-swama	hide from oneself
56	-sweka	Keep	swek-il-a	keep for	swek-is-a	cause to keep	swek-w-a	be kept	-	-	-	-
57	-syetola	pull	syetod-il-a	pull for	syetod-is-a	cause to pull	syetol-w-a	be pulled	-	-	ki-syetola	pull oneself
58	-tala	see/visit	tad-il-a	see for	tad-is-a	cause to see	tal-w-a	be seen	tal-an-a	see each other	ki-tala	see oneself
59	-taanga	learn/count	taang-il-a	learn for	taang-is-a	cause to learn	taang-w-a	be learned	taang-an-a	count each other	ki-taanga	count oneself
60	-tafuna	Chew	tafun-in-a	chew for	tafun-is-a	cause to chew	tafun-w-a	be chewed	-	-	ki-tafuna	chew oneself
61	-teeza	Try	teez-il-a	try for	teez-is-a	cause to try	teez-w-a	be tried	teez-an-a	try each other	ki-teeza	try oneself
62	-teka	Sell	tek-il-a	sell for	tek-is-a	cause to sell	tek-w-a	be sold	tek-an-a	sell each other	ki-teka	sell oneself
63	-tiina	run away	tiin-in-a	run away for	tiin-is-a	cause to run away	tiin-w-a	be avoided	tiin-an-a	run away each other	ki-tiina	run away oneself
64	-tima	Dig	tim-in-a	dig for	tim-is-a	cause to dig	tim-w-a	be dug	-	-	-	-
65	-tuma	Send	tum-in-a	send for	tum-is-a	cause to come	tum-w-a	be sent	tum-an-a	send to each other	<b>ki-tuma</b>	be in self-control

66	-tuunga	build/ sew	tuung-il-a	build for	tuung-is-a	cause to build	tuung-w-a	be built	tuung-an-a	build each other	ki-tuunga	sew oneself
67	-uula	Break	uud-il-a	break for	uud-is-a	cause to break	uul-w-a	be broken	uul-an-a	break (crash) each other	ki-uula	break itself
68	-vana	Give	van-in-a	give for	van-is-a	cause to give	van-w-a	be given			ki-vana	give oneself
69	-vaika	Go out	vaik-il-a	go out for	vaik-is-a	cause to go out	vaik-w-a	be gone out	-	-	-	-
70	-vova	Speak	vov-el-a	speak for	vov-es-a	cause to speak	vov-w-a	be spoken	vov-an-a	speak to each other	-	-
71	-vonda	Kill	vond-el-a	kill for	vond-es-a	cause to kill	vond-w-a	be killed	vond-an-a	kill each other	*ki-vonda	kill oneself
72	-vuunda	relax/rest	vuund-il-a	relax for	vuund-is-a	cause to relax	-	-	-	-	-	-
73	-vyoka	Pass	vyok-el-a	pass by	vyok-es-a	cause to pass	vyok-w-a	be passed	vyok-an-a	pass each other	-	-
74	-yaala	Govern	yaad-il-a	govern for	yaad-is-a	cause to govern	yaal-w-a	be governed	yaal-an-a	govern each other	ki-yaala	govern oneself
75	-yala	Extend	yad-il-a	extend for	yad-is-a	cause to extend	yal-w-a	be extended	-	-	-	-
76	-yiba	Steal	yib-il-a	steal for	yib-is-a	cause to steal	yib-w-a	be stolen	yib-an-a	steal each other	ki-yiba	steal oneself
77	-yoka	Roast	yok-il-a	roast for	yok-is-a	cause to roast	yok-w-a	be roasted	yok-an-a	burn each other	ki-yoka	burn oneself
78	-zaya	Know	zay-il-a	know for	<b>zay-is-a</b>	to announce	-	-	zay-an-a	know each other	<b>ki-zaya</b>	gain conscience
79	-zeenga	Cut	zeen-el-a	cut for	zeeng-es-a	cause to cut	zeeng-w-a	be cut	<b>zeeng-an-a</b>	be stupid	ki-zeenga	cut oneself
80	-zibula	Open	zibud-il-a	open for	zibud-is-a	cause to open	zibul-w-a	be opened	-	-	ki-zibula	open itself
81	-ziinga	Live	ziing-il-a	live for	ziing-is-a	cause to live						
82	-ziinga	wrap/tie	ziing-il-a	wrap for	ziing-is-a	cause to wrap	ziing-w-a	be wrapped	ziing-an-a	tie each other	ki-ziinga	tie oneself
83	-ziika	Bury	ziik-il-a	bury for	ziik-is-a	cause to bury	ziik-w-a	be buried	ziik-an-a	bury each other	ki-ziika	bury oneself
84	-zima	Blow	zim-in-a	blow for	zim-is-a	cause to blow	zim-w-a	be blown			ki-zima	blow itself
85	-zola	Love	zod-il-a	love for	zod-is-a	cause to love	zol-w-a	be loved	zol-an-a	love each other	ki-zola	love oneself
86	-zonz-a	Argue	zonz-el-a	argue for	zonz-es-a	cause to argue	-	-	-	-	-	-
87	-wana	Meet	wan-in-a	meet for	wan-is-a	cause to meet	wan-w-a	be met	wan-an-a	meet each other	-	-

Nº	Base verb	Gloss	Stative	Gloss
4	-dya	Eat	di-ik-a	cause to eat

34	-mona	See	mon-ek-a	be visible
67	-vaana	Give	vaan-ik-a	cause to give
73	-yaala	Govern	yaad-ik-a	cause to govern

**Note:** Forms in bold are regarded to have gradually acquired new meanings as shown in their respective glosses.

\* Indicate lexicalized forms. *Kivonda* is a personal name derived from the prefixation of reflexive *ki-* to the verb *vonda* “kill”

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