UNIVERSITY OF GHANA

SPATIAL ORIENTATION IN GA

BY

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY IN LINGUISTICS DEGREE

JULY 2019

DECLARATION

I, Belinda Naa Dedei Tetteh, declare that except for references to works that have been duly cited, this thesis is the result of my original research under the supervision of Dr. J.A.N Saanchi and Dr. Akua Campbell and that it has neither in whole nor in part been presented for another degree elsewhere.

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DEDICATION

To the Almighty God for granting me the strength to go through the programe successfully and to my late grandmother Rebecca Dede Tettey for her encouragement and her support.

ACKNOWLEDGEMENT

I wish to sincerely thank all those who, in different ways, helped and supported this study to become a reality. My appreciation first and foremost goes to God Almighty for giving me life, strength and wisdom to accomplish this work. To my supervisors; Dr. J.A.N Saanchi, your encouragement, advice and direction towards the success of this work cannot be overemphasized and Dr. Akua Campbell, your immense contribution, kind words and motivation cannot be quantified. I truly appreciate the time spent with you and the invaluable experience I have tapped from you. I also thank all lecturers of the linguistics Department, especially; Professor Saah, Professor Osam, Professor Nana Aba Amfo, Dr. Diabah (HOD), Dr. Clement Appah and Dr. Hudu.

I sincerely wish to appreciate Mr. Emmanuel Nii-Adjetey Adjei for his support and encouragement. Ataa, 'Nyɔŋmɔ ajɔɔ bo'. To Mr. George Adams your magnanimity to this work is very much appreciated. To the Liberians in the linguistics department, you have been very helpful and, I say God reward you.

To my colleagues in Aburi Girls' Senior High School, Rev. Edwin Buertey (School Chaplain) for your prayers and encouragement. Papa I say God bless you, Ms. Lucy Buruwaa Asimani (HOD- Ghanaian Languages) thank you for your support, Mr. Ekow Aboagye you have been truly helpful and contributed immensely towards this success, Mr. Mark Adu Asare thank you for your encouragement and support and all other colleagues who have contributed in one way or the other towards this work, I appreciate your contributions greatly.

I cannot forget my family; Ms. Felicia Mensah (my mother), Christiana Mensah, Sylvia Sacker and Mrs. Jech-bed Abbey; thank you all for the love and support. Lastly, I wish to thank Ms. Racheal Simons and all Aburi Girls' Senior High School Ga students, thank you all, without you, I would not have come this far.

ABSTRACT

The study investigates spatial orientation in Ga, two frameworks were adopted for this work namely; Cognitive Semantics and grammaticalization. Cognitive semantics attaches more importance to conceptual structure and our embodied experience and also deals with extended meanings while grammaticalization accounts for meaning related to body parts, time and other grammatical notions. The main methodology adopted for this study is the Topological Relation Picture Series (TRPS), the (1993) edition designed by Penelope Brown and Eric Pederson. The aim of the work is to present comprehensive analyses of Spatial Orientation in Ga from the cognitive linguistics perspective. Looking at the the similarities and differences which are expressed in the language.

Speakers of Ga have ways of locating entities in the language using specific spatial concepts. Spatial concepts indicate the exact location of objects. Svorou (1994), writes that most spatial concepts are derived from human body parts. The body part terms are grammaticalized and are used as spatial concepts in Ga. The study also discusses some conditions necessary for grammaticalization. The conditions for grammaticalization include phonetic bleaching, semantic force, frequency of form, pragmatics influence and conceptual strategies. The study also examines non-metaphorical and metaphorical use of body part terms in Ga. Metaphorical use of body part terms were discussed under three major headings namely: Face and its parts- *yitso* 'head',

hiŋmɛi 'eye' and *naabu* 'mouth', Internal parts- *tsui* 'heart', *musu* 'stomach' and Intangible part- *jwɛŋmɔ* 'mind'. Metaphorical use of body parts terms was discussed with reference to metaphor and metonymy which are used in everyday language.

The study further explores positional verbs in Ga. "Positional verbs" is used in this thesis as a cover term that refers to a class of verbs that semantically encode the static assumed body posture or position of animate entities such as humans and animals or the static location of inanimates (objects) in space. The study discusses Ga data in the context of cross-linguistic studies on posture, positional and locative verbs (Newman, 2002a; Levinson & Wilkins 2006a, Ameka & Levinson 2007a). Languages use verbs to describe a wide range of semantic notions involving different locative relations between the Figure and the Ground such as body position, elevation, attachment, containment, and distribution. The findings of the study are that positional verbs such as *damɔ* 'to stand' are used for humans and inanimate objects whereas *ma* 'to stand' is used for inanimate entities and *ka* 'to lie' is used for both animates and inanimate objects. Again, yɛ 'be at' is a general verb used to describe animate and inanimate objects in the language.

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LIST OF ABBREVIATIONS

DEF	Definite Article
PST	Past
SG	Singular
PL	Plural
LOC	Location
HAB	Habitual
PREF	Prefix
SUFF	Suffix
NEG	Negative
COP	Copular
POSS	possessive
TR	transitive
INTR	intransitive
FUT	future
NOM	nominalizer (lexical)
PROG	progressive
PERF	Perfect
1	1st person

2	2nd person
3	3rd person

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Introduction

Spatial language is to central human thinking and thought. Research into spatial language has shown that spatial language is divergent across languages which suggest significant culturally pattering of conceptualization. Human spatial language varies significantly across languages, in the way it is semantically organized and the way in which the language is coded. All over the world, in spatial language, there is language universal and language specific. Language universal in the language of space means that certain terms are used worldwide while certain spatial terms are language specific.

The study of spatial language is very important for certain reasons. The reasons are as follows: First and foremost, the study of language of space brings to bare the underlying conceptual structure in human thinking. This is impossible to and difficult to other organisms which do not articulate speech. Secondly, in contrast, the variability of language promises very interesting insight into the possible variability of spatial thinking. Lastly, spatial language assumes a close correlation between language and spatial thinking and more importantly isomorphism between semantics and conceptual structures.

Human beings experience the world which is determined by our biological make-up. The way we describe things in the environment using language in different ways, show our dependence on our belief systems. Throughout the world, many languages derived the terms for 'east' from the 'rising' and the 'west' from the 'setting' of the sun with respect to a stable horizon and the stars coming out at night. Again, the term for right hand is derived from the 'male/strong hand, 'the eating hand and 'the real/true hand' (Svorou 1994 and Heine 1989).

Every language in the world has different ways of locating entities. Locating of entities is language-specific. Svorou (1994), refers to the location of objects as spatial grams and Heine (1991), calls it spatial orientation. This study adopts Heine's term spatial orientation, (spatial orientation from henceforth SO). According to Svorou (1994) and Heine (1991) works on SOs have shown that the main sources of SOs are from human body parts and these body parts are grammaticalized and used as SOs in the language of space. Body part terms are also used figuratively to express emotions, sensation, cognitive process, space and time. New ways by which body part nouns are used figuratively are metaphor and metonymy. Again, these concepts are used in most languages as adpositions. Svorou (1994), writes that body parts such as head, eye, face, mouth, face, back and front are used as SOs in various languages across the world.

The study seeks to discuss into details the semantics of posture, positional and locative verbs in Ga. Works on typological studies on posture, positional and

locative verbs by Newman (2002), Levison and Wikins (2006) and Ameka & Levison (2007a) are used to discuss positional, posture and locative verbs in Ga.

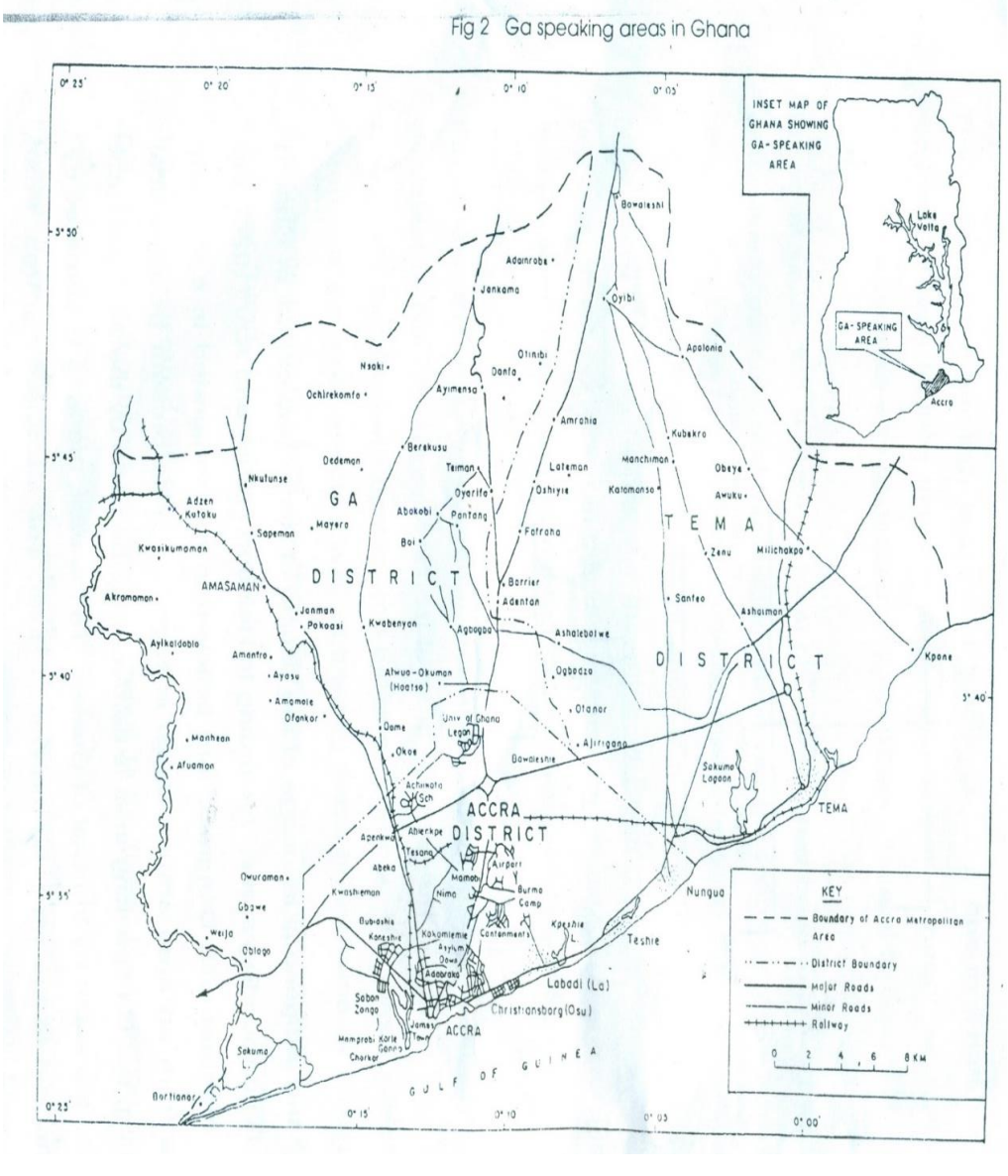
Although works on SOs have been done in other Ghanaian languages such as Ewe, Gurenɛ and Dagaare, there is no record of work done on the spatial concept in Ga. Hence, this study seeks to delve into the spatial orientation (SO) and do semantics analysis of positional and locative verbs in Ga. This chapter presents an outline of the work. The outline is as follows: background of Ga, genetic classification of Ga, the phonology of Ga, the scope of the studies, statement of the studies, dialects, research objectives, and research questions, significance of the study, methodology, and organization of work.

1.2 Background of Ga language

Ga is the language of the indigenous people of the Ga land and the plural form of the people who speak the Gã language is called *Gàmɛ̀ì* (Gã people) whilst- *Gã̀nyò* (Gã person) is the singular for one person. The traditional occupation of the Ga people is fishing and farming. Towns in which the language is spoken are Ga Mashie (Accra Central), Osu, La, Teshie, Nungua, Tema and Kpone and also spoken in Ga villages like Abokobi, Bɔi, Oyibi, Bawaleshi, Akpɔman, Oyarifa, Kweiman, Teiman, Samsam, Ajenkotu, Otsirikomfo, Adenkrebi which are spread at the foot of the Akwapim Hills.

Ga shares boundaries with Obutus, Akwamus and Ewes. History recounts that they lived with Europeans like the Portuguese, Dutch, Danes, French, German and English. These languages have influenced the Ga language. Below is a figure which shows the Ga speaking towns in Accra taken from Wentum (1997).

Figure 1: Ga speaking areas in Accra (Wentum 1997)



1.2.1 Genetic Classification of the Ga Language.

Ga belongs to the Kwa branch of the Niger-Congo language family. According to Bendor-Samuel (1989) Ga and Dangme its close relative spoken in the east of Accra form a family that belongs to the 'Nyo' group because of their closeness. The ethnology of the languages of the world (2013) attests that Ga belongs to the Nyo group and this is illustrated in figure (2) Figure (3) is the language map of Ghana, showing the Gã-Dangme-speaking area in the south-east coastal region of the country being represented by short horizontal dashes (Campbell 2017).

