THE GRAMMAR OF COMPOUND NOUNS IN BEMBA

By

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DECLARATION

I, **CHUPA REUBEN CHULU,** do declare that this dissertation:

    (i)   Represents my own work;

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ABSTRACT

This study is informed by the observations and revelations that Bemba compound nouns do alter the meaning of words. At the centre of generating meanings of compound nouns in Bemba is a critical analysis into the grammar of Bemba compound nouns with regard to their morphology, syntax and semantics. The study lends itself to the contention by Kula (2009) that the combined nominal roots show properties of compounds with respect to the head controlling agreement and with respect to prosodic requirements on the head to end in a high tone. As a Bantu language (M42) mainly spoken in the Northern part of Zambia, Bemba compound nouns present an interesting area of Bantu linguistics in the manner the compounds behave with regard to their grammar. The study aimed to establish the grammatical properties in Bemba Compound Nouns. The unified theories of argument structure, Government and Binding as well as Transformational Generative Grammar were used in exploiting the grammatical properties of compound nouns. In principle, the Transformational Generative Grammar was used in the process of analysis to fully grasp the meaning behind the words selected within the corpus of this study. The study used qualitative approach to collect data and analysis. It was conducted within the spheres of the morphology, syntax and semantics of the Bemba compound nouns. The study revealed that nouns can combine with verbs, adjectives, nouns and so forth and can form complex compound nouns in form of grammatical phrases and clauses. The study also revealed that when two parts of speech such as; a noun and a verb, an adjective, an adverb and so forth are combined to form a compound; the meaning of individual words is obscured. The study concluded that compound nouns can be studied from different perspectives. The study therefore recommends that future research on Bemba compound nouns focus on the phonology or the aspect of their sociolinguistics.

Key words: *Compounding, Morphology, Syntax, Semantics, Grammar, Bantu language, Bemba.*

DEDICATION

To my own and only dear wife and girl of my youth Josephine, and children: Kasalwe, Kaunda and Chanda.

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To my God and father Jehovah, the glory and honour be yours.

ABBREVIATIONS

AUG   Augment

CSO   Central Statistical Office

DP   Deverbal Phrase

GRZ   Government of the Republic of Zambia

MOE   Ministry of Education

N1   Noun 1

N2   Noun 2

NC   Nominal compound

NP   Noun phrase

PP   Prepositional phrase

SM   Semantics

TNS   Tense

VP   Verb phrase

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION

1.1 General

The study is set out to investigate the grammar of compound nouns in Bemba. A compound noun is a fixed expression which is made up of more than one word and functions as a noun. The current chapter generally introduces the study by highlighting the background to the study. It briefly focuses on Bemba people and their language. The chapter also proceeds by discussing the typology of the Bemba language and also comments briefly on the classification of African languages for which Bemba is a part. It further discusses compounding as a word formation process. This is followed by stating the statement of the problem and also the aim and objectives of the study which gave the guide to the research questions. It ends by providing the significance, the delimitation of the study as well as the outline of the dissertation.

1.2 Background to the Bemba People and their Language

1.2.1 The Bemba People

Generally speaking, the Bemba people are traditionally peasantry. They grow crops such as cassava being their main crop, maize, sweet potatoes, beans, finger millet, sorghum, pumpkins and groundnuts. They use finger millet to brew beer known as 'katubi' and also for nshima. Millet is usually grown through the chitemene system of agriculture (i.e. shifting cultivation), even if the method has been discouraged by environmentalists from time and again because of the environmental concerns. Lately, gardening has taken the centre stage. Livestock is also reared on a small scale such as; goats, pigs and poultry among the Bemba people. The male community is so much engaged in masculine duties such as; weaving, hunting, blacksmith among the other responsibilities. The female counterparts on the other hand, usually engage themselves in feminine duties such as; moulding clay pots, pounding cereals, cassava in addition to cooking, fetching water and harvesting of crops. Tanguy (1948)

Culturally, the Bemba people are a matrilineal society in which monogamy is highly respected. A matrilineal society is one in which the line of genealogical relationship or decent follows the female side of a family. It also gives a description in which a relation is

through mothers. The language spoken in Bemba land is 'IciBemba' which language is said to be attached to the tribe. Tanguy (1948)

1.2.2 The Bemba Language

The Zambian society is endowed with many languages; there are officially 73 ethnic groups, from which, seven language clusters have been identified. There are seven languages or language clusters that are used in Zambia besides English for official purposes such as; broadcasting (both on radio and television), literacy campaigns and the official dissemination of information. These are (in alphabetical order), Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga. Basing on the conducted Census of Population and Housing 2010, the figures indicate that Bemba was the widely used language of communication spoken by 33.5 percent of the population in the country. Bemba was spoken by a higher proportion of population in the five provinces, namely; Central (31.8 percent), Copperbelt (83.9 percent), Luapula (71.3 percent), Muchinga (46.9 percent) and Northern (69.2 percent) provinces of the entire total number of speakers standing at 3, 820, 312 by 2010 from the National total of about 11, 126, 922.

Bemba was the largest ethnic group in Zambia said to stand at 21.0 percent. It has been reported from the Census of Population and Housing 2010 that, the majority of the population in the Copperbelt, Luapula, Lusaka, Muchinga, and Northern provinces was from the Bemba ethnic group. The language users are spread throughout the country to constitute the 21.0 percentage total presented graphically as follows in Table 1.

Ethnicity by province

	Percentage Distribution of the Population by Ethnicity and Province, Zambia, 2010										
Ethnicity	Zambia		Province								
		Central	C/belt	Eastern	Luapula	Lusaka	Muchinga	Northern	N/Western	Southern	Western
Bemba	21.0	13.6	35.9	1.2	44.1	20.2	37.2	55.3	2.8	3.4	0.7

Adapted from CSO (2010)

Table 1

1.3 Typology of Language

The word typology is defined by Edward (2004) as, "… the study of dividing a group of things into smaller groups according to the similar qualities they have." Relating this definition to 'The typology of Bantu languages', it can be said that Bantu languages belong to a group of languages that have similar qualities. These similar qualities are the features that the language group possesses. In pursuit of getting a paraphrased meaning of the definition, it can be said, therefore, that the typology of Bantu languages should mean the type of group to which Bantu languages belong. It suffices to say that most if not all Bantu languages are highly agglutinative in nature in which group, Bemba is found. It is therefore imperative to subject the Bemba language to the concept of agglutination in view of the current study on compounding.

Agglutination is the addition of a large number of affixes to come up with one word. Affixes are morphemes that are added to a root. Edward 2004:24 says, "An agglutinating language is one whose primary means of building words is by adding affixes. There are languages prefixation predominates, like Quileute while others, like Hungarian and Turkish, prefer suffixation."

An agglutinating language is a language in which the words are formed by joining morphemes together. The term was introduced by Von Humboldt in 1836 to classify languages from a morphological point of view. An agglutinating language is a form of synthetic language where each affix typically represents one morpheme, a unit of meaning such as, "diminutive", "past tense" and "plural" and bound morphemes are expressed by affixes and not by internal changes of the root of the word, or changes in stress or tone. In an agglutinating, affixes do not become fused with others.

Languages that heavily depend on morphemes added to roots in order to make words are called synthetic languages. Many European languages tend to fall in this category, using both suffixes and prefixes. The difference between synthetic and analytic languages is the degree at which affixes are used when making words. The synthetic languages use more affixes than their counterparts.

Bantu languages are agglutinative in nature. They are so termed because they possess morphemes which are 'glued' together. The term 'agglutinative' is derived from the Latin word 'gluten' meaning 'glue'.

Therefore, two major distinguishing features are proposed for Bantu languages:

- They make extensive use of words containing two or more morphemes. This simply means that words in languages of this type are made up of a root or a radical and one or more affixes.

- Each affix or bound morpheme has a single, clearly identifiable function. This is unlike affixes in other types of languages where the structure of words is also complex (Comrie 1981)

In Zambia, all Bantu languages are agglutinating because they use affixes and roots to make words, to which Bemba is a part. Some words in Bantu languages make sentences in English language as an equivalent. The following section discusses the classification of African languages in general and Bemba in particular.

1.4 The Classification of African languages

Greenberg classified African languages into four major families, namely; Congo-Kordofanian, Nilo-Saharan, Afro-Asiatic, and Khoisan. He further subdivided each of these four major families into branches, groups, and sub-groups, etc. For the purpose of the present study, the Congo-Kordofanian should be the most interesting and relevant of the four major families for it is to this family that the Bantu languages belong as a whole and indeed Bemba in particular. He further went on to sub-divide this language family into two main branches, namely Niger-Congo and Kordofanian. Of the two main branches of Congo-Kordofanian, the Niger-Congo branch is the more relevant for the purposes of the present work because it is within this branch that Greenberg placed the Bantu languages. He then went on to subdivide the Niger-Congo branch into six groups. And of the six groups within the Niger-Congo branch of the Congo-Kordofanian Family, Benue-Congo is the next most relevant for the current description for, as it will subsequently be shown, it is in this group that Greenberg placed the Bantu languages. He subdivided Benue-Congo into the following four sub-groups: Kambari, Jukunoid, Cross-river, and Bantoid. As the name might suggest, Greenberg placed the Bantu languages within the

Bantoid sub-group of Benue-Congo, Miti (2006). Thus, the position of the Bantu languages within Greenberg's classification of African languages may be summed up as follows: Bantu belongs to Bantoid which, in turn belongs to Benue-Congo. Benue-Congo, itself is one of the six main members of the Niger-Congo branch of the Congo-Kordofanian family. As noted above, Congo-Kordofanian is one of the four major language families of Africa, the other three being Nilo-Saharan, Afro-Asiatic, and Khoisan.

However, Greenberg's classification of African languages was criticised by some Africanists of his time. Some of these criticisms appeared in Westphal (1957; in Doke and Cole 1969). Greenberg rejected hitherto previous classifications of African languages for he considered them as having been based on what he termed 'typological or ill-defined structural criteria.' He maintained that the presence or absence of certain typological and structural features alone should not be used in determining the genetic relationship between language varieties.

It is for the foregoing arguments that Bemba has been found placed among languages in Zone 'M' branch of the Benue-Congo family. This is presented below:

a) Bemba   M42

b) Lala   M52

c) Lamba   M54

d) Lenje   M61

e) Soli   M62

f) Ila   M63

g) Tonga   M64a   Miti (2006)

Two notable scholars who have also contributed to the classification of the Bantu languages were Malcolm Guthrie and Clement Doke.

Guthrie acknowledged Doke's earlier attempts to classify the Bantu languages but cautioned that the work was inconclusive. According to him (1967) the aims of his work included the following:

- To establish some framework which may serve for future reference in identifying and classifying the Bantu languages

- To highlight the areas where knowledge of the Bantu languages is fragmentary, or even non-existent.

With regard to the first of his two goals, Guthrie divided the criteria for identifying languages as 'Bantu' into two, namely *principal* and *subsidiary* criteria. For Guthrie, the term 'subsidiary' did not mean 'less important.' Rather it meant 'less easy to apply.' What this meant was that subsidiary criteria might not be applicable in certain languages. With this in mind, Guthrie established the criteria summarised below:

- A class system, the sign of a class being a prefix

- A regular association of parts of classes to indicate the dichotomy *singular/plural*

- A concord system within the class system

- A number of common roots

- A set of variable core or radicals to which affixes are added in an agglutinative manner

- A balanced system of vowels consisting of one open vowel /a/, with an equal number of back and front vowels

- There is no correlation of the genders with sex reference or any other clearly defined idea. Miti (2006)

Guthrie's classification captures the very essence of the classification of Bantu languages in general and Bemba in particular.

Maho (2009) therefore, updated the list of Guthrie's classification of Bantu languages. However, Maho has not included North East Bantu languages which cut across the

6

Guthrie system. Furthermore, the classification has not dealt with individual languages. Maho writes that according to Guthrie, Bantu was long ago divided into Northwest Bantu and Central Bantu branches and these branches were divided into zones, which are A to S for which Bemba is a part in 'M' zone (M42) whose dialects are; Aushi, Tabwa, Chishinga, Ng'umbo, Lala and Bwile.

Bemba is one among the widely used local languages in Zambia. It is also used as a medium of instruction following the government policy, at the lower levels of education. That is; from grades 1 to 4 and it is being taught as a subject in higher grades. In its deliberate policy, the Government of Zambia selected it as one of the seven local official languages and it is designated as an official local language in the Northern, Muchinga, Luapula, Copperbelt Provinces of Zambia. In its linguistic zoning, it covers some parts of Central Province and North-western.

Arising from the above, the study may likely stir up would-be-researchers not only in Bemba, but even other languages in the field of linguistics in their minor forms. The other modest contribution this study would make is the contribution to the already existing vast teaching/learning material in Bemba. Basing on the above premise, the researcher wishes to state that, the compound nouns found in Bemba Language irrespective of which dialect, will be used in this study.

1.5 Compounding as a word formation process

In many languages, compounding (also called composition) is the most frequently way of making new lexemes. Its outstanding property is that it consists of the combination of lexemes into larger words. In simple cases, compounding consist of the combination of two words in which one word modifies the meaning of the other, the head. This means that such compounds have a binary structure, Scalise and Bisetto (2009).

Compounding is the morphological operation that in general puts together two free forms and gives rise to a new word. The importance of compounding stems from the fact that there are probably no languages without compounding, and in some languages (e.g., Chinese), it is the major source of new word formation. Compounds are particularly interesting linguistic constructions for a number of reasons. First, they constitute an anomaly among grammatical constructions because they are "words," but at the same time

exhibit a type of "internal syntax." Compounds, furthermore, represent a contact point between several crucial linguistic and non-linguistic notions such as syntagmatic and paradigmatic relationships, syntax and morphology, and linguistic knowledge and pragmatic knowledge. As for the relationship between syntax and morphology, it has often been observed that compounds are the morphological constructions that are closest to syntactic constructions, to the extent that there is no general agreement on which component of the grammar is responsible for their formation, Scalise and Bisetto (2009).

1.6 The Motivation for the Study

Bemba is one among the majority languages in Zambia whose literature has been developed from the linguistic point of view and other disciplines of course. It is a well acknowledged fact that like other regional official languages such as; Lozi, Kaonde, Lunda, Nyanja, Tonga and Luvale, Bemba has a comprehensive linguistic literature either in part or as a whole. It should be noted here that some studies have been conducted within and outside the country on compound nouns in general and in specified levels of linguistic analysis. Few, if any, have been established studies on compound nouns in Bemba in particular. Stemming from this background, the current study was motivated.

1.7 Statement of the problem

There have been linguistic studies that have investigated the subject of compounding in Bantu and on Zambian languages in particular. This means that each particular study took a different yet unique approach to the subject. Some among the outstanding studies on this subject have been conducted in Bantu languages (such as; Bemba, Tonga, Tumbuka and so forth). However, there was little information found during the study that entirely focuses on the grammar of compound nouns in Bemba from the perspective of the three levels of linguistic analysis. In more specific terms; 'what are the known grammatical properties of the compound nouns in Bemba in terms of their Morphology, Syntax and Semantics'? Therefore, the current study is designed to investigate whether or not there was known grammatical properties of compound nouns in Bemba from the perspective of three levels of linguistic analysis.

1.8 Significance of the Study

Bemba is one among the majority of languages in Zambia whose literature has been developed from the linguistic vantage point and other disciplines of study of course. In view of that assumption, the significance of this study cannot be over-emphasized. The study will likely contribute modestly to the general field of Linguistics by adding to the already existing body of knowledge in the grammar of compound nouns in general and in the grammar of compound nouns in Bemba in particular. It may also be useful to the public domain especially to those wishing to know the semantic value of Bemba compound nouns. Lastly, it may be useful to who would be researchers in the field of Linguistics and to the Bemba Language curriculum.

1.9 Aim and Objectives of the Study

1.9.1 Aim of the study

The study is aimed at establishing the grammatical properties of compound nouns in Bemba.

1.9.2 Objectives of the study

In more specific terms, the study endeavours to achieve the following objectives:

(a) to establish the nominal structural properties of the Grammar of Compound Nouns in Bemba in terms of their Morphology and Syntax;

(b) to give an account of the semantic value of the Grammar of Compound Nouns in Bemba;

(c) to identify the relationship between the actual meanings and the literal meanings of the Grammar of Compound Nouns in Bemba.

1.10 Research Questions

In an effort to achieve the aforementioned objectives, the researcher will attempt to answer the following questions:

(a) What nominal structural properties does the Grammar of Compound Nouns in Bemba possess in terms of their Morphology and Syntax?

(b) What is the semantic value of the Grammar of Compound Nouns in Bemba?

(c) What is the relationship between the actual meaning and the literal meaning of the Grammar of Compound Nouns in Bemba?

1.11 Delimitation of the Study

The current study investigated the Grammar of Compound Nouns in Bemba and the specific focus in terms of knowledge gap is their Morphology, Syntax and Semantics. This means that the research revealed only those aspects of the morphology, syntax and semantics that were related to the grammar of compound nouns in Bemba. Having the background knowledge that compound nouns are formed from two or more words joined together, helped the study to focus only on such kind of word formation. The aspects to be reflected in this corpus study then constituted the Grammar of Compound Nouns in Bemba as highlighted in the title of this research. In view of that and basing on the information reflected in the compound nouns, some basics of Grammar in each linguistic level were discussed accordingly and this included any other features that relate to grammar that might have reflected within the scope of the data collected.

1.12 Organisation of the study

This dissertation is organized in eight chapters. Chapter One gives the introduction to the study. The second chapter presents literature review while Chapter Three presents the analytical, theoretical and conceptual frameworks. Chapter Four discusses the Research design and Methodology. Chapter Five presents and discusses the morphology of Bemba Compound Nouns. Chapter Six presents and discusses the Syntax of Bemba Compound Nouns, and Chapter Seven presents and discusses the Semantics of Bemba Compound Nouns. Chapter Eight sums up everything by presenting the conclusions and recommendations to the study.

1.13 Conclusion

The chapter has introduced the topic of the study and has given the background information on the grammar of compound nouns in general, the statement of the problem

and the purpose of the study. It has given the modest background to the Bemba people and their language. It has also given a brief outline of how the dissertation is structured. The following chapter therefore, presents a review of related and relevant literature to the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 General

This chapter deals with the review of literature based on the linguistic studies related to the current study. It will proceed by setting out to discuss related linguistic studies on Bantu languages and Zambian languages in particular.

Literature on descriptive linguistics on Bantu languages and on Zambian languages in particular has so much leaning on major languages. This means that only those languages that have received the State approval to be used in formal education have an upper hand over other languages, the so called minority languages.

Since the focus of this study will be to establish the grammar of compound nouns in Bemba from the point of view of its morphology, syntax and semantics, the literature to be reviewed will have to be related to this study in the manner of grammar and in the concept to be developed.

The review is organised according to the studies with relevance to it. Firstly, on linguistic studies on compounding in general, then; on the linguistic studies on Bantu and Zambian languages in particular.

2.2 Linguistic Studies on Compounding

Compounding phenomenon or composition as other scholars may call it is a process of word formation that creates compound words in Bantu and English languages respectively. Compounding occurs when two or more words are joined together and forms a more complete word. The grammatical category of the compound word formed may be the sum of its components or denotes the grammatical category of the head (one of its component), and sometimes different from its components and they point out to the parts of speech in nature, Spencer (2005).

2.3 Related Linguistic Studies on Zambian Languages

It is perhaps imperative to state from the onset here that the review of literature on linguistic studies in Bantu and on Zambian languages in Particular is naturally not exhaustive. This is because as mentioned above, some Bantu languages have been better

studied than others. Therefore, the review of literature on languages like English and other non Bantu languages is not based on personal intuition rather on objective facts because these are well documented languages that have both the literature that is accessible and also have had some of the theories to be used in this study tested on them.

Zimba (2013) discusses 'The Grammar of Tumbuka Compound Noun', a Bantu language mainly spoken in the Eastern part of Zambia. In his paper, the researcher had set out three main objectives.

The research was carried out due to three main objectives. Firstly, the researcher wanted to provide the general public with a list of Tumbuka compound nouns together with meanings that the public would use. The other objective was to discuss the morphology of Tumbuka compound noun for the collected data. In which case, the researcher alluded to the fact that words formed together through combination to form compounds. For example, reference was made to words such as *mutentandevu* meaning 'one who cuts beards'. This was further analysed that *-tenta* 'cut' is a verb and *ndevu* 'beards' is a noun. Therefore, compound nouns were formed when a noun combined with a verb and that the verb behaved as a head in that case. Zimba (2013) needed to show further the aspect of semantic opacity and transparency which in this case would suffice in this given compound noun. The meaning of that compound is opaque or obscure because the actual meaning of that compound is 'tea' and not a 'person' as the case might have been thought. Many examples of that nature appeared in the study hence, provide grey areas.Lastly, the research also covered the syntax of compound nouns without drawing attention to the tree diagrams in showing the structural classification of the compound noun in Tumbuka and the description of the Phrase Structure Rules in showing the structure of the phrases formed by the compounds formed. When all these objectives are fulfilled, the researcher hoped he would contribute to the grammatical as well as semantic knowledge on the compound noun in Tumbuka to the general public.

