EXPRESSING PROPERTY CONCEPTS IN GA

BY

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DECLARATION

I do declare that this thesis is the result of my own research and has not been presented either in whole or part for award of any degree elsewhere. References to other sources of information used in this work have been duly acknowledged. All mistakes found are from me.

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DEDICATION

This is dedicated to my family, especially my husband, Rev Seth Ashikwei Kuma Ollennu, my mum, Mrs. Mary Otoo, my daughters, Naa Asheley Kuma Ollennu and Naa Amankwaa Kuma Ollennu as well as my siblings. Thanks to you all for the daily prayers and encouragement.

ABBREVIATIONS

1	-	first person
3	-	third person
a	-	Subjunctive prefix
ADV	-	adverb
AG SUF	-	agentive suffix
ASSOC	-	Associative prefix
COMP	-	complementizer
CONJ	-	Conjunction
COP	-	Copula
DEF	-	Definite
DET	-	Determiner
DIST	-	distributive
FUT	-	future
H	-	head
HAB	-	Habitual
ICV	-	Inherent Complement Verb
IDEO	-	ideophone
IND FUT	-	indefinite future
INT	-	intensifier
ITR	-	iterative
NEG	-	negative
N	-	noun
NOM	-	nominalizer affix
NP	-	Noun phrase

NULL PRO	-	null pronoun
PART	-	predicative particle
PERF	-	perfect
PC	-	property concept
PL	-	plural
POSTP	-	postposition
PP	-	Postposition Phrase
PREF	-	prefix
PROG	-	progressive
PST	-	past
RED	-	reduplicant
REL	-	relativizer
SG	-	singular
SBJV	-	subjunctive
SUF	-	suffix
VP	-	Verb phrase
!	-	downstepped tone
`	-	low tone
´	-	high tone

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ABSTRACT

This study investigated Property concepts in Ga using the Framework-free Grammatical theory (Haspelmath 2008). The study examined three main syntactic categories namely adjectives, verbs and nouns that are used to expressed property concepts in Ga. The morphological, syntactic and semantic properties of these three categories were investigated. Morphologically, most of the adjectives used as property concepts agree with the head noun in number, with the exception of those adjectives whose sources are mainly from nouns and a few that are derived from verbs. Verbs that are employed to express property concepts were mainly stative and may not necessarily agree with the subject but always express a property of whatever noun is found in the subject position. Nouns that precede head nouns to serve as property concepts do not inflect to show number agreement with the head noun but those nouns that occur after the head (nominal adjectives) do agree in number. Syntactically, the attributive role of property concept words is played by all the three categories. Although the predicative role is played by adjectives, they may occur in the same forms or be nominalized, and verbs in predicative positions serve as heads of verb phrases. Six semantic types of Dixon's adjective classes were identified to be filled by adjectives, and nouns were found to be in the Human Propensity class. The order of multiple property concepts were found not to be strictly ordered, either in attributive or predicative positions.

TABLE OF CONTENT

TABLES

Page

CHAPTER ONE

GENERAL INTRODUCTION

2.0 Introduction

Expression of property concepts in Ga syntax and semantics is an area which has not received extensive research. Scholars and students alike always associate the term property concept with the syntactic category adjective because most property concept words are found in the adjective category. Property concepts are also known as "adjectival" concepts because adjectives are words commonly used to express property in most languages (Palancar 2006:326). It must be noted that the adjective is just one category that is used to express a property concept in a particular language. Property concepts (henceforth PCs), according to Thompson (1988:167), name properties or qualities of an entity and have two primary communicative functions: attributive and predicative. In other words, PCs refer to properties, qualities and characteristics of referents. A PC having the role of attribution serves to modify the head noun in the Noun Phrase and the PC that serves as complement of verb normally plays the role of predication/predicative. There is normally a relationship between the head noun and the PC word used. It can be realized that PCs are not only adjectives but nouns, verbs, and adverbs as well, depending on the language under consideration. PCs are therefore expressed in languages with different lexical categories, depending on the particular language under discussion.

Dixon (1982:16) proposed various semantic categories for PCs in a wide variety of languages and stated further that languages vary in the number of the members they have

in the adjective class. Ga has adjectives which may be derived or of deep level (Amfo et al. 2007, Otoo 2005). The thesis therefore studied how features or characteristics that are attributed to an entity are realized in syntactic constructions in Ga. The syntactic constructions are studied at both the morphosyntactic level and the semantic level. The syntactic discussion focuses on the lexical category that the word used to express the property of an entity belongs to, its morphological properties in relation to the head noun and its semantic features. The study investigates what happens when a particular lexical word is used to modify an entity, especially nouns, in the Ga language. The modification of these lexical items is examined in terms of they being attributes of the noun, or are in predicative positions denoting features of entities. The predicative position, in this instance, refers to when the PC used serves as a complement of a verb or a copula verb and also when the PC plays the role of intransitive predicate. In terms of attribute, the word is used to modify the noun within the noun phrase.

1.1 Background to the Study

In language, certain features or characteristics are attributed to an entity. An entity may be given the attribute of beauty. For example in English it will be.

(1) The girl is beautiful.

(2) The beautiful girl went home.

(3) The rich man slept soundly

The construction in (1) syntactically makes use of a Noun Phrase (NP) 'The girl' and a Verb Phrase (VP) is beautiful. The NP, which is in subject position, is headed by

the noun ‘girl’ and the definite article ‘the’ serves as the determiner. The VP consists of the verb ‘to be’(is) and an adjective. The adjective ‘beautiful’ is in predicative position within the VP, that is the adjective serves as a complement of the verb (Copula Complement) in (1).

In example (2) the sentence is made up of an NP and a VP. The NP which contains a PC word ‘beautiful’, which is an adjective from the adjective class, serves as a modifier for the noun ‘girl’. The adjective ‘beautiful’ in (2) is in attributive position. Whereas the adjective plays the communicative role of predicative in (1), the adjective functions as an attribute in (2). In example (3) the adjective ‘rich’ has been used to modify the head noun ‘man’ in the NP as an attributive role.

In Ga these constructions are expressed as in (4) ,(5) and (6) below.

4) Yòó !lɛ́ hè yɛ̀ fɛ́ó.
woman DEF self possess beauty
‘The woman is beautiful.’

(5) Yòò fɛ̀ɛ́fɛ́ó lɛ́ tèè shíà.
woman beautiful DEF go.PST home
‘The beautiful woman went home.’

6) Nùù shìká-tsɛ́ lɛ́ wɔ̀ vìì.
Man money-owner DEF sleep soundly
‘The rich man slept soundly’

The Ga sentence in (4) consists of a Noun Phrase (NP) in the subject and a VP. The NP is headed by the word *hè* ‘body’ with another NP emebedded, which is *yòó !lɛ́* ‘ the woman’ and the VP consists of the verb *yɛ̀* ‘to possess’ and a noun –fɛ́ó ‘beauty’. The preceding NP *yòó !lɛ́* ‘the woman’ functions as a possessive to the head noun, *hè*. This NP in (4) is to express the attribute of physical property to the entity ‘girl’. The

construction differs from the English construction in terms of the structure of phrase found in the subject position and also the word found in complement position. Both constructions have NPs in the subject positions but the NP in Ga is made up of an NP embedded in another one whereas the English has a determiner and the head noun. Furthermore, the complement of the verb in Ga is a noun (abstract) *fɛ́ó* 'beauty' and English uses an adjective 'beautiful'. The noun used to express the property in the construction appears in the predicative position. English also employs a noun as complement of the verb though it is not commonly used by saying 'The woman has beauty'. When the word *fɛ́ó* 'beauty' has to be used attributively or used to modify a noun in Ga, the adjective form would be used. The adjective form is '*fɛ̀ɛ́fɛ́ó*'. This is what is found in example (5). It would be incorrect to have the adjective form *fɛ̀ɛ́fɛ́ó*' in Ga in the complement position, that is in predicative position. In example (3) above, the English adjective ' rich' is used to modify the head noun 'man', but (6) in Ga, the word used, *shìkátsɛ́,* 'money-owner' is from the noun class as it has the noun forming morpheme *tsɛ̀* added to the noun, *shìká* 'money'. *Shìkátsɛ́* 'money owner' can occur with the determiner and can serve as the the head of the NP without any change in form, unlike an adjective which may change form when used to serve as the head of the NP. The illustrations in (4), (5) and (6) buttress the point that PCs are not only from the adjective category but from other syntactic categories as well.

This is the reason why the work investigated in detail how PCs are encoded in Ga. The thesis also seeks to answer the question: How are properties attributed to and predicated of entities? Since adjectives form a large class among PC items, the work

first employs and investigates adjectives, then nouns and verbs and possibly adverbs that are used.

Dixon (1982:5), in his study of adjectives noted that there exists languages that have a small number of adjectives and those with large membership. Dixon (1982) classifies adjectives into seven groups. Dixon cited Birk (1976) who reported that Australian Malak Malak has only seven adjectives namely adjectives denoting the attributes large, small, short, young, old, good and bad. Dixon's (2006) recent semantic classification of adjectives served as a basis to start the study as it indicates ways of expressing property of an entity.

1.2 Dixon's Semantic Classification of Adjectives

Dixon (2004, 2006) identifies a set of semantic types of PCs that are encoded by the adjective class in languages that have them. The classes are thirteen in his recent work and these are:

DIMENSION: in this class the property concepts denote size, shape etc. e.g. big, small, long, deep, etc.

PHYSICAL PROPERTY: e.g hard, strong, sweet, cheap, etc.

SPEED: this class shows the fastness or slowness of an entity e.g fast, quick, rapid, etc.

AGE: in this class the PCs denote how old something may be e.g new, old, young, modern, etc.

COLOUR: in this class, the nature of the entity in terms of colour is expressed e.g black, white, golden, etc.

VALUE: adjectives that denote value are seen in this class e.g good, bad, lovely, pretty, etc.

DIFFICULTY: how difficult an entity may be is found in this class e.g easy, tough, hard, simple, etc

VOLITION: e.g accidental, purposeful, deliberate, etc

QUALIFICATION: what qualifications are found in this class (This has subtypes) e.g true, obvious, normal, right, etc

HUMAN PROPENSITY: In this class adjectives that denote the nature of human are mainly expressed (This also has subtypes), e. g angry, jealous, clever, sad, etc

SIMILARITY: e.g different, equal (to), analogous (to) etc.

QUANTIFICATION: eg all, many, few, only, enough etc

POSITION: eg high, low, distant, northern, near, left etc

(Adapted from Dixon 2004 and 2006)

In languages that do not have adjectives, these concepts are expressed by other lexical categories. There will be more explanation on the semantic types in chapter two. The work investigates how Ga uses adjectives and other lexical categories to express property concepts.

According to Dixon (1982, 2004) the adjective class typically fills two roles. In Dixon (2004:10) he stated the following roles for adjectives:

a) in a statement that something has a certain property. There are two ways for encoding it syntactically: i) adjective functions as an intransitive predicate as in

example (8) in the Boumaa Fijan language or the adjective functions as Copula Complement(CC) as in (7).

b) as a specification that helps focus on the referent of the head noun in an NP that relates to predicate argument. The adjective is shown as a modifier within the NP. The example in English illustrates this in (9).

(7) [My father] $_{CS}$ [is] $_{COPULA\ PREDICATE}$ [**tall**] $_{CC}$.

(8) [e balavu] $_{INTRANSITIVE.\ PREDICATE}$ [a tama –qu] $_{S}$.
3sgS tall ARTICLE father –Isg POSSESSOR
'My father is tall'.

(From Dixon 2004:7 eg 3& 4)

(9) [The **tall** man] $_{S}$ [laughed] $_{INTRANSITIVE.\ PREDICATE}$.

(Dixon 2004:10 eg 7)

Depending on the language under discussion, these two roles may be performed by the adjective class or not. It is also possible for the adjective to have only one of these functions in a particular language (Dixon 2004). Dixon(2004:28) further name two features of adjectives namely;

c) as the parameter for comparison in comparative construction

d) as modifiers to a verb, in adverbial function.

In (8) above the sentence is an intransitive clause and the head of the predicate is headed by *balavu* 'tall'. *Balavu 'tall'* which is an adjective is preceded by the third person singular pronoun as if it is a verb. Verbs are preceded by the pronouns in Fijan. In (7) the sentence is a copula clause with two arguments ' my father' and 'tall'. The Copula Subject (CS) is 'my father' and the Copula Complement (CC) is 'tall'. In (9)' The tall man' is the Intransitive subject (S) and 'laughed' is the Intransitive Predicate.

Similarly Givon (2001) indicated that adjectives can be found within two syntactic contexts that are: as predicated in copula clauses and in noun phrases as modifiers (attributive use). In Ga the basic adjective can serve as an attribute for a noun as in examples 10a-c.

(10) a. Nùù **kpìtíóó** lɛ́ wɔ̀.
man short DEF sleep. PST
'The short man slept.'

b. Tsò **wùlú** !lɛ́ gbèé shì.
tree huge DEF fall.PST down
'The huge tree fell down.'

c. Kpà̰à̰ **kàkàdáŋ́ŋ́** lɛ́ là mí-nànè.
rope long DEF hook.PST 3SG- leg
'The long rope hooked my leg.'

From examples (10a–c) the bolded words *kpìtíóó* **'**short' *wùlù* 'huge' *kàkàdáŋ́ŋ́* 'tall' used to express PCs of the nouns mentioned are all from the adjective class in Ga. The adjectives play the role of attribution. Lets consider the examples in (11a –c) also.

(11) a. Yòò **nílèlɔ́** lɛ́ é - bà.
woman wise DEF PERF-come
'The wise woman came'.

b. O`bláyòò **shìkátsɛ́** ! lɛ́ hé wòlò.
young woman money-owner DEF buy.PST book
'The young rich woman bought a book.'

c. Kàsélɔ̀ **àwùŋàyè-lɔ́** !lɛ́ jò fòì
student jealous.AG SUF DEF run.PST away
'The jealous student ran away.'

The constructions in examples (11a-c) contain NPs in subject positions, which contain nouns serving as modifiers for the head nouns in the NPs. Normally in Ga, the

adjective has a reverse position compared to English; that is, it occurs after the head noun it modifies as seen in (10a-c). In (11a–c) the nouns *nílèlɔ̀* 'wise person', *shìkátsɛ́* 'rich person' and *àwùŋàyè-lɔ̀* 'jealous person' are used to modify the head nouns *yòò* 'woman', *òbláyòò* 'young woman' and *kàsélɔ̀* 'student' respectively. These words used to modify the head nouns in (11a-c) are all nouns which occur in the adjective position. These bolded words used in (11a-c) are said to be nouns because they take the noun agentive suffix */-lɔ/ or tsɛ̀* (free morpheme) which is not attached to adjectives in Ga. All these nouns used as modifiers can occur in subject positions by themselves without the nouns (as head nouns) and are from the noun class.

In examples (12a –c) below the nouns in bold used to serve as modifiers precede the head nouns. In terms of the position of the bolded nouns, they seem to be like the English structure, where the modifier precedes the modified. Dakubu (2000, 2002, 2003) refers to these nouns that precede the head nouns as epithet, whereas Dzameshie (2007:76) refers to these nouns as ordinary nouns.

(12) a. **Tsò** tsú !lɛ́ kú.
wood house DEF break.PST
'The wooden house broke.'

b. Ayele hé **dàdé** àwàlè.
Ayele buy.PST iron spoon
'Ayele bought a metal spoon.'

c. È -jwà **rɔ́bà** gògá lɛ́.
3SG -break.PST rubber bucket DEF
'She broke the rubber bucket.'

The examples (13a-c) below illustrate some verbs that denote PCs or have adjectival meanings. The words in the predicate position are verbs which have the Ga verbal morphology and syntactically they take subjects.

(13) a. Wónú !lɛ́ **ŋɔ̀ɔ́**.
soup DEF be sweet.
'The soup is tasty/delicious.'

b. Blòdó !lɛ́ **wà**.
bread DEF be hard
'The bread is hard.'

c. Ajele mlì **é-fú.**
Ajele inside PERF-swells
'Ajele is angry.'

The verbs *ŋɔ̀ɔ́* 'be sweet' and *wà* ' be hard' and *fú* ' to swell' are the verbs which have adjectival meanings attached to them. When they are encoded in English, adjectives would be used to serve as complement of the verb (see the English translations).

1.3 Statement of the Problem

PCs have received some amount of research over the years (Sergio & Gildea 2005, Dorvlo 2010, Palancar 2006, Holton 2001, Jenks et al 2013, Bobuafor 2013). Most languages use adjectives, if present in that language, to express the property of an entity. It is either to modify the noun (attributive) or to serve as a complement of a verb or copula verb or as an intransitive predicate (predicative). Languages without an adjective class or those with few/many adjectives, may employ other lexical categories to denote the features of an entity (i.e to express a property concept). For instance, there is only one adjective which is not ideophonic *kpá* 'bad' in Tutrugbu (Essegbey 2010:158). Tafi,

a Ghana Togo Mountain language, also has only three basic adjectives namely *bhuli* 'small' *gunu* 'short' and *kpa* 'bad' (Bobuafor 2013). The research investigates how attribution of an entity is expressed in Ga when it uses an adjective and when there is no adjective to be employed. One may wonder whether there are adjectives in Ga. The answer to that is : yes. There are both deep level and derived adjectives in Ga. The work is not limited to the study of adjectives alone but other lexical categories such as nouns, verbs and adverbs that could possibly be employed to indicate the property of an entity. Can all features or qualities of an entity (head noun) from the thirteen semantic types proposed by Dixon be expressed in Ga using adjectives? To find answers, the study describes the morphological, syntactic and semantic properties of these lexical categories which may be employed and the types of constructions used.

One other issue is that there are inadequate materials on the morphology, syntax and semantics of the Ga language. Apart from that there is little work done in the area of property concepts in Ghanaian languages (Akan, Osam 2003, Saah & Osam 2010, Leteh, Akrofi-Ansah 2013). I believe that an in-depth research into the expression of Ga PCs will lead the way in this area of linguistic research.

The insufficiency of written material on Ga poses problems for researchers, students and educators. These are some of the reasons why this work attempts to do a further study in this area of the Ga language. This will help to facilitate the production of textbooks in the language for teaching and learning.

1.4 The Ga Language

The Ga language forms a sub-group of the Western Kwa language group under the larger Niger Congo family. Ga is spoken by the inhabitants of Accra (Ga Mashi), La, Teshi,

Nungua, Tema and Kpone as well as some Ga villages like Abokobi, Bɔi, Oyibi, Bawaleshi, Akpɔman, Oyarefa, Kweiman, Teiman and Samsam which are spread at the foot of the Akwapim Hills. Ga is spoken also by some non-natives as well who have stayed in the Ga area for a long time. The people who speak Ga are called Gas or the Ga people. Ga is sometimes used in speech to refer to the city of Accra by the people living in the hinterlands when they are travelling to Greater Accra. The term, as used in this work, refers to the language and nothing else.

1.4.1 Dialects

Ga has no dialects. However there are differences in pronunciation of some words. Kotei (1969) and Mante (1971) cited in Dakubu (2002) note that there are some few vocabulary items that have different pronunciations moving from one coastal town to another. Below are examples in Table 1.1.

Table 1.1:Variation in The Pronunciation of Some Ga Words

Accra	La	Teshie	Nungua	Kpone	Gloss
ònùfú	onùúfú	ònú!fú	onùúfú	ònùúfú	Snake
gbèsàŋè	gbòsàŋè	Gbòsàŋè	gbòsàŋè	gbòsàŋè	leathery turtle
òdáàklɔ	òdáàklɔ	òdáá!klɔ	òdáàklɔ	òdáàklɔ	Lizard
tɔŋ́tŕɔ́ŋ́	tɔ́ŋ́tɔ́ŋ́	tɔ́ŋ́tɔ́ŋ́	tɔ́ŋ́tɔ́ŋ́	tɔ́ŋ́tɔ́ŋ	Mosquito
bòé!boé	bòé!boé	mòé!moé	mòé	mòémòé	a type of fish
àmɛdɛ́	àmɛdɛ́	Bɛdɛ́	àmɛdɛ́	àmɛdɛ́	a type of fish
àklòntià	àkɔntiá	Aklòtià	àklòtià	àklòtià	Pin
mfl!ábɛ́!dì	mfl!ábɛ́!dì	mfl!ábɛ́!dì	-	m!práábɛ́!dí	fresh water fish
kɔ́kɔ́	kɔ́kɔ́	kwɔ́kwɔ́kɔ́kɔ		kwɔ́kwɔ́	a type of fish

(Dakubu 2002:2 Table 1)

1.4.2 Sociological Status

Ga is taught in many Ghanaian schools as an elective course. In some tertiary institutions (for example, University of Ghana, University of Education Winneba, and University of Cape Coast) it is studied as subject by many students. It is also used in churches, on some of the television channels and also for some radio programmes. Many people who have come to live in Accra speak Ga as their second language. There are materials that have been published in/on Ga like the Bible, literary works like *Mojawe*, by Simeon Yartey (1978), Dakubu (1981a) *One Voice, The Linguistic Culture of an Accra Lineage* among others. Two editions of Ga dictionary edited by Dakubu have been published in 1999 and 2007 respectively.

Ga has five nasalized vowels /ã, ɔ̃, ĩ ũ,ɛ̃/ and seven oral vowels /a,i u o, e, ɔ,ɛ/. The vowels [a, o, e] occur at the initial position in words. There are forty-four sounds in Ga. Four syllable types are found in Ga namely vowel [V], consonant and vowel [CV], Syllabic Nasal [N] and consonant and a liquid [CL]. Codas are non existent mostly in Ga words.

1.5 Scope and Purpose of the Study

The study aims to investigate the morphology, syntax and semantics of PCs in Ga. It examines the lexical categories that are used in property constructions and examines also in detail how the thirteen semantic property concepts proposed by Dixon (2004, 2006) are encoded in the language. The focus is on how attribution and predication are expressed. Further attention is given to the types of syntactic constructions used. The theory to be employed in this work is the Framework-Free Grammatical Theory (Haspelmath 2008). The theory's details are discussed in chapter two.

1.6 Research Questions

The main objective of the work is to find answers to the following:

- Which of the thirteen semantic classes of PC words exist in Ga?
- What lexical categories are used to express PCs in Ga?
- Are there differences in the syntactic structures denoting PC (morphosyntactic properties)?
- In what order do multiple PCs occur in the language?

1.7 Delimitation of the Study

The scope of the study is limited to examination of syntactic constructions, morphological and semantic properties of lexical categories that denote property concepts in Ga. The geographical area is limited to the Ga speaking areas in Greater Accra Region.

1.8 Significance of the Study

It is hoped that the outcome of this study will inform teachers, students, linguists and educationists about the morphosyntactic and semantic properties of entities or lexical categories that denote PCs in the Ga language. It will disabuse people's minds, especially learners of Ga, about classifying every Ga word that correlates with an adjective in English as an adjective, which is not always the case. It also contributes to the cross-linguistic study of PCs in languages of the world and also adds to the existing literature on Ga.

1.9 Methodology

1.9.1 *Study Area and Target Group*

The study area is Ga Mashi area of Greater Accra Region where most typical Gas are found, and Osu. The study took place in these areas because I believe appropriate information on what pertains on the ground could be obtained there. The target group was made up of Gas living in Bukom, James Town, Asene and Gbese of the Ga Mashi area and in Osu, all in the Greater Accra region.

1.9.2 *Sampling Procedure and sample size*

A non- probability sampling technique was used for the selection of the respondents for questionnaires that were administered to ascertain the order of multiple adjectives if sequenced. Purposive and accidental sampling were used to get the target group. These sampling methods were chosen since they would enable the researcher to assess information from people capable of providing the needed information. Sample size of the study was fifty-nine people though hundred questionnaires which consisted of 10 key informants, fifty men and forty women were distributed. The age of the target group ranged from 18 to 60 years plus.

1.9.3 *Data Collection*

Data were collected using both primary and secondary sources. Sources of information included books like novels, textbooks and unpublished articles. The data were supplemented with spoken Ga from people in the above mentioned areas and also Ga programmes on the radio (Obonu FM). People were also engaged in conversations that focused on description and attribution through the use of the toy task or director –

matcher elicitation task (Gulberg, Indefrey & Muysken 2009). The participants in toy task were two people who were given the role Director and Matcher. They sat at a table which had a barrier in the middle. The barrier prevented the participants from seeing each other. On the table were objects with all sizes, colours, shape etc, twelve in all. The Director asked the other to do some arranging or act on some particular instruction. The objects were arranged on both sides of the board placed in the middle of table. As instructions were given the participants spoke and answered to whatever was said. The toy task was originally designed for elicitation of complex noun phrases, determiners, colour adjectives and nouns. The study did a little modification to the toy task method so that PCs of entities could be obtained. The toy task aided in gathering information on constructions that express PCs and properties of entities. This enabled the researcher to find out the lexical category of items used in these constructions.

1.9.4 *Data Handling and Processing*

The constructions which were obtained from books were carefully studied to see their morphological and syntactic properties. The data obtained from the toy task were also studied to find how the PCs were coded. The data from the questionnaire that sought information on the sequencing of multiple PCs and the rendition of some English sentences into Ga were put in excel and tabulated and analysed.

1.10 Definition of Key Terms

The key concept in this work is ‘property concept’. The definition of property concept in this work is grounded on Thompson’s (1988) and Palancar’s (2006) definitions. The term ‘property concept’ used here has to do with words that are used to modify nouns and

serve as predicatives. The study investigated how three lexical categories namely nouns, adjectives and verbs are used to denote PCs. The function of these three PCs in terms of attribution and predicative roles were examined, that is how they are employed in relation to nouns. The study examined three main categories of word classes used as PCs. In Ga, adjectives or other lexical categories are used. The modification of the noun was examined in terms of attribution and predication. That is to say the work is a detailed study of how adjectival meanings are expressed in Ga using three main syntactic categories.

Epithet which is another concept is used here to refer to nouns or phrases that are employed to modify the head nouns. These nouns or phrases precede the head noun. These are ordinary nouns (Dzameshie 2007:76) and I believe the term epithet is a function name given to these nouns, therefore it is more of function nature in relation to the head noun. In this work, I prefer to used the term epithet which was also posited by Dakubu (2002, 2003) for nouns that precede the head nouns and modify them as I examine the function in relation to the head noun.

1.11 Organisation of Chapters

The thesis consists of seven chapters.

Chapter one consists of the introduction, background to the study, significance and purpose of the study, statement of the problem, objectives of the study, methodology and research questions.

Chapter two consists of the theoretical framework and literature review.

Chapter three examines the morphological and syntactic properties of adjectives used in expressing property concepts.

Chapter four examines sequencing of adjectives and a comparison of the lexical categories used.

Chapter five deals with verbs used in expressing the properties of entity.

The chapter six looks at nouns used in expressing property concepts.

Chapter seven is the summary of findings and conclusions and recommendations for future research.

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.0 Introduction

This chapter provides a discussion on the theoretical framework to be employed in this study. There have been a lot of studies on the adjective class in Ghanaian languages, like Akan (Osam 1999, 2003), Ewe (Dzameshie 2007, Ameka 2003), Ga (Dakubu 2002, Otoo 2005), Siyase (Adjei 2007). However, the topic under investigation will not be dealing with only adjectives but all kinds of words used in describing or modifying nouns in Ga. The chapter also reviews some literature related to PCs and other works that have studied the adjective class. Some relevant works on adjective classes are reviewed as well, because most often, the adjectives, when available in the language, tend to be the PCs that are used to qualify nouns.

2.1 Framework- Free Grammatical Theory

The work will employ the Framework-Free Grammatical Theory by Haspelmath (2008). This is mainly a descriptive framework. This is a framework or theory of morphosyntax. It is not a restrictive theoretical framework, but allows the researcher to examine the language and describe it in its own terms. It is agreed by most linguists, according to Haspelmath (2008), that in analysing an unfamiliar language, efforts should be made not to be biased or be influenced by our native language or other languages we know. For instance, he claimed that pre-modern linguists who described non-European languages in terms of Latin using grammar as a base are discredited in recent times. The

Framework-Free Grammatical Theory proposed that a language should be described in its own terms. In other words, language description should not be strictly put under any bound framework. A model language should not be used, when another language is being investigated, if not the language under investigation may be expected to have particular issues which may not occur, and it will be examined from a particular perspective as the restricted bound framework gives constraints. In employing Framework-Free Grammatical Theory (FFG), you are able to discover unsuspected connections between phenomena and be guided only by the data you have gathered. This is because in analyzing language, sometimes new puzzles, new categories come up that may not fit into a particular bound framework you may be employing. Every language has its own categories, similarities also occur among languages and therefore one can learn from other languages that have been investigated to use certain terminologies like noun or verb, but should not be bound by these occurances, so that completely new discoveries can be accounted for in that language. It is therefore better to use Framework-Free Grammatical theory to give better analyses of the real issues in a language as it is descriptive and allows the researcher to analyse issues as they occur and account for exceptions and irregularities that may come up.

2.1.1 Application of Framework- Free Grammatical Theory in Previous Works

Linguistics scholars have applied the Framework -Free Grammatical Theory to languages and believe that their findings have been more realistic than if they had applied a strict bound theoretical framework in Linguistics. Some of these scholarly works are discussed below.

Schacter & Otanes (1972: 57-85), cited in Haspelmath (2008), analysed Tagalog basic sentence structure using the Framework-Free Grammatical Theory. The outcome of the analyses in Tagalog gave a picture rather different from what pertains in English structure. If they had applied a strict bound framework which may be based on English, it may not have given the true picture in Tagalog. In Tagalog, for instance, the basic sentence structure is not NP and VP but Predicate and Topic. Though there could be a rough correspondence between Tagalog Topic and English Subject NP, the Topic may also equate to English Direct Object, or English Preposition object. The Topic is marked with *ang*. It is worth mentioning that Topic in Tagalg has a semantic peculiarity that could not be traced in English, it must be definite. The main word of a Tagalog Predicate in most cases is a verb but a noun or an adjective may occur. The main word for the Tagalog Topic is often a noun but a verb could occur. Tagalog can combine Topic marker *ang* directly whereas English may require relative clause construction to make referential expressions of such kind. Schacter & Otanes (1972) did not describe the Tagalog sentence as NP VP but used the term Predicate and Topic. However, with the use of the descriptive framework, they had the opportunity to use terms which best described what they found in their data and gave a true picture of what pertains in the Tagalog sentence.

Investigation into German word order, Drach (1937) cited in Haspelmath (2008) employed Framework- Free Grammatical Theory and was able to use terms that could best describe the word order found.

In the examination of German by this European structuralist, Drach (1937) proposed that German word order consists of at least five linear positions: Prefield, Left Bracket,

Middlefield, and the Postfield is the position following the right bracket. Grammatical relations such as subject and object or VP are not issues seen in German Field typology. If a bound framework had been used to analyse German, it might have been difficult or probably may not fit into the English language analysis and these field typology terms may not have resulted. The analyses may have been compared to English or Latin and terms from these languages would have been imposed on the German language.

Most studies (Dixon 1982, 2004), Helmbrecht (2004), Backhouse (1984, 2006), Palancar, (2006) just to mention few), on PCs, had used the descriptive framework. The issue is that words that code PCs may differ from language to language. Certain languages may employ only adjectives, others may employ both adjectives and verbs, and others may only use verbs among others. The studies on these PCs most often, in addition to the descriptive framework, also applied Dixon's theory on adjectives. Dixon proposed semantic types of PCs that are coded by adjectives in languages that have them. A study without Dixon's theory would not be complete, therefore this work, in addition to Framework Free Grammatical Theory, also employs Dixon's framework. The two frameworks complement each other as they both do description of situations in a language.

Though Framework -Free Grammatical Theory approach is more difficult to construct and more difficult to describe than those built on familiar bound framework, a descriptive framework could be applicable to all possible languages. Moreover, most researchers whose work I have reviewed apply the descriptive framework in addition to Dixon's semantic classification of adjectives. For instance, in applying X-bar theory , it can be

realized that not all proposed phrase structure rules existed in all languages, therefore without a restrictive bound framework, one can describe the syntax in its own terms.

The Framework- Free Grammatical Theory also caters for diversity in language, for instance, it is a proposed theory that derivational affixes occur before inflectional ones, but this may not be the case for all languages. When a language is approached with particular concepts and pre-established ideas in mind, the individual tends to be biased but when there is open mindedness and there is no restrictive and strict bound framework that is being applied, there is a high possibility of giving a fair picture of issues found during an investigation in the language. FFG therefore gives you the chance to describe things as they are exactly seen and the possibility to deal with things that you may call exceptions.

In summary, analyses of languages must be done separately for each language since languages have different structures. I believe that my use of this framework in the study under investigation in Ga has given a very good objective and true picture of Ga at the end of the study.

2.2 Dixon's Semantic Classification

Dixon (2004, 2006) identifies a set of semantic types of PCs that are encoded by the adjective class in languages that have them. The total number of these classes is thirteen in his recent work. He first mentioned four core types which are found in languages that have small and large adjective classes (Dixon 2006:3-5). These are:

1. DIMENSION- 'big', 'small', 'long', 'tall', 'short', 'deep','wide' etc.

2. AGE- ‘new’, ‘young’, ‘old’, etc.
3. VALUE- ‘good’, ‘bad’, ‘lovely’, ‘perfect’, ‘odd’, ‘strange’ etc.
4. COLOUR-‘black’, ‘white’, ‘red’, etc.

He continued with more semantic types and revealed that these types are generally associated with medium- sized and large adjective classes and they are

5. PHYSICAL PROPERTY – ‘hard’, ‘soft’, ‘heavy’, ‘wet’, ‘rough’, ‘strong’, ‘clean’, ‘hot’, ‘sour’, etc. And a sub-class referring to corporeal properties, eg ‘well’, ‘sick’, ‘tired’, ‘dead’, ‘absent’
6. HUMAN PROPENSITY – ‘jealous’, ‘happy’, ‘kind’, ‘clever’, ‘generous’, ‘cruel’, ‘proud’, ‘ashamed’, ‘eager’, etc.
7. SPEED – ‘fast’, ‘quick’, ‘slow’, etc

Lastly, he concluded the semantic types which are found in languages with large adjective classes which are

8. DIFFICULTY – ‘easy’, ‘difficult’, ‘tough’, ‘hard’, ‘simple’, etc
9. SIMILARITY –‘like’, ‘unlike’,’similar’ ‘different(/strange)’,’other’, etc.
10. QUALIFICATION –‘definite’, ‘true’,‘probable’ possible, ‘likely’, ‘usual’, ‘normal’, ‘correct’, ‘common’, ‘appropriate’, ‘sensible’, etc.
11. QUANTIFICATION – ‘all(/whole)’, ‘many’, ‘some’, ‘few’, ‘only’, ‘enough’, etc.
12. POSITION – ‘high’, ‘low’,’near’, ‘far/distant’, ‘right’, ‘left(/strange)’ ‘northern’, etc.

13. CARDINAL NUMBERS - (in some languages these constitute a separate word class). And ‘first’, ‘last’ (together with other ordinal numbers).

Dixon explained that the first four semantic types are the core ones and the rest are peripheral types that are found in languages. The question is how do languages that have a small class of adjectives code other PCs and he asserted that:

(a) PHYSICAL PROPERTY terms, when they are not found in the adjective class, are generally found in the verb class;

(b) HUMAN PROPENSITY items, if not in the adjective class may be either in the noun class or the verb class;

(c) SPEED terms tend to be found in the adjective class if PHYSICAL PROPERTY items are in this class, and in the adverb class if PHYSICAL PROPERTY terms are in the verb class.

(Dixon 2004 :4)

Dixon’s semantic theory is applied in this study to find out what types are available in Ga and what other lexical categories fill those that adjectives cannot fill.

2.3 Literature Review

PCs in Hocank, a Siouan language of the Missisipi Valley branch, were studied by Helmbrecht (2004). He made it known that most PC words come from the adjective class in Hocank. He stated in his study that adjectives that are found in Hocank do not show any agreement with the head nouns when these hypothetical adjectives serve as modifiers. The study examined PCs in Ga. Ga has adjectives that are used as PC words and serve as modifiers, but unlike Hocank, they show agreement morphologically with

the head nouns in terms of number. Gender and noun class are also absent in Hocank, just like Ga. The study also revealed that prototypical adjectival concepts are expressed using intransitive inactive verbs. Property words may also be found in noun compounds, in ordinary NPs and in relative clauses. It is worth mentioning that Hocank uses periphrastic and pragmatic inferences in gradation for adjectives. Based on Helmbrecht's examination it could be concluded that studies of PCs in languages need not leave issues of gradation and morphological markings of the word or lexical item found to code that meaning in the language under examination. Similarly, Grunow –Harsta (2011) examined terms that describe PCs in Magar, a Himalayish language spoken in Nepal. In the paper, Grunow-Harsta referred to these words that code PCs as adjectival. This term, I believe, is most appropriate, as it included not only adjectives that are used for PCs but all other categories a language may use. For the study in Magar, the term adjective was reserved for basic adjectives/non-derived adjectives in Magar. Unlike Ga, the non-derived adjectives found in Magar are all borrowed words/ adjectives from Nepali. PCs in Magar are coded with the borrowed adjectives and in Magar verbs are also used. Based on the descriptive approach employed by Grunow-Hasta, this research also adopted a descriptive approach or framework. However, the Magar study did not examine the ordering of multiple PCs, and the gradation of adjectives which Helmbrecht (2004) investigated was absent. It is worth investigating the ordering of multiple PCs in languages and this study takes a look at that.

PCs in Otomi were investigated by Palancar (2006), and he realized that Otomi had no adjective class but PCs are encoded by verbs and nouns. He claims that lexical items that denote PCs can be divided into two groups: Group I and Group 2.

Group 1 consists of verbs, and he referred to them as PC verbs and Group 2 as PC nouns. The Group 1 which consists of verbs, forms a larger class than Group 2 which consists of nouns. He stated that Group 1 PCs have been referred to as adjectives by authors like Ecker (1952), Hess (1968), Voigtlander and Echegoyen (1985), Hekking (1985) and Bartholomew (2004). These authors labeled the verbs as adjectives based on semantic grounds as the corresponding translation in English or Spanish falls in the adjective class. Palancar disagrees with them and believes strongly these are verbs and those in group two are nouns. He employed the Markedness Theory (Beck 1999; 2002) to emphasise this stand of his. Lexical items may, in addition to their prototypical roles, perform other syntactic roles. He cited Beck (2002: 25) who pointed out that lexical items require 'additional grammatical machinery' to appear in such extended cases and this could be said to be 'marked' cases. He stated that Hengeveld (1992) refers to this 'additional grammatical machinery as 'further measures' (FM). He posits that Becks (1999) defines FM as 'the morphological, syntactic, or semantic properties acquired by an element in a non-prototypical syntactic role'. Simply put, Markedness theory claims that a lexical item will act as an unmarked element in its prototypical environment but will need FM to function elsewhere. The term 'marked' can therefore be equated to FM and unmarked equated to 'without further measures' (WFM). I share the opinion of Palancar that words that have features of verbs and those having noun features should be considered verbs and nouns since morphological and syntactic criteria in identifying a word class are very acceptable. To claim and put a word into a lexical category based on its semantics or its translation is not so correct, and this is one issue that motivated the researcher to do this study. Most of the Ga textbooks put all words that correspond to

adjectives in English when translated, into the adjective category, based on meaning, without looking at the features. This has been a serious problem for many students who are studying Ga. The researcher has tried in this study, to clarify the issue. Nouns and some stative verbs may be used in Ga to encode PCs but that does not change their word classes. This is discussed in chapters five and six. In the same manner, in Tobelo, a Papuan language, PC words may be nouns or verbs, since there is no adjective class that plays that role, as established by Holton (2001). Mostly, the verbal PC words are used in predicative function while nominal PCs function as attributes. It was also established that nominal PCs do not exhibit cross referencing features. It was later claimed that though verbs indicate PCs, they could correlate to predicate adjectives and nominal PCs to modifying adjectives in English. On the other hand, predicating PCs are not only verbs but nouns as well in Tobelo as below:

(1) o- Mariam ma- ago –agomo mi-ihene de duru i-rame
NM-k.o.gun REL-RDP-large INC:A-hear and very 3A-loud
'We heard a large gun and it was very loud.'(kukuhi)

(2) o-senjata ma-ilingi i-maka-duhuku ma-rame
NM-gun REL –voice 3 MASC:A-RECIP-shoot NM-loud
'The sound of the shooting guns was loud.'(Kukihi)

(Holton 2001: 224 eg 31 & 32)

In the above examples (1) and (2) both verbal PC word and nominal PC word have been used to function predicatively.

On the other hand, though earlier research had claimed that there were no adjectives in Totonac, a language spoken in Mexico, Levy (2006) identified and substantiated that there are PCs which are adjectives. She further established the subtle differences between

nouns and verbs on one hand and adjectives that are used to denote PCs in Totonac on the other hand. For instance, PCs that are adjectives modify nouns and occur only in comparative constructions.

Dixon (2006), in his study of Jawara adjectives as PC items stated that Jawara has 14 adjectives. Jawara is highly a synthetic language and is one of the Madi languages which belongs to the Arawa family. Using the typological features of adjectives he had proposed, he studied this small class of adjectives. He stated the semantic types these adjectives of Jawara fall into, which included Dimension, Physical Property, Age, Value, Quantification and Qualification. In addition to the deep level adjectives(adjectives that are not derived) in Jawara, he investigated derived adjectives that were also found in the Jawara language. The derivation of adjectives is mainly through suffixation to verbs. These derived adjectives carry extensive meanings. The types of verbs used are all verbs of state in Jawara. Ga also, in addition to deep level adjectives, has derived adjectives which are discussed in the next chapter. The derivation of Ga adjectives is done through several processes. It is worth noting that the derived adjectives in Jawara serve as copula complement but not as modifiers. This may not be the same in Ga but this is yet to be investigated in the following chapter. It is relevant to study the grammatical properties of the adjectives and other words used to denote PCs in order to get a clear distinction between them. The grammatical properties were analysed by Dixon (2006). He realized that Jawara deep level adjectives can serve as modifiers within the NP. The adjective follows the head noun in this instance. This is the same for the deep level adjective in Ga, as it also follows the head noun it modifies. Below is an example in Ga.

(3) Nùù **kpìtíóó** lɛ́ tèè.
man short DEF go.IMPF
'The short man went.'

In example (3) the adjective *kpitíóó*́ 'short' which is non-derived follows the head noun.

In Dixon's analysis, he did state that derived adjectives cannot function as modifiers in the NP, they only serve as copula complements. Ga has derived adjectives and from Otoo's (2005) brief study of adjectives these derived ones can serve as modifiers. However since Otoo's study was brief this phenomenon is further investigated in the next chapter to find out whether all derived adjectives could possibly be used to serve as modifiers.

When more than one adjective is used to modify the noun, the ordering or sequence of adjectives is free and not restricted in a particular order as found in Jawara. This is explored in Ga, as studies of the sequencing of several adjectives used to modify nouns have not been given much attention. Since nouns are modified in various forms can we say that all modifiers are from the adjective class? This may not be so, as all the words used may come from different word classes but all belong to the modifier set. Dixon also explored the differences that existed between adjectives and possessed nouns. That was very important as he noted that at first glance, they looked similar but detailed analyses brought out the following differences

a) in terms of position, the argument modifier mee precedes a possessed noun but follows an adjective.

b) looking at the possibilities of copula complement, he realized that a copula complement could be an NP or just an adjective. A possessed noun cannot serve as a copula complement.

c) he studied the differences that existed in terms of gender markings within an NP in Jawara. Apart from two adjectives that showed masculine and feminine distinctions the other adjectives are all marked feminine. When it comes to possessed noun it may be feminine or masculine and sometimes even complex due to the noun it occurs with.

d) lastly, the ordering of adjectives and possessed nouns was investigated within an NP. The study in Jawara revealed that the ordering of the adjectives within the NP is generally free but in the case of possessed noun the order is fixed.

(adapted from Dixon 2006:193)

This is quite significant as it brings to fore, the need to investigate possessed nouns and adjectives in Ga to determine whether they behave in a similar manner.

Another important investigation was investigating nominalised verbs that semantically have adjectival meanings and words from the adjective class. The investigation revealed that the nominalised verbs have different grammatical properties from adjectives. The detailed study of Jawara adjectives by Dixon (2006) had not been explored in Ga, especially in terms of semantic types and possessed nouns . A detailed look at this paper on Jawara adjectives was helpful to this study.