Figure 2: The Gã-Dangme Language Family

(Ethnologue: Languages of the World, 2013)

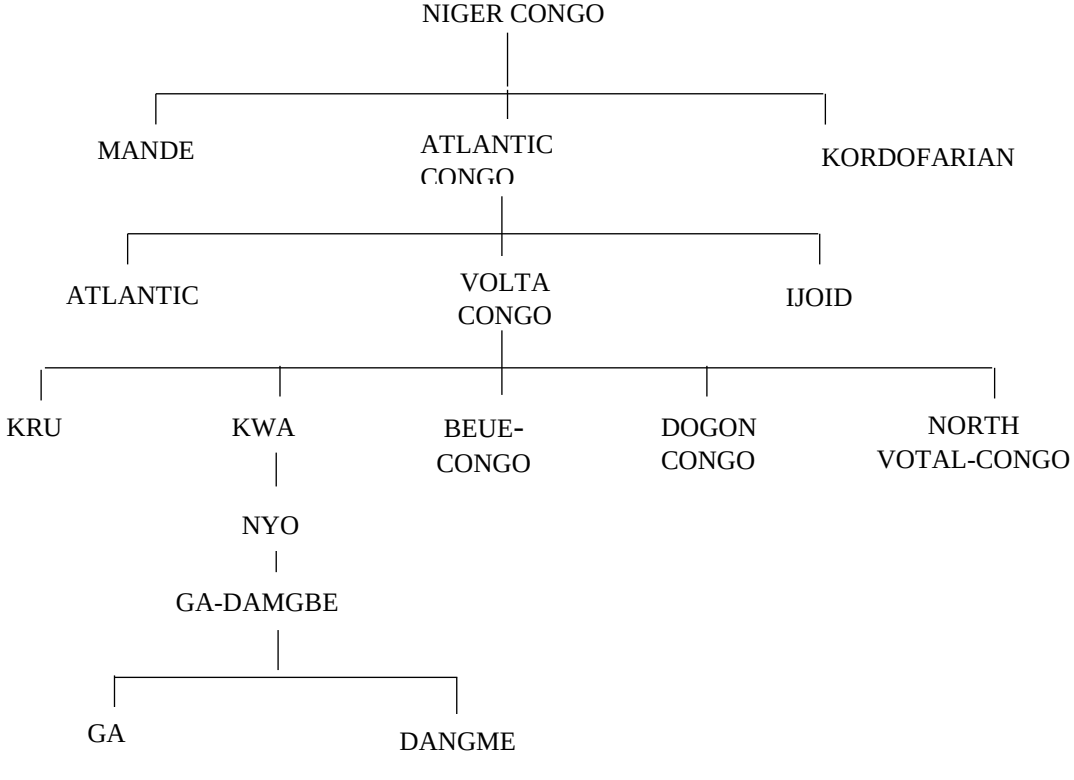
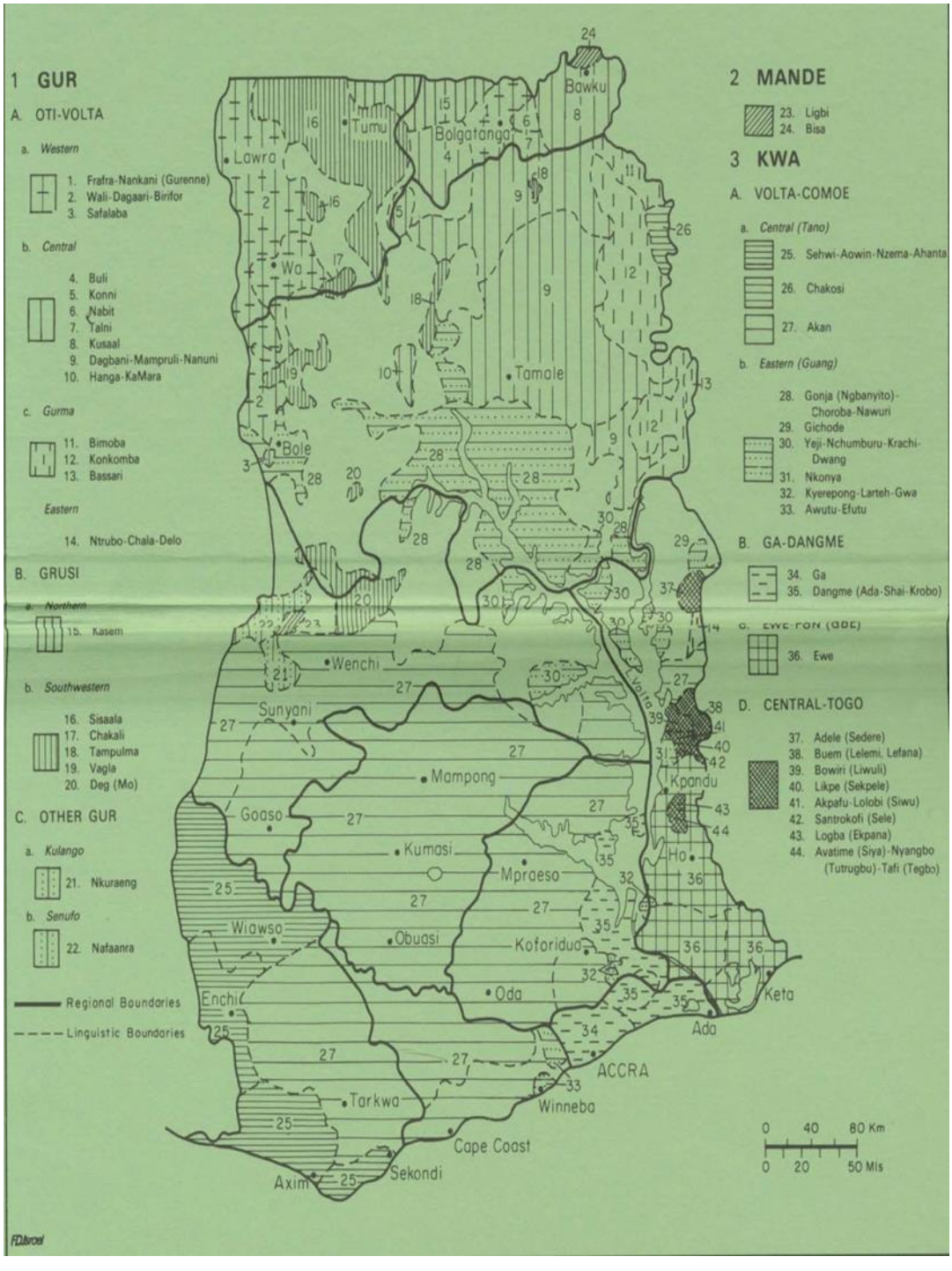


Figure 3: Language map of Ghana

(Ethnologue: Languages of the World, 2013)



1.2.2 Dialects

Ga has no dialects but there are differences in the pronunciation of words among the traditional towns such as Ga Mashie (Accra), Osu, La, Teshie, Nungua, Tema and Kpone (Otoo 2015). Kotei (1969) and Mante (1971) cited in Dakubu (2002), indicate that some words are pronounced differently among the Ga towns.

1.2.3 Sociological Status

Ga is taught in some secondary schools in Accra and some parts of the Eastern region at the Akuapim Ridge as an elective subject. It is also taught as a course in the three public universities in Ghana: University of Ghana, University of Education, Winneba and University of Cape Coast. The language is also used in some churches in Accra, on some television and radio stations especially on GTV and Obonu stations and Latenu. The language is spoken as a second language when people migrate to the town in search of jobs.

In terms of research, some linguistic works on the language include the following; Campbell (2017), Otoo (2014), Kotey (2014), Kotey (2002), Adjei (1999), Trutenau (1970, 1971, 1972, 1973), Dakubu (1971, 1972, 1981, 1986, 1988, 1989, 1996, 1997, 1999, 2000, 2001, 2002, 2008), Kropp (1965, 1966 1967, 1968), Kotei (1969), Okunor (1968), Berry (1951), Wilkie (1930) and Zimmermann (1858).

1.2.4 The Phonology of the Ga language

The Ga language has forty-four (44) sounds, thirty-two (32) consonants and twelve (12) vowels. The vowels are made up of seven oral vowels /a, i u o, e, ɔ, ɛ/ and five nasalized vowels / ĩ, ɛ̃ ɔ̃, ũ, ã/. The vowels [a, o, e] occur at the initial position in words. The thirty-two consonant sounds are / b, d, ʤ, ʤw, f, g, gb, gw, h, h^w, k, kp, k^w, l, m, n, ɲ, ŋ, ŋm, ŋw, p, r, s, ʃ,$ʃ^w$, t, ʧ, ʧ^w, v, w, j, z,/.

According to Dakubu (2002), there are four syllable types in Ga. These are vowel [V], consonant and vowel [CV], Syllabic Nasal [N] and consonant and a liquid [CL]. There is no coda in Ga. Consider the example below:

1a. vowel [V] this type of syllable has vowels at word initials

/abɛ/ adage /abotia/ ‘goat’

/efɔɔŋ/ evil /eŋmɔŋ/ fresh

b. consonant and vowel [CV] is the commonest in the language.

/bí/ ‘baby/ child’ /ŋà/ ‘wife’

/bò/ ‘shout’ /bà/ ‘come’

c. Nasal [N] The Ṇ type has the nasals sounds /m/, /n/, or /ŋ/ as syllabic nasals at word-initial

/mà-ŋ̀/ ‘town/ country’ / ŋ̀katiɛ/ ‘groundnut/peanut’

d. consonant and liquid it consists of consonant and liquid in world initials

/klala/ ‘white cloth’ /klante/ ‘cutlass’

/kla/ ‘soul’ /klɔklɔ ‘lock’ (Kotey 2014: 7-8)

1.3 Scope of the study

The study was conducted in La, one of the traditional towns of the Ga people. La is located between Osu and Teshie. The town was zoned into two. Zone one (1) is the outskirt of La that is around Palm Wine Junction, Trade Fair, and ‘T’ junction areas. Zone two (2) which is known in Ga as *Maamli*. Maamli is where the various clans are located and where cultural practices such as, traditional marriage, funeral, festival rites and others take place. Thirty people were interviewed. Fifteen (15) people were from zone one and fifteen (15) people from zone two.

1.4 Statement of the problem

Most of the works on SOs are in foreign languages such as Warrwa- Australia, Maya Mexico and Dutch- Netherlands and some African languages: Ewe is spoken in Ghana and Lugbara spoken in Uganda and Central Sudan (Levinson and Wilkins 2006:6).

Available literature shows that a lot has not been done on SOs in Ga. Works on SOs on Ghanaian languages are Ameka and Essegbey (2006) on Ewe, Ayiglo (2010) on Ewe, Saanchi (2006) on Dagaare and Atintono (2013) on Gurunɛ. Ga has a lot of these expressions though none have been recorded and documented. This research seeks to delve extensively into spatial orientation in Ga.

1.5 Research Objectives

The objectives of the research are as follows:

- To establish a distribution analysis of spatial concepts in Ga.
- To outline the uses of both non-metaphorical and metaphorical uses of body parts concepts in Ga.
- To outline the uses of positional verbs in Ga.
- To establish a semantic analysis of positional verbs in Ga.

1.6 Research questions

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

- What are the distributional analysis of spatial concepts and locatives in Ga?

- What are the uses of both non-metaphorical and metaphorical uses of body part terms in Ga?
- What is the semantics analysis of position verbs in Ga?
- What are the uses of positional verbs in Ga?

1.7 Significance of the Study

It is hoped that the outcome of this work can serve as a reference material for further research and teaching guide for learners, teachers and educationists in the areas of SOs in the Ga language. It can also contribute to the existing literature in Ghanaian languages.

1.8 Methodology

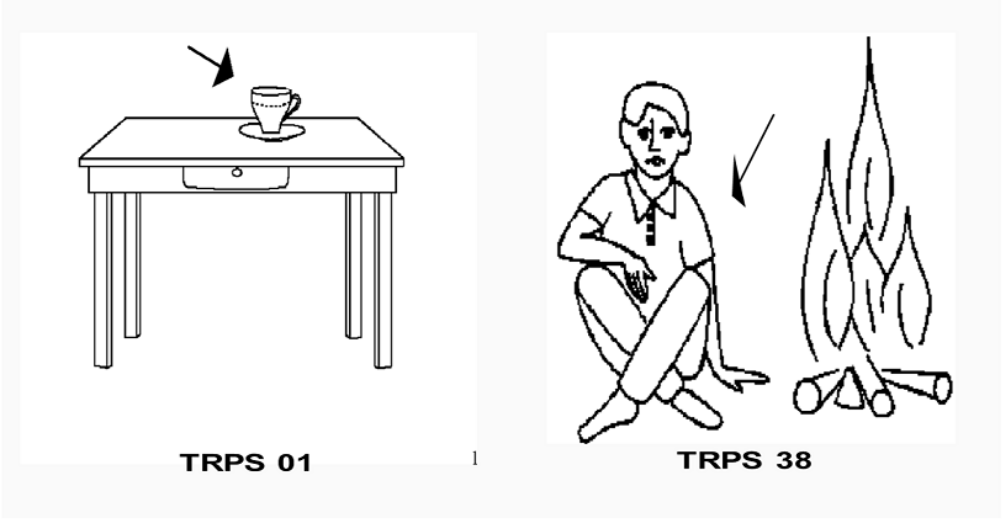
The Max Planck Institute (MPI) stimuli sets are tools created by professionals (see Levinson 1992, Levinson & Wilkins 2006a) 'as standard instruments for cross-linguistic elicitation of positional and locative verbs, adpositions, and locative expressions in languages'. The stimulus is created with the main goal of eliciting information about the linguistic structure of spatial languages.

1.8.1 Topological Relations Picture Series (TRPS)

The Topological Relations Picture Series (TRPS) was designed by Penelope Brown and Eric Pederson in (1993). It is one of the Max Planck Institute (MPI) stimuli sets used for eliciting data in spatial language. It contains 71 pictures showing different topological relations with both animate and inanimate objects. The pictures are located on different Grounds and the pictures portray a broad area of topological relation scenes. One picture is located in another picture to portray the spatial relation between them. In the TRPS booklet, the spatial concept to be identified is marked with yellow and in the electronic one it is showed by an arrow and it makes it easier for identification (Atitono 2013). The 1993 edition of the MPI was used to elicit data for this study.

The data for this thesis is drawn from both primary and secondary sources. The primary source includes interviewing the native speakers from the community and the interviews were recorded, transcribed and translated and the secondary soruce includes books, thesis and the internet. The picture below is taken from TPRS.

Figure 4: Two pictures scenes from the Topological Relations Picture Series (TRPS) in the 1993 edition



1.9 Organization of the work

The work is organized into five chapters. Chapter one comprises the introduction and background to the study. It further gives the aims, significance and research questions of the study. The Topological Relations Picture Series (TRPS) is the main material for data collection.

Chapter two is divided into two sections. The first section discusses the literature review of the study. It provides the literature review on works in cognitive linguistics. The second part discusses two main theoretical frameworks namely cognitive semantics and grammaticalization. These two were used for data analysis of the work.

Chapter three discusses spatial concepts and their denotation locatives in Ga, the grammaticalization of body parts terms in Ga. Again, it discusses the non-metaphorical and metaphorical uses of body parts terms in the language. Chapter four provides the semantic analysis of positional and locative verbs in Ga. Finally, chapter five provides the summary, findings and conclusion of the work and some recommendations for future studies on the phenomenon of spatial concepts.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter is divided into two sections, literature review and theoretical framework. The first section is the literature review while the second section is the theoretical framework.

Data collected for this study reveals that Ga body part terms have both literal and figurative meanings. The first section which is the literature review examines works in cognitive linguistics. The second section is the theoretical framework, two theoretical frameworks are adopted for this study namely; cognitive approach and grammaticalization.