The research paid attention to the Semantics, Morphology and Syntax of the Tumbuka Compound Noun. As an inclusive issue, the topic extended to discuss the phonetics and phonology of the language, but these two were said not to be the centre of focus of his study. In Morphology the researcher concentrated on the morphological structure within the words and the roles that the morphemes play within individual words or across them. In syntax it was the functions (roles) that the individual words play within the compound

nouns that were the centre of interest. Lastly, the semantics of the compound nouns in Tumbuka investigated the individual word meanings (literal meaning) as well as collective meanings (interpretative or real meaning). In so doing, the researcher dealt with only locatives and how they are used in Tumbuka language, Zimba (2013). He also wanted to know how many locatives were present in Tumbuka language.

In view of the foregoing, the current study takes a similar approach to Zimba`s (2013) study of 'The grammar of Tumbuka compound noun' without necessarily looking at the phonetics and phonology of the language which he proposed in his work. The current study will further investigate the semantics of Bemba compound nouns and allude to the aspect of semantic opacity and transparency in its analysis.

The study also will enhance the discussion on meaning using tone marking to show the effect it has on compound nouns in Bemba. It will further describe the syntax of compound nouns using the Phrase Structure Rules in Government and Binding theory using a sub theory X-bar. The study will further use the Transformational generative grammar as a theory to generate meanings of selected words in its structural form.

Musale (2009) studied 'The Grammar of compound nouns in Tonga'. Her study was descriptive and was carried out to examine whether the assumption which was thought to be universal is applicable to Tonga, a Bantu language mainly spoken in the southern part of Zambia though it is spoken in most parts of the country. The researcher applied purposive sampling and snowball sampling to identify and also collect data from fifteen (15) selected informants. The study not only does it contribute to the grammar of Tonga as a language but also to the grammar of other languages in Zambia and in general. In more specific terms, to the present study on the grammar of Bemba compound nouns though without necessarily use informants in soliciting data in view of the nature of the study.

Musale`s (2009) study subjected the collected data to four levels of linguistic analysis. The researcher concluded by saying "The proposition that compound nouns embed the grammar of a language was therefore proved true not only to Tonga as has been proved in other languages," Musale (2009).

Besides, Musale's (2009) work is seen to base so much on the general grammar of compound noun in Tonga without narrowing the study to the specific level of linguistic

analysis. This was so in the sense that the study covered a wide spectrum of levels of linguistic analysis in the discussion. That is; the morphology, phonology, syntax, semantics and some aspect of sociolinguistics.

The study also did use tone marking in contrasting meaning and to show the distinction in the words in isolation. This was done under suprasegmental features. This means that the study dealt with tone on the level of phonology the most, therefore, less attention was given to the application of tone on semantics in order to demonstrate how it could affect the meaning of compound nouns in Chitonga.

The current study however, seeks to address the aspect of tone in discussing meanings of compound nouns for it did not deal with phonology. This was done in order to demonstrate how tone could affect the meaning of compound nouns in Bemba.

From her study, it was observed and can be concluded that the desire to take a collective approach to the study of the Grammar of Compound Noun in Tonga was very high, hence, widening the scope of her study.

Generally speaking, the study by Kula (2009) generated a lot of anticipation in the current study. It generated issues to be investigated within the parameters of the Grammar of Compound Nouns in Bemba with the specific focus on their morphology, syntax and semantics.

Kula (2009) conducted a linguistic study on the 'Nominal compounding and associative phrases in Bemba'. The researcher in her study looked at two kinds of nominal compound structures in Bemba. The study stated that there are; on one hand, compounds involving two root nominals that are directly fused without a linking element and on the other hand there are compounds involving two nominal linked with a linking element, mainly the associative marker. The associative maker she also called them associative phrases.

The study aimed to establish the characteristics that define compounds in Bemba and based on that assessed whether the nominal structures formed with the associative marker or associative phrase are compounds. This, the researcher suggested that it would be done with recourse to the Lexical Integrity Hypothesis testing the idea that syntax may not occur within morphology. It was further stated that it would be shown that the data supported the alternative view, namely that syntax can occur in morphology and that that

helped to explain why associative phrase compounds could generate a wide range of meanings while root compounds by contrast have a fairly fixed semantics.

In view of that introduction to the study, the researcher looked at nominal compounding without linking elements which in general terms were treated as 'true' compounds. These were categorized into two kinds; those involving two nominal roots on one hand and those involving a nominal derived from a verb (deverbal noun) and a nominal root on the other.

This current study would use the similar approach in describing the linguistic structure of the Grammar of Compound Nouns in Bemba with the specific focus on their Morphology, Syntax and Semantics. On the aspect of syntax, the current study would further provide the principles of analysing the grammar of compound nouns. It would provide the rules that apply when the compound noun becomes not only a word but a phrase by syntax. The study would also show how the concept of syntax formation in phrases is similar to the syntax of compound noun through the use of structures as in those of phrase structure diagrams.

Under the morphology of the nominal root compounds, the study by Kula (2009) stated that compounds involving only nominal roots were rare and mainly consisted of kinship terms with fixed meanings. The examples that were cited in the study are:1. (a) nakulu-bantu 'an elderly woman' also not only 'elderly' but 'distinguished woman.' (b) shikulu-bantu 'elderly man' also 'distinguished man.'(c) noko-lume 'your mother' also 'uncle on mother's side.' The further argued that these kinds of compounds are endocentric in the sense that the left member acts as the head of the compound that controls the noun class of the compound. It was established that examples (1a-b) show that the compound assumes the noun class of the head that also controls agreement in a phrase and example (1c) is somewhat more complex in that it seems that the nominal on the right is the head since the compound describes 'a kind of man' rather than 'a kind of mother'. It is further suggested in the footnote that 'a kind of mother' may hold if understood within the Bemba kinship system where all the siblings of a mother are also mothers in which case a mother's brother is a male mother. The further complexity was noted regarding this form in that the head is created from a possessive form of mother rather than the regular word for mother 'mayo'.

In view of the latter, the current study though touched on the linguistic classification of the grammar of compound noun, it has not dealt on the aspect of class control but it has further given attention to the linguistic behaviour of the left member of the compound noun.

Kula's study also gave attention to prosody on all the levels discussed from the point of view of morphology through semantics. Here, the researcher made a conclusion throughout the work that the head of the compound ends in a high tone even if its underlying tone was low.

The current study followed the same pattern when discussing semantics of the compound nouns with the exception of morphology and syntax. This was considered in view of establishing only the meaning of the generated compound noun either through denotative or connotative.

In addition, Kula (2009) discussed synthetic compounds to highlight the morphological processes compounds undergo in the formation of compound noun and the use of prosody in marking tone. In this, the study by Kula further shows that these types of compounds in Bemba do possess the following structure; the deverbal noun as the left-hand member is the head and the nominal root is the complement. The study provided the following examples in discussing this aspect of compound nouns:

2. (a) musonga-nsala   'appetizer'

   (b) mupeta-ndupe   'kind of shrub for making baskets'

   (c) musunga-bantu 'hospitable person'

The current study however, used synthetic compounds to discuss the linguistic structure of the Grammar of Compound Nouns in Bemba. In this current study this type of compound is called compounds with opaque meaning in semantics. Meaning that the deverbal nominal compounds do not have the meaning which is clear from the individual meaning of words. The study further provided an answer to the question as to whether or not there was a change in tone pattern of a single noun when it combined with another to form a compound noun. It was clear that the tone change was effected as the noun combined with another especially with root compounds. Against this background, root compounds with

deverbal head nominal bears a final high tone therefore, controls the overall agreement of the compound. This concept is given some details in this study in section 7.5 (a-e).

The study by Kula also went further to discuss the concept of headedness, agreement and modification with the view to address the verb and class respectively. The study also discussed semantics and reversibility, extraction, prosody, argument associative nominal in providing extended meaning and lexical integrity hypothesis and Bemba compounds in discussing part of the syntactic structure of the compounds. Kula's study (2009) discussed agreement that it only happens with the head noun (the head of the construction), while in modification, by contrast, either nominal in the AN (Associative Nominals) can be modified:

3. (a) ulukasu lwa   pamushi   palya (/lulya)   na-lu-luba
       11hoe   11ASSOC   16village   16DEM 11DEM   TNS-11OM-lost
        'the hoe of that village is lost'/ 'that hoe of the village is lost'

The above example according to Kula shows that a class 16 or class 11 demonstrative can be used with the AN (Associative Nominals) with the corresponding change in referent. This is in contrast with synthetic compounds where modification was only possible with the head nominal.

The current study however, decided to limit its scope only to some phrase structure rules in analysing the syntax of Bemba compound nouns also the prosody in the semantic analysis of Bemba compound nouns in terms of tone change respectively.

On the contrary, Kula (2009) study took a more collective approach to tone, that is, covering tone on all levels of linguistic analysis that were investigated. This approach was seen to leave some grey areas in the study for it might not have shown the intent that tone had on nominal compounds and on meanings respectively. This is because tone has a direct bearing on the meaning of words in most Bantu languages.

Moreover, the current study on the grammar of Bemba compound nouns sought to present the syntactic properties of the compound nouns. The study also described these properties using one of the theories in GB (Government Binding) that is; X-bar to analyse the Noun Phrase which resulted from the formation of compounds. The theory was used to discuss the functions of the individual parts of speech that combined to form a compound and this was noted from the trees that were drawn to demonstrate the operation of the theory.

From the foregoing, it can be rightly put that the three linguistic studies reviewed on Zambian Languages will provide a clear guide to the current study on the grammar of Bemba compound nouns, most obvious the study by Kula (2009) will be more beneficial. This is because the theories that were used have a direct bearing to this study too. It is only humane to say this that the three studies analysed levels of linguistics after which this study will project, but only wishes to look at the three levels of linguistic analysis in its limited scope as a study.

2.4 Conclusion

The current study is mainly concerned with the Grammar of Compound Nouns in Bemba with the focus on their Morphology, Syntax and Semantics. Therefore, from the reviewed literature, it is clear that a compound is a lexeme or less precisely a word that consists of more than one stem. Compounding as a linguistic concept is a process of word formation that creates compound words in Bantu and non-Bantu languages. Compounding occurs when two or more words are joined together, the grammatical category of the compound word formed may be the sum of its components or denotes the grammatical category of the head (one of its component), and sometimes different from its components and they point out to the parts of speech in nature. This clearly indicates that it is unlikely to get the obvious meaning from individual words. If we did, we are likely to miss the intended meaning of the compound word resulting from the process.

However, the findings could have been, the researcher married them to others who have presented studies on similar studies. The knowledge gap still stands as to whether or not there was known grammatical properties to be established within the Grammar of Bemba compound nouns in relation to the three levels of linguistic analysis.

In view of that the next chapter sets out to present the analytical, theoretical and conceptual frameworks which would help to describe the method of analysis, the theory (ies) and the subject of Compounding.

CHAPTER THREE: ANALYTICAL, THEORETICAL AND CONCEPTUAL FRAMEWORKS

3.1 General

This chapter sets out to present the analytical, theoretical and conceptual frameworks that guided the study. Thus, the chapter draws on analytical and theoretical insights from morphological, syntactic and semantic theories as used to analyse and describe the Grammar of Bemba Compound Noun. Under the analytical framework, the chapter discusses the morpho-syntactic and semantic classification of compound nouns and the related morphological rules relevant to the study. From the syntactic level, the study draws on aspects of Government Binding Theory with specific focus on the X-bar theory in drawing tree diagrams and in assigning theta roles and functions to compound nouns. The chapter also draws on insights from semantics for assigning meaning to words in isolation and to compound nouns too. Finally, the chapter discusses the concept of Compounding.

3.2 Analytical framework

Crystal (1992:440-441) states that the descriptive analysis of the compound nouns results in the study of grammar of a language using the acceptable linguistic levels, that is; the morphology, syntax and semantics as the case may be. In view of Crystal's proposition, the researcher will rely on the following analytical insights in analysing the current work:

3.2.1 The classification of compound nouns

English language appears with many different classifications of compounds. The most if not the commonest way of classifying compounds is by the function they play in the sentence. Ginzburg et al (1966) address a problem of classifying compounds from the functional vantage point and they state that from that point, compounds can be viewed as words belonging to different parts of speech. The vast majority of compounds in English belong to nouns and adjectives. The following are some examples of compound word categories:

 i.   **Compound nouns:** chewing gum, turning-point, window-cleaner, schoolgirl, etc.

 ii. **Compound adjectives:** carsick, red-brick, wrap-round, etc.

iii. **Compound verbs:** sky-dive, typewrites, overindulge, overeducate, etc.

iv. **Compound adverbs:** indoors, upside down, inside out, double quick, etc.

v. **Compound prepositions:** into, onto, etc.

vi. **Compound pronouns:** somebody, anyone, myself, etc.

vii. **Compound conjunctions**: whenever, so that, etc.

As shown above, there are several classifications of compounds. Other types are, for example, according to the syntactic relationship between the roots, according to the way the components of the compound are linked together.

From the examples above of the compound word categories, it can be further noted that when two (or more) elements which could potentially be used as stems are combined to form another stem, the form is said to be a compound. A compound lexeme (or simply a compound) can thus be defined as a lexeme containing two or more potential stems. Since each potential stem contains at least one root, a compound must contain at least two roots. (If one of the potential stems that makes up the compound is itself compound, the resultant form may, of course, contain more than two roots, as in wastepaper basket.) However, this definition according to Matthews (1974: 40) is not quite sufficient, since derivational processes may at times apply to forms containing more than one root (e.g. superhigh-way). In such cases it is said that the base of the derivational process is compound, but not the whole lexeme is a compound.

A compound may therefore be more fully defined as a lexeme containing two or more potential stems that has not subsequently been subjected to a derivational process. It should be noted that while derivation may apply to forms containing more than one root, the presence of two roots is not criteria for derivation as it is for compounding. This data is presented in the figure 1.

Compound Lexeme

INFLECTION

(deals with forms

of individual lexemes)　　　　　　**CLASS-MANTAINING**

MORPHOLOGY　　　　　　**DERIVATION**

(affixation)

WORD-FORMATION　　　　　　**CLASS-CHANGING**

(deals with

formation of

new lexemes)　　　　　　**COMPOUND NOUNS**

COMPOUNDING ⟵ **COMPOUND VERBS**
(more than one root)

COMPOUND ADJS.
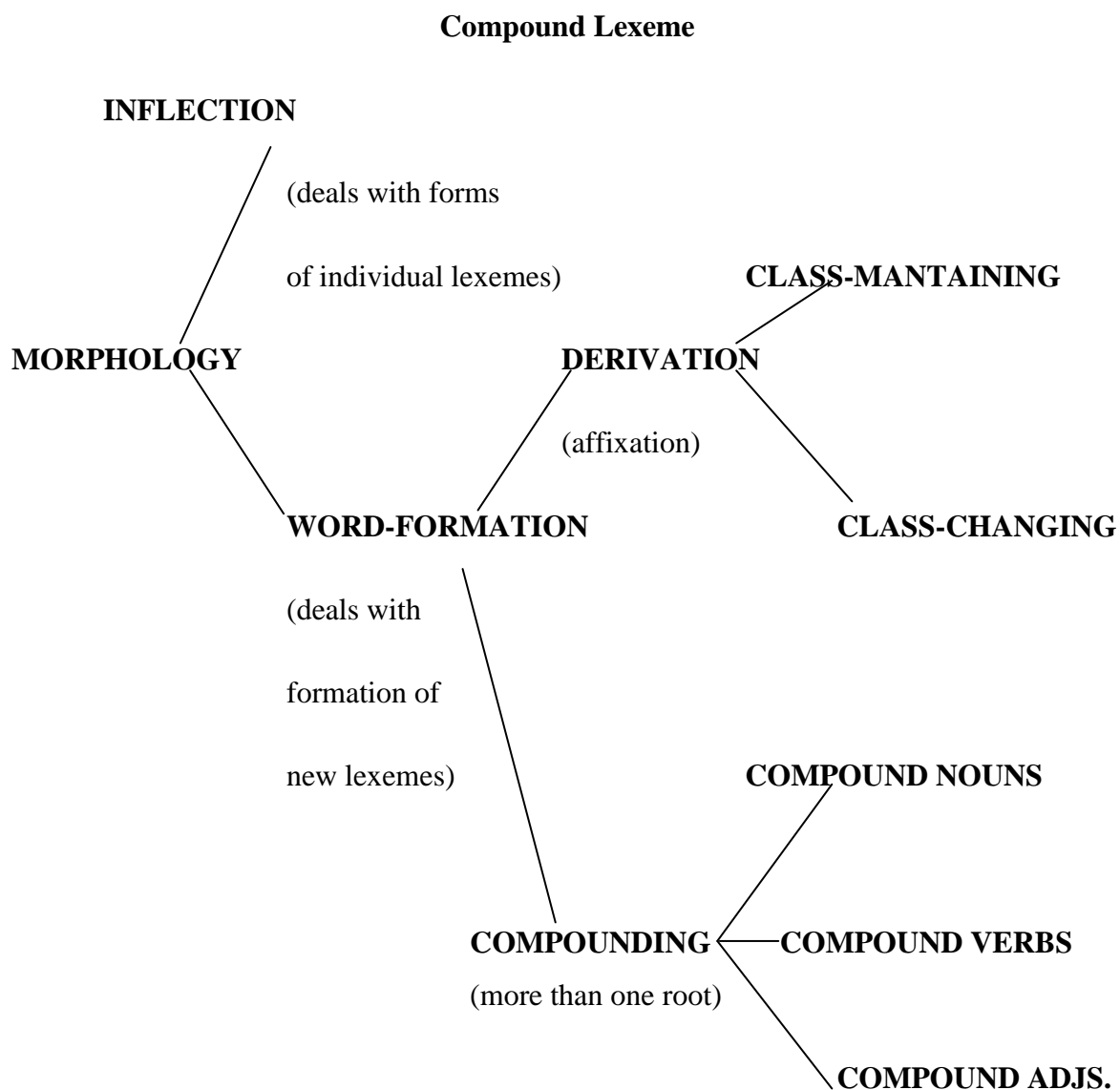
Figure 1.

As can be seen from the given figure above, compounding is one of the major aspects of word formation in many languages.

Different studies and different linguists have classified compound nouns differently. The outstanding ones, among others, are: Booij's (2007:79) classification by categorization; Greenbaum and Quirk's (1973:444-448) structural classification and Dillion's (1977:51–54) derivational classification. These three (3) studies will have a direct bearing to the current study as their insights will help in the classification of compound nouns morphologically, syntactically and semantically.

The studies by Booij (2007), Greenbaum and Quirk (1973) will be very helpful in providing answers to questions on objectives one (1) and two (2). It will also help to classify compound nouns according to their linguistic behaviour and provide their description. Additionally, Greenbaum and Quirk's study will also help in drawing trees in syntactical analysis of data and also show the structural change in the nouns when they combine to form a compound. Booij's study (2007) in particular will be helpful in establishing the nominal structure of a compound noun in morphology and syntax with regard to Bemba compound nouns. Further, the study by Dillion (1977) will help in identifying the meanings of a compound noun, subsequently, unpacking objectives three (3) and four (4) respectively.

3.2.2 Classification by categorization

Booij (2007) classifies compound words into four categories as follows:

a) **Endocentric compound**: this is the compound with a head. This means that the category of the whole (syntactic or morphological) construction is identical to that of one of its constituents. It denotes a subtype of whatever is denoted by the head as in armchair which represents a type of chair.

b) **Exocentric compound or bahuvrihi compound:** (taken from Sanskrit), is the compound word that denotes a subtype of a category that is not mentioned within the compound as in pickpocket that represents a kind of person, not a kind of pocket nor a kind of pick.

c) **Coordinative or copulative or dvandva compound:** (from Sanskrit), it is a compound word that denotes an entity or property to which both constituents contribute equally. In this kind of compounds, there is no semantic head as in bittersweet which refers to a quality which is both bitter and sweet.

d) **Appositional compound:** A+B= different descriptions for a common referent as in maidservant which is a hyponym of both maid and servant; a maid is a type of a maid and also a type of a servant, and this word does not refer to a combination of persons.

It can therefore be noted, from Booij's classification of compound nouns, that the semantic divisions interact with the syntactic demarcations according to the form class of the entire compound. They form classes of the individual elements in the compounds like 'hotdog' as well as being an exocentric compound is a compound noun made up of an adjective and a noun and 'sea-power' is an endocentric compound noun made up of two nouns.

The above description of different classification of compounds according to Booij will help to establish whether Bemba compound nouns do have endocentric, exocentric, dvandva and appositional compounds in their structure.