Cobert (2006) employed the typological features of adjectives in general. Cobert explored the Russian adjective which is also one of the items in the PC set. The paper

was reviewed due to the discussions on the morphological and syntactic properties of the adjective in Russian. Syntactically, the Russian adjective does function as complement of a copula but this may not be so in Ga, as Otoo (2005) did not examine this aspect into detail. However, this issue is revisited in this study to possibly ascertain the true picture. The Russian adjective occurs as a modifier of a noun in NP like adjectives in other languages such as Ga, Akan, Jawara, among others. However, the Ga adjective follows the noun while Russian adjective precedes the head noun. The inflectional morphology of nouns, verbs and adjectives were investigated and even though some of the categories were overlapping there was a clear distinction between the adjective used as PC item and the other syntactic categories. A critical study revealed that the Russian adjective occurs in two forms with different inflections to indicate gender distinctions as well as case. The two forms are the long form and the short form. Specifications for the long forms differ from the nouns. The long forms have fixed stress on their stems. The other form, the short form, does not differentiate case marking but gender distinctions rather. Their stress patterns are not fixed and they are restricted in their predicative use. It was revealed further that not all the adjectives have the short forms. Those that have the short forms are those used freely in the predicate and are mostly non-derived synchronically. Also the adjectives without the short forms can be used in predicate positions employing their long forms. In terms of comparative analysis, Russian has synthetic and analytic comparatives. The criterion that was used to study the comparative has served as a good guide in this research. The superlative in Russian employs *samyj* in addition to the long form for agreement. Another useful analysis by Cobert in the paper was the derivational potential of the adjectives, that is other word classes that had adjectives as their sources were

investigated. Otoo (2005) did not do such investigation and this study explored the derivational potential of the Ga adjective to determine the similarities and differences between Russian and Ga. Amfo et al. (2007) also did a study of adjectives and examined the Ga adjectives and the sources from which adjectives were derived but not the other way round. This is something this study looked at and Cobert's strategy served as a guide. Cobert (2006:205) notes in Russian, words whose sources had adjective roots included the following:

a) Derivation of nouns through suffixation which gives rise to abstract nouns in Russian example *staryj* 'old' *starost*'old age.'

b) Derivation of verbs. This employs several strategies for example *staret* 'grow old' from *staryj*'old'

c) Derivation of adjectives from adjectives: it is possible to derive adjective from adjective in Russian for instance *zelenovatyj* 'greenish' from *zelengj* 'green.'

d) Derivation of adverbs from adjectives is also possible through suffixation of /–o/ for instance *krasivo* 'beautifully' from *krasvjy'*beautiful' is similar to the short form neuter (Lopatin 1980b, cited in Corbert 2006)

When the adjective is in attributive position it occurs between any determiner and the noun generally. However if there is a complement it is postposed. A detail discussion was not given on this in Russian. The adjective is the sole element in an NP in Russian, the adjective especially the long form shows semantic agreement.

Cross-linguistically all the core semantic types of adjectives are expressed in Russian. It is interesting to note that in Russian the colour terms consist of a special hierarchy as Cobert cited Kay (1969:5), with the colour blue having two basic terms in Russian.Ga also has the colour green having two basic terms; *baaŋmɔŋ* and *eŋɔli* , though these two are hardly used nowadays. He noted also that possession may be denoted by derived adjectives and some intensifiers that have adjectival meaning. Likewise, Ga uses the word *brown* 'brown' often a borrowed item from English though there is the word *asrasu* for the colour brown. A critical study was also done on numerals and their agreement with the nouns in Ga. This is investigated in chapter six. Cobert (2006) also discussed other lexical items which have adjectival properties and found out those participles, adjectival nouns and some names have adjectival properties. Does this pertain in Ga? It needs to be investigated, especially the names.

In summary, Russian adjectives have two syntactic properties and three morphological properties. Though there are many adjectives in Russian, only a few exhibit the features of canonical adjectives. The adjective distribution has two focal points (predicate and second argument) those that are more verb-like and the more noun-like ones which appear only in attributive slots.

Hansen (undated) discussed Iquito adjectives by investigating the uncharacteristic characteristics, using the Dixon and Aikenvald (2004) adjective typology. The adjective class in Iquito is a separate class from other word classes like nouns and verbs. The morphosyntactic properties are very different from other word classes. The features that they exhibit are commonly found in the literature, with the exception of two features that were not common. Using data from elicitation sessions, text and interviews, the adjective

class was investigated. The adjective can precede or follow the noun when in attributive function which is interesting as the position is not fixed, however, two nouns form possessive construction. Adjectives in Iquito can also be used in comparative constructions and they also modify verbs, as he cited Schachter & Shopen (2007), and Dixon (2004:11) also emphasizes this issue. Adjective roots function as adverbs without any marking. Adjectives can be marked to show plurality (number), and /or animacy agreement, with the use of a portamanteau suffix. This distinguishes the adjectives and nouns in Iquito. An interesting investigation done by Hansen was dimunitivisation of nouns and especially adjectives with different inflectional markings. The paper gave a comprehensive investigation of adjectives and it would be interesting to also study the issues discussed. However, the unusual finding was the adjective classifiers which also exhibit orientational clitics. These clitics may occur with the adjective or noun, depending on the order or sequence in which they occur. All the morphological markings occur with adjective roots to form free adjectives. Another interesting issue discussed in the paper in detail is the derivational processes of adjectives that derive other word classes. Before concluding the paper it was mentioned that adjective roots could also be derived from other word classes and their morphosyntactic properties were outlined in detail. The paper failed to give a comprehensive discussion of the semantic types of adjectives in Iquito, The information on this in the paper was scanty but the current study tried to probe further than what was described in Hansen's paper.

Backhouse (1984, 2006) examined PCs in Japanese, while Genetti & Hildebrandt (2006) investigated PCs in Manange, a Tibeto Burma language spoken in Annapurna region of Himalayas in Nepal. In both studies, two groups of adjectives were found.

Backhouse divided these adjectives into two groups: i) inflected adjectives referred to as i-adjectives and ii) uninflected adjectives which also have sub-divisions as na-adjectives and no- adjectives, whereas Genetti & Hildebrandt refer to the PC words simply as adjectives. An interesting issue in the study was that the two groups of adjectives in Japanese have different inflections; whiles the i-adjectives are more like verbs, the na-adjectives and no-adjectives are more like nouns. Based on Dixon's seven semantic types of PCs which are encoded by adjectives in languages that do have them, the Japanese paper examined the seven types and found which of the two groups fill each type. Dixon's semantic classification was applied to the study and this, in my opinion, could be used to examine PCs also in Ga. From the study it was concluded that Japanese falls within the languages with a large open adjective class consisting of all or almost the seven semantic types of classification of adjectives, based on Dixon (1982). Backhouse further did a detailed study of the morphological properties of the types of Japanese adjectives; he studied the differences in affixation and copula verbs that appear with verbs and adjectives. Based on Backhouse's approach, the researcher also found it necessary to study the morphological properties of adjectival items in Ga. In studying the uninflected adjectives in Japanese, a comparison was made between nouns syntactically and the differences were clearly revealed. For instance, uninflected adjectives in Japanese do not occur as head of NP. In addition, the similarities were also studied. It will also be good to follow these steps of comparing adjectives with other lexical items in Ga in the following chapters. It was further stated that inflected adjectives are similar to verbs morphologically with some slight differences being exhibited among them. Does Ga have these inflected verbs which are adjectival like? Yes is the answer. An example is below.

4. Nùú !lɛ́ é - yè òmɔ́
man DEF PERF-eat rice
'The man has eaten rice.'

5. Nú !lɛ́ é -dɔ̀
water DEF PERF-hot
'The water is hot.'

From the example in (4) the verb *yè* 'eat' does not have adjectival meaning but the second example in (5) contains a verb with adjectival meaning *dɔ̀* 'to be hot.' All these have morphologically been inflected for the perfect. The current work will check whether all the inflections (affixes) for verbs could be taken by adjective-like verbs. The researcher could say that verb-like adjectives in Ga normally do not have complements. Syntactically, the Japanese inflected adjectives are similar to verbs but one main difference is that they do not appear with auxiliaries. Apart from these two types, Backhouse also noted semantic relations as well as semantic types of adjectives. To discuss property concepts or coding items without studying the semantic types makes the work incomplete and this would not be left out as the research covers property coding items. In summary, Japanese has adjectives that can be grouped into two and are quite different from other word classes such as nouns and verbs. Based on these divisions, languages that have adjective classes and also make use of verbs to code adjectival meaning could exhibit differences. This analysis was applied to Ga.

Genetti & Hildebrandt (2006) studies also explored a Tibeto- Burman language, Manange, to investigate lexical items that code property concepts in the language. They noted that two separate lexical classes code property concepts in Manange. The two lexical classes are simple adjectives and verb-like adjectives. They demonstrated very

well in their paper the differences that exist between these two lexical classes and other lexical classes like nouns. They discussed the morphological, syntactic and semantic properties of these two lexical classes that code adjectival meaning. In addition, they studied critically the phonological properties of these PCs which were investigated in the current work as well. Table 2.1 below shows the features exhibited by the word classes in Manange which summarize the differences among them.

TABLE 2.1 Comparison of properties of simple adjectives, nouns and verbs

PROPERTY	**SIMPLE ADJECTIVES**	**NOUNS**	**VERBS**
Phonotactic Constraint	None	Many	Many
Affixation	None	None	Some
Head of NP	No	Yes	No
Post Nominal in NP	Yes	-	No
Occur as copula complement	Yes	Yes	No
Morphological causation	No	No	Yes

(Genetti & Hildebrandt 2006: 88, Table 1)

TABLE 2.2: Comparison of verb-like adjectives, simple adjectives and verbs

PROPERTY	SIMPLE ADJECTIVES	VERB-LIKE ADJECTIVES	VERBS
Conform to phonotactic constraints	No	Yes	Yes
Morphological causatives	No	Yes	Yes
Take verbal inflections	No	Some	Yes
Intransitive predicate in perfective	No	Yes	Yes
Intransitive predicative in imperfective and irrealis	No	No	Yes
Post nominal in NP	Yes	Yes	No
Occur in complement structures	No	No	Yes
May occur as copula complement	Yes	Yes	
May occur with adverbial subordinating suffix	No	No	Yes

(From Genetti & Hildebrandt 2006:95, Table 3)

From the table 2.1, it is realized that simple adjectives in Manange cannot occur as heads of NP and have no morphological causation whereas verbs have some morphological causation. Further more, simple adjectives and nouns can occur as copula complements, but verbs cannot be copula complements. In table 2.2, some features of Manange simple adjectives are: they do not take verbal inflections, do not occur as intransitive predicate in perfective and do not occur with adverbial subordinating suffix, whereas verbs exhibit these features in Manange.

In Semelai, a Southern Aslian language, Kruspe (2006) concluded that adjectives which serve as PC items are a distinct class, based on their morphosyntactic properties. The Dimension and Colour semantic types of adjectives were found to be a subtype of the adjective class. He finally stated that adjectives could not be grouped as a major word class but a subclass of verbs, due to their characteristics that they share with the verbs in Semelai. Ga has adjectives as a major word class and there are some verbs or verbal equivalents for certain adjectives in Ga.

England (2004) examined a Mayan language, Mam, and found out that, like many other languages true adjectives function as attributive and predicative. This is in contrast with a Tibeto-Burman language, Quiang, in which adjectives function as intransitive predicates only (La Polla & Hang 2006). In Ga some of the the adjectives that serve as complements of the verbs in the predicate occur in the nominal forms, whereas verbs that denote PCs occur as head of the Verb Phrase. Positional adjectives in Mam can only be used predicatively. Though there exist in the Mam language a small number of adjective roots, there are a large number of derived adjectives which are found in all the thirteen semantic classes of adjectives proposed by Dixon (2004). Bobuafor (2013:103) also posits that ideophonic forms, derived adjectives, verbs and relative clauses containing PCs are used to express PCs in Tafi as only three deep level adjectives are found in the language.

2.4 Chapter Summary

From the review of literature, it is clear that PCs have phonological, morphological, syntactic and semantic properties which need to be studied. Phonologically the tone of PC items may be examined to find if they change when they agree with the head nouns in number and whether stress on a syllable has any effect on their meanings, where necesaary. Some morphological issues to be dealt with include agreement markers with nouns and gender/class markers. In terms of syntax, the position in which the PC item appears, and whether we can have multiple PCs and the order in which they occur are significant. The most appropriate framework to employ is the descriptive one in addition to Dixon's semantic classification of adjective types. The current research work adopted these methods.

CHAPTER THREE

USING ADJECTIVES TO CODE PROPERTY CONCEPTS IN GA

3.0 Introduction

PC words come from different syntactic categories in languages. The syntactic categories are mostly the major categories such as nouns, verbs, adjectives and adverbs. Palancar (2006) states that PCs are also known as 'adjectival' concepts because they are expressed by adjectives most often across languages. PCs are therefore mostly those lexical items in languages that denote adjectival meaning. Though adjectives are used to express PCs in languages, other word classes may also be used to denote adjectival meanings. Dixon (2004:2) states and empahasizes the PC concept when he wrote that 'a given concept may relate to different word classes in different languages' for instance the idea of 'needing to eat' is expressed

a) by the adjective *ŋamir* in Dyirbal

b) by the noun 'hunger' in English, and by the noun *faim* in French;

c) by the verb *esurio* in Latin and by the verb-*fimi*- in Jawara.

(Dixon 2004:2)

The adjective as a syntactic category is not easy to define. According to Trask (1993:7), an adjective is

> a lexical category, or a lexical item belonging to this category, found in many, though not all, languages, inflectionally and distributionally distinct from the categories Noun and Verb, with which it typically shares the characteristics of being an open class whose members have real semantic content.

This chapter examines one of the categories used to denote PCs in languages and discusses how they are used. The syntactic category to be examined is the adjective category. The morphological, syntactic, and semantic properties of Ga adjectives are examined. The phonological properties are also examined where necessary.

Studies (Ablorh 1982, Ablorh-Odjidja 1961, Bannerman 1948, Dakubu 2000, Kotey 1967) have revealed that Ga has adjectives and the membership is large. The adjective class is examined, as studies have shown that languages that have the adjective class use them more often to denote PCs than other syntactic categories. Christaller (1875:6) defines an adjective as a 'word added to a noun in order to mark or distinguish it more accurately'. Bannerman (1948:9) has said that 'words which restrict the meaning of names are called name restrictives *gbɛi-sutsɔɔlɔ* or adjectives'. Ablorh Odjidja (1961:12) has described adjectives as '*gbɛi kadilɔ aloo gbɛi shishitsɔlɔ'* that is 'noun modifiers or definers' He further studied the plural formation of these noun modifiers and concluded that it is realized through suffixation and reduplication. Dakubu (2002, 2003) made a brief study of the adjective when investigating the structure of the Ga nominal phrase. She found out that the adjective agrees in number with the head noun and more than one adjective may be used to modify the head noun and therefore the adjective is the only class that can be repetitive in the NP. Van Valin (2001:7) says 'adjectives typically express properties of entities' whereas adjectives are defined in relation to nouns (Givon 2001:31). According to Tallerman (1998:30-32) the mode of identifying a word class is by examining the forms the words assume morphologically, their position in the phrase or sentence (distribution) and their function in the phrase or sentence.

Dixon, in his earlier studies (1977, 1982) argued that the adjective category is not found in all languages but after further research, Dixon (2004: 12) claims that there is an adjective class in every language and even if it shares similarities with the noun and verb classes in the language, there are definitely some subtle differences to clearly distinguish adjectives from nouns and verbs. Dixon (2004:9-10) mentioned that the adjective class shows variation in terms of size, unlike nouns and verb classes. Noun and verb classes mostly have large membership and they are in the open class in languages. It is therefore highly possible to add or form new nouns and verbs more easily than words in the closed class like prepositions. Dixon also describes adjectives that are not derived as mainly monomorphemic adjectives. Monomorphemic adjectives simply mean that these adjectives cannot be segmented into two or more morphemes. The monomorphemic adjectives consist of only one morpheme generally. Polymorphemic adjectives are those that consist of more than one morpheme and mostly derived as they can be segmented. No matter the size of the adjective class in terms of its monomorphemic membership there are ways of adding to its membership most often through derivational processes. The number of monomorphemic adjectives may range from 2-3, or 10-20 but the membership size may increase as a result of the derivational processes from other syntactic categories such as nouns and verbs, as well as adjective stems in a particular language.

Dixon further grouped the adjectives into two classes. The two classes are non-derived adjectives or monomorphemic adjectives which he simply refers to as deep or basic adjectives and the other group termed as derived adjectives. One can therefore

conclude that adjectives can be put into two groups, the deep level group and the derived group. Based on these two groups proposed by Dixon, Ga adjectives will be examined.

Ga has deep level adjectives as well as derived adjectives. Derived adjectives are those adjectives that have their sources from either verbs or nouns or adverbs and possibly phrases.

3.1 Brief Function of Adjective

Dixon (2001:67) noted that a class of adjectives should include words from all or some of the semantic classes he proposed. Dimension, Value, Age, and Colour were the ones noted by him to have adjectives expressing them. He further reiterated that the adjectives from these semantic classes normally have functions, and according to Dixon (1982, 2004, 2006) the adjective class typically fills two roles (refer to page 6 &7 in chapter one)

3.2 Sources of Ga Adjective

This section discusses the sources of Ga adjectives. Though Ga has a lot of adjectives the membership is increased also through derivation. Adjective sources can be different word classes as noted by Dixon (2004). Osam (2003:172) identifies three sources of Akan adjectives. These three are:

i) Adjectives derived from verbs Example: *kyew* 'fry' *kyewe* 'fried'

ii) Adjectives derived from nouns. Example: *nsu* 'water' *nsuunsu* 'watery'

iii) Nouns used as adjectives. Example : *osikanyi* 'rich person'

In the same vein, Ameka (2003) also postulated three sources of adjective derivation in Ewe which are:

i) Adjectives from nominals. Example: *dodo* 'stomach' *ga* 'big', *dodoga* 'big stomached'

ii) Adjectives from verbals. Example: *nyo* 'be good' *nyui* 'good'

ii) Adjectives from clauses. Example *te* 'drag' *kpɔ* 'see', *-ma-tekpɔ* 'untried/ untested'

There is a similarity among Ga and Akan and Ewe languages, as far as the derivational processes are concerned. From i) –ii) in Akan, affixation and reduplication processes have been employed to derive the adjectives and these processes also pertain in Ga as will be discussed shortly in this chapter. Affixation and compounding processes have been employed in Ewe in i) –ii) above.The section discusses the sources of Ga adjectives based on the two groups identified by Dixon as mentioned earlier. The two groups are the deep level adjectives and the derived adjectives.

3.2.1 Deep Level Adjectives

The basic or deep level adjectives in Ga are clearly noted to be non-derived; they cannot be segmented into any meaning parts. Below are examples in (4) of non-derived or deep level adjectives in Ga.

Deep level adjectives

1)	i)	wùlù 'huge'	viii)	fɔ̀ŋ́ 'bad
	ii)	àgbò 'big'	ix)	bíbìóó ' small'
	iii)	hèè 'new'	x)	kpìtíóó 'short'
	iv)	kàkàdáŋ́ŋ́ 'long'	xi)	fɛ̀ɛ́fɛ̀ó 'beautiful'
	v)	lɛ́lɛ́óó 'narrow'	xii)	kèkètèè 'hard'

vi) lúkùtúú ‘round’ xiii) tɔ̀tɪ̀ɔ̀ɔ̀ ‘fat’

vii) sàsàràà ‘ muscular/tough’

Deep level adjectives can be of different types in Ga as realized from all the Ga adjectives I gathered/ encountered. The ones shown above in (1) do not look like reduplicants. They are one morpheme words and cannot be divided. However, there are some deep level adjectives that seem like they have been reduplicated in Ga. When such words are divided or segmented into two or more parts, none of the parts would be meaningful. These reduplicants are monomorphemic and therefore are deep level adjectives. I would use the term ‘deep level reduplicants’ to refer to such adjectives in this work. These seemingly reduplicant adjectives whose sources are not normally known were also said to occur in Nafaanra (Atintono&Adjei 2008:19) and in Tafi (Bobuafor 2013:104). Their sources of derivation are not really known. Below are examples in (2) of such ‘deep level reduplicant’ adjectives in Ga.

2) i) tsùkùtsùkù ‘crowded’

ii) ŋwàtàŋwátá ‘spotted’

iii) ŋmɛ́lɛ́ŋmɛ̀lɛ̀ ‘coarse’

iv) ŋmɔfúŋmɔfú ‘bloated’

v) mómó ‘old’

vi) fùlùfùlù ‘powdery’

vii) pùèmpùèm ‘undercooked’

viii) fɛ́tɛ́fɛ́tɛ́ ‘light’

ix) gblígblí ‘hard and crunchy’

x) blóbló ‘thin/lanky’

xi) tŕótŕó ‘smooth’

For instance if *blóbló* ‘thin and lanky’ or *tsùkùtùkù* ‘crowded’ are divided into two morphemes ‘*bló- bló’, tsuku-tsuku* none of the parts is meaningful in Ga. For the word *tsuku,* a meaning could be derived when the tone pattern changes, to be high on the first syllable and low on the second; a verb meaning ‘talk uproarisly’ would be derived. These are one morpheme words that seem like reduplicants but in actual fact they are not. Now examine the example in (3) below.

3) a. Mí - lé nùù blóbló.
1SG - know man thin and lanky
‘I know a thin and lanky man.’

It will be incorrect to say something like

b. *Mile nuu blo.

In the example in (3b) *blo* as one of the parts of the word *blóbló* does not have meaning. All the deep level reduplicants cannot be segmented into two morphemes. There, however, exists a word *mó* ‘well done’ in Ga. The adjective *mómó* ‘old, however can occur in compounds. Where the adjective *mómó* ‘old’ occurs in compounds it is realized as ‘mó’. This occurs in two words in Ga *nùúmó* ‘old man’ and *yòómó* ‘old lady’. When the compound form is examined critically it is realized that the first syllable of *mómó* is deleted with the tone left floating. This floating tone docks on the preceding syllable and makes it high which was originally a low tone. Though the syllable *mó* is deleted, its tone still has impact on the word. The examples in (4- 5) illustrate the use of the adjective *mómó* ‘old’. In (4) the word *mómó* ‘old’ serves as a modifier for the noun

màmà ‘ cloth’ and in (5) the word is found in the compound of *nùúmó* ‘old man’ which is in subject position and *yòómó* ‘old woman’ which is the complement of the verb.

4) Màmá **mómó** kò ká bíɛ́
cloth old certain lie.PST here
‘An old cloth is laying here.’

5) **Nùúmó** !lɛ́ ŋá **yòòmó** lɛ́.
old man DEF greet-PST old woman DEF
‘The old man greeted the old man.’

3.2.1.1 Morphological Properties

In most languages of the world, adjectives can inflect for agreement, number, gender, and class. For instance, in French, adjectives inflect for gender and number.Atintono & Adjei (2008:23) note that adjectives in Nafaanra show animate concord with the head noun. Example in Nafaanra

6). a. Tiŋe fiŋe
tree white
‘a white tree’

b. sanyuun fiun
bird white
‘a white bird’
(Atintono & Adjei 2008:23 eg 39&40)

However in Ga, adjectives inflect to show number agreement with the nouns they modify. The adjectives in Ga also take other affixes apart from plural affixes. This section will examine number agreement, nominalization and reduplication.

3.2.1.2 Number Agreement

Deep level adjectives show number agreement with the nouns they modify when used attributively. The number agreement is marked with the suffix -i (plural suffix) in Ga. In Akan also, adjectives show agreement with the nouns they modify with the use of the prefix /a-/ or /n-/ (Dolphyne 1988:86) . In Akan, with the prefix attached to the adjective, the plural adjective can be reduplicated. The plural suffix –i, as mentioned, manifests

itself in several forms, or simply put, has different realizations/ allomorphs. However, three of these allomorphs are found to be prominent. These are: *-i, -bii, and –ji*. Below are examples to illustrate in (7).

7)		**Singular**	**Plural**	**English Gloss**
	i)	wùlù	wùjì	'huge'
	ii)	sàsàràà	sàsàràì	'tough/muscular'
	iii)	àgbò	àgbòi	'big'
	iv)	fɔ̀ŋ́	fɔ̀jì	'bad'
	vi)	hèè	hèi	'new'
	vii)	kpìtíóó	kpìtíbíi	'short'
	viii)	pɛ́mpɛ́óó	pɛ́mpɛ́bíi	'medium sized'
	ix)	bíbìóó	bíbìi	'small'
	x)	túkúú	túkúbíi	'short'

The constructions below (8-11) show some of these adjectives used attributively to show number agreement.

Singular:

8) Kójò mà **tsù wùlù**.
Kojo build.PST house huge
'Kojo built a huge house.'

Plural:

9) Kojo mà-mɔ̀ **tsù-i wù-jì.**
Kojo build-ITR house-PL huge-PL
'Kojo built huge houses.'

Singular:

10) Ajele jwà **tɔ̀ hèè** kò.
Ajele break.PST bottle new certain
'Adjele broke a new bottle.'

Plural:

11) Adjele jwàrà **tɔ̀-ì** **hè-ì** kòmɛ̀-ì
Adjele break.PL bottle-PL new-PL certain-PL
'Adjele broke some new bottles.'

From the above examples (8) and (10) the nouns *tsu*ˋ 'house' and *t*ɔˋ 'bottle' are in singular forms and agree with the adjectives. The adjectives *wùlù* 'huge' and *hèè* 'new' are in singular form. The examples in (9) and (11) show number agreement between adjectives and nouns. When the nouns are plural the plural forms of the adjectives are used. From the examples (9) and (11) the verbs also agree with the noun complements. In brief, the adjectives and verbs both inflect for number to agree with the nouns. The object agreement with the verb in Ga is common.

Though some of the adjectives inflect for number through suffixation, some of the deep level adjectives in Ga show number agreement through reduplication which is similar to some some Dimension adjectives in Nafaanra (Atintono & Adjei 2008:23). Examples below in (12) illustrate

12)

	Singular	**Plural**	**English Gloss**
i)	tɔ̀tr̀ɔ̀ɔ̀	tɔ̀tr̀ɔ̀tɔ̀tr̀ɔ̀ɔ̀	'fat'
ii)	kèkètèè	kèkètékèkètéè	'hard'
iii)	wàmàà	wàmàwámàà	'large and broad'
iv)	bɛ̀dɛ̀	bɛ̀dɛ̀bɛ̀dɛ̀	'very soft'
v)	màtàà	màtàmàtàà	'slimy/dull'

Before the plural forms are arrived at in example (12) above, the final vowel/syllable in the adjective is deleted before the reduplication. In the plural which is reduplicated forms of the singular, the second reduplicants have the full forms of the words with no vowel deletion.

The constructions below (13 -16) elaborate further the use of some of the adjectives.

13) E-hìɛ́ tòí **wàmàà**.
3SG-hold ear large.
'He has a large ear.'

14) E -hìɛ́ tòí-ì **wàmà-wámàà**.
3SG-hold ear-PL large-RED
'He has large ears.'

15) Mi -nà yòò **tɔ̀tɹ̀ɔ̀ɔ̀.**
1SG-see woman fat
'I saw a fat woman.'

16) Mi - nà yè - ì **tɔ̀tɹ̀ɔ̀-tɔ̀tɹ̀ɔ̀ɔ̀**.
1SG –see woman-PL fat -RED
'I saw women.'

From the illustrations in (13) and (15) the singular forms of the adjectives *wàmàà* 'large' and *tɔ̀ɾ̀ɾ̀ɔ̀ɔ* 'fat' are used attributively to agree with the singular nouns *tòí* 'ear' and *yoo* 'woman'. When the nouns are in the plural forms in example (14) and (16) the adjectives *wàmàà* 'large' and *tɔ̀tɾ̀ɔ̀ɔ̀* 'fat' are reduplicated to be *wàmàwámáá* 'large' and *tɔ̀tɹ̀ɔ̀-tɔ̀tɹ̀ɔ̀ɔ̀* 'fat' to show number agreement.

The deep level adjectives may all not be suffixed with the bound plural morpheme to form their plurals or inflect for number agreement when used attributively. Some of them, especially the deep level reduplicant adjectives generally, remain in the same forms

whether they are used with singular nouns or plural nouns. Below are examples to illustrate in (17).

17)

	Singular	**Plural**
i)	ŋwàtàŋwátá ‘spotted’	ŋwàtàŋwátá ‘spotted’
ii)	ŋmèlèŋmèlè ‘ coarse’	ŋmèlèŋmèlè ‘coarse’
iii)	ŋmɔ́fúḿɔfú ‘bloated’	ŋmɔ̀fùmɔ̀fù ‘bloated’
iv)	fùlùfùlù ‘powdery’	fùlùfùlù ‘powdery’
v)	fɛ́tɛ́fɛ́tɛ́ ‘light’	fɛ́tɛ́fɛ́tɛ́ì ‘light’
vi)	bɛ́tɛ́bɛ́tɛ́ ‘loquacious’	bɛ́tɛ́bɛ́tɛ́ ‘loquacius’
vii)	mómó ‘old’	méméjì ‘old’
viii)	gblígblí ‘crunchy’	gblígblíi ‘crunchy’
ix)	tŕótŕó ‘smooth’	tŕótŕóì ‘smooth’
x)	blóbló ‘slender’	blóblóbíì ‘slender’

In 17 (i-vi) the forms are the same and in 17 (vii-x) the forms are not the same as they have been suffixed with the plural suffix -i. The adjective *mómó* ‘old’ has its stem changing as seen in the (18) demonstration in (19).

18) Àdékà **mómó** kó mà tsù lɛ́ mlì.
box old certain lie room DEF inside.
‘There is an old box in the room.’

Plural Form:

19) Àdékà-ì **mémé**-ji kòmɛ̀-ì mà-mɔ̀ tsù-ì lɛ́ amlì.
box-PL old-PL certain-PL lie-ITR house-PL DEF inside
‘There are some old boxes lying in the rooms.’

Singular Form

20) E -yà - hé lòò **fùlùfùlù** nyɛ̀ .
3SG-go -buy fish powdery yesterday
'She bought powdery/broken fish yesterday.'

Plural form:

21) E - yà -hé lò-ì **fùlùfùlù** nyɛ̀.
3SG-go buy fish-PL powdery yesterday
'She bought powdery fishes yesterday.'

From the above in (19) the adjectives *mómó* old is pluralized through the suffixation process whiles the other in (21) *fùlùfùlù* 'powdery' remains in the same form.

3.2.1.3 Nominalisation

The Ga deep level adjectives can be nominalised through affixation. This is done through the prefixation of the bound morpheme e-. This prefix has the variant of zero allomorph as realized on some of the adjectives. It must be noted that nominal forms of adjectives are normally used when the interlocutors are aware of what the nominal form refers to in their interaction.

An attempt is made to find out the condition under which the prefix occurs or not occur before the end of the work. Below are Ga examples from the deep level adjective group which show how they would appear in nominalized forms.

		Adjective	**Gloss**	**Nominal Form**	**Gloss**
22)	i)	wùlù	'huge'	éwùlù (lɛ)	'the huge one'
	ii)	kpèkpètèè	'hard'	kpèkpètèè (lɛ)	'the hard one'
	iii)	àgbò	'big'	àgbò (lɛ)	'the big one'
	iv)	bíbìóó	'small'	bíbìóó (lɛ)	'the small one''
	v)	hèè	'new'	éhèè (lɛ)	'the new one'
	vi)	kpìtíóó	'short'	kpìtíóó (lɛ)	'the short one'

vii)	kàkàdáŋ̀ŋ̀	'long'	kàkàdáŋ̀ŋ̀	'the long one '
viii)	wàmàà	'large'	wàmàà (lɛ)	'the large one'
ix)	lɛ́lɛ́óó	'narrow'	lɛ́lɛ́óó (lɛ)	'the narrow one'
x)	kèkètèè	'hard'	kèkètèè (lɛ)	'the hard one'
xi)	tɔ̀tɪ̀ɔ̀ɔ̀	'fat'	tɔ̀tɪ̀ɔ̀ɔ̀ (lɛ)	'the fat one'

Below are examples of such adjectives used in constructions for further illustration in (23-26).

23) Yòò **tɔ̀tɪ̀ɔ̀ɔ́** !lɛ́ é -gbò.
woman fat DEF PERF-die
'The fat woman is dead.'

24) **T**ɔ̀tɪ̀ɔ̀ɔ́ **!lɛ́** é -gbò.
fat DEF PERF-die
'The fat one is dead.'

25) Máŋ̀ò **kpákpá** lɛ́ é - tà.
mango good DEF PERF-finish
'The good mango is finished'

26) **É - kpákpá** lɛ́ fɛ̋ɛ́ é- tà.
NOM- good DEF all PERF-finish.
'The good ones are finished.'

In (27) this is a popular Christian saying:

27) **Ékpákpá** kɛ **mɔ̄bɔ̄nàlɛ̀** aányìɛ́ mì - sɛ̀è……
Goodness and mercy shall follow-me……

In illustrations (24) ad (26) the nominal forms of the adjectives tɔ̀tɪ̀ɔ̀ɔ̀ 'fat one' and *kpákpá* 'good' has been employed to serve as the head nouns in the constructions. In (26)

and (27) the nominal prefix is marked overtly on the adjective *kpákpá* 'good' but not on the adjective *tɔ̀tɾ̀ɔ̀ɔ̀* 'fat' with zero allomorph in (27).

From the above (26) and (27) it can be concluded that when the adjective is prefixed with the nominaliser e-, the outcome results in nouns as they can serve as subjects in the construction, can occur with determiners. However, not all the adjectives are overtly prefixed as in (24) for instance. It can be concluded that the prefix has an allomorph which is the zero allomorph. Why some of the adjectives do not occur overtly with the nominaliser prefix have not been studied. This work will make an attempt to investigate this prefix in the next chapter.

The adjectives referred to as 'deep level reduplicants' remain in the same forms when they are nominalised with the exception of a few like *mómó* 'old'. These can be seen below in (28). It will not be acceptable (whether in written or spoken form) to add the nominaliser prefix to these deep level reduplicants.

28)

	Adjective	**Nominal Form**
i)	mómó 'old'	émómó ' the old one'
ii)	ŋwàtàŋwátá 'spotted'-	ŋwàtàŋwátá 'the spotted one'
iii)	ŋmèlèŋmèlè ' coarse' -	ŋmèlèŋmèlè lɛ́ 'the coarse one.
iv)	blóbló 'lanky' -	blóbló lɛ́ 'the lanky one'
v)	fùlùfùlù 'powdery' -	fùlùfùlù lɛ́ 'the powdery one'
vi)	fɛ̀tɛ́fɛ̀tɛ́ 'light' -	fɛ̀tɛ́fɛ̀tɛ́ lɛ́ 'the light one'

3.2.1.4 Reduplication of Deep Level Adjectives

Adjectives can be reduplicated in Ga with the exception of the adjectives derived from nouns. The reduplication normally shows intensity, emphasis and plurality. Reduplicated adjectives semantically agree with the nouns they modify in number.

In examining the morphological properties of this group, those that could be prefixed with the *e-* when in reduplicated form, can occur with the prefix when nominalised. For instance in 29 (i) the adjective *wùlù* 'huge' in the nominal form will be *ewùlù* 'the huge one'. Those adjectives that take the zero morpheme when nominalised maintain that position when they are reduplicated. The process is discussed as follows. For the adjective to be reduplicated, for instance, *wùlù 'big'* is made plural to be *wuj̀ì* 'big. Pl' then, the plural form is reduplicated to be *wùjìwùjì*. The noun form of the adjective *wùlù* take the prefix e- and then becomes *ewùlù* 'the big one' which can then be reduplicated after it has been made plural to result in *ewùjìewùjì*. It is ungrammatical to reduplicate the singular form of the adjective, it must always be the plural form of the nominal.

29)	**Adjective**	**Reduplicated Form**	**Nominal Form(PL)**
i)	wùlù 'huge'	wùjìwùjì 'very huge'	ewùjìewùjì 'the very huge ones'
ii)	bíbìóó 'small'	bibiibibii 'very small'	bíbíìbíbíì 'the small ones
iii)	kpìtíóó 'short	kpìtíbííkpítíbíì 'very short'	kpìtíbííkpìtíbíì 'the very short ones'
v)	gbíŋ 'dry'	gbíjìgbíjì 'very dry'	egbíjìegbíjì 'the very dry ones'

In (29) the adjectives occur, then the reduplication of the adjectives follow, this is then followed by the reduplicated nominalised adjectives which are plural. (30a-b) show some constructions where the reduplicants have been employed.

30. a) Tsè-ì **bí –bîì -bíbîì** pìì yɛ̀ kòò lɛ́ mlì.
tree-PL small-PL-RED plenty is forest DEF inside
'There are many small trees in the forest'.

b) **Bí -bîì-bíbîì** pìì yɛ̀ kòò lɛ́ mlì.
small-PL-RED plenty is forest DEF inside
'There are many small ones in the forest'.

3.2.1.5 Syntactic Properties of Deep level adjectives

This section examines the syntactic properties of deep level adjectives. This is examined to find out if the deep level adjectives can function as attributes /modifiers and as intransitive predicate or as copula complements; two common roles of adjectives. It is possible for adjectives to play both or only one of these PC roles. The occurance of the adjective in comparison construction will be examined briefly.

In examining the syntactic properties of the deep level adjective, let us look at the examples in (31 -33) below.

31) Àwàlé **àgbó** !lɛ́ é –kùmɔ̀.
spoon big DEF PERF-break
'The big spoon is broken.'

32) Mì-yɛ̀ àdékà **pɛ́mpɛ́óó** kò.
1SG-have box little certain
'I have a small box.'

33) Nùù **gòjòó** !lɛ́ é -tèè shía.
man tall/huge DEF PERF- go house
'The tall man has gone home.'

From the above examples (31-33) the deep level adjectives *àgbò* 'big', *pɛ̀mpɛ̀òò* 'small' and *gòjòò* ' huge/tall have all been used attributively. The Ga adjectives occur after the nouns when they are used attributively, which is similar to Dangme(Ceasar p.c) but unlike English. This emphasizes the role of the adjective as a modifier.

When the noun is plural the deep level adjective is also inflected to show number agreement. The number marking could be done morphologically or through reduplication. Below are examples showing adjectives agreeing with plural nouns (34-36).

34) Àwàlé-ì **àgbó-ì** lɛ́ é - kù.
spoon-PL big -PL DEF PERF-break
'The big spoons are broken.'

35) Mì-yɛ̀ **àdékà**-ì **pɛ́mpɛ́ -bii** kòmɛ̀-ì.
1SG-have box-PL little -PL certain-PL
'I have small boxes.'

36) **Hìì gójó-gòjòó** ! lɛ́ é -tèè shíà.
men huge-RED DEF PERF-went house
The tall men have gone home.

It is seen above (34-36) that when the nouns are plural the modifiers which are the adjectives agree in number with the modified nouns. The adjectives are pluralised by attaching the plural suffix */–i/ and /–bii/* as in examples (34-35) and reduplicating the adjective *gòjòò* 'huge' in example (36).

As mentioned earlier, there are also deep level adjectives that seem like reduplicants. These also serve as attributes for nouns. Instances are below in (37-39).

37) Sɛ̀í **mómó** kò mà bíɛ́
chair old certain put here
'There is an old chair here.'

38) A`tàdé **ŋwàtàŋwátá** lɛ́ é -tà
dress spotted DEF PERF-finish
'The spotted is finished.'

39) E -tsí **bàǹkú** bɛtɛ̀bɛtɛ̀
3SG-cook banku soft
'She prepared the banku too soft.'

These also follow the noun they modify.

When the head nouns are plural some of these deep level reduplicant adjectives are not marked for number agreement. That is to say there is inflectional marking on the noun, but not on the adjective with the exception of *mómó*. Examples are below to illustrate (40 -42).

40) Sɛ̀í -ì **mémé-jì** kòmɛ̀ -í mà bíɛ́.
chair-PL old -PL certain-PL put here
'There are old chairs here.'

41) A`tàdé-ì **ŋwàtàŋwátá-ì** lɛ́ é -tà
dress-PL spotted-PL DEF PERF-finish
'The spotted is finished.'

42) E -tsí bàǹkú **bɛ̀tɛ̀bɛ̀tɛ̀**
3SG-cook banku soft
'She prepared the banku too soft.'

From the above example *mómó* 'old' in (37) has been inflected to agree with the noun *sɛ̀íì* 'chairs' by adding the plural suffix *-ji* to become *mémɛ́jì* in (40) which is an exception. The example in (42) has not been marked for plural morphologically. The reason is that the noun *bàn`kú* is uncountable and generally remain in the same form in both plural and singular. The adjective *bɛ̀tɛ̀bɛ̀tɛ̀* 'very soft' does not change form when modifying a singular or plural noun. When these adjectives are used predicatively some remain in the same forms and others are prefixed with the e-nominaliser. For instance, if

the adjective *àgbò* 'big' in example (31) is used predicatively it will be with no prefix as seen in (43) and when *mómó* 'old' is used predicatively it occurs with the prefix e- as seen in (44).

43) Nùú !lɛ́ yɛ̀ **àgbò.**
man DEF be big
'The man is big'

44) Shíá lɛ́ é -fèé **é -mómó.**
house DEF PERF –do NOM-old
'The house has become old'

3.2.1.6 Expressing the Comparative

Adjective elements in languages like English can be inflected to indicate comparative or the superlative. In Ewe for instance the suffix /*-tɔ/* KIND/TYPE is attached to the adjective and can be interpreted as the comparative (Ameka 2003), just like English using the bound morpheme *–er* to express comparative. When a word serves as a PC it is highly likely to be found in comparative structure and also superlative constructions.

In Ga, the adjective is not inflected for comparison. The comparative is expressed through periphrastic means. The comparative employs the use of the nominal form of the adjective or the verb form if the adjective has its equivalence in a construction. This is exemplified below (45-48).

45) Sɛ̀í nɛ́-ɛ yɛ̀ **é -mómó** fè énɛ́
chair DET-DEF be NOM-old exceed one
'This chair is older that one'

46) Wòlò nɛ́ -ɛ́ yɛ̀ **àgbò** fè énɛ́.
book DET -DEF be big surpass that
'This book is bigger than that one.'

47) Yòó !lέ yὲ **légélégé** fὲ nùú !lέ.
woman DEF be slim surpass man DEF
'The woman is slimmer than the man.'

48) Wòlò díŋ̀ lέ yὲ **fɛ́tɛ́fɛ́tɛ́** fὲ wòlò tsùrú lέ.
book black DEF be light surpass book red. DEF
'The black book is lighter than the red book.'

From the above examples (45-48) the forms of deep level adjectives occur in comparative constructions with no change in form. However, unlike English, there is no bound morpheme to indicate the comparative. Ga expresses the comparative with the use of *fὲ* 'surpass/exceed'. In example (47-48), reduplicants adjectives occur in comparative structure with the use of the *fὲ* 'surpass'. The example (49) below, is unacceptable and example (50) is acceptable to the native speaker.

* 49) Yei lɛ yɛ kpitibiikpitibii fe hii lɛ

50) Yèí !lέ yɛ kpìtí-bíì fὲ hìí lέ.
women DEF be short-PL surpass men DEF
'The women are shorter than the men.'

3.2.1.7 Superlative

The superlative is expressed in Ga, through the use of the morphemes *fὲ* 'surpass' and *fɛ́ɛ́* 'all' occurring in the construction. The examples below in (51-53) illustrate these.

51) Yòó ! lέ yὲ **bíbìóó** fὲ (amɛ) fɛ́ɛ́
woman DEF be small surpass (3PL) all
'The woman is the smallest of (them) all.'

52) Yòó ! lέ é -fèé **blóbló** fὲ ényὲmíméi lέ fɛ́ɛ́.
woman DEF PERF-become lanky surpass sibilings DEF all
'The woman is the most lanky among her siblings.'

53) Nyɛ kɔmí lɛ́ yɛ̀ **fùlùfùlù** fè fɛ́ɛ́.
yesterday kenkey DEF be powdery surpass all.
'Yesterday's kenkey is the most crumbly of all.'

The adjectives in the examples (51-53) remain in the same forms when they are used to express the superlative in Ga. They have not been prefixed with e- . The fact is that they do not take the prefix in nominalized forms. When it is an adjective that can take the nominaliser prefix like *mómó* 'old' to become *emómó* 'the old one', then the nominalized one would be employed in the superlative construction.

The adjectives derived from verbs hardly occur in a superlative construction. The noun forms can occur in the superlative. However, it is more common to use the verb forms. It can therefore be concluded that only noun forms or verbal equivalents of the adjectives can occur in sentences expressing comparison, in addition to the morpheme *fè* 'surpass/exceed for comparative and *fè* and *fɛ́ɛ́* for the superlative.

3.2.1.8 Semantic Types

In examining the semantic classifications proposed by Dixon (2004, 2006), Ga deep level adjectives can be found in the following groups

Dimension Adjectives

This type of adjectives describes the size and shape of nouns. Examples of these found in Ga are:

54) wùlù 'huge' bíbìóó 'small'

lɛ́lɛ́óó 'narrow' àgbò 'big'

kúkù 'short' kàkàdáŋ́ŋ́ 'long'

légélégé 'thin/slim' blóbló 'slim'

Most of the dimension adjectives in (54) are from the deep level adjective group. The notion of animacy is sometimes applied in the use of these Dimension adjectives. For instance, *kàkàdáŋ́ŋ́* 'long' is for inanimate things and *àgbò* 'big' for both animate and inanimate. They generally do not take the nominaliser prefix and are mostly polysyllabic.

Value Adjectives

This type of adjectives is mostly used to show how good or bad an entity is. Examples are illustrated below in (55).