Section 1: Literature Review

2.1 Cognitive Linguistics

2.1.1 Introductory Studies

Some of the pioneers of cognitive linguistics are Lakoff and Johnson (1980), Evans and Green (2006), Croft and Cruse (2004), Evans et al (2007), Lee (2001), Ungerer and Schmid (2006). The books are very useful and helpful and aid to understand the scope of cognitive linguistics. For instance, they give information about the history,

development, and guiding principles of cognitive linguistics. Two figurative languages such as metaphor and metonymy have received attention in cognitive linguistics.

2.1.2 Works on Metaphor and Metonymy

Agyekum (2004), discusses the metaphorical nature of some lexical items, he provides the sociocultural analysis of 'face' in Akan. According to Ayiglo (2010), there are some general studies on metaphors that show the novel means in which some lexical items acquire new meanings. Ansah and Osam (2004) investigate the metaphorical innovations of lexical items in expressing new concepts in the media. Agyekum (2005), examines the metaphorical extensions of *hunu* 'vision' perception verb in Akan because the body part term acquires a new meaning metaphorically.

Slingerland (2004), Forceville, (2002) and Fernandez-Duque and Johnson (1999), indicate that metaphors have been used outside linguistics, in areas such as film studies, psychology and religion. Hilpert (2005) and Bredin (1984) discuss the illuminating works on metonymy. Bredin provides eleven types of metonymic relations whereas Hilpert (2005), states that metonymic relations may not always be direct. According to Hilpert there are interactions of metonymies. He named these interactions 'chained-metonymy'. According to them the definitions of metaphors and metonymies are not too clear. Sánchez (1997) and Barnden (2010) posit that works which distinguished between metaphor and metonymy. According to

Goossens (1990), Lifang (2008) and Geeraerts (2002), metaphors and metonymies are very difficult to differentiate because there are interactions between the two.

2.1.3 Body Part Terms and their Extended Meanings

The 28th issue of the *Journal of Language Sciences* investigates the semantics of body part terms in ten languages (Enfield et al: 2006). The study presents some methodological tools for the collection of data on body part terms. The work shows that the methodological tools are useful and comprehensive for any researcher interested in collecting data for body part terms. However, no African language was discussed in this study. This work hopes to fill the gaps by devoting the third chapter on spatial concepts using body parts terms in Ga.

Currently, Agyekum (2019), has worked on Akan Body Parts Expressions from the perspective of cognitive semantics. Agyekum's work serves as a guide in this current study in Ga, because it uses Cognitive Semantics Approach to analyze body part terms in Akan. Aygekum indicates that body parts play an important role in most languages across the world. Most body part nouns express emotions, perceptions, cognition, communication, intellect, locatives, and face. This is done through cognitive semantics, semantic change, semantic extension and shift. (see Agyekum 2019, 2016, 2015a, 2015b, 2013b, 2005, 2004c, 2002a and 2001).

2.1.4 Works On Verbs

Campbell (2017), works on 'A Grammar of Ga' a Ph.D. thesis, in her work she investigates Ga verbs but her work does not include positional and semantics of verbs in the language. Kotey (2014), presented a Ph.D. thesis on' The Inflectional Morphology of The Ga Verbs: The Case of Infl-To-Verb Movement', Kotey's work did not work on positional, locative and semantics of Ga verbs. Scholars like Adjei (1999) and Dakubu (1970, 1998, 2004 & 2008) have done some works on Gã verbs, all these studies do not work on positional and semantics of Ga verbs.

2.1.5 Positional verbs in Ga

Atintono (2004b), writes on the semantics of the three posture verbs *gã* 'be in a lying posture', *zĩ* 'be in a sitting posture', *ze'* 'be in a standing posture' in Gurenɛ in light of Talmy's (1985; 2000a; 2000b) typology of Motion events. Currently, Atitono (2013) a Ph.D. thesis On The Semantics And Grammar Of Positional Verbs In Gurenɛ: A Typological Perspective. Atitono's work draws on cognitive linguistics concepts such as conceptualizations, domains, and image-schemas to discuss the semantics of the posture verbs, this work serves as a guide to this study because it is also drawn on cognitive semantics approach and working on positional and semantics of verbs in Ga.

Newman (2002), worked on the typology of posture verbs in twelve languages. The languages discussed by Newman are; European (English, Dutch),

Asian (Korean, Japanese), Central Australia (Pitjantjiatjara/Yankunytjatjara, Arrernte), and languages of the Pacific region as well as from North and South America (Chipewyan, from Canada; Trumai, a Brazilian isolate). It also includes one African language, Mbay (a Central-Sudanic language of the Nilo-Saharan family). Newman investigates the linguistic properties of posture verbs: sit, stand and lie in the twelve languages. However, Lemmens (2002), writes on Dutch and Guirardello-Damian (2002) on Trumai worked on posture verbs on animals (see Atitono 2013: 157).

According to Newman (2002) and Newman (2009) the core meaning of posture verbs; sitting, standing and lying in English are associated with postures of human beings before their semantic meanings of the location of entities are considered. Newman (2002), identifies four cognitive domains which are very important for the interpretation of posture verbs in English; 'sit, stand and lie'. The four cognitive domains are (i) Spatio-temporal domain (ii) the force-dynamic domain (iii) the active zone domain and (iv) the socio-cultural. The Spatio-temporal domain refers to the body position in posture. For instance, the position of the body can be either in a sitting position, or standing position that is vertical or upright, and when in a lying position, its horizontal position. The force dynamic domain is associates with the way entities balance force in a particular posture (Talmy 2000:409-422).

Following Langacker (1991:189-209), Newman (2002), refers to the active zone of the body position directly involved in a spatial relation. In posture verbs for example, one part of the body is more involved than the other part of the body. For

example, “leg and feet’ for standing, ‘side and back’ of the body for lying and ‘buttocks’ for sitting (see Atintono 2013:157). The socio-cultural domain generally, refers to how speakers of language see social valuation in different postures based on cultural factors. According to Song (2002) sitting and lying positions are regarded as comfortable positions for resting which do not involve in any physical activities.

Ameka & Levinson (2007), observe that The Language and Cognition Group at the Max Planck Institute for Psycholinguistics have researched into the spatial description in many languages (see Levinson 2003; Levinson and Wilkins 2006). Ameka & Levison worked on posture/positional and locative predicates. Levinson and Wilkins (2006) added two African languages. The languages Levison and Wilkins investigated are European (Dutch, German), Mayan (Tzeltal & Yukatek), South Caucasian (Laz), Papuan (Tidore, a Western outlier; Lavukaleve, an isolate), Brazilian (Trumai, an isolate; Tiriyo, Cariban/Taranoan), Austronesian (Saliba), Chukotko-Kamchatkan (Chukchi), and two African languages (Likpe, a Ghana-Togo-Mountain language; Goemai, a West Chadic language of Central Nigeria).

2.1.5.6 What is space?

The study of space is the heart of human thinking and all human beings have the capability to conceptualize notions than any other organisms and it unveils the basic foundation of human thought. We do this by expressing spatial reasoning and

abstract thinking. Human beings employ the use of ‘down’ to describe sadness and sickness and ‘up’ to describe happiness and health which are originated from orientation such as the human body parts and environmental landmarks.

The study of space in language and its relation to cognition must be handled with empirical facts. In semantics, space is considered as a complex field of studies with some sub-domains. The sub-domains in spatial language includes; when the figure is static versus in motion, and if static when the figure is contiguous with the ground or displaced in space. In the language of space, language universals are abstract, which involves optional selection of major types of coordinate system and language which expresses spatial relations in many different parts of speech. Parts of speech which are studied in spatial language include nouns and verbs which are from the open-class categories.

According to Imre (2012) and Evans and Green (2006) space is a ‘static domain’ where objects are located. In space, there is a position (state) where the objects are positioned. Sweeter (2007), asserts that human beings are the only creatures that can reach objects around them. According to Sweeter our physical body in the surrounding space is the primary source of information.

> Human bodies share structure which ensures that they can see forwards but not backwards, can access objects in front of them better than ones in the back of them, can move forwards better than backwards, and of course are experiencing a gravitic environment

> in which we are normally able to stand on our feet rather than our heads (Sweetser 2007: 216).

The concept of space is very important in this study because the write up investigates how speakers of Ga describe entities that are located on objects. Spatial language allows the researcher to examine the language and describe it in its own terms using specific locative terms in the language.

2.1.2.7 Figure and Ground

Imre (2012), reports that space, together with its components, forming a whole system with landmark (LM), trajectory (TR), source, path and goal, was originally proposed by Langacker, then taken over by Lakoff & Johnson (Lakoff and Johnson 1980). Talmy (1983), adopts the terms “figure” and “ground” from Gestal Psychology (Köhler 1929; Koffka 1935) to name the object to be located (figure) and the reference object (ground) in describing the asymmetrical relation between objects in spatial concepts. Langackar (1987) and Svorou (1994) use the terms “trajector” (TR) and “landmark” (LM) where trajectory (TR) refers to the object to be located and landmark (LM) refers to the object to which the (TR) is to be located (Saanchi 2006: 24). From the literature, it has been observed that different terms have been proposed. For instance, Langacker (1986) proposes different terms like "locans" and "locatum", "trajector" (TR) and "landmark" (LM), "relans" and "relatum" etc. Svorou (1994), writes that “trajector” (TR) and “landmark” (LM) provide a better

understanding of the concept in locating events in spatial language. (Saanchi 2006: 24).

Tamy's (1983) terms 'figure and ground' are adopted in this study. The figure is the object to be located and the ground provides a stable surface for the object to be located on it without any difficulty. Also, this study is about the locating of entities. For instance, the spatial arrangement between a cup and table, the cup is the figure and the table is the ground on which the cup will be located.

2.1.2.8 Locating Things In Space

To communicate very well, when it comes to locating objects in spatial language certain elements play a basic role in the activity. Saanchi (2006), states that locating of objects from one point to the other is relativistic. The location of physical objects is seen as psychophysiological with reference to other objects. According to Talmy (1983) and Langacker (1988 and 1987) the way and manner we locate things in relation to another involves the recognition of asymmetrical link between the object we want to locate and the object which enhances the location. We often identify asymmetrical relations to size, support, containment, order, direction, orientation, motion, distance, or combination of these (Saanchi 2006). The spatial relation between a pen and table for instance, the pen is the figure and the table is the ground. Usually, tables are bigger than pens and it makes locating the pen possible. When there is no evident asymmetry between the item we want to locate and the reference

object, we impose a kind of asymmetry on it, considering the position of the observer. For example, in locating a house on a riverbank, one describes it either on the right or left bank of the river depending on the individual's movement (Saanchi 2006: 23).

Section 2 THEORETICAL FRAMEWORK

2.2: Cognitive Linguistics Approach

Cognitive linguistics is a new school of linguistics, and one of the most innovative approaches to the study of language and thought that has emerged within the modern field of interdisciplinary. The approach focuses on the interaction between the mind and language to our social and physiological experiences. It is also the study of language that stems from the assumption that language reflects patterns of thought (Evans and Green 2006:5).

According to Evans and Green (2006), cognitive linguistics emerges in the early 1970s out of dissatisfaction with formal approaches to language. The movement aims to look out for better and credible methods of analyzing linguistics data and to fill the gaps in a formal approach to analyzing linguistics data. The last two decades have seen a growing vibrant research in cognitive linguistics. According to Evans and Green (2006), the two main branches of cognitive linguistics are

cognitive semantics and cognitive approaches to grammar. This study, however, focuses on the cognitive semantics approach.

2.2.1 Cognitive Semantics Approach

According to Evans and Green (2006:48), cognitive semantics is about "investigating the relationship between experience, the conceptual system, and the systematic structure encoded by language". Cognitive semantics approach attaches more importance to the conceptual structure and our embodied experiences in the analysis of linguistic sounds. Again, pragmatics which was studied separately formally is now studied here (cognitive semantics) as part of semantics (Ayiglo 2010:19). Evans and Green (2006:48); Evans et al (2007) assert that cognitive semantics like its bigger umbrella (cognitive linguistics) in analyzing linguistics data, does not use a single framework in its data analysis. Evans and Green point out four main assumptions of cognitive semantics:

a. semantic structure is conceptual structure

b. meaning representation is encyclopaedic

c. meaning construction is conceptualization

d. conceptual structure is embodied.

2.2.2 Semantic Structure is Conceptual Structure

Evans and Green (2006), note that cognitive semanticists argue that the names of objects in the physical world are concepts that reside in the human mind. Ayiglo (2010), indicates that "the conventional meaning for the form "head" as "a human body part" is a concept in the mind of the speaker". This means that the meaning of the concept 'head' is part of the larger meanings of the concept 'head' in the physical world and represents a subset of the concept 'head'. Hence, the claim by cognitive semanticists that semantic structure is conceptual structure.

2.2.2.3 Meaning Representation is Encyclopaedic

Langaker (1987) cited in Evans and Green (2006:206) claims that the representation of meaning is encyclopaedic in nature. He explained that independent words in the dictionary are not enough but it is the basis to explore different meanings in the real world through our experience with the words. For this reason, cognitive linguists differentiate between dictionary meaning and encyclopaedic meaning. Dictionary meaning provides everyday meaning that a word denotes whilst encyclopedic meaning provides a vast range of meanings of words in different contexts depending on its use (Ayiglo 2010:21). Evans and Green (2006:206) explained the encyclopedic nature of meaning by using the word 'safe' of a child playing at the beach to bring out the different meanings that the 'safe' word denotes.

1. a. The child is safe.

   b. The beach is safe.

   c. The shovel is safe.

Evans and Green argue that ‘safe’ in (1a) means that “the child will not come to harm”, in (1b) ‘safe’ does not mean that the beach cannot harm, but it means that the beach is located at a place where the child will not be harmed. Again, in (1c) ‘safe’ does not mean that the shovel cannot harm the child but it will not cause harm to the child. This means that word ‘safe’ brings out different meanings depending on how the word ‘safe’ is used in the context and the noun it describes.

2.2.2.4 Meaning Construction is Conceptualization

In selecting a word, dictionary meaning plays an important role. It assists one to select the right word for the right meaning in a context. Cognitive linguists argue that representation of meaning is conceptualization which is an active process. Fauconnier (2003), emphasizes this by writing that:

> [Language] does not "represent" meaning; it prompts for the construction of meaning in particular contexts with particular cultural models and cognitive resources. Very sparse grammar guides us along the same rich mental paths, by prompting us to perform complex cognitive operations (2003:2).