3.2.3 Structural Classification

Greenbaum and Quirk (1973) specify the classification of compound nouns in relation to joining segments together as illustrated below:

a) **Subject + verb:** rainfall, earthquake, haircut, toothbrush

b) **Verb + subject:** driving licence, swimming pool, playboy

c) **Verb + object:** cooking stick, bathing soap, call-girl

d) **Subject + object:** bald head, hell fire, post box, etc.

These segments when joined together form compound nouns based on different parts of speech which are headed either on left or right.

From the most Bantu languages perspective for which Bemba is a part, it can be concluded that Greenbaum and Quirk's structural classification of compound nouns tend to take a similar approach of either left or right headed in classifying compound nouns in terms of their structure. Kula (2009) agrees that Bemba nominal compounds are left-headed and that the head controls agreement and modification. She further says, "The non-head member of the compound does not have an augment while the head must have an augment (unless it belongs to class (1a))" Kula (2009:435).

The structural classification as discussed by Greenbaum and Quirk helps the current study to necessitate the drawing of tree diagrams and structural changes taking place in

compound nouns especially in head nouns because Bemba compound nouns do possess heads.

3.2.4 Derivational classification

Dillion (1977:51 – 54) supports Greenbaum and gives a similar list for classifying compound nouns and also show further how to derive their meaning as in the following:

a) **What one uses to VN'-** (making references to animate entities) as in grass cutter, grave digger, fish monger etc.

b) **One who VsN'** as in Bird catcher (one who catches birds), Stone crusher(one who crushes stone)

c) **Slightly different** is a group or set where the first noun is understood to specify the second deverbal noun as in:

   i.   **Heat rush**   'rush caused by heat'

   ii. **Sun rays**   'rays caused by sun'

   iii. **Moon light**   'light caused by moon'

   iv. **Electric shock** 'shock caused by electricity'

The group in (c) above reads that N2 that is; the second noun is caused by N1 (first noun) in the category.

The other sets in this category are:

    Razor cutting   ⎰ **N2 done with N1**

    Saw milling   ⎱

In which case; the second noun is done with the first noun in this category.

The other category is as follows;

    Sawtooth   ⎰ **N2of N1**

    Lung cancer   ⎱

Interpreted as; that the second noun is of the first noun. Meaning that; the second noun is operational as a result of the first noun. In that case, the cancer being talked about is not just any cancer, but that of 'the lung.'

The other in this category is a situation where we have the second noun (N2) being acted at/on or in the first noun (N1) as exemplified below:

Horse racing   N2 at/on/in N1

School dancing
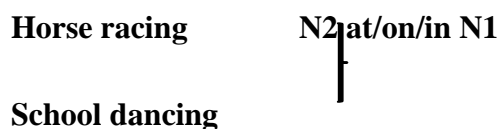
It may be understood that such classifications can prove to be vital to the research, but from the reading above, classification of compound nouns into their grammatical categories may pause a challenge. For instance, the meaning of a compound noun is not always the sum total of the meaning of its parts. The challenge therefore lies in the structural differences between English and Bemba, respectively, in which the latter is used as the language of classification in this study.

The derivational classification study by Dillion (1977) discussed in this section helps to provide an account of the semantic value when two nouns combine to form a compound in the current study. This will also help analyse the tonal pattern of compound nouns in Bemba.

Another level of linguistic analysis worth noting is the syntax of Bantu compound nouns in general. The *Encarta English Dictionary* defines syntax as the organisation of words in sentences, that is; the ordering of and relationship between the words and other structural elements in phrases and sentences. To this end, Katamba (1993) in his linguistic analysis made this observation that the syntax of a sentence is similar to the syntax of compound nouns. He however, noted some differences between sentence-syntactic phrases and compound words syntactic phrases. He went on to specify that whatever internal structure a compound has, that structure is not easily accessible to the rules of syntax Katamba (1993). Even if the rules of syntax applicable to a sentence cannot access the internal structure of a compound word easily, a compound noun is created using the syntactic rules of the language that generates syntactic phrases. To further the explanation, Katamba says that the syntactic rule like wh-movement which moves the front of an item about which

information is being requested and places a wh-word before it, cannot extract a part of a compound and front it and later ask for information about it (Katamba, 1993).

The arguments that Katamba (1993) advanced were well founded and may to some extent be applicable to Bemba compound nouns. Bemba compound nouns are descriptive in nature because they give description of one kind or another in their classification of the derived part of speech adding to the compound noun category.

On the other hand, Katamba (1993) points out to the aspect of the structure of idioms. It is a well-known fact that an idiomatic expression provides another way of forming new words in a language although these are not compound words, but are lexis without an exact meaning. Many of such idioms are used the way ordinary words are, as nouns, verbs and adverbs. Accordingly, Katamba identifies idioms as "syntactic objects whose meaning is not compositional…" Katamba (1993: 297-98) and yet:

1) They always fall into one of the recognised syntactic units of a language such as:

   S$^{'}$: (i.e. subordinate clause) as in 'when the chips are down'

   VP: rule the roost

   NP: (post-modified by PP) as in 'the man on the boat'

   PP: round the house.

2) They have the internal structure of normal syntactic units, and

3) They behave just like the other syntactic units of the same type in the syntax… Katamba (1993).

The tendency to use idiomatic expressions as compound words (nouns) is the ideal situation, which pattern, Bemba compound nouns mirror. Hence, becomes very difficult to get the face meaning of such compound words.

3.2.5 The Structure of Compounds

A compound structure is made up of components of parts of speech used in forming the compound. In Bantu linguistics, these structures can have concord agreement (as in

kabwekatenda literary means: 'a stone that does not walk'), or be of irregular forms (as in *Chimbamilonga* 'digger of streams'). Katamba (1993) shows syntactic structures of compound nouns in both singular and plural forms of Bantu languages in general. He proposes "an X-bar analysis of noun compounds in English, parallel to the syntactic analysis of NPs" as shown below:

(a)
```
        N [sing.]
        /        \
       N          N [sing.]
       |          |
      Foot        path
```

(b)
```
        N [pl.]
        /      \
       N        N [pl.]
       |        |
      air      ports
```

(c)
```
         N
        / \
      Prp   N [sing.]
       |       |
      Over    coat
```

(d)
```
        N [pl.]
        /      \
       V        N [pl.]
       |        |
      pay     masters
```
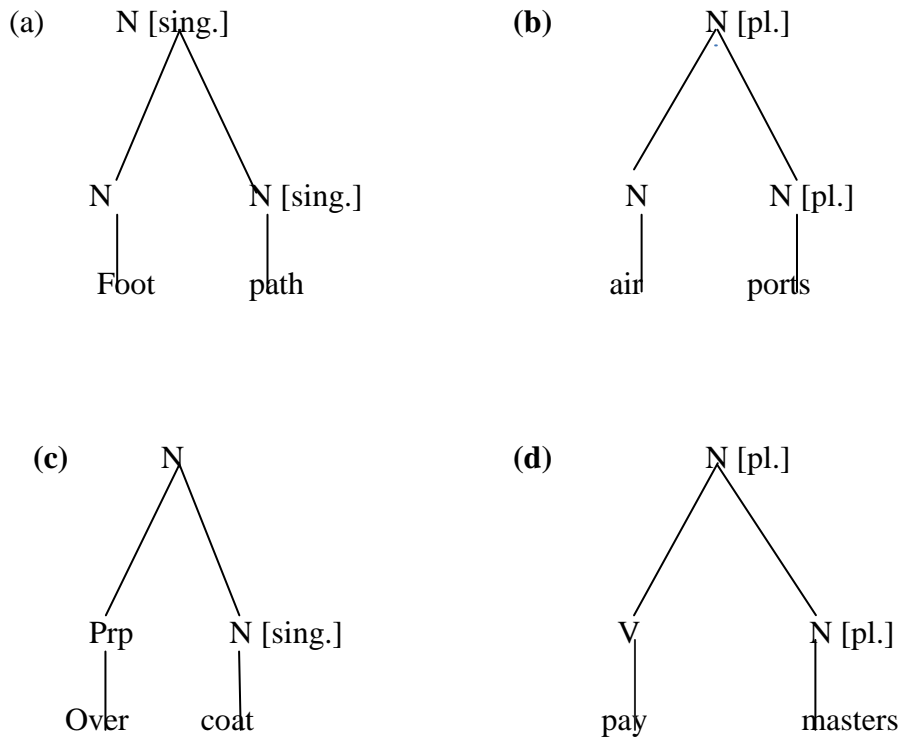
In view of the syntactic structures in (a – d) above, the structures given reflect grammatical relations of words in a compound formation hence, the formation of generalized phrase structure rules such as:

Comp.N $\longrightarrow$ $\begin{bmatrix} N \\ V \\ A \\ Gen.pro \end{bmatrix}$ N
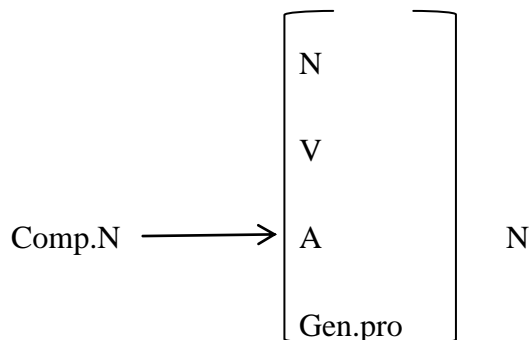
Katamba (1993)

Interpreting the above, the rule reads: a compound noun can be formed by conjoining the following parts of speech: Noun + Noun, Verb + Noun, Adjective +Noun and Genitive pronoun + Noun.

Using this generalization, Katamba (1993:304 - 305) summarises that "this kind of context free phrase-structure rewrite rule used in sentence syntax can be used in word syntax analysis as well."

This rule is likely going to stir up the formation of compound nouns in Bantu languages in general and Bemba in particular. It is a well-informed rule of generalization which this study on Bemba compound nouns would like to take advantage of in the provision of the structure of its compounds.

The word syntax analysis, apart from revealing phrase-structure rules, also reflects the grammatical relationships of the conjoined words in compound formation. For instance, picking it from Katamba (1993) in analysing compound word structures, such notable presentations of grammatical relations as given below would suffice:

> **(a) N+V (subject + complement)**
>
> **(b) N+N (subject + object)**
>
> **(c) N+Adj. (subject + subject complement)**

The above could necessitate the possibility of giving clear statistical facts on the type of combination notable in compound nouns formation.

Furthermore, in dealing with semantics as a level of linguistic analysis, Cliff 1998:1 defines semantics as "the study of meaning, stands at the very centre of the linguistic quest to understand the nature of language and human language abilities." It is a study that is responsible of assigning roles and meanings to words in a particular language.

The above notation by Katamba and Cliff seem to suggest that two nouns joined together provide grammatical relation with each other hence assigning meaning and roles to particular nouns. For example, one noun would function as a subject while the other as an object. This is what the current study endeavour to establish in the light of Bemba compound nouns.

3.3 Theoretical framework

3.3.1 The Argument Theory

Grimshaw (1990:1) proposes the argument structure (a-structure) theory in explaining properties of adjectival and verbal passives, light verbs, constructions, verbal compounds, causatives and nominal among many other studies. Grimshaw (1990) reports that with the increasingly important role played by such principles as Theta Criterion, X-bar theory and the Projection principle in GB theory, a new view has emerged in which a-structure represents a complex of information critical to the syntactic behaviour of a lexical item.

Grimshaw (1990:6) reveals that a-structure refers to the lexical representation of grammatical information about a predicate. According to (Grimshaw 1990), the a-structure has interface with lexical semantic structure which represents lexical meaning and deep structure (d-structure). The a-structure takes theta-marking properties of the lexical items across syntactic categories as one of its interest. For instance, in a-structure, nouns, even though they have argument structures if they are of the right semantic kind, never theta-marking directly, but only via prepositions hence, nouns that never takes sentential arguments. Henceforth, Grimshaw (1990) goes on to reason as follows:

  (a) they are not governors since government requires theta-marking and;

  (b) a-structure of a verb and a noun are of different entities.

Another linguist, Radford (1997:169) supports the notion of argument structure and theta-marking roles. He states, "We noted that such an analysis would enable us to develop a principled theory of theta-marking, in which arguments (referring to argument from facts relating to syntax) are assigned a theta-role by merging with a lexical category."

Following Radford's proposition, Katamba (1993:256-257) defines theta-roles or thematic relations, as follows:

  (a) Theme (or patient): is the case of the entity or individual that undergoes the process or action described by the verb (as in; Peter kicked <u>the ball</u>). In this case *the ball* is the theme or a patient suffering the kicking by Peter.

(b) Agent: this is the case of the individual (usually animate) that instigates the action identified by the verb (as in; <u>Peter</u> kicked the ball). In the example, *Peter* is the agent or the instigator of the action of kicking.

(c) Instrumental: is the case of the inanimate instrument used to bring about the state of affairs described by the verb (as in; she wrote <u>with a pencil</u>). The example highlights the fact that the instrument used to bring about the writing was *a pencil* and not any other writing instruments.

(d) Experiencer: this is the case in which the entity is experiencing some psychological state (as in; <u>Mary</u> was hit by a car). It is of course drawn from the given example that it was *Mary* who experienced the hitting by a car.

(e) **Benefactive (or goal or recipient)**: is the case of the individual who gains from the action or process described by the verb (as in; Mary gave <u>the police officer</u> a bribe). This example shows that the recipient or perhaps the benefactor of a bribe was *the police officer.*

Locative: is the case that indicates the location, direction or spatial orientation of the event, state or action identified by the verb (as in; the car overturned in <u>Kitwe</u>). Not in any location did the car overturn, but in *Kitwe*.

Following the above discussion in this section, it can be concluded that the argument theory has some relevance to the current study in that the a-structure of a verb and a noun are of the different entities. This applies to Bemba compound nouns to a certain extent as in 3.2.1 (b) above proposed by Grimshaw (1990). For example, *Chendabwamba* 'one who walks naked' literally translated is descriptive and the two parts of speech making up the compound noun belonging to different entities. One being an adjective *chenda* and the other a noun *bwamba*.

3.3.2 The a-structure in Compound Nouns

Katamba (1993:305-315) agrees with Grimshaw (1990:6) that compounds have the a-structure in the following ways:

(i) Endocentric compounds (referred to technically as verbal compounds) which exhibit quite consistent semantic readings that match the syntactic characteristics of the compounds. To this end,

(ii) Verbal compounds assume the following characteristics:

   (a) A complex head adjective or noun which is derived from a verb;

   (b) The non-head constituent is interpreted as a syntactic argument of the deverbal noun or adjective head,

   (c) The θ-role of the non-head is that of agent, patient, etc.

   (d) The meaning of the compound is transparent.

For example:

NOUNS ADJECTIVES

a. [*Noun- verb-er*]$_N$	b. [*Noun-verb-en*]$_A$
moneylender	hand-written
gamekeeper	computer-matched
shoemaker	hand-sewn
bookseller	time-worn
c. [*Noun-verbing*]$_N$	d. [*Noun-verb-ing*]$_A$
bear-baiting	God-fearing
hay-making	awe-inspiring
brick-laying	eye-catching

There is a similarity in argument-structure between deverbal compounds and syntactic phrases containing the same words, and having the same argument-structure. The semantic relationship is predictable, general and systematic as can be seen in the compound nouns below:

Compound Noun		**Phrase Structure**	
Money	lender	lend	money
[theme]	[agent]	[verb]	[theme]

In the compound noun above, for example, moneylender, *money* is the theme and the deverbal agentive noun *lender* is the agent. This is comparable to the phrase lend$_V$money$_{theme}$in which money functions as the object of the verb. So, we can paraphrase *moneylender* as *lender of money.*

> **(iii) Compound adjectives**: in this structure, for example, in both the compound *hand-written* and in the phrase *written by hand,* the *hand* is the instrument with which the writing is done. It is in this light that can be said compound adjectives require the same treatment. For example, an adjective like *God-fearing* can be paraphrased using the verb phrase fearing$_{verb}$ God$_{patient;}$ eye-catching can be paraphrased as (metaphorically) catching$_{verb}$ eye$_{patient}$, and so forth.

> **(iv) Compound nouns:** this structure allows the noun in each compound to function as the patient argument of the deverbal noun on its right. For example, in a compound like *bear-baiting,* the noun is a **patient** and undergoes whatever action is indicated by the V-ing that follows it. Thus, the noun *bear-baiting* is analogous in its argument-structure to the verb phrase baiting$_{verb}$and bear$_{patient.}$

From the foregoing, it can be acknowledged that the above discussion under this section has some relevance to the current study of Bemba compound noun. With special interest, part (iv) under this section; compound nouns, is fittingly to devise that a Bemba compound noun such as *chimbamilonga* 'one who digs streams' or 'maker of streams' can be used in that description. In which *chimba$_{theme}$* and *milonga$_{patient}$* when written as separate entities.

Having discussed the theories that guided the study in this section, the next section will now develop and discuss the conceptual framework upon which the study is anchored.

3.3.3 The Government and Binding theory

This theory assumes that a large portion of the grammar of any particular language is common to all languages, and is therefore part of Universal Grammar. The GB view is that Universal Grammar can be broken down into two main components: levels of representation and a system of constraints, Black (1998).

Government and Binding theory assumes a derivational model consisting of four levels of representation, these are;

The lexicon- lists the idiosyncratic properties of lexical items which constitute the atomic units of the syntax. These properties include what arguments the item subcategorizes for, etc. Lexical items are then combined together at D-structure (underlying structure).

The D-structure is mapped into S-structure, which is the syntactic representation that most closely reflects the surface order of the sentence.

The S-structure is not directly interpreted itself, but is factored into Phonological Form (PF) and Logical Form (LF).

The Phonological Form is the interface with the phonology where shapes, sounds, and groupings of items are directly represented. LF is the interface with the semantics as illustrated below:

Lexicon

D-structure

Move α

S-structure

Stylistic and   *LF move α*

Phonological rules PF   LF   Black (1998)

34
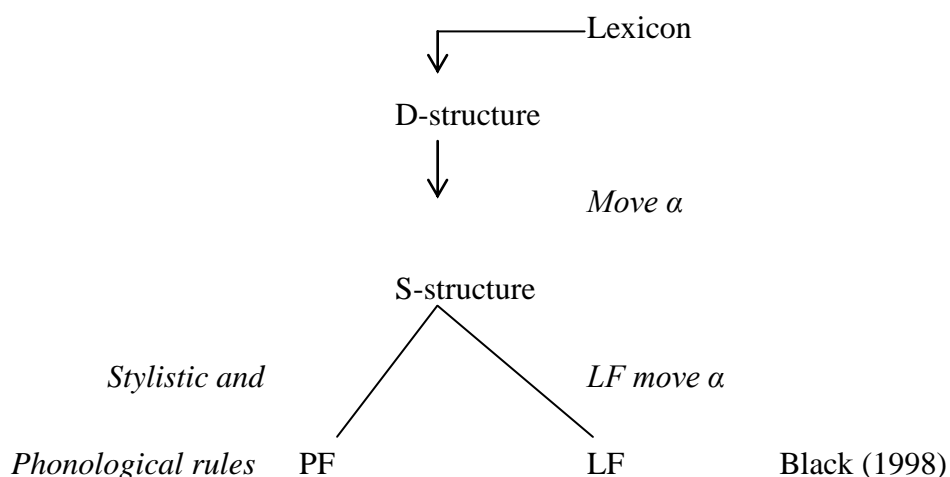
From these levels, it can be assumed that all the four are related to one another by rules. A single movement rule, for example, move-α maps between D-structure and S-structure and a similar rule maps S-structure into LF. Move-α is stated as a simple rule basically allowing anything to move anywhere, since the system of constraints is responsible for correctly restricting this movement. In this theory, LF is the main focus from the lexicon point of view in relation to the current study.

Black 1998:3 says, "A word such as a noun, verb, adjective or preposition is a lexical category. In structural terms, they are called heads." This is further dealt with in chapter six under section (6.3) as part of the Phrase Structure Rules in using X-bar theory a sub theory of Government and Binding theory.

3.3.4 Transformational Generative Grammar

Transformational grammar is an approach to the use of grammar in communication that involves a logical and analytical process to fully grasp the meaning behind the words selected. From this perspective, it goes beyond the process of structural grammar, which tends to focus on the proper construction of sentences as the device for communication. Syntax plays a role in the logical process of transformational grammar, as will context. To a degree, this theory calls upon most of the tools of linguistics in an attempt to fully analyse the spoken or written word. TG analyses the words with reference to its underlying thoughts. It also describes a language with the help of transformational rules. Hence, transformational Generative Grammar (TGG) refers to the theory of generative grammar of a natural language developed by Chomsky during the middle portion of the 20th century. Courtesy: http://www.class.uh.edu

The foregoing discussion on the previous two sections (3.2.3 and 3.2.4) has shown the anchor through which the analysis of the current study is based. The current study was guided by these two theories to be precise in its analysis, description and meanings of compound nouns in Bemba.