55) fólò 'empty' fáléfálé 'neat' tsŕólóó 'watery'

fɛ̀ɛ́fɛ̀ó 'beautiful' kpákpá 'good' kpɔ́tɔ́kpɔ́tɔ́ 'dirty'

fɔ̀ŋ́ 'bad' táŋ́ 'ugly' kpɔ̀tɔ̀ɔ̀ 'nasty'

The Value adjectives in (55) above normally do not show animate distinctions and can generally be attached with the nominaliser prefix.

Age Adjectives

This type of adjective indicated whether the noun has the feature of either oldness or newness. Below are examples in (56).

56) hèè 'new' mómó 'old' tsɔ́bɔ́tsɔ́bɔ́ 'frail'

The first two deep level adjectives found in (56) can be nominalized and do not show any animate distinctions when employed in constructions. They can be marked overtly with the plural suffix /–i/ to agree with the head noun when the head noun is plural. The last example in (56) above in the column exhibits the opposite of the first two that is the it is attached with the e-prefix when it is used in nominal form.

Physical Property Adjectives

Nouns that are described with physical property adjectives usually indicate their roundness, softness or hardness. Examples are in (57) below.

57) i) lúkútúú 'round' iv) bɔ̀dɔ̀ɔ̀'soft'

ii) tɾ́ótɾ́ó 'smooth' v) fɛ́tɛ́fɛ́tɛ́ 'thin'

iii) kóklóó 'round' vi) kèkètèè 'hard'

These Physical Property adjectives normally remain the same in the nominal forms when they serve as complements.

Colour Adjectives

The colour adjectives from the deep level class are normally borrowed ones, as illustrated in (58). This was revealed when the toy task was employed to seek how the different colours are said in Ga. Apart from red, black and white for which the Ga equivalents were mentioned, the participants of the toy task used English terms for the rest of the colours.

58) i) tsùrù 'red' iii) 'díŋ̀ 'black'

ii) yɛ́ŋ 'white'

iv) bluu 'blue' vii) grin 'green

vi)oringi 'orange' viii) violeti 'violet

For some of these borrowed words, there are indigenous equivalents, but they are hardly used. For instance, the Ga word for the colour blue is *akase* but it is not often used by speakers. A pensioner who was asked to describe a violet cup for me, did not use the English term 'violet' but used the Ga term *afaseo* 'violet' in his description.

3.3 Derived Adjectives in Ga

Apart from the deep level adjectives in Ga, adjectives can also be derived from other word classes. The ways of derivation vary but the most common one is done through affixation. The different word classes that are used to derive the adjectives are mostly the major categories. The major word class categories are nouns, verbs and adverbs.

3.3.1 Adjectives Derived from Nouns

Nouns in Ga could be grouped into four major types. These are proper nouns, common nouns, abstract nouns and collective nouns. Nouns in Ga are marked morphologically for plural and are mostly found in subject position and they also serve as complements of verbs in sentence structures. Ga has no noun class system and does not show any animate agreement between the nouns and their modifiers. Below are examples in (59) of adjectives derived from nouns.

59)	**Noun**	**Process**	**Adjective**
i)	nù ‘water’	nu –i nu- i	nùìnùì ‘watery’
ii)	kpàà ‘rope’	kpaa+i kpaa+i	kpàìkpàì ‘stringy’
iii)	tɛ́ ‘stone’	tɛ + i tɛ +i	tɛ́ítɛ́í ‘stony’
iv)	kpɔ ‘lump;	kpɔ+i +kpɔ+i	kpɔ́ìkpɔ́ì ‘lumpy’
v)	tsò ‘stick’	tso+i + tso+i	tsèìtsèì ‘stringy’
vi)	ŋmèì ‘thorn’	ŋmei +ŋmei	ŋmèìŋmèì ‘thorny’
vii)	ŋòò’ salt’	ŋoo +ŋoo	ŋòòŋòò ‘salty’
viii)	shíá ‘sand‘	shia + shia	shíáshíá ‘sandy’
ix)	kòtsá ‘sponge’	kotsa +kotsa	kòtsákòtsá ‘spongy’

x) ŋmɔ̀tɔ̀ ‘mud’ ŋmɔtɔ +ŋmɔtɔ ŋmɔ̀tɔ̀ŋmɔ̀tɔ̀ ‘muddy’

It must be noted that in forming the plural for some nouns there is a vowel change from o to e in the word especially when the word contains *tsò*. The plural suffix –i is then added to arrive at the plural as in (59v).

Below are constructions (60- 62) that contain some of the adjectives derived from nouns.

60) E - hòó wónù **nùìnùì.**
3SG-cook soup watery
‘She prepared watery soup.’

61) Aku shí fùfùí **kpƆkpƆí**.
Aku pound fufu lumpy
‘Aku pounded lumpy fufu.’

62) Ɔmɛ́nɛ́ mi-yà-hé òmƆ **ŋòòŋòò** kò.
today ISG-go-buy rice salty certain
‘Today I bought some salty rice.’

The adjectives derived through nouns undergo a process of reduplication. This was noted by Dakubu (2002 :44) when she was discussing reduplication. She further iterates that the tonal pattern does not change. In 59(i-vi), the nouns are first pluralized by suffixing the nouns with the plural affix -i. The plural forms of the nouns are then reduplicated to derive the adjectives. The process can be summarized and said to be (Noun + plural suffix) + noun plural→Adjective and it is similar to Akan reduplication process (Osam,1999, 2003).

The nouns in 59(vii –x) are not marked overtly to indicate number agreement but are reduplicated to simply derive the adjectives. In (60-62) the adjectives derived from the nouns are the bolded words.

This process of forming adjectives from nouns in Ga is dissimilar to Ewe but similar to Akan (Amfo et al 2007). Ewe uses the process of adding a noun plus an adjective to form a compound in its derivation process of adjectives. Adjectives can be formed in Ewe by reduplication of verbs and not reduplication of nouns.

The formation of plural nouns in Ga is mostly through suffixation. The plural marker has allomorphs. Examples in (63) below are nouns and their plural forms.

63)

	Singular	**Plural**
i)	wòlò 'book'	wòjì ' books'
ii)	sɛ̀í 'chair'	sɛ̀íì 'chairs
iii)	tsù 'house'	tsùì 'houses
iv)	tsò 'tree'	tsèì 'trees'
v)	shínàà 'door'	shínàì 'doors
vi)	àshìnáó 'bead'	àshìnáóbíì'
vii)	wàó 'finger'	wàóbíì 'fingers'
vii)	gbɔ̀mɔ̀ 'person	gbɔ̀mɛ̀ì 'persons'

From the noun plural forms in (63) above, the plural suffixes are /*–i, -ji. –bii/*. Several reasons have been given by Ga scholar (Ablorh-Odjidja 1961:12-20) on the conditioning of the noun plural suffix, but there have always been exceptions to this claim. I agree to a large extent with his claims but will examine that again further in chapter six, which discusses nouns that denote PCs.

The adjectives derived from nouns have the same forms when used attributively with either singular or plural nouns.

64) **Singular** **Plural**

i) nùìnùì ‘watery’ nùìnùì ‘watery

ii) shíáshíá ‘sandy’ shíáshíá ‘sandy’

iii) tɛ́ítɛ́í ‘rocky’ tɛ́ítɛ́í ‘rocky’

iv) ŋmèìŋmèì ‘thorny’ ŋmèìŋmèì ‘thorny’

v) kpɔ́íkpɔ́í ‘lumpy’ kpɔ́íkpɔ́í ‘lumpy’

vi) tsèìtsèì ‘stringy’ tsèìtsèì ‘spongy’

vii) ŋòòŋòò ‘salty’ ŋòòŋòò ‘salty’

Below are some examples in constructions.

Singular:

65) Wɔ̀-tsɔ́ shìkpɔ́ŋ **tɛ́í-tɛ́í** lɛ́ nɔ̀.
1PL-pass land rock-RED DEF on
‘We passed on a rocky land.’

Plural:

66) Wɔ̀ -tsɔ́ shìkpɔ́-jì **tɛ́í-tɛ́í** lɛ́ à-nɔ̀.
1PL-pass land -PL rock-RED DEF PRF-on
‘We passed on rocky lands.’

Singular:

67) Mɛ́è síklìtɛ́ **ŋòòŋòò** né?
what toffee salty-RED this?
‘What salty toffee is this?’

Plural:

68) Mɛ́è síklìtɛ́ -ì **ŋòòŋòò** né?
what toffee-PL salty-RED this?
‘What salty toffees are these?’

In illustration (65) the head noun *shikpɔ́ŋ* ‘ground/floor’ is singular and the adjective *tɛ́ítɛ́í* ‘rocky’ occur in its original form and when the noun is plural *shìkpɔ́ji* ‘grounds’ in

(66) the adjective *tɛ́ítɛ́í* 'rocky' remains in the same form as no affix is attached to it like the noun to indicate number agreement.

3.3.2 Nominalisation of Adjectives Derived from Nouns

The adjectives whose sources are nouns remain in the same forms in the nouns/nominal forms. Their distributional and inflectional properties(affixes they take) in a sentence give us the clue that they are nouns. The nominalised forms can serve as the head of the NP, can occur as subjects and can occur with the modifiers like determiners and definite article that are found in the Nominal Phrase (NP). It can be concluded that the nominaliser morpheme realized on such adjectives is a zero morph. Below are the examples in (69) and the processes involved.

69)	**Adjective**	**Noun form**
i)	nùìnùì 'watery'	nùìnùì 'the watery one'
ii)	shíáshíá 'sandy'	shíáshíá the sandy one'
iii)	tɛ́ítɛ́í 'rocky'	tɛ́ítɛ́í 'the rocky one'
i)	ŋmèìŋmèì 'thorny'	ŋmèìŋmèì 'the thorny one'
ii)	kpɔ́ìkpɔ́ì 'lumpy'	kpɔ́ìkpɔ́ì 'the lumpy one'
iii)	tsèìtsèì 'stringy'	tsèìtsèì 'the spongy one'
iv)	ŋòòŋòò 'salty'	ŋòòŋòò 'the salty one

Below are examples in constructions in (70).

70) a. È-shwɛ̀ kókó **nùìnùì** lɛ́ pɛ́.
3SG-left porridge watery DEF only
'It is left with the watery porridge only.'

The nominal use is illustrated in (70b)

b. Hɛ̀ɛ́, e-shwɛ̀ **nùìnùì** lɛ́ pɛ́.
really 3SG-left watery DEF only
'Really it is left with the only watery one.'

A scenario can also be assumed where the sentence below in (71) can be uttered. Two friends went out to buy popcorn. One friend asked the other, which kind of popcorn she should get for the other - the salty popcorn or the sugar one? The friend answered and said the sentence in (71).

71) **Ɗòò-ŋòò** lɛ́ ŋɔ̀ɔ́.
salty-RED DEF be sweet
'The salty one is sweet.'

In (71) the answer implies that the friend prefers the salty one. He said *ŋòòŋòò* without mentioning the noun popcorn. It is generally common to employ the nominal form of adjectives when the interlocuters are aware of the topic under discussion, and Ga speakers also do that in conversation.

These adjectives can be reduplicated sometimes to show intensity and emphasis. Below is a reduplicated adjective derived from noun in construction (72).

72) Dùàdé **tsèìtsèì-tsèìtsèì** nɛ́
cassava spongy-RED PART
'This is really spongy cassava.'

3.3.3 Syntactic properties of Adjectives Derived from Nouns

Examine the constructions below.

73) Kókó **kpɔ́ìkpɔ́ì** lɛ́ é - tà
porridge lumpy DEF PERF-finish
'The lumpy porridge is finished.

74) Àtómò **tsèìtsèì** yɛ̀ tsɛ́ǹsí lɛ́ mlì.
potatoes stringy be saucepan DEF inside
'There are some stringy potatoes in the saucepan.'

75) E-hòó wònú **nùìnùì**.
3SG –cook-PST soup watery
'She cooked some watery soup.'

From the above sentences (73-75) the adjectives derived from nouns serve as attributes like the other adjectives discussed already. However, they occur in the same forms when used attributively with both singular and plural nouns. They seem also to occur with uncountable nouns in most cases.

The adjectives that have their sources from nouns occur predicatively in the same forms as complements of verbs. Examples below illustrate the use of this type of adjectives (76-77).

76) Kókó lɛ́ yɛ̀ **kpɔ́íkpɔ́í.**
porridge DEF posses lumpy
'The porridge has a lot of lumps.

77) Òm**ɔ** lɛ́ yɛ̀ **shíáshíá**.
rice DEF possess sandy
'The rice has some sand in it.'

In the illustrations in (76) and (77) above the adjectives *kpɔ́ǐ́kpɔ́ǐ* 'lumpy' and *shíáshíá* 'sandy' used predicatively have not been modified in any form. These adjective can also occur in verbless sentences[i] in Ga as demonstrated in (78-79) below.

78) Dùàdé **tsèìtsèì** nì
cassava spongy PART
'This is spongy cassava.'

79) **Tsèì-tsèì** sɔŋ́ŋ́ né
tree-RED plenty PARTŋ́
'These are spongy ones.'

In (78) and (79) the sentences are made up of NP and particles; the adjective in (78) (bold) serves as modifier for the head noun and in (79) the adjective serves as the head noun and subject of the sentence.

These adjectives derived from nouns can appear in comparative constructions in the same forms with the use of *fè* in the comparative as shown below and to express the superlative with *fè* and *fɛ́ɛ́*. The adjectives are in bold.

80) Wónú !lɛ́ yɛ̀ **ŋòò-ŋòò** fè wónù fɛ́ɛ́ ní mì -yé.
soup DEF be salt-RED surpass soup all REL 1SG-ate
'This soup is the most salty of all soup that I have eaten.'

81) Bàǹkú nɛ́ɛ́ yɛ̀ **kpɔ́íkpɔ́í** fè nyɛ̀ bàǹkú lɛ
banku this be lumpy surpass yesterday banku DEF.
'This banku has more lumps than yesterday's banku.'

82) Bàǹkú nɛ́ lɛ́ **é-fi kpɔ́** fè nyɛ̀ bàǹkú lɛ.
banku DET DEF PERF-tie knot surpass yesterday banku DEF
'This banku has more lumps in it than yesterday's banku.'

In (80), the form of adjectives derived from nouns were accepted by a native-speaker I interviewed, but after interviewing other elderly women, I realized that there are instances where the nouns from which the adjectives are derived are what occur in the comparison constructions as in (82) that is a verb with that noun as it complement is what was used '*-fi kpɔ́'* where *kpɔ́* 'knot' is the noun from which the adjective in (81) is derived.

3.3.4 Semantic Types

In examining the semantic class where most of these adjectives derived from nouns could fall in Ga, Value was identified for some while most of them express Physical property. See examples in (83).

83) mújìmújì ‘dirty’ (Value)

Physical property:

84)

i) nùìnùì ‘watery’

ii) shíáshíá ‘sandy’

iii) ŋmèìŋmèì ‘thorny’

iv) kpɔ́ìkpɔ́ì ‘lumpy’

v) tɛ́ìtɛ́ì ‘rocky’

vi) kótsákótsá ‘spongy’

3.4 Adjectives Derived from Verbs

Another class of derived adjectives to be examined is those from verbs. This derivation process is normally through affixation. Amfo et al (2007) noted that Ga derives adjectives from verbs using the suffix *–ŋ* and sometimes *–ru.* However, upon further investigation and data gathered, it was revealed that the suffix *–i* and *–ra* could be used in addition to the suffixes Amfo et al (2007) mentioned. Reduplication of some verbs is also a process used to derive adjectives in Ga as also noted by Dakubu (2002) and Otoo (2005). Since the affixes used are more than one, each suffix is chosen based on the verb in question. Below are examples (85) of adjectives derived from the verbs through suffixation.

85)

	Verb	**Affix**	**Adjective**
i)	gbí ‘to dry’	-ŋ	gbíŋ ‘dry’
ii)	dí ‘to blacken’	-ŋ	díŋ ‘black’
iii)	yɛ́ ‘to whiten’	-ŋ	yɛ́ŋ ‘white’

iv) shà ‘to rot’ -ra shàrà ‘rotten’

v) tsù ‘to redden’ -ru tsùrù. ‘red’

vi) lɛ̀ɛ́ ‘to widen’ kɛtɛɛ lɛ̀kɛ̀tɛ̀ɛ̀ ‘wide’

vii) kpɔ̀tɔ́ ‘to rot’ -i kpɔ̀tɔ̀í ‘rotten’

viii) kpɔ`fu` ‘to maltreat’ -u kpɔ̀fùù ‘bloated’

The process of deriving adjectives from verbs involves the suffixation of bound morphemes to the root verbs. The suffixation of the verbs in order to derive the adjectives in Ga has not been studied to know the conditions under which a particular suffix is chosen. It can be seen from the above examples that verbs that end in front vowels take the suffix *–ŋ* generally, and those verbs that have final high back vowels take the suffix *-ru*. However, it must be noted that for the verb *lɛ̀ɛ́* ‘to be wide’ it has a special affix *kɛtɛɛ*’ which is peculiar to only this verb in deriving an adjective. The allomorph is therefore lexically conditioned. The back open-mid rounded vowel /ɔ/ takes the *_i* suffix and the low vowel takes the *-ra* suffix. To sum up briefly the process used in deriving adjectives from verbs is Verb + suffix → Adjective. All the above verbs (85i-v) are monosyllabic (one syllable word)) and 85 (vi-viii) are disyllabic words.

Reduplication is another process used to derive adjectives from some verbs in Ga. Such verbs cannot be suffixed only to derive adjectives. That is to say a verb can go through the two processes to arrive at an adjective category. The process may be one of the two processes or both processes. This process is similar to one of the Ewe processes in deriving adjectives from verbs as mentioned by Osam (2003:174). These verbs are not

necessarily intransitive, there are transitive ones as well. Instances of these Ga adjectives are given below in (86).

86)	**Verb**	**Adjective**	
i)	nyáŋè ‘to be disgusting’	nyáŋèmɔnyáŋèmɔ	‘disgusting’
ii)	kwɔ ‘to be deep’	kwɔ̀ŋkwɔ̀ŋ	‘deep’
iii)	bódà ‘to bend’	bódàìbódàì	‘crooked/mangled’
iv)	gbá ‘to tear’	gbálàìgbálàì	‘torn’
v)	tse ‘to tear ‘	tsèrɛ̀itsèrɛ́ì	‘tattered’ tsɛ́rìtsɛ́rɛ́ì
vi)	kplɔ̀ ‘to scrape’	kplɔ̀ìkplɔ̀ì	‘untidy’
vii)	sòrò ‘to differ’	sòròsòrò	‘different’
viii)	nyáfí ‘to despise’	nyáfínyáfí	‘fretful’
ix)	fítsírí ‘to pry into’	fítsírífítsírí	‘inquisitive’
x)	kótó ‘to bend over	kótókótó	‘old and bent’
xi)	kpɔ́tɔ́ ‘to pollute’	kpɔ́tɔ́kpɔ̀tɔ̀	‘dirty’

From (86) above, the process for the derivation of the adjectives from the verbs involves the reduplication of the verbs. The reduplication processes used to derive these adjectives differ. It is mainly of two forms. First there are those verbs that are suffixed before they are reduplicated to derive the adjectives. Those that are suffixed do not use the same suffix though. In example (86i) for instance the verb *nyágè* ‘ to disgust’ is first nominalised with the suffix *-mɔ* which results in the noun *nyágèmɔ̀,* then the noun form is reduplicated to arrive at the adjective. On the other hand, other verbs such as those in (86ii–v) are first pluralized or put in the distributive/iterative forms. For instance *gbá* ‘to tear’ is suffixed with *-la* to be *gbálá* then is reduplicated and suffixed with the -i to arrive

at the adjective *gbáláigbálái* 'torn'. The distributive/iterative suffix for verbs is not only *-la* but there are others like *-rɛ* as in (86v).

The other verbs in (86vi- xi) are simply reduplicated to arrive at the adjectives. No suffixation is made.

3.4.1 Number Agreement

The verbal adjectives can also be suffixed with the plural suffix to inflect for number. These are realized below.

87)

	Singular	**Plural**	**English gloss**
i)	gbíŋ̀	gbíji	'dry'
ii)	díŋ̀	díji	'black'
iii)	yɛ́ŋ̀	yɛ́ji	'white'
iv)	tsùrù	tsúji	'red'
v)	shàrà	shárai	'rotten'
vi)	lɛ̀kɛ̀tɛ̀ɛ̀	lɛ̀kɛ̀tɛ̀lɛ̀kɛ́tɛ́ɛ́	'wide'

It can be noted that the adjective in (90vi) marks for number through reduplication. It is an exception in this of type adjectives derived from verbs. All the rest of the verbs in (87) show number agreement through suffixation.

Some of the adjectives derived from verbs are used in the constructions below (88-91).

88) E -yé blòdò **gbíŋ̀**
1SG-eat bread dry
'He ate dry bread.'

89) E -yé blòdò **gbí-jì.**
1SG-eat bread dry-PL
'He ate dry bread.'

90) E -tsé màmá **tsúrú** lɛ́.
3SG-tear cloth red DEF
'He tore the red cloth.'

91) E-tsérɛ màmá-ì **tsú-ji** lɛ́.
3SG-tear cloth-PL red-PL DEF
'He tore the red clothes.'

In (88) above the noun *blo`do`* 'bread' is modified by *gbíŋ* 'dry' in the singular form. In (89) it is realized that the plural form of the adjective *gbíjì* 'dry' is used but the noun *blo`do`* 'bread' has remained in the same form. This is because the word 'bread' does not change its form to inflect for plural as it is an uncountable noun. It remains the same whether singular or plural and this happens a lot in Ga especially with food items. If the noun were to be *tsò* 'tree' which is being modified by *gbíŋ* the noun will be *tsèì* 'trees' to agree with the adjective. In (90) the noun *màmá* 'cloth' is pluralized in (91) *màmái* 'clothes', the adjective form *tsùrù* 'red also shows number agreement with the noun *màmái* 'clothes' in (91), that is *tsùji* 'red'.

The other group of adjectives that are derived from verbs through reduplication does not inflect for number. Such adjectives remain in the same forms whether the nouns they modify are singular or plural.

92)

Singular	**Gloss**	**Plural**	**Gloss**
i) nyáfínyáfí	'fretful'	nyáfínyáfí	'fretful'
ii) nyáŋèmɔ̀nyáŋèmɔ̀	'disgusting'	nyáŋèmɔ̀nyáŋèmɔ̀	' disgusting'

iii) kwɔ̀ŋ̀kwɔ̀ŋ̀	'deep'	kwɔ̀ŋ̀kwɔ̀ŋ̀	'deep'
iv) sòròsòrò	'different'	sòròsòrò	'different'
v) bódàìbódàì	'crooked'	bódàìbódàì	'crooked'
vi) gbálàìgbálàì	'torn'	gbálàìgbálàì	'torn'
vii) tserɛ̀ìtserɛ̀ì	'tattered'	tserɛ̀ìtserɛ̀ì	'torn'
viii) kpɔ́tɔ́kpɔ̀tɔ̀	'dirty'	kpɔ́tɔ́kpɔ̀tɔ̀	'dirty'
ix) kpɔ`fùkpɔ`fù'	bloated	kpɔ`fùkpɔ`fù	'bloated
x) kplɔ̀ikplɔ̀ì	'untidy'	kplɔ̀ìkplɔ̀ì	'untidy'

Some of the adjectives in (92) are used in sentences for further illustration.

Singular Form:

93) Mi -sùmɔ̀-ɔ̀ɔ̀ **àtàdé tserɛ̀ì-tserɛ̀ì.**
1SG -like –NEG dress torn-RED
'I don't like torn dress.'

94) **Bú kwɔ̀ŋ̀-kwɔ̀ŋ̀** yɛ̀ gbɛ̀ lɛ́ nɔ́.
hole deep-RED be road DEF on
'A deep hole is on the road.'

Plural Form:

95) Mi – sùmɔ̀-ɔ̀ɔ̀ **àtàdé-i tserɛ̀ì-tserɛ̀ì.**
1SG- like –NEG dress-PL torn-RED
'I don't like torn dresses.'

96) **Bú -i kwɔ̀ŋ̀-kwɔ̀ŋ̀** yɛ̀ gbɛ̀ lɛ́ nɔ́.
hole-PL deep-RED be road DEF on
'Deep holes are on the road./There are deep holes on the road.'

In the illustrations in (93) and (94) the nouns *àtàdé* ‘dress’ and *bú* ‘hole’ are in the singular forms and the forms of the adjectives are *tserɛ́i-tserɛ́i* ‘tattered’ *kwɔ̀ŋ̀kwɔ̀ŋ̀* ‘deep’ respectively. When the nouns are plural in (95) and (96) the forms of the adjectives *tserɛi-tserɛi* ‘ tattered’ *kwɔ̀ŋ̀kwɔ̀ŋ̀* ‘deep’remain in the same forms.

3.4.2 Nominalisation of Adjectives from Verbs

Adjectives derived from verbs can also be prefixed with the e- or the zero allomorph to arrive at their nominal forms. Below are examples in (97).

97)

	Adjective	**Process**	**Noun**
i)	gbíŋ ‘dry’	é-+gbíŋ	egbíŋ́ ‘the dry one’
ii)	díŋ ‘black’	é- + díŋ	edíŋ́ ‘the black one’
iii)	yɛ́ŋ ‘white’	é- +yɛ́ŋ	eyɛ́ŋ́ ‘the white one’
iv)	tsùrù ‘red’	é-+tsùrù	etsùrù ‘the red one’
v)	shàrà ‘rotten’	shara	shàrà ‘the rotten one’
vi)	lɛ̀kɛ̀tɛ̀ɛ̀ ‘wide’	lɛ̀kɛ̀tɛ̀ɛ̀	lɛ̀kɛ̀tɛ̀ɛ̀ ‘the wide one’
vii)	kpɔ́tɔ́í ‘rotten’	kpɔ́tɔ́í	kpɔ́tɔ́i ‘the rotten one’

From the above in (97) the zero morph is realized on the adjectives in (97v-vii). It will be ungrammatical/ unacceptable to attach the prefix to them. The prefix is however attached to the ones in (97i-iv) which is acceptable.

The other types of adjectives derived from verbs through reduplication do not also take the e- prefix. They remain in the same form on the surface. Below in (98) are instances.

98)

	Adjective	**English**	**Noun**	**English**
i)	nyáfínyáfí	'fretful'	nyáfínyáfí	'fretful one'
ii)	nyáŋèmɔnyáŋèmɔ	'disgusting'	nyáŋèmɔnyáŋèmɔ	'disgusting one'
iii)	kwɔŋkwɔŋ	'deep'	kwɔŋkwɔŋ	'deep one'
iv)	sòròsòrò	'different'	sòròsòrò	'different one'
v)	bódàìbódàì	'crooked'	bódàìbódàì	'crooked one'
vi)	gbálàigbálài	'torn'	gbálàìgbálàì	'torn one'
vii)	tsérɛ̀ìtserɛ̀ì	'tattered'	tserɛitsérɛi	'tattered one'
vii)	kpɔ́tɔ́kpɔ̀tɔ̀	'dirty'	kpɔ́tɔ́kpɔ̀tɔ̀	'dirty one'
ix)	kpɔfukpɔfu	'bloated'	kpɔfukpɔfu	'boated one'
x)	kplɔ̀kplɔ̀i	'untidy'	kplɔ̀kplɔ̀ì	'untidy one'

Examples in (98) indicate the adjectives in their nominalised forms. The clue is that the nominalised form is the head of the NP as well as the subject and that it occurs with the noun modifiers, *lɛ́* 'definite article' and *pɛ́* 'only'. If it were not the nominal form it cannot occur with the noun modifiers and be grammatical.

99) **Nyáfí-nyáfí** lɛ́ pɛ́ bá.
Small-small DEF only came
'Only the fretful one came.'

More examples of such adjectives and their nominal forms are in (100- 102)

Noun modified by Adjective:

100) **Gbékɛ nyáfí-nyáfí kò** é - hò
child small-small certain PERF-pass
'The fretful child has passed.'

Nominal form of adjective:

101) **Nyáfí-nyáfí lɛ́** e - hò ékóŋ́ŋ́.
fretful-RED DEF PERF-pass again
'The fretful one has passed again.'

Nominal form of adjective *bódàibódài* 'crooked' used in sentence (105) below.

102) Nɛ́gbɛ̀ **bódài -bódài lɛ́** yↄↄ?
where crooked-RED DEF is
'Where is the crooked one?'

(101) and (102) will be completely unacceptable to the native speaker when they are written with the e- attached to them even in the spoken form. These adjectives, when nominalized can be modified by other adjectives for example.

103) Bódàìbódài **mómó** lɛ́ é -fↄ
bent old DEF PERF-wet
'The old crooked one is wet.'

In illustration (103), the adjective *mómó* 'old' modifies the head noun *bódàìbódài* 'crooked'

3.4.3 Syntactic Properties

These adjectives derived from verbs can be used attributively as well as predicatively. Below are examples showing both their attributive and predicative uses. Most of these adjectives occur with the prefix e- when they serve as predicatives or complements of

verbs. These therefore become nominals. There are however a few that remain in the same form. Examples in (104- 109) illustrate their attributive use.

104) Aku kè mì lòò **gbíŋ** nyɛ̀.
Aku give 1SG fish dry yesterday.
'Aku gave me some dry fish yesterday.'

105) Àtàdé **yɛ́ŋ** lɛ́ é -gbá .
dress white DEF PERF-tear
'The white dress is torn.'

106) Mì-hé màmá **díŋ́.**
1SG- buy cloth black
'I bought a black cloth.'

107) É -kúdↄ - ↄ tsↄnè **tsùrù** kò.
3SG-drive-HAB car red certain.
' He drives a red car.'

108) É - gbèé bú **kwↄŋ̀kwↄŋ́** lɛ́ mlì.
3SG –fall pit deep DEF inside
'S/He fell into a deep pit.'

109) Yòó !lɛ́ shà màmá **tsérɛ̀itsérɛ̀ì** lɛ́
woman DEF burn cloth torn DEF
'The woman burnt the torn cloth.'

In examples (104-109) the adjectives used are those derived through affixation *gbíŋ* 'dry', *yéŋ*ˊ 'white', *díŋ́* 'black', *tsùrù* 'red' and those in examples (108) and (109) are those derived through reduplication *kwↄ̀ŋ̀kwↄ̀ŋ̀*` 'deep', *tsérɛ̀tsérɛ̀i* 'tattered'. These can also be used attributively and some are inflected for number to agree with the head nouns they modify. Examples (110-112) illustrate.

110) Aku kè mì **lò-ì** **gbí-ji** nyɛ̀.
Aku give 1SG fish-PL dry-PL yesterday.
'Aku gave me some dry fish yesterday.'

111) **Àtàdé-ì yɛ́ -jì** lɛ́ é -gbàla.
dress-PL white-PL DEF PERF-tear
'The white dresses are torn.'

112) Mi- hé **màmá-ì dí-ji.**
1SG- buy cloth-PL black-PL
'I bought black clothes.'

It must be noted that in the process of marking the plural morphologically, the adjective suffix is removed and the plural markers are attached as in *gbíji* 'dry', *yɛ́ji* ' white' *díji* 'black'.

Considering the adjectives whose sources are verbs, they occur as complements in nominal forms as illustrated example (113-116). It must be noted that adjectives that can be nominalised with the e-prefix occur in the nominal forms when used as complements of copular verbs in (113) and (114) and those that are not prefixed occur in the same forms as in (115) and (116).

113) Lòó ! lɛ́ yɛ̀ **é -gbíŋ**
fish DEF possess NOM-dry.
'The fish is dry.'

114) Àtàdé lɛ́ yɛ̀ **é -tsùrù**.
dress DEF posess NOM-red
'The dress is red.'

115) Bú lɛ́ yɛ̀ **kwɔ̀ŋ̀kwɔ̀ŋ̀**.
pit DEF possess deep.
'The pit is deep.'

116) Shíá lɛ́ yɛ̀ **lɛ̀kɛ̀tɛ̀ɛ̀**.
house DEF possess wide.
'The house is wide.

It is ungrammatical to use these adjectives that are derived from these verbs in predicative position as shown in (113-114). Though these constructions are uttered, it is more common to find speakers using their verbal equivalents.

For instance, it is more common to hear example (117) and (118) instead of (113) and (114) respectively.

117) Lòó ! lɛ́ é -! gbí .
fish DEF PERF-dry
'The fish is dry.'

118) Bú lɛ́ mlì kwɔ̀.
hole DEF inside be deep
'The hole is deep.'

It seems that these types of adjectives derived from verbs are restricted in a way, all are not nominalised to be in the predicative position as adjectives do. The verbal equivalents are more commonly used since nominal forms are absent. Where there are no verbal equivalents, the nominal forms are used predicatively.

119) a. Yòómó ! lɛ́ àméò lɛ́ **é-kpɔ̀tɔ́** fè yòó ! lɛ́ àméò
old lady DEF tomatoes DEF PERF-rot surpass woman DEF ameo.
'The old lady's tomatoes are more rotten than the woman's tomatoes.'

The construction above (119a) shows the verb form *kpɔ́tɔ́* 'to rot' from which the adjective *kpɔ́tɔ́i* 'rotten' is derived used in a comparative construction. The adjective can also be used as below

b. Yòómó ! lɛ́ àméò lɛ́ yɛ́ **kpɔ̀tɔ́i** fè yòó ! lɛ́ àméò
old lady DEF tomatoes DEF pssess rotten surpass woman DEF ameo.
'The old lady's tomatoes are more rotten than the woman's tomatoes.'

3.4.4 Dixon's Semantic Classes

Adjectives derived from verbs can normally be found in the Value (120), Dimension (121), Colour (122) groups as shown below.

120) tsérɛ̀tsérɛ̀ì 'tattered' kpɔ́tɔ́i 'rotten

121) kwɔ̀ŋ̀kwɔ̀ŋ̀ 'deep' lɛ̀kɛ̀tɛ̀ɛ̀ 'wide'

122) tsùrù 'red' yɛ́ŋ 'white'

3.4.5 Another Semantic Class Identified in the Colour Class

There are mainly three basic colour terms in Ga that are derived from verbs. There are two deep level ones *eŋɔli* 'green' which has another alternative lexeme in Ga *baa ŋmɔŋ* literally meaning 'fresh leaf'. One colour *wuɔfɔ* 'yellow' is a compound word consisting of *wuɔ* 'hen' + *fɔ* 'oil' and also *asrasu* 'brown' consists of *asra* + *su* 'snuff + colour'. The others that I gathered were all from borrowed terms as this was confirmed by employing the toy task where the participant used the borrowed terms. Below are the three derived ones:

123) díŋ́ 'black' yɛ́ŋ́ 'white tsùrù 'red

3.5 Adjectives Derived from Adverbs

It must be noted also that there are adverbs that function also as adjectives. These few words cut across the two major categories. The label given to these lexical items are both the adjective and the adverb in the Ga dictionary and those are examined in this chapter as well. These adjectives do not go through any process to be derived and I believe this

can be conversion. I guess the usage or distributive pattern determines which category they fall into a particular construction. These are exemplified in (124) below.

124) i) blɛ̀òò ‘slow’

ii) gìdìgìdì ‘boisterious

iii) gbɔ̀ŋ̀gbɔ̀ŋ̀ ‘fat and sluggish

iv) fáléfálé ‘neat’

v) tétréɛ́ ‘ flat’

vi) kpóó ‘quiet mannered’

vii) kpéŋ́ ‘brittle’

viii) vìì ‘dull’

Let’s examine the constructions below in (125-128).

125) É -tɔ̀ mì kɛ̀ e-wìémɔ̀ **blɛ̀òò** lɛ́.
3SG-tired 1SG and 3SG-speech slow DEF.
‘His slow speech bored me’

126) Àbìfáó lɛ́ wámɔ̀ **blɛ̀òò** / È -wìé **blɛ̀òò.**
child DEF crawl slow/ 3SG –speak slowly
‘The child crawled slowly.’/he spoke slowly’.

127) Nùú **gìdìgìdì** lɛ́ yí lɛ̀.
man bosterious DEF beat-PST 3SG
‘The boisterous man beat him.’

128) Nùú ! lɛ́ yì lɛ̀ **gìdìgìdì**.
man DEF beat-PST 3SG carelessly
‘The man beat him carelessly.’

From the above examples the words in (125) and (127) *blɛ̀òò* ‘slow’ and *gìdìgdì* ‘boisterous’ have been used attributively for the nouns ‘child’ and ‘man’. They serve as

adjectives due to their syntactic occurrence in the construction. In examples (126) and (128), the words have been used as adverbs as they modify or indicate the manner in which the actions took place. The manner in which the child crawled/spoke and the manner in which the man beat the person are denoted by the words *blɛ̀òò* 'slow' and *gìdìgidì* 'boisterous' and therefore are adverbs in those instances.

These adjectives that also function as adverbs are very restricted, in that they do not collocate with just any noun, but specific ones. Also, though they appear as complements of the verbs in the illustrations below, their analyses depend on the verbs used. In Ga, the verb *yɛ̀* means 'to have' or 'to possess'. When the meaning 'to have' is considered, then the adjectives occurring in the complement positions are nouns/ nominal forms in examples (129) and (130). On the other hand, if I employ the meaning 'to be' for the verb *yɛ̀* then they are adverbs in the positions in the sentences. The semantics of the verb plays a vital role in this instance.

129) Nùú ! lɛ́ yɛ̀ **blɛ̀òò.**
man DEF be slow
'The man is slow.'

130) Yòó !lɛ yɛ̀ **gbɔ̀ŋ̀gbɔ̀ŋ̀.**
woman DEF be fat.
'The woman is fat.'

These adjectives that can also be adverbs through conversion normally remain in the same forms when they occur with plural nouns. They also normally are not attached with the prefix e- to serve as head nouns. They can occur in constructions that express degree in the same forms.

From this category of adjectives gathered so far, the only semantic type found was the speed type.

Speed Adjectives

These describe the slowness or fastness of entities denoted by the nouns. The examples are listed below.

131) blɛòò ‘slow’ gìdìgìdì ‘rough’ kpóó ‘quiet mannered’

3.6 Chapter Summary

In summary, the chapter examined adjectives that serve as PC items in Ga. It was realized that Ga has a lot of adjectives which consist of both deep level adjectives and derived adjectives. The stock of adjectives in Ga can be increased through derivation from nouns, verbs, and adverbs. Adjectives from nouns are derived mainly through reduplication. Verb-like adjectives, if I could use that term from Dixon (2001) , are derived either through suffixation or reduplication. The adjectives from adverbs are not derived but could be placed in both syntactic categories based on their distributional features in the sentences.

The morphological properties of adjectives in Ga revealed that deep level adjectives and verb-like adjectives derived through suffixation can be inflected for number /agreement with the nouns they modify. Most of verb-like adjectives derived through reduplication, do not inflect for number with the nouns they occur with. However, there are exceptions with the adjectives derived from nouns, and adverbs not being marked overtly but they agree semantically to show number agreement. The Ga adjectives can be nominalised by prefixing with e- or by a zero morph. Adjectives derived from nouns

normally are not prefixed with e-. Adjectives can also be reduplicated to show intensity, with the exception of those derived from nouns.

Syntactically, the Ga adjective may be used predicatively depending on the source. Some are often nominalised when they occur in predicative positions, whereas others remain in the same forms. The Ga adjectives serve only as attributes just like Ewe adjectives which only serve as attributives. They occur after the nouns they modify in attributive position. A periphrastic construction is used to express the comparative with the use of the morpheme *fè* 'surpass' in addition to the nominal form of the adjective. The forms found in the comparative construction to express degree may be the same forms as the adjectives or may be prefixed with e-. When there are verb equivalents they could also be used. In the superlative, the morpheme *fè* 'surpass or exceed' and *fɛ́ɛ́* 'all' are used in the structure to express the superlative with the nominal form of the adjective occurring in between the morphemes *fè* and *fɛ́ɛ́*. The verbal equivalent of the adjective can be used in such constructions, if available, to occur in comparative construction.

From the discussions made so far six semantic types of adjectives out of the thirteen proposed by Dixon's (2004, 2005) classification were identified in Ga.

Endnotes

[i] Ga has sentences that consist of particles which occur sentence intitial or final and NPs. For full discussion see Dakubu 2003

CHAPTER FOUR

SEQUENCING OF ADJECTIVES IN GA

4.0 Introduction

The phenomenon of using PC words to describe nouns is not uncommon in the world's languages. Adjectives which serve as one of the syntactic categories which modify nouns are not arranged haphazardly. There is an order which is preferred by the native-speakers, especially when several adjectives are used in attributive position. There may be languages which may not have a very strict order but these languages may have the most preferred order. English, for instance, has a strict order of adjectives and also has prenominal and central adjectives (Teodorescu, 2006). Scholars have proposed preferred ordering of adjectives, among who are Sproat and Shih(1991) cited by Teodorescu (2006) for Chinese, their order being Quality-Size-Shape-Colour-Provenance. Cinque(1994) gives the order Possess- Speaker Oriented-Subject Oriented-Manner/Thematic. The order evaluative-size-shape-condition-Human-Propensity-Age-Colour-Origin-Material-attributive noun is given by Mckinney-Bocks (2010). The orderings proposed by these scholars were normally based on how they grouped or divided the PC items found in the languages, mostly English, they were investigating. Dixon (1982) whose classification is being employed in this work, gives the following order for English: Value-Dimension-Physical Property-Speed-Human Propensity-Age-Colour. None of these orderings were said to be universal for all languages and it will be appropriate to investigate a language before giving any order that may be preferred in that language.

Teodorescu (2006) did a semantic analysis of adjective order restrictions in English and argued that there are exceptions to the ordering as different sequencing may

yield different truth conditions. In his investigation he noted some instances where adjective ordering is not restricted. The first instance was multiple adjectives that bear comma intonation where sequencing is unrestricted, that is, when the multiple adjectives are separated by commas any order is possible. Examples are shown below in (1a-b).

1) a. She loves all those wonderful, orange, oriental ivories.

a. She loves all those wonderful, oriental, orange ivories.

b. She loves all those oriental, wonderful, orange ivories.

In example (1a) above the order of occurrence is Quality – Colour –Provenance. Once the comma is placed, the ordering of the adjectives is unrestricted, as noted by Teodorescu (2006). Thus (1b) and (1c) can be written due to the comma between the multiple adjectives employed.

The second instance where adjective ordering is unrestricted is focusing as noted by Cinque (2005b). He noted that when the speaker is focusing on a particular PC item the order does not follow the order known in that particular language, for instance.

2) a. small black purse.

If the speaker wants to focus on size then size (small) is placed before colour (black) as in (2a) or when the speaker's focus is on colour then it will occur as in (2b) below.

b). black small purse.

where colour comes before size. (Cinque 2005b)

Another instance where adjectives are freely ordered, citing Sproat &Shih (1991:565) is when operator adjectives are used. The operator adjectives Sproat& Shih(1991) discussed

were the words ‘former’ and ‘alleged’. The examples given in Teodorescu (2006: 401) are in (3).

3) a. a famous former actor

b. a former famous actor

c. a famous alleged actor

d. an alleged famous actor.

He noted that two operator adjectives can also occur and their order is also free as below

e. a former alleged actor.

Citing Sproat &Shih (1991) again Teodoscure (2006) also mentioned that adjectives that are homophonous with reduced relatives are also ordered freely. The example given was in Mandarin Chinese as below in (4).

4) a. hao -de yaun -de panzi. (quality-shape)
good –DE round-DE plate

b. yaun-de hao -de panzi. (shape-quality)
nice DE good-DE plate
‘nice round plate’
(Sproat & Shih 1991:565)

The final situation where adjective ordering is also unrestricted as discussed by Teodoscure (2006) is when there is indefinite superlative. In this instance, ambiguity may occur and must be taken care of. However, if it is a definite superlative it must follow the restricted order. Consider example (5) below.

5) This class has a shortest Italian student.

which can be interpreted as

shortest student from Italy is in the class or Italian shortest student. If the adjectives were plain the ordering would have been restricted as well.

In example (6) the order is restricted because it is a definite superlative

6) The Dean praised the shortest Italian student.

it will be incorrect to say as it is definite.

*The dean praised the Italian shortest student.

In a study by Malouf (undated), he iterated that sometimes some ordering of PC items are wrongly arranged but it is done purposely to convey an unintended meaning to the hearer.

Many studies have been carried out on adjectives in languages across the world, (Bhat 1994, Osam 1999, Adjei 2007, Dixon 1977, 1982, 2004, Naden 2007, Dainti 2007, Ahranjani 2011, Hansen 2013) just to mention a few. However, the ordering of multiple adjectives has not received much attention. Pokua (2003) and (Pokua et al 2007) have investigated the order of adjectives in Akan; Dakubu (2000) mentioned briefly adjectives in Ga but much detail was not given. The chapter investigates the ordering of several adjectives serving as attributes for nouns in Ga.

The adjectives that would be examined will be from Dixon's semantic classification of adjectives (1982, 2004). The adjectives would be sampled and some selected for the purpose of this work, especially when all the classifications are not filled with adjective category in Ga but other word classes can occur in some of the slots. Semantic classification of PCs that adjectives can play that role in Ga is shown below for the purpose of the analysis, as the (2004) extended one may not have all of the slots filled with adjectives but other syntactic categories as mentioned earlier. In the (1982) classification, Dixon proposed seven classes and in the recent one he proposed thirteen as mentioned in chapter three. From the study in Ga so far, it has been realized that six of

these classes can be filled with adjectives. The six are what is listed below with examples. It is from these six classes that the selected adjectives were used to ascertain the order of adjectives in Ga. The selection was also based on listening to people and realizing what they normally describe in terms of when they are talking about an entity to another person.