2.2.1.5 Conceptual Structure is Embodied

Cowart (2004), Wilson (2002), Hirose (2002) and Shapiro (2007) argue from the perceptive that conceptual meaning is embodied. This claim is very important in cognitive linguistics and it has greatly influenced research work in the cognitive semantics approach. This principle is referred to as "embodied cognition" in the field of cognitive science. Although embodied cognition has been viewed differently in the individual fields that make up the interdisciplinary field, one argument that runs across in all the fields is that, embodiment is a necessary condition for cognition.

Goschler (2005:34), indicates that this principle of cognitive semantics clearly states that, "the functioning of our bodies is crucial for the structure of our conceptual system". This means that, the way we as human beings think is a product of the way our bodies are structured. We, therefore, ought to think of man, primarily, as an "acting being" before considering him as a 'thinking being' (Anderson 2003:91). Robbins and Aydede (2009) confirm this principle by stating that the human anatomy operates based on the functioning of the motor and sensory capabilities of humans. Based on this argument Ayiglo (2010:10) states that:

> "The acting of the body is a necessary condition for the functioning of thought or any sensory process as it provides inputs for such processes. Thought impacts on the functioning of the body and therefore, thought situated outside the context of a body is empty."

` Again, Fauconnier (2003:2), emphasized this argument by writing that grammar is absolutely a neutral system. The properties of grammar are part of the human embodied neutral system. Therefore, the way our bodies are structured affects how we as humans use language to communicate and express ourselves in our communities. Lakoff and Johnson (1980:15) cited examples of 'top' and 'down' as a physical basis. This is demonstrated in examples (2) and (3) respectively.

2. "He's in top shape".

3. "He fell ill".

According to Lakoff and Johnson human beings stand 'up' when they are healthy or awake and lie 'down' when they are asleep or die. Again, when they are very sick or die they lie 'down', when they are healthy or alive they stand 'up' or in upright positions. For this reason, 'down' is used to express sickness and death whereas 'up' is used to express health and life. Language is the reflection of our experience in the world and our bodies are structured based on these experiences (Geeraerts and Cuyckens: 2007).

2.3 Figurative Language and Cognitive Semantics Approach

Two types of meanings can be distinguished; these are literal and figurative meanings. Cognitive semanticists see linguistic knowledge as encyclopedic and it allows the researcher to look beyond the dictionary meaning of linguistic units.

Metaphor and metonymy are the two relationships studied extensively by cognitive semanticists globally.

2.3.1 Metaphor

Ahrens (2002), observes that studies on metaphor have been the focus of lexical and figurative meaning of words in the last twenty years. Palmer (1981: 103), states that "…one of the most familiar kinds of relationships between words is that of metaphor, where a word appears to have both a literal meaning and one or more 'transferred' meanings'. These "transferred" meanings of the word are its metaphorical extensions. A metaphor is a comparison of two entities without explicitly marking the comparison. Evans and Green (2006:293), note that metaphors are characterized & "characterized by the schematic form A is B" as in '*Ama is a lion'*. This statement does not literally mean that 'Ama' is the animal, 'lion'; 'Ama' is compared to a 'lion' without explicitly using any comparative marker such as 'like'.

According to Finch (2000), two positions of metaphors can be distinguished, the *classical view* and the *contemporary view*. The classical view can allude to Aristotle. According to the classical view; metaphor is a decoration to a normal language. According to this view metaphor should be used in everyday language (Aristotle 1965 cited in McGlone 2007). The classical view also argues that metaphors are purposely for literary works.

The second position is the contemporary view which can be traced to Reddy (1979). Reddy argues that metaphors are part of everyday language. Lakoff and Johnson (1980), claim that everyday concept like 'time' in English is expressed in example (4) below because time cannot be expressed in literal terms.

4. "I've invested a lot of time in her".

To understand (4), one must extend one's understanding of 'investment' (in relation to finances and money) to 'time'. It is interesting to know that not only basic concepts like time are expressed metaphorically but everyday concepts such as space and emotion are also expressed metaphorically. Cognitive researchers have shown that concepts such as space, emotion and time are expressed metaphorically across languages. Cognitive linguists indicate that 'time' would be expressed metaphorically in most languages is very high. However, not all languages will express 'time' in terms of 'money'. Croft and Cruse (2004), claim that the resemblance in the metaphorical nature of everyday concepts cross-linguistically is partly due to their 'cognitive significance'. Lakoff and Johnson (1980), developed the 'Conceptual Metaphor Theory' to explain the systematic conceptualization of conventional metaphors.

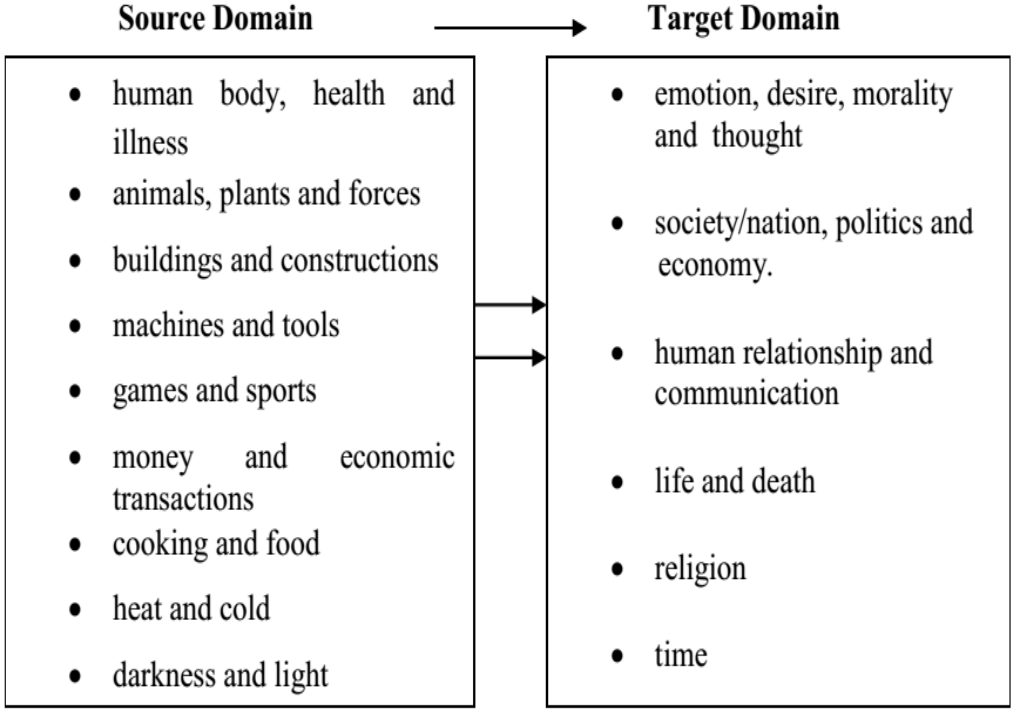
2.3.2 Conceptual Metaphor Theory (CMT)

Conceptual Metaphor Theory (CMT) was first developed by George Lakoff and Mark Johnson in their 1980 book *Metaphors We Live By* and since then it has been added on in several publications. The (CMT) was one of the earliest theoretical frameworks which were found in cognitive semantics (Evans and Green 2006:286). Kövecses (2002), defines metaphor in cognitive linguistics as "understanding one conceptual domain in terms of another conceptual domain". Lee (2001:6), indicates that it "involves conceptualizing one domain of experience in terms of another". Evans and Green (2006), observe that the way and manner we as human beings think is metaphoric in nature. For example, as demonstrated in (4) above, the concept of 'time' is conceptualized in terms of another domain, 'money'.

Kövecses (2002), writes that source domains are mostly concrete, physical and delineated objects whereas target domains are commonly abstract and less delineated. This means that the source domain can be touched and easily defined. However, 'time' is an abstract concept that cannot be touched and cannot be defined easily. Lakoff (1993), states that source domains on metaphors are usually from bodily experiences. Therefore, they are based on perception, bodily movements, object manipulation and patterns of forces that act on us. This is the main reason why source domains are very easy to define. Kövecses (2002), writes to emphasize Lakoff's point by enumerating these points as the common sources of source

domains in metaphoric expressions. These are*:* the human body, health and illness, animals, plants, forces, buildings and construction, machines and tools, games and sports, money and economic transactions, cooking and food, heat and cold, light and darkness, movement and direction. Kövecses (2002), adds that the most common sources of target domains include emotion, desire, morality, thought, society/nation, politics, economy, human relationship, communication, life and death, religion and time. The diagram below shows the two main domains of mapping and the meanings they typically encode in a metaphor (Ayiglo 2010:16).

Table 1: Table showing concepts typically employed as target and source domains respectively



(Ayiglo, 2010)

2.3.3 Experiential and Embodied Bases for Conceptual Metaphors

There are two guiding principles of CMT which are drawn from cognitive semantics. These are:

a) the meanings we associate with linguistic items are reflection of our conceptual makeup and

b) our embodied experience is fundamental to our conceptual makeup (Evans and Green 2006).

Metaphors came out from encyclopedic knowledge of the linguistics aspect which Lakof Laf was built from the experience of language use. According to Lakoff and Johnson (1980: 19) "no metaphor can ever be comprehended or even adequately represented independently of its experiential basis." For example, they explain that the 'UP-DOWN' in terms spatialization of metaphors 'more is up' is used then and 'less is down' as in example (5) below:

5. 'Prices of goods have shot up'

Example (5) above, 'up' which is a spatial domain is used as an increment of prices of goods at the market.

2.3.4 Metonymy

Metonymy is using one entity to stand for another**.** From the perspective of the cognitive linguist, "[m]etonymy is a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target,

within the same cognitive domain" (see Kövecses and Radden 1998: 38 in Evans and Green 2006: 312). Evans and Green (2006), observe that the two entities are contiguous, that is, there is a close relationship between them. The relationship can be a close physical resemblance or that of a causal relationship. This is shown by the use of 'Washington' in (6) in (Kövecses 2002:144).

6) "Washington is negotiating with Moscow" (Kövecses 2002:144).

Kövecses explains that 'Washington' is the name of a place and it cannot negotiate. However, it is known that the seat of the American government is located in 'Washington'. Therefore, the place, 'Washington', signifies for the institution of the American government. "Washington", thus, serves as a conceptual entity "vehicle" that gives access to another conceptual entity, "targets" (the American government).

From the literature it is realized that metonymies are derived from our embodied experience. The schematic relationship for metaphor is 'A is B', whiles that of metonymy is 'A stands for B' where B is not mentioned but because the relationship between 'A' and 'B' is contiguous, one can infer B from A.

2.4 What is Grammaticalization?

The second framework adopted for this study is grammaticalization. Heine et al (1991), write that grammaticalization is an important theory for appreciating linguistic behavior and it provides two most important motivations for linguistic behavior. That is extralinguistic factors and more importantly, cognition.

The theory of grammaticalization accounts for the development of grammatical forms (or less lexical forms) from lexical forms. The main pioneer of grammaticalization is Antoine Millet, a French linguist. Heine et al (1991), indicate that grammaticalization has its roots outside the field of Western research; it has been part of Chinese scholarship since the tenth century. Other terms such as "grammaticization" and "grammatization" are widely used. Again, these terms have been defined differently by different scholars. The definition by Hopper and Traugott (2003) is used in this study.

> Grammaticalization refers to that part of the study of language change that is concerned with such questions as how lexical items and constructions come in certain linguistic contexts to serve grammatical functions or how grammatical items develop new grammatical functions (2003: 1).

Heine et al (1991:65), show the following path along which spatiotemporal term develop out of human body part noun:

OBJECT > SPACE > TIME > QUALITY

A body part term (represented as 'object') acquires a grammaticalized meaning (represented as 'quality'). It first acquires spatial and temporal meanings in succession.

Givon (1979) cited in Heine (1994), states that in grammaticalization, using only internal factors is not enough in analyzing linguistics data in a language. The two external factors are also relevant in analyzing language behavior. This is because

other factors such as pragmatics and cognitive processes affect grammaticalization (Heine, 1994:258). According to Heine the two manipulations have two consequences namely, 'context-induced reinterpretation' and 'conceptual transfer'. In terms of context-induced interpretation, Bybee (1994), writes that the more frequent a lexical item or structure occurs in a particular context, it raises the structure over some time. The new explicit meaning in grammaticalization has more abstract meaning than the formal. Heine (1994), termed this process of grammaticalization as conceptual transfer.

Bybee (1994), shows of verbs like 'be going to' which have been grammaticalized into "future" forms. Bybee (1994), indicates that one of the factors for the change is the frequent use of the word or structure. According to Hopper and Traugott (2003), the grammaticalized form loses its 'concreteness', 'motion' and 'directionality' meanings.

2.4.1 Typological Studies

There are a lot of studies on grammaticalization; such studies include Hopper and Traugott (2003) Lehmann (2002 and 2004) and Heine et al (1991). Heine et al (1991) and Reh (1984) focused on typological studies in African languages.

2.4.1.1 Grammaticalization of Body Part Terms

Studies on grammaticalization of body parts terms are very vast. Hopper and Traugott (2003) and Heine et al (1991) are examples of such works. Some works on grammaticalization discuss some specific lexical concepts in some specific languages (Ayiglo 2010). Hollenbach (1995) is an example of such studies. It discusses the semantic and syntactic extensions of 'face' and 'foot' in Mixtecan languages (a group of Mexican languages). Works such as Svorou (2002), Chiang and Lai (2007) and Heine et al (1991) discuss the grammaticalization of 'back'. Also, works such as MacLaury (1989), Lehrer (1974), Hollenbach (1995) and Saanchi (2006) discuss the use of body parts to express spatial meanings but they did not look at grammaticalization.

2.4.2 Some Principles of Grammaticalization

Lehmann (2004), states that grammaticalization in any linguistics data has to satisfy three requirements. The requirements are as follows: Diachronic Proof as Empirical Evidence, Diachronic Identity, and Gradual Loss of Concrete Meaning.

2.4.2.1 Diachronic Proof as Empirical Evidence

A linguistic data to be analyzed should have two historical stages that is an early and a later stage of grammaticalization. According to Lehmann (2004), the diachronic basis of grammaticalization should not be underplayed because of the

methodological role grammaticalization plays. Again, he adds that some examples of grammaticalization are synchronic. According to him good examples of grammaticalization can be synchronized, they are empirical facts of grammaticalization.

2.4.2.2 Diachronic Identity

The different stages of the historical linguistics forms must be identified. According to Lehmann (2004), the diachronic identity should not be reduced to mere phonological and semantics forms. He maintains that sometimes the two resulting forms of a diachronic change may not be identical. Lehmann (2004), demonstrates this by using this example *etait* and *erat* (which both mean 'was') forms to explain the phonetics and semantics forms which are not diachronically identical because *etait* (the newer form) did not come out from *erat*.