3.4 Conceptual framework

This section of the study is primarily meant to be an introduction to the concept of compounding. This phenomenon is one of the most productive types of word formation in

Modern English and so is in Bantu languages to which Bemba is a part. In addition, the section wishes to develop the concept of tone in relation to Bemba compound nouns.

3.4.1 Compounding

In his analysis, Crystal identifies four (4) normal processes of forming new words in English (1989).

(i)   **Prefixation:** Where a prefix is placed before the base of the word as in **un**kind

(ii)   **Suffixation:** a suffix is placed after the base of the word as in job**less**

(iii)   **Conversion:** In which process, a word changes its class without any change of form as in **the book** (noun) becomes **to book** (verb) and lastly,

(iv)   **Compounding:** In which two base forms are added together to form a word (noun) as in **doormat.**

It should be noted that Crystal's study focuses on English processes of compound noun formation. However, the last part of Crystal's work on compounding seems more appropriate to the current study given its scope. On this, Fromkin 1993:54 − 55 states "Compounding, as a part of derivational morphology, is universally recognized and commonly used for enlarging the vocabulary of any language".

Holt et al. 2001:376 stipulate, "A compound noun consists of two or more words used together as a single noun". These could be the name of a person, a place, a thing or an idea. Compound nouns may be written as two or more words. Sometimes the words are written as one word, as separate words, or as hyphenated word by the use of noun plus noun for example, verb plus a noun, noun plus an adjective, and many more others to form a compound noun in a particular language. MOE 1977:29 records, "Compound words should always be written as one". This implies that compound nouns as well should be written conjunctively except words with two parts which have vowels that cannot be fused. Crystal 1992:77 characterizes a compound as "a linguistic unit composed of two or more elements, each of which could function independently in other circumstances."

Quirk et al. 1985:1567 define a compound as "a lexical unit consisting of more than one base and functioning both grammatically and semantically as a single word." This entails

that a compound noun is a result of more than one base and can function as a single word both in terms of grammar and meaning.

Molhova (1976:136) explains that "Compounding is that means of forming new words which causes two or more roots to be merged into one, whose meaning might be the sum total of the meanings of the components or it might be idiomatic."

Grammatically, compound nouns can be formed from different grammatical categories such as; compound nouns, compound verbs, compound adjectives and so forth. The compound noun can be formed by combining noun and noun, noun plus verb, noun plus adverb, verb plus noun, adjective plus noun, adjective plus verb and others.

In recent years, the concept of compounding has received much attention and several proposals for classification have been put forth in the recent literature.

Most of the classification schemes (Spencer 1991, Bauer 2001, Haspelmath 2002, Booij 2004, among many others) exhibit a flat structure, since different criteria have been put on the same level: for example; grammatical relations between the constituents are at the same classification level with the presence or absence of lexical head (such as; coordination and subordination are put on the same level with endocentricity and exocentricity). This has been developed in detail by Bisetto and Scalise (2009; forthcoming).

In order to avoid the shortcomings, Bisetto and Scalise (2009) propose a new classificatory scheme based on hierarchical arrangement of homogenous criteria following the path of earlier classifications introduced by Bloomfield (1933), Bally (1965) and Marchand (1969). Bisetto and Scalise (2009) identify three macro-types in compounding. These are; subordinate, attributive and coordinate. Each type may be endocentric (with a lexical head) or exocentric (without a lexical head). The latter, is a kind of compound without connection with the other in meaning. For example, 'He is an egg head' meaning "He is an intellectual". This just illustrates the fact that getting the meaning from an exocentric compound is difficult for its meaning lies outside the word-items. It has nothing to do with 'egg head' in the preceding example. These kinds of compounds are of significant use in the current study of 'The Grammar of Bemba compound nouns.'

Besides, Scalise and Guevara (2006) distinguish between categorical and semantic head. The categorical head is "…the constituent which shares with and percolates to the whole compound its entire formal feature: lexical category and sub-categorization frame." The whole compound, thus, is expected to have the same distributional properties of its categorical head.

The semantic head "…is the constituent which shares with and percolates to the whole compound all of its lexical/conceptual information. The whole compound, thus, is expected to be a hyponym of its semantic head" (Scalise and Guevara, 2006:69). Accordingly, an endocentric compound has at least one categorical head and at least one semantic head (the two must coincide). In other words, the compound item is one of itself; the other is a hyponym of one of its parts. Meaning that, its meaning is within the grammatical items.

According to Bisetto and Scalise (2009), each macro-type is characterized by a different grammatical relation between the constituents of the compounds. Subordinate entail a relation of complementation between the head and the non-head. This is clear with compounds with deverbal head constituent, such as, *truck-driver*. A similar relation can be found in compounds that do not have a deverbal head, for example; [N+N] compounds where the constituents are typically linked with what they call an 'of – relation', as in *doorknob* ('knob of the door'), or by other clearly subordinating relations, as in *cat food* ('food for cats').

Attributive compounds are compounds in which the constituents are linked by a relation of attribution. The prototypical case involves compounds in which the first constituent is an adjective, as in *high school*. Other structural types could be found as well. For example, [N+N] attributive compounds, in which the non-head is used as a metaphoric attribute of the head, as in *swordfish* ('fish with a sword – like snout') and not as a mere complement of it (*fish of a sword, fish for a sword).

In addition, there are some compounds which, though analysable into their constituents, are permanent resident in the lexicon. A number of such compounds contain the form – *berry*. The most famous member of this set is *cranberry*. Hence they are all called cranberry words. The compound words such as; *cranberry, huckleberry, elderberry, strawberry, gooseberry* and so forth seem be analysable as containing the word *berry* as

head, preceded by a modifier. In the above compound words, the element that precedes *berry* is a noun. In the *elderberry*, the noun *elder* refers to the elder tree that produces *elderberries*; *elder* can be an independent word. So *elderberry* is a compound.

But in other NN compounds, the situation is confused. It is not clear whether the form that occurs with the *berry* in the compound is the related to the form found elsewhere. For instance, does the form *goose* in *gooseberry* belong to the same lexeme as *goose* in the word that refers to a species of bird? Although they have the same form, there is no reason to assume that these elements are semantically related. Likewise, there is no reason to regard *straw* in *strawberry* as a form related to *straw* that is found in stable.

While syntactically it might make good sense to analyse these noun compounds as containing NN, given their semantic opacity it is extremely unlikely that speakers construct them from scratch each time they use them. It is more likely that they are simply listed as compounds in the mental lexicon, Katamba (1993).

This type of compounds does appear in Bemba compound nouns category though the current study might not delve so much in discussing them at length. For example; Bemba compound nouns which are cranberry in nature are such compounds containing the form –*senge*. This form is preceded by the element which is a noun. It appears with such compound nouns as in; *Mayosenge* 'aunt' *tatasenge 'uncle',* these compound nouns represent paternal in Bemba language.

It can be concluded that the form –*senge* in Bemba is thought to have the meaning then, but over time it has lost the meaning in its usage as such it is simply listed as a form of a compound when used with a noun in Bemba. It can then assume the status of a compound noun. The constituents are linked by a coordinating relation. This is in line with Fromkin et.al 2003:60 statement, "Two or more words may be joined to form new compound words".

The various authors offer much comprehensible definitions and provide an explicit explanation of compounding. Although the different terminology is used by each author, for instance, root, stem, base, the meaning is the same. As a way of demonstrating the definition on the example, a compound *boardroom* could be used. In the preceding compound noun, there are two roots (basic parts that are always present in a lexeme when

all inflectional and derivational affixes have been removed) Bauer (1983), *board* and *room*.

Bauer further goes on to characterize a stem, which attracts concern only when dealing with inflectional morphology. Bauer 1983:20 says "It is the part of the word – form which remains when all inflectional affixes have been removed. In the form of boardrooms the stem is boardroom even though the stem contains two roots".

However, Vogel (2007) in his definition uses the term lexical stem or base to refer to a compound. A base is well defined by Bauer 1993:21 as "any form to which affixes of any kind can be added". As for the meaning of a compound which is also mentioned in all definitions, it is either derived from that of its constituents or it can acquire specialized meaning and becoming like idioms. For example; a bedroom is a type of a room where a bed is found. On the other hand, a greenhouse is a glass building for growing plants. Whereas, in the case of a bedroom the meaning is transparent and it is predictable from its constituents, the meaning of greenhouse is opaque or idiomatic. The point here is that even though the word greenhouse consists of meaningful parts green and house, it is not possible to figure out the full meaning of the word from those individual word parts. However, the meaning of the compound is the sum total of the meaning of the components.

From the discussion above, it can be noted with interest that the concept of compounding attracts a lot of forms in creating new words. For it seems to be a universal process for creating new words. Interestingly, the current study focuses its attention on the formation of noun compounds in relation to Bemba language.

3.4.2 Noun

A noun has a structure of a prefix plus stem in general, but in Bemba sometimes there is an addition of an augment which does not have any grammatical function and it precedes the noun prefix morphologically. The prefix denotes a pair of singular and plural morphemes. This can be illustrated using words in isolation that have a bearing on compound nouns and of course compound words themselves.

This data is well illustrated in Table 2 in which a full list of noun classes and prefixes in Bemba is provided from which most compound nouns in Bemba are derived. For the

purpose of this study, the list will act as a corpus for developing the discussion in subsequent chapters.

List of noun classes and their prefixes in Bemba.

Class	Prefix	Example
1	Mu	u**mu**ntu 'person'
1a	θ	fulwe 'tortoise'
2	ba	a**ba**ntu 'people'/ 'persons'
2a	baa	**baa**fulwe 'tortoises'
3	mu	u**mu**shi 'village'
4	mi	i**mi**shi 'villages'
5	li/i	i**li**ni 'egg'
5a	lii	**lii**banda[*]
6	ma	a**ma**ni 'eggs'
7	ci	i**ci**sote 'hat'
7a	cii	**cii**koswe 'ugly/big rat' (pejorative)
8	fi	i**fi**sote 'hats'
8a	fii	**fii**koswe 'ugly/big rats'(pejorative)
9	n	i**n**koko 'chicken'
9a	θ	kaapu 'cup'
10	n	i**n**koko 'chickens'
11	lu	u**lu**kasa 'foot'
12	ka	a**ka**yanda 'a small house'
12a	kaa	**kaa**kolwe 'a small monkey'
13	tu	u**tu**yanda 'small houses'

13a	tuu	**tuu**kolwe 'small monkeys'
14	bu	u**bu**bi 'bad'/'badness'
14a	buu	u**buu**landa 'suffering'
15	ku	u**ku**lya 'to eat'
16	pa/pali	**pa**mbale 'on the plate'
17	ku/kuli	**ku**mwabo 'at their place'
18	mu/muli	**mu**mumana 'in the river'

Table 2.

 *This is a derivational suffix meaning that the person denoted by the noun is peculiar in some way.

The shape of a prefix depends on the class to which the noun belongs within the language's class system as seen in Table 2 above. Except for non-count nouns, classes are paired to express number (singular/plural). The canonical pairing of noun classes in Bemba is shown in Table 3 below (in each pair the singular is shown first). This is with an exception of class 5a which is a singular class without a plural.

Semantic pairing of classes for compound noun prefixes in Bemba.

Class	Prefix
1/2	mu/ba
1a/2a	θ/baa
3/4	mu/mi
5/6	li/ma
7/8	ci/fi
7a/8a	cii/fii
9/10; 9/6 (rare)	n/n; n/ma (rare)
9a/6	θ/ma

11/10; 11/6	lu/n, lu/ma
12/13	ka/tu
14/14	bu/bu
15/6	ku/ma

Table 3.

The semantic pairing of classes in Table 3 above is further discussed below in terms of descriptive data of Bemba compound nouns.

Compound Class	**Prefix**	**Stem**	**Word sg.**	**Wordpl.**	**Gloss**
mwinemushi ½		mu/ba	mu-ine>mwine	bene	'His/theirs'
muntapendwa¾		mu/mi	-nta>munta	minta	'negation'
kaminamisa 1a/2	θ/ba	kamina		bakamina	'swallower'
citulang'oma 7/8	ci/fi	-tula	icitula	ifitula	'breaker'
shikulubantu 1a/2	θ/ba	shikulu	shikulu	bashikulu	'older man'
ntunkamafi 1a/2	θ/ba	ntunka	ntunka	bantunka	'pusher'
musongansala½		mu/ba	-songa	musonga	bamusonga	'trigger'
akapalapute 12/13	ka/tu	-pala	kapala	tupala	'resembler'
icilengwalesa 7/8	ci/fi	-lengwa	cilengwa	ifilengwa	'drawn'
cumbumunshololwa 7/8	ci/fi	-umbu	cumbu	fi-umbu (fyumbu)	'potato'

From the above given compound nouns, it can be established that the formation of compounds follow the word class in which they appear and their semantic class pair as the case is with Bemba compound nouns shown above. These will later be informed in the analysis of compound nouns in morphology, syntax and semantics. However, a few proper nouns in compound nouns were identified.

a) chibwelamushi   'anthroponym' ci-bwela 'it is coming' + mu-shi 'village'
b) chikalabwamba   'anthroponym' ci-kala 'it is sitting'+bu-amba   'nakedness'
c) chililabombwe   'anthroponym'ci-lila 'it is crying' + bo-mbwe   'frog'
d) kabwelakumbo   'anthroponym'ka-bwela 'it has come' + ku-mbo 'grave'
e) ntumbachushi   'anthroponym'n-tumba 'it starts' + ci-ushi   'smoke'
f) mukuntansoke   'anthroponym'mu-kunta'he who removes'+n-soke 'thorns'
g) ntambalukuta   'anthroponym' n-tamba 'he who watches' + lu-kuta 'people'
h) mwendalubi   'anthroponym'mu-enda 'he who walks' + lubi   'bad'
i) musambachime   'anthroponym' mu-samba 'he who baths' + ci-me 'dew'
j) kasongamulilo   'anthroponym'ka-songa 'he who starts' + mu-lilo 'fire'

Compound	**Word structure**	**Pronoun type**
a) _nokolume_'uncle'	_n-in-oko>noko_ 'your sg.'	Possessive
b) _mutwewansonfu_	_u-a>wa_ 'of' proper noun	genetive

The researcher also identified other genitive pronouns in the work as shown below:

(i) _pakabalantanshi_   'at the beginning'   _pa-_ 'at'
(ii) _pakafwamfumu_   'very early morning'   _pa-_ 'at'
(iii)_pakayeloba_   'praise name'   _pa-_ 'on'
(iv)_mwanaamfumu_   'chief's child'   _a-_ 'of'

Genitive pronouns are forms of nouns which show a relationship of possession or origin between one thing and another. The section that follows will address the concept of tone marking with regard to compound nouns, a concept which is part of Grammar of any given language.

3.4.3 Tone marking

The concept of tone marking is crucial in the description and classification of compound nouns in any given language. This study will analyse the tonal pattern of compound nouns in Bemba from the stand point of Kula's study (2009). Tone marking is helpful in identifying the form that bears what tone also establishing the effect on the meaning when two nouns are brought together bearing different tonal pattern to form a single noun.

3.5 Conclusion

The chapter provided information on the analytical, theoretical and conceptual frameworks that guided the study. It drew on analytical and theoretical insights from Morphological, Syntactic and Semantic theories. Under the analytical framework, the chapter discussed the morpho-syntactic and semantic classification of the grammar of Bemba compound nouns and the related morphological rules relevant to the study. The chapter also assumed that data would be analysed qualitatively since it was a descriptive study. From the syntactic level, the study was informed by the theories in Government Binding and in more specific terms the X-bar theory in drawing tree diagrams and in assigning theta-roles to the compound noun constituent. The chapter also drew insights from semantics for assigning meaning to words in isolation and compound nouns respectively. Finally, the chapter discussed the concept of 'Compounding' which guided the study.

The next chapter presents the Research Methodology which guided the collection of data and analysis.

CHAPTER FOUR: METHODOLOGY

4.1 General

This chapter presents the research method used in the study. The chapter thus discusses the specific methods applied in collecting and analysing data.

Further, it presents details relating to the type of research and the research design executed in the study, research instruments, data collection procedures and the data analysis process. It also explains why each particular method was used and provides description of the research process.

4.2 Research Design

Leedy and Ormrod (2001: 91) define a research design as "a complete strategy of 'attack' on the central research problem." In simpler terms, research design is planning the research process. It involves the process of planning what and how data will be collected and analysed (Kathari, in Du plooy 2004). Therefore, any credible research study must have a 'blue-print' that is designed to guide the study from the start to the end. There are different research designs that researchers use to approach their research question/s.

The research design that this study uses is a descriptive one. The choice of design has been necessitated by the nature of the study which essentially is about describing and analysing the grammatical structure of Bemba Compound Nouns with the specific focus on their Morphology, Syntax and Semantics. The descriptive research can be employed singly or in various combinations, depending on the research questions at hand. There is no experimental manipulation or indeed any random selection to groups of informants. Some of the common data collection methods applied to questions within the realm of descriptive research included surveys, book review and observations. Since the linguistic study on the grammar of Bemba Compound Nouns is descriptive in nature, the investigation employed qualitative methods of research, data collection and analysis. Therefore, the study is mainly qualitative in that the research is describing linguistic phenomenon. In this regard, the researcher employs descriptive techniques to explain and interpret the data collected.

This involves the collection of data that will provide an account or description of individual words or situations. Instruments used to obtain data in this descriptive study include among others;

- Note book

- Ball pens and pencils

- Local newspapers (community)

- Magazines in Bemba

- Television programs

- Observation (checklists and so forth).

There are three main purposes of research. These are; to describe, explain, and validate findings. Description emerges following creative exploration, and serves to organize the findings in order to fit them with explanations, and then test or validate those explanations, Krathwohl (1993). Many research studies call for the description of natural or man-made phenomena such as; their form, structure, activity, and change over time, relation to other phenomena, and so on. The description often illuminates knowledge that might not otherwise be noticed or even encountered. Several important scientific discoveries as well as anthropological information about events outside of common experiences have resulted from making such descriptions.

Therefore, this study purposes to achieve the above three dimensions of research as part of descriptive study that is; to describe, explain, and validate findings.

As a desk study, the researcher justified that it was unnecessary to have the sample size, study area and so forth in its design.

4.3 Methodology

As earlier pointed out, this study is qualitative. This means that both the research design and methodology have been informed by qualitative approach to data collection and analysis. Qualitative research aims to get a better understanding through first-hand experience with the phenomena being researched on, truthful reporting, and quotations of

actual conversations or sources of information. It aims to underscore how the participants derive meaning from their surroundings, and how their meaning influences their behaviour (Nkwi, Nyamongo and Ryan 2001). However, due to the nature of linguistic data, there are times when data collected may not have any social implications, especially, when the study is purely descriptive as the case is with this current study.

Mason (1990) understands qualitative research to be concerned with how the world is interpreted, understood, experienced or produced. This entails understanding a people`s mental categories, interpretations, perceptions, feelings and motives which is only achievable when one exploits qualitative research method in comparison with quantitative research method. This approach helped the researcher to discover the reality in comparison to the known theoretical perspective. The approach also helped the researcher to give fair and holistic description and analysis to the Grammar of Bemba Compound Nouns as the case was. Qualitative analysis therefore, involves a continual interplay between theory and analysis. In analysing qualitative data, the study seeks to discover whether or not there was known grammatical properties of compound nouns in Bemba from the perspective of three levels of linguistic analysis.

The following sections spell out the procedures, techniques and instruments employed in collecting and analysing data in this descriptive study:

4.3.1 Data Collection Procedures

Qualitative data was collected through the use of books, magazines, local newspapers presented in communities, television programs, documents and the Bemba Bible.

Generally speaking, primary data was collected in the field by the researcher through introspection and observation. Here, the researcher generated data through various means and sources relevant to the topic under investigation. The other data was collected from printed records such as; Books, Magazines, Newspapers, Articles and so forth, and the data collected was analysed qualitatively.

The researcher engaged in participant observation. Here, the researcher attended common social events in communities where he suspected the compound noun words in the language under investigation might be used. The researcher attended these events with the view to collect specific aspect of the language related to the subject being investigated.

The last segment of data collection was done through desk top study. This helped the researcher to collect data from different works documented and published. This then helped to harmonize data from the field and that from various documents.

4.3.2 Data Collection Methods

In order to come up with a precise linguistic data of the Grammar of Bemba Compound Nouns, a corpus of 250 words were collected using participant observation during social events such as; marriage ceremonies, church meetings, funeral eulogies and a huge chunk of data was collected from written documents. This is so because it is widely acknowledged that descriptive linguistic data is elicited from a native speaker of the language as the case was with this study, of which the researcher was a native speaker of the language; IciBemba. This reason provides an advantage to the work under investigation because the native speaker(s) has/have the masterly of the language by what to say, when to speak, when not, with whom, where and in what manner, Stern (1983).