Class	**English**	**Ga**
Dimension eg.	big, small large	àgbò, bibioo, lɛkɛtɛɛ
Physical property eg.	hard, soft,	kèkètèè, bɔ́dɔ́ɔ́
Colour eg.	red, black, green	tsùrù, díŋ, éŋɔ́lí
Age eg.	new, old	hèè, mómó
Speed eg.	fast, sluggy	gìdìgìdì, gbɔ̀ŋ̀gbɔ̀ŋ̀
Value eg.	good, bad	kpákpá, shàrà

From the above six semantic classes it was noted that there are Ga equivalents. Though what may occur sometimes in the Speed class may also be an adverb through conversion that cannot be ruled out, for example *gìdìgìdì* 'fast', and *gbɔ̀ŋ̀gbɔ̀ŋ̀* 'sluggy'.

Apart from that all the other slots can be filled with adjectives in Ga. The Human Propensity class has nouns that can fill that slot. This would be investigated further in the next chapter where nouns used as PC items would be examined. Osam (1999) calls such nouns that filled the Human Propensity slot as nominal adjectives. Examples for Human Propensity type in Ga are *àwùŋàyèlɔ̀* 'jealous person', *àníhálɔ̀* 'lazy person'. The adjectives sampled and used in the questionnaire consist of both deep level and derived ones but no nouns or verbs that can play adjectival role were put in the analyses.

A few works that have investigated adjective sequencing in Ghanaian languages include Danti (2007), Pokua (2003), Adjei (2007) and Pokua et al (2007). Danti (2007) noted that in Kasem, Dimension adjectives occur at the first position and Value adjectives normally occur last. However, he noted that when there is Colour and Physical Property adjectives in the list of adjectives used to modify the noun, Colour precedes the Physical property. Danti further stated that when Kasem adjectives are in sequence, truncation occurs, as in example (7).

7) Ka - kamun-nazwon-dedɔrɔ tu ywo.
woman-big -black - tall came here
'A big tall black woman came here.'
(Danti 2007:122)

Danti (2007) said also that when there is the need to emphasize, the words *ye* 'is' or *dage* 'is not' which are copular verbs are employed, as in example (8) and(9). In (8) there is no emphasis but in (9) there is emphasis and therefore the copular *ye* is used in the construction.

8) Nɔn –kamun –kukula kam.
person –big – short the
'The big short person.'

9) Nɔn –kamunu kom ye o ye kukula to.
person- big the COP and s/he is short
' The fat short man.' (Danti 2007: 122)

Danti finally concluded that there was no strict ordering of adjectives in the internal structure of Kasem, but the sequencing is semantic that is what is seen as important by the speaker is what occurs first. Adjei, (2007) in her studies of adjectives in Siyase, noted that when there is an adjective from the Age class it tends to occur in first position. The preferred order of adjectives in Siyase depends largely on what the speaker

sees as most important. Adjei also observed that ordering does not depend on the semantic types of the adjectives.

The examples which were given were two adjectives being used to modify a noun. Pokua et al (2007) investigated the sequencing of adjectives in Akan and realized that Age and Colour adjectives appear closer to the noun. They further noted that when Colour or Dimension adjectives appear in a noun phrase any of them can occur first and Human propensity adjectives occur farther away from the noun. Also when Physical Property and Colour adjectives are present, there is the tendency for Colour to occur before Physical Property in most cases.

4.1 Sequencing of Adjectives in Some Ga literature

The tendency to use several adjectives to modify nouns in Ga is uncommon. Most speakers hardly use two or three to do the modification. This was confirmed when I employed the toy task. Participants used an adjective, followed by a relative clause or vice versa. In the Ga books/literature I examined, the adjectives used were mostly one, then verbs that denote adjectival meaning or are PC words are employed to show attributive functions. The sentences that contain adjectives are mostly short in the recent literature books for schools for instance *Yòò kpákpá nì* 'she is a good woman'. When another attribute has to be used to describe the same woman it will follow in another short sentence. However, there were few instances where two adjectives have been used to modify nouns, and in few cases, three were found. The most common adjectives found in both the literature and Ga textbooks was the adjective *kpákpá* 'good' which was used alone to serve as a modifier. The attributive use of adjectives was mostly found and the predicative use normally has the verbal equivalent of the adjective or appeared as the

complement of the verb in nominal form. It must be noted that examples cited from books and other sources are tone-marked throughout this study as there were n tone marks on them(convention in writing Ga). In Prov 31:21 two adjectives were employed in attributive position as shown in (10a) and in Ababio (1999:2) a verb denoting PC and an adjective were used in the attributive position as shown below in (10b).

10) a. … éjàákɛ́ shíáŋ̀bíì lɛ́ fɛ́ɛ́ búmɔ̀-ɔ̀ màmá tsù-jì fɛ́ɛ́fɛ́ -ji…
.....because house children DEF all wear-HAB cloth red-PL beautiful-PL..
'For all of them are clothed in scarlet.'

(Prov 31:21)

b. ….náà àkpàkpá tsò ní é -yìbíì é -tsù hɛ̀ɛ̀ fɛ́ɛ́fɛ́ó'
... here pawpaw tree that 3SG-fruits PERF-ripe ADV beautiful
' Here is a pawpaw tree that has very riped beautiful fruits.'

(Ababio 1999: 50)

In (10a) the two adjectives used are *tsùjì* 'red'(pl) and *fɛ̃ɛ́fɛ̃ji* 'beautiful'(pl). The Colour adjective occurs before the Value one.

It is seen that in example (10b) the first PC word used is the verb *tsù* 'to be red' which is in the perfect tense, followed by an adverb *hɛ̀ɛ̀* 'very' and then an adjective f*ɛ́ɛ́fɛ̃ó* 'beautiful'. The verb is from the Colour group, and *fɛ̃ɛ́fɛ́ó* 'beautiful' is from the Value group.

Dakubu (2000) notes that when two or three Ga adjectives occur in a sequence, the last one is normally prefixed with *e-* and this was confirmed when I employed the toy task. Participants in most cases added the prefix e- to the last adjectives especially for the primary/basic colours. Sometimes the adjective is placed first then a relative clause follows to modify the head noun. For instance in the Ga Bible, Genesis 41:18, the PC words were employed to serve as attributive which were *fɛ̃ɛ́fɛ̃ji* 'beautiful' (plural) then a

relative clause is used to continue the description that the cows were fat . The relative clause is *ní àmɛ̀ shwìshwìì* … 'that were fat…'). The verb *shwì* 'to be fat' is employed in this instance and was put in the distributive iterative form. The verse is below in (11).

11) "…… nì tsìnáyèì fɛ́ɛ́fɛ́ -jì kpàwò ní àmɛ̀- shwìshwìì
"…….and cows beautiful-PL seven REL 3PL be fat
dúkúdúkúú fà kpò…"
ADV came out …"
'There came up seven cows sleek and fat..'

The Ga textbooks reveal that most often when the adjective and relative clause or verb are employed to serve as modifiers, the adjective occurs closer to the noun and then PC verb is used in a relative clause to continue the modification of the noun under consideration. Is this still the norm? This is what the researcher aims to investigate whether it is the same in recent times or there are changes.

Instances of the adjective ordering were found in some few Ga books. These gave evidence that Gas have been using multiple adjectives to modify nouns. The sequencing of these multiple adjectives was examined. Most of those found in the Ga books were two adjectives used as modifiers in attributive position.

Let's examine some examples from Ababio (1975).

12) E -dzì sáḿfèé **wùlù kpànàà.**
3SG-COP key important great
'It is an important great key.'
(Ababio 1975: 9)

13) ... kɛ̀ ágbɛ̀né kóòtù **díŋ kàkàdáŋ̀ŋ́** kò ní e -wò -ɔ̀
...and also coat black long certain REL 3SG –wear-HAB
hèwɔ̀lé……
because of the long black coat that he always wear ……..
(Ababio 1975:17)

14) ‘...náà òblányò **fɛ́ɛ́fɛ́ó** **kpàkpàtàà** kò ní mìì -pl̀é
‘...here youth handsome strong certain REL PROG-struggle
yɛ̀ sǹó lɛ́ǹ’.
in snow ’
‘…here was a handsome strong gentleman struggling in the snow.’

In example (12) the order is Dimension adjective *wùlù* ‘important’ followed by the Value adjective *kpànàà* ‘great’. In the next example (13) the adjectives are from Colour and Dimension classes and the order in which they occurred is Colour *díŋ* ‘black’ before Dimension *kàkàdáŋ́ŋ́* ‘long’.

Another sequence of two adjectives found in Ababio (1975) was *fɛ́ɛ́fɛ́ó* ‘beautiful’ a Value adjective followed by Dimension adjective *kpàkpàtàà* ‘strong’ in (14).

There is the sequence of Value adjective followed by a Physical Property adjective as illustrated in (15).

15) Yòò né-é kpɛ̀ bínùù **fɛ́ɛ́fɛ́ó** **tɔ̀tɔ̀rɔ̀ɔ̀** kò.
woman DET-DEF carry at back child beautiful fat a
‘That woman was carrying at her back a beautiful fat child.’

(Ababio 1975:57)

There is an instance of three adjectives serving as attributes for a noun. See example (16) below.

16) ….náà nùù **àgbò** **tɔ̀trɔ̀ɔ̀** **é** **-díŋ** dúkúdúkú kò dámɔ̀
….here man big fat NOM-black ADV certain stand
shì è -è -flɔ̀ e -hè
down 3SG -PROG -turn 3SG-body
‘Here was a very big fat black man who was standing there looking around.’

Ababio (1975:50)

In the demonstration in (16), the adjectives are from the Dimension, Colour and Value. The Dimension adjective, *àgbò* ‘big’ occurred first followed by Dimension

Physical Property adjective *tɔ̀trɔ̀ɔ̀* 'very fat' then Colour type occurred last *díŋ* 'black'. The Colour adjective has been prefixed with *e-* as noted by Dakubu (2000) but when we compare the example in (13) the Colour adjective was not prefixed because it was not placed last. In using the toy task this e-prefix was realized in most cases that the participant mentions a colour adjective last but the prefix hardly occurred when the adjective occurred first.

The demonstration of another ordering of three adjectives from other semantic classes was also identified and this is shown below in (17).

17) '…..e -nà nùù **àgbò tɔ̀trɔ̀ɔ̀ fɛ́ɛ́fɛ́ó** kò ní mìì -kpéléké shì…'
'…3SG-saw man big fat handsome a REL PROG -go down….
'…… he saw a big fat handsome man who was going down…..'
(Ababio 1975:84)

In (17) the adjectives are from the classes of Dimension, Physical Property and Value. The Dimension adjective *àgbò* 'big' was the first to appear closer to the noun, followed by the Physical Property type *tɔ̀trɔ̀ɔ̀* 'fat' and *fɛ́ɛ́fɛ́ó* 'handsome', the Value type was placed farther from the noun.

Examples of two adjectives from the same semantic type were also found and below are examples in (18) and also in the New Ga Bible as in (19).

18) Bélɛ́ mí -tsɔ̀ɔ́ nɛ́ɛ́ fàà **lɛ̀kɛ̀tɛ̀ɛ̀ àgbò** kò yɛ̀ gbɛ̀téŋ̀ ní àbáàfò.
CONJ 1SG-teach DEM river wide big certain is midway REL cross
'Meanwhile as there is a big large river to be crossed midway'.

(Engmann 2002 :24)

19) Nì bú **wùlù kwɔ̀ŋ̀kwɔ̀ŋ́** lɛ́ híŋmɛ́í fɛ́ɛ́ fĺɛ́…'
and pit large deep DEF eyes all hatch
' ..all the springs of the great deep burst forth..'
(Genesis 7:11)

In (18) the two Dimension adjectives *lɛ̀kɛ̀tɛ̀ɛ̀* 'wide' and *àgbò* 'big' were used to serve as attributes for the noun *fàà* 'river'. The Dimension type indicating width was placed closer to the noun and the type showing size came second. In (19) size was placed before depth which are all adjectives from the Dimension class. I came across another example in Amartey (1985) which is illustrated in (20) below.

20) …..àmɛ̀-nànàà ŋmɔ̀-jì **wù -jì shwàŋ́ŋ́-shwàŋ́ŋ́**.'
….1PL -see farm-PL large-PL vast-RED
'….they saw large vast farms'
(Amartey 1985: 24)

In (20) the Dimension adjectives showing size and shape were employed. The adjectives agree in number with the noun *ŋmɔ̀jì* 'farms, which is plural. The adjective closer to the noun *wùjì* 'large' has been suffixed with a plural suffix *–ji* and the other adjective *shwàŋ́ŋshwàŋ́ŋ́* 'vast' shows number agreement through reduplication of the adjective as it happens sometimes in Ga for some adjectives.

However, there were instances where there was a conjunction between the two adjectives which serve as attributes as found in Amartey (1985) below.

21) ….gbɔ̀mɛ̀ì éjwɛ́ lɛ́ a -téŋ̀ **tɔ̀trɔ̀ɔ̀ kɛ̀ gòjòò** kò ji mɔ̀ nì kɛ̀
'…persons four DEF PREF-middle fat CONJ huge COP one who
wìémɔ́ lɛ́ ŋmɛ̀ shì'
speech put down'
'…one of the four persons who was fat and huge was the one who spoke'
(Amartey 1985:19)

Another demonstration was also found in Ga Bible.

22) '… e -ji gbɔ̀mɔ̀ **kpákpá** kɛ̀ **jàlɔ̀**'.
'….3SG COP man good CONJ upright
'..he was a good and upright man'
(Luke 28: 50)

There were also instances of modification which were in the predicative forms. For instance in Ababio (1999:50) the following was detected:

23) ….náà àkpàkpá tsò ní e -yìbìi e -tsù hɛ̀ɛ̀ fɛ́ɛ́fɛ́ó
….here pawpaw tree REL 3SG-friut PERF-be ripe INT beautiful.
'Here was a pawpaw tree that has its fruits very riped and beautiful'

The first PC item in (23) is in the verb form *etsù* ' was riped/redden' which had the perfect prefix attached to it and the second is *fɛ́ɛ́fɛ́ó* 'beautiful'. These have been used predicatively. The order is Colour adjective occurring before the Value adjective. The example below also comes from Ababio (1999:53).

24) E **-lè** **níí**, e -jwèŋmɔ̀ mli̇̀ **kwɔ̀** nì e -lè sànèyélí.
3SG-know thing, 3SG-brain inside deep and 3SG-know matter.
'He is intelligent, wise and knows how to deal with issues.'

In example (24) the example shows verbs that are employed to denote PCs in Ga *lè níí* and *kwɔ̀* .

In Ababio (1975:42) another predicative use encountered is seen below.

25) E -kwɔ̀ gòdzòò nì e -dí-ɔ̀ dúkúdúkú tàmɔ̀ gbɔ̀.
3SG- be tall huge and 3SG- be black –HAB ADV like stranger
'He is huge and very dark/black like stranger.'

In example (25) the order of arrangement of the PC items is: Dimension type which is a verb *kwɔ̀* 'to be tall' then an adjective *gòdzòò* 'huge' used for emphasis and followed by a verb which indicates colour *dìɔ* 'to be black/darken' which occurs with an adverb *dúkúdúkú* which showed the intensity of blackness.

With the above sequencing of PC items found in the literature, the researcher decided to go to the field and explore whether the same arrangements of multiple adjectives pertain in this contemporary era or there are changes. The researcher designed

a questionnaire and distributed them to native speakers to find out what is happening in recent times in the event that speaker has multiple adjectives (maximum of three) to serve as an attribute or in predicative position. A questionnaire was designed to ascertain the sequencing of the adjectives.

4.2 Data collection

4.2.1 Questionnaire[ii]

A questionnaire, which had four sections was given out to ascertain native speakers' ideas of sequencing of adjectives in attributive and predicative positions in the event of ordering multiple adjectives.

4.2.2 Subjects

The total number of questionnaires distributed was 100. Fifteen were not returned by respondents and six were answered wrongly as the respondents only selected the ones completely acceptable to them. Twenty of the questionnaires were not answered fully so were not analysed as part of the data, for instance a respondent ranked some of the questions and left some others. The total number of questionnaires analysed was fifty – nine (59) in total. These 59 were answered well. The respondents of the questionnaires were native speakers of Ga. Native here has been used to mean that the respondents have one of the parents being a Ga and has resided in Accra for at least ten years. The respondents were selected from Ga Mashi (James Town, Chorkor, Gbese and Korle Gona) and Osu. The Ga Mashi group consisted of two sets, teachers in the Ga Mashie area who have been teaching Ga and non- teachers in the Ga Mashi area who were met and given the questionnaires in their homes to answer. The Osu group was made up the

Help Age Ghana members and the Boys Club members (Social club). The last group consisted of students who had come to study Ga and they were in Level 300 in the University of Education, Winneba. Four of the respondents did not give any response as to the variety of Ga spoken, eighteen of the respondents spoke the Osu variety , two spoke the Teshie/Nugua type, La variety was spoken by two, Ga Mashie type was spoken by twenty eight respondents and five spoke others like Kpone. Variety is being used here to refer to where the respondent resides. The multilingual information examined revealed that five spoke both Twi and Fante, one respondent spoke Twi, Fante and Hausa, seven spoke Fante, thirty-seven spoke Twi, one spoke no additional language to Ga and five did not indicate any response for that on their questionnaires. The age range revealed that five were between the ages of 18-23, thirteen were between the ages of 24-29, ten were between 30-36, seven were in the range of 37-42, eleven were between ages 43-49 and those who were fifty and above were thirteen. The educational background of the respondents revealed that most of them had not ended at the primary level, twenty had secondary education, twenty-eight of respondents have been educated to the tertiary level, four had teachers training, two said they had other forms of education, two had no education and three of the respondents did not respond to that on the questionnaires. The educational level in Ga revealed that fifteen learnt Ga up to the primary level, seventeen had studied up to the secondary level, four had studied it up to the teacher training , thirteen had up to the tertiary, one had other formal education in Ga , five had none and four did not indicate the formal level they had reached. Forty – nine of the respondents were from Greater Accra, eight were from other regions though they live in Accra and two did not give any response.

Test I

The questionnaire had four sections. In section 1 the respondents were required to give a short bio data about themselves and in section 2 rank adjectives that were sequenced in attributive position. These were all in the Ga language and it was read for those who found it difficult to read the Ga. The reading had no effect on their choices or selection as it was to help them only recognise some few words and for correct pronounciation. Section 3 had English sentences to be translated into Ga and section 4 has some phrases also to be translated into Ga.

4.2.3 Design

The participants were first briefed about what was required of them and it was exemplified by asking a participant to describe an object seen around the place orally. After that the questionnaires were administered to participants. There were a set of constructions in the questionnaire each with multiple adjectives and the respondents were asked to rank the sentences given in each question. There was the use of three adjectives serving as attributes for nouns from the different semantic classes. The rankings were on the scale

0 – completely unacceptable 1- highly unacceptable 2-Quite unacceptable

3- quite acceptable 4- highly acceptable 5-completely acceptable

The method of ranking was adopted from Pokua (2003) The ranking was arranged in descending order in the table used(scale 5-1). It must be noted that the ranking in Pokua (2003) did not include ‘no response’ on the questionnaire. ‘No response’ was included in the analysis to cater for the very few questionnaires that had been answered but a single permutation has been left in order to obtain a true picture. However it was

realized that when respondents chose one, they believe others were possible. The data gathered were from various sources as mentioned earlier. The reason for this was to get a fair and true picture of the required information so as not to base the findings on one sided- opinion. The analysis was based on the native speaker's intuitive judgments. The total number of respondents who gave a specific order was calculated and put in percentages in excel. The ordering with the highest score or percentage was seen as the acceptable or preferred.

In section 3 of the questionnaire(refer to Appendix 1) there were English sentences that had to be translated into Ga. That tested mostly predicative function of the adjective. There were 6 questions in section 1, 20 in section 2, 17 in section 3 and 6 in section 4. An example of a question in section 2 is as follows.

26) Ehe adeka tsiŋmoo agbo momo ko. 'I bought a heavy big old box'.

Ehe adeka momo tsiŋmoo agbo ko. 'I bought an old heavy big box'.

Ehe adeka agbo tsiŋmoo momo ko. 'I bought a big heavy old box'.

Ehe adeka agbo momo tsiŋmoo ko. 'I bought a big old heavy box'.

Ehe adeka momo agbo tsiŋmoo ko. 'I bought an old big heavy box'.

The respondent was expected to write out a number against each sentence, indicating the order of preference. Below is an example.

27) Ehe adeka tsiŋmoo agbo momo ko. 1

Ehe adeka momo tsiŋmoo agbo ko. 4

Ehe adeka agbo tsiŋmoo momo ko. 3

Ehe adeka agbo momo tsiŋmoo ko. 0

Ehe adeka momo agbo tsiŋmoo ko. 2

Samples of ranking were done orally for respondents to understand what was exactly required of them, and for the other sections, samples were done orally as well. This was done for respondents to know that the translation was not verbatim or should not be written as the question is arranged but they are to write a free translation of the sentences in Ga. The aim was to get the rankings and calculated them to find the most acceptable one for the respondents. The questionnaire is in Appendix 1.

It must be noted that there is a limitation to the permutation of these adjectives as three combinations may give you six different sets of permutation. Combination of two adjectives from the same class plus another from a different class results in three sets of permutation. Having several permutations made the respondents confused of the right ordering as they claim it is uncommon these days to used three straight adjectives and therefore the researcher decided to limit the permutations to four for this work.

Some of the sentences were left out when the same semantic class of the adjectives has been used already. Two examples of each semantic class was intended to be used but the questionnaire was bulky and therefore the researcher selected one sample of those occuring twice.

4.2.4 Results

The tables that follow show the outcome of the analysis of Section 2 of the questionnaire which explored the most preferred order of adjectives in attributive positions based on the responses received. In employing FFG, the outcomes from the data is described as they occur without strictly imposing any rule or rules.

4.3 Adjectives in Attributive Position

The adjectives sampled were abbreviated by just using the first sound written in upper case to represent them in the sentences and tables, for instance Dimension type was represented with D, Value with V, etc.

4.3.1 Sequencing of two adjectives

Most of the sentences in the questionnaire had three adjectives modifying a noun. However there were two questions that tested the sequence of two adjectives which produced the following results.

28) a. Tsò **fɛ́fɛ́ó kàkàdáŋ́ŋ́** lɛ́ é -kú.
tree beautiful long DEF PERF-break
V D
'The beautiful long tree broke. '

b. Tsò **kàkàdáŋ́ŋ́ fɛ́fɛ́ó** lɛ́ é -kù.
tree long beautiful DEF PERF-break
D V
'The long beautiful tree broke.'

Table 4.1: Two adjectives from the Semantic Group of Dimension (D) and Value (V)

Level of acceptability	**V –D**		**D –V**	
	Freq	**%**	**Freq**	**%**
Completely acceptable	16	27.1	25	42.4
Highly acceptable	14	23.7	12	20.3
Quite acceptable	10	16.9	12	20.3
Quite unacceptable	5	8.5	7	11.9
Highly unacceptable	6	10.2	2	3.4
Completely unacceptable	8	13.6	1	1.7
No response	0	0	0	0
Total	59	100	59	100

From Table 4.1, 25 respondents out of the total of 59 which represented 42.4% preferred Dimension (D) adjective occurring before Value (V) adjective. Sixteen

representing (27.1%) of the respondents preferred Value (V) before Dimension (D). For total aggregate on the acceptability scale for Value before Dimension adjectives (V-D). 40 out of 59 preferred the order V-D, while 49 out of 59 preferred the order D-V. It could be concluded that the speakers preferred the D-V order when the two adjectives are from the semantic class Dimension and Value.

Dimension class and Age class adjectives tested are seen in illustration (29a-b).

29) a. Àtàdé **hèè àgbó** !lɛ́ é -fɔ̀.
dress new big DEF PERF- wet.
A D
'The new big dress is wet.'

b. Àtàdé **àgbò éhèé** !lɛ́ é -fɔ̀.
dress big new DEF PERF-wet.
D A
'The big new dress is wet.'

Table 4.2: Two Adjectives from Dimension(D) and Age (A)

Level of acceptability	**A –D Freq**	**%**	**D –A Freq**	**%**
Completely acceptable	30	50.8	6	10.2
Highly acceptable	14	23.7	8	13.6
Quite acceptable	7	11.9	13	22.0
Quite unacceptable	6	10.2	5	8.5
Highly unacceptable	0	0	14	23.7
Completely unacceptable	1	1.7	8	13.6
No response	1	1.7	5	8.5
Total	59	100.0	59	100.0

A critical examination of Table 4.2 indicates that respondents prefer Age adjectives before Dimension adjectives. The scores for the A-D order exceed the order D-

A in most situations especially on the levels of completely acceptable, and highly acceptable.

4.3.2 Sequencing of three adjectives

Now let's examine the sequencing of adjectives from the classes of Physical Property (PP), -Dimension (D) –Age (A) as found in the sentences in (30).

30) a. È -hé àdékà **tsìŋmòò àgbò mómó** kò.
3SG-buy box heavy big old certain
PP D A
' S/he bought a heavy big old box. '

b. È -hé àdékà **mómó tsìŋmòò àgbò** kò.
3SG- buy box old heavy big certain
A PP D
'S/he bought an old heavy big box.'

c. È -hé àdékà **àgbò tsìŋmòò mómó** kó.
3SG- buy box big heavy old certain
D PP A
'S/he bought a big heavy old box. '

d. È -hé àdékà **mómó àgbò tsìŋmòò** kó.
3SG-buy box old big heavy certain
A D PP
'S/he bought an old big heavy box.'

Table 4.3: Adjectives from the Adjective Semantic Class of Physical Property (PP), Dimension (D) and Age (A)

Level of acceptability	PP-D A		PP-A-D		A-D-PP		D-PP-A		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	12	20.3	8	13.6	16	27.1	5	8.5	8.5
Highly acceptable	17	28.8	21	35.6	12	20.3	18	30.5	30.5
Quite acceptable	16	27.1	10	16.9	19	32.2	20	33.9	33.9
Quite unacceptable	8	13.6	12	20.3	6	10.2	9	15.3	15.3
Highly unacceptable	3	5.1	5	8.5	3	5.1	6	10.2	10.2
Completely unacceptable	3	5.1	3	5.1	3	5.1	1	1.7	1.7
No response	0	0.0	0	0.0	0	0.0	0	0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100	100.0

From Table 4.3 the total aggregate on the unacceptability levels are PP-D-A 14(23.7%), PP A-D 20 (33.9%), A-D-PP 12 (20.4%) and D-PP- A 16(27.1%). On the level of completely acceptable the ordering PP- D-A scored 12 (20.3%), PP –A –D scored 8 (13.6%), A –D -PP scored 16 (27.1%) and D- PP –A scored 5(8.5%). Judging from the total aggregate of acceptability levels A-D-PP ordering is the most preferred one.

The ordering of the adjectives from the Physical Property, (PP) Dimension (D) Colour (C) are now examined in the sentences in (31a-31d) with the summary of responses in Table 4.4.

31) a. E -hé báàgì **tsìŋmòò wùlù díŋ** kò.
3SG-buy bag heavy large black certain
PP D C
'S/he bought a heavy large black bag.'

b. E -hé báàgì **tsìŋmòò díŋ wùlù** kò.
3SG- buy bag heavy black large certain
PP C D
'S/he bought a heavy black large bag.'

c. E -hé báàgì **díŋ́ wùlù tsìŋmòò** kò.
3SG- buy bag black large heavy certain
C D PP
'S/he bought a black large heavy bag.'

d. E -hé báàgì **wùlù tsìŋmòò díŋ́** kò.
3SG –buy bag large heavy black certain
D PP C
'S/he bought a large heavy black bag.'

Table 4.4: Adjectives from the Physical Property (PP), Colour (C) and Dimension (D) Semantic Classes

Level of acceptability	PP-D-C		C-PP-D		D-C-PP		C-D-PP		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	10	16.9	6	10.2	18	30.5	8	13.6	13.6
Highly acceptable	7	11.9	13	22.0	7	11.9	23	39.0	39.0
Quite acceptable	20	33.9	11	18.6	12	20.3	13	22.0	22.0
Quite unacceptable	7	11.9	16	27.1	9	15.3	7	11.9	11.9
Highly unacceptable	6	10.2	9	15.3	12	20.3	5	8.5	8.5
Completely unacceptable	9	15.3	4	6.8	1	1.7	3	5.1	5.1
No response	0	0.0	0	0.0	0	0.0	0	0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100	100.0

The total aggregate on the level of acceptability levels for the ordering are PP-D-C 37 (52,7%) , C-PP-D 30(50.8%) D- C-PP 37(62.7%) and C-D-PP 44(74.65). There was not much difference between the order of PP-D-C and C-PP-D in terms of total aggregate but on the completely acceptable level D-C-PP scored 18 out of 59 whiles PP-D- C scored 10. However the most preferred order is C-D-PP as it has the least score for aggregate on unacceptability level.

In example (16) above the order D-PP-C occurred with the colour nominalized, which was also found when the toy task was employed. The sequence order , however, differs from the results in table 4.4 as the participants preffered C-D-PP.

In this section, I examine the ordering of adjectives from the Colour (C), Value (V) and Dimension (D) groups. The table in 5 shows the responses in descending order on the scale 5 to 0 for the sentences in (32).

32) a. M i-nà akùtú **kpákpá bíbìóó tsùrù** kò.
1SG -see orange good small red certain.
V D C
'I saw a good small red orange.'

b. Mi -nà akùtú **bíbìóó tsùrù kpákpá** kò.
3SG -see orange small red good certain
D C V
' I saw a small red good orange.'

c. Mi -nà akùtú **tsùrù kpákpá bíbìóó** kò.
1SG –see orange red good small certain.
C V D
' I saw a red good small orange.'

d. Mi -nà akùtuú **kpákpá tsùrù bíbìóó** kò.
1SG- see orange good red small certain
V C D
' I saw a certain good red small orange.'

The ordering of adjectives from the Value (V), Dimension (D) and Colour(C) groups are examined in table 5 with their frequencies.

Table 4.5: Adjectives from the Value (V), Dimension (D) and Colour (C)

Level of acceptability	**V-D-C**		**D-C-V**		**C-V-D**		**V-C-D**		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	15	25.4	9	15.3	20	33.9	10	16.9	16.9
Highly acceptable	14	23.7	9	15.3	9	15.3	19	32.2	32.2
Quite acceptable	16	27.1	9	15.3	7	11.9	15	25.4	25.4
Quite unacceptable	6	10.2	15	25.4	9	15.3	9	15.3	15.3
Highly unacceptable	4	6.8	11	18.6	12	20.3	3	5.1	5.1
Completely unacceptable	4	6.8	6	10.2	2	3.4	3	5.1	5.1
No response	0	0.0	0	0.0	0	0.0	0	0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100	100.0

A cursory look at the Table 4.5 seem that the most preferred order is C-V-D as it has the highest frequency of 20 (33.9%) on the completely acceptable level, however a careful examination reveals V-D-C is the most preferred order as it has the lowest score on the aggregate of the unacceptability level. The order V-C-D is also preferred since the difference between it and V-D-C at the quite acceptable level is 1. The least preferred order then is D-C-V where Value is far from the noun.

I now examine the ordering of adjectives from the Physical Property (PP), Colour C) Value (V) and this is represented in Table 4.6.

33) a. Mi -hé màmá **hátáhátá táŋtáŋ yɛ́ŋ́** kò.
1SG –buy cloth light ugly white certain
PP V C
'I bought light ugly white cloth.'

b. Mi -hé màmá **táŋtáŋ hátáhátá yɛ́ŋ́** kò.
1SG- buy cloth ugly light white certain
V PP C
' I bought a certain ugly light white cloth.'

c. Mi -hé màmá **yɛ́ŋ́ hátáhátá táŋtáŋ** kò.
ISG-buy cloth white light ugly certain.
C PP V
'I bought a certain white light ugly cloth.'

d. Mi -hé màmá **yɛ́ŋ́ táŋtáŋ hátáhátá** kò.
1SG-buy cloth white ugly light certain
C V PP
'I bought a certain light white ugly cloth.'

Table 4.6 shows the analysis of adjectives from the Physical Property (P), Value (V) and Colour (C) groups and their responses.

Table4.6: Physical Property (PP), Value (V) and Colour (C) Adjectives

Level of acceptability	PP-V- C		V-PP-C		C-PP-V		C-V-PP		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	8	13.6	16	27.1	23	39.0	7	11.9	11.9
Highly acceptable	17	28.8	9	15.3	11	18.6	22	37.3	37.3
Quite acceptable	7	11.9	9	15.3	13	22.0	11	18.6	18.6
Quite unacceptable	10	16.9	18	30.5	7	11.9	8	13.6	13.6
Highly unacceptable	10	16.9	4	6.8	2	3.4	6	10.2	10.2
Completely unacceptable	7	11.9	3	5.1	3	5.1	5	8.5	8.5
No response	0	0.0	0	0.0	0	0.0	0	0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100	100.0

In examining Table 4.6 on the level of completely acceptable PP-V-C scored 8 (13.6%), V-PP-C scored 16 (27.1%), C-PP-V scored 23 (39%) and C-V-PP scored 7 (11.9%). On the level of quite acceptable , the scores were PP-V-C 7 (11.9%), V-PP-C 9 (15.3%), C-PP-V 13 (22%) and C-V-PP had 11 (18.6%). It seems that the most preferred order from the respondents is when Colour (C) occurs first followed by PP and Value last (C-PP-V).

In Table 4.7 below, I examine the sequencing of adjectives from the classes of Colour (C) Age (A) and Value (V).

34) a. E -wò **àtàdé yέŋ mómó fɛɛfέó** kò.
3SG- wear dress white old beautiful certain
C A V
'S/he wore a white old beautiful dress.'

b. E -wò àtàdé **mómó yέŋ fɛɛfέó** kò.
3SG- wear dress old white beautiful certain
A C V
'S/he wore an old white beautiful dress.'

c. E -wò àtàdé **mómó fɛ́fɛ́ó yɛ́ŋ́** kò.
3SG- wear dress old beautiful white certain
A V C
'S/he wore an old beautiful white dress. '

d. E -wò àtàdé **fɛ́fɛ́ó mómó yɛ́ŋ́** kò.
3SG-wear dress beautiful old white certain
V A C
'S/he wore a beautiful old white dress.'

Table 4.7: Adjectives from Colour (C) Age (A) and Value (V) Semantic Classes

Level of acceptability	C-A-V		A-C-V		A-V-C		V-A-C		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	29	49.2	13	22.0	18	30.5	4	6.8	6.8
Highly acceptable	12	20.3	25	42.4	17	28.8	14	23.7	23.7
Quite acceptable	9	15.3	11	18.6	6	10.2	11	18.6	18.6
Quite unacceptable	4	6.8	4	6.8	13	22.0	17	28.8	28.8
Highly unacceptable	3	5.1	1	1.7	2	3.4	5	8.5	8.5
Completely unacceptable	2	3.4	4	6.8	3	5.1	8	13.6	13.6
No response	0	0.0	1	1.7	0	0.0	0	0	0.0
Total	59	100.0	59	100.0	59	100.0	59	00.0	100.0

Table 4.7 shows the ordering levels for Colour, Age and Value. Table 4.7 indicates the levels as follows: completely unacceptable C-A-V(2), A-C-V (4), A-V-C (3) and V-A-C (8) with C-A-V having the least score. On the level of completely acceptable the scores were C-A-V (29), A-C-V (13), A-V-C (18) and V-A-C (4). With the exception of one person not indicating any response for A-C-V order the difference between C-A-V and A-C-V was not highly significant. It seems that when the adjectives are from the class of Colour, Age and Value, respondents prefer Colour to occur first or second rather than occurring farther from the noun. In comparing the example in (10a) and (10b) , colour was prefereed to occur first when sequenced with other adjectives or even when

the verb used denotes Colour, it occurs first as seen in (10b). This was confirmed from the results from participants that they prefer Colour first.

Table in 4.8 shows the acceptability levels in the sequencing of adjectives from the classes of Physical Property (PP) Age (A) and Colour (C). The sentences that were ranked are seen in (35a-d).

35) a. Mi -nà sàà **bɔ̀dɔ̀ɔ̀ hèè yɛ́ŋ́** kò.
1SG –see bed soft new white certain
PP A C
'I saw a soft new bed.'

b. M i-nà sàà **bɔ̀dɔ̀ɔ̀ yɛ́ŋ́ hèè** kò.
1SG-see bed soft white new certain
PP C A
'I saw a soft white new bed.'

c. Mi -nà sàà **hèè bɔ̀dɔ̀ɔ̀ yɛ́ŋ́** kò.
1SG –see bed new soft white certain
A PP C
'I saw a new soft white bed.'

d. Mi -nà sàà **hèè yɛ́ŋ́ bɔ̀dɔ̀ɔ̀** kò.
1SG- see bed new white soft certain
A C PP
'I saw a new white soft bed.'

Table 4.8: Analysis the Ordering of Adjectives from the Semantic Class of Physical Property (PP), Age (A) and Colour (C)

Level of acceptability	PP-A-C		PP-C-A		A-PP-C		A-C-PP		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	6	10.2	6	10.2	22	37.3	14	23.7	23.7
Highly acceptable	15	25.4	14	23.7	9	15.3	18	30.5	30.5
Quite acceptable	13	22.0	22	37.3	13	22.0	15	25.4	25.4
Quite unacceptable	8	13.6	13	22.0	5	8.5	4	6.8	6.8
Highly unacceptable	7	11.9	2	3.4	5	8.5	5	8.5	8.5
Completely unacceptable	7	11.9	2	3.4	5	8.5	3	5.1	5.1
No response	3	5.1	0	0.0	0	0.0	0	0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

The adjective classes examined from Dixon's semantic class in Table 4.8 were Physical Property (PP), Colour (C) and Age (A). On the level of complete acceptability; PP-A-C and PP-C-A orderings have the same score of 6 (10.2%) and on the level of highly unacceptable there is not much difference; A-PP-C and A-C-PP have the same score of 5 (8.5%). Three respondents did not indicate their acceptability opinion on the questionnaire that had the ordering of PP-A- C, it seems that the preferred order when PP, A, C adjectives occur with a noun is the A-C-PP order. The A-C-PP order seems most preferred as it has the lowest aggregate score on the unacceptability level. The second preferred order is A-P-C.

Table 4.9 below examines the adjective ordering from Value (V) Age (A) and Physical Property (PP). Sentences in (36a –d) show the different orders tested from these classes.

36) a. Mi -hé lòò **gbíŋ mómó kèkètèè** kò.
3SG-buy fish dry old hard certain
V A PP
'I bought some dry old hard fish.'

b. Mi -hé lòò **gbíŋ kèkètèè mómó** kò.
1SG-buy fish dry hard old certain
V PP A
'I bought some dry hard old fish.'

c. Mi -hé lòò **mómó kèkètèè gbíŋ** ko.
1SG-buy fish old hard dry certain
A PP V
'I bought some old hard dry fish.'

d. Mi -hé lòò **kèkètèè gbíŋ mómó** kò.
ISG –buy fish hard dry old certain
PP V A
'I bought some hard dry old fish.'

Table 4.9: Value (V), Age (A) and Physical Property (PP) Adjectives

Level of acceptability	V-A-PP		V-PP-A		A-PP-V		PP-A-V		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	12	20.3	19	32.2	10	16.9	7	11.9	11.9
Highly acceptable	10	16.9	15	25.4	15	25.4	13	22.0	22.0
Quite acceptable	14	23.7	9	15.3	9	15.3	11	18.6	18.6
Quite unacceptable	5	8.5	10	16.9	10	16.9	9	15.3	15.3
Highly unacceptable	10	16.9	3	5.1	6	10.2	11	18.5	18.6
Completely unacceptable	5	8.5	3	5.1	6	10.2	5	8.5	8.5
No response	3	5.1	0	0.0	3	5.1	3	5.1	5.1
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

In examining Table 4.9, the ordering V-PP-A and A PP-V have the same score on the highly acceptable level and quite unacceptable level. On the level of no response V-A –PP and PP-A-V had the same score of 3 (5.1%). The total aggregate for the orders are as follows V-A-PP 36 (60.9%), V-PP-A 43 (72.9%), A-PP-V 34 (57.6%) and PP-A-V 31(52.5%). Judging from the total aggregate on the acceptability levels the most preferred order is V-PP-A.

The Dimension (D) Age (A) and Colour (C) adjectives are found in example (37a-d) with their orderings.

37) a. Wòlò **hèè bíbìóó díŋ** lɛ́ é -làájé.
book new small black DEF PERF-lost
A D C
‘ The new small black book is lost.’

b. Wòlò **hèè díŋ biíbìóó** lɛ́ é -làájé
book new black small DEF PERF- lost.
A C D
‘The new black small book is lost.’

c. Wòlò **bíbìóó díŋ hèè** lɛ́ é -làájé.
book small black new DEF PERF-lost.
D C A
‘The small black new book is lost.’

d. Wòlò **díŋ hèè bíbìóó** lɛ́ é -làájé
book black new small DEF PERF-lost.
C A D
‘The black new small book is lost.’

Table 4. 10: Adjectives from the Semantic class of Dimension (D) Age (A) and Colour (C)

Level of acceptability	A-D-C		A-C-D		D-C-A		C-A-D		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	17	28.8	27	45.8	13	22.0	11	18.6	18.6
Highly acceptable	20	33.9	16	27.1	9	15.3	12	20.3	20.3
Quite acceptable	12	20.3	8	13.6	17	28.8	11	18.6	18.6
Quite unacceptable	9	15.3	7	11.9	13	22.0	4	6.8	6.8
Highly unacceptable	1	1.7	1	1.7	3	5.1	12	20.3	20.3
Completely unacceptable	0	0.0	0	0.0	4	6.8	8	13.6	13.6
No response	0	0.0	0	0.0	0	0.0	1	1.7	1.7
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

On the level of completely unacceptable, the orderings A-D-C and A-C-D had the same score of 0 (0%). D-C-A has 4(6.8%) and C—A-D has 8 (13.6%). 27 out of 59

respondents judged the order of A-C-D completely acceptable, with the second highest of completely acceptable being the order A-D-C. D-C-A order had 17 (28.8%) on the 'quite acceptable' level. The difference between the A-D-C and A-C-D orders which is 2 is not very significant; both orders are preferred but A-C-D order seems to be most preferred by the respondents. The order preferred by the participants is similar to the example in (13) where Colour was also found to occur before dimension when sequenced though in (37) these two adjectives occur with another one from Age class. .

4.3.3 Adjectives from same Semantic Class Plus Another

It is possible for two adjectives from the same semantic class plus another one from another semantic class to be used to modify a noun. This was found in some of the Ga literature read such as Ababio (1999). With such ordering, the permutation results in three different orders. The questionnaire sampled only two and examined them. The examples in (38a-c) indicate these.

38) a. E -tá gbɛ̀ **lɛ́lɛ́óó kàkàdáŋ́ŋ́ hèè** kò nɔ́.
3SG-sit path narrow long new certain on
D D A
'He is sitting on a narrow long new path.'

b. E -tá gbɛ̀ **lɛ́lɛ́óó hèè kàkàdáŋ́ŋ́** kò nɔ́.
3SG-sit path narrow new long certain on
D A D
'He is sitting on a narrow new long path.'

c. E -tá gbɛ̀ **hèè lɛ́lɛ́óó kàkàdáŋ́ŋ́** kò nɔ́.
3SG-sit path new narrow long certain on
A D D
'He is sitting on a new narrow long path.'

Table 4.11:Two Adjectives from the Dimension (D) and one from the Age (A) Group

Level of acceptability	D-D-A		D-A-D		A-D-D	
	Freq	%	Freq	%	Freq	%
Completely acceptable	14	23.7	14	23.7	10	16.9
Highly acceptable	13	22.0	8	13.6	16	27.1
Quite acceptable	6	10.2	5	8.5	13	22.0
Quite unacceptable	4	6.8	18	30.5	9	15.3
Highly unacceptable	12	20.3	9	15.3	6	10.2
Completely unacceptable	10	16.9	5	8.5	5	8.5
No response	0	0.0	0	0.0	0	0.0
Total	59	100.0	59	100.0	59	100.0

Table 4.11 reveals that the scores for the ordering D-D-A and D- A-D on the completely acceptable level were the same 4(23.7%) out of the 59 respondents, whereas the scores were the same for the ordering D-A-D and A-D-D on the completely unacceptable level 5 (8.5%). Though D-D-A and D-A-D had scores higher than A-D-D order it seems respondents prefer mostly the A-D-D ordering as it scored higher on the highly and quite acceptable levels which made the total aggregate higher than the other two orderings of D-D-A and D-A-D .

It was realized that when two Dimension adjectives are sequenced with or without another adjective from a different class, often, the shape adjective occurs before the size adjective. This was seen in the examples taken from the books stated above in examples (18), (19) and (20). This order of shape before size was confirmed by the participants as seen in Table 4.11

The examples in (39) also show two adjectives from the Dimension (D) class and one from Colour (C).