2.4.2.3 Gradual Loss of Concrete Meaning

The last requirement discussed by Lehmann is that a latter meaning developed from a form must be more abstract than the form that precedes it. Heine and Kuteva (2002) cited in Frajzngier (2008:2) explain grammaticalization as "the development from lexical forms to grammatical forms and from grammatical to more grammatical forms." if the meaning of 'B' came out from the meaning of 'A'. Again, 'B' is more grammatical (or abstract) in meaning than A'. Even though grammaticalization

processes provide grammatical forms, it does not mean that all grammatical forms came out of grammaticalization.

2.5 Unidirectionality/Irreversibility

Grammaticalization is irreversible, because of its abstraction, from grammatical meaning to concrete/ lexical meaning. Schiffman (2005), writes that:

> ... once grammaticalization begins, it goes forward inexorably toward final morphologization even though there may not necessarily be an end-stage. That is, grammaticalization goes forward and does not go back; but it may not necessarily reach the complete and final state we recognize (*ccat.sas.upenn.edu/~haroldfs/dravling/hopper5html).*

Since, zero is at the end of the cline, it does not mean when grammaticalization begins it has to get to the end of the cline. Heine et al. (1991: 13), provides the graphical representation of unidirectionality:

discourse > syntax > morphology > morphophonemics > zero

Hopper and Traugott (2000) and Heine and Traugott (1991) outline some of the principles of unidirectionality below:

2.5.1 Metaphor and Metonymy in Grammaticalization

Linguistic structures express new meanings when they come into a certain context through an active process. The question that comes to mind is what is the semantic relationship between the original meaning and the new meaning? The most presented explanations for grammaticalization are metaphoric and metonymic relationships.

2.5.1.1 Metaphor

In the discussion of why grammaticalization should be seen as a metaphoric process, Heine et al (1991), claim that a grammaticalized word has two forms of meanings. The first meaning can be viewed as a literal meaning whereas the second is seen as a transferred meaning. From the diachronic evidence, Heine et al (1991), demonstrated that 'going' used in examples (7) and (8) below in English has two different meanings. In (7) below 'going' has a literal meaning but in example (8) 'going' has a transferred meaning.

7). Henry is going to town.

8). The rain is going to fall.

From the examples above, it is evident that 'going' in example (7) plays the role of a motion verb while 'going' in (8) acts as a future tense marker. According to Heine et al 'going' in (7) was not used in the fifteenth century; it is developed from its meaning in (8) above. The point by Heine et al is understandable because, from the

literature, it is evidence that verbs could be developed into tense markers through grammaticalization (see Bybee 1994 and Hopper 1991).

To add to the claims by Heine et al (1991), Hopper and Traugott (2003: 85) add that, "[p]robably, the most appealing examples of metaphorical examples in grammaticalization are provided by the development of spatiotemporal terms." According to Hopper and Traugott (2003: 85), spatiotemporal concepts came out from human body parts, 'behind'. The first metaphor that is employed is SPACE IS OBJECT. This means that in English, space can be expressed as an object- from a body part term. This is shown in example (9) below as 'behind' denotes a spatial concept.

9). He is 'behind' the house.

10). We are 'behind' in paying our bills.

From the spatial concept 'behind', metaphor (TIME IS SPACE) is derived in (11) above.

2.5.1.2 Metonymy

Metonymy is one of the semantic relationships which are used to explicate grammaticalization. Following Hopper and Traugott (2003), metonymy is also a common tool employed in grammaticalization. Metonymy has not received much attention in grammaticalization until recent times. The reason for the neglect is that metonymy is an 'insignificant process.' According to Hopper and Traugott (2003:

87), terms such as ‘minor proces’ were used to characterize metonymy as against the use of ‘major associate leap’ to describe metaphoric processes. Works such as Chiang and Lai (2007), and Svorou (2002), show that like metaphor and metonymy are important process in grammaticalization.

2.6 Summary

The chapter is in two sections, the first section reviews related works in cognitive linguistics. The second section discusses the theoretical framework: cognitive linguistics approach and grammaticalization. Cognitive linguistics and grammaticalization complement each other, the reason for the selection of cognitive linguistics approach and grammaticalization. It also provides a better understanding of figurative language that is metaphor and metonymy to body part terms. Grammaticalization, on the other hand, accounts for the development of spatiotemporal terms and other grammaticalized forms.

CHAPTER THREE

SPATIAL CONCEPTS IN GA

3.1 Introduction

Spatial orientation (SO) has been studied across languages. Every language has its way of locating objects in space by using specific concepts in the language. These concepts indicate the exact location of the object, whether the object is located up or down. This chapter discusses the various spatial concepts in the language and the different uses of spatial concepts in the Ga language. It also discusses grammaticalization and non-metaphorical and metaphorical uses of body part terms in the language. From the literature, it is observed that these concepts are derived from the human body in most languages in the world.

3.2 Spatial Concepts in Ga

Works such as Brugman (1983); Brugman & Macaulay (1986); Svorou (1994, 1986, 1987, 1988,) MacLaury (1989) and Heine (1989) show the spatial concept develop from the various human body parts. According to Heine (1989) and Svorou (1994) spatial concepts are used in language as locative nouns and adpositions (prepositions and postpositions). In Ga, spatial relations are termed as postpositions. The exterior parts of the human body develop into expressions used in spatial concepts in the different languages in the world. In Ga, *gbɔmɔtso* is the name given to the human body.

Table 2: parts of the human body of Ga

Ga terms	**English**	**locative denotation**
Yitso	head	top, above, up,
hiɛ	face	front
naabu/naa	mouth	edge, entrance/opening
toi	ear	edge
tsitsi	chest	front
nine	hand	front
musu	belly	inside
sɛɛ	back	behind
dunaa	buttocks/ anus	tail end/rear
heloo/he	skin/body	surface, around, surroundings
nane	leg	under
mawu	ribs	side

Examples of spatial concepts in the sentences below:

11a. e-bu fai yɛ e-**yitso**.
3SG-wear.PST hat be at 3SG-head
'he/she wore a hat on his/her head.' (TRPS 05)

b. wolo lɛ ma okpɔlɔ lɛ **yiteŋ.**
book DEF stand table DEF on top of
'the book is on top of the table.' (TRPS 08)

c. nuu lɛ damɔ tsu lɛ **yiteŋ**.
man DEF stand house DEF on top of
'the man is standing on top of the building.' (TRPS 34)

12a. niŋmaatso lɛ ka okpɔlɔ lɛ **nɔ**.
pen DEF lie table DEF top
'the pen is on the table.' (TRPS 59)

b. kɔɔpoo ma okpɔlɔ lɛ **nɔ**.
cup stand table DEF top
'the cup is on the table.'(TRPS O1)

c. lɛlɛ lɛ ma faa **nɔ.**
canoe DEF stand river top
'the canoe is on top of the river/ the canoe is on the river.' (TRPS 11)

d. alɔnte lɛ sɔ saa lɛ **nɔ.**
cat DEF squat mat DEF top
'the cat is squatting on mat.' (TRPS 40)

13a. tso lɛ sɔlemɔ-tsu lɛ **hiɛ.**
tree DEF church-house DEF face
'the tree is in front of the church.' (TRPS 49)

b. UCLA yɛ atade lɛ **hi**ɛ.
UCLA be at dress DEF face
'UCLA is written in front of the dress.' (TRPS 68)

c. lɛlɛ lɛ nyiɛ ŋshɔ lɛ **hi**ɛ.
canoe DEF walk sea DEF face
'the canoe is on the sea/ the canoe is on the surface of the sea.' (TRPS).

14a. gbekɛ lɛ sɔ shi yɛ sɛi lɛ **sɛɛ.**
child DEF squat down be at chair DEF back
'the child is squatting behind the chair.' (TRPS 64)

b. bɔlɔ lɛ hɔ shinaa lɛ **sɛɛ**
broom DEF hind door DEF behind
'the broom is at the back of the door/ the bloom is behind the door.'

c. Ama damɔ tsu lɛ **sɛɛ**
Ama stand house DEF back
'Ama is standing at the back of the house.'

15a. gbee lɛ sɔ tsu lɛ **he**.
dog DEF squat house DEF body
'the dog is squatting aroud its kennel.' (TRPS 06)

b. anaanu lɛ kpɛtɛ gbogbo lɛ **he**.
spider DEF stick to wall DEF body
'the spider is on the wall.' (TRPS 07)

c. gbekɛ ta la lɛ **he.**
child sit.PST fire DEF body
'the child sat around the fire.' (TRPS 38)

The word for head in Ga is *yitso* but it is not used as a spatial concept in the language. Speakers of the language use *yitso* to express the location of an object, as used in the example (11a). *Faii* 'hats' are worn on the head not *yiteŋ*. In Ga, *yiteŋ* is made up of *yi* 'head' and *teŋ* 'middle'. According to Campbell (2017), *'yìtéŋ'*, which refers to the part of the head normally covered by hair and including the hair itself

and is morphologically made up of *yì* 'head' and *téŋ̀* 'middle'. *Yiteŋ* is a spatial relation that is used to express entities that are located at the topmost part of an entity such as a cliff, a tall cupboard and top of buildings as shown in the examples (12b and c). In (12b) *wolo lɛ* 'the book' is the figure and *okpɔnɔ* 'table' is the ground while *yiteŋ* 'on top of' is the spatial concept. Again, *nɔ* 'top' is a spatial concept that is used to indicate locations of the upper surface of an object, regardless of height, it is not as restricted. The term can be used with flat surfaces like mats, paper and on water bodies as shown in examples (12a, b, c and d). In (12a and b), pen and cup are the figures and the table is the object. The term also stands for both top and surface as in (12b and c). In (13a, b and c), the spatial concepts in the sentences are *hiɛ* 'front'. It can also indicate direction as in (14a). *Hiɛ* 'face' in Ga can be used for both surface and top as shown in examples (14c). In examples (15a, b and c) the spatial concept in the sentences are *sɛɛ* 'back', whereas in (15a) gbekɛ 'child' is the figure and the *sɛi* 'chair' is the ground, in (b) broom is the figure and the door is the ground, in (15c), Ama is the figure and the house is the ground.

Lastly, the body is the part of the human body that covers the internal organs of the body. It is the outer layer of the body. It is also known as skin. In the language of space, it is known as surface and surrounding. In Ga, the term for body is *heloo* which has grammaticalized to be *he*. In spatial language *he* 'body' is used as surface and surroundings and around as illustrated in examples (15a, b and c). In (15a), the

child is the figure and house is the ground, in (b), the spider is the figure and the wall is the ground.

3.2.1 Down as spatial concept

According to Heine (1989), down is the only spatial concept that is derived from environmental landmarks such as 'earth' or 'ground' in both African and Oceania languages. Heine calls it down whilst Svorou (1994), refers to it as the bottom region. Heine (1989), further states that in most African languages, down region is derived from human body parts such as buttocks or anus which are grammaticalized for down. According to Svorou (1994:71), 'buttocks' is the most common body-part term which is used as spatial concept for 'down' in most languages. Again, Heine (1989), writes that in Africa, human body parts such as 'foot/leg' are used as down in spatial concept. In Ga, *shikpɔŋ* 'earth' or 'ground' is the term for down which is derived from environmental landmark as indicated by Heine. When the object or an entity is on the ground/ floor without anything covering it *shikpɔŋ* 'ground' is used. Consider the examples below:

16a. atade lɛ ka **shikpɔŋ.**
dress DEF lie ground
'the dress is lying on the floor'.

b. shika lɛ ka **shikpɔŋ.**
money DEF lie ground
'the money is on the floor'.

Shikpɔŋ 'ground'is also used in an enclosed structure like a room, the floor is termed as shikpɔŋ as illustrated in the examples below:

17. gbekɛ lɛ ka **shikpɔŋ** yɛ tsu lɛ mli.
child DEF lie.PST ground be at room DEF inside
'the child laid on the ground in the room.'

Furthermore, in Ga, the term for down is *shi* 'under' which is derived from the private part of the human. This concept *shi* is also used in the language of space; it has duplicated to be *shishi*. Both terms *shi* and *shishi* is used in the language of space. Consider the example:

18a. bɔɔlu lɛ ka sɛi lɛ **shishi**.
ball DEF lie chair DEF down
'the ball is under the table.' (TRPS 16)

b. alɔnte lɛ sɔ okpɔlɔ lɛ **shi.**
cat DEF squat table DEF down
'the cat is squatting under the table.'(TRPS 31)

c. awale lɛ hɔ tako lɛ **shishi**.
spoon DEF hide napkin DEF down
'the spoon is under the table.'(TRPS 24)

d. nɔ ko kpɛtɛ okplɔ lɛ **shishi**.
Something stick to table DEF down
'there is something under the table'. (TRPS 53)

In example (18a, b, c and d) the spatial concept is shishi 'under', in (a) ball is the figure and chair is the ground, (b) the cat is the figure and the table is the ground, in (c) the spoon is the figure and the under the napkin is the ground and in (d) something is the figure and the table is the ground *'shi'* under is mostly for the private part of the human being.

3.2.2 Interior Region

Concerning the interior region, it is impossible to elicit data using the picture elicitation guide. The picture elicitation guide is designed purposely to collect data on external body parts. Enfield et al (2006: 142) argue that "[f]or many people, human internal organs are never visually perceived. For this reason, researchers sometimes depend on analogous terms for parts of butchered animals." For example, chicken a common domestic animal is used for this purpose. Svorou (1994), claims that spatial relations concerning interior regions derived from the body part. These are heart, stomach, blood, mouth and neck. The table below shows a list of internal body parts in Ga terms. In Ga, terms for internal body parts are listed in the table below:

Table 3: A list of internal body part terms in Ga

Ga Term	**English Gloss**
musu	'stomach'
la	'blood'
tsui	'heart'
wu	'bone'

However, in Ga, *mli* which means 'in' or 'inside'is used to locate entities inside an objects. The concept *mli* is used for both interior and containment. Containment is a process of containing something in containers such as bowls, bags, rooms, bottles, etc. Most of the interior concepts in Ga are containments. Consider the examples below:

19a. akutu lɛ yɛ boolu lɛ **mli.**
orange DEF be at bowl DEF inside
'the orange is in the bowl.' (TRPS 02)

b. anaanu lɛ yɛ tsu lɛ **mli.**
spider DEF be at room DEF inside
'the spider is in the room.' (TRPS 07)

c. adeka lɛ yɛ baagi lɛ **mli**.
box DEF be at bag DEF inside
'the box is in the bag.' (TRPS 14)

d. e-nane yɛ aspaatere lɛ **mli.**
3SG-leg be at shoe DEF inside
'his/her leg is in the shoe.' (TRPS 21)

In sentence (19a, b, c and d) the spatial concept is *mli* 'inside'/ 'in'. Example (19a) *akutu* 'orange' is the figure and *boolu* 'bowl' is the ground, in (b) *anaanu* 'spider' is the figure and 'room' is the ground', in (c) *adeka* 'box' is the figure and bag is the ground and in (d) *nane* 'leg' is the figure and *aspaatere* 'shoe' is the ground.