The researcher on the other hand, being native speaker and teacher of the language (Icibemba) for some time now at senior secondary school level, supplemented the above method with own findings from interactions with native speakers and teachers of the language. This was, in the hope of making it easy for the researcher to correctly interpret data. This view is supported by Radford (1997:24) "A grammar of a language is a model of the grammatical competence of the fluent native speaker of the language, and that competence is reflected in native speaker's intuitions above grammatically and interpretation".

Additionally, secondary data was collected from documents such as; Magazines, Books, Newspapers, Articles, the Bible written in Bemba was also used. Following were the different methods employed in collecting data:

4.3.2.1 Observation

The first set of data was obtained from non-participant observation of actual usage of compound nouns for this study. Observations were done at various locations and sites such as; residential areas, burial sites, local court premises, tradition activities and many others in areas where the language was used. All these activities were conducted in open spaces.

4.3.2.2 Introspection

Here the researcher generated data himself since he is the native speaker of the language in which the study is being investigated. A list of types of 250 compound nouns was prepared which was subjected for verification during the research. The check list became a very useful instrument during observation as primary data was collected.

4.3.3 Data Collection Instruments

The researcher serves as the primary data gathering instrument in Qualitative Research. Here, the researcher employed some data-gathering strategies, depending upon the thrust or approach of the research. Examples of data-gathering strategies used in this Qualitative Research are; content or documentary analysis, participant observation and archival research.

The data for the study were collected through observation, deliberate spoken discourse, published documents and unpublished ones. The researcher also took notes in the note-book from local newspapers, magazines, Television shows and presentations. The recorded notes were later examined and interpreted according to their semantic structures.

4.3.4 Data Analysis

Following the data collection process, data analysis commenced and each datum was addressed to each of the three set objectives. The analysis on Morphology was set to achieve objective number one which sought to establish the nominal structure of the Grammar of the Compound Nouns in Bemba in terms of their Morphology and Syntax. The analysis on Semantics was addressed to achieve Objectives two and three which sought to give an account of the semantic value of the Grammar of Compound Nouns in Bemba as well as identify the relationship between actual meanings and the literal meanings. Additionally, the data was classified according to the compounding categories such as; noun plus noun, noun plus adjective, verb plus noun and so forth. At the stage of discussion, there was an explanation and interpretation of data according to the particular nature of findings. This included answering questions such as; how and why compound nouns are classified in a particular style under Morphology and Syntax and the meaning they carried in the final analysis also data was organised and analysed according to the

linguistic behaviour of compound nouns. The findings were later summed up in the conclusion in line with the research objectives.

4.4 Conclusion

The chapter provided information on the research design, data collection procedures and techniques that guided the study. Suitable instruments used in collection of data and making data analysis were described. In each case, each data collection instrument did provide some information regarding the topic under investigation. Lastly, the researcher used a list of compound nouns to verify what each word on the list meant and how it is categorized.

The next three chapters present the discussion and findings to the study on the Grammar of Bemba Compound Nouns with the specific focus on their Morphology, Syntax and Semantics.

CHAPTER FIVE: THE MORPHOLOGY OF BEMBA COMPOUND NOUNS

5.1 General

The aim of this chapter is to present and discuss the morphology of the grammar of compound nouns in Bemba. The main purpose of the presentation is to show the types of compound nouns as used in Bemba as well as in Bemba speech community with the view to achieving objective one which sought to establish the nominal structural properties of the Grammar of Compound Nouns in Bemba. These are analysed according to three levels of linguistic analysis namely, Morphology, Syntax and Semantics.

5.2 Morphology

This section analyses the Grammar of Bemba compound nouns with the focus on Morphology. It proceeds by discussing the structure of noun compound in Bemba. It provided the morphological classification of compound nouns in Bemba and it concludes by providing information on the formation of compound nouns in Bemba. In discussing Morphology, the primary objective was to establish the internal word structure of compound nouns in general and explain certain parameters that apply to the structure of Bemba Compound Nouns in particular. In view of this, an analysis of compound noun word forms and their internal structure was examined. This was done in order to classify the roots and morphemes in Bemba. It also helped in providing descriptions of how these morphemes combine to form compounds and later show how these nouns behaved when brought together to form a single compound noun.

5.2.1 The Linguistic Structure of Compound Nouns in Bemba

The linguistic analysis on the types of the structures of morphology found in compound nouns was done. The study has revealed that compound nouns are made from different parts of speech though exist to serve as a single compound when two nouns for example are brought together.

5.2.2 The morphology of Bemba compound nouns

The study has revealed that there are two main morphological structures of compound nouns in Bemba and these are associated with root nominal and synthetic compounds.

5.2.2.1 Nominal root compounds

These are compounds which involve only nominal roots and are very rare in Bemba. These mainly consist of kinship terms with fixed meanings as suggested by Kula (2009:431).

From the data, these compound nouns present a structure which involves a noun plus another noun. Consider some examples below of these kinds of nominal root compounds.

 (a) nakulu-bantu 'elderly (distinguished) woman'
 (b) shikulu-bantu 'elderly (distinguished) man'
 (c) noko-lume   'uncle' (on mother side)
 (d) impundu-busushi 'fruit'
 (e) noko-senge   'aunt' (on father side)

The above examples revealed that though nominal root compounds have a structure of noun plus noun in their composition, by function, one of the nouns behaves like an adjective especially the right member of a compound. This was noticed therefore that this right member of the compound helped to describe the kind of person, mother and so forth as in examples (a), (b), (c) and (e) above.

For instance, (c) above, *noko-lume* 'uncle'. *Noko* 'mother' is a root noun and *–lume* 'male' it is also a root noun by structure. However, the study revealed that when these two nominal roots are brought together to form a single compound noun their linguistic behaviour change. One of the roots nominal the right one especially behaves like an adjective by function. In the case of *noko-lume* 'uncle' *–lume* 'male' helps to understand the kind of mother 'noko' being talked about here, a male mother.

The study also revealed that the above compounds are endocentric in the sense that the left member of a compound noun acts as the head of the compound that controls the noun class of the compound.

The study further revealed that there is one characteristic that defines these compounds. It is that the complement of the head noun is a bare nominal without the augment. Thus, in each case, forms where the second nominal has the augment are ungrammatical.

For example, (a) and (b) above; *nakulu-bantu* 'elderly (distinguished) woman' *nakulu* 'elderly woman' was identified to have a bare nominal without the augment whereas, the second nominal *bantu* ' people' do have the augment a-bantu 'people'. This form of an augment is thus ungrammatical.

From the nominal root compounds discussed, it can be summed up here that these were rare from the data collected. It was observed that when two root nominal are brought together to form a single compound noun such as; noun plus noun structure, the left member of the compound acts as a head noun and controls the noun class, it also has a bare nominal without the augment. On the other hand, the right member of the compound by function becomes an adjective; it also bears an augment which is ungrammatical in form.

From the data under this section, some compound nouns were found to have a structure which involves vowel reduction when two nouns were brought together to form a single noun as illustrated in the examples (a), and (b) above. In this case, the second nominal in the above cited examples had the augment vowel (a-) reduced in the formation of a compound noun.

The second type of compound discussed involves a deverbal noun and a nominal root.

5.2.2.2 Synthetic compounds

These are compounds involving a deverbal noun and a nominal root. They are called so because they involve the simultaneous use of two morphological processes; compounding and derivation (Kula 2009). These compounds in Bemba became many from the data collected. From the data, these compounds have a structure which involves a noun derived from a verb (deverbal noun) as the left-hand member, it also acts as the head and the other is the nominal root which becomes the complement when they are combined to form a single noun as in the examples below:

1. Deverbal noun + nominal root

(a)	musonga-nsala	'appetizer'
(b)	mupeta-ndupe	'kind of shrub for making baskets'
(c)	musunga-bantu	'hospitable person'
(d)	mukwiilila-bwamba	'person who works for necessity' Kula (2009:432)

The study has revealed that the above compound nouns have a structure which involves a noun derived from a verb (deverbal noun) being a left member of a compound and the other is a nominal root. From the examples above it can further be discussed that the structure of the compound nouns were that a noun in 1(a) *musonga*was derived from the verb *songa* 'ignite or trigger', a noun in 1(b) *mupeta*was derived from the verb *peta* 'fold', a noun in 1(c) *musunga* was derived from a verb*sunga* 'keep' and so is the case in 1(d) a noun *mukwiilila* was derived from a verb *kwiilila* 'earn a leaving'.

This structure is in line with the classification given by Dillion (1977) who classified compound nouns according to their derivational meanings.

It was also observed from the data that the structure of some nominal roots had changed in shape. Some nominal roots involve vowel reduction initial when they were brought together with the deverbal noun to form a single compound noun as in the examples below:

2. Nominal root involving vowel reduction

i.	in-sala	'hunger'
ii.	aba-ntu	'people'
iii.	ubu-amba	'nakedness'

The data has shown that nominal roots had their augment vowel dropped when forming a compound in each case as can be seen in the above examples 1(a), 1(c) and 1(d).

The study also has revealed that some synthetic compounds were found with the structure of deverbal nouns derived from prefixes of different classes. The following examples illustrate this;

3. aka-, diminutive class prefix

(a)	akantele-mafweesa	'an insect that lives under rocks'
(b)	akashinda-beeni	'a small stinging insect'
(c)	akapala-pute	'pimple'

The above examples of compound nouns are derived from verbs with their diminutive class prefix aka- . For example 3a, *akantele* 'an insect' is derived from the verb *-sela* 'move' particularly the characteristic of the insect itself. 3b, *akashinda* 'a stinging insect' is derived from the verb-*shinda* 'sting' and 3c *akapala* 'resemble' is derived from the verb *-pala* 'resemble', hence, when combined with the root nominal *pute* derived from *icipute* 'boil' the meaning is extended to 'a pimple'.

The next examples discuss compound nouns which illustrates the properties of synthetic compounds with deverbal nouns derived from augmentative class prefix.

4. ici-, augmentative class prefix

(a) icilengwa-lesa   'abnormal person'

   (lit. 'that which is created by God')

(b) icisense-ng'anda   'cricket (insect)'

                   (lit. 'that which makes noise in the house')

From the data given, it was observed that these compounds have a structure which involves a derived noun from the verb; it appears as a left member of the compound and acts as a head noun. For example, in 4a above, the noun *icilengwa* is derived from the verb *-lengwa* 'bedrawn' and the root nominal *Lesa* 'God'. When the two nouns are brought together (icilengwa-lesa) the meaning of the single compound noun is 'abnormal person' and literally would mean 'that which is created by God'.

Example 4b above shows that a single compound noun *icisense-ng'anda* 'cricket' has a structure which involves a head noun *icisense* 'an insect' which is derived from the verb -*sensa* 'make a noise' and a nominal root *ing'nda* 'house'.

In addition, the Figure 2 discusses further example 4a above.

The grammatical structure of a compound noun in Bemba

Icilengwa-lesa

Cilengwa-lesa

i

Lengwa-lesa

ci

leng-u-a

lesa

aug   cl.7/8 'to be drawn'   'god'

lit. 'that which is created by God'
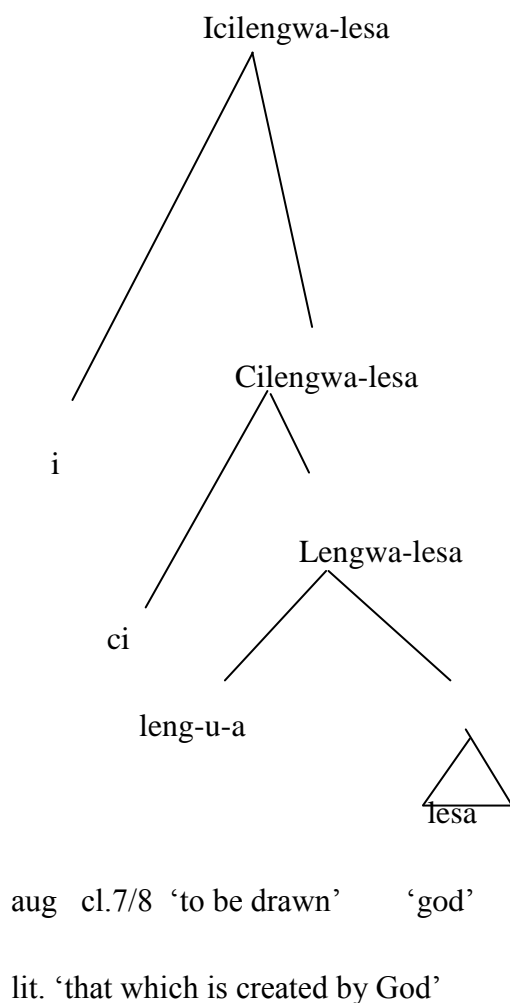
Figure 2.

This comes out as; pre-prefix + prefix + stem-V-end + stem; typical of compound structure of a compound noun.

The figure above highlights the affixes and stems used to form the compound noun *icilengwalesa*. It also shows the complex nature of words in Bemba both in words in isolation and in compound nouns in particular.

From the data, some compound nouns were seen to have a structure which involves endocentric when two nouns are brought together to form a single noun as in the examples below:

5. Endocentric compound nouns

   a. chililabombwe   'the crying frog'

   b. kalamabantu   'one who looks after people'
   c. musambachime   'one who baths the dew'

The above examples in 5 have a structure of endocentric compound nouns. Endocentric compound is one with a head and denotes a subtype of whatever is denoted by the head (Booij, 2007). In view of Booij's description of an endocentric compound, examples in 5 denote what is mentioned in a compound, a kind of *bombwe* 'frog' in 5a, a kind of *kalama* 'one who keeps…' and a kind of *musamba* 'one who baths…'. In that case, one noun behaves like an adjective, describing the other (the head) by function. For example 5a, *chilila* describes a kind of *bombwe* 'frog' and so forth.

The following examples illustrate another kind of compound nouns found in the data that is; the exocentric compound nouns. These are kinds of compound nouns that denote a subtype of a category not mentioned within the compound as in the examples below:

6. Exocentric compound nouns

   a. chumbumunshololwa   'stubborn person'
   b. akabutamputi   'a small boy (lad)'
   c. chitimukulu   'name of a paramount chief in Bemba land'

From the data above, it can be noted that the examples in 6 have no relationship with the issues mentioned within the compound. Hence, realising the structure of exocentric when the two nouns are brought together to form a single noun. For example, 6a, *chumbumunshololwa* 'a stubborn person' has nothing to do with a kind of *chumbu* 'potato' which is mentioned within rather denotes a kind of person. In the same vain 6b, *akabutamputi* 'a small boy (a lad)', does not denote a kind of *mputi* 'buttocks', but denotes a kind of person. *Chitimukulu* in 6c above does not denote a kind of tree, but a kind of person chiti is. The above discussion is relevant to the classification of compound nouns by category given by Booij (2007). Booij classified compounds according to their category that is; endocentric and exocentric compounds respectively.

From the discussion, it can be concluded that the structure of compound nouns is determined by their linguistic behaviour when two or more nouns are brought together to

form a single noun. The examples in 5 and 6 have shown that some compound nouns assumed the structure of endocentric and exocentric respectively when the two nouns were brought together to form a single noun. Endocentric compounds in the sense that the meaning of the compound noun is derived within the compound itself especially from what the head noun denotes and exocentric, in the sense that the meaning of the compound noun is realised outside the compound noun, in short, it is inferred.

The study also has revealed that some compound nouns were constructed from the composition of a noun and a verb as in the examples below:

7. noun + verb

   (a) nokofyala   'mother-in-law'
   (b) mbulakulima   'person who does not cultivate' 'a proper noun'

The structure of the above compound nouns was rare from the collected data. In the structure of these compound nouns, it was observed that the noun takes the role of the head. For instance, in example 7 above, the nouns noko 'mother' in (a) and mbula 'proper noun' in (b) respectively is heading the compound noun formed when a noun and a verb are brought together.

In addition, the study revealed another structure of a compound noun as shown in example 8 below:

8. Adjective + noun

   (a) Pakafwa-mfumu   'very early morning'
   (b) Pakaye-loba   'where the soil goes'

It was revealed that the construction in example 8 above was also rare from the data presented in the study.

The study further revealed that when a noun and an adjective are brought together, it results in the formation of a single noun (a compound noun) as shown in the examples below:

9. Noun + adjective

a) Muntu+fita   'a dark person'
b) Mwelwa+kafi   'a black mamba'
c) Noko+kulu   'grandmother'
d) Chiti+mukulu   'paramount chief –Bemba land'
e) Chibangwa+popo   'woodpecker'

The structure in example 9 is quite interesting; this is because in most instances the compound noun was made from a noun and an adjectival root. This structure became one of the commonest features in the formation of compound nouns in Bemba.

The study has also revealed that there are compounds with a structure; roots and semantic morphemes, compounds made up of roots only and compounds where one root is attached to a semantic morpheme and the other is a root only as shown in examples below:

Example 10

i. **Compound with root and semantic morphemes**

(a) kalama-bantu 'one who keeps people' 'anthroponym' ka+lam-a – ba+ntu (prefix + stem)

(b) chilufyabantu 'one who causes to lose people' 'anthroponym'
ci+luf-i-a –ba+ntu
(This can further be discussed that the first noun in (b) has the structure; prefix + stem + causative suffixes).

Further, the anthroponym *Chilufya* is derived from the verb –*lufya* 'lose.' And because of the morpheme *ci-* has the raised vowel, the extended vowel too is raised hence the anthroponym *Chilufy(i)a* is formed.

lufya (verb, 'lose') → ci-luf-i-a (proper noun)> θ-Chilufya.

This is what was illustrated in the figure in example 4a above under this section.

ii. **Compound with root only**

(a) *kaminamisa: kamina-misa*   'drunk–gulps' 'a drunk'
(b) *mayosenge: mayo-senge*   'mother-relation' 'paternal aunt'

From the two examples given, it was found that the compound with root only dropped prefixes commonly found in class 5 *li/i* noun words when a noun was brought together

60

with a nominal root to form a compound noun. For instance, the first example *kaminamisa* is presumably written *kamina-i-misa* so is the second *mayo-i-senge* respectively.

iii.   Compound with root + semantic morpheme and some with only a root

To illustrate this, consider the examples below:

a) mupamapamo 'proper noun' -pama 'beat' -pamo 'at once/repeatedly'
b) ntunkamafi   'dung beetle' -tunka 'push' -mafi   'feaces'
c) mwelwakafi   'black mamba' mu+elu-a>Mwelwa 'proper noun' -kafi 'color'

The data presented in example 10 (iii) has shown that the above compound nouns are made from the structure; a noun and a nominal root only. Thus, the study has revealed that the noun in the left element behaves as the head noun and the root nominal in the right behaves like an adjective by function in the process of forming a compound noun when the two nouns are brought together.

From the data, some compound nouns have a structure which involves vowel deletion when two words (nouns) are brought together to form a single noun as in the example below;

11.*mpandamano*

   mu –pand -a + mano
        ↓
   NPø   STEM   END

Resultant: *m-pand-a + mano>mpandamano*'an advisor' (Musale 2009)

This means that the vowel [u] is deleted between segments /m/ and /p/ respectively to form a nominal nasal.

It can also be noticed from the data that other compound nouns do possess a structure which involves vowel lengthening as a result of deletion when two nouns combine to form a single noun as illustrated in example 12 below;

12. ø-ciibwelamushi   [Ci:bwelamushi]

i-ci-bu-ela + u-mu-shi > icibwelamushi 'anthroponym' 'an event or

ceremony attached to Lenje culture of central Province-Zambia.'

This can be summed up that the vowel deleted at word initial gave rise to vowel lengthening process of the identical prefix vowel in the compound constituent.

In the similar vein, other compound nouns from the data do accept the structure which involve intrusion of vowels in an event that two nouns are brought together to form a single noun as the example below shows;

13. i-ci-kal-a + bu-amb-a >*icikalabwamba* 'anthroponym'

Resultant: *ø-ciikalabwamba* [*ci:kalabwamba*] lit. 'that which sits carelessly' 'also, name of a location in Mufulira-Zambia'.

      ø-ciikala   NP + NS

        NP-ci -i -kal   -a

        1a-DM-be seated-END Musale (2009).

This reads that, the noun *ciikala* is derived from the verb *ikala* 'to sit' or 'to be seated' to which a derivational morpheme *ci-* is attached to a verb and therefore becomes part of the noun stem.

In this study, the compound noun *ciikalabwamba* has accepted the morphophonological rule which states that the vowel /i/ has been inserted between two segments, one of it being the identical vowel and the other segment is a consonant /k/. This process has happened as a result of deleting the augment in the first noun of the left element in the compound noun. The other example is illustrated below;

14. *kaatomba-matipa*

      Ø-kaatomba 'it fucks'

      a-ka-tomb-a 'a small bird' + a-ma-tip-a 'mud'

ø-kaatomba + matipa> kaatombamatipa 'a small bird which plays and eats its prey from the mud'

This anthroponym is derived from the verb *tomba* 'fuck' and the noun *matipa* 'mud' to which the derivational morpheme *ka-* is prefixed. This therefore possesses the following morphological structure:

Ø-kaatombamatipa　　[*ka:tombamatipa*]　　'a small bird that plays in mud'

NP + NS

NP- *kaa – tomb - a　+　matipa*

1a　DM - fuck – END + mud

So, a compound noun kaatenshamabula [ka:tenshamabula] 'shaker of leaves' has the similar morphological structure as the one in example 14 above.