39) a. Nùù **díŋ kpìtíóó tɔ̀trɔ̀ɔ́** lɛ́ é -bà.
man black short fat DEF PERF-come
C D D
'The black short fat man has come.'

b. Nùù **kpìtíóó díŋ tɔ̀trɔ̀ɔ́** lɛ́ é -bà.
man short black fat DEF PERF-come
D C D
'The short dark fat man has come.'

c. Nùù **tɔ̀trɔ̀ɔ̀ kpìtíóó díŋ** lɛ́ é-bà.
man fat short black DEF PERF-come.
D D C
'The fat short dark man has come.'

Table 4.12: Two Adjectives from the Dimension Class (D) and one from Colour Class (C)

Level of acceptability	C-D-D		D-C-D		D-D-C	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**
Completely acceptable	14	23.7	24	40.7	6	10.2
Highly acceptable	17	28.8	14	23.7	19	32.2
Quite acceptable	14	23.7	11	18.6	11	18.6
Quite unacceptable	10	16.9	6	10.2	13	22.0
Highly unacceptable	3	5.1	3	5.1	7	11.9
Completely unacceptable	1	1.7	1	1.7	3	5.1
No response	0	0.0	0	0.0	0	0.0
Total	59	100.0	59	100.0	59	100.0

The ordering of D-C-D and D-D-C had the same score on the level of quite acceptable of 11 and C-D-D and D-C-D orders had the same score of 1 on the completely unacceptable level. The most preferred order seems to be D-C-D, it scored the highest on the completely acceptable level 24 (40.7%) and has the least in terms of total aggregate on the unacceptability levels.

4.3.4 Plural Nouns with Adjectives

In example 40 plural nouns were used with the adjectives from just a few sampled adjective classes to find out if there is any significant difference between plural and singular nouns when they occur with multiple adjectives. The examples are from the Colour (C) –Dimension (D) and Age(A) groups. In (40) adjectives from the Dimension, Colour, and Age groups were tested and in (41) Value (V) , Age (A) and Colour (C) were examined with plural nouns.

40) a. Yè -ì **àgbò-ì dí -jì kpiti -bíí.**
woman-PL big -PL black-PL short-PL
D C D
'big dark short women'

b. Yè -i **kpiti -bíí àgbò -i dí -jì** lɛ́.
woman-PL short-PL big -PL black-PL DEF
D D C
'short big dark women'

c. Yè -i **dí -jì kpiti-bíí àgbò -i** lɛ́.
woman-PL black-PL short-PL big –PL DEF
C D D
'dark short big women'

Table 4.13: Two Adjectives from Dimension (D) and one from Colour (C)

Level of acceptability	C-D-D		D-C-D		D-D-C	
	Freq	%	Freq	%	Freq	%
Completely acceptable	10	16.9	16	27.1	6	10.2
Highly acceptable	23	39.0	12	20.3	16	27.1
Quite acceptable	19	32.2	9	15.3	8	13.6
Quite unacceptable	3	5.1	5	8.5	9	15.3
Highly unacceptable	3	5.1	14	23.7	4	6.8
Completely unacceptable	1	1.7	3	5.1	16	27.1
No response	0	0.0	0	0.0	0	0.0
Total	59	100.0	59	100.0	59	100.0

In spite of the order D-C-D having the highest score on the completely acceptable level , the most preferred order is C-D-D . This is as a result of examining the total aggregate on the acceptability level where C-D-D had 52, D-C-D 33, and D-D-C 30. It is interesting to note that with the adjective agreeing with the plural noun the preferred order differs. In singular D-C-D was mostly preferred. In the like manner examples 19) and 20) which were from the book, aslo had shape occurring before size when two dimension adjectives were sequenced alone or with another adjective from another class wa confirmed by the participants.

The illustration in (41) shows adjectives from the Age (A) Dimension (D) and Colour (C) groups.

41) a. Àtàdé-i **hè -ì àgbò-ì tsù-jì**.
dress-PL new–PL big -PL red-PL
A D C
'new big red dresses'

b. Àtàdé -i **àgbò-ì hè -i tsù-jì.**
dress-PL big -PL new-PL red-PL
D A C
'big new red dresses'

c. Àtàdé -i **tsù-jì àgbò-ì hè-ì.**
dress-PL red-PL big-PL new-PL.
C D A
'red big new dresses'

d. Àtàdé-i **tsù-jì hè -i àgbò-ì.**
dress-PL red-PL new–PL big -PL
C A D
'red new dresses'

Table 4.14: Age, Dimension and Colour Adjectives with a Plural Noun

Level of acceptability	A-D-C		D-A-C		C-D-A		C-A-D		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	5	8.5	10	16.9	5	8.5	12	20.3	20.3
Highly acceptable	15	25.4	7	11.9	11	18.6	11	18.6	18.6
Quite acceptable	6	10.2	8	13.6	12	20.3	12	20.3	20.3
Quite unacceptable	16	27.1	14	23.7	13	22.0	4	6.8	6.8
Highly unacceptable	3	5.1	13	22.0	8	13.6	9	15.3	15.3
Completely unacceptable	12	20.3	7	11.9	10	16.9	9	15.3	15.3
No response	2	3.4	0	0.0	0	0.0	2	3.4	3.4
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

Table 4.14 reveals the same frequency score for A-D-C and C-D-A orders on the completely acceptable level; however on the level of 'highly acceptable' A-D-C order scores more than C-D-A order and on the level of 'quite acceptable' C-D-A scores twice the score of A-D-C. A critical look reveals that the most preferred order is C-A-D as it has the highest score on the completely acceptable level and also the highest score in terms of total aggregate on the acceptability levels.

In example (41a-d), the results confirmed that colour adjectives were preferred to occur first when sequenced with one or two adjectives which was seen in examples (10) and (13) above.

The examples in (42) show adjectives from the semantic classes of Age (A) Physical Property PP and Colour (C).

42) a. Màmá-i **hè -i fɛ́ɛ́fɛ́ -jì dí -jì.**
cloth -PL new-PL beautiful –PL black- PL
A V C
'new beautiful black clothes'

b. Màmá-i **fɛ́ɛ́fɛ́ -jì hè -ì dí -jìì.**
cloth-PL beautiful –PL new-PL black-PL
V A C
'beautiful new black clothes'

c. Màmá-i **dí -jì fɛ́ɛ́fɛ́ -jì hè -ì**.
cloth-PL black-PL beautiful–PL new-PL
C V A
'black beautiful new clothes'

Table 4.15: Age, Value and Colour Adjectives

Level of acceptability	A-V-C		V-A-C		C-V-A	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**
Completely acceptable	10	16.9	7	11.9	9	15.3
Highly acceptable	13	22.0	9	15.3	11	18.6
Quite acceptable	18	30.5	14	23.7	10	16.9
Quite unacceptable	8	13.6	20	33.9	10	16.9
Highly unacceptable	4	6.8	2	3.4	7	11.9
Completely unacceptable	5	8.5	6	10.2	11	18.6
No response	1	1.7	1	1.7	1	1.7
Total	59	100.0	59	100.0	59	100.0

Table 4.15 reveals that the score for 'no response' was the same for all the orders (i.e 1.7%). In examining the acceptability levels for the order A-V-C scored the highest on all the levels, and on the level of unacceptability it also has the least score. Respondents seem to prefer the order A-V-C most compared to the two orders V-A-C and C–V-A.

4.4 Adjectives in Predicative Position

The section three on the questionnaire had some few sentences that tested how adjectives in predicative positions in English are expressed in Ga. There were six sentences which were in English and the respondents wrote the Ga equivalents. This was mainly to test how predicative positions filled by adjectives are expressed in Ga. Do they occur as the

same in English or not. In employing the FFG what was found was expressed as such as the framework allows you to describe what actually pertains from the data. Exceptions could be expected as nothing restricts the analysis. The data served as the sole guide in the analysis.

4.4.1 Results

The test to find out how adjectives faired in predicative positions yielded the following which are displayed in the tables. The English sentences in the questionnaire are placed first and the Ga equivalents are placed and then tabulated with the number of respondents who write each equivalents and the highest scored one seen as the most preferred.

An English sentence on the questionnaire:

43) The boy is dark and tall.

This sentence in (43) yielded four different realizations in Ga and below are the constructions with the number of respondents tabulated and put in percentages.

a. Gbékɛ́nùú ! lɛ́ **kwɔ̀** nì é **- dí** **- ɔ̀** .
child boy DEF be tall CONJ 3SG- be black-HAB
'The child is tall and black'.

b. Gbékɛ́nùú !lɛ́ **dí- ɔ̀** nì é **-kwɔ̀.**
child boy DEF be black-HAB CONJ- 3SG-tall
'The child is dark and tall.'

c. Gbékɛ́ lɛ́ **kàkàdáŋ́ŋ́ díŋ** nì.
child DEF long black PART
'The child is tall and dark.'/he is a tall dark child'.

d. Gbékɛ́ lɛ́ **díŋ kàkàdáŋ́ŋ́** nì.
child DEF black long PART
'The child is dark and tall.'

Table 4.16:Predicative (Dimension and Colour)

Respondents options	Frequency	Percentage
A	27	45.8
B	20	33.9
C	5	8.5
D	3	5.1
Total	59	100

Table 4.16 shows that 27 out 59 respondents (i.e 45.8%) constructed the sentence in a. In (a) the PC items dark and tall have been replaced by verbs as compared to the English where they (PCs) are from the adjective class. The occurrence of a PC in (a) is the verb *kwɔ̀* 'be tall' which shows the PC item from the Dimension class precedes the verb *díɔ* 'be black' from the Colour class. The sentence in (b) is vice versa of (a) and 20 out of 59 respondents gave that construction. In (c) and(d) the respondents used adjectives just like the English examples and (c) has the dimension type of adjective *kàkàdáŋ́ŋ́* 'long/tall' occurring before the color adjective *díŋ́* 'black'. The reverse order is seen in d. Two (2) respondents wrote down the construction in (c) and 3 respondents representing 5.1% constructed (d). It can be concluded that the use of verbs to denote the PC item where it is exist is preferred by the Ga. In contrast, to example (13) which was from the book, Dimension adjective occurred before Colour when verbs were employed as seen the data in example (43). Participants preferred to mention the dimension verb first as it had the highest score.

The sentence in (44) was another one on the questionnaire that sought to find out the predicative use of the adjective.

44) The building is new.

Ga

a. Tsú !lɛ́ yɛ̀ **é -hèè.**
building DEF has NOM-new
'The building is new.'

b. Tsú !lɛ́ **hèè.**
building DEF new
'The new building.'

c. Shíá !lɛ́ **é -hèè** ni.
house DEF NOM-new PART
'The house is new/the house is a new one.'

d. Tsù **hèè** lɛ́.
building new DEF
'The new building'

e. Tsù **hèè** nɛ́.
building new PART
'That building is new'/that is a new building.

f. Tsù **é-hèè** nɛ́.
building NOM-new PART
'That is a new building'

Table 4.17: Age in Predicative position

Respondent options	Frequency	Percentage
A	24	40.7
B	2	3.4
C	5	8.5
D	11	18.6
E	13	22.0
F	2	3.4
Total	59	100

The sentence in (44) yelded six different Ga translations. In Table 4.17 the construction in (a) was provided by 24 out 59 respondents (40.9%) had the PC item *hee* 'new' prefixed with e- which nominalises the PC item. In (b) the prefix e- is absent and

that was constructed by 2 respondents. In (c) the prefix is present on the PC item to nominalise the PC item and this was by 5 respondents (8.5%) . In (c) a verbless sentence is employed by 8.5% of the respondents. In (d) the respondent s which total 11 used a phrase to put the idea across and in (e) and (f) the respondents employed verbless structures as well. 12 out of 59 respondents put down (e) and 2 put down (f). In (f) the e-prefix is seen again. This adjective'new' which is from the Age class has no verbal equivalent.

The next sentence which was also to check on predication is seen in (45).

45) The bucket is big and blue.

From the English sentence, seven constructions were realized:

a. Gògá lɛ́ yè **bluu** nì è **-dà.**
bucket DEF has blue CONJ 3SG-be big
'The bucket is blue and its big.'

b. Gògá lɛ́ **dà** nì **bluu** nì.
bucket DEF big CONJ blue PART
'The bucket is big and blue.'

c. Gògá **bluu àgbó** !lɛ́
bucket blue big DEF
'The blue big bucket'

d. Gògá **àgbò bluu** lɛ́.
bucket big blue DEF
'The big blue bucket'

e. Gògá **bluu** lɛ́ **dà.**
bucket blue DEF be big
'The blue bucket is big.'

f. Gògá **àgbò** nì é **-daà**
bucket big CONJ 3SG-be big
'The bucket is big and its big.'

g. Gògá lɛ́ **dà** nì é -yɛ̀ **bluu**
bucket DEF be big CONJ 3SG be blue
'The bucket is big and it is blue.'

Table 4.18: Colour and Dimension in Predication

Respondent Options	Frequency	Percentage
A	8	13.6
B	6	10.2
C	5	8.5
D	9	15.3
E	11	18.6
F	4	6.8
G	16	27.1
Total	59	100

Table 4.18, example (g) had the highest score of 16 out of 59, representing 27.1% . In (g) the verb denoting PC item which is Dimension type *dà* 'be big' occurred before the Colour type appeared in adjective form *bluu* 'blue'. The second highest score was (e) written by 11 respondents (18.6%). It is the opposite form of the (g) where Colour occurred before Dimension. 4 out of the 59 respondents representing 6.8% had the least score with the order Dimension preceding another Dimension type. Constructions (c) and (d) had the adjectives used, in (c) Colour type *bluu* 'blue' occurred before Dimension type *àgbò* 'big' and the vice versa occurred in (d). Even though (b) is similar to (g) respondents preferred to utter (g) than (b).

The preferred order by participants from the English example in (45) which is (g) differs from what was written in the book as seen in example (13) where Dimension occurred before Colour. The difference in sequence order may be due to the use of a verb denoting Dimension.

46) The books are heavy and old.

a. Wò -jí !lɛ́ yɛ̀ **tsìŋmòò é -mómó** lɛ́.
book-PL DEF be heavy NOM-old DEF
'The books are heavy and old.'

b. Wò -ji ! lɛ́ yɛ̀ **tsìí** nì é -yɛ̀ **é -mómó.**
book-PL DEF be heavy CONJ 3SG- be NOM –old
'The books are heavy and they are old.'

c. Wò -ji !lɛ́ **tsìí** nì éfɛ̀è **é -mómó.**
book-PL DEF heavy CONJ become NOM-old
'The books are heavy and they have become old.'

d. Wò -ji !lɛ **é -gbɔ̀** nì **tsìíi**.
book-PL DEF PERF be old CONJ heavy
'The books are old and heavy.'

e. Wò -ji ! lɛ́ **é -gbɔ̀** nì **é -tsìí.**
book-PL DEF PERF old CONJ PERF- heavy
'The books are old and are heavy.'

f. Wò -ji **mémé-ji** lɛ́ **tsìítsìí.**
book-PL old -PL DEF heavy
'The old books are heavy.'

Table 4.19: Age and Physical Property Adjectives

Respondent options	Frequency	Percentage
A	4	6.8
B	12	20.3
C	6	10.2
D	10	16.9
E	7	11.9
F	9	15.3
G	11	18.6
Total	59	100

Table 4.19 shows PC items from the classes of Physical Property and Age. Twelve (12) respondents out of 59 (20.3%) preferred to place the verb *tsìí* 'be heavy' the Physical Property before the adjective *mómó* 'old' Age type as represented in (b). Construction (g)

had the adjective *méméji* ‘old’ (PL) occurring first as an attribute then the Age verb is found in the predicate and that was preferred by 11 respondents (i.e 18.6%). Though there are verb equivalents for both adjectives employed in the sentence the preferred one chosen by the respondents (b) consists of the adjective and the verb. (b) and (c) are the same except the verbs used *yè* ‘has/posses in(c) and *éfèè* ‘has become’. Construction (a) which employed adjectives had the least score of 6.8%.

4.5 Summary and Generalisations

The chapter investigated the sequencing of adjectives in attributive position. A brief examination was made for two adjectives in attributive positions and the sequencing of three adjectives samples were investigated into much more details.

In Table 4.1 two adjectives from the semantic class of Dimension and Value were sequenced and it was revealed that respondents most preferred the order of Dimension before Value. In Table 4.2 Age adjectives were preferred to occur first followed by Dimension when the two semantic types were sequenced.

In Table 4.3 the sequencing of three adjectives from the semantic classes of Physical Property, Dimension and Age were examined. From the scores obtained, respondents preferred most the order of Age followed by Dimension and the Physical Property.

In Table 4.4 after the examination of Dimension, Colour and Physical Property adjectives, it came to light that the most preferred order was Colour, Dimension and Physical Property.

Table 4.5 involved the sequencing of Colour , Dimension and Value , the most preferred order was Value , Dimension and Colour.

Table 4.6 involved the sequencing of Physical Property, Value and Colour adjectives and the most preferred order was seen to be Colour Physical Property and Value.

In Table 4.7 the order Colour Age and Value were found to be the most preferred when these three were sequenced.

Table 4.8 examined the sequencing of three adjectives from Physical Property, Colour and Age group and the scores revealed that the most preferred order was Physical Property followed by Age and then Colour.

Table 4.9 scores revealed that respondents most preferred Value followed by Physical Property and Age when these three were involved.

Table 4.10 investigated the sequencing of Dimension, Age and Colour adjectives and respondents preferred most the order is Age occurring first , followed by Colour and then Dimension.

The work also examined two adjectives from the same semantic class plus one other from another semantic class. Two Dimension adjectives were sequenced with one Age adjective in Table 4.11. The scores revealed that the respondents preferred Age followed by the two Dimension adjectives.

Table 4.12 examined two Dimension adjectives plus one Colour adjective and the scores revealed that respondents preferred the Colour adjective between the two Dimension adjectives.

The work further investigated adjectives that occur with plural nouns. These adjectives normally agree with the noun in number. This was examined in Table 4.13 where two adjectives from the same Dimension class and one Colour type were analysed. It was interesting to note that in the singular the order Dimension, Colour then Dimension was the most preferred but in the plural the order changed to be Colour followed by the two Dimension adjectives.

The Age, Dimension and Colour adjectives sequenced with plural nouns reveal that respondents preferred Dimension last preceded by Age which is preceded by Colour (i.e D-A-C). This was in Table 4.14.

The last Table 4.15 on attribution, which examined the order Age, Colour and Value, showed that the most preferred order with the plural nouns is Age, Value and Colour.

Tables 4.16- 4.19 examined adjectives in predicative positions. The constructions which had adjectives in predicative positions on the questionnaire were translated into Ga. The results revealed that most of the respondents used the verbal equivalents of the adjectives that had them and then those with no verbal equivalents, their Ga renditions are employed. The constructions therefore differ from the English as these may not necessarily be used predicatively in Ga. Whenever the verbal equivalents are present, respondents prefer to employ them first before the non-verbal equivalents (that the adjectives then follow).

An attempt to bring out some preferred generalisations, these could be mentioned:

Colour adjectives hardly occur in the middle when sequenced with two other adjectives.

Dimension adjectives hardly occur first when sequenced

Age adjectives are mostly first or second in multiple use of adjectives.

When the noun is in the plural and two adjectives from the same semantic group is employed, the two adjectives from the same semantic class occur after each other.

When two verbs denoting Dimension and Colour are employed in multiple use, the verb denoting Dimension is preferred to occur before the verb denoting Colour.

When the two PCs used consist of a verb and an adjective, speakers prefer the verb to occur before the adjective.

When two adjectives from the same class are sequenced shape normally occur before size dimensional adjectives.

4.6 Chapter Summary

From the scores given by respondents Dimension adjectives can occur at the initial position, medial position or final position when sequenced with other adjectives. Value adjectives were mostly found to occur closer to the noun or last in the attributive position. Colour adjectives also occurred closer to the noun or found at the final positions in most cases. The Colour adjectives occurred only in middle position when they are sequenced with two adjectives from the same semantic class.

In examining how adjectives are used to express the predicative function in Ga, it was realized that verbal equivalents of the adjectives are preferred to the adjectives themselves. Most often, the adjectives are used only when the verbal equivalent is not existent. In cases where the adjectives are used they occur in the same forms or are prefixed with the nominaliser prefix *e-*

Endnotes

[ii] In the questionnaire, for those that have more than four permutations, only four were used. In section 2 there were some that occurred twice in terms of the semantic classification, and only one of them was for the analysis. Section 3 where translations were done, those constructions that have adjectives in predicative position were analysed. The very last questions(7) of sequencing was not used in this analysis.

CHAPTER FIVE

USING GA VERBS TO DENOTE PROPERTY CONCEPTS

5.0 Introduction

This chapter examines verbs that can be used to denote property concepts (PCs) or express adjectival meanings. Some languages denote PCs using verbs, but verbs that may denote PCs may differ from verbs that do not express PCs in terms of inflections or complement options taken. The adjective class, for instance, in Semelai are derived from a sub-class of verbs due to their morphosyntactic properties (Kruspe 2006). Dixon (2006: 15) notes that when adjectives and verbs appear in the intransitive predicate position there are criteria for distinguishing the two syntactic categories and these include different possibilities within the predicate slot; different transitivity possibilities; their modification for NP may vary in comparative constructions, and lastly they may have different ways for forming adverbs.

Dixon (2006:14) refers to adjectives that function as intransitive predicate as verb-like adjectives. He claims that these are verbs which take all or some of the verb inflections in that language. Sometimes the verbs that denote PCs may have corresponding adjective forms, for instance, in Igbo (Dixon 2006: 19). Backhouse (2006) classified adjectives which express adjectival meanings in Japanese into two categories; inflected adjectives and uninflected adjectives. The inflected adjectives are similar to verbs in Japanese due to their morphological and syntactic properties. He analysed them as a subclass of verbs with adjective-like content. This phenomenon of verbs being used to express PCs occurs in Ga. The features of these types of verbs will be discussed to find out whether they are a special category or not, and if they have special

morphosyntactic properties different from verbs that are not used to express PCs. The verbs to be discussed are main verbs, not the preverbs found in Ga as noted by Dakubu (2004:95). The preverbs as normally do not take inflections and are attached to the main verbs. The Ga preverbs(*kɛ, ka,* and *ba/ya*) are reduced verbs which may mark polarity, deixis or license a particular object.

5.1 What is a verb?

The syntactic categories of words in a language are based upon their morphological and syntactic distribution (Carnie 2013:47). The inflections that are common to the word class are exhibited and these define the words clearly. Verbs in traditional grammar have been defined to be action words or doing words. Rauh (2010:17) cited Davidson (1874) as defining a verb as "an indeclineable word indicating time, person and number and showing activity or passivity. The verb has eight accidents: Mood, Disposition, Voices, Species, Form, Number, Tense, and Person conjugation". Depending on the language under consideration, not all the accidents may be marked directly on the verb. Matthews (2007:427) defines a verb as:

> "one of a class of lexical units whose characteristic syntactic role is as a predicate or predicator and which is characteristically that of words denoting actions or processes: eg *run, make, melt*"

Matthews therefore sees a verb as word that denotes processes or actions in languages. This is the category of word class being examined. Verbs normally take arguments such as Noun Phrases and other Phrases from any of the syntactic categories. The arguments are required by the verbs for the meaning to be clear and complete. A verb in this work is the word that heads the VP and can be inflected to show tense or aspect or mood.

5.2 Sources of Verbs

Languages may have derived and non-derived verbs. For instance in English the adjective 'thick' can be suffixed with /–en/ to derive a verb "thicken". There are non- derived verbs like *to come, to write,to read* etc in English. Most verbs in Ga are not derived from other sources. Verbs can be monosyllabic, disyllabic or polysyllabic etc. They also carry tones which may have low, high, low and high, and high -high. The following are examples of verbs in Ga.

1) a. yè 'eat' bà 'come'

nã̀ 'to get' jà 'to share

Examples of monosyllabic verbs which have low tone are as follows:

b. kè to give present' kpà 'to stop'

kɛ̀ 'to lift' jù 'to steal'

bà 'to beg' fò 'to cut'

nù 'to hear'

high tone verbs:

nú 'to hear' fó to cry

dú 'to plant bí 'to ask'

disyllabic verbs in 1c)

c. bɔ́í 'to begin' wàjé 'to harden'

kàsé 'to learn' fíté 'to spoil'

málé 'to lie' yɔ́sé 'observe'

Polysyllabic words in 1d).

d. fílíkí ‘to fly’ dídáá ‘to stagger’

Dakubu (1970, 2002) notes that the simple verbal group in Ga consists of an independent verb stem preceded by a pronoun. There are eleven affixes which are attached to verb stems. The affixes may indicate tense, aspect or polarity. Dakubu (2003, 2004) further classifies the Ga verb stems into two classes namely class I and class II. Verbal stems in Class I are those with initial high tone, polysyllabic stems with low tone throughout and a group of twelve monosyllabic low-toned stems. Monosyllabic low-toned and all polysyllabic stems having initial low tone followed by a high belong to Class II set of verbs in Ga. Below in (2) are examples of class 1 verbs and class II verbs[iii].

2)	**Class I verbs**	**Class II verbs**
i)	bí ‘ask’	bà ‘to beg’
ii)	gbá ‘split’	gbè ‘to kill’
iii)	jɛ̀kɛ̀ ‘be far’	jwà ‘to break’
iv)	gbèlè ‘to open’	hìɛ́ ‘to keep/hold’
iv)	gbí ‘to dry’	jàjé ‘to straighten’

5.3 Inflectional Morphology for Ga Verbs

The verbs in Ga can be inflected to show tense. Aarts (2011) stated that languages often use the grammatical system of tense to express time. An event grammatically encodes that the reported event occurred at some time in the past. English, for instance, has two grammatical tenses that is the present and past. Aspect can also be marked on the verb. Aspect is a grammatical device that is used to make reference to the way a particular event unfolds in time. This is normally through affixes. Ga verbs with high tones

normally take prefixes and suffixes. Below is a paradigm of verbs in Ga with a high tone from the class one type and also verb type two in (3a-b)

Verb Type I

3) a. bi 'to ask'

Perfect :Aku é-!bí
Aku PERF-ask
'Aku has asked.'

Past: Aku bí.
Aku ask.PST
'Aku asked.'

Progressive: Aku mìì-bí.
Aku PROG-ask
'Aku is asking'.

Habitual: Aku bí-ɔ̀.
Aku ask-HAB
'Aku asks.'

Subjunctive: Aku á -bí.
Aku SBJV-ask
'Aku should ask'.

Future : Aku bàá-bí.
Aku FUT-ask
'Aku will ask'.

Imperative: bi 'you (SG) ask
Nyɛbia ' you (PL) ask'

Negative:

Aku bí-íí Ayi sànè.
Aku ask-NEG Ayi sane.
'Aku did not ask Ayi about the matter.'

Perfect:

Aku bí-kó mí saǹè.
Aku ask-NEG 3SG matter
'Aku has not asked me about the matter'

Future:

Aku bí-ŋ lɛ̀.
Aku ask-NEG 3SG
'Aku will not ask him.'

Imperative

Kàá-bí
NEG –ask
Do not ask

nyɛ́-ká-bia
2PL- NEG- ask-SUF
you should not ask

b. Verb type 2

Perfect: Aku é-kè mí wòlò.
Aku PERF-present 1SG book
'Aku has presented a book to me'.

Past: Aku ké mí wòlò.
Aku present.PST 1SG book
'Aku presented a book to me'.

Progressive: Aku mìì-kè mí wòlò.
Aku PROG-present 1SGbook
'Aku is presenting a book to me'.

Habitual: Aku kè -ɔ mí wòlò.
Aku present –HAB 1SG book
'Aku presents a book to me'.

Subjunctive: Aku á-!kè mí wòlò.
Aku SBJV-present 1SG book
'Aku ought to present a book to me'.

Future: Aku bàá-kè mí wòlò.
Aku FUT-present 1SG book
'Aku will present a book to me'.

Negative:

Tete é -ké -éé níí.
Tete NEG-present-NEG 3SG
'Tete did not ask him.'

Tete é -ké -ŋ níí.
Tete NEG-give- NEG thing
'Tete will not give anything.'

Tete é -ké -ko níí.
Tete NEG-present-NEG 3SG
'Tete has not ask him.'

In (3a) the verb type 1 shows a paradigm where suffixes /*–ko* /and /*–vv/* are used for negation and prefixes /*mii-/, /a-*/ and /*e-*/ are used for the progressive, subjunctive, imperative and perfect. For verb type two in (3b) the discontinuous morphemes *e-ko*, *e-vv*. *e-ŋ* are used for negation, prefixes for progressive, future, subjunctive and imperative. It must be noted that in the negative the distinction gets lost between past, progressive and habitual in terms of time as the negative form is the same in all three.

A kind of grammatical information about verbs is the regularly derived forms which are the iterative, distributive, gerundive and agentive. A derivation is said to be regular if it is one of the types below (Dakubu 2009).

Verbs can be put in the iterative by suffixing the verb stem with /*–mɔ*/ or the verb stem with LV (liquid and vowel) suffix where the V is the copy of the vowel in the stem. For instance, *jàlà* 'divide' is the iterative from the verb stem *jà* to divide /share' Check examples (4) and (5).

4) Yòó !lɛ́ ŋmà wòlò.
woman DEF wrote book.
'The women wrote a book'.

5) Yè -í !lɛ́ ŋmà -là wò -jì.
woman-PL DEF write - ITR book-PL
'The woman wrote books/letters.

- Ga verbs can be reduplicated to indicate distributive. In the distributive form, second occurrence of the stem has low tone rising to high tone on the lengthening of the last vowel. For example *ti* ‘thicken becomes *tìtíi* 'thicken’. A distributive iterative can also be derived by reduplicating the iterative that is suffixed, for instance, *kùmɔ́kùmɔ́* ‘break’. Verbs that are in the distributive have the pluralizing suffix /–i/ which in pronunciation has a lower tone than the end of the reduplicated stem.

- A Ga gerund consists of a low toned verb stem plus –V suffix, the V is a copy of the vowel in the stem, for instance, *shwà* ‘to boast’ has the gerund *shwàà* ‘boasting’ and bà ‘come’ *bàà* ‘coming’. It could also be a low toned stem plus the suffix –lV with no tone change or it can also be / *-mɔ*/ added to the verb stem *dúmɔ* ‘planting’.

- The agentive noun is formed by attaching the /*–lɔ*/ suffix added to the verb stem for example *wìélɔ̀* ‘speaker’ from the verb *wìé* ‘to speak’. Below are examples in (6-14) showing verbs in distributive or iterative forms in sentences.

6) Yè -í !lɛ́ ŋmà wòlò.
woman-PL DEF wrote book.
‘The women wrote a book’.

7) Yòó !lɛ́ ŋmà -là wò -jì.
woman DEF write - ITR book-PL
‘The woman wrote books/letters’.

8) Ábìfáó lɛ́ wɔ̀.
child DEF sleep
‘The child slept’.

9) Ábìfá-bìì lɛ́ wɔ̀wɔ̀-í.
child-PL DEF sleep- DISTR. ITR
'The children slept'.

10) Nùú ! lɛ́ yé fúfúì.
man DEF eat.PST fufu
'The man ate some fufu.'

11) Nùú !lɛ́ yéyé-ì nìì
man DEF eat -DIST.ITR things
'The man ate different kinds of food'.

12) Híí !lɛ́ yé -yé -ì nìì.
man DEF eat-DIST-PL things
'The men ate different types of food.'

13) Wòló ! lɛ́ tsé.
book DEF tear.AOR
'The book got torn'.

14) Wò -jí ! lɛ́ tsérɛ.
book-PL DEF tear-ITR
'The books got torn.'

In examples (6), (8), (10), and (13) the verbs are in their simplest forms but in (7) and (14) the verbs are in the iterative forms with a plural subject *yèì* 'women' and *wòjì* 'book' respectively. The illustration in (7) has the verb in the iterative with the singular subject *yòò* 'woman'. The iterative normally has some sort of number agreement with either the object or the subject but must necessarily agree in number with the object. In (9) the verb is in the distributive form. In (11) and (12) the verb forms are the distributive iterative and these must agree in number with the objects.

A predicate basically refers to the action or event, state or process that is expressed in any given sentence. This is designated by the Ga verb. Verbs serve as the head of VP and

occur in the predicate. This means that the head of the predicate is the VP. Syntactically verbs in Ga occur after the subject in an SVO sentence order.

5.4 Derivational Morphology of Ga verbs.

Ga verbs can be nominalised through affixation. The affixes are generally suffixes which may be */-lɔ ,-mɔ, -lɛ , -li/* and some few verbs are nominalised by adding a copy of their final vowel of the stems. Depending on the verbs under consideration one of these suffixes would be attached. Verbs having high tone and polysyllabic verbs are those attached with the suffix */-mɔ/* and low toned verbs usually take a copy of the vowels. Illustrations are in (15).

15)

	Verb	**Nominal**	**Verb**	**Nominal**
i)	tsɔ̀ɔ̂ ‘to teach’	tsɔ̀ɔ́lɔ̀ ‘teacher’	wíê ‘to speak’	wìélɔ ‘speaker/talkative’
ii)	tsɔ́sé ‘to train’	tsɔ́sémɔ ‘training’	dú ‘plant’	dúmɔ̀ ‘planting’
iii)	wɔ̀ ‘sleep’	wɔ̀ɔ̀ ‘sleeping’	tù ‘jump’	tùù ‘jumping’
iv)	yè ‘eat’	yeli ‘eating’	fá ‘be enough’	fálɛ ‘sufficiency’

The suffix /*-lɔ*/ normally forms the agentive for the action. The addition of the /*-mɔ/* suffix derives the action undertaken and /-lɛ/ also gives the nominal form of the verb. The suffix/- *li*/ which occurs only in *ye* ‘to eat’ also gives the action.

5.5 Transitivity of verbs/ complement options for verbs

A study by Adjei 1999:4 reveals that in Ga “.....some verbs take no complement, some take one and others take two, based on this, three classes of verbs are distinguished”.

Ga verbs can therefore be said to be of three types: transitive, intransitive, and ditransitive. Transitive verbs may have optional adverbs modifying the verbs in the clause and transitive verbs take the arguments of subject and object. Some verbs may also require two objects. Due to the difficulty in categorising some of the Ga verbs (due to their complement options) it is suitable to categorise the verbs into two: transitive and intransitive. This division which differs from Adjei (1999), sub- divides transitivity into monotransitive and ditransitive.

The complement options for verbs are discussed in this section. The first to be discussed are those verbs that do not subcategorise for any complement. These verbs will therefore be placed in the intransitive category. There may be adverbs modifying them. Below are examples in (16-20).

16) Tòó !lέ gbó.
goat DEF die.PST
'The goat died.'

17) Kòòlòó !lέ gbó nyὲ.
animal DEF die yesterday
'The animal died yesterday'.

18) Àbìfáó lέ wɔ̀.
child DEF sleep.
'The child slept '.

19) Àbìfáó lέ wɔ̀ vìì.
child DEF sleep soundly
'The child slept soundly'

20) Wònú !lέ tswà kɔ̀tɔ̀kɔ̀tɔ̀.
soup DEF boil IDEO
'The soup boiled'.

In (17), (19) and (20) the verbs have adverbs modifying them which are *nyὲ* 'yesterday' *vìì* 'soundly' and *kɔ̀tɔ̀kɔ̀tɔ̀* (an ideophone).

There are verbs that subcategorise for one complement. This may be of two types: there are those verbs that inherently occur with their complements and those that occur with complements not specified by the verb. This is what Adjei (1999:62) also noted and wrote that ".... some transitive verbs have their meanings specified in them and others have their meanings specified outside them". Sampson (2011:40) in his study grouped these Ga verbs as regular inherent complement verbs and irregular inherent complement verbs. Below are illustrations (21-26).

21) Ajele yé níyènìì.
Ajele eat.PST food
'Ajele ate the food'.

22) Kojo gwàò gbékɛ́ lɛ́.
Kojo beat.PST child DEF
'Kojo beat the child'.

23) Gbèé lɛ́ kpé wú lɛ́ fɛ̀ɛ̀.
dog DEF chew bone DEF all
'The dog chewed the bone'.

24) Ama tá shi.
Ama sit ICV
'Ama is sitting down'.

25) Ama tà mí dɛ̀.
Ama shook 1SG palm
'Ama shook my hand'.

26) Nùú !lɛ́ é -gbè nìì nàà.
man DEF PERF–finish things ICV
'The man has finished with the stuff.'/'The man has completed the task.'

In example (21-23) the verbs do not have their complement specified in them with the exception of those in (24-26). It is only possible to utter these sentences in (21-23)

without the objects or complement in instances where interlocutors are aware of the issue discussed. For instance (27) could be a response to a question *Namɔ ye omɔ?* 'Who ate the rice'

27) Adjele yé.
Ajele ate.

The complement options are generally NPs as noted above. There are also verbs that take nominalized verbs as objects or VPs which relate to stages of activities as their complements (Dakubu 2007) such as (28a) and (28b).

28) a. E`-bɔ́î shwɛ́-mɔ`.
3SG-begin play-NOM
'He began playing'.

b. E` -tèè wòlò kánè-mɔ`
3SG-go book read-NOM
'He went to read'.

Verbs can also take two complements. These verbs strictly subcategorise for two objects syntactically for meaning to be complete. Below are some illustrations in (29-30).

29) Yòó ! lɛ́ há nùú ! lɛ́ shíká.
woman DEF give.PST man DEF money.
'The woman gave the man money'.

30) Adole màjé Adote wòlò.
Adole send.PST Adote book
'Adole sent Adote a book.'

31) Nùú !lɛ́ é -kè kásèlɔ́ lɛ́ àtàdé.
man DEF PERF-give student DEF dress.
'The man has presented a dress to the student.'

In (29) the objects are *nùú !lɛ́* 'man' and *shìká* 'money and these are complements of the verb *há* 'to give'. *Adote* 'Adote' and *wòlò*'book' in (30) serve as objects for the verb *màje* 'to send' and *kásèlɔ`* 'student' and *àtàdé* 'dress' serve as complements in (31) for

the verb *kè* ‘to give’ respectively. This type of verbs in (28-30) can be placed in the ditransitive class.

There are verbs that also can take one complement or no complement at all for the sentences to be syntactically and semantically correct. These verbs can therefore be used transitively or intransitively. Below are instances in (32-34).

32) a. Tsó !lɛ́ kù.
tree DEF break
‘The tree/stick broke.’

b. Yòó ! lɛ́ kù tsó !lɛ́.
woman DEF break.PST tree DEF
‘The woman broke the stick.’

33) a.Glàsé lɛ́ jwà.
glass DEF break.
‘The glass broke’

33) b. Nùú !lɛ́ jwà glàsé lɛ́.
Man DEF break glass DEF
‘The man broke the glass.’

In (32a) the verb *kù* ‘break has been used intransitively, the subject *tsó! lɛ́* ‘the tree’ which is the theme is found in subject position whereas in (32b) the same verb has been used transitively and *tsó !lɛ́* the tree becomes the patient and the subject position in (31b) has the agent *yòó !lɛ́* ‘the woman’. In the same vein, the verb j*wà* ‘to break’ has also been used intransitively and the subject position is filled by the patient/theme *glàsé lɛ́* ‘the glass’. In (33b), the patient/theme in (33a) is found in object position, as the verb *jwà* has been used transitively and has an agent *nùú* !*lɛ́* ‘the man’. These kinds of verbs, that is, those that can be used both transitively and intransively, can be put in a group.

There is another group of verbs that can take either one or two complements. Below are instances of these types.

34) Kásèlɔ́ lɛ́ ŋmà wòlò.
student DEF wrote book.
'The student wrote a book.'

35) Tsɔ̀ɔ́lɔ́ lɛ́ ŋmà kásèlɔ́ lɛ́ wòlò.
teacher DEF write.PST student DEF book
'The teacher wrote a letter to the student.'

36) Nùú ! lɛ́ tswà tù.
man DEF shoot.PST gun
'The man fired a gun.'

37) Nùú !lɛ́ tswà kòòlòó lɛ́ tù.
man DEF shoot .PST animal DEF gun.
'The man shot the animal.'

38) Màmí lɛ́ fà nùú !lɛ́ shìká.
mother DEF borrow man DEF money
'The mother borrowed the man money.'

39) Màmí lɛ́ fà shìká.
mother DEF borrowed money.
'The mother borrowed some money.'

There are verbs also that take clauses as complements. The complements of these verbs are introduced by the complementizer *àkɛ́* 'that'. It is sometimes possible for the complementizer to be left out, like the sentence in (40) where the complementizer may appear or not. These are demonstrated below.

40) Yòó !lɛ́ kɛ̀ɛ́ (àkɛ́) é -bàá -bá wɔ́.
woman DEF say.PST COMP 3SG - FUT - come tomorrow
'The woman said that she will come tomorrow'.

41) Nùú !lέ jwɛ̀ŋ ákέ yòó ! lέ é -tèé.
Man DEF think.PST COMP woman DEF PERF-go
The man thought the woman had left.

42) Ajele súsú ákέ nùú ! lέ é -wɔ̀.
Ajele think.PST COMP man DEF PERF-sleep.
Ajele thought that the man is asleep.

In (41) and (42) the complementizer cannot be left, out unlike (40).

5. 6 Verbs that express property concepts in Ga

In this section the verbs that denote PCs are examined in detail vis- a-vis their morphological, syntactic and semantic features.

Kruspe (2006:305) remarks in his study on adjectives in Semelai, a Southern Aslian language, that there is no major word class of adjectives but what is rather present is a subclass of verbals which behave more like verbs. La Polla (2006: 320) notes in his analysis of Qiang that the words used to express the concept of adjective are a subtype of verbs. They further remarked that these verbs can modify nouns directly and these verbs have special reduplication forms. PC words in a south- western Tai language, Lao, are stative verbs with special characteristics that they do not share with active verbs and also some verbs of state change Enfield (2006:328). Like Semelia, Qiang and Lao, some Ga verbs can also be associated with the concept of expressing PCs, though the adjective class exists in Ga as a distinct syntactic category. The verbs that mostly translate into adjectives in English are stative verbs and change of state verbs as remarked by Sampson (2011:40). Some of the stative verbs are *dà* to be big'and change of state verbs include *gbɔ*̀ ' to be old' *kpɔ́tɔ́*' to rot' and *tsù* 'to be red'

In order for one to identify verbs that can be PCs in a language it would be good to follow a well laid procedure. The work at this point employs Elders et al (2008) questionnaire for quality verbs which was used by them to test PC verbs in some African languages. PC verbs were also referred to as quality verbs in Elders et al's work. The questionnaire developed by them served as a typological/oriented tool to help determine the existence and language specific features of quality verbs. They developed this questionnaire when they saw that some words that were used to express PCs were verbal in nature. Moreover they also observed that there exist differences in the verbal behaviour of quality verbs in some of the languages. They examined thirteen African languages which were from three of the major Africa Phyla (Niger-Congo, Nilo-Saharan and Afroasiatic). They noted that quality verbs in Bambara, a Mande language, have overt markings while in other languages quality verbs have grammatical restrictions as identified in Wolof. Lastly, it was further claimed by them that some quality verbs can be described only in semantic terms.

The questionnaire was in two parts, Part A and Part B. The first part was the Formal Criteria[iv] and the second part was Semantic criteria[v]. The questionnaire was structured such that the language specific analysis of word classes began from the formal criteria. The formal criteria do comprehensive morphosyntactic analysis by examining the inflectional and derivational behaviour, the combinatories, syntagmatic restrictions, main or exclusive occurrence in syntactic slots etc of the lexical items under consideration (Sasse 1993:560-561). It is better to apply the formal criteria before the semantic criteria. The semantic criteria examined in detail the treatment of semantic and grammatical categories that are associated with verbs prototypically. The quality of verbs in terms of

temporal reference, temporal reference of temporal adjuncts, the internal temporal structure , state and boundedness, the combination with change of state, modality, voice, special semantic effects and lexical semantic classes.

5.6.1 Application of the questionnaire

In order to investigate the quality verbs in Ga, I applied Elders et al (2008) questionnaire to find the PC verbs /quality verbs. The formal criteria were applied first then the semantic criteria.

5.6.1.1The formal criteria

The formal criteria examined issues that find whether there are markings on the verbs used to denote PCs and how similar /dissimilar they are from other verbs. The questionnaire is divided into sections, Section A1 deals with examining tense, aspect, mood and person, derivational and quality of verbs. All these issues in secion A1 of the formal criteria check for overt markings on the verbs. On the other hand covert markings are examined in section A2 and section A3 investigates the relationship between quality verbs and other forms of qualification. Sometimes the issues being investigated overlap and therefore they may not be repeated. Moreover not every single issue under each section is examined.

The first was to find out if there exist special overt markings that define the quality verbs class. Let's test this in Ga using two verb types the stative and non stative types.

44) Yòó !lɛ́ é -dà.
Woman DEF PERF-be big
'The woman has grown big'.

45) Yòó !lɛ́ mìì -dà.
Woman DEF PROG–grow
'The woman is growing'.