3.3 Grammaticalization of Body Part Terms in Ga

According to Heine and Kuteva (2010) "Grammaticalization is defined as the development from lexical to grammatical forms and from grammatical to even more grammatical forms". Also, the process is a productive means by which body part terms develop less concrete meanings. The evidence that body part terms develop into less concrete concepts such as space and time has not only been typologically proven; they also encode similar extended meanings cross-linguistically. In situations where grammaticalization takes place, nouns and verbs which carry certain lexical meaning develop over time into grammatical items such as auxiliaries, case markers, inflections, and sentence connectives (Hopper and Traugott 2003, Heine et al 1991).

3.3.1 Conditions for Grammaticalization

Some conditions that motivate the grammaticalization process, these conditions include the frequency of form, phonological bleaching, loss in semantic force, pragmatic inferences, and conceptual strategy.

3.3.2 Frequency of Form

Bybee (2003) and Traugott & Heine (1991) state that one of the candidates for grammaticalization is the frequent use of lexical items in the language. Bybee (2003), argues that this phenomenon is not peculiar to linguistic phenomena only but can also apply to other motor activities, such as playing the piano, when practiced repeatedly become automized. In Ga, body part terms such as head, back, face, and mouth, and so on are employed in expressing everyday concepts like emotion, character trait, time and space in the language. Their frequent usages in day-to-day activities make them worthy candidates of grammaticalization in the language. For instance, the human back '*sɛɛ*' has grammaticalized to a spatial term because of its frequent usage.

3.3.2.1 Phonological Bleaching

Phonological bleaching also called phonetic erosion, phonological attrition, or phonological reduction. Bybee (2003), indicates that the consequences for frequent

use of lexemes are that they are further reduced in form. It also implies that a linguistic expression loses phonetic substance when it has undergone grammaticalization (Heine 1993). Chappell (2008) 'observes that "phonetic erosion" (as she calls it) in grammaticalization may involve either the loss of syllabic or phonetic segments. Chappell (2008)' however, adds that the loss of a linguistic segment is not always motivated by grammaticalization; it could also be attributed to usage in fluent speech. Furthermore, when a form is phonetically or semantically bleached, its meaning becomes generalized. The generalized form is prone to usage in more contexts (Bybee 2003, Svorou 2002). A typical example is the reduction of *naabu 'mouth'* to *naa* 'entrance'.

3.3.2.2 Loss in Semantic Force

According to Bybee (2003 and 1994), the frequent use of a word further reduces its semantic force. According to Bybee the levels of the response of an organism to a repeated stimulus change over time. She further explains that in the same vein, the semantic force of a word that is used frequently may reduce its meaning. This makes a word to acquire new meaning. An example is the use of *sɛɛ* 'back' from a position anchored to the back of an object to a more generalized meaning referring to any position in the back region of an object.

3.3.2.3 Pragmatic Inferences

In pragmatics, when a word begins to lose its semantic force, it is highly prone to inferences in communication. This does not mean that a word does not satisfy any of the above criteria. It is not liable to inferences in communication. Rather, a form that possesses all or some of the above criteria is much more prone to semantic inferences. Bybee (1994) following Grice's Maxim of Quantity, argues that in a communicative discourse, though speakers aim at being informative, they try not to be more informative than is required. Heine et al (1991), claim that in grammaticalization, process is a need to solve communication problems. Romaine and Lange (1991), indicate that the easiest form of solving these communication problems is by using already existing words to fill these gaps. For instance, the use of 'like 'as a marker of reported speech is deeply rooted in discourse. From a cognitive semanticist's perspective, pragmatic explanations are very important in understanding semantic structure (Heine 1994).

3.3.2.4 Conceptual Strategy

Another term for grammaticalization is called cognitive manipulation. For instance, when the form *sɛɛ* 'back' falls at the periphery of its nounhood category, it is employed to express a new meaning in another category called space (Heine, 1994). Extra-linguistic factor, cognition, is employed in explaining language structure. The

conceptual strategies employed are metaphor and metonymy, which have been described as problem-solving "mechanisms" (Hopper and Traugott 2003).

3.4 Grammaticalization of Body Part Terms In Ga

Body part terms are extended in certain contexts to denote an object part term. In this vein, speakers of a language conceptualize inanimate things as possessing a human body. Native speakers can assign names to parts of an object by comparing the different configurations of the object to a human body part. Speakers do this by assigning inanimate objects a human body. We activate a conceptual transfer from a human body to an inanimate body.

Body part terms like other nouns in Ga inflect for number when they are pluralized. When body part terms are grammaticalized they lose their noun properties and when they are pluralized, the plural take the associative prefix *a*-in the language. Consider the examples below:

20a gbekɛ lɛ **sɛɛ** e-wo muji.
Child DEF back PREF-make dirty
'the child's back is dirty'

b. gbekɛ-bii lɛ sɔ-mɔ shi yɛ sɛi-i lɛ **a-sɛɛ.**
child-PL DEF squat-SUFF down be at chair-PL DEF PREF-back
'the children are squatting behind the chairs'. (TRPS 64)

21a. yoo lɛ **hiɛ** yɛ fɛo.

woman DEF face be beautiful
'the woman's face is beautiful.'

b. lɛ-ji lɛ ma-mɔ ŋshɔ-i lɛ **a**-hiɛ
ship-PL DEF stand-SUFF sea-PL DEF PREF-face
'the ships are on the sea'/'the ships are on the surface of the sea.' (TRPS 11)

22a e-bu fai yɛ e-**yitso**

3SG-wear.PST hat be at 3SG-head
'he/she wore hat on the head. (TRPS 05)

b. hii lɛ damɔ tsu-i lɛ **a**-yiteŋ.

man-PL DEF stand house DEF PREF-on top of
'the man is on top of the roof.' (TRPS 34)

In sentence (20a) *sɛɛ* 'back' is the human body part term while *sɛɛ* 'back' in (b) have grammaticalized to inanimate object *sɛi* 'chair's back. The spatial concept in (b) which is pluralized is prefix with the associative prefix *a-* In (21a), *hiɛ* 'face' is human body part which is described as beautiful which is an adjective, adjectives modify noun but in (b) *hiɛ* is grammaticalized to space (top/ surface), is prefix with *a-* when is pluralized. Ga language do not mark plural for *ŋshɔ* 'sea/ocean' but *ŋshɔi* 'seas/oceans' in (21b) means that the ships are located on the different types of seas/oceans. Gbobally, there are five (5) of oceans/ seas namely: The Arctic Ocean in North of Europe, The Southern Ocean in Antarctica and South of America, The Atlantic Ocean between Africa and America, Indian Ocean between Australia and Africa and The Pacific Ocean between America and Asia (http://www.worldatlas.com). In this case, *ŋshɔi* 'oceans' which is pluralized are used to indicate the different locations of the ships and on different oceans. Lastly,

in (22a) and hats are worn on the 'head' *yitso* but *yiteŋ* is grammaticalized to spatial concept on top of and is prefix with *a-* when pluralized.

3.5 Metaphorical and Non- Metaphorical Uses of Body Part Terms

Body part terms also have figurative meaning. This new meaning is acquired through metaphor and metonymy. The deviation of meaning from its literal meaning is referred to as a figurative meaning. Body part terms acquire new meaning through metaphor and metonymy. Figurative expressions are mostly words from body part terms. Body part terms are used figuratively to express character traits, emotion, physical challenges, ailment and other abstract meanings. Figurative meaning of body parts terms will be discussed under these major sections of the human body.

1. Face and its parts- *yitso* 'head', *hiŋmɛi* 'eye' and *naabu* 'mouth'
2. Internal parts- *tsui* 'heart', *musu* 'stomach'
3. Intangible part- *jwɛŋmɔ* 'mind'

3.5.1 Face and its parts- yitso 'head', hiɛ 'face', hiŋmɛi 'eye' and naabu 'mouth'

According to Svorou (1994), front region includes body parts such as eye, face, forehead, mouth, head, and breast or chest. Enfield (2006), van Staden and Majid (2006) named the front region as face and its parts. Burenhult (2006: 166), writes

that "face is the oval-shaped area on the front of the head, including the forehead, eyebrows and chin, but not including head-hair, ears and neck." Gaby (2006) states that in Jahai (a Mon-Khemer language spoken in the Malay Peninsula in Malaysia), there is no term for 'face'; English uses a simple term, 'face' and Kuuk Thaayorre (a Panman language spoken in Australia) uses a complex term, *koo-ming* 'nose-day time' to refer to 'face'. In Ga, the term for face is '*hiɛ*' which includes eye, forehead, mouth and head. It also refers to the front view of the human body. Body part terms from this category are discussed in turn.

3.5.1.2 Yitso 'head'

Head is used in a wide range of figurative meanings such as spatial orientation, personality trait and cognitive processes. Its usage in cognitive domains of reasoning or thinking is strongly influenced by its association with the brain. The brain is contained in the head (Ayiglo 2010:79). Head can be used figuratively as follows:

23a. e-bu fai yɛ e-yitso **nɔ**

3SG-wear.PST hat be at 3SG-head top
'he/she wore hat on the head. (TRPS 05)

b. lɛ ji **yitso** yɛ weku lɛ mli.

3SG COP head be at family DEF inside
'he/she is the head of the family'.

c. e-bɛ **yitso**.

3SG-does not have head
'he/she does not have a head' (literal meaning)
'he/she is not intelligent'

d. e-**yitso** mli kwɔ.
3SG-head inside deep
'his/her is deep' (literal meaning)
'he/she is secretive'.

e. e-**yitso** mli kpaa e-tse.
3SG-head inside thread PERF-tear.PST
'his/her head thread is torn'. (literal meaning)
'he/she is insane'.

For example, (23a) *yitso* 'head' is used as a locative term because the hat is worn on the head even though in Ga, *yitso* is not used as a spatial concept. *Yiteŋ* is used instead. Thus, is the sentence in (23a) is non-metaphoric. In examples (23b, c, d and e) *yitso* is used metaphoric, thus, the concept of metonymy. The meaning of the head has an extended meaning which is metonymy. Yule (1996), asserts that in metonymy part of a whole or part of the human body represents a whole and is based on similarity. The head of a company is similar to the head of a person on top and controlling the whole body as indicated in (b). He/ she is the leader of the family. It can also be used as the leader of an institution. In (c), the head is used as someone who is not clever when it comes to academics, no matter how the person learns he or she fails. Whereas in (23d) head is used as someone who is secretive. Finally, *yitso* 'head'in (23e), indicates someone who is insane.

3.5.2.3 Hiŋmɛi 'eye'

Hiŋmɛi 'eye' is the most figuratively used body part term in the face. The eye is used in several expressions relating to emotion, cognitive domains, and personality

traits. It is considered as the most important part of the human body. It provides a vision for the body. The figurative uses of the eye are as follows:

24a. e-hiŋmɛi-i dara
3SG-eye-PL big
'his/her eyes are big'

b. gbɛɛ o-hiŋmɛi mli.
spread 2SG-eye inside
'open your eye wide.' (literal meaning)
'be vigilant.'

c. ju **hiŋmɛi** kɛ-kwɛ nii.
steal eye take-look things
'steal eye to look at things.' (literal meaning)
'to glance at (usually a furtive one from the sides of the eyes).

In Ga, when one takes a quick look (glance) at something the act is conceived as stealing with the eye. This is because when one literally "steals the eye" (*ju hiŋmɛi*), one does so. After all, he or she looks at something he or she is not expected to look at or simply because he or she does not want to be seen looking at the thing. In (24a) the sentence is non-metaphoric but the eyes are described as big (adjective), whereas in (b and c) the sentences are of metaphoric.

3.5.2.4 Naabu/Naa 'mouth'

Naabu/ naa is the part of the body that articulates speech and it is used for eating. These are demonstrated in the examples below:

25a. sigareti ma nuu lɛ **naa**.
cigarette stand man DEF mouth
'the man is smoking'. (TRPS 39)

b. e-**naabu** kaaa shi.
3SG-mouth lie.NEG down
'his/her mouth does not lie' (literal meaning)
'he/she gossips.'

c. e-naa ŋɔɔ naakpa
3SG-mouth sweet very well
'his/her mouth is sweet very well' (literal meaning)
'his/her deceives very well.'

In examples (25a) *naa* 'mouth' is used as a spatial concept entrance of which cigarette is smoking and is non-metaphorical whereas (b) is metaphorical. In (b), one is considered a gossip. He/ she cannot keep a secret/confidant. The person cannot be trusted in keeping secrete. This is because they cannot keep their mouth shut. Again, in (c), one's mouth is sweet. They can easily deceive you or cause one to change his or her mind easily with sweet words. The difference between examples (25a and b and c) is that *naa* in (a) is non-metaphorical whereas (b and c) is metaphorical and have extended meanings hence, metonymy.

3.5.3 Internal Parts- tsui 'heart'

Tsui 'heart' is the organ that pumps blood to the body. The heart is located behind the left of the breast bone. Figuratively *tsui* 'heart is used as the seat of emotions in Ga. Consider some of figurative expressions of *tsui* 'heart' in Ga.

26a. e-tsui nɔ e-wo.
3SG-heart top PERF-lift
'he/she heart is up' (literal meaning)
'his/her is angry/ upset.'
b. e-**tsui** ka e-dɛŋ.

3SG-heart lie 3SG-hand
'he/she is having the heart in his/her palm.' (Literal meaning)
'he/she is quick tampered'

c. e-bɛ tsui.
3SG-absent heart
'he/she does not have a heart.' (literal meaning)
'he is quick-tempered.'

d. e-tsui e-tɔ.
3SG-heart PERF-satisfy
'he/she is happy/satisfy.'

e. e-tsui ji lɛ.

3SG-heart COP 3SG
'he/she is the heart' (literal meaning)
'he/she is the heart.'

f. e-tse e-tsui

3SG-tear.PST PERF-heart
'his/she heart is torn apart.' (literal meaning)
'he/she is disappointed.'

g. na tsui
get heart
'get heart' (literal meaning)
'do not be worried/ afraid'.

In examples 27(a), (b) and (c) *tsui* 'heart' is used as the seat of emotions in Ga. Emotion can be quick-tempered, hatred, anger, bitterness, love and so on. In examples (d) and (e) the heart represents love and satisfaction. In (e) the heart of the person is torn apart which means the person is disappointed. Lastly, for example (g), one should be patient especially in uncomfortable situations such as disappointment and bereavement. Levinson (2006), states that in most languages, internal organs such as the heart, stomach/belly, the liver, the kidney are used as seat of emotion.

The internal organ ‘heart’ is used metaphorically in the sentence above because it acquired new meanings. The sentences (26a to g) are metonymy.

3.5.3.2 Musu ‘stomach’

Musu ‘stomach’ is one of the internal organs of the human body. It is located in the abdomen at the upper abdomen. Scientifically, its function is to store food temporarily. It has digestive enzymes and digestion takes place there. The stomach is used figuratively. Consider the examples below:

28a. e-**musu** mli jo-ɔ lɛ.
3SG-stomach inside bitter-Hab 3SG
‘he/she stomach is bitter’(literal meaning)
‘he/she is selfish.’

b. e-**musu**-ŋ wo-ɔ e-he gbeyei.
3SG-stomach.SUFF.LOC raise-Hab 3SG-body fear
‘he/she stomach is bitter.’(literal meaning)
‘he/she likes food.’

c. e-hiɛ **musu.**
3SG-to have stomach
‘she is having stomach.’ (literal meaning)
‘she is pregnant.’

d. e-**musu**-ŋ wa.
3SGstomach-SUFF.LOC hard
‘he/she stomach is hard.’ (literal meaning).’
‘he/she is suffering from chronic constipation.’

The sentences above are all metaphorical, the meanings of the sentences have been extended by way of metaphor. For example, (29a), the stomach is used as bitter

which does not necessarily mean it is bitter but it means the person is selfish. In (b), the person exhibits a character of someone who likes food. When that person sees food he or she acts as if he or she can consume everything, only to leave it behind. In (c), when a woman is pregnant, the baby is kept in the womb and not the stomach. In (d), the expression does not mean the hardness of the stomach but when the person takes medication to purge the system but it does not work on the person as it should.

3.5.4 Intangible part- jwɛŋmɔ 'mind'

Jwɛŋmɔ 'mind' is the intangible part. In psychology it is called the mind and in human anatomy is called the brain. It is located in the skull. In the cognitive process, the brain is used for reasoning/thinking which is strongly influenced by its association with the brain. *Jwɛŋmɔ* 'mind' is also used in figurative language. Sometimes, *jwɛŋmɔ* 'mind' can be used as a verb meaning to 'think' about something. Consider the examples below:

29a. e-**jwɛŋmɔ** mli kwɔ.
3SG-mind inside deep
'his/her mind is deep.' (literal meaning)
'he/she is intelligent.'

b. e-**jwɛŋmɔ-ŋ** kɔne-ɔ lɛ.
3SG mind-SUFF.LOC convince-HAB 3SG
'he convinced him.' (literal meaning)
he/she is insane.'

c. e-**jwɛŋmɔ** mli tseee lɛ.
3SG-mind inside tear.PST.NEG 3SG
'he/she mind is torn apart.' (literal meaning)
'he/she is insane.'

d. e-tsɛ **e-jwɛŋmɔ** sɛɛ.
3SG-call.PST 3SG-mind back
'he called his mind back.' (literal meaning)
'he remembered him.'

e. e-bɛ **jwɛŋmɔ.**
3SG-absent mind
'he/she does not have a mind' (literal meaning)
'he/she is a fool.'

For example, (29a), *jwɛŋmɔ* 'mind' portrays a person who is intelligent and thinks critically. It can either be academically or sociable or friendly. In examples (c) and (d) *tse* and *kɔneɔ* is portraying as someone who is mad. When the mind is torn apart, it means the person is insane. Lastly, in (d) to call one's mind back means to remember someone about an issue which the person might have forgotten. All the sentences above have extended meanings by way of metaphor.

3.6 Summary

The chapter discusses spatial concepts in Ga and the concepts are used to describe the location of objects in the language. The spatial concepts are from the human body part. Again, the chapter discusses the grammaticalization of body part terms in the language. Some conditions for grammatization were discussed. The conditions for grammaticalization includes: phonetic bleaching and loss in semantic force, frequency in use, pragmatic inferences and conceptual strategies.

Furthermore, non-metaphorical and metaphorical uses of body part terms were discussed. Two figurative languages were used to discuss metaphorical

expressions i.e metaphor and metonymy. It was discussed under three major headings such as: Face and its parts- *yitso* 'head', *hiŋmɛi* 'eye' and *naabu* 'mouth', Internal parts- *tsui* 'heart', *musu* 'stomach' and Intangible part- *jwɛŋmɔ* 'mind.'

CHAPTER FOUR

POSITIONAL VERBS IN GA

4.1 Introduction

The chapter is in two parts, the first part discusses positional verbs in Ga and the second part analyzes the semantics of positional verbs in Ga.

Part one

Some works on cognitive semantics and linguistics are: Atintono (2013), Talmy (2007), (2000a), (2000b) and (1985); Newman (2002a); Zlatev (2007), Levinson (2006), (2003) and (1994); Levinson & Wilkins (2006); Ameka & Levinson (2007a), Levinson (2001), (1992); Brown (1994); Svorou (1994); Sinha & Thorseng (1995); semantics (Frawley 1992:250-275), Serra Borneto (1996); mind and language studies (Bryant 1997:239-264); Lakoff (1987); language and cognition studies(Jackendoff (1983), Herskovits (1986:127-155) and Miller & Johnson-Laird (1976).

According to Levinson (2001, 2003) and Levinson & Wilkins (2006a:1) in the study of spatial language one of the important issues is the ability to investigate the strategies languages in the world use to encode information about space linguistically and find for universals in the field (Atintono 2013). In typological studies, research has shown that speakers of different languages have different ways

to describe the location of objects in spatial language (positional verbs). This study seeks to present a systematic analysis of positional verbs in Ga.

4.1.1 Verbs

Verbs express an action, events, or a state of being see (Atintono 2013:92), Saanchi (2006:43), Dorvlo (2008), Crystal (1997:410) and Palmer (1987). No meaningful information or thought can be conveyed without a verb in a sentence and they are also obligatory in sentences. The words boldface in the sentences below is verbs in Ga. Consider the examples below:

30a. kɔɔpoo lɛ **ma** okpɔnɔ lɛ nɔ**.**
cup DEF stand table DEF top
'the cup is on the table.' (TRPS 01)

b. fai lɛ **bu** e-yitso nɔ.
hat DEF wear.PST 3SG-head top
'the hat is on the head.' (TRPS 05)

c. anaanu lɛ **kpɛtɛ** gbogbo lɛ he.
spider DEF stick to wall DEF body
'the spider is on the wall.'(TRPS 07)

d.* akutu lɛ boolu lɛ mli.
orange DEF bowl DEF inside
'the orange is in the bowl.'(TRPS 02)

e. niŋmaatso lɛ **ka** okpɔnɔ lɛ yiteŋ.
pencil DEF lie table DEF on top of
'the pencil is lying on top of the table.' (TRPS 59)

f. * wolo lɛ okpɔnɔ lɛ yiteŋ.
book DEF table DEF on top of
'the book is on top of the table.'

In the sentence (30a, b, c and e) above *ma* 'stand', *bu* 'to wear', *kpɛtɛ* 'stick to', *ka* 'to lie' are the verbs in the sentences and make the sentences meaningful but in (30d and f) are not meaningful because of the omission of verbs in the sentences.

4.1.2 Types of verbs

This part of the study analyzes these types of verbs: transitive verb, intransitive, ditransitive verbs and stative verbs.

4.1.2.1 Transitive verbs

Kotey (2014), states that transitive verbs acquire one complement. Semantically, they take two arguments; the subject and the object. Examples of transitive verbs include "*yi"* (beat), "*gbe"* (kill), "*kpe"* (chew), "*ŋmɛ̀"* (spread) and "*kota"* (fold) (Kotey 2014: 58). Transitive verbs are illustrated in the sentences below:

31a. Ayi **gbe** onufu lɛ.
Ayi.SUBJ PST snake.OBJ.DIRT DEF
'Ayi killed the snake.'

b. gbekɛ lɛ **ye** niyenii lɛ fɛɛ.
child DEF eat.PST food DEF all
'the child ate all the food.'

c. too lɛ **kpe** jwɛi lɛ.
goat DEF chew.PST grass. DEF
'the goat chewed the grass.'

d. tsɔɔlɔ lɛ yi sukuu- bii lɛ
teacher DEF beat school-child-PL DEF
'the teacher beat the school children.'

4.1.2.2 Intransitive verbs

There are some verbs which can occur without an object. Such verbs occur with an external argument which is the subject of the sentence. Such verbs are called intransitive verbs. Examples of intransitive verbs are; *fo* 'cry', *ŋmɔ* 'laugh', *tsine* 'sneeze', *tswa* 'boil' *nyiɛ* 'walk' and *gbo* 'die' (see Campbell 2017: 325 and Kotey 2014:38). These are illustrated in the sentences below:

32a. gbekɛ lɛ fo.
child DEF cry.PST
'the child cried.'

b. Akwei ŋmɔ.
Akwei laugh.PST
'Akwei laughed.'

c. ee-tsine.
3SG.PROG-sneeze
'he/she sneezes'

d. wonu lɛ tswa.
soup DEF boil.PST
'the soup boiled.

In examples (32a) the subject is *gbekɛ lɛ* 'the child (b) Akwei is the subject, (c) *ee* the 3rd person singular is the subject and (d) *wonu* 'soup' is the subject.

According to Campbell (2017), intransitive verbs fall into five semantic categories:

i) bodily functions - gɔi 'burp', sha 'fart', kɛ 'push (as in childbirth), haku 'yawn'

ii) motion - dɔŋkɔ 'walk with swagger' didaŋ 'walk unsteadily (as if drunk)', flikí 'fly', shane 'slip', tsutsɔ 'limp', wamɔ 'crawl'

iii) inherently reciprocal verbs – be 'quarrel', nɔ 'fight'

iv) property verbs - kɛ 'be tall', wa 'be hard', kwɔ 'be deep', 'hi 'be good', da 'be big', lɛɛ 'be broad', di 'be black', yɛ 'be white', tsu 'be red, ripen'

v) weather verbs - nɛ 'rain', tsò 'shine (of the sun)', shí 'thunder'(Campbell 2017:326).

4.1.2.3 Ditransitive verbs

Ditransitive verbs require two complements (internal arguments) in addition to the subject (external argument). In Semantics, the internal argument is the patient while an external argument is the agent (Kotey 2014: 42). Consider examples in (67a,b and c).

33a. Kwei **ha** e-mami shika.

Kwei give.PST 3SG-POSS-mother money
'Kwei gave his mother money.'

b. Kofi **ŋma** e-naanyo lɛ wolo.

Kofi write.PST 3SG-POSS-friend DEF book
'Kofi wrote his friend a letter.'

c. Ama **maje** gbekɛ-bii bodobodo.
Ama sent child -PL bread
'Ama sent the children bread.' (Kotey 2014:43).

In example (33a) above, Kwei is the subject, *ha* 'give' is the verb, *mami* 'mother' is the direct object and *shika* 'money' is the indirect object. In (33b), Kofi is the subject, *ŋma* 'write' is the verb, *naanyo* 'friend' is the direct object and *wolo* 'book' is the indirect object. Lastly, Ama is the subject *maje* 'sent' is verb *gbekɛbii* 'children' is the direct and *bodobodo* 'bread' is the indirect object. Ditransitive take two objects. In Gã, the indirect object precedes the direct object in a ditransitive construction.

4.1.2.4 Stative verbs

Awobuluyi (1978), in discussing stative verbs in Yoruba grammar, named such verbs as 'adjectivisable verbs'. According to Awobuluyi, verbs of this type show the state of things in terms of quality or quantity, length or breadth, height or depth. Examples of stative verbs in Ga are *kwɔ* 'deep/tall', *yí* 'full', *fa* 'many/plenty', *kɛ̀*, 'long' *lɛɛ̀*, 'broad' and *gbo* 'die'. Consider the sentences below:

34a. gbekɛ lɛ **kwɔ.**
child DEF tall
'the child is tall.'

b. nu bu lɛ mli **kwɔ.**
water hole DEF inside deep
'the well is deep.'

c. niyenii lɛ **fa** tsɔ.
food DEF plenty much too
'the food is too much.'

d. mɛi **fa** yɛ nifeemɔ lɛ shishi.
people plenty be at program DEF down
'there were a lot of people at the programe.'

The stative verbs *kwɔ* 'tall/deep' in examples (a) and (b) above are for both animate and inanimate objects. In examples, (c) and (d) *fa* 'plenty/many' are also used for animate and inanimate objects. Saeed (2009), indicates that there are two types of stative verbs; inherently stative and inchoative verbs. Inherently stative verbs make it possible for the speaker to see the situation as a state and do not use it with the progressive or imperative marker. Examples of inherent verbs in Ga are; "lè" 'know', yɛ 'have', "sumɔ̀ɔ̀" 'love', hì 'stay', *jè* 'resemble', "nyɛ" 'hate' and "kpɔ́" 'slip'.

Inchoative verbs are verbs which concentrate on the beginning of a new state or change of state. Examples of inchoative verbs in Ga are; *gbɔ* 'to be old', *shà* 'to be burnt', *dɔ̀* 'to be hot/ to be bent', *ŋɔ hɔ* 'to become as in pregnancy.'

Change of state verbs express a change in a state of an entity or entry into a state. They do not mark progressive form (see Dorvlo, 2008:126). *Gbo* 'die', t*sa* 'grow', *kwa* 'fade' are examples of such verbs in Ga (Kotey 2014:40). Consider the examples below:

35a. yoo kpitioo lɛ e-**gbo**.
woman short DEF PREF-die.PST
'the shot woman is dead.

b. shia fɛfɛo lɛ e-**sha**.

house beautiful DEF PERF-burn.PST
'the beautiful house is burnt.'

c. sukuu lɛ mli e-**tsa.**

sukuu DEF inside PREF-grow
'the school is weedy.'

d. atade lɛ e-**kwa.**

dress DEF PERF-fade.PST
'the dress has faded.'

In (35a), the status of the man has changed from a living person to a dead man and in the same way in (35b), the status of the house has changed from a state of habitation to desolation. In (35c), the house has changed into a state of decay. Finally, the state of the dress has changed from new to old.

4.2 Positional verbs in Ga

In Ga, posture verbs are *yɛ* 'be at', *ka* 'to lie', *ta* 'to sit', ma 'to stand' for inanimate and *damɔ* 'to stand' for animate. The verbs *yɛ, ta* and *ka* can occur with both inanimate animate objects whiles *damɔ* occur with animate objects. The verb *ma* occurs with only inanimate objects. These are illustrated in the sentences below:

36a. akutu lɛ yɛ boolu lɛ mli.

orange DEF be at bowl DEF inside
'the orange is in the bowl.' (TRPS 02)

b. yoo lɛ **y**ɛ mfoniri lɛ mli.

women DEF be at picture DEF inside
'the woman is in the picture.' (TRPS 28)

c. ba-ji lɛ **yɛ** tso lɛ nɔ.

leaf-PL DEF be at tree DEF top
'the leaves are on the tree.'(TRPS 27)

d. shia lɛ **yɛ** afabaŋ lɛ teŋ.

house DEF be at fence DEF middle
'the house is in the middle of the fence.'(TRPS 16)

The verb *yɛ* 'be at' shows where an object is located. It can occur with both animate and inanimate entities. As illustrated in example (36) above. In (36a) *akutu* 'orange' is an inanimate object while in (b) *yoo* 'woman' is an animate object and occur with both entities. *Yɛ* describes the location an object irrespective of the size and shape of the object. *Yɛ* does not mark plural, whether the object is single or plural it still takes the object. As shown in example (36c) *baji* 'leaves' indicates plural object.

37a. bɔɔlu lɛ **ka** sɛi lɛ shishi.

ball DEF lie chair DEF down
'the ball is lying the under the table.'(TRPS 16)

b. kpaa lɛ **ka** tsoku lɛ nɔ.

rope DEF lie stump DEF top
'the rope is on top of the stump.' (TRPS43)

c. gbekɛ lɛ **ka** saa lɛ nɔ.

child DEF lie mat DEF top
'the child is lying on the mat.'

d. gbe-i lɛ **ka-mɔ** shinaa naa.

Dog-PL DEF lie.SUFF door mouth
'the dogs are lying at the entrance of the door.

Ka 'to lie' occurs with both animate and inanimate entities. *Ka* marks plural. When the object is plural it takes the singular verb *ka* and when the objects are plural it

takes the plural marker. *Ka* is singular and plural is *kamɔ*. These are illustrated in example (37d) above.

38a. gbekɛ lɛ **ta** la lɛ **he**.
child DEF sit.PST fire DEF body
'the child is sat around the fire.'(TRPS 38)

b. alɔnte-i tara okpɔnɔ lɛ nɔ.
cat-PL sit.PST table DEF top
'the cats are sited on the mat.'

*c. alɔnte-i lɛ ta okpɔnɔ lɛ nɔ.
cat -PL DEF sit.PST table DEF top
'the cats are sited on the table.'

d. akutu **ta** plɛte lɛ mli.
orange sit.PST plate DEF inside
'the orange is in the plate.' (TRPS 19)

e. mutsuru e-ta e-mama yɛŋ lɛ mli.
palm oil PREF-sit.PST 3SG.POSS-cloth white DEF inside
'palm oil has stained in his/her white cloth.'

Ta 'to sit' takes both animate and inanimate objects and also marks for plurality. In example (38a) *gbekɛ* 'child' is an animate object and is singular and it occurs with a singular verb. Examples (38c) *alɔntei* 'cats' are plural and takes the plural verb *tara*. Finally, in (d and e) *mutsuru* 'palm oil and *akutu* 'orange are inanimate and have occurred with *ta* 'sit'.

39a. kɔɔpoo lɛ ma okpɔnɔ lɛ nɔ.
cup DEF stand table DEF top
'the cup is on the table.'(TRPS 01)

b. lɛlɛ lɛ ma faa nɔ.
canoe DEF stand river top
'the canoe is on the river. (TRPS 11)

c. tso lɛ **ma** sɔlemɔ-tsu lɛ koŋ nɔ
tree DEF stand church-house DEF beside top
'the tree is beside the church building.' (TRPS 49)

d. tsɔne lɛ **ma** sukuu-tsu lɛ sɛɛ.
car DEF stand.PST school-house DEF back
'the car is parked at the back of the school.

*e. nuu lɛ **ma** tsu lɛ sɛɛ.
man DEF stand house DEF back
'the man is standing behind the house.'

Ma 'to stand' occurs with inanimate entities only. In Ga, it is ungrammatical for *ma* to occur with animate entities. It becomes sarcastic to use *ma* for animate objects, as shown in example (39e)

40a. nuu lɛ **damɔ** tsu lɛ yiteŋ.
man DEF stand house DEF on top of
'the man is standing on top of the roof.' (TRPS 43)

b. kooloo lɛ **damɔ** okpɔnɔ lɛ masɛi.
animal DEF stand table DEF side
'the animal is standing beside the table.'

c. alɔnte lɛ **damɔ** tsu lɛ yiteŋ.
cat DEF stand house DEF on top of
'the cat is standing on top of the roof.'

d. gbee lɛ **damɔ** shi yɛ tsu lɛ he.
dogI DEF stand.PST down be at house DEF body
'the dog stood around the house.'

*e. tsɔne lɛ **damɔ** shia lɛ mli.
car DEF stand.PST house DEF inside
'the car is parked in the house.'

Lastly, *damɔ* 'to stand' occurs with animate entities only. In Ga, it is ungrammatical for *damɔ* to occur with inanimate entities such as cars, trees and others, as shown in example (40e) above.

Part two

4.3 Semantic Analysis of posture and positional verbs in Ga

This section of the study discusses the semantic analysis of posture and positional verbs in Ga. Atintono (2013), grouped posture verbs into five subgroups, this work analyse posture verbs on these subgroups:

a. Body position or posture verbs

b. General verbs

c. Verbs of elevation

d. Distribution verbs

e. Attachment

4.3.1. Body position or posture verb

Body position or posture verbs in this category describe the various positions of humans, animals and location of objects such sticks, bottles, pots and pens, etc. when it comes to the location of entities on the ground. The body position or posture can be vertical/ upright, horizontal, inclined, tilting, squatting, stooping, or turning upside down (Atintono 2013:183). In Ga, speakers of the language choose the type

of verbs when the body is in one of the positions or postures mentioned above. Ga speakers choose verbs to occur with humans, animals on the ground depending on the position they assume. The table below shows the list of body position or posture verbs in Ga.

Table 4: List of body position or posture verbs

Verb	Meaning	Animacy of figure	Body position
Damɔ	be in a standing posture	Animate	Vertical/ upright
Ma	Be in a standing posture	Inanimate	Vertical/ upright
Ta	Be in a sitting posture	Animate	Vertical
Ka	be in a lying posture	Animate, inanimate	Horizontal
Sɔ	be in squatting posture	Animate	vertical, crouching
Kpasa	Be in leaning, in a standing posture	Animate	tilted, leaning
Kpɛtɛ	be in leaning, in a standing posture	Animate	tilted, leaning

4.3.2 Damɔ 'be in a standing posture' (animate)

Humans

Lemmens & Perrez (2010), write that the verb *damɔ* 'be in a standing' position describes the position of human beings vertically standing on their feet. Thes are illustrated in the examples below:

41a. nuu lɛ **damɔ** tsu lɛ yiteŋ.
man DEF stand house DEF on top of
'the man is standing on top of the building.' (TRPS 34)

b. gbekɛ lɛ **damɔ** tso lɛ sɛɛ.
child DEF stand tree DEF back
'the child is standing behind the tree.'

c. yoo lɛ **damɔ** shi yɛ ŋmɔ lɛ mli.
woman DEF stand down be at farm DEF inside
'the woman is standing in the farm.'

d. nuu lɛ **damɔ** gɔŋ lɛ nɔ.
man DEF stand mountain DEF top
'the man is standing on the mountain.'(TPRS 34)

In Ga, *damɔ* 'be standing' is used for a person standing on a height (elevated ground such as a roof top, top of a mountain, top of a car etc.) and a base, a place without a support from above. Examples (41a and d) elevated grounds while examples (b and c) indicate a place without support from above.

Song (2002:365-366), claims that in the literature of typology of posture verbs 'height' in Korea verb *se* 'stand' is used to describe animals or inanimate objects related to their relative height in comparison to that of humans. The vertical

length of any entity that is comparable to human height or higher occurs with *se* but if the object is lower, the verb *se* cannot be used. Consider the examples (42) below:

42a. ku mal-i makwan-aphey se-iss-ta
the horse-NOM stable-front-LOC stand-is-IND
'the horse is standing in front of the stable.'

*b. ku kay-ka mwun-yephe-ey se-iss-ta
The dog-NOM door-side-LOC stand-is-IND
'the dog is standing by the door.' (Atintono 2013: 204).

From the analysis of Song's data and his discussion from Korea, it is evident that the location of certain entities has nothing to do with height, as observed in the case of Ga. This means the concept of standing has nothing to do with height. It is interesting to observe that Ga and Korea have some similarities when it comes to *damɔ* 'be standing' in Ga and *se* 'stand' in Korea.

Animals

Four-legged and two-legged animals are also capable to stand on their feet in an upright or vertical position. Four-legged animals include cows, goats and sheep and two-legged animals such as hens, ducks and birds are described as *damɔ* 'be in standing' posture in Ga demonstrated in the sentences below:

43a. tsina-i lɛ **damɔ** ŋa lɛ nɔ.
cow-PL DEF stand field DEF top
'the cattle are on the field.

b. alɔnte lɛ **damɔ** shinaa lɛ naa.
cat DEF stand door DEF mouth
'the cat is standing at the entrance of the door.'

c. wuɔ lɛ **damɔ** e-tsu nɔ.
fowl DEF stand 3SG.POSS-house top
'the fowl is standing on the top of its coop.'

d. okpo lɛ **damɔ** tso lɛ nɔ.
bird DEF stand tree DEF top
'the bird is standing on the tree.'

Example (43a), Ga speakers describe the herd of cattle grazing on the field as standing. Domestic animals such as cat, bird and fowl are also considered as standing as demonstrated in examples (b and c). Ga contrasts with Dutch when Lemmens (2002:107) argues that smaller birds and small animals' *zitten* 'sit' is used whether they have legs or they do not have legs. Ga speakers consider entities with legs as standing but Dutch sees such animals as not standing.

4.3.1.2 Ma 'be standing' posture (inanimate)

In Ga, inanimate entities such as television, radio, tables, chairs, sofa, buildings, cars, trees, bowls, plates, cups, pots and bottles are described in the language as *ma* 'be in standing' posture. These objects require a base to support them to maintain a stable upright or vertical posture. *Damɔ* 'be standing' is not used for these objects but for animate entities. Consider the following examples:

44a. kɔɔpoo lɛ **ma** okpɔnɔ lɛ nɔ.
cup DEF stand table DEF top
'the cup is on the table.' (TRPS 01)

b. lɛlɛ lɛ **ma** faa nɔ.
canoe DEF stand river top
'the canoe is on the river.'(TRPS 11)

c. tso lɛ **ma** sɔlemɔ-tsu lɛ hiɛ.
tree DEF stand church-house DEF face
'the tree is in front of the church.' (TRPS 49)

d. okpɔnɔ lɛ **ma** tsu lɛ mli.
table DEF stand house DEF inside
'the table in the room.'

*e. tsɔne lɛ **damɔ** shia lɛ mli.
car DEF stand house DEF inside
'the table is in the room.'

According to Atintono (2013: 206) in Gurenɛ, *ze'* 'be in standing in a posture' is used to describe animate and inanimate entities because speakers of Gurenɛ consider these entities as having legs which project them to stand vertically or upright. Consider the following examples in Gurenɛ:

45a. Budaa la **ze'** la tiŋa
man DEF stand.STAT FOC land
'The man is standing on the ground.' (GUR 48)

b. Dayene la **ze'** la tiŋa di-ta ki
dove DEF stand.STAT FOC land eat-IPFV millet
'The dove is standing on the ground eating grains.' (SPST 70)

c. sukuu la **ze'** la bɔka nuure-n
school DEF stand.STAT FOC stream mouth-LOC
'The school building is standing by the edge of the stream.'(SPST71)

d. Teebule la **ze'** la bɔ'ɔ la puan
table DEF stand.STAT FOC room DEF inside
'The table is standing in the room.' (LDFT 01) (Atintono 2013:206).

From Gurenɛ data, it is observed that *ze* 'be in standing' posture occurs with both animate and inanimate entities whilst in Ga, *damɔ* 'be in standing' posture occurs with only animate entities while *ma* 'be in standing' occurs with inanimate entities.

The difference between Gurenɛ and Ga is that Gurenɛ uses *ze* for both animate and inanimate entities whilst Ga uses different lexical items such as *damɔ* for animate objects and *ma* for inanimate objects.

4.3.1.3 ta 'be in sitting' posture'

Ta 'be in sitting' posture is the only verb that is restricted to human postures. The various sitting postures of human are; the person's buttocks are supported on the ground with legs stretched out or legs bent. *Ta* describes the sitting posture of human beings located on their buttocks with support from below. *Ta* is used to describe a person sitting on a chair, mat, log, or any other entity in Ga illustrated in the sentences below:

46a. gbekɛ nuu lɛ **ta** la lɛ he.
child man DEF sit fire DEF body
'the boy is sitting around the fire.' (TRPS 38)

b. maŋtsɛ lɛ **ta** sɛi lɛ nɔ.
chief DEF sit chair DEF top
'the chief is sitting on the chair.'

In example (46a) gbekɛ nuu 'boy' is the figure and *la* 'fire' is the ground, (46b) maŋtsɛ 'chief' is the figure and sɛi 'chair' is the ground, (46c) *yoo* 'woman' is the figure and *saa* 'mat' is the ground' and in (46d) *nuu* 'man' is the figure and *tsoku* 'log' is the ground.'

In Ga, when an ordinary person sits in front of a chief with the legs crossed or bent, it shows disrespect. Sitting with the legs crossed is cultural-specific. Lemmens (2002:105), points out that in Dutch, posture verb *zitten* 'sit' is used to describe different body positions that include sitting on the buttocks, a chair, resting on the knees, or on hands and knees. In Ga, different positional verbs are used to describe these sitting positions