This anthroponym is derived from the verb *tensha* 'shake' by prefixing *kaa-* to the verb and noun *mabula* 'leaves'.

Further, the study has revealed that some compound nouns have a structure which involves primitival radical the concept which Musale (2009) discussed and that this can be extended to get a derived radical in the formation of a compound noun. The following examples in 15 (a), (b) and (c) show the verb roots and their extensions as reflected in their compound nouns equivalents.

Example15:

Compound Nouns	Primitival Radical	Extended Radical	Verb Type
(a) ciilengwalesa	leng-a>lenga 'draw'	leng-u-a 'to be drawn'	possessive
(b) nsogwalume	song-a>songa 'cause'	song-u-a 'to be caused'	causative
(c) chibangwapopo	bang-a>banga 'open'	bang-u-a 'to be opened'	passive

It was observed from the examples above that morphophonological rules do have a direct effect on verbal forms. All the three (3) extended radicals identified were as a result of the following structure; that is, a vowel [u] was transformed into a semi-vowel [w] before a back and low vowel [a] resulting into gliding process. The data also revealed that the primitival radical applied only in the left element of the compound noun which headed and controlled the compound.

5.3 Summary on Morphological Analysis

The analysis on Morphology which aimed at establishing the structural properties of the Grammar of Compound Nouns in Bemba began by providing data on the linguistic structure of a compound noun in Bemba. It gave a systematic analysis of a compound noun and the linguistic behaviour each individual compound noun displayed. It then proceeded in giving an analysis of the two main morphological structures of compound nouns in Bemba. These were associated with root nominal and synthetic compounds. A systematic analysis of root nominal compounds was done in line with the study by Booij (2007) and Dillion (1977) and the study revealed that though nominal root compounds have a structure of noun and another noun in composition, by function, one of the nouns behaves like an adjective especially the right member of a compound. This was noticed in the examples given in section 5.2.2.1. From the data; it was found that these compound nouns were rare.

On the other hand, the analysis presented a systematic dimension on the other morphological structures of compound nouns in Bemba, that is; the synthetic compounds.

The study further revealed that these compounds have a structure which involves a deverbal noun and a nominal root and that the deverbal noun acts as the head noun while the other becomes a complement. Some compound had nominal roots involving vowel reduction, vowel intrusion (insertion), vowel deletion, vowel lengthening as was illustrated in examples 11 through 14. Other synthetic compounds had a structure which involves deverbal nouns derived from prefixes of different classes.

Further, the study revealed that some compound nouns had a structure which involved endocentric with a head which denotes a subtype of whatever is denoted by the head itself.

It was also revealed that when two nouns were brought together to form an endocentric compound noun, one noun behaves like an adjective, describing the other (the head) by function.

Other kinds of compound nouns analysed in this chapter are the exocentric. The study revealed that these kinds of compound nouns denote a subtype of a category not mentioned within the compound. The following linguistic analysis was presented along with the exocentric compounds. These were fashioned after the study by Booij (2007) who

classified compound nouns by category. These were; compound with root and semantic morphemes and with root only.

From the data presented, the study revealed that the noun in the left element of a compound behaves as the head noun and the root nominal in the right behaves like an adjective in the process of forming a compound noun when the two nouns were brought together.

The last presentation was based on the primitival radical a structure of a noun compound which revealed that it involved an extended radical and gave rise to other morphological processes such as; gliding as was illustrated in example 15 above.

CHAPTER SIX: THE SYNTAX OF BEMBA COMPOUND NOUNS

6.1 Introduction

This chapter on syntax presents the classification of the Grammar of the Compound Nouns in Bemba. It also presents data with regard to the function of a compound noun although this aspect was partly handled in the previous chapter five.

6.2 Syntactical Structure of Bemba Compound Nouns

A compound structure is made up of parts of speech joined together in forming the compound. In comparison to the syntactic analysis of NPs, the x-bar analysis of compound nouns was conducted on eight (8) identified groups from the data collected. The following discussions illustrate the manner in which compound nouns are formed in Bemba from different parts of speech using x-bar theory in the analysis of compound nouns as proposed by Katamba (1993) who used the theory to analyse compound nouns in English.

From the data, some compound nouns have a structure which involves a noun plus another noun on the one hand and on the other a noun plus a genitive pronoun and a noun as exemplified below:

a) **Noun + noun**
The second noun here functions as a modifier of the subject as in example below:

'one who watches' 'group of people'

Noun + Genitive pronoun + noun

The study also revealed that in this group, some compounds have a structure which involves the second noun functions as an object of a genitive pronoun in subjective complement as in the example below:

```
            N[sg]                                      N[pl]
        /     |     \                              /     |     \
   N(sg)    prep    N(sg)                    N(pl)   prep(pl)  N(pl)
     |        |        |                       |        |        |
 u-mu-ana    u-a     mfumu                 a-ba-ana     ba     mfumu

  umwana      wa     mfumu                   abana       ba     mfumu

  'child'    'of'  'the chief/king'       'children'   'of'  'chiefs/kings'
```
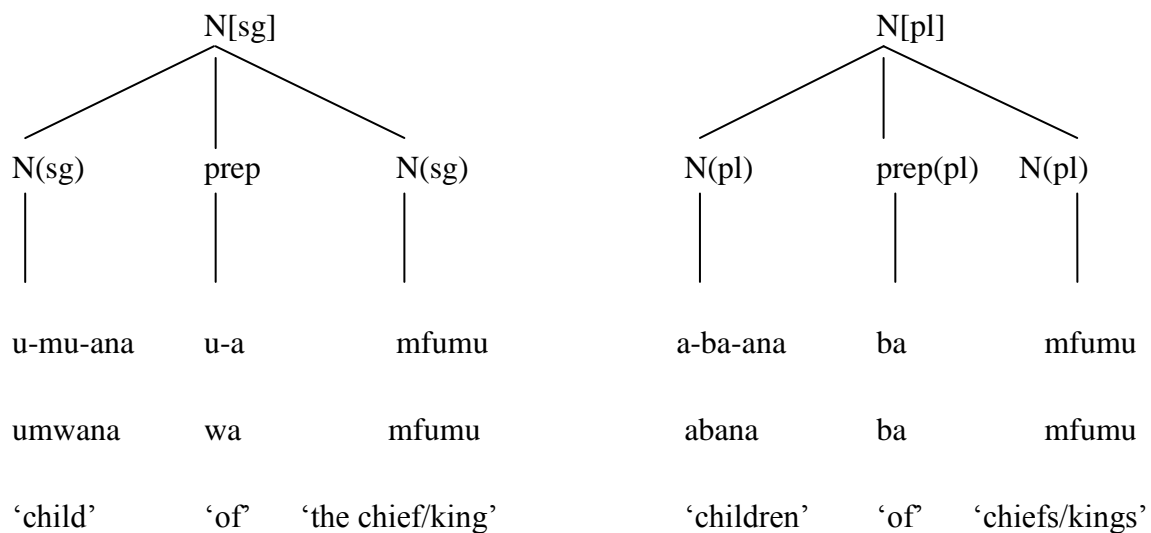
Something to note in the above example is the structural change in the formation of the compound in that case, the purportedly genitive pronoun is in concord agreement with the prefix of the first noun hence, forming an alliterative pattern.

b) Adjective + Noun

The study has revealed that when an adjective and a noun are brought together the result is a compound noun and an adjective function as a noun modifier. This is supported by Ginzburg et al (1966) who addressed a problem of classifying compounds by the function they play in the sentence as illustrated in the example below:

```
         N[sg]                                    N[sg]
       /     \                                  /     \
    Adj.     N(sg)                           Adj.     N(pl)
     |         |                              |         |
   ntumba    chushi                         ntumba    fyushi

 'it will start'  'smoke'               'it will start'  'smoke' [pl]
```
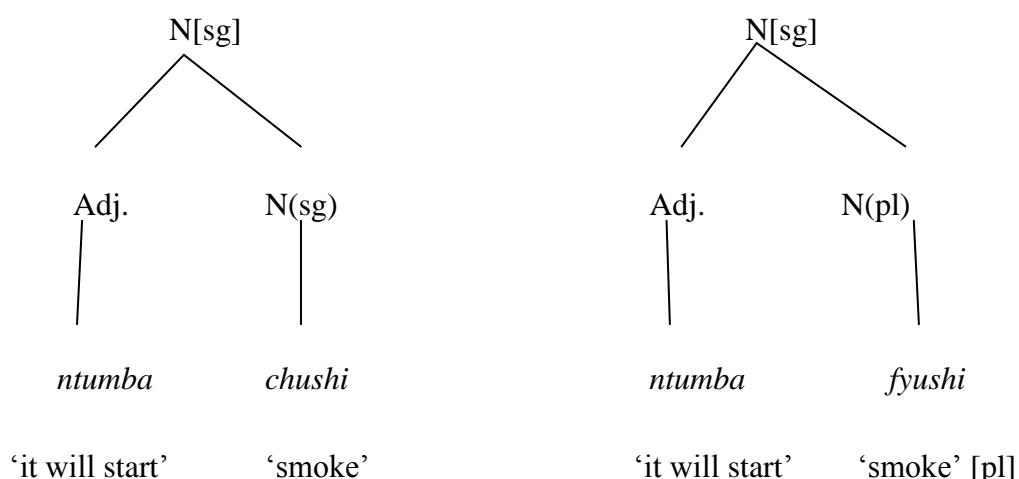
Ntumbachushi is a name of the mountain in Kawambwa a town in Luapula province of Zambia which mountain is perceived to produce smoke.

It can be noted here that for Bemba compound nouns created from adjective and noun, it is a noun that is subjected to structural change and not an adjective this is because the noun

functions as the subject head and its plural form takes the pejorative form as shown in the example below:

c) Noun + Adjective

```
        N[sg]                              N[pl]
         /\                                 /\
        /  \                               /  \
     N(sg)  Adj.                        N(pl)  Adj.
       |     |                            |     |
       |     |                            |     |
    ci-bangwa  popo                    fi-bangwa   popo
   'wood pecker' 'sound'             'wood peckers'  'sound'
```

d) Noun + Verb

```
        N[sg]                              N[pl]
         /\                                 /\
        /  \                               /  \
     N(sg)   V                          N(pl)   V
       |     |                            |      |
       |     |                            |      |
     noko   fi-ala                    ba-noko   fi-ala

     noko   fyala                     banoko    fyala

  'your-sg-mother' 'give birth'     'your-pl-mother' 'give birth'
```
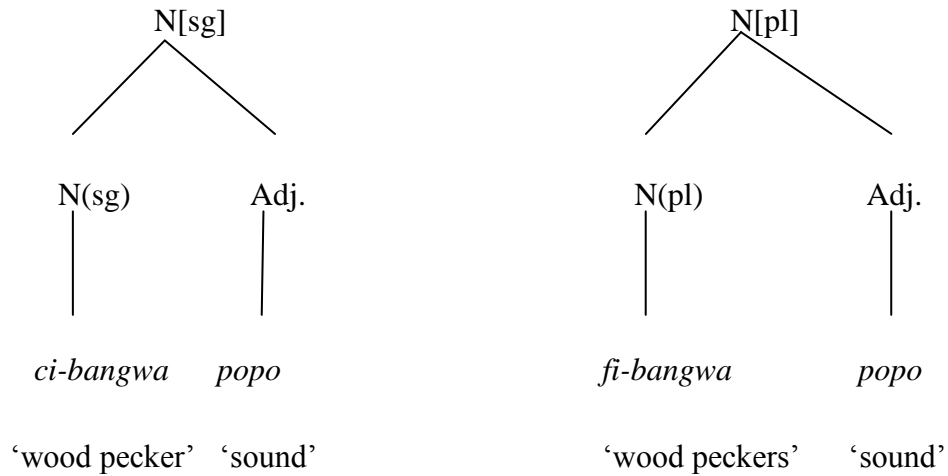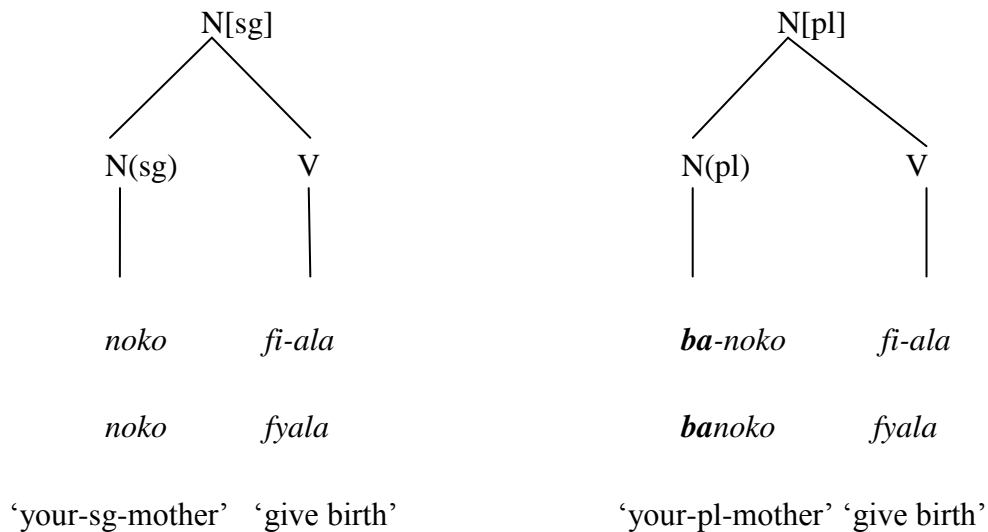
From the descriptions above in (e), the study has revealed that in forming plural in this category, there was an addition of the noun prefix (ba-) of class 2 to express honour (honorific). Take for instance item 30, in the corpus, **mbulakulima** which literally translates 'one without cultivating'. This structure has emerged as a result of stabilizing the compound: **mubula ukulima** which has dropped the segment [u] in a noun prefix **mu-** and in a verbal form to form a nasal complex nominal compound *mbulakulima* to mean 'a loafer' or 'a lazy person'.

68

From the data, some compound nouns have a structure which involves two adverbs brought together to form a single noun and this argument was supported by Greenbaum and Quirk (1973:444) who discussed the structural classification of compound nouns in relation to joining segments together as illustrated below:

e) Adverb + Adverb

```
        N[sg]                              N[pl]
        /    \                             /    \
      Adv    Adv                        Adv.    Adv
       |      |                           |      |
   pa-kabala  i-ntanshi              pa-kabala  i-ntanshi

   Pakabala   ntanshi                pakabala   ntanshi

   'at the beginning'                   'at first'
```
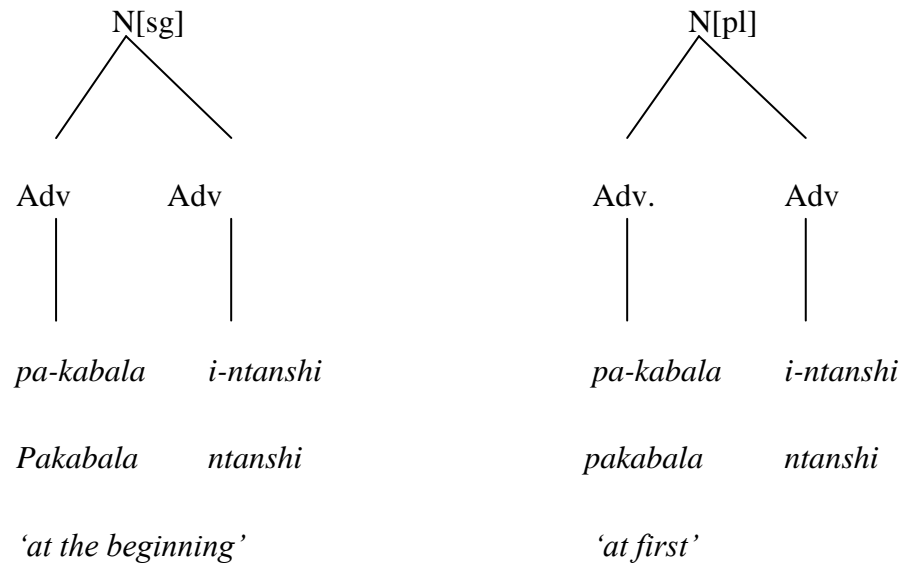
The above structure of a compound noun *pakabalantanshi* 'at the beginning' reveals that there was no structural change in terms of the formation of a plural compound when two adverbs are brought together. The only notable feature is the initial vowel drop in one adverb especially the right member of a compound when two adverbs are brought together to form a compound noun.

The study further reveals that some compound nouns in Bemba have a structural classification which involves a preposition and a noun as in the example below:

69

f) Preposition + Noun

```
        N[sg]                              N[pl]
        /   \                              /   \
   Prep.     N                        Prep.     N
     |       |                          |       |
     |       |                          |       |
  ka-bula  i-n-kashi                 ka-bula  i-n-kashi

  Kabula    nkashi                   'without'  'sisters'

'without'  'sister'
```
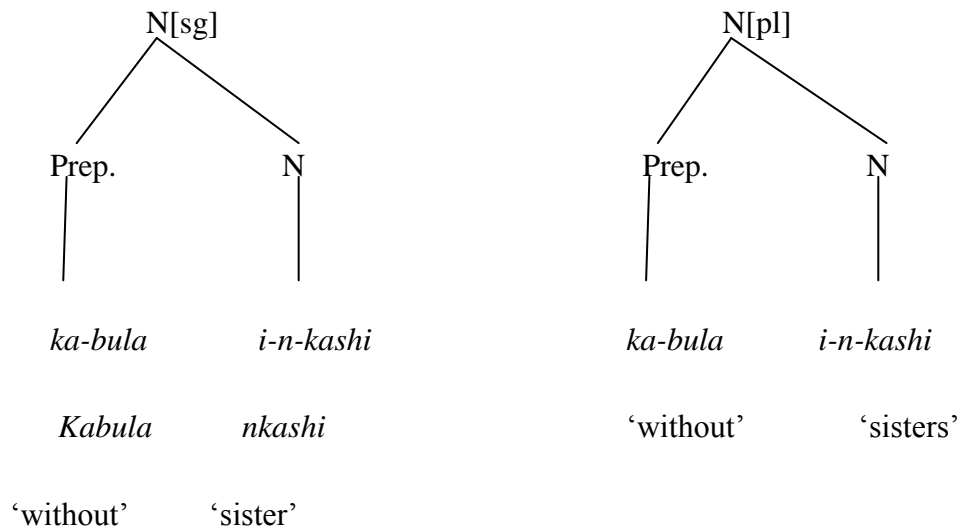
The example above shows that there was some morphological change in the way the compound noun is pronounced when the two parts of speech, that is; a preposition and a noun were brought together to form a compound noun. For instance; orthographically, it is written as; *kabula-inkashi,* but it is pronounced as; *kabuleenkashi* emanating from the fusion of /a/ and /i/ vowels respectively resulting into a long vowel /ee/ as pointed out in *kabuleenkashi*.

From the data, some compound nouns are classified as having a structure of a noun plus a possessive pronoun the notion which was discussed by Musale (2009) as in the example below:

g) Noun + Possessive

```
        N[sg]                              N[pl]
        /   \                              /   \
      N      Poss                        N      Poss
      |       |                          |       |
      |       |                          |       |
   bululu   u-a-ndi                   ba-bululu  ba-ndi

            uwandi                    babululu   bandi

  'relative'  'my/mine'              'relatives'  'mine'
```

70
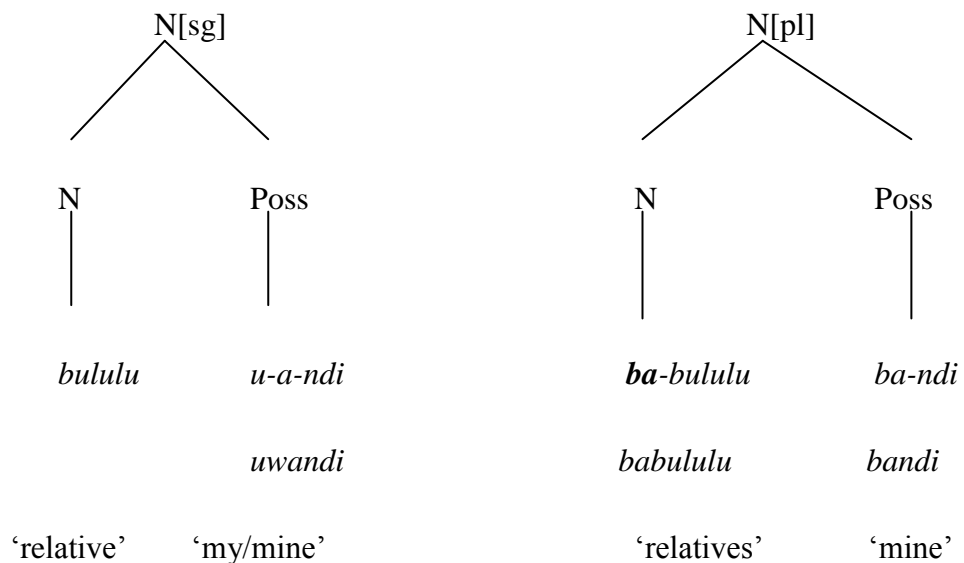
The syntactic structure in the above example shows that plural inflection on the compound noun is done on both sides. It follows that the plural noun prefix is the same in the possessive for the purposes of agreement.

Generally speaking, the syntactic structures given in the examples above with the exception of (f) and (g) exhibit that plural form of inflection on the compound nouns is done on the first compound, the left member of a compound noun. This gives evidence that compound nouns in Bemba are left-headed hence, are endocentric compounds.

6.3 Some Phrase Structure Rules of Noun Compounds

The structures given above in syntax can be summarized through the formation of some phrase structure rules. Musale (2009) called this Generalized Phrase Structure Rules. These can best be described in the following terms:

A compound noun can be made up of a Noun + Noun, Noun + Genitive pronoun, Noun + Adjective, Noun + Verb, Noun + possessive and so forth, whose idea was proposed by Katamba (1993) in discussing the formation of generalized phrase structure rules in the syntax of compound nouns as summarised below:

$$
\text{Comp. N} \longrightarrow
\begin{cases}
\text{N} \\
\text{Adj} \\
\text{Gen.Pro} \\
\text{V} \\
\text{Poss}
\end{cases}
$$
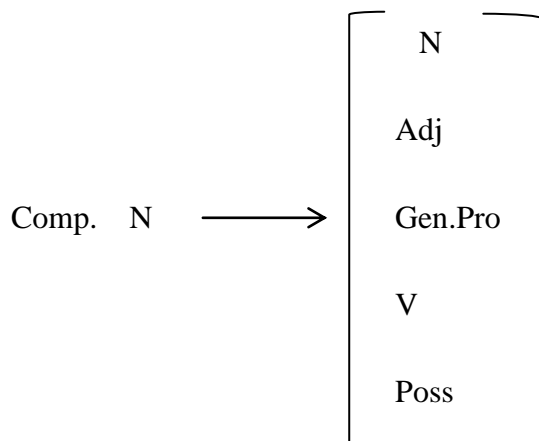
Genitive pronouns are conjoined to whole compound word or single words in a compound. These are not given a separate part of speech. For instance, in section 6.2 (a) above, the compound noun *ntambalukuta,* which literally means 'he who watches over people' in this form *n-* is a prefix for animate object 'he/she' who is the subject or agent of the action to be done, *-tamba* is the radical of the verb 'watch', *lu-* is a prefix for noun – *kuta* 'group of people'. Hence, 'who' and 'the' are implied.

The other compound nouns were formed with parts of speech in isolation. These are; adjective + noun, adverb + adverb and preposition + noun.

From the syntactic structures discussed above, various structures do reflect grammatical relations of words in compound formation.
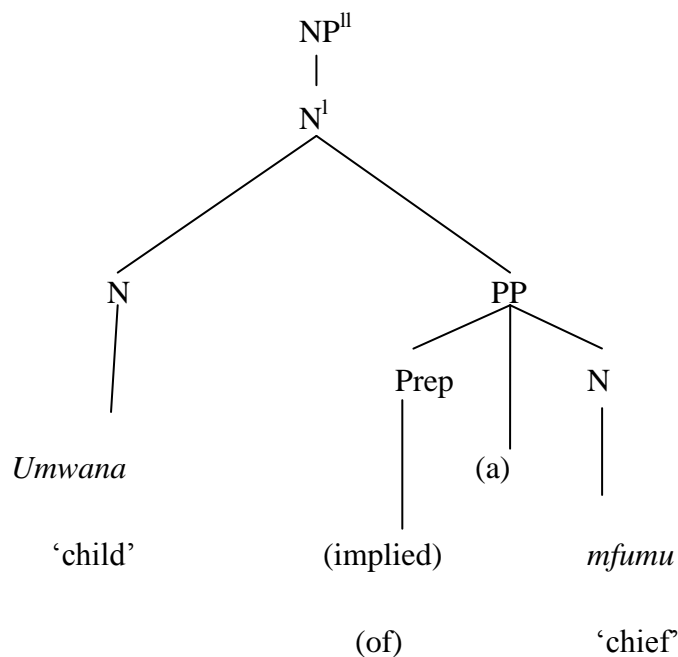
6.4 Phrase Structure Rules

The study has revealed that seven (7) categories of phrase structure rules are identified in the formation of compound nouns in Bemba. The study applied Transformational Generative Theory (TG) in triangulation with Government Binding Theory to be precise, the X-bar theory to present the rules herein. These were used in order to get the grammatical analysis and relationship of words in the structure. Additionally, a summary of the functions of the lexicon of each lexical category as used in the phrase was given. The notation of the phrase structure rules was presented in summary way.

From the data, some compound nouns have a phrase structure which involves a noun phrase which split into a noun and another noun to form a compound as in the example below:

1. **NP→N,N**

The phrase structure is as follows:

$$NP^{ll}$$
$$|$$
$$N^{l}$$

N   PP

                Prep   N

Umwana   (a)

'child'   (implied)   *mfumu*

            (of)   'chief'

This follows the discussion that when the two nouns are used in succession, the second noun takes the prepositional function of modification. In the example above, 'of' is a possessive pronoun answering the question 'whose child?' 'of a chief'.

The study has further revealed that some noun phrase is made from the structure of a noun and a verb phrase to form a compound noun as the example below illustrates:

2. **NP → N, VP**

The phrase structure of this pattern is as follows:

NP^{ll}
N^{l}
N
VP
noko
fyala
'your-sg-mother'
'give birth' = 'your mother-in-law'
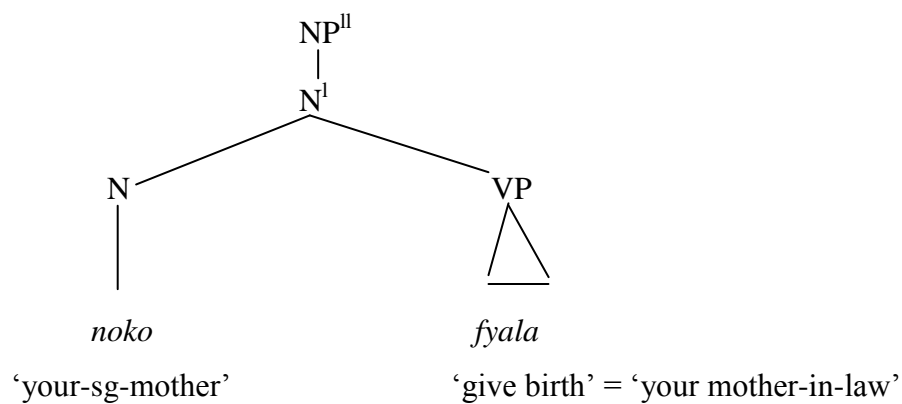
In the above noun phrase, the study has revealed that the noun is the agent motivating the action mentioned in the verb phrase.

Furthermore, some compound nouns from the data have a structural classification of a noun phrase which involves an adjective and a noun as illustrated in the example below:

3. **NP ⟶ Adj., N**

NP
Adj
N
pakafwa mfumu

'it will die' 'king/chief' = 'very early morning'
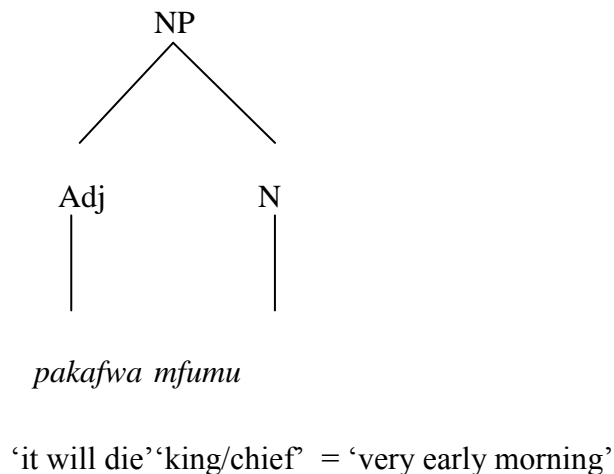
From the example above, the study has revealed that the adjective functions as the modifier of the noun in the compound noun.

The other classification of a compound noun is made out of an adjectival phrase from a noun phrase as in the example below:

4. **NP→ Adj.P**

The structure is as follows:

```
              NPˡˡ
             /    \
            /      \
          N¹       Adj.
          |         |
        noko      kulu '
```

your-sg-mother'   'big' = 'your grandmother'
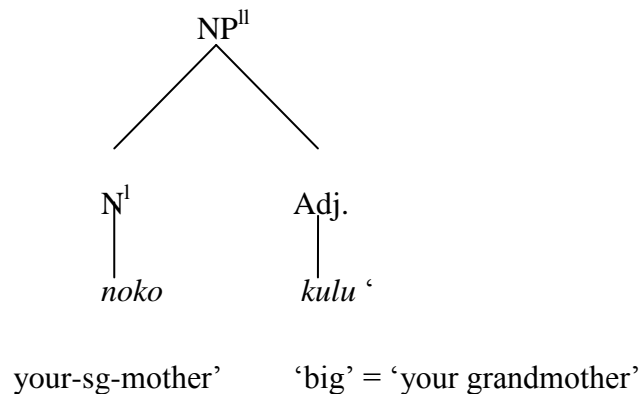
The study has revealed that this kind of noun phrase is in principle adjectival phrase the argument supported by Musale (2009) of the Grammar of Tonga Compound nouns. As opposed to English adjectival phrases, in Bemba at certain instances, an adjective follows the noun that it modifies.

From the data, some compound nouns have a structural classification made of a noun phrase which comprises of a determiner and a noun as in the following example:

5. **NP → Det., N**

```
              NPˡˡ
             /    \
          Det.     N¹
           |       |
           |       |
           |       |
         Poss    bululu
           |
         wandi   'relative'    = 'my relative'

         'mine'
```

74
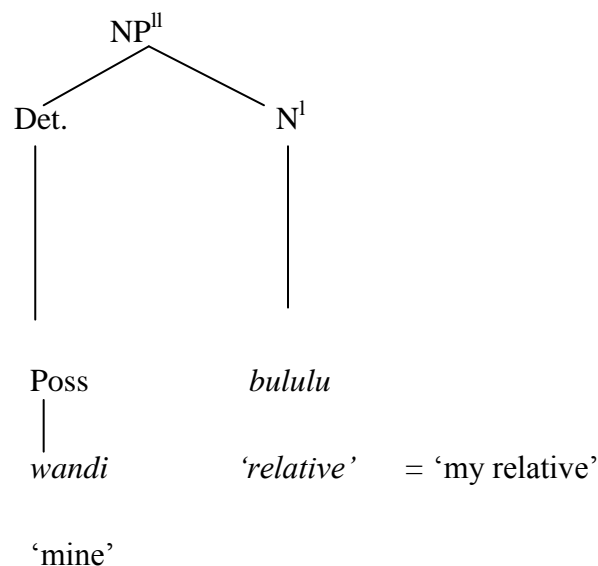
This type of a noun phrase is in fact a possessive phrase. It does not necessarily follow the English structure in the formation of a compound noun, rather it follows that the Bemba compound noun is formed from the structure; noun plus a determiner (a possessive pronoun). From the example, it has been revealed that the noun *bululu* 'relative' functions as a subject and the possessive pronoun *wandi* 'mine' as the object.

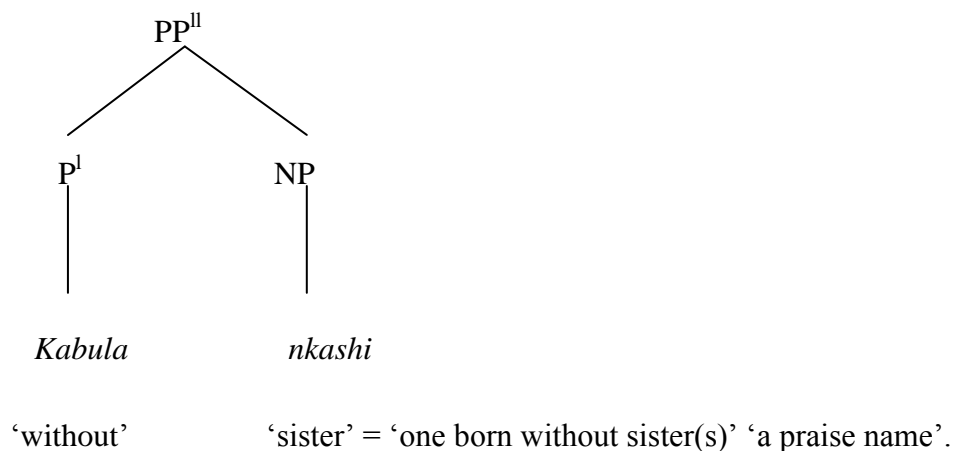The data reveals that some compound nouns have a structural classification of a prepositional phrase as in the example below:

6. **PP → P, NP**

PP^{ll}

P^{l} NP

Kabula   *nkashi*

'without'   'sister' = 'one born without sister(s)' 'a praise name'.

The above example has revealed that when a preposition and a noun (noun phrase) are brought together to form a compound noun, the preposition *kabula* 'without' functions as a subject and a noun (noun phrase) as an adjective describing the kind of person and so it functions as an object. This is necessitated by the fact that the member which undergoes the structural transformation in the compound noun is the preposition.

From the data, some compound nouns have a structure which involves a verb phrase in the classification as in the example below:

7. **VP → V, PP, NP**

The phrase structure is as follows:

```
                        VP^{ll}
              _____/   |   _____
             /           |            \
           V^{1}         PP            NP
            |            |             |
            |            |             |
         cilengwa    (implied)        Lesa

                       (na)
```
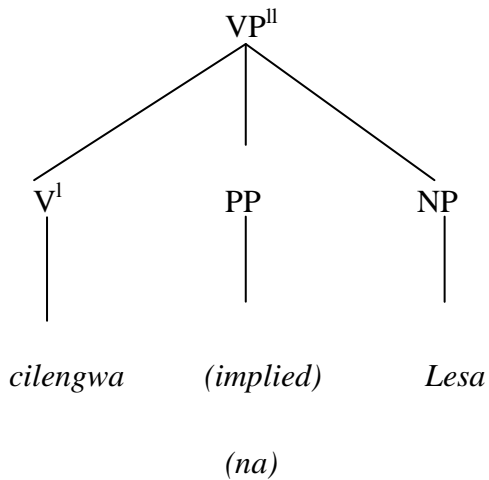
'drawn'   'by'   'God'   = 'a mystery'

In the above phrase structure, (na) is an implied 'by' in English which may or may not necessarily be realized in Bemba in the formation of a compound noun. This indicates that the noun in the verb phrase was acted upon by the noun in the noun phrase. This provides a finer distinction between the two nouns. Thus, the study has further revealed that the noun in the noun phrase functions as a subject which or who acted upon the noun in the verb phrase. Hence, the noun in the verb phrase functions as an object which is acted upon.

The phrase structures discussed above have revealed the syntactic categories of compound nouns, these are; Noun Phrase (NP), Preposition Phrase (PP) and Verb Phrase (VP). The Noun Phrase category had the highest score whilst the Preposition and the Verb Phrase had a least score each.

6.5 Summary of Syntactic Analysis

The analyses of the Grammar of the Syntax of Bemba Compound Nouns involved a close look at the syntactic structures of compound nouns as presented and further the analysis of literal translations of the compound nouns and their classifications. This proved the fact that as sentences reveal phrase structure rules, the components of compound nouns also do reflect similar phrase structure rules which in turn led to an analysis of grammatical relationships and functions of each word in the compound. Musale (2009) called these

grammatical classification of Compound Noun Structures in which she identified and discussed parts of speech.

The analysis of compound word structures revealed that different parts of speech can be used to form compound nouns as shown below:

h) N+Adj., N+N, N+Pro., N+V

$$\text{Comp. N} \longrightarrow \begin{bmatrix} A \\ N \\ Pro \\ V \end{bmatrix}$$
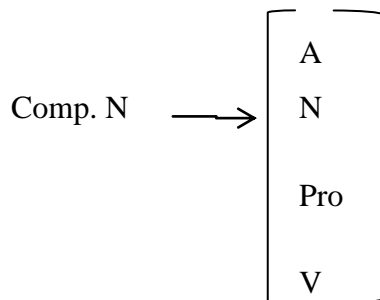
The argument herein was well elaborated by Katamba (1993) in his analysis of compound word structure in English.

This formation proved why compounding is not a universal principle only but also one of the major aspects of word formation (building) processes leading to new lexicon in any given language.

The parts of speech used in any given compound exhibited grammatical function of each word in a constituent as can be seen in the examples below:

ii) N+N (Subject + Object).

chandabemba 'water weeds'

     subject + object

     ci-anda   *bemba*

     'cover'   'lake'

The word *ci-anda (Chanda)* is used as a proper noun to refer to both male and female persons in Bemba. When used as a compound with *bemba* it refers to 'grass that covers the waters' by extension, the proper noun *Chanda* functions as a subject and *bemba* an object upon where *chanda*acts.

From the data, some compound nouns have a structure which involves a noun and a verb as in the example below:

iii) N+V (subject + complement).

nokofyala 'your-sg-mother-in-law'

      subject + complement

      noko   *fyala*

  'your-sg-mother' 'giving birth'

In the above example, the study has revealed that *noko* 'your-sg-mother' is in the noun phrase subject slot and it is complemented by a verb phrase –*fyala* 'give birth'.

From the corpus, some compound nouns have a structure which involves a noun and an adjective as in the example below:

iv) N + Adj. (subject + subject complement).

Muntufita 'a dark person'.

      subject + subject complement

      muntu   *fita*

    'person'   'dark'

Following the example above, the study has revealed that muntu 'person' is the subject taking the complement –*fita* 'dark'. From the point of word order, it may not appear obvious to be an adjectival phrase. However, note; *-fita* 'dark' is an adjective commenting on what type of muntu 'person' this is.

From the preceding discussion, the study has revealed that words formed with noun + noun in the classification of compound nouns are the leading class followed by the words formed with noun + adjective class. The third and last class of words formed was the noun + verb. The literal translation of the compound noun has resulted in seven (7) phrase structures. Among the phrase structure rules analysed were the;

NP → N + N which scored the highest followed by

NP → N + Adj. classification and,

NP → N + VP class category.

This shows that the noun + noun class is still the major contributor to formation of new words in Bemba in particular to compound nouns.

CHAPTER SEVEN: SEMANTICS OF BEMBA COMPOUND NOUNS

7.1 Introduction

This chapter presents the meanings to the Grammar of Bemba Compound Nouns as presented in the corpus of this study. The chapter also presents two types of meaning namely; the literal, linguistic, denotative or first level meaning and cultural, connotative, actual or second level meaning.

However, the connotative meaning in Bemba compound nouns is not always clear in some respect as will be seen. The chapter also presents the variation in tone marking on Bemba compound nouns and how this affects the meaning and thereby attending to objectives 2 and 3.

7.2 Derivation of Meaning through Semantic Features of Compound Nouns

The classification of Bantu nouns is based on the semantic features of the prefixes usually attached to the stem or a radical of the part of speech. Hence, the prefixes attached to the stem or radical indicate the semantic class of words as can be observed from the summary given in Table 4.

Classification of Compound Nouns in Bemba: Semantic Features of Noun.

Class	Meaning	Examples
1/2 mu/ba	inclusive of nouns denoting human beings	muntungwa/ bantungwa 'free person'/ 'free persons'
3/4 mu/mi	includes among others, names of trees	umupetwalupe/ imipetwalupe 'a kind of shrub for making baskets'
5/6 li/i/ma	includes among others objects appearing in pairs or collection	linsolinso/ mensomenso 'greedy person'

7/8 ci/fi	Miscellaneous; includes among others, words for things, languages, objects. They can also be affixed to words of other classes to show augmentative/pejorative aspects	chibangwapopo/ fibangwapopo 'woodpecker'/ 'woodpeckers'
9/10 n/n	included are big animals and birds	nkumbabulili 'despondency', 'sadly'
11/6 lu/ma	miscellaneous; includes names of things, places and some body parts	lubumbanongo 'a small insect that covers its larva with clay'
12/13 ka/tu	class used on all nouns existing in place of their own respective prefixes to indicate dimunitives. Mainly used for small things.	akabutamputi/ utubutamputi 'a small boy'/ 'small boys'
14/6 bu/ma	class category containing normal abstract and collective nouns.	bwendomulengela/ mendomulengela 'proper noun'
16 pa	a locative prefix 'on'/ 'at' for Bemba	pakabalantanshi'at the beginning'
17 ku	a locative prefix 'at'/ 'to'	kumuyotemenwe 'to jail/ prison'
18 mu	a locative prefix 'mu'	mupulampako 'a tree that protrude in another tree'

Table 4.

Basing further discussion on the data presented in Table 4, it can be noted that apart from the classes 16, 17 and 18 which are locative prefixes, the rest of the semantic classes do denote a semantic feature of the word. Using the same criterion here, the analysis of compound nouns using semantic noun classes has the following results given below:

The classification of semantic meanings to compound nouns proved that class 1/2 mu/ba denoting human beings had the highest score. Class 7/8 ci/fi for miscellaneous which include among others, words for things, languages, objects and so forth. They also show augmentative/ pejorative aspects when affixed to words of other classes. They had a second score in the corpus. The third highest was class 12/13 ka/tu, denoting diminutives while class 9/10 n/n had the fourth and last score.

7.3 Semantic Senses

Semantic senses entails that the linguistic meaning of words in isolation and the resultant linguistic meaning of a compound formed in certain instances cannot easily be derived by conjoining morphemes of the word. Take, for instance, a compound word *kabwelakumbo,* has morphemes in isolation: *ka- bu- el- a-ku-mbo* 's/he who has come from the grave.' An analysis of this compound noun, morpheme by morpheme reveals the following information:

Ka: is a proclitic morpheme for 'he who', *bu* is a class for normal abstract nouns also for verb root *bwela* 'to come', while *ku* is a locative denoting 'to' and attached to the adverbial of place *–mbo* a root meaning 'grave/tomb'. In the derivation, the two morphemes standing as lexemes are; *bwela* 'come' and *mbo* 'tomb/grave'. Most often, these are in the infinitive, *ukubwela* 'to come' and *kumbo* 'to the grave.' Looking at these lexemes in isolation, without the background knowledge of the language, it is hard for one to derive its compound meaning *kabwelakumbo* to refer to the 'one who has come back from the grave 'also 'resurrected one.' The verb bwela 'come' is combined with the noun kumbo 'grave' to form a compound noun in that sense

From the data, the study has also established that when a single word, be it a noun or another is brought together to form a compound noun, the meaning changes as can be seen in the following example:

   (a) *ntunka-mafi*   *-tunka*   'push'   'dung beetle'

                            ama-fi   'faeces'

The example above has revealed that when the noun stands alone as a single entity *ntunka* 'pusher' for example, which is a derived noun from a verb *-tunka* 'push' the meaning is

different from that when it combines with another noun *-mafi* 'faeces' to form a compound noun then it becomes a different noun altogether.

The study also established some other compound nouns in this category as shown in the following subtitle:

Compounds with Opaque meaning

Compound	Literal meaning	Actual meaning
(a) chilengwalesa	'That which is drawn by God'	'Albino'
(b) musongansala	'That which ignite/trigger hunger'	'Appetizer'
(c) ntunkamafi	'That which push faeces'	'dung beetle'
(d) kasongamulilo	'One who starts the fire'	'fighter'/ 'problem person'
(e) chumbumunshololwa	'potato that cannot straighten '	'stubborn person'
(f) ntintamukoshi	'That which pulls the neck'	'tattoo marks along the neck'

The study has established that some compound nouns like those in 7.3 have a structure which involves both literal and actual meanings, and are difficult to be understood from the first level meaning. For example, 7.3 (d) *kasongamulilo* may be understood from the literal meaning that it is 'a kind of person who starts the fire', but in the actual sense, it is 'a troublesome person.' This is how difficult such kind of compound nouns can prove to appear in terms of meaning. This is how opaque in terms of meanings these noun compounds can prove to be. While it may be true to the assumption that the above compound nouns might prove difficult in deriving their meaning, others do provide a clue to their meaning. The former are what Booij (2007) classified as exocentric compounds. These are kind of compounds that denote a subtype of a category not mentioned within the compound itself. The latter are presented as examples in the following subtitle.

7.4 Compounds with transparent meaning

These are compounds which provide a hint to their meaning. Booij (2007) classified them as endocentric compounds. These are types of compounds with a head and denote a

subtype of whatever is denoted by the head. The following are examples of such compounds:

Compound	Literal meaning	Actual meaning
(a) chitulang'oma	'that which/who breaks drums'	'proper noun'
(b) kaminamisa	'one who gulps'	'a drunk/drunkard'
(c) chikalabwamba	'one who sits naked' referring to a person who carelessly sits without covering him/herself.	'proper noun'

The above noun compounds in 7.4 are transparent in that they likely do provide a clue to their meanings. For instance, in 7.4 (a), (b) and (c) there is a suggestion that there is 'one who does the action mentioned within the noun compound' and this makes it easier to derive the first level meaning from the given noun compound as opposed to compounds with opaque meanings. It can be concluded therefore that depending on a person's linguistic knowledge and competence, it is possible for one to derive the meaning of compound words and of words in isolation with less difficulty.

7.5 The prosody of compound nouns

Here, the researcher is referring to the distribution of tonal patterns on compound nouns in Bemba and prove whether this would affect the meaning of compound nouns formed from words in isolation.

The study has revealed that some compound nouns have a structure that involves tone marking variations when two words are brought together, that is; a deverbal noun and a noun to form a single compound noun as in the example below:

(a) mùkwíílílá-bwàmbà	ùkú-kwíílà	'to earn a living'	'a person who
	ùbú-àmbà (14)	'nakedness'	works for necessity'
(b) mùpètá-ndùpé	ùkú-pétà	'to fold'	'a kind of shrub for
	ùlú-pé (11)	'kind of basket'	making baskets'

84

(c) mùsóngá-nsàlà	ùkú-sóngà	'to ignite/ trigger'	'appetizer'
	ín-sàlà (9)	'hunger'	
(d) àkápàlá-pùté (12)	ùkú-pàlà	'to resemble'	'pimple'
	ìcì-pùté (7)	'boil'	
(e) ìcíléngwá-lésà (7)	ùkú-léngà	'to draw'	'abnormal person/ Albino'
	Lésà (1a)	'God'	

Kula (2009: 433)

From the data in the examples in 7.5 above, the study has revealed that there is a change in tone pattern of a single word when it combines with another to form a compound noun. This can be seen as shown in examples (a - e) above in this section. For instance, the verb in example (a) ùkú-kwíílà 'to earn a living' as a single word bears a low tone at word final of a verb root, but when it combines with another word, a noun in this case, the tone changes in the deverbal noun at word final. What is realized is a high tone at word final in the deverbal noun as shown in *mùkwíílílá-bwàmbà* 'a person who works for necessity' as demonstrated in the example above. Hence, *mùkwíílílá* 'a deverbal noun' to mean 'a person who works…' bears a final high tone. This has been revealed in this study to be the pattern for all the nouns that are derived from verbs when they combine with another noun to form a compound in Bemba. This has also been observed to create an extension in the meaning from the surface meaning of a single word to a deep meaning of a word when words combine to form a compound noun.

It can therefore, be said that the assumption made in this section about the characteristics of compound nouns prosodically, shows that they are left-headed and that the head noun bears a final high tone and the second noun does not have an augment. For example, instead of the compound noun to read as *u-ku-pala i-ci-pute* 'to resemble a boil', it should read; *akapala-pute* 'a small boil'. It was further observed that the absence of the augment on the second noun means that these compounds cannot be treated as derived from prefixation of a deverbalising prefix to a verb phrase (VP) as seen in examples (a – e). By contrast, the patient argument has an augment. Example in (d) above illustrates this fact. It can further be noticed that in the same example 7.5 (d) *akapala-pute* 'pimple', the second noun appears without the nominal prefix. This may be the result of a semantic clash

between the augmentative and the diminutive where the diminutive, as a head wins. Otherwise, it is quite consistent that the augment is only missing on the second noun.

7.6 Summary on Semantics

In view of the above discussion in this section, it can be concluded that the noun compound is left-headed, in this case the head in *mukwiililabwamba* 'a person who works only for necessity,' is *mukwiilila* 'a kind of a person', and that the non-head member of the compound which is the second noun does not have an augment *bwamba* 'nakedness' for example. It was also observed that prosodically, the head noun has a final high tone despite its underlying tone while the non-head such as the second noun mainly retains its tone pattern although it loses the augment (and/or its tone) as illustrated in the above examples in section 7.5 (a – e) hence, affecting its final meaning. The section also has given the semantic analysis of compound nouns with a view to providing both surface and intended meaning.

7.7 Conclusion

Generally, the analyses according to the levels of linguistics revealed that morphologically, the Bemba compound nouns were formed according to their morphological application and rules such as conjoining of word forms. As the beginning point of morphological analysis, some parts of speech were established and brought together to establish how they combined to form compound nouns and how the individual words behaved. From the data presented, the study has revealed that the noun in the left element of a compound behaves as the head noun and the root nominal in the right behaves like an adjective when the two nouns are brought together to form a compound noun.

Syntactically, the structures of compound nouns were presented and discussed. The analysis of sentence structures revealed that compound nouns do reflect phrase structures which led to the grammatical relationships and functions of each word in the compound nouns. Further, trees were constructed in order to demonstrate the phrase structure rules and the linguistic behaviour of some words when they combined to form a compound noun.

Semantic analysis revealed that since words do have their socio-linguistic or cultural connotation in nature, they were bound to produce meanings in line with their cultural specificity. It was also observed that the meaning of compound noun was determined by the head noun. Prosodically, it was noticed that the head noun had a final high tone and the non-head such as the second noun retained its pattern although it lost the augment and its tone. This was seen to have an effect on the final meaning of the compound noun and also that the first level meaning of a single word is changed when it is brought together with another word to form a compound noun. The findings revealed that some Bemba compound nouns have both denotative and connotative meanings.

It can finally be concluded that most Bantu compound nouns to which Bemba compound nouns belong agreed with the classification of Booij (2007) of compound nouns that they are endocentric and exocentric in nature and by characteristics.

CHAPTER EIGHT: CONCLUSIONS AND RECOMMENDATIONS

8.1 General

This chapter presents the summary of findings and conclusion arising from the analysis on the morphology, syntax and semantics of the Grammar of Bemba Compound Nouns. The linguistic analysis was informed by the research objectives as stated in the respective linguistic levels of the study of the Grammar of Compound Nouns in Bemba.

8.2 Introduction

The previous chapter presented and discussed the findings in line with the objectives. This chapter presents an overall conclusion of the dissertation and the recommendations based on the findings.

8.3 Conclusions

8.3.1 Compound Nouns in Bemba

The study concluded that the Grammar of Bemba compound nouns can be studied from the three levels of linguistic analysis. Compound nouns add to the creation of new words in Bemba hence, increase the vocabulary of the language. Depending on the circumstance, Bemba people can decide to use compound nouns as praise names, proper names, kingship names and so forth. Sometimes compound nouns created by two parts of speech forms more than just a word but a phrase. Meaning of compound nouns is assigned by the speakers of the Bemba language according to the context in which the word is used.

8.3.2 Morphology of Compound nouns in Bemba

The study concluded that the compound nouns in Bemba are derivatives. This means that compounds in this particular language are formed from verbs, adjectives, common as well as proper nouns when they combine together. In this way, complex compounds can be created in form of phrases and clauses. The study also concluded that structures and classification of the Grammar of Compound Nouns in Bemba was not restricted to only a few parts of speech but composed of different parts of speech glued together to form up a compound, in such cases as; verb + noun structure. For example, in section 7.5 (c) above, a compound noun *musonga nsala* is made up of a verb (*-songa*) *-songa* 'ignite or trigger'

and a noun *insala (in-sala)* 'hunger'. This structure was more prominent in the analysis and that every compound derived became a different lexeme in its own right. This allowed a more complex structure than that of words in isolation. Not only did the compounds conform to the Bantu class system but also proved that most of the derivations were distinct to class 1/2 that denote humans by characteristic. The analysis on morphological classification further concluded that the structure of compound noun is made of different affixes which exhibited different grammatical functions.

8.3.3 Syntax and Semantics of Bemba compound nouns

The syntactic analysis of Bemba compound nouns concluded that as sentences reveal phrase structure rules; the components of compound nouns also do reflect similar phrase structure rules which in turn led to an analysis of grammatical relationships and functions of each word in the compound. The study further concluded that different parts of speech can be used to form compound nouns as established in section 6.1 above.

The analysis on the semantics of Grammar of Bemba Compound Nouns concluded that the noun compound is left-headed and that the non-head member of the compound which is the second noun does not have an augment. It also concluded that prosodically, the head noun has a final tone despite its underlying tone whereas the non-head which is the second noun mainly retains its tone pattern although it loses its augment and its tone too. It has been noted therefore that assigning of meaning to compound nouns does not only need ones linguistic knowledge but that the society that uses the language play a part in assigning connotative and denotative meanings. It is this society that accept some words, giving restrictions to others and also making preference to those words to be used in or on particular objects and not on the other. Thus, meanings of compound nouns can be analysed from different perspectives; using semantic noun classes, semantic sense of words or sociolinguistic aspects of meaning. The semantic features of nouns in Bantu linguistic for which Bemba is a part assign denotative meaning to words in those classes.

8.4 Conclusion

The study of the Grammar of Compound Nouns in Bemba has concluded that Bemba compound nouns can be studied from the three levels of linguistic analysis and that compound nouns do alter the meaning of individual words as used in compound nouns to

some extent. The study also concluded that nouns can combine with verbs, adjectives, nouns and so forth which eventually form complex compound nouns in form of grammatical phrases and clauses. The grammatical categories and functions of words in compound nouns were observed which eventually provided the ground work for analysis as provided by the compound structures. The study further concluded that the analysis of the grammar of compound nouns could well be informed through the three levels of linguistics, that is; morphology, syntax and semantics. The findings finally concluded that a systematic study of the grammar of language can be conducted within the domain of grammar of compound nouns.

8.5 Recommendations

The Grammar of compound nouns can be approached from different perspectives. The present study addressed the grammar of compound nouns from a morphological, syntactical and semantic perspective. The study recommends that future research on the grammar of Bemba compound nouns focus on the phonology or the aspect of their sociolinguistics.

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S/N	Compound Noun	word category	Gloss
1	mwikalamushi	mwikala (n) + mushi (n)	'citizen of the village'
2	chandabemba	chanda (n) + bemba (n)	'weeds' (grass covering the waters)
3	chendabwamba	chenda (n) + bwamba (n)	'one who moves naked'
4	chibangamoto	ciibanga (n) + moto (n)	'anthroponym' (to start the fire)
5	chibwelamushi	ciibwela (n) + muushi (n)	'anthroponym' (name of an event, a ceremony)
6	chikalabwamba	ciikala (n) + bwamba (n)	'anthroponym' (name of a town in Mufulira, Zambia) name derived from a woman who used to live in a mountain without clothes.
7	chililabombwe	chilila (n) + bombwe (n)	'anthroponym' (name of a town in the copperbelt, Zambia). Name derived from the noise frogs make.
8	chimbamilonga	Chimba (n) + milonga (n)	'anthroponym' (praise name) associated to 'one who digs rivers esp. streams.' A powerful one
9	chinamanongo	cinama (n) + nongo (n)	'anthroponym'
10	chitimukulu	chiti (n) + mukulu (adj.)	'anthroponym' (a royal name of the paramount chiefs in Bemba land).
11	chitulang'oma	chitula (n) + ng'oma (n)	'anthroponym' (a proper noun)
12	chitwansombo	chiitwa (n) + nsombo (n)	'anthroponym'
13	chipelampako	chipela (n) + mpako (n)	'that which lives in holes'
14	chilengwalesa	cilengwa (n) + Lesa (n)	'a mystery'
15	kabulankashi	kabula (prep) + nkashi (n)	'associated to one without a sister'

16	kabwelakumbo	kabwela (n) + kumbo (n)	'one who almost died but regains conscious'
17	kabwekatenda	kabwe (n) + katenda (n)	'anthroponym' (a place in some parts of Luapula province, Zambia)
18	kafwabubela	kafwa (n) + bubela (n)	'a small insect that pretends to die'
19	kalalampanga	kalala (n) + mpanga (n)	'a vagabond'
20	kalamabantu	kalama (n) + bantu (n)	'a praise name' (one who looks after people)
21	kaminamisa	kamina (n) + misa (n)	'a praise name' (one who gulps) name referred to a drunk'
22	kapasabulanda	kapasa (n) + bulanda (n)	'one who clears grief' (a child born amidst grief/sorrow)
23	kasongamulilo	kasonga (n) + mulilo (n)	'anthroponym' (proper noun)
24	katombamatipa	katomba (n) + matipa (n)	'a small bird that plays in mad'
25	katenshamabula	katensha (n) + mabula (n)	'shaker of leaves' (praise name)
26	lufwanyama	lufwa (n) + nyama (n)	'anthroponym' (name of town in copperbelt, Zambia)
27	mayosenge	mayo (n) + senge (-)	'paternal aunt'
28	mbulakulima	mbula (n) + kulima (v)	'anthroponym'- proper noun (failure to cultivate)
29	mpandamabula	mpanda (n) + mabula (n)	'cutter of leaves' anthroponym
30	mpandamano	mpanda (n) + mano (n)	'advisor'
31	mulalapakaba	mulala (n) + pakaba (adj)	'he who sleeps where it is hot' (praise name) 'one capable of solving even troubles'
32	muntungwa	muntu (n) + ngwa (-)	'a free person'
33	muntufita	muntu (n) + fita (adj.)	'a dark person'
34	musambachime	musamba (n) + chime (n)	'anthroponym' (a proper noun) - praise name
35	mukuntansoke	mukunta (n) + nsoke (n)	'last rain which comes with a

			wirl wind'
36	mutwewansofu	mutwe (n) + nsofu (n)	'anthroponym' (proper noun)
37	mwanamayo	mwana (n) + mayo (n)	'praise name' (child of my mother)
38	mwansakabinga	mwansa (n) + kabinga (n)	'devil' (anthroponym)
39	mwelwakafi	mwelwa (n) + kafi (adj)	'black mamba'
40	mwendalubi	mwenda (n) + lubi (adj)	'a child born after the death of another may be a father or mother'
41	nkumbabulili	nkumba (n) + bulili (adj)	'sadly', 'despondently'
42	nokofyala	noko (n) + fyala (v)	'mother-in-law'
43	nokokulu	noko (n) + kulu (adj.)	'grandmother'
44	nokolume	noko (n) + lume (adj.)	'uncle'
45	ntambalukuta	ntamba (n) + lukuta (n)	'anthroponym' (praise name). Leader of people especially a state leader.
46	ntumbachushi	ntumba (n) + cushi (n)	'mountain in Kawambwa,' Luapula province of Zambia.
47	pakabalantanshi	pakabala (adv.) + ntanshi (adv.)	'at the beginning'
48	pakafwamfumu	pakafwa (adj) + mfumu (n)	'time between night and dawn' (very early morning)
49	pakayeloba	pakaya (adj) + iloba (n)	'praise name'
50	mwanaamfumu	mwana (n) + mfumu (n)	'title'(chief's child)
51	impundubusushi	impundu (n) + busushi (n)	'fruit'
52	icisenseng'anda	icisensa (n) + ing'anda (n)	'cricket'
53	nsongwalume	nsongwa (n) + lume (n)	'anthroponym' (praise name)
54	mupamapamo	mupama (n) + pamo (adj)	'anthroponym'
55	ntunkanikaminwe	ntunkanika (n) + minwe (n)	'nshima'
56	akashindabeeni	akashinda (n) + beeni (n)	'small stinging insect'

57	ntintamukoshi	ntinta (n) + mukoshi (n)	'tattoo marks along the neck'
58	ntunkamafi	ntunka (n) + mafi (n)	'dung beetle'
59	musongansala	musonga (n) + nsala (n)	'appetizer'
60	mupulampako	mupula (n) + mpako (n)	'a tree that protrude into another'
61	chibangwapopo	chibangwa (n) + popo (adj)	'woodpecker'
62	ngwilabulime	ngwila (n) + bulime (n)	'one who is unstable'
63	mukulambulu	mukula (n) + mbulu	'anthroponym' 'praise name'
64	musuminayote	musumina (n) + yote (adj)	'one who agrees on anything'
65	lubumbanongo	lubumba (n) + nongo (n)	'a small insect that covers its larva with clay.'
66	akabutamputi	akabuta (n) + mputi (n)	'a small boy'
67	musungabantu	musunga (n) + bantu (n)	'one who keeps the people'
68	chumbumunsholo-lwa	chumbu (n) + munshololwa (adj.)	'potato that cannot straighten'
69	chulumanda	chulu (n) + manda (n)	'proper noun'
70	mupetandupe	mupeta (n) + ndupe (n)	'kind of shrub for marking baskets'
71	mukwiililabwamba	mukwiila (n) + bwamba (n)	'a person who works for necessity'