46) Yòó !lɛ́ mìì - yè nìì.
woman DEF PROG- eat thing
'The woman is eating something'.

47) Adole é -tèè súkúú.
Adole PERF-go school
'Adole has gone to school'.

From the examples (44-47) there are no special overt markers for quality verbs. The first two (44) and (45) contain the stative verbs *dà* 'be 'big' which is quality verb and has been prefixed with *e-* and *mii-* just like the last two verbs. Therefore they have neither special inflectional nor derivational markers different from non-PC verb.

The next is to find how Tense Aspect Mood (TAM) markers are marked on quality verbs. The verbs in Ga can be inflected to show tense. According to Arin (2003:2), most researches on tense have been influenced by the work of Reichenbach (1947) who introduced speech time, event time and reference time. Arin went further and stated Comrie's (1985:9) definition of tense as 'tense is gramaticalised expression of location in time'. This means that languages that have grammatical means to express location of a situation in time also have tense. Aarts (2011) stated that languages often use the grammatical system of tense to express time. He went further to add that an event grammatically encodes that the reported event occurred at some time in the past. For instance, English has two grammatical tenses that is the present and past. Hacquard (2002:3) remarked that tense's role is to relate the time of an event with respect to a time of reference usually the time of speech. From the above definitions of tense, it is clear that languages express the time of an event grammatically, mostly by the use of affixes.

However certain languages have been said to be tenseless as they have no formal way of expressing tense morphologically. An example of a tenseless language is Mandarin Chinese which expresses time relative to utterance by temporal adverbs like *zuotian* 'yesterday', *quman* 'last year and *mingtian* 'tomorrow'(Arin 2003).

Unlike English that has two tenses, Ga has three; present, past and future. In Ga tense is usually marked with affixes. Examples below show some stative verbs that are marked to show the past and present as well as the future.

48) Lòó !lɛ́ gbí nyɛ̀.
fish DEF be.dry yesterday
'The fish got dried up yesterday.'

49) Kòòlòó lɛ́ gírì-ɔ̀ dáá.
animal DEF be wild-HAB always
'The animal grows wild every day.'

50) Shìá lɛ́ jɛ̀kɛ̀ wàà.
house DEF far INT
'The house is very far.'

Future:

51) a. Àtàdé lɛ́ àá-kwá.
dress DEF IND FUT-fade
'The dress may fade'.

b. Atade lɛ bàá-kwá.
dress DEF FUT-fade
'The dress will fade.'

In the examples (48) and (50), the past, which is indicating tense in Ga, normally has a null affix, what will translate or correspond as present in English is marked with */-ɔ/* (which also shows habitual) in Ga as seen in (49) and the future is marked with the affix /*baa-*/ and /*aa-*/ as seen in (51a) and (51b). The /*baa-/* prefix shows definite future whiles the/ *aa-/* shows the indefinite future. The Ga quality verbs can be marked to show tense just like an active verb.

According to Arin (2003:18) aspect was first introduced into English in the middle of the 18th century from loan translation from Russian vid 'view'. It was noted by Arin further that the most popular definition for aspect is by Comrie (1976:3) which is 'aspects are different ways of viewing the internal temporal constituency of a situation'. Aspect is therefore a grammatical device that is used to make reference to the way a particular event unfolds in time. This is normally through affixes. Ga verbs with high tones normally take prefixes and suffixes. In examining aspect for PC or quality verbs in Ga, it was realised that three aspects can be marked on the verbs which are habitual, progressive and perfect, unlike Chinese in which four aspectual categories can be expressed namely perfect, imperfective, experiential and delimitative. (Arin 2003:18). The habitual affix, as noted in Ga, has two allomorphs /-*a*/ and /- *ɔ/*. The /-*a/* is suffixed to verbs that have their final vowels as /a/ and the /-ɔ/ to all other vowels found at the final position. Instances are shown below.

52) Nú ! lɛ́ mlì é -jɔ̀ tsɔ.
water DEF inside PERF-cold INT
'The water is too cold.'

53) Àtàdé lɛ́ é -!kwá tsɔ.
dress DEF PERF- fade INT
'The dress is too faded.'

54) Kòòlóó lɛ́ gírì-ɔ̀.
animal DEF to be wild-HAB
'The animal grows wild.'

55) Gbékɛ́bìí dà-à.
child-PL be big-HAB
'Children grow'

56) Yòó lɛ́ mìì -gbɔ̀.
woman DEF PROG- be old
'The woman is getting old.'

57) Flɔ́ lɛ́ mìì -shà.
stew D EF PROG-spoil
'The stew is getting spoilt.'

In examples (52) and (53) the verbs *jɔ̀* 'be cold' and *kwá* 'to fade' have been put in the perfect aspect by prefixing the perfect prefix e᷇-᷆. The perfect prefix has a high tone followed by a floating low tone. In examples (54) and (55) the quality verbs *gírì* 'to be wild' and *dà* 'to be big' have been put in the habitual forms. The *dà* has been attached with the /-a/ suffix whiles *gírì* 'be wild' has the /-ɔ/ suffix. *Gbɔ̀* 'be old' and *shá* 'get spoilt' are the quality verbs in (56) and (57) and have been put in the progressive aspect by prefixing with /*mii*-/.

The next to be investigated is mood. Mood in grammar is the quality of a verb that conveys the writer's attitude towards a subject. Similarly it is a way of using a verb to show the attitude of the speaker toward what he is saying. This means it is the form taken by the verb to show how it should be regarded, for example, as a fact, a command, a wish or an uncertainty.

Mood, as noted in Ga, is expressed by attaching affixes generally. Four types of mood are realised in Ga which are indicative, interrogative, imperative and subjunctive. The indicative, imperative and subjunctive moods in Ga are expressed morphologically through affixation. However with the interrogatives, free morphemes or tonation pattern are used to show them as in examples (58) and (59).

58) Mɛ́nì o-yè?
what 2SG eat
'What did you eat'

59) Námɔ bà?.
who came
'Who came'.

The words *mɛ́nì'* what' and *námɔ̀* 'who' are used to express the interrogative. There are other words as well in Ga that are used but I will not delve into them that, as they are normally at the initial position of the construction. The indicative markers are affixes as illustrated in (60-62) below where the indicative markers are /*mii-*/ and /*baa-*/.

60) Ajele mìì -yè ómɔ̀.
Ajele PROG-eat rice
'Ajele is eating rice.

61) Nùú !lɛ́ bàá -fíté níbìì lɛ́.
man DEF FUT-spoil things DEF
'The man will spoil the things'

62) A`tàdé lɛ́ mìì-yɛ́.
dress DEF PROG- be white
'The dress is white'.

PC verbs may or may not occur in the imperative. In Ga, some of the verbs can be used imperatively whereas others cannot. The imperative for verbs are formed in Ga through the high floating tone, by the affix high tone and , by suffixing the final vowel of the verb and by attaching /*-mɔ*/ to the verb, depending on the number (singular or plural). Examples of PC verbs that are used imperatively are below and are very few.

63) Dàá '(you SG) grow up' tɔ́ɔ́ ' (you SG) get satisfied'

Fítémɔ̀ lɛ '(you SG) spoil it'

There are those which cannot be used imperatively especially verbs that denote colour as in (64).

64) yɛ́ ‘be white’ tsù ‘be red’ jòò ‘be bitter’

hì ‘be good’ jà ‘be just’ kwá ‘fade’

But we can say *di fioo mɔ* or *há nì edi fioo* ‘let it blacken a little more’ in certain instances when maybe an hairdresser is dying someone’s hair.

In terms of the subjunctive mood most of the PC verbs can be used to expressed it as examples (65-67) below show.

65) Bànkú lɛ́ á -wà.
banku DEF SBJV-be hard
‘The banku ought to be hard’.

66) Àkùtú lɛ́ á -hì.
orange DEF SBJV-be good
‘The orange should be good’

67) Wónú !lɛ́ á -ŋɔ̀ɔ́.
soup DEF SBJV-be sweet
‘The soup would be sweet’.

Tense Aspect and Mood (TAM) features can be treated together and can have negativity using the appropriate affix depending on the class of the verb.

Habitual:

68) Nú !lɛ́ mli jɔ̀ - ɔ̀ tsɔ́.
water DEF inside cold-HAB INT
‘The water is too cold.’

Progressive:

69) Nú !lɛ́ mlì mìì -jɔ̀ tsɔ́.
water DEF inside PROG-cold INT
‘The water is getting too cold.’

Past:

70) Nú !lɛ́ mlì jɔ̀ tsɔ́.
water DEF inside cold INT
'The water got too cold.'

Perfect:

71) Nú !lɛ́ mlì é -jɔ̀ tsɔ́.
water DEF inside PERF-cold INT
'The water has become too cold.'

Subjunctive:

72) Nú !lɛ́ mlì á -jɔ̀
water DEF inside SBJV-cold
'The water should be very cold.'

Negative:

73) Nú !lɛ́ mlì é -jɔ̀ -kó tsɔ́.
water DEF inside NEG-cold-NEG INT
'The water is has not become very cold.'

Subjunctive:

74) Nú !lɛ́ mlì áká -jɔ̀ tsɔ́.
water DEF inside NEG-cold INT
'The water should not be very cold.'

Future:

75) Nú !lɛ́ mlì é-jɔ̀-ŋ́ tsɔ́.
water DEF inside NEG-cold INT
'The water will not be very cold.'

The verb *jɔ̀* 'be cold' which is a class II verb in Ga make use of circumfix or the discontinuous morpheme in expressing negativity/to get the negative form and the prefixes and suffixes for the positive. It is seen that the prefixes are used for the subjunctive, perfect and progressive in (69), (71) and (72) while suffixes are used to show

the habitual in (68) and this applies to both verb types identified in Ga. As already mentioned the progressive , past and habitual distinctions get lost in the negative form as they have the same form as in (73) because they collapse into one form .The future and the subjunctive distinctions are however maintained in the negative as in (74) and (75). This verb *jɔ̀* cannot occur in the imperative form therefore the imperative is not shown in the examples. In example (68) and (69) the affixes which mark the habitual and progressive aspect are at the same time marking the indicative mood and showing positive polarity as well.

How are person markers also used with PC verbs?. Are they affixes or clitics or they are free morphemes. In Kabyle, a Berber language, quality verbs have specific affixes in the perfect or accompli when contrasted with other verbs (Elders et al 2008). Now let's find out if this pertains in Ga.

Some examples:

76) Nùú !lɛ́ é -gbɔ̀
man DEF PERF-old
'The man is old'.

Replacing *nùù*'man' with pronoun.

77) É- -gbɔ̀
3SG.PERF-be.old
'He is old'.

In (77) above the pronoun /e/ represents both the noun and the perfect marker. The perfect which is /e-/ with high tone followed by a floating low tone has the e- removed and the high tone placed on the subject pronoun and the low tone influences the tone of

the verb . These quality verbs do not have any special marker for persons just like other verbs as below.

78) Ajele é- -ŋmà nìì.
Ajele PERF -write thing
'Ajele has written some things'.

79) É- ŋmà nìì.
3SG.PERF write thing
'She has written some things'.

Though the verb is marked with perfect prefix the rendering is in the present but for the non PC verb it is rendered in the perfect. Compare examples (76) and (78). It is realised that the tense/aspect in which the verb is , marks the mood as well as the polarity of the verb, for instance in example (73) above the affix *e-ko* marks the perfect, the indicative mood and negative polarity. The affixes used therefore express aspect, mood and polarity fused together.

There are PC verbs that have null subject or expletive in Ga. Like the one below has its subject /experiencer occurring after them.

80) É- tɔ́ Ama
NULLPRO be.tired Ama
'Ama is tired'.

In (80) the /*e*/ represents null subject and Ama is the experiencer in the sentence though Ama occurs after the verb.

Though most of the verbs can all be conjugated there are restrictions as to the subject in few instances of some of the PC verbs. It must be noted that most PC verbs are not put in imperative forms like action verbs for example

*81) jà ‘be just’ *jaa gbɔ̀ ‘be old’ *gbɔɔ

But verbs like *dà* ‘be big’ could be placed in the imperative form, just like non PC verbs most of which can occur in the imperative as in (82).

82) **Non-Property Concepts Verbs in the Imperative**

Verb	**Imperative(singular)**	**Imperative (plural)**
yè ‘to eat	yé‘ you eat’	nyéyéa ‘you eat’
nù ‘to drink’	nùú‘ ‘you drink	nyénúa ‘you drink’
wɔ̀ ‘to sleep’	wɔ́ ‘you sleep’	nyéwɔ́a ‘you sleep’
tsí ‘ to push’	tsí ‘you push’	nyétsía ‘you push’
tù ‘to jump’	tùú ‘you jump’	nyétúa ‘you jump’
bó ‘to shout’	bóò ‘you shout’	nyébóa ‘you shout’

The imperative in Ga is formed in several ways which include adding the final vowel of the verb, marking of high tone on the verb (floating high tone) as already discussed. Singular imperative allomorphs are floating high tone *yé* ‘ you eat’, vowel with high tone daa ‘grow’ and the suffix *-mɔ* feemɔ ‘you do’.

PC verbs in Ga are not derived from other word classes, unlike Kulango where PC verbs are derived but are not productive. Though the verbs are not derived, they can have nominal forms and some can have adjectives derived from them. PC verbs may be

monosyllabic or disyllabic. And the tone may be high or low or low high. Instances are below in (83).

83)	i)	jà 'to be just'	tsù 'to redden'
	ii)	dà 'to be big'	yɛ́ 'to whiten'
	iii)	dí 'to blacken'	gbɔ̀ 'to grow old'
	iv)	fɔ̀ 'to be wet'	kwá 'to fade.
	v)	kpɔ́!tɔ́ 'to rot/to be rotten'	fíté 'to spoil'
	vi)	bó!dá 'to be crooked'	

(84) shows nominalisation of PC verbs in Ga

	Verb	**Nominal Form**
i)	dà 'to grow/ be big'	dàlɛ̀ 'growth
ii)	tɔ̀ 'to be satisfied'	tɔ̀lɛ̀ 'satisfaction'
iii)	ŋɔ̀ɔ́ 'to be sweet'	ŋɔ̀ɔ́mɔ̀ 'sweetness'
iv)	gìrí 'to be wild'	grímɔ̀ 'wildness'
iv)	wá 'to be difficult'	wálɛ̀ 'hardness'
v)	hì 'to be good'	hìlɛ̀ 'goodness'
vi)	gbɔ̀ 'to be old'	gbɔ̀lɛ̀ 'oldness'
vii)	jɔ̀ 'to be cold'	jɔ̀lɛ̀ 'coldness'
viii)	dɔ̀ 'to be hot'	dɔ̀lɛ̀ 'hotness'

These PC verbs only occur in the verb slot and are normally intransitive. However they also occur in relative clauses and most often those which have adjective equivalents may also be used in object slots but put in nominal forms. Adverbs cannot be formed most

often from these adjective-like verbs in Ga but they can be reduplicated like other verbs which may be the distributive iterative.

The verbs discussed so far have been used in the predicative but when these verbs are used to modify nouns they occur in relative clauses with the exception of those that may have corresponding adjectives. The table 5.1 in example (85) shows verbs with their adjective equivalents.

85) Verbs with corresponding adjectives

Table 5.1 Verbs with corresponding adjectives

Verb	**English**	**Adjective**	**English**
tsù	to be red	tsùrù	red
yɛ́	to be white	yɛ́ŋ	white
dí	to be black	díŋ	black
dà	to grow big	àgbò	big
dɔ̀	to be hot	klàklà	hot

The corresponding adjective of the verb in (86a) is found in (86b).

86) a. Màmá lɛ́ **tsù-ɔ**
cloth-DEF be red-HAB
'The cloth is red.'

b. Màmá **tsùrú** lɛ́ nɛ́.
cloth red DEF that
'That is the red cloth.'

Though these PC verbs occur in the intranstive slots they may be used in constructions and have objects as in (87a) and (87b).

87) a. Àtàdé lɛ́ kwá.
dress DEF fade
'The dress got faded'

b. Nú ! lɛ́ kwá níbìì lɛ́ fɛ̀ɛ̀.
water DEF fade things DEF all
'The water made all the dresses fade.'

In terms of negation, Ga has the negation affix for class one type of verb and class two type of verb. The class to which the PC verb belongs determines the negation affix it will take or occur with. Refer to page (143) above.

PC verbs occur with adverbs or ideophones to show intensity. This was also noticed in Kulango where intensifying ideophonic adverbs occur with the quality verb as seen below in (88).

88) Te- ge hɛnɛ hɔɔ bii kpiri kpii
Goat-CLFDEM.ANIM.SG,SBJ.ANIM.SG be black very black.very black
'The goat is very black'.

(Elders et al 2008: 11)

Affixes that are used to derive adjectives from these quality verbs mostly do not apply to other verbs; these affixes vary and some are lexically conditioned. In Bambara, for instance, the suffix *-man* is only attached to quality verbs to derive adjectives, for example *grin* 'be heavy' the adjective form is *girin-man* 'heavy'. However it was noted that this affix does not apply to all quality verbs in Bambara(Elders et al 2008). Examples of adjectives derived from PC verbs in Ga are shown.

89)

	Verb		**Affix**	**Adjective**
i)	gbí	'to be dry'	-ŋ	gbíŋ 'dry'
ii)	dí	'to be blacken'	-ŋ	díŋ 'black'
iii)	yɛ́	'to whiten'	-ŋ	yɛ́ŋ 'white'

iv) shà ‘to rot’ -ra shàrà ‘rotten’

v) tsù ‘to redden’ -ru tsùrù. ‘red’

vi) lɛ̀ɛ́ ‘be wide’ kɛtɛɛ lɛkɛtɛɛ ‘wide’

vii) kpɔ́tɔ́ ‘to rot’ -i kpɔtɔi ‘rotten’

viii) kpɔ́fù ‘to maltreat’ -u kpɔfùù ‘bloated

(Refer to explanation in chapter three.)

The next section examines the relation between quality verbs and other forms of qualification.

The first criterion is what functions do quality verbs play in terms of being predicative. PC verbs serve as the head of the VP in most constructions with few instances where they also take objects. They are mostly intransitive as already indicated. Below are examples in Ga.

90) Wónú ! lɛ́ jé fù.
soup DEF spring scent
‘The soup smelled’

91) Nùú ! lɛ́ kwɔ̀.
man DEF be tall
‘The man is tall.’

It must be noted, however, that some of these PC verbs have their meanings specified in them, that is, they are Inherent Complement Verbs (ICV) like the example (90) verb *jè fù*. There are other verbs like *yè àwúì* ‘be mean/wicked’ and *yè amiŋ* ‘be unfair’. There is the verb which takes an object *lè níí* ‘intelligent’.

In terms of attribution , PC verbs cannot occur in the same forms except those that can have adjectives derived from them. Sometimes, they rather occur before the nominal head they are modifying. Those that do not have adjective forms or cannot have adjectives derived from them but have to be used attributively, occur in relative clauses introduced by the relativizer *ni*. That explains the ungrammaticality of (92b).

92) a. Tsòfá lɛ́ jòó.
medicine DEF be bitter
'The medicine is bitter'

b* Joo tsofa is ungrammatical and unacceptable

93) Níyènìì ní ŋɔ̀ɔ́ nɛ̀.
food REL be sweet PART
'That is tasty food'.

Example (92a) can either be *tsòfá ní jòó* 'the medicine which is bitter 'using the relativiser or *tsòfá jòómɔjómɔ* where the verb 'to be bitter' has been suffixed with the nominalizer suffix /–*mɔ*/, then is reduplicated. That form can be used attributively. In (94) the PC verb *jà* 'be just' has been nominalised to be *jàlɛ*` but occurs before the head noun *sànè* 'case' to modify it. The nominalised form has therefore occurred before the head noun and has played the role of an epithet. It does not occur in the adjective position which is after the head noun.

94) Màntsɛ́ lɛ́ yè jàlɛ̀ sànè.
chief DEF eat just case
'The chief dealt with the case justly.'

Cases of using PC verbs in apposition were not found in Ga.

It must be noted that in listening to speeches on radio and conversations among native- speakers they prefer to use the verbs that denote PC items often instead of their adjective equivalents. In recent textbooks also the verb forms are used, otherwise, the nominal forms are preferred.

Adjectives can occur in verbless constructions with particles in Ga; however PC verbs cannot occur with these particles and therefore cannot be in these verblesss constructions. Examples (95a) and (95b) show adjectives in verbless constructions.

95) a. Tsɛ́nsì **fólò** nì.
saucepan empty PART
'It is an empty saucepan'.

b. Blòdò **bɔ̀dɔ̀ɔ̀** nì.
bread soft PART
'It is soft bread'.

When a PC verb has to be employed in a verbless construction, an adjective form of the verb must be derived or the adjective equivalent of the verb can be used; where an adjective is not existent, the verb will be in a relative clause form. Examples are as seen below.

96) a. Nùù **díŋ** nì.
man black PART
'He is a dark man.'

97) b. Amèò **kpɔ́tɔ́i** nì.
tomatoes rotten PART
'These are rotten tomatoes'

96) c. Tsò à**gbò** nì.
Tree big PART
'It is a big tree'.

96) d. Àtàdé ní é-**fɔ̀** lɛ́ nɛ̀.
dress REL PERF-be wet DEF PART
'That is the dress that is wet'.

In (96a) and (96b) the adjectives used are derived from the PC verbs *di 'to blacken'* and *kpɔtɔ* 'to rot' and in (96c) the equivalent form of a PC verb *dà* 'be big' has been used. In (96d) the attribution to the head noun *àtàdé* 'dress' has been employed in the form of a relative clause as the PC verb *fɔ̀* 'be wet' has no adjective equivalent and an adjective cannot be derived from it.

Verbs that do not denote PC items, however, do also occur in attributive function in the form of relative clauses as in example (97).

97) Nùù **ní wɔ́ lɛ́** é-tèè.
man REL sleep DEF PERF –go
'The man who slept has left'.

Syntactically, these verbs (quality verbs) can be process verbs in some languages as noted by Elders et al (2008) when they examined quality verbs in some Niger Congo languages.

5.6.1.2 Semantic Criteria

Now in this section the second set of criteria used to examine quality verbs will be employed. These are the semantic criteria which deal with issues like behaviour of PC verbs in terms of their temporal reference, temporal reference of temporal adjuncts, aspect, state and boundedness, their combinations with verb of change of state modality, voice, special semantic effects and lexical semantic classes.

In exploring the temporal reference it can be realised that most often is the present time reference. Can PC verbs be used to express a particular time in the present? This is for both types of verbs. Elders et al(2008) cited Welmers (1973 : 346-347) who observed that in Niger Congo languages not everything referring to present time is expressed by present or continuative expressions or constructions. Welmers (1973) investigation into Yoruba claimed that a verb labelled past refers to the past for a dynamic verb, whereas a stative verb labelled past obtains a present time reference. It was also observed in Mande languages by Lupke (2005:65) that verbs that have zero aspect marking yield past perfective for dynamic verbs and the same marking gives a present imperfective for stative verbs. Example cited by Lupke (2005:65) are:

98) N faa
ISG come
'I came'

n waa
1SG cry
'I cried'

N tagan
1SG be tired
'I am tired'

This situation can also be found in Ga where stative verbs denoting PC items normally in the perfect may yield present time reference as compared to verbs not denoting PC items. Whereas the perfect in Ga marks present, the perfect in Wolof shows past for non stative or quality verbs but marks the present for quality verbs (Loic Perrin p.c).this is shown below:

99) Lekk naa
Eat 1SG.PRF
'I have eaten/I ate.'

Feebar naa
be.ill 1SG. PRF
'I am ill.'

(Elders et al 2008: 15)

The question is why the temporal reference for these quality verbs, is it because they refer to temporal situations?. I think so because most often, it is a temporary situation. What time reference does a quality verb yield when it has no TAM marker? In Ga it is interpreted as the aorist or the past tense as seen below.

100) Wónú ! lɛ́ dɔ̀.
soup DEF be hot
'The soup got hot'

101) Nú !lɛ́ mlí jɔ̀.
water DEF inside be cold
'The water got cold'.

In a language where tense is absent, like Mandarin Chinese and Kabyle, how is tense expressed? In Kabyle, it was claimed by Elders et al (2008) that present tense interpretation is given to both stative and quality verbs that are in the perfective. It was further established that the same TAM may be interpreted as past in a particular context e.g narrative. (Elders et al 2008). It is noted in Ga that the default time reference for PC verbs is present when the perfect is marked on the verb.

Quality verbs are generally intransitive. They can occur with adverbs / intensifiers, as seen below:

102) Shìkpɔ́ŋ lɛ́ lɛ̀ɛ́ tsɔ́.
ground DEF be wide INT
'The ground is very wide'

103) Ákùtú lɛ́ ŋɔ̀ɔ́ wàà.
orange DEF be sweet INT
'The orange is very sweet'.

104) Ŋmɛ̀nɛ̀ lòó ! lɛ́ hì.
today fish DEF be good
'Today the fish is good'.

When they occur with intensifiers they can be in any of the TAM forms eg

105) Shìkpɔ́ŋ́ lɛ́ mìì- lɛ̀ɛ́ tsɔ́.
floor DEF PROG-be wide ADV
'The floor is getting wide'.

106) Ákútú lɛ́ bàá-ŋɔ̀ɔ́ wàà.
orange DEF FUT ADV
'The orange will be sweet'.

107) Ŋmɛ̀nɛ̀ lòó !lɛ́ é- hì- ŋ.
today Fish DEF NEG FUT- be good-NEG
'The fish will not be good today'

In (105) the affix n the verb marks progressive, indicative mood and positive polarity as well , in (106) the verb indicates future , indicative mood and positive polarity and in (107) the affix on the verb indicates future, indicative mood and negative polarity.

PC verbs can take affixes which are derivational as well as inflectional to show number agreement with either the subject or the object in some instances. Refer to example (89) for derivational affixes.

PC verbs in Ga do not only refer to a stable state but to change of state and sometimes resultative state as well. It was observed in Jalonke, a Mande language, by Elders et al (2008) that when quality verbs are not marked for aspect overtly they express a state but when they are marked with the imperfective marker –ma they express a gradual entering of state. It was further stated by them that when one wants to express and emphasize state resulting from a change of state, an aspectual unmarked construction plus a postpositional

phrase consisting of expletive pronoun and a general locative postposition is used. Examples in Jalonke are below cited by Elders et al(2008).

108) Kreɔn-na melun
Pencil-DEF be pointed
'The pencil is pointed.'

(Elders et al 2008:19)

109) Tum-ɛɛ melon-ma a xere nan na
Thorn DEF be.pointed-IPFV 3SG youth FOC with
'It 's in its young age that a thorn become pointed.'

(Elders et al 2008:19)

The example in (108) has no aspect marking therefore denoting a state. Example (109) shows gradual entering into state.

The example in (110) shows emphasis:

110) Kreɔn-na melun ɛ i
Pencil –DEF be.pointed 3SG at
'The pencil has become pointed' (cf Lupke 2005:158-159 in Elders et al 2008)

In Ga, it is possible to have a PC verb and change of state verb in a construction. When that occurs the PC verb is put in the nominal form through affixation. The examples below show this phenomenon.

111) Nú !lɛ́ bɔ́ì **dɔ́ -ɔ**.
water DEF begin be hot.NOM
'The water began to heat'.

112) Rɔ̀bá lɛ́ bɔ́ì **bódá-mɔ̀** yɛ̀ la lɛ́ mlì.
rubber DEF begin melt.NOM in fire DEF inside
'The rubber began to melt in the fire'.

113) Sɛ̀í lɛ́ é -bɔ̀ì **fíté -mɔ̀**.
chair DEF PERF-begin spoil-NOM
'The chair has begun to spoil'.

The nominalised forms of the PC verbs *dɔ̀* 'be hot' *bódá* 'to bend' and *fíté* 'to spoil' are used in the constructions (111-113) respectively.

Quality verbs were also examined to check if they can occur with change of state verbs.The quality/ PC verbs do not occur with *fee* 'become' in Ga. When the verb *fee* is used the PC verb cannot occur in complement position, the adjective/adjective equivalence may be used and must undergo nominalisation as shown below.

114) Shìkpɔ́ŋ́ lɛ́ é -lɛ̀ɛ́ /é-tsù.
ground DEF PERF–be.wide /PERF-be.red
'The floor has began to widen/ to redden'.

115) Shìkpɔ́ŋ é -fèé lɛ̀kɛ̀tɛ̀ɛ̀ /e-tsù-rù .
floor PERF–become wide NOM-be red-suf
'The floor has become wide/red'.

In (114) the PC verbs *lɛ̀ɛ́* 'to be wide' and *tsù* 'to be red' have been employed and the nominal forms are found in example (115)

Auxiliaries in English are mainly free morphemes that occur with verbs like 'is and are'. Such auxiliaries cannot occur with Ga PC verbs, rather affixes are realised that when translated into English as auxiliaries are seen, as in (116 and 117)

116) Yòó ! lɛ́ bàá -dà.
woman DEF FUT-grow
'The woman will grow'.

117) Yòó ! lɛ́ mìì-dà.
woman DEF PROG- grow
'The woman is growing'.

Modality was also investigated to find if there are special modals for PC verbs. Modals are used to express possibilities and necessities which can be captured formally by involving 'possible words'. There are types of modals according, to Tiee (1985:84),

namely epistemic and deontic. He further states that the epistemic modal deals with modes of knowing, and it expresses the speaker's judgment of the probability about an event when the situation happened. On the other hand, a deontic modal deals with modes of obligation, that is to say, it is concerned with permission, obligation and forbiddance. In addition, he stated that these two types are seen as the core types in the literature, but there is the mention of types like evaluative modality which deals with the speaker's attitude towards an utterance for instance the speaker to say something is contrary to what is expected. Asarina and Holt (2005:1), in their investigation of Tagalog modals based on semantics, have these divisions: epistemic, and root modals. Root modals were divided further into two deontic and dynamic modals. Deontic modals in Tagalog are further divided into directed and non-directed. The directed deontic modal assigns permission or obligation to the subject for example 'You must do your homework' whiles the non directed does not assign any obligation to the subject like 'The bread must be eaten'(Asarina & Holt 2005) Modals may occur with PC verbs but they do not appear like the ones in English. In English, the modals are normally root words like 'may, might' and they occur close to the verbs in the construction in which they occur as in (118) below.

118) The man may travel on Monday.

In (118) the modal 'may' appears close to the verb 'travel as it is a modal verb'. In Ga modals may not be root words but consist of two words mainly as in (119).

119) Akɛ + nì -ákɛ́ní
COMP + CONJ -maybe

Kɛ́jì + àáá-hì -kɛ́ááhì
If +SBJV-be good -maybe

Alɛ́ɛ́ɛ́ + nɔ - àlɛ́ɛ́nɔ́
Know +POSTP -maybe/might
Ekò + lɛ́ -ékòlɛ́
One+ DEF maybe/might

Kɛ́kɛ́ + nì - kɛ́kɛ́nì
Only + REL- may be

There is however one that can also be used to express a modal meaning but is made up of two words and written as two separate words, unlike the ones in (119) *esa ni* 'must'(*sa* is a verb). It must be noted that these modals are adverbs in (119) and therefore do not occur like modal verbs which occur close to the verbs in English.

Some of these Ga modals are used in sentence below.

120) Alɛ́ɛ́nɔ nùú !lɛ́ bàá -fà gbɛ̀.
MOD man DEF FUT-uproot road
'Maybe the man will travel'/the man may travel.'

121) Kɛ́àáhi ósɔ̀fó lɛ́ bàá-bá ŋmɛ̀nɛ̀.
MOD pastor DEF FUT-come today
'The pastor may come today.'

122) Ekólɛ́ nyɔ̀ŋmɔ̀ é -nɛ -ŋ ŋmɛ̀nɛ̀.
MOD rain NEG-fall-NEG today
'It might not rain today'

In (120-122) the modal adverbs occur at initial positions in the sentences, the verbs are not close to the modal adverbs. The modals in Ga can therefore be said to appear at initial positions as they hardly occur close to the verbs because they are adverbs. It must be noted, *ekólɛ́,* may appear after the verb but may not take scope over the whole sentence but what occurs after it. What may translate into a modal verb in Ga is the verb

nyέ ‘can’. When this modal verb is used, the complement is a usually another clause or sentence, and usually this verb can be conjugated in all tenses. For instance,

123) Kofi bàá-nyέ éwɔ̀
Kofi FUT –can 3SG-sleep
‘Kofi can sleep’

Most often the roles of the subject of PC verbs are actors or agents though other roles can occur. In (124a) the stew is theme and in (124b) the woman is the agent.

124a) Flɔ́ lɛ́ é -shà
stew DEF PERF–spoil
‘The stew is spoilt.’

b)Yòó !lɛ́ yè níí.
woman DEFeat thing
‘The woman ate’

Voice for PC verbs was also dealt with. Passive voice is a voice that indicates the subject is the patient or recipient of the action denoted by the verb (SIL 2004). Furthermore the mediopassive was explained as a passive voice in which the verb has stative meaning and the actor is not expressed. In English, most often, the subject in the active becomes the object in a passive construction for example.

125) a. The man slapped the little girl. (Active voice)

b. The little girl was slapped by the man. (Passive voice)

c. The snake was killed. (mediopassive)/(Agentless passive)

There may be different ways of expressing the passive in languages not necessarily the same way as English. Passive can be expressed in Ga mostly with the use of the indefinite or impersonal pronoun which has a low tone /à/ and the verb conjugated. Due to the fact that the perfect marker has a floating tone, when it combines with the

indefinite/impersonal pronoun, the first tone which is the high tone docks on the indefinite/impersonal pronoun and makes it high. The second tone influences the first syllable of the verb tone and it is only in this instance that the impersonal pronoun carry a high tone.

126) À -gbè gbèé.
INDEF-kill dog
'The dog was killed.'

127) À - dɔ́ wónú ! lɛ́.
INDEF-be.hot soup DEF
'The soup was heated.'

128) À -gbá-a mama-i lɛ́ dáá.
INDEF-tear-HAB cloth-PL DEF daily
'Clothes are torn daily.'

129) À - dí tsɛ́nsí lɛ́.
INDEF-be black saucepan DEF
'The saucepan was blacken'.

From the examples in (126-129) the subjects in the sentences are indefinite pronouns 'a'. A change in the tone of the indefinite pronoun brings the change in TAM features. The indefinite pronoun can be translated either as singular or plural. For instance if the sentences in (130) and (13) have high tones on the indefinite pronoun the English rendition will differ as below. The subjunctive marker is similar to the impersonal pronoun /a/ but has a high tone, care must be taken not to confuse or mix them up as they that gives different rendition. Examples (130) and (131) buttress the difference between the impersonal marker above and the subjunctive marker below.

130) Á - dɔ̀ wónú ! lɛ́.
INDEF-be.hot soup DEF
'The soup should heated.'

131) Á - jɔ́-ɔ̀ kòkó lɛ́ hè.
INDEF- to cool-HAB porridge DEF body
'The porridge should be cooled.'

Causatives can also contain PC verbs. In addition to the PC verb, *há* 'to make/give' in a construction gives a causative construction syntactically. Examples are below

132) Yòó ! lɛ́ há bànkú lɛ́ fú.
woman DEF make banku DEF be.mouldy
'The woman made the banku go mouldy.'

133) Hùlú lɛ́ há àtàdé lɛ́ gbí.
sun DEF give dress DEF be.dry
'The sun made the dress dry.'

In the structure the PC verb occurs as the second verb and the action verbs appear first in the construction. In Kabyle, colour verbs make a distinction between imperfective and a causative derivation as noted by Elders et al (2008:22). The example is below.

134) Zeggway-0
3 perferctive
'It is/ was red.'

Ye-zzewey
'He made it (become) red.'

The example in (134) consists of it plus the 3rd person causative perfective plus object clitic. This can be expressed in Ga in the following example.

135) É - tsù - ɔ̀.
3SG -be.red-HAB
'It is red/it was red'

136) É - fέὲ lέ é -tsùrù /é -há nì é-fὲὲ é -tsùrù.
3SG- make 3SG OBJ NOM-red /3SG- give CONJ 3SG-do NOM-red
'He made it red/he made it become red.'

137) É - mìì -di lὲ.
3SG –PROG-blacken 3SG
'S/he is making it black.'

In the construction (135) the colour verb 'red' is in the habitual and in (136) the colour verb is in the nominal form. The derivation from *tsù* 'be red' to *tsùrù* 'red'is through affixation. However, the colour being in complement position has been prefixed with e-, which is the nominal prefix, for adjectives. It will be incorrect to occur in the adjective form in the complement position without the prefix e-.

In examining the lexical semantic classes that these PC verbs in Ga can be placed, the following can be found.

138) Dimension: *lὲέ* 'to be wide', *kwɔ̀* 'be tall'

Colour: *tsù* 'to redden', *yέ* 'to be white', *dí* 'be black'

Value: *hì* 'be good'

Age: *gbɔ*ˋ 'be old'

Physical Property: *wà* 'be hard', *fɔ*ˋ 'be wet', *tí* 'to be thick'

Human Propensity: *yὲ àwúì* 'be mean', *yὲ àwùŋà* 'be jealous' *yὲ àmín* 'be unfair'

Similarity: *tàmɔ*ˋ 'like'

The verbs in Dimension and Colour classes above all have adjective equivalents which are derived from these verbs. The verb in the Value class has no adjective equivalent just like the Age class. The verbs found in the Human Propensity class can have adjectival forms which are nominal derived from the verbs (nominal adjectives).

Verbs that denote property concepts occur in periphrastic comparative constructions such as the illustrations in (139-141).

139) Wòlò nɛ̀ɛ̀ é -gbɔ̀ fé wòlò nɛ̀ɛ̀.
book DET PERF-old surpass book DET
'This book is older than that book.'

nɛ̀ɛ̀ consist of nɛ̀ plus lɛ̀ which has been written as one nɛ̀ɛ̀

140) Amèò nɛ̀ɛ̀ é -kpɔ́tɔ́ fé ákwàdú lɛ́.
tomatoes DET PERF- rot surpass banana DEF
'These mango is more rotten than the banana.'

141) Ómɔ̀ nɛ̀ɛ̀ yɛ́ -ɔ̀ fé nyɛ̀sɛ̀ɛ̀ nɔ́.
rice DET white-HAB surpass last own
'This rice is whiter than the last time one.'

The examples in (139) to (141) show that verb in Ga takes either the perfect form or the habitual plus the morpheme *fɛ̀* 'surpass' in the clause to express the degree or extent of property that is under consideration.

These verbs also can be used to express the superlative by employing the use of *fɛ̀* 'surpass and *fɛ́ɛ́* 'all' put in the sentence as in (142).

142) Àtàdé lɛ́ hìɛ́ é -kwá fé fɛ̀ɛ̀.
dress DEF face PERF–fade surpass all
'The dress is the most faded one.'

When the verb is being used to express the superlative the verb form is either perfect or habitual as seen in (142).

5.7 Sequencing of Property Concept verbs

Sometimes more than one PC is used to modify a noun and this includes PC verbs. In Lao the two verbs used to modify a noun must come from the same semantic class.

Section three of the questionnaire (Appendix 1) dealt with translating the sentences that contain PC verbs into Ga, to find out whether or not there existed a strict order of arrangement. It came to light that there was no strict sequencing of the PC verbs, as the respondents seem to write what they believed should occur first. Speakers, however, prefer to use PC verbs more than their corresponding equivalence. To really find out what the true picture was, I followed up with interviews to solicit the respondents' opinions. It was revealed that what the speakers saw as important or wanted to focus on was what they placed first. A few respondents also claimed that when they stand afar from what they are to describe, they would normally mention what is very vivid to them first before other descriptions. One respondent said if three men were standing and they were conversing, and one happens to be fair, in description it is the fairness (Colour) which will be mentioned first before possibly looking at Age and Dimension. (Refer to chapter four, pages 129-134).

5.8 Chapter Summary

To summarise, apart from adjectives, stative verbs and change of state verbs are used to express PCs in Ga and also in Mampruli as noted by Naden (2007:89). The PC verbs which translate into adjectives most of the time in English have a lot of properties like action verbs that have no PC associated with them. These PC verbs may of be of two types as there are those that cannot occur in imperative form. Property concept verbs occur in relative clauses when they are used to modify nouns and syntactically they serve as intransitive predicates. There were very few verbs that could occur in epithet positions in the nominal phrase. The verbs fall into the semantic class of Value, Dimension, Age,

Physical Property, Similarity and Colour. Those from the Human propensity class tend to be inherent complement verbs. Some of the PC verbs have corresponding adjectives and other have adjectives being derived from them. The PC verbs could occur with modal adverbs in Ga but were not found in serial constructions. PC verbs are not so different from non PC verbs in terms of their distributional properties.

Endnotes

iv. For detail discussion on Ga verb types see Dakubu (2007) and Adjei (1999)

[vi] Elders et al (2008) questionnaire , the formal criteria examines issues like special covert or overt markings on the quality verbs like special inflections or derivations, any special TAM markers used on quality verbs , any person markers used only for quality verbs like clitics, any TAM restrictions, are they derived and any restriction n derivation, any formal features special to them, any special functions: attributive, predicative, apposition, any recategorisation from other verbs .

[vii] the semantic criteria deals with isues like: any default for temporal reference, any special reason for TAM marker or without it, any default interpretation, do they occur with adjuncts or adverbs, any special difference between quality verb and dynamic one?, do they refer to states, do they combine with verbs indicating change of state, any grammatical status when indicating state like taking complements, ccuring with auxiliaries, any combination with modals, any relation to voice, any semantic categorization etc.

Most of the tests in the questionnaire were applied at least 80%. Full questionnaire see www.eva.mpg.de

CHAPTER SIX

NOUNS USED TO CODE PROPERTY CONCEPTS IN GA

6.0 Introduction

PCs, as noted in this work, include lexical items that are used to express or denote adjectival meanings. Languages use adjectives to express this PC meaning as noted by Dixon (2004:2), but when a language has no adjective category it can express this adjectival concept with other word categories, This was also noted by (Welmers 1973:250). However, it must be noted that languages which have the adjective category can also use other word classes in expressing PCs or adjectival meanings. Welmers (1973 :250-251) further stated that most Niger Congo languages have less members in their adjective classes and therefore words that are used to express adjectival meanings in non-European languages may come from other constructions using nouns or verbs or both word categories. In Igbo there are six adjectives (Dixon 2004) and in Logba there is only one adjective (Dorvlo 2009:3). These languages use other syntactic categories to denote PCs. Ga has the adjective class as a separate syntactic category, but Ga still employs other word categories to express PCs. Sometimes Ga uses nouns or verbs in expressing the property of nouns in certain instances.

This chapter investigates nouns that maybe used as PCs in Ga. The noun class is being investigated to establish whether or not the claim by Dixon (2004:2) that a 'concept may relate to different word classes in different languages' occurs in Ga. This means that certain words will translate into other word classes in particular languages which are different from the languages under consideration. For instance Dixon (2004:2) cited the

example of the concept ‘beauty’ being a noun in some languages but a verb in other languages. It is worth examining nouns in Ga as some nouns may have qualificative meanings but are not from the adjective class. It therefore may be misleading to the Ga learner or native speaker who may not be aware and is ignorant about how word classes are established, as s/he translates the noun and it falls into the adjective class in English. The nouns that are used to code PCs will be examined to find if they have special characteristics in terms of phonology, morphology and syntax.

6.1 Brief features of Nouns

Nouns in languages generally come from semantic types with concrete reference like chair, table, sea etc, but others like *love* have no concrete reference (Dixon 2004:4). In English, terms referring to mental states, physical states and speech acts are included in noun class (Dixon 2004:3). There are general criteria for distinguishing word classes namely their meaning, inflection and distribution (O Grady et al 2010). However the meaning criterion has problems as noted by Carnie (2013:47) and he suggested the best criterion to apply to establish word classes is the distribution test. The distribution test, according to Carnie (2013:47-48) consists of the morphological distribution and syntactic distribution. The morphological distribution examines the types of affixes that occur with the word being either derivational or inflection. The syntactic distribution takes a look at what words occur with. Carnie (2013) further remarks that every language has its own distribution criteria as affixes differ. Nouns, for example, normally occur with determiners and definite articles in English; they may be marked for plural and may also be reduplicated. Reduplication may apply to other word classes in all languages, but the meaning derived from reduplicating a noun may not be the same for reduplicating an

adjective, for instance. Nouns also occur more as subjects, than other word categories. In Ga, nouns occur with determiners and occur as subjects and complements of verbs and these features generally separate them from other word classes In Ga, nouns do not have gender or animate distinctions marked on them, unlike other world languages. Ga does not have noun classes, like Swahili. Ansah (2005:88-95) identified noun classes in Lɛtɛ based on the prefixes attached to these nouns. For singular nouns in Lɛtɛ four noun classes were identified and for plural nouns five classes were identified. The number marking for each group of the Lɛtɛ nouns is different. Ansah (2005:88-95) further noted that number marking in Lɛtɛ is normally through prefixation with the exception of kinship terms which inflect for number through both prefixation and suffixation. In Ga the formation of the plural of nouns involves the suffixation of the bound morpheme -i to the stem. This suffix has different realisations and studies in Ga by Ablorh-Odjidja (1961) have given the reasons for the distribution of the allomorphs of the Ga plural morpheme. Ablorh- Odjidja (1961) gave rules for the formation of Ga plurals. It must be noted that the examples by Ablorh-Odjidja (1961) are originally not carrying tones but the tone marks are placed on the examples in this study.

This section examines the Ga plural suffixes. The first rule is that all nouns that end with the vowels /a,e,o,u,ɛ/ which are the seven non-nasalized vowels are suffixed with -i to mark plural. He added also that the nouns may have high, low or mid tones. Instances that he gave are in (1).

1)	**Singular**		**Plural**	
	bí	‘child’	bîì	‘children’

gbì	‘day’	gbìì	‘days’
àtàdé	‘dress’	àtàdéì	‘dresses’
ábl̓ádè	‘kinsman’	ábl̓ádèì	‘kinsmen’
gbɛ̀	‘road’	gbɛ̀ì	‘roads’
ŋ̓kátíɛ́	‘groundnut’	ŋ̓kátíɛ́ì	‘groundnuts’
òsɔ̀	‘fox’	òsɔ̀ì	‘foxes’
àtó	‘laddle’	àtóì	‘laddles’
dùkù	‘scarf’	dùkùì	‘scarves’
hèlà	‘disease’	hèlàì	‘diseases’
àdékà	‘box’	àdékàì	‘boxes’
tɔ́mɔ́	‘mistake’	tɔ́mɔ̂ì	‘mistakes’

(Ablorh-Odjidja 1961:12-13)

The second rule is that nouns that end with the velar nasal and also end with high tone take the suffix –i for plural formation. Examples from Ablorh-Odjidja (1961:13) are in (2).

2)

Singular		**Plural**	
tsɛ́ŋ̀	‘chin’	tsɛ́ŋ̀i	‘chins’
súbáŋ̀	‘character’	súbáŋ̀i	‘characters’
ánsáŋ́	‘guinea fowl’	ánsáŋ́i	‘guinea fowls’
gwàntɛ́ŋ	‘sheep’	gwàntɛ́ŋi	‘sheep’

krɔ́ŋ́krɔ́ŋ́	'holy'	krɔ́ŋ́krɔ́ŋ́i	'holy'
dàdèsɛ́ŋ́	'metal pot'	dàdèsɛ́ŋ́i	'metal pots'
ámpàŋ́	'bat'	ámpàŋ́i	'bats'
tɔ́ŋ́tɔ́ŋ́	'mosquito'	tɔ́ŋ́tɔ́ŋ́i	'mosquitoes'

The third rule given states that nouns that end with the velar nasal and a mid or low tone, take the suffix –dzi (–ji) for plural. Examples cited on page 14 of Ablorh-Odjidja (1961) are in 3. Ablorh-Odjidja's work was written in the old Ga orthography and examples taken from his work have been written in the current orthography. It must be noted that the orthography used in this work is in the current one and therefore examples taken from Ablorh-Odjidja (1961) have been written in the current orthography.

3)

Singular		**Plural**	
gɔ́ŋ̀	'mountain'	gɔji	'moutains'
màŋ̀	'town'	màji	'towns'
wàŋ̀	'grey'	wàji	'grey'
àdúŋ̀	'monkey'	àdúji	'monkeys'
gbòŋ̀	'hip'	gbòji	'hips'
klàŋ̀	'wolf'	klàji	'wolves'
kòŋ̀	'horn'	kòjì	'horns'

wɔŋ̀	‘god’	wɔ̀jì	‘gods’

He further states that nouns that have the agentive suffix /*–lɔ̀*/ take the /*–i*/ suffix to form their plurals. Examples from page 14 of his work are found below in (4).

4)

Singular		**Plural**	
jùlɔ̀	‘thief’	jùlɔ̀i	‘thieves’
fèélɔ̀	‘actor’	fèélɔ̀i	‘actors’
sɔ̀lɔ̀	‘blacksmith’	sɔ̀lɔ̀i	’blacksmiths’
kúdɔ̀lɔ̀	‘driver’	kúdɔ̀lɔ̀i	‘drivers’
nítsùlɔ̀	‘worker’	nítsùlɔ̀i	‘workers’
àpásáfólɔ̀	‘liar’	àpásáfolɔ̀i	‘liars’
àmímyélɔ̀	‘wicked person’	àmímyélɔ̀i	‘wicked persons’
àtùátsélɔ̀	‘rebel’	àtùátsélɔ̀i	‘rebels’

He also noted that nouns that have the final syllable *lu, lɔ* and *le* take – dzi (-ji) to mark plurals after these final syllables are dropped. Examples are below in (5).

5)	**Singular**		**Plural**	
	lɛ̀lɛ̀	'canoe'	lɛ̀jì	'canoes'
	éwùlù	'big one'	éwùjì	'big ones'
	wɔ̀lɔ̀	'egg'	wɔ̀jì	'eggs'
	tsùlɔ̀	'servant'	tsùjì	'servants'
	yɛ̀lɛ̀	'yam'	yɛ̀jì	'yams'
	kpùlù	'cup'	kpùjì	'cups'

Ablorh-Odjidja explains further that some words/nouns also end with the syllables – *lu, lɔ, lɛ* but the lateral /l/ is deleted and then the plural suffix is attached to form the plural. He iterated further that these words may be part of the ones above in (5) and if possible may not be separated to have a different rule. He did not bring out any conclusion on that. However I am of the opinion that these words belong to the above group in (5) and therefore a separate rule does not apply to them to form their plurals. This is because these nouns may contain vowels in some of their syllables which are just weak vowels and when these vowels are deleted in speech, there is no effect in meaning change for those words. Examples in (6) given by Aborh-Odjidja (1961:15).

6) a.	**Singular**		**Plural**	
	fálá	'sore'	fájì	'sores'
	káplɛ̀	'money'	kápɛ̀jì	'money'

sámfl̀è	'window'	sámfɛ̀jì	'windows'
fĺɔ̀	'hole'	fɔ́jì	'holes'
blɛ̀	'whistle'	bɛ̀jì	'whistle(s)'
kpɛ̀ŋ̀kplɛ́	'rabbit'	kpɛ̀ŋ̀kpɛ́jì	'rabbits'

As noted in (6a) above the nouns seem to be forming the plural by deleting the /l/ and adding the suffix –ji. The assertion was that these nouns are originally as seen below.

b.	fálá	'sore'	kápɛ̀lɛ̀	'money'
	sámfɛ̀lɛ̀	'window'	fɔ́lɔ̀	'hole'
	bɛ̀lɛ̀	'whistle'	kpɛ̀ŋ̀kpɛ́lɛ́	'rabbit'

I agree that these are the underlying forms of the nouns and due to their weak vowels, pronunciation differs when in speech, a separate rule therefore should not be given for them in forming plural.

Nouns that show kinship terms form their plural by suffixing –mɛi, to them according to Ablor-Odjidja (1961). Examples from page16 is found in (7) below.

7)	**Singular**		**Plural**	
	nyɛ̀	'mother '	nyɛ̀mɛ̀i	'mothers'
	tsɛ̀	'father'	tsɛ̀mɛ̀i	'fathers'
	nuǹtsɔ̀	'master'	nuǹtsɔ̀mɛ̀i	'masters'

nìì	‘grandfather’	nììmɛ̀i	‘grandfathers’
ŋà	‘wife’	ŋàmɛ̀i	‘wives’
nàà	‘grandmother’	nààmɛ̀i	‘grandmothers’
màŋtsɛ̀	‘king’	màŋtsɛ̀mɛ̀i	‘kings’

According to Ablorh Odjidja (1961) when nouns have the final syllable *nyo*, the plural is formed by either suffixing *mɛi* or *bii*. Examples from page16 is in (8) below.

8)

Singular		**Plural**	
nànèhènyò	‘friend’	nànèmɛ̀i	‘friends’
Ganyò	‘a Ga’	Gamɛ̀i	‘Gas’
Akwapɛnyò	‘an Akwapim’	Akwapem-mɛi/Akwapɛmbii’	
Tamalenyò	‘Tamale person’	Tamalebiì	‘Tamale people’
Bl̀ɔ̀fónyò	‘white person’	Bl̀ɔ̀fómɛ̀ì	‘white people’
shiánnyò	‘house member’	shiàbiì	’house members’
màǹnyo	‘national’	màŋbiì	‘nationals’

The studies also revealed that those nouns that end with *tso* turn to *tsei.* Examples from Ablorh-Odjidja (1961:17) are in (9).

9)

Singular		**Plural**	
yítso	‘head’	yítséì	‘heads’
yɔ̀ɔ̀yitsó	‘blackberry tree’	yɔ̀ɔ̀yítséì̀	‘blackblerry trees’

àkútsò	‘clan’	akútsèì	‘clans’
sààtsò	‘bed’	sààtsèì	‘beds’
nàkútsò	‘elbow’	nàkútsèì	’elbows’
fùfùítsò	‘pestle’	fùfùítsèì	‘pestles’

In my opinion the noun *tso* which has its plural *tsei* is as a result of the root changing when the plural suffix –i is added. Since these words or nouns have the noun tso ending them, they exhibit the root change.

Another rule according to Ablorh Odjidja is that nouns that have *yoo* at their final positions change to yei in plural form. Examples are in (10).

10)

Singular		**Plural**	
wɔ̀yòò	‘priestess’	wɔ̀yèì	‘priestesses’
wùɔ́yòò	‘hen’	wùɔ́yèì	‘hens’
gbèéyòò	‘bitch’	gbèéyèì	‘bitches’
òbĺàyòò	‘young lady’	òbĺàyèì	‘young ladies’
yòò	‘woman’’	yèì	‘women’ etc

All nouns that end with *fonyo* also form their plural by changing *fonyo* to *foi* as in examples in (11).

11)	**Singular**		**Plural**	
	òkwààfónyò	‘farmer’	òkwààfói	‘farmers’
	Kŕístòfónyò	‘Christian’	Kŕístòfói	‘Christians’
	Kràmɔ̀fónyò	‘Muslim’	Kràmɔ̀fói	‘Muslims’
	àsɹ̀ɑ̀afónyò	‘soldier’	àsɹ̀ɑ̀afói	‘soldiers’
	òdàsèfónyò	‘witness’	òdàsèfói	‘witnesses’

There was also a rule on nouns that take the plural suffix –bii. The rule states that nouns that denote entities that are small in size (diminutives) take this plural suffix –bii. Examples from page 18 in his work are found in (12) below.

12)	**Singular**		**Plural**	
	tsàtsú	‘ant’	tsàtsúbíì	‘ants
	gbékɛ́	‘child’	gbékɛ́bíì	‘children’
	pĺɛ̀kòó	‘nail’	pĺɛ̀kòóbíì	‘nails’

However it was also noted that some nouns that denote entities that are in small sizes and end in vowel /o/ delete the vowel before adding the plural suffix *–bii*. Instances were seen on page 18 in Ablorh Odjidja’s work as shown in (13).

13)	**Singular**		**Plural**	
	àbìfáó	‘baby’	àbìfábíì	‘babies’
	fúfɔ́ó	‘toddler’	fúfɔ́bíì	‘toddlers’

àshìnáó	‘bead’	àshìnábiì	‘beads’
wàó	‘finger’	wàbiì	‘fingers’

The study on plural formation for nouns also reveals that nouns that end with *nɔ* delete the *nɔ* and replace or add *nii* to form plurals. Illustrations are (14).

14)

Singular		**Plural**	
hèsàámɔ́nɔ́	‘accessory’	hèsàámɔ́níí	‘accessories’
káìmɔ̀nɔ́	‘souvenir’	káìmɔ̀níí	‘souvenirs’
nɔ̀kwɛ́mɔ́nɔ́	‘example’	nɔ̀kwɛ́mɔ́níí	‘examples’
shàànɔ́	‘strainer’	shààníí	‘strainers’
hèhàànɔ́	‘cloth’	hèhààníí	‘cloths’
kèènɔ́	‘gift’	kèèníí	‘gifts’ etc

Before Ablorh-Odjidja concluded the findings on the plural formation he mentioned that there were some of the nouns that did not follow any of the rules mentioned. He gave examples such as in (15).

15)

Singular		**Plural**	
sànè	‘issue’	sàjì	‘issues’
nànè	‘leg’	nàjì	‘legs’

fìnè	'wing'	fìjì	'wings'
nyɔ̀mɔ̀	'debt'	nyɔ̀jì	'debts'
kùkù	'a piece'	kùkùjì	'pieces'
gbòmɔ̀	'human being'	gbòmɛ̀ì	'human beings'
nùù	'man'	hìì	'men'
tɛ̀ŋ̀	'palm'	tɛ̀ŋ̀ì	'palms'

Before Ablorh Odjidja concluded the chapter he mentioned the types of nouns in Ga. He stated three types of proper nouns which were names of places, towns and people names. He noted that personal names can be pluralized in Ga. Examples that he mentioned are in (16).

16)

Singular	**Plural**
Kofi	Kofimɛ̀ì
Kwei	Kweimɛ̀ì
Afote	Afotemɛ̀ì
Okai	Okaimɛ̀ì
Kotei	Koteimɛ̀ì

These names of people are pluralized with only the suffix *mɛ̀ì* and nothing else. Can it be concluded that the plural marker *mɛ̀ì* is having a feature + HUMAN and therefore

can not be attached to non human nouns in forming the plural? To a large extent most of the nouns that form their plural with the suffix *mɛ̀ì* are mostly animates. However from discussions with other linguists, the plural of these animate nouns is formed by adding the morpheme *mɔ* 'person' and the suffix –i. The plural marker is therefore –i and not mɛi as Ablorh-Odjidja claims. The morpheme is introduced to form a compound before the plural suffix –i is attached to the nouns. In my opinion the latter suggestion is more realistic.

Dakubu (2000:7-10) discussed plural of nouns and most of the findings were similar to Ablorh-Odjidja's (1961) study. However there were some differences in certain reasons and rules. Dakubu (2000) noted that the CV+Vand CV+N syllables drop the final syllable before adding the plural suffix –i. Also, she revealed that not only does the word *yoo* 'woman' drop the final syllable – o but there is the vowel change from /o/ to /e/ in the plural to become *yei* 'women'. Furthermore the *–ji* suffix is realized on words that in the singular forms have final syllables *–ne, -ŋ,* and *–l* with a weak vowel in the preceding syllable. The study also revealed that some words with the diminutive suffix –o in the singular have –bi which is a different suffix plus the plural suffix in plural forms. Some words may occur with the diminutive –bi plus the –i suffix though they do not end with –o. Dakubu (2000) noted that the *–fó* found at the final end of some Ga words was borrowed from Akan. The two morphemes *–fó* and *–nyò* may be glossed as 'person'. The morpheme *–nyo* is normally dropped in the plural and *–mɛ-* or *–bi* is substituted in its place before the –i plural suffix is added. In all the discussions it was concluded that there were no strict phonological reasons for forming most of the plurals in Ga. In my opinion there are phonological reasons but with so many exceptions I agree with

Dakubu's claim and believe that some of the reasons for some plural affixes are also based on semantics. In these contemporary times people who speak Ga mostly pluralize most nouns with the plural suffix *–ji* such as *àtàdé* 'dress' *–àtàdéji* 'dresses instead of *atadei*. These corruption of the nouns being affixed with the *–ji* plural may be due to urbanization and some speakers find that easy to add that suffix.

Nouns can be grouped into countable and uncountable ones. Nouns could also be abstract, mass, common and proper nouns. Olawsky (2004:128-132) claims that Dagbani has five noun types namely countable nouns, mass nouns, loans, proper nouns and abstract nouns. The Dagbani nouns exhibit different features in terms of affixes attached to each group. In Ga nouns can be grouped into proper nouns, collective nouns, common nouns and abstract nouns. Nouns in Ga can also be grouped into countable and uncountable ones. Examples are below in (17) for the four groups in Ga.

17)

Mass Noun: nù 'water', fɔ́ 'oil', ŋòò 'salt', lá 'blood' àbèlè 'maize'

Abstract nouns: mìshɛ̀ɛ̀ 'happy' sùɔ̀mɔ̀ 'love', mlìfù 'anger', hètsɛ́ 'hatred'

tsùíshitòò 'patience'

Common Nouns: wòlò, 'book' màmá 'cloth', àtàdé 'dress, tsò 'stick',

àdékà 'box'

Proper Nouns: Adole, Adjei, Akwele, Okai, Dede, La, Weija.

6.2 The Ga Noun Phrase

In this section, the Ga Noun Phrase is discussed as in this phrase PC items can occur with the head noun. It is prudent to know its structure.The Ga Noun Phrase (NP) as noted by Dakubu (2002) contains ten lexical items including the head noun. All the ten available slots of the NP make it complex and Dakubu (2000) refers to the Ga NP as the Nominal Phrase (NP). Like all other phrases the head noun, is the only obligatory element in the NP, the rest are optional. Most often, not all the slots(which are the modifiers) in the NP are filled in speech. In conducting a test to find how many of these modifiers are filled in speech with Level 300 and 400 Ga students in UEW, I realized that most often it is a maximum of five modifiers that are filled. The Ga Nominal Phrase has three pre- head modifiers and six post-head modifiers. The first element in the pre-modifier position is the identifier. The identifier has only two elements that can appear in that position and they are in complementary distribution. These two are *nàkài* 'that' and *nɛ̀kɛ́* 'this'. Below are examples of NP in (18) and (19) to illustrate the identifier.

18) nàkàì wòlò 'that book'

19) nɛ̀kɛ́ tsu 'this room'

In the above examples in (18) and (19) the head nouns are *wòlò* 'book' and *tsù* 'room'. With the occurrence of the identifier, the definite article which is a post-modifier normally appears. It would be discussed below.

The head noun can be in the plural form but the identifier will not be marked for plural. Below are the examples in (20) and (21) to demonstrate

20) nàkàì wòjì ‘those books

21) nɛ̀kɛ́ tsùì ‘these rooms’

In the examples in (20) and (21) the head nouns are in plural forms *wòjì* ‘books and *tsùì* ‘rooms but the identifiers remain in the same form *nàkàì* and *nɛ̀kɛ̀*.

The identifier can appear as the head of the NP and could have modifiers from the post head modifier items, namely, the determiner or definite article or intensifier for example ‘nàkài pɛ’

The second pre- head modifier found in the Ga NP is the possessor. The possessor position is filled with nouns but can also be filled with noun phrases as stated by Dakubu (2000). The possessor is therefore an embedded NP within the NP. It shows a relation of possessed and possessor. The examples in (22-26) illustrate

22) Yòò shíà
woman house
‘A woman’s house.’

23) Yòó !lɛ́ màmá.
woman DEF cloth
‘The woman’s cloth.’

24) Adole wòlò ‘Adole’s book’

25) éwòló ‘his/her book’

From the above (22-25) *yòò* ‘woman’ and *yòó lɛ́*‘the woman *Adole* and *e* are the possessors and the head nouns are *shíá* ‘house and *màmá* ‘cloth’ *wòlò* ‘book’ and *wòlò* ‘book respectively. In example (25) the possessor is a name of a person *Adole* and

the (26) example the possessor is a pronoun e-. There is the possibility of the head noun being pluralized and the possessor being the singular. Examples (26) and (27) illustrate.

26) Yòò àtàdé – ì.
woman dress -PL
'Dresses of woman.'

27) Nùù hèjùùhè -ì
man bathroom-PL
'Bathrooms for men.'

The possessor, when in the plural form, collocates with a head noun which has an associative prefix. Below is an example in (28) where the possessor is in the plural form to buttress that.

28) Yèì á - shíá
women ASSOC- house
'Women's house.'

The head noun *shíá* 'house' is prefixed with the associative prefix a-. The noun *yèì* 'women is in the plural form and is found in the possessor position. However when the possessor is a pronominal/pronoun and it is pluralized, the associative prefix is not attached to the head noun. For instance, if example (25) above the possessor is put in the plural form it will be

29) Àmɛ̀ –wòlò.
3PL - book
'Their book.'

When the head noun is in plural form it will be

30) Àmɛ̀-wò – jì.
3PL- book-PL
‘Their books.’

It will be incorrect and ungrammatical to say.

31) *Amɛ a –wolo.

It must be noted that the possessive pronoun is written with the head noun as one unit in Ga. This is peculiar to possessive pronouns and subject pronouns but not object pronouns in Ga.

The next pre-head modifier is the epithet. The epithet which is a noun functioning as a modifier of another noun. Osam (2003) refers to these as nominal modifiers whiles Dzameshie (2007) calls them ordinary nouns. In this work, the term epithet is preferred because the function of these nouns in relation to the NP is what is examined. The epithet occurs before the head noun and this is filled by noun. The epithet normally does not agree in number with the head noun in terms of number. Below are examples in (32) and (33) to illustrate NPs that consist of epithets (not bolded).

32) **Singular**

a. Dádè **sàà -tsò**
iron mat - tree
‘metal bed.’

b. tsò **àwàlé**
tree spoon
‘Wooden spoon.

Plural:

33)a. Dádè **sààtsè -ì**
Iron bed - PL
‘metal beds.’

b. tsò **àwàlé - ì**
tree spoon - PL
‘wooden spoons.’

This seems to comply with the English correspondent where the noun/adjective used to modify another noun has no number agreement with the noun it modifies. However Dakubu (2000) noted an exception of only one epithet that does have number agreement with the head noun. This is exemplified below in (34).

34) **Singular** **Plural**

	Epithet	Head		Epithet	Head
SG:	gbékɛ́	nùù (boy)	PL:	Gbékɛ́bîî	hìì (boys)

(Dakubu 2000:4)

In the same vein I realized this word can be inflected for number to agree with the head noun which is plural like in (35).

35) Singular: gbékɛ́ yòò 'girl' Plural: gbékɛ́bii yèì 'girls'

In the above example (35) the head noun *yòò* 'woman' agrees with the epithet *gbékɛ́* in number and this has been marked morphologically with the plural suffix *-bii*. The epithet which occurs before the head noun in the NP serves as a modifier. The nouns used in Ga to code PC could be said to be filled by the epithet in the NP.

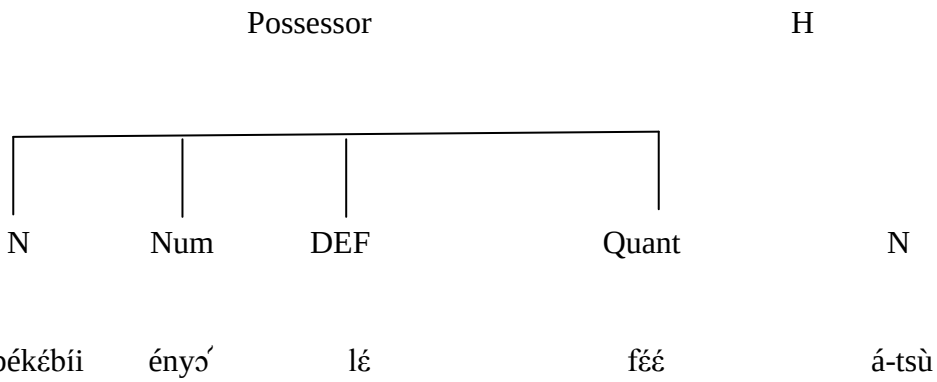
The possessor and epithet elements may look similar but they have different features. The two pre-head modifiers, possessor and epithet can be distinguished in three different ways syntactically. The three syntactic ways are.

a) The head noun is prefixed with the associate prefix /a-/ when the possessor is plural.

See example (28) above. This does not happen when the epithet is plural.

b) The epithet can not be expanded to form an NP but the possessor can be expatiated to be a full NP. This is exemplified below in a diagram in Dakubu (2000:5)

Diagram 1



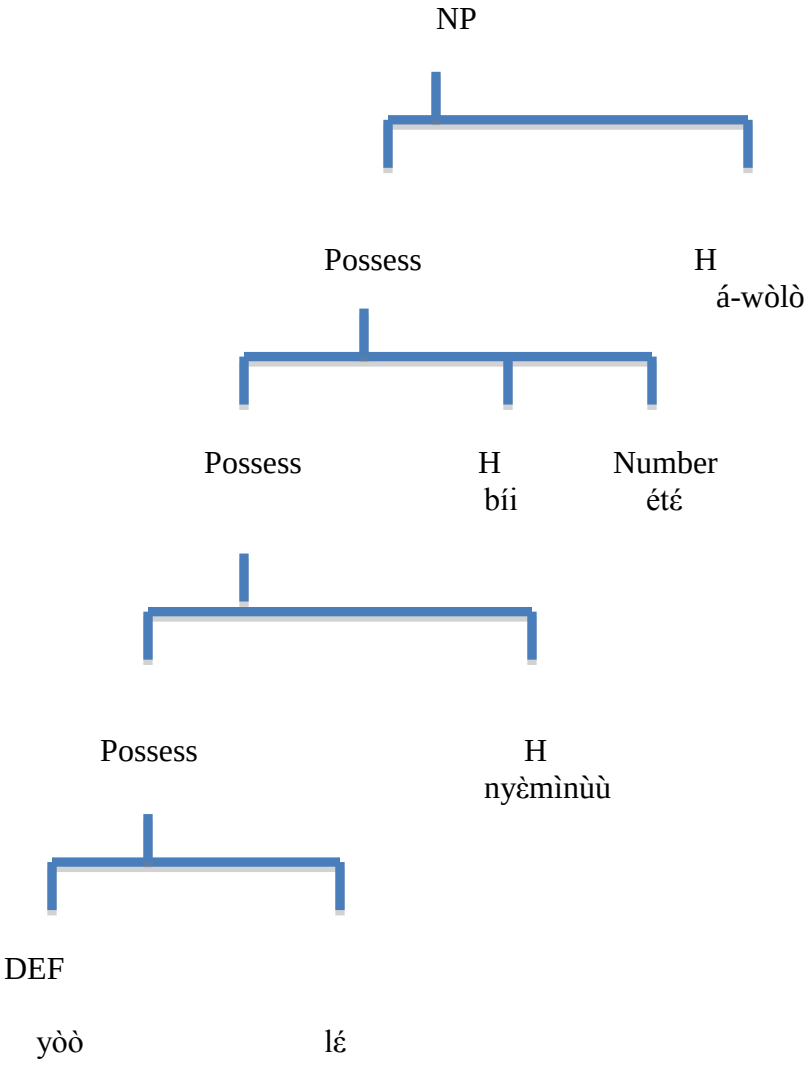
'All the two children's room.'

(Dakubu 2000 :5)

Dakubu (2000) indicated that the possessor is recursive in nature as the possessor can have a possessor which in turn can have a possessor again and again. This could be done severally and it is only limited when one considers the limit to which the human memory can recollect. How many can the human mind recollect? Maybe not more than three or four occur. This is exemplified below with a diagram.

Diagram 2

36)



(Adapted from Dakubu 2000:5)

In the diagram the NP *yòó !lɛ́ nyɛ̀mìnùù bíi etɛ́ áwòlò* 'the woman's three brothers children's book' has the head noun *wòlò* 'book, which has the possessor *yòó! lɛ́ nyɛ̀mìnùù bîi etɛ* which has the head *bîi* 'children' which in turn has the possessor *yòó !lɛ́ nyɛ̀mìnùù* 'the woman's brother, this also has the head *nyɛ̀mìnùù* 'brother' which also

has the possessor *yòó! lɛ́* 'the woman' and this is also headed by *yòò* 'woman. This can not occur with epithets in Ga.

The head noun when justaposed with another noun that serves as a possessor may contained another NP as seen above. The phrase '*yòó !lɛ́* 'the woman' which is serving as the possessor in example (1a) in chapter one is an NP which consists of the head noun and the definite article. It does not function as an epithet though it consist of a noun, because it can occur in the plural and still be in that position unlike an epithet. In fact, juxtaposing nouns together in the NP is easily done in Ga but the characteristics and role of these nouns are examined before one can say it has an epithet function or possessive function. For instance ,in example (1a) in chapter one the NP, *yòó !lɛ́ hè* ' the woman's body' has the head *hè* 'body which is the head and is justaposed with another NP *yòó !lɛ́* which serves as a possessor. This NP, *yòó !lɛ́ hè,* can occur in plural as *yèí !lɛ́* 'the women' with the head noun being prefixed with the associative prefix a- to be *ahè'* bodies'. This phrase in the subject position in chapter one is not a compound noun because of the features. The compounds in Ga which occurs may not have the plural affix attached to the two or more words forming the compound. for instance, *sààtsò* 'bed' consists of *sàà* 'mat and *tsò* 'tree/stick' put together to form the compound will not have the plural affix attached to both nouns but will be attached at the end of it *sààtsèì* 'beds', where there is a vowel change from /o/ to /e/ for words that have the word *tsò* as part of them before the plural affix is attached to replace the last syllable.

The last syntactic feature that differentiates the epithet and the possessor is pronominalisation. The possessor can be pronominalised but the epithet cannot be pronominalized. Examples are in (37) and (38) below.

37) **Yòó !lɛ** wòlò - e - wòlò
woman DEF book 3SG- book
'The woman's book' - 'her book.'

38) **Hìì** ámàmá - àmɛ̀ màmá
men cloth 3PL-cloth
'Men's cloth' 'their cloth.'

39) Kai tsò òsèré *e e osere
Kai tree comb 3SG 3SG comb

The examples (37) and (38) have the head *wòlò* 'book' and *màmá* 'cloth' which have the possessor *yòó !lɛ́* 'the woman' and *hìì* 'men' respectively. The possessor has been pronominalised with the possessive pronouns *e* and *àmɛ̀.* In the epithet *tsò* 'tree cannot be pronominalised but the possessor 'Kai' can be pronominalized in (39) to be *étsòò òsèré 'his/*her wooden comb'.

There is the possibility of the NP having possessor in addition to an epithet. When this occurs and the possessor is in plural, the associative prefix occurs with the epithet instead of the head noun. This makes the epithet and the head noun become one unit like a compound as the associative prefix seems to bind both the epithet and the head noun.

40) Hìì á - dádè sàátsè- ì
man-PL ASSOC-iron bed - PL
'Men's metal beds '

The post-head modifiers found in the Ga NP are six in number. The modifier that occurs immediately after the head noun, if present, is the adjective. The adjective, as discussed in the previous chapter, occurs after the head noun and has number agreement with the head noun. The number agreement is marked morphologically on them unlike English where there is no number agreement between noun and adjective. Below is an example.

	Singular		**Plural**
41)	a. Yòò **kpákpá** woman good 'Good woman'	b.	Yèì **kpákpá-í** women good-PL 'good women'

The adjective is an element found in the NP that more than one can be used .The two or more adjectives used as modifiers normally inflect to show number agreement with the Head(refer to in chapter three).

After the adjective, the numeral occurs in the NP. The head agrees with the numeral semantically as a singular number co-occur with a singular noun and plural noun with a plural number.

42) Wòlò àgbò kòmé
book big one
'One big book'

43) Wòjì àgbòì énɔ́
book big two
'Two big books '

In (42) and (43) above the numeral *kòmé* 'one' and *énɔ́* 'two' has been used respectively in the NP and the adjective *àgbòì* 'big' occurs before the numeral. In (43) the number *énɔ́* 'two' occurs with a plural noun and the adjective also inflects to indicate number agreement with the head noun *wòlò* 'book'.

It would be incorrect to say (44) and (45) below as the numerals do not agree semantically with the head noun.

44) *Wòlò àgbò énɔ́
book big two

Or

45) *wòji agbòi kòme

The determiner occurs after the numeral in the NP. The determiner is *kò* ‘certain /some’ or *nɛ*. *Kò* is a non-specific determiner and it has the plural form *kòmɛ̀ì*. The non-specific determiner can appear with the definite article which is the next post head modifier. The specific determiner often occurs with the definite article. The specific determiner and definite article do not change shape when the head noun is plural. What rather happens most often is that the specific determiner and definite are written as a single word. Examples are below to indicate these.

46) tsù kò
house certain
‘A certain house.’

47) màmá kò.
cloth certain
‘A certain cloth.’

48) àdékà né lɛ́.
box DET DEF
‘That box’

49) tsò tsù kò.
tree house certain
‘A certain wooden house’

50) tsò tsù - i kòmɛ̀ – ì.
tree house - PL certain-PL
‘Certain wooden houses.’

51) àdékà-ì né - ɛ́.
box -PL DET- DEF
‘Those/that boxes.’

In the illustrations above (46), (47) and (49) have the non-specific determiner *kò* and the specific determiner *nɛ* is in found in (48) and (51). The plural form of the non-specific determiner is illustrated in (50). The specific determiner remains in the same form when it occurs with plural noun as noted in (51).

The quantifier is the next modifier to appear after the determiner in the nominal phrase. The quantifiers are more in number than determiners but not as many as nouns. They may include words like *tóó* 'only' *fɛ̋ɛ́* 'all' *pii* 'many' among others. They agree with the head noun in semantic sense though they seem not to have plural forms. For instance quantifiers with singular meaning collocate with singular nouns and those with meaning of plurality co-occur with plural quantifiers. This is exemplified below in (52 - 55).

52) àtàdé tóó.
dress only
'Only dress'

53) àtàdéì pìì.
dresses many
'Many dresses'

54) wónù tóó.
soup only
'Only soup'

55) wónù pìì.
soup many
'Plenty soup.'

The quantifier *tóó* 'only' occurs with the singular head noun *àtàdé* 'dress and an uncountable noun *wónù* 'soup'. The plural quantifier occurs with plural nouns *àtàdéi* 'dresses and the noun *wónù* 'soup'.

The last post head modifier in the Ga NP is the intensifier. Just like the quantifiers, intensifiers are few and not as many as adjectives or nouns. They are not pluralized and they include words like *pέ*,'only' *hú, sɔŋŋ*. The modifiers as mentioned earlier are optional in the Ga NP.

It must be noted that, the head noun can be represented with some of the modifiers that occur with it. The modifiers that can represent the NP are: identifier, the adjective which will be nominalized, the numeral and the intensifier.

6.3 Nouns as Property concepts

Despite the presence of adjectives in Ga, nouns are sometimes used to express PC items. When nouns are used, they may occur with adjectives or may also occur in adjective slot (refer to the section/discussion on Ga NP above). Nouns that are used to denote PCs precede the head noun (refer to the Ga NP). As mentioned earlier, when the nouns precede the Head noun, they are referred to as epithets. The nouns that occur at the adjective slot are nouns that may be derived from other nouns or even from verbs. These two groups of nouns would be examined in this section to investigate how they function as PCs.

6.3.1 Nouns That Occur As Epithets

Noun modifying nouns have become a common phenomena in the Ga language and this has been illustrated in this chapter (see section on Ga NP). More examples to indicate noun -noun modifier or epithet noun modification are in examples (56-59).

56) **rɔ́bà** àwàlè "plastic spoon'

57) **wòlò** àdékà kò nɛ́ɛ́ ‘that wooden paper box’

58) **tsò** òsɛ̀rɛ́ bíbìóó tóó pɛ́ ‘an only small wooden comb’

59) nɛ̀kɛ́ Kofi **tsò** tsù nɛ́ɛ́ ‘that Kofi’s wooden house’

From the above examples (56-59) the epithet position, if present, is firmly established to occur before the head noun (bolded words). Epithets serve as PCs in Ga and normally found to modify the head noun that is an attributive role, one of the roles that PC items play in language.

Do these nouns that function as epithets have number agreement with the head nouns? The answer to that is negative as already discussed. Generally, epithets in Ga do not have number agreement with the Head noun as exemplified in (33) above. It would be ungrammatical to mark plurality on the epithet. It must be noted that it is not just every noun that can occur in the epithet position. The nouns that are normally found in the epithet position are common nouns. Few abstract nouns also occur as epithets in Ga and this is illustrated below in (60-62).

60) Mi-nú **mɔ́bɔ̀** sànè ŋmɛ́nɛ́.
1SG-hear.PST sad issue today.
‘I heard of a sad news today.’

61) Kofi káné **àwèrɛ̀hó** sànè kò nyɛ̀.
Kofi read.PST sad issue DET yesterday
‘Kofi read about a sad issue/matter yesterday.’

62) Adole wìé **kwàshìáì** awìémɔ̀.
Adole speak.PST fool speech.
‘Adole uttered foolish words/Adole spoke foolishly.’

The abstract nouns *mɔ́bɔ* 'pity', *àwèrɛ̀hó* 'sadness' *kwàshìáì* 'fool' are the epithets in (60-62) above. It was noted that *kwàshìá* 'fool' can occur post-nominally as demonstrated in (63).

63) Gbékɛ́ kwàshìá lɛ́ tèè.
child foolish DEF go
'The foolish child went.

It is worth noting that when nouns that play the role of epithets are used to code PCs they function as attributes. In predicative positions the nouns employed as epithets can serve as complement of the verbs but do not describe or express adjectival meaning in that position. More than one epithet can occur in the noun phrase to serve as attributes just like the adjective. Lets examine the illustrations in (64a-d) below.

64) a. Làlà wòlò.
Song book
'Hymn book'

b. Ga làlà.
Ga song
'Ga hymn'

c. Ga làlà-ì
Ga song-PL
'Ga hymns'

d. Ga làlà wòlò.
Ga song book
'Ga Hymn book'

In (64a) the epithet function is played by the noun *làlà* 'song' and in (64b) the epithet function is played by the noun, *Ga*. The (64c) example has the head noun, *làlàì* 'songs and the noun serving the epithet function is singular as the epithets are not marked to

show plural. In (64d) the there are two nouns *làlà* and *Ga* modifying the head noun. When the noun *làlà* 'song//hymn' modifies the head *wòlò* 'book' then it forms a unit which can be modified again by another noun preceding it. The introduction of the noun 'Ga' also modifies the single unit *làlà wòlò* 'song/hymn book'. The two therefore function as epithets.

It must be noted that the epithet function as mention above cannot be replaced with a pronominal and therefore these two nouns serving as epithets cannot be replaced. This makes it clear that these two nouns *làlà* and *wòlò* justaposed to the head noun are not serving as compound written as three words. They will only form a unit when a possessor, which is plural, is introduced and the associative prefix is attached to the nouns functioning as epithets. The associative prefix is not marked on both noun epithets but only on the first one and therefore takes scope over the nouns occurring after it to form a single unit.

Unlike English which has terms like chicken farm versus farm chicken, beer garden versus garden beer, equivalents of these in Ga may not be that simple. For instance, beer garden will be *ábɔ́ɔ́ mli ní anúɔ̀ dàà/beer yɛ̀* 'garden in which beer is drank' *or beer númɔ́hè* 'beer drinking place', whereas there is the use of a relative clause being used to modify the garden for the concept to be expressed and the second option made used of two nouns. On the other hand, for the expression, garden beer, for the equivalence in Ga, the speaker may employ the same English, but when she wants to speak Ga, the corresponding form will be '*dàà/ beer ní àfɛ̀é yɛ̀ gààdii mlì* 'beer which is made in the garden'. The use of a relative clause is employed again to express this concept, others may also express it by saying *ábɔ́ɔ́ŋ dàà* 'garden inside beer'. Other

concepts like ‘wooden water bucket’ may be expressed by saying *tsò nù gògá* or *nù gògá ní akɛ́ tsò fèé*. In expressing the concept’ wooden water bucket , *nù* and *gògá* form a single unit, then the single unit formed has the noun, *tsò* ‘wooden’ , playing the epithet function. It is realized that these concepts could be expressed with two nouns or the use of relative clauses depending on what is being discussed. This buttresses the point of FFG that strict and rigid rules do not apply to all concepts in all languages. It must be noted that when two nouns are juxtaposed and one functions as an epithet, the relationship between the head noun and the epithet function may be ‘produce of, made of, place of, putting inside, among others. Though the positions of these two nouns can be swapped, it is not all instances that the nouns are interchangeable as they may not be meaningful.

Both the nouns, *Ga* and *làlà* ‘song’ in (64d) that are used do not inflect to show number agreement when the nouns are in plural forms. This is illustrated below in (65).

65) Ga làlà wò-jì.
Ga song book-PL
‘Ga hymn books’

The adjective as discussed in chapter four can be more than one to serve as PC items. Similarly, it is rare to have more than one epithet modifying a noun as seen in (64d). It is highly possible for an epithet and an adjective both to serve as attributes for a head noun. Examples are below.

66) **Tsò** àdékà **bíbìóó** kò.
tree box small certain
‘A small wooden box’.

67) **Rɔ́bà** gògá **díŋ́.**
rubber bucket black
‘A black rubber bucket’.

68) **Tsò** àdékà-ì **bí -bíí.**
tree box-PL small-PL
'Small wooden boxes'

69) **Rɔ́bà** gògá-ì **dí-ji.**
rubber bucket-PL black-PL
'Black rubber buckets'

From the above the head nouns in (66-69) are *àdékà* 'box', *gògá* 'bucket' and the nouns functioning as epithets are *tsò*, 'tree' and *rɔ́bà* 'rubber' . The adjectives which occur after the head nouns are *bíbìóó* 'small', and *díɲ́* 'black' in (66) and (67). When the head nouns are pluralized with the suffix –i as in (68) and (69), the adjectives are also marked to indicate agreement with the nouns. However the noun epithet shows no agreement with the head nouns. It is also possible for the noun epithet to occur with two adjectives in attributive position in the NP. In (70) the epithet *dádè* 'iron' occurs with two adjectives *bíbìóó* 'small' and *hèè* 'new' in attribution position. In (71) two adjectives *àgbò* 'big' *mómó* 'old' serve as attributes for the head noun *àdékà* 'box' and the epithet is *wòlò* 'paper'. The constructions (70) and (71) are shown below.

70) **Dádè** àwàlé **bíbìóó hèè** kò.
metal spoon small new certain
'A small new metal spoon'.

71) **Wòlò** àdékà **àgbò mómó** lé.
book box big old DEF
'The old big paper box'.

Nouns function as subjects and objects in languages and these nouns which occur as epithets can occur as subjects and objects as well. This makes it clear that these words which are epithets are from the noun class. The only difference between nouns serving as epithets and nouns in subject positions is the number agreement. Subjects generally are

marked morphologically to show number agreement with the verbs in the constructions, and objects can be marked morphologically, based on or depending on what the speaker wants to put across. The nouns which may be used as epithets therefore can appear as complements of verbs. The verbs, in these instances, are not always copula verbs only and most importantly the nouns that serve as the complements do not serve as attributes to whatever nouns may be in the subject positions. These same nouns that serve as epithets can also be found in head positions. Examples are below to explain.

72) Tsò sɛ̀í lɛ́ é -fite.
tree chair DEF PERF-spoil
'The wooden chair is spoilt'

73) Adjele fò tsó lɛ́.
Adjele cut tree DEF
'Adjele cut the tree.'

74) Wɔ- yɛ̀ tsó yɛ̀ wɔ́-shíá lɛ́ mlì.
1PL-have tree in IPL-house DEF inside
'We have a tree in our house.'

75) Tsó !lɛ́ kù nyɛ̀.
tree DEF break yesterday.
'The tree broke yesterday.'

In (72) the noun *tsò* 'tree' is used as epithet. It is the object of the verb *yɛ̀* 'have' and *fò* 'cut' in (73) and (74). The verb *fò* 'cut' is not a copula verb. In (75) the noun *tsò* 'tree' is the Head of the NP. Look at the example in (76).

76) Tsèí lɛ́ kù nyɛ̀
tree.PL DEF break yesterday.
'The trees broke yesterday.'

In (76) the noun *tsèí* trees' which is in plural form can be in subject position but cannot be in epithet position.

The epithet function is not a predicative role in Ga as already exemplified. Some nouns which occur as heads of NP in Ga, some of these same nouns can function as epithets. For example *wòlò* 'book' can occur as an epithet in a phrase like *wòlò àdékà* 'paper box' and the word *wòlò* can be the head of an NP like *wòlò hèé lɛ́* 'the new book'. However to express a sentence like this in Ga 'the bucket is plastic' could be:

77) Gògá nɛ́-ɛ́ rɔ́bà nì.
bucket DET-DEF plastic PART
'This bucket is plastic'.

78) Gògá nɛ́ -ɛ́ rɔ́bà ní akɛ́fèè.
bucket DET –DEF plastic REL do
'This bucket is made of plastic'.

There is a difference in expressing the same idea as seen in (77) and (78) and the FFG theory supports this phenomenon.

6.3.2 Expressing of Comparative/Superlative

PC items occur in comparative and superlative constructions, especially the adjectives in English. This is one of the roles of PC items in languages (Dixon 2004). For instance the illustration below shows an adjective from English in comparative and superlative constructions.

79) This house is nicer than that house.

80) This house is the nicest of all.

The adjective *nice* which is a PC item from the adjective category has been used in the construction in as a comparative form by suffixing with *–er* in (79) and for the superlative in suffixing *–est* in (80), the superlative suffix in English. It should be noted that sometimes the word *more* is used for comparative in addition to the adjective which is not suffixed and *most* for the superlative with the adjective employed not suffixed with *–est*.

Nouns that occur as epithets in an NP(epithet role) seem not to have comparative forms and are not used to express comparative in Ga. Their function (that is an epithet) as attributive is not gradable. For instance it is not acceptable to say:

*Oserɛ nɛ yɛ tso fe osere nɛɛ

When a speaker utters a statement like:

81) Flawas ní yɔ́ɔ́ éné mlì fá fè nɔ́ nì mì-nà.
flowers REL have this inside be.enough exceed one that 1SG-see.PST
'There are more flowers in this than the one I saw'

The speaker is making a comparison of the number of flowers in something, an entity, being more than he or she had seen earlier. This is a way that can be used to express some sort of comparative. Sometimes some of the abstract nouns (in bold) can be used periphrastically to express some comparative/superlative. A statement below can be uttered in speech

82) Sàné lɛ́ **mîshɛ̀ɛ̀** sàné fè fɛ́ɛ́.
issue DEF happiness issue exceed all
'This news is the happiest of all.'

83) Wìémɔ̀ né-é yɛ̀ **dɔ̀lɛ̀** fè fɛ́ɛ́.
speech DET- DEF.have sorrowfulness surpass all
'This is the most sorrowful speech.'

6. 3. 3 Nouns that occur after the head noun

In Ga sometimes nouns occur in the adjective position or in addition to the adjective to express the notion of PC. These nouns may be countable or uncountable. They may also be derived nouns. Below are examples in (84).

84)

	Noun	**PC noun**
i)	òhìá 'poor'	ohìáfó 'poor person'
ii)	ànɔ̀kwá 'truth'	ànɔ̀kwáfó 'truthful person'
iii)	níléé 'knowledge'	nílélɔ̀ 'wise person'
iv)	shìká 'money'	shìkátsɛ̀ 'rich person'
v)	níí 'things'	níítsɛ̀ 'rich person'
vi)	àníháó 'laziness'	àníháólɔ̀ 'lazy persn'

Most of the nouns from which the agentives are derived are abstract nouns. These nouns are suffixed with the agentive suffix *-fó/-lɔ* and the free morpheme *tsɛ̀ 'owner'*. With the suffixes attached, these nouns can be used as PC items and being nouns can be referred to as nominal adjectives. In Ga sometimes nominal adjectives occur to express the notion of PC. The nominal adjectives (bolded) occur immediately after the head noun as shown in example (84-86).

85) Yòò **ànɔ̀kwá - fó** lɛ́ é - wɔ́.
woman truthful-AG SUF DEF PERF-sleep
'The truthful woman is asleep.'

86) Nùù **òhìá -fó** lɛ́ bà ŋmɛ́nɛ́.
man poor –AG SUF DEF come today
'The poor man came today.'

87) Tsɔ̀ɔ́lɔ̀ **àníháó- lɔ̀** bà mrá ŋmɛ́nɛ́ .
teacher lazy –AG SUF came early today
'The lazy teacher came early today.'

There are other nouns that do not host these suffixes but are also used as PC items as seen in the examples.

88) Gbèé **búùlù** lɛ́ é - gbò.
dog fool DEF PERF- die
'The foolish dog is dead.'

89) Gbékɛ́ **kwàshìá** lɛ́ tèè.
child foolish DEF pass
'The foolish child went.'

90) Yòò **púpúúpú** lɛ́ mìì-hòó níyénií.
Woman boastful DEF PROG-cook food
'The boastful woman is cooking some food'.

These nouns which are bolded express property of the head nouns they modify therefore give some sort of attributive meaning. In English, for example, these nouns which are formed from nouns by adding most often the agentive suffix, may correspond to words that will fall into the adjective category but they are nouns in Ga as they can occur as subjects and also as objects.

There exist also other nouns which can be used as PC items but are derived from verbs. These verbs mostly are inherent complement verbs (ICV). These are exemplified below and put into constructions.

91)	**Verb**	**Process**		**Nominal**
	i) tswà òjò ‘to rob’	òjòtswà+ -lɔ̀	→	òjòtswàlɔ̀ ‘arm robber’
	ii) bɔ́ kó ‘to play truancy’	kóbɔ́+-lɔ̀	→	kóbɔ́lɔ̀ ‘vagabond
	iii)yè àwúì ‘to be wicked’	àwúì+yè+-lɔ̀	→	àwúìyèlɔ̀ ‘wicked person
	iv) yè àwùŋà’to be jealous	àwùŋà+yè+-lɔ̀	→	àwùŋàyèlɔ̀’ jealous person’
	v) yè àmín ‘be unfair’	àmín+yè+-lɔ̀	→	àmínyèlɔ̀ ‘unfair person’

92) Ama hòó níí há yòò **àwùŋàyèlɔ̀** lɛ́
Ama cook things give woman jealous person DEF
‘Ama cooked food for the jealous woman’.

From the above examples in (91) the verbs are suffixed with the agentive suffix *–lɔ.* after the ICVs are inversed. The nouns are derived from inherent complement verbs (verbs that occur strictly with their own complements).

Apart from the nouns discussed above, there exist some abstract nouns in Ga, very few though, that correspond to English adjectives when translated. These nouns which can be used as PC items are not used attributively. Sometimes to use them attributively they may appear in relative clauses. Below are examples

93) Kote ná **míîshɛ̀ɛ̀.**
Kote get.PST happiness
‘Kotey is happy’.

94) Kotey kɛ̀ gbékɛ́ **ní é -ná míîshɛ̀ɛ̀** tèè shíá.
Kotey with child REL PERF-get happiness go.PST home
‘Kotey went home with the happy girl’.

95) Mì-nú **mɔ́bɔ̀** sànè ŋmɛ̀nɛ̀.
ISG-hear sad matter today
‘I heard a sad news today’

96) Kofi káné **àwèrèhó** sànè kò nyɛ̀.
Kofi read sorrow matter certain yesterday.
'Kofi read a sorrowful/sad story yesterday'.

In the use of some of these abstract nouns they may precede the head as in example (95) and (96) however they may only be found after the head noun when they occur in relative clause forms as in (97):

97) Mì-nú sànè **ní yɔ́ɔ́ mɔ̀bɔ́** ŋméné.
1PL-hear.PST matter REL be sorrow today
'I heard an issue that was sorrowful today.'

98) Kofi káné sànè kò **ní yɛ̀ àwèrèhó** nyɛ̀.
Kofi read.PST matter certain REL be sad yesterday
'Kofi read a story which was sad yesterday'.

There is the possibility of two nominal adjectives to occur as modifiers of a single head noun. Below is an example from Matthew 24.45 (Ga Bible).

99) …..námɔ̀ jì tsùlɔ̀ **ànɔkwáfó** kɛ̀ **nílèlɔ̀** mɔ̀ ní……
….who is a faithful and knowledgeable servant…..

What is derived from this is that the two nouns *ànɔkwáfó* 'truthful person' and n*ílèlɔ̀* 'clever person' that are nominal modifiers are joined with a conjunction *kɛ̀* 'and'.

There is the possibility for two PCs to appear immediately after the head noun, one from the adjective class and the other from the noun class. This is exemplified below for instance in the Ga Bible.

100) Aekóó tsúlɔ **kpákpá** kɛ̀ **ànɔkwá-fó**
Aeko servant good CONJ truth-AG SUF
‘ well done good and faithful servant’.

(Matthew 25 :21)

101) ‘Tsúlɔ̀ fɔ̀ŋ́ kɛ̀ àníháólɔ̀
servant bad CONJ lazy-person
“…bad and lazy servant”
(Mathew 25:26)

In (99) and (100) there are adjectives and nouns coding PCs for the head noun *tsúlɔ* ‘servant’ and they are joined together with a conjunction. It will not be correct to have the nominal adjective preceding the adjective in this structure, that is *ànɔkwáfó*’ ‘truthful person’ occurring before *kpákpá* ‘good’. This was evident when it was tested on five (5) native speakers who were all above sixty years. For the younger generation the two PCs can occur in the restricted order but the conjunction *kɛ̀* was optional for example a statement like:

102) Nùù **fɔ̀ŋ́ àníhàó- lɔ̀** nì.
man bad lazy -AG.SUF PART
‘He is a bad lazy man.’

When the head noun is plural the nominal adjective and adjective inflect to show number agreement with the head noun they modify. Below are examples. (103a) and (104 a) are the singular and the plurals are found in (103b) and (104b) respectively.

103) a. Tsúlɔ̀ **ànɔkwá - fó** nɛ́.
servant truthful – AG SUF PART
‘A truthful servant’

b. Tsúlɔ̀-ì **ànɔkwá – fó - ì** né.
servant-PL truthful-AG SUF-PL PART
‘ These are truthful servants.

104) a. Yòò **ànísáó - lɔ̀** né
woman lazy –AG SUF PART
‘This is lazy woman’

b. Yè -ì **ànísáó -lɔ̀** - ì né
women-PL lazy AG SUF- PL PART
‘These are lazy women’

When the modifiers are made up of adjectives and nominal adjective there is also number agreement with the head noun and the modifiers. For instance the plural form of the example above will be:

105) Aékóó tsú -lɔ̀-ì **kpákpá-ì** kɛ̀ **ànɔkwáfó-ì.**
Ayekoo servant-PL good -PL CONJ truthful-PL
‘Congratulations truthful and good servants’.

Nominal adjectives can also be heads of NP apart from being modifiers. The examples below explain this.

106) Gbékɛ́ **nílè - lɔ́** lɛ́ mìì - lá
child knowledge- AG-SUF DEF PROG-sing
‘The wise child is singing.’

107) Nùù **bùúlú** lɛ́ yè níyénií lɛ́.
man foolish DEF eat-PST food DEF
‘The foolish man ate all the food.’

From the above in (106-107) the nouns *nílèlɔ̀* ‘wise person and *bùúlú* ‘foolish serve as modifies for the Head nouns *gbékɛ́* ‘child’ and *nùù* ‘man’. These nouns that serve as modifiers can serve as heads of nominal phrases for instance:

108) **Nílé - lɔ́** lɛ́ mìì - lá.
wise-person DEF PROG -sing
'The wise person is singing.'

109) **Bùú- lú** lɛ́ yè níyénìí lɛ́.
fool-person DEF eat-PST food DEF
'The fool ate the food.'

When nominal adjectives occur as heads of NP, they can further be modified by PC items which can be an adjective or a nominal adjective as in example

110) **Òhìáfó fɔ́ŋ́** lɛ́ tèè àkròwá lɛ́.
poor person bad DEF went village DEF
'The bad poor person went to the village'.

111) Màŋtsɛ́ lɛ́ sámá **òhìáfó àwúíyèlɔ́** lɛ́.
chief DEF summon poor person wicked person DEF
'The chief summon the poor wicked man'.

In (110) and (111) the head nouns are *òhìáfo*. In (110) the head noun has been modified by Value adjective *fɔ́ŋ́* 'bad' and in (111) àwúíyèlɔ́ 'wicked one' a nominal adjective has been used.

Most often the nominal adjectives cannot be used as copula complements especially when the predicative role employs the copula verbs. It will be ungrammatical and unacceptable to say in (112). However it is possible to get some of these nominal adjectives as complements of some verbs in Ga as in (113) or (114).

112) *Nuu lɛ yɛ shika-tsɛ.

113) Nùú !lɛ́ tsɔ́ **shìká-tsɛ̀**.
man DEF turn money-owner
'The man became a rich person'.

Or

114) Nùú !lέ yὲ shìká.
man DEF possess money
'The man has money.'

However it is possible to use the copula verb '*ji*' as in (115) for the nominal adjective to be a complement.

115) Nùú !lέ jì **shìkátsὲ.**
man DEF COP money-owner
'It is the man who is rich'.

Which could also be expressed as in (116) where the NPs can be swapped:

116) **Shìká-tsὲ** jì nùú !lέ.
money-owner COP man DEF
'T he man is a rich man.'

These examples in (115) and (116) are alternative ways of saying the man is rich. In reference to the example (3a) in chapter one, it is seen from these discussions that there are other ways of expressing this idea of richness. It is realized therefore that in analyzing the data in this chapter by employing FFG, different options of expressing particular concepts have been discovered, data analysis have showed what pertains and the findings are just what have been uncovered from the data.

6.3.4 Nouns in Apposition

Nouns in apposition could be said to play PC role especially being attributive. Apposition is a grammatical relation realized by constructions having particular syntactic, semantic and pragmatic relations(Meyer 1992:6). In addition, Meyer stated that it is best to describe appositions as grammatical relations that stand in opposition to relations such as complementation or modification. Furthermore, he claimed that characteristics that define

these apposition relations are syntactic, semantic and pragmatic. Syntactically appositions function as subjects or objects, have linear hierarchical structure, units are juxtaposed and constitute a single apposition. Semantically, the units are coreferential, they are semantic class of appellation where the second unit names the first unit and is not restrictive and therefore not semantically integrated. Pragmatically, the second unit contains new information not previously introduced in the discourse. From the examples given for nominal adjectives it could be said that they are in apposition and they play the role of PC items in the NP. However it must be noted that after having interviews with a few native speakers, they believe that the nominal adjective modifies the head noun as what they intend saying is that meaning for example *nùù shìkátsɛ̀* 'rich man, they are using *shìkátsɛ̀* to qualify the head noun *nùù'* man'. They would only say *shìkátsɛ̀* when they interlocutors are already aware of whom they are talking about. Sometimes nominal adjectives occurring with the head nouns have equal status with the head noun that is *yòò* 'woman' can be the head and *jùlɔ̀* 'thief' can also be head. For instance in the example below *yòò* 'woman and *jùlɔ̀* 'thief' have equal status. The thief is the same as the woman talked about. Is it possible to say they are in apposition. This can be if analysed from the point of view that the two nouns refer to the same person and both have been mentioned for more clarity to be ascertained. In this work these are preferred to be called nominal adjectives adopted from Osam (2003).

117) **Yòò jù - lɔ́** !lɛ́ é - téè shíá.
woman steal-AG.SUF NOM DEF PERF- go home
'The (lady) thief has gone home.'

It is prudent to say that these appositional nouns denote PCs.

6. 4 Questionnaire Analysis

In the questionnaire distributed to respondents (seeAppendix 1), section four tested some few sentences in English and the respondents were to give the free translations . Using FFG, the results were

The English:

118) The wooden spoon

which was translated as:

'*tsò àwàlé'* by 57 out of the 59 respondents gave that order with only two respondents who translated it as *àwàlé àtó*.

The next was: 119) The metal chair

(58) out of the (59) respondents gave the translation as 'dádè sέí' with only one person leaving that out unanswered. The next was:

120) The plastic table.

Most respondents who numbered 46 out of the respondents wrote '*rɔ̀bà òkplɔ̀'*, 8 wrote *plastiki òkplɔ̀* and only one person used a relative clause form in writing '*òkplɔ́ ní akɛ rɔ́bà fèé'*.

The phrase 'the paper box' which was also tested had 100% of the respondents giving the same answer *wòlò àdékà*. The phrase

The next was the phrase in example (120)

120) ‘the boastful woman’

It was interesting as (120) had several translations as listed below. The translations given by the respondents are below with the number of respondents who wrote or prefer that option.

Translation	**Number of Respondents**
a.Yòò hènòwó-lɔ́ lɛ́ woman proud.AG SUF DEF	10
b.Yòò dáàgbèé-lɔ́ lɛ́ woman boast.AG SUF DEF	8
c.Yòò fùùtsɛ́ lɛ́ woman boast.owner DEF	8
d.Yòò hènɔtsɛ́ lɛ́ woman self-owner DEF `	3
e.Yòò nààfùùtsɛ́ lɛ́ woman mouth-owner DEF	1
f.Yòò hènòwómɔ́ lɛ́ woman pride DEF	1
g.Yòò fùùfèé-lɔ́ lɛ́ woman boast.AG SUF DEF	2
h.Yòò shɛ́yíí lɛ́ woman boastful DEF	2
i.Obĺáyòò shwà-lɔ́ lɛ́ youth boast-AG SUF DEF	3
j.Yòò kòkòtìí lɛ́ woman boastful DEF	1

k.Yòò àgbò-í-ánìì-tsɛ̀
woman big-PL thing-PL owner 1

l.Nààfùù yòò
proud woman 1

m.Yòò ní gbé-ɔ̀ é-dáŋ
woman REL kill-HAB 3SG –mouth 1

n.Yòò ní nàà è-hè
woman REL see 3SG-self 2

o.Yòò ní wò-ɔ èhè nɔ́
woman REL raise-HAB 3SG-self top 7

The respondents gave these translations in (a-o) as there exists words that are synonymous in Ga. Some respondents also employ the relative clause as in (m-o) in the translation. The number beside each translation gave the number of respondents that provided that translation. There were 3 respondents out of the 59 who did not translate this phrase on the questionnaire.

The last phrase was:

121) "the quarrelsome girl"

The results were:

	Translation	**Number of Respondents**
a.	Gbékɛ́-yòò béì -lɔ̀. child-woman quarrel-AG SUF	57
b.	Béì -lɔ̀ gbékɛ́-yòò. quarrel-AG SUF child-woman	1

c. Yòò ní sùmɔ̀ -ɔ̀ béì.
woman REL like-HAB quarrel. 1

Out of the 59 respondents, 57 preferred to say the response in (a) whereas only one person employed the relative clause as seen in (c).

As a follow up on the questionnaire I had a chat with few respondents and got to know that changing the position of the words results in different meaning for instance saying *rɔ́bà tsensi* means 'plastic bowl' were plastic serves as an epithet but changing the order *tsénsi rɔ́bà* means 'a plastic in which bowls are put.'

It is clear that all these words that function as epithets and nominal adjectives are from the noun class as they have the features of nouns in Ga : they occur as subjects and objects, they can take the agentive affixes, they take the plural affixes for nouns (refer to plural formation above), they occur as heads of NP and can also occur with the other modifiers that head nouns appear with like the definite article, determiners and identifiers among the rest. They can be employed to play the PC role.

In applying the FFG theory it is realized that the epithet function is played by nouns as well the nominal adjectives. It is also discovered that words in subject positions can play other roles in Ga. There is the option of putting a conjuction between two nominal adjectives and also synonyms exist for some words and speakers preference is strictly theirs to select one of them.

6.5 Semantic Classification of Nominal PCs

In examining the nouns used to express PCs, it was found out that the abstract nouns were all from the Human Propensity group. The nouns (nominal adjectives) that were

also derived from verbs were also of Human Propensity Type. The epithets which are mostly common nouns did not fall into any of the semantic classification group by Dixon (2004, 2006). The Human Propensity adjectives were mostly having the agentive suffix and were used attributively. The plus HUMAN (+HUMAN) feature was very evident with the nominal adjectives. These nominal adjectives have animacy feature but the epithets which also serve as PCs were mostly inanimate and may be placed into the Physical Property class due to the meanings they put across.

6. 6 Chapter Summary

PC items can be used attributively and predicatively with only few exceptions. The exceptions may depend on the language under consideration. Osam (2000:205) notes that Akan adjectives can be used attributively, in that instance they occur after the Head nouns. When Akan adjectives are used predicatively they involve the copula *ye*. Osam notes that there were few adjectives in Akan that can be used attributively but not predicatively. In Ga, studying the syntactic properties of the nouns that are used to modify nouns, it is realized they are of two types. There are those nouns that precede the head noun and those that appear after the head noun. The nouns that precede as discussed above are what is referred to as epithets and those that appear after the Head nouns can be referred to as nominal adjectives. The term nominal adjectives being adopted from Osam. It is best to also to refer to those in Ga as such as they are mostly nominal forms. Epithets in Ga are used only attributively and not predicatively to express PC. The epithet (noun) can appear as complements of verbs. The verbs in these instances are not copula verbs only and most importantly the nouns that serve as the complements do not describe whatever nouns may be in the subject positions. These same nouns that serve as epithets

can also be found in head positions.Rarely do more than one epithet occur to serve as an attributive for the head noun The nominal adjectives which occur with adjectives or occur in the adjective position(immediately after the head noun if present) cannot most often be used predicatively but occur at the attributive positions. In terms of semantic class of PCs, epithet function could be placed in the Physical Property class and nominal adjectives are placed in the Human Propensity class.

To conclude, from the FFG analysis of analyzing data and discovering things as they pertain, nouns can be used in Ga to express adjectival meanings/PCs. Two groups of nouns perform this function: the epithet and the nominal adjectives. They both are used attributively. Nominal adjective and an adjective can occur but in a fixed order. The epithet does not inflect to show number agreement with the head noun whereas the nominal adjectives inflect to show number agreement. Nouns used as epithets are not used in comparative constructions. Rarely abstract nouns are used periphrastically to compare things in Ga. The nominal adjectives that denote PCs were found in the Human Propensity group.

CHAPTER SEVEN

SUMMARY AND CONCLUSION

7.0 Introduction

The work examined lexical categories that are employed to express PCs in Ga. PCs were seen as words that express adjectival meaning (Palancar 2006) and most often occur as attributives and predicatives /intransitive predicates in languages. (Thompson 1988). The objective of identifying PCs in Ga was to help learners and speakers(native/ non native) as well as other learners of other languages to understand that words used in languages do not belong to universal syntactic categories, for example if a word is a noun in a particular language its equivalent in another language may not necessarily be a noun. Words as posited by Carnie (2013) are put into classes based on their syntactic and morphological features. PC items can be from the adjectives class (the most popular class that functions as PC items); noun class, verb class, adverb class and even from clauses depending on the language under consideration.

In chapter one, the introduction to the whole work was discussed. The chapter examined the purpose of the work, the significance as well as the statement of the problem. In chapter two works that have examined PC were reviewed and the framework employed in this research was also explored. The framework employed was the Framework-Free Grammatical (FFG) theory by Haspelmath (2008). The framework proposed that languages should be analysed without imposing strict rules that may have been identified in another language onto another. This means bound framework may not apply to every language and therefore to arrive at a true picture of an analysis or investigation, Framework-Free Grammatical theory is the best in my opinion . Dixon's

(2004) semantic classification of PCs was used to classify PC items found in Ga. In the review of literature it was revealed that words that serve as PC items in languages were not only adjectives but other word classes such as verbs in Semelia, (Kruspe 2006), nouns for example in Otomi (Palancar 2006) and adverbs in Carriban (Sergio & Gildea 2005).

In chapter three the adjectives in Ga were examined. The adjective which serves as a PC item in Ga was seen to have come from different sources. It came to light that there were both deep level adjectives and derived adjectives. The derived adjectives have their sources from verbs and nouns. Deep level adjectives were found to be of two types, those that seem to be reduplicated and therefore referred to as reduplicant deep level adjectives and those that were monomorphemic were referred to as deep level or basic adjectives. Adjectives that were derived from verbs were of two types; those that were derived mainly through suffixation and those that were derived through suffixation and reduplication. Adjectives derived from nouns were mainly through the processes of suffixation plus reduplication. The nouns were both from the countable and uncountable groups. Some few adverbs were found to play the role of PC items as well.

Adjective sequencing was investigated in chapter four. Data was gathered from questionnaires, listening to some conversations having discussions and informal interviews, as well as employing the Toy Task. In chapter five, verbs that could be used to denote PC items were investigated and nouns that also denote PC were also examined in chapter six before the final conclusion of the work.

7.1 Property Concepts in Ga

PCs as noted by Dixon (1982, 2004), Thompson (1988), Backhouse (2004) among others are generally from the adjective class. Languages therefore that have the adjective class have no difficulty in using these adjectives to express PCs. However it was also revealed that there are situations where these adjectives may or may not express all PC ideas needed and sometimes other syntactic categories must be resorted to. Despite the fact that Ga has adjectives other syntactic categories can be employed to denote PC items in the language. In addition to both derived and deep/basic level adjectives in Ga, nouns and verbs were found to also play the role of PCs. There were very few adverbs in Ga which played this PC role.

The adjectives found were basic and derived. The basic ones were monomorphemic. Derived adjectives were from nouns and verbs. The adjectives derived from nouns were formed through the processes of reduplication and/or suffixation plus reduplication unlike Ewe which derived them through the compounding of a noun plus an adjective. There were adjectives derived from verbs through affixation of (*-i, -ru, -ra,-ŋ*) or affixation plus reduplication. This resulted in two processes used to derive adjectives from verbs. Verbs were also found in Ga to denote PC items just like in other Kwa languages like Akan and Ewe. For instance, 'The food is hot' can be said in the following ways:

Akan:	Aduane	no a-dɔ /aduane no aye hye
	Food	DEF PERF- be hot./ food DEF be hot
Ga:	Niyenii	lɛ e -dɔ
	Food	DEF PERF-be hot
Dangme:	Niyenii	dɔ la
	Food	be.hot fire

These languages (Akan, Ga and Dangme) express this concept of food being hot using different syntactic categories, Akan makes use of a verb or an adjective, Ga uses an intransitive verb while Dangme employs a verb plus its complement. There is an adjective equivalent for *dɔ́* 'be hot' in Ga which is *klakla* and can also be used. From my Dangme informant, they either use the verb plus its complement or a relative clause to express this concept. It was realized that though these verbs are generally stative as they are referred to in the literature (Sampson 2011), other scholars also prefer to call them quality verbs (Elders et al 2008). There were verbs that were change of state verbs which were also used and these findings confirmed what linguists have revealed in other languages. Some of these verbs were found to have adjective equivalents and therefore could be employed in certain instances. The few adverbs that were found to denote PCs always had to depend on the syntactic structure they were found in and their semantics or meanings that they put across. The nouns that were used as PCs were found to be of two types, the epithet which occurs before the head noun and the nominal referred to as nominal adjectives by Osam (1999) and also named nominal by Dorvlo (2009). These two types which I may call PC nouns have different features in terms of syntax and morphology. The epithets are mostly not derivations from other word classes but the nominal adjectives are mostly derived from abstract nouns or Inherent Complement Verbs. There are few nominal adjectives, however, that were not derived like *búulu* 'fool' and *púpúúpu* 'inquistive'.

7.2 Morphological Properties of Property Concepts in Ga

The work revealed that adjectives that were used to denote PCs share some features with the head nouns they modify. The Ga NP, as discussed and noted by Dakubu (2000), had

ten slots and the adjective occupies one of the slots. Though noun classes or gender agreement for nouns are not existent in Ga unlike in Hocank (Helmbrecht 2004), the head noun and the adjective have a feature in common and that is number agreement. The head noun, when it is plural and has an adjective modifying it agrees with the adjective as the adjective is marked morphologically as well to show number agreement. All the basic adjectives that may be found in this position are be marked overtly to show number agreement with the head nouns, this does not happen in Dangme (Ceasar 2012). Dangme may mark only one of the adjectives when there are multiple adjectives used or mark it only on the adjective leaving the head noun. The plural marking for the nouns as identified were based on Ablorh–Odjidja (1961) and Dakubu (2003) rules which were discussed in chapter six. The plural marking for the nouns were suffixes and had allomorphs. The adjective plural markings are of two types, suffixation or reduplication. For example an adjective like *wùlù* 'huge' is morphologically marked to show number agreement with a head noun through suffixation after deleting the last syllable to yield *wùji*. On the other hand, an adjective like *kèkètèè* 'hard' is marked overtly to show number agreement through reduplication that will be *kèkètèkèkètèè*, with the tone changing. In reduplicating the adjective to arrive at the number agreement, the final vowel is deleted before reduplication. The adjectives that are derived from nouns remain in the same forms when the head noun is plural with the exception of a few like *blóbló* 'lanky' becoming *blóblóbii* 'lanky' (PL). The adjectives that have their sources from verbs are of two types as seen in chapter four. The ones derived through affixation are generally marked overtly to show number agreement with the head noun. On the other hand, those that were derived through both suffixation and reduplication are not all

marked overtly to indicate number agreement. The few adverbs that were employed as PCs are not marked morphologically for any number agreement. Adjectives (basic) can also be reduplicated to show emphasis and they are also nominalized to be heads of NP. The basic reduplicant adjectives are not reduplicated and do not have any plural forms. The adjectives derived from nouns are hardly reduplicated likewise the ones derived from verbs through suffixation and reduplication. However some of the basic adjectives are not prefixed with the e – nominaliser as it is ungrammatical and unacceptable, especially those that have /k, l , a / as initial sounds, that is they occur in the same forms when nominalized. With the exception of *mómó* 'old' from basic level reduplicant adjectives the rest are not prefixed with e-. The use of multiple adjectives for a single head noun agrees morphologically with the head noun in number, that is, all the adjectives are marked overtly for number agreement. Stative verbs, which I prefer to call quality verbs, adopting from Elders et al (2008), may show number agreement depending on what meaning is being put across through reduplication plus suffix –i. For example, *wójí !lɛ́ egbɔ̀gbɔ̀ì*. The subject is plural and there is agreement though *wójí! lɛ́ égbɔ̀* can also be uttered both meaning 'The books are old'. The quality verbs can also be nominalized in most cases just like non quality verbs by suffixing with *-mɔ, -lɛ* or the same final vowels in the roots. Nouns used for PC expressions are of two types; epithet and nominal adjectives. The epithet morphologically is not marked to show any agreement with the head noun it modifies neither is there any other agreement between them. The epithet is not reduplicated in any circumstance. Nominal adjectives do show number agreement with the head nouns in attributive positions. Some of these nominal adjectives can be reduplicated for emphasis and to show number agreement.

7.3 Syntactic Properties of Property Concepts in Ga

PCs function as intransitive predicates, being complements of verbs and as attributes/modifiers in NP as well as occurring in constructions that express comparison (Dixon 2006). PC adjectives, as already established in Ga by Dakubu, occur as attributive and could be multiple for a single head noun. These PC adjectives whether derived or non derived play this role in Ga and syntactically appear in the slot immediately after the head noun in the NP. Adjectives derived from nouns also are used attributively but seem to occur more with mass nouns like *duade* 'cassava, *koko* 'porridge' and the like. When predicative function was examined, it was revealed the deep level adjectives are prefixed with e- to occur in predicative positions or as complements of verbs but there are exceptions to these as some of the adjectives occur with a zero allomorph of the e-prefix. The e-prefix makes it nominalized as the sentences in Ga mostly take nominals as objects. However, those adjectives derived from verbs through suffixation do generally take the e-prefix whiles those derived through both suffixation and reduplication do not take the e- nominaliser prefix when they occur as predicatives and this is the same for adjectives that have their sources from nouns. The basic and derived adjectives can occur alone as heads of NPs. Epithets only function attributively by occurring immediately before the head nouns and more than one can be used as modifiers just like the adjective. Two epithets may occur plus even an adjective in the Ga NP. It is also possible to have two epithets and two adjectives serving as attributes for a single noun. Epithets do not play predicative roles but words that are used can occur as complements for verbs and not only copula verbs. They do not play descriptive roles or have relationship of attribution to the nouns in subject positions. Nominal adjectives also serve as attributes for head nouns

and could also be heads of NPs (as discussed in chapter six). The nominal adjectives that are derived from Inherent Complement verbs (ICV) resort to the ICV to occur in predicative positions most often, however, the few that are not from ICV occur in the same forms when they are complements of verbs whether copula or not. A nominal adjective can occur with a deep level adjective in attributive position and usually the deep level adjective occurs before the nominal one. Sometimes, in that instance, a conjunction is placed between the two PC items. Quality verbs function as intransitive predicates and when they have to occur as attributes, two strategies are employed. The first is to employ a relative clause and secondly make use of their adjective equivalents, if any. Syntactically the quality verbs serve as heads of VPs. The quality verbs can inflect to show tense, aspect and mood just like non -quality verbs. These quality verbs also occur with adverbs and the few that are ICV occur with complements in constructions. The work has not yet come across any of the quality verbs in Serial Verb Constructions and also not found them in appositions yet. Unlike English, where modals occur so close to verbs (whether quality type or dynamic), it is not so in Ga. The modals are found at initial positions in constructions. The words that normally are used as modals are not monomorphemic like English as seen in chapter six. Passives are expressed in English and other languages by mostly the agent /subject in the active sentence being changed to be objects in the passive. However, in Ga expressing the passive is different from English as it employs a periphrastic way. The passive makes use of a null pronoun and the agent not mentioned at all as discussed in chapter five. The verbs in the construction being used to express passive can be quality verbs or dynamic verbs. Quality verbs in Ga were seen

mostly not to occur in imperative constructions with the exception of few like *da* ‘to be big’ where the imperative form for instance in singular will be *daa* ‘grow up’.

7.4 Semantic Properties of Property Concepts in Ga

In Ga, it was revealed that six of the semantic classes proposed by Dixon (2004) could be filled by adjectives namely: Dimension, Value, Age, Physical Propensity, Colour and Speed. Quality verbs can be placed in the Value, Dimension, Colour and Similarity classes. The Human Property class is filled with nominal adjectives. The six classes which are filled by adjectives and identified are based on the questionnaires distributed to respondents, collected and analysed. The section two of the questionnaire which investigated how multiple adjectives in attributive position for a single noun were ordered revealed the following:

When Value and Dimension adjectives were to be ordered the most preferred order will be Value before Dimension. When the adjectives are from Dimension and Age classes, Age occurring first, followed by Dimension is most preferred. When the three classes namely Physical Property, Age and Dimension were to be sequenced, the most preferred was Age, Dimension and Physical Property last. In the event of sequencing adjectives from the classes of Dimension, Colour, and Physical Property, the most preferred order was Colour, Dimension, and Physical Property. The preferred order for adjectives from the classes of Dimension, Value and Colour was Value Dimension and Colour. Colour, Physical Property and Value order was most preferred in the event of sequencing these semantic classes. Value, Age and Colour order was also preferred as well as Age, Colour and Physical Property in the event of sequencing these classes. The order, Value, Age

and Physical Property order and Age, Colour and Dimension order were also the most preferred orders. In the event of sequencing two adjectives of the same semantic classes plus one from another class the orders, Age, Dimension and Dimension as well as Dimension, Colour, Dimension order were most preferred by the respondents. In examining some few ordering of plural nouns with some semantic classes the order Value Age, Colour was still preferred just as when it is modifying a singular noun. The Age, Colour, Dimension order changed in the singular to be Colour, Age, Dimension order as well as the Value, Age, Colour order to Age Value order in plural. From the orderings in attributive position of these semantic classes Colour adjectives were preferred to be closer to the head noun or far from it as well as Age adjectives. Physical Property adjectives seem to occur in the middle or the last in the ordering and in summary all the orderings seem not to be strict.

In examining these adjectives in predicative use, it was revealed that most often verbal equivalents were employed and the few sequencing orders found were two verbs that can be placed in Colour and Dimension classes, Dimension was preferred to appear closer to the head noun and Colour last. Also two verbs from the Physical Property and Value classes, Value verb was preferred last. When a verb from Value class occurs with an adjective from Colour class, the Value verb is preferred first in the predicative role.

7.5 Future Research.

Despite the investigation into lexical categories that are used to express PCs in Ga, there are a few issues that could not be examined and this gives opportunity for future research**.** Some of these issues are mentioned below.

The work did not examine into detail tone changes on the PC items used and whether tone variations may occur in syntactic positions or when multiple adjectives are used. Moreover pragmatic issues relating to why a speaker would prefer to use PC item which may have an adjective equivalent was not delved into, for example, using *di* ‘to blacken’ instead of *díŋ* ‘black’ and also why would a speaker choose a PC item to occur first when there are multiples to be employed for a head noun. Reasons for such choices were not examined in detail. Furthermore there may be other ways or strategies that may be used to denote PCs in Ga but this was not investigated. There may be special clauses used and the use of ideophones to express PCs in Ga, this remains for future research and possibly a comparative analysis of adjective ordering in Kwa languages to contribute to typology of PCs.

APPENDIX 1

Questionnaire

Please I am undertaking a research on the sequencing of adjectives in Ga. I would be grateful if you could share your opinion with me on the sentences below. Please feel free to express your opinion as no names are included or mentioned. Thank you.

Section 1

Please tick the appropriate answer

1. Which variety of Ga do you speak as your mother tongue
   a) Osu b) La c) Teshie/ Nungua d|) Ga Mashi e) others
2. Which other Ghanaian language do you speak apart from Ga?
   a) Twi b) Fante c) Ewe d) Hausa e) Gurene f) others
3. What is your age?
   a) 18-23,b) 24- 29 c)30 -36 d)37-42 e)43 -49 f) 50and above
4. What is your educational background ?
   a) Primary b)Secondary c) Tertiary d) teacher training e) other f)none
5. What is the level of formal education in Ga a) Primary b) Secondary c)Tertiary d) Teacher training e) other f) none
6. Place of home town Region
   ……..District ……..

SECTION II

Please rank the following sentences below on the scale of 0-5.

0- Completely unacceptable 1-hihgly unacceptable 2- quite unacceptable 3- quite acceptable

4 –Highly acceptable 5- completely acceptable.

5) Tso fɛfɛoo kakadaŋŋ lɛ eku. ‘The beautiful tall tree is broken.
Tso kakadaŋŋ fɛfɛoo l ɛ eku. ‘The tall beautiful is broken.

6) Atade hee agbo lɛ efɔ. ‘The new big dress is wet.’
Atade agbo ehee ‘The big new dress is wet’

7)

Ehe adeka tsiŋmoo agbo momo ko. ‘He bught a heavy big ld box’

Ehe adeka momo tsiŋmoo agbo ko. He bought an old heavy big box.

Ehe adeka agbo tsiŋmoo momo ko. He bought big heavy old box ;.

Ehe adeka agbo momo tsiŋmoo ko. He bought big old heavy box'.

Ehe adeka momo agbo tsiŋmoo ko. 'He bought an old big heavy box'.

8)

Ehe baagi tsiŋmoo wulu diŋ ko. 'he bought a heavy big black bag.'

Ehe baagi tsiŋmoo diŋ wulu ko. He bought a heavy black big box.'

Ehe baagi diŋ wulu tsiŋmoo ko. 'He bought a black big heavy box'.

Ehe baagi wulu diŋ tsiŋmoo ko. 'He bought a big black heavy bag'.

Ehe baagi wulu tsiŋmoo diŋ ko. 'He bought a big heavy black box'.

9)

Mina akutu kpakpa bibioo tsuru ko. ' I saw a good small red orange'

Mina akutu bibioo tsuru kpakpa ko. I saw a small red good orange'.

Mina akutu tsuru kpakpa bibioo ko. 'I saw a red good small orange'.

Mina akutu kpakpa tsuru bibioo ko. 'I saw a good red small orange'.

Mina akutu bibioo kpakpa tsuru ko. 'I saw a small good red orange'

10)

Mihe mama hatahata taŋtaŋ yɛŋ ko. 'I bought a light ugly white cloth.'

Mihe mama taŋtaŋ hatahata yɛŋ ko. 'I bought an ugly light white cloth'.

Mihe mama yɛŋ hatahata taŋtaŋ ko. 'I bought a white light ugly cloth'.

Mihe mama hatahata yɛŋ taŋtaŋ ko. 'I bought a light white ugly white.

Mihe mama taŋtaŋ hatahata yɛŋ ko. 'I bought an ugly light white cloth'.

11)

Mina baagi hatahata tsuru taŋtaŋ ko. 'I bought a light red ugly bag.

Mina baagi hatahata taŋtaŋ tsuru ko. 'I bought a light ugly red bag'.

Mina baagi taŋtaŋ hatahata tsuru ko. ‘I bought an ugly light red bag’.

Mina baagi taŋtaŋ tsuru hatahata ko. ‘I bought an ugly red light bag’.

Mina baagi tsuru taŋtaŋ hatahata ko. ‘I bought a red ugly light bad’.

12)

Ena adeka tsiŋmoo bibioo yɛŋ ko. ‘He saw a heavy small white box’.

Ena adeka bibioo tsiŋmoo yɛŋ ko. ‘He saw a small heavy white box’.

Ena adeka yɛŋ tsiŋmoo bibioo ko. ‘He saw a white heavy small box’.

Ena adeka bibioo tsiŋmoo yɛŋ ko. ‘He saw a small heavy white box’.

Ena adeka bibioo yɛŋ tsiŋmoo ko. ‘He saw a small white heavy box’.

Ena adeka tsiŋmoo yɛŋ bibioo ko. ‘He saw a heavy white small box’.

13)

Ewo atade yɛŋ momo fɛfɛoo ko. ‘He is wearing a white old beautiful dress.’

Ewo atade momo yɛŋ fɛfɛoo ko. ‘He is wearing an old white beautiful dress’.

Ewo atade momo fɛfɛoo yɛŋ ko. ‘He is wearing an old beautiful white dress’.

Ewo atade fɛfɛoo momo yɛŋ ko. ‘He is wearing a beautiful old white dress’.

Ewo atade fɛfɛoo yɛŋ momo ko. ‘He is wearing a beautiful white old dress’.

Ewo atade fɛfɛoo momo yɛŋ ko. ‘He is wearing a beautiful old white dress’.

14)

Mina saa bɔdɔɔ hee yɛŋ ko. ‘I saw a soft new white bed’.

Mina saa bɔdɔɔ yɛŋ hee ko. ‘I saw a soft white new bed’.

Mina saa hee bɔdɔɔ yɛŋ ko. ‘I saw a new soft white bed’.

Mina saa hee yɛŋ bɔdɔɔ ko. ‘I saw a new white soft bed’.

Mina saa yɛŋ bɔdɔɔ hee ko. ‘I saw a white soft new bed’.

Mina saa bɔdɔɔ hee yɛŋ ko. ‘I saw a soft new white bed’.

15)

Mihe loo gbiŋ momo keketee ko. ‘I bought a dry old hard fish’.

Mihe loo gbiŋ keketee momo ko. ‘I bought a dry hard old fish’.

Mihe loo momo keketee gbiŋ ko. ‘I bought an old hard dry fish’.

Mihe loo keketee gbiŋ momo ko. ‘I bought a hard dry old fish’.

Mihe loo keketee momo gbiŋ ko. ‘I bought a hard old dry fish’.

Mihe loo momo gbiŋ keketee ko. ‘I bought an old dry hard fish’.

16)

Mina yoo fɔŋ bibioo diŋ ko. ‘I saw a bad small dark woman’.

Mina yoo fɔŋ diŋ biboo ko. ‘I saw a bad dark small woman’.

Mina yoo bibioo fɔŋ diŋ ko. ‘I saw a small bad dark woman’.

Mina yoo bibioo diŋ fɔŋ ko. ‘I saw a small dark bad woman’.

Mina yoo diŋ bibioo fɔŋ ko. ‘ I saw a dark small bad woman’.

17)

Eta gbɛ lɛlɛoo kakadaŋŋ hee ko nɔ. ‘He is sitting on a narrow long new path’.

Eta gbɛ lɛlɛoo hee kakadaŋŋ ko nɔ. ‘He is sitting on a narrow new long path’.

Eta gbɛ kakadaŋŋ hee lɛlɛoo ko nɔ. .’He is sitting on a long new narrow path’.

Eta gbɛ kakadaŋŋ lɛlɛoo hee ko nɔ. ‘He is sitting on a long narrow new path’.

Eta gbɛ hee lɛlɛoo kakadaŋŋ ko nɔ. ‘He is sitting on a new narrow long path’.

Eta gbɛ hee kakadaŋŋ lɛlɛoo ko nɔ. ‘He is sitting on a new long narrow path’.

18)

Wolo hee bibioo diŋ lɛ elaaje. ‘The new small black book is lost’
Wolo hee diŋ bibioo lɛ elaaje ‘The new black small book is lost’
Wolo bibioo diŋ hee lɛ elaaje. ‘The small black new book is lost’
Wolo diŋ hee bibioo lɛ elaaje ‘The black new small book is lost’

20)
Nuu diŋ kpitioo tɔ trɔɔ lɛ eba. 'The black short fat man has come'
Nuu kpitioo diŋ tɔtrɔɔ lɛ eba. 'The short dark fat man has come'.
Nuu tɔtrɔɔ kpitiooo diŋ lɛ eba. 'The fat short dark man has come'.
Nuu diŋ tɔtrɔɔ kpitioo lɛ eba. 'The dark fat short has come'.

21)
Tso gbiŋ kakadaŋŋ yɛŋ ko. 'The dry tall white tree'
Tso kakadaŋŋ gbiŋ yɛ ŋ ko. 'The tall dry white tree'
Tso gbiŋ yɛŋ kakadaŋŋ ko. 'A dry white tall tree'

22)
Yei agboi diji kpitibii. 'big dark short women'
Yei kpitibii agbo diji lɛ. 'short big dark women'
Yei diji kpitibii agboi lɛ. ' dark short big women'

23)
Atadei hei agbo tsuji . 'new big red dresses'
Atadei agboi hei tsuji . 'big new red dresses
Atadei tsuji agboi hei . 'red big new dresses
Atadei tsuji hei agboi. ' red new dresses

24)
mamai hei fɛfɛji diji. 'new beautiful black clothes
mamai fɛfɛji hei diji. 'beautiful new black clothes.
mamai diji fɛfɛji hei. 'black beautiful new clothes

SECTION IV

25) Please translate the following into Ga. **Please write it as it is said in GA**

The wooden spoon

The metal chair.

The plastic table .

The paper box

The boastful woman.

The quarrelsome girl.

SECTION III

26) Please translate the following into Ga**. Please write it as it is said in GA**

The ugly big black pot.

The tall yellow building.

The dirty old chair.

A new beautiful black belt.

They saw a big black pot

They bought a small beautiful red purse.

The new wide umbrella of the chief.

The old heavy blue box.

The boy is dark and tall.

The building is new.

The bucket is big and blue.

The books are heavy and old.

The man is old and handsome.

7. Please fill in the spaces with the adjectives in the order acceptable to you.

Kaa nɛɛ yɛ

……

agbo, fɛfɛo

Sɛi nɛɛ yɛ

……..

Mujimuji , tan, momo

Yoo lɛ yɛ

……

Bloblo, tsur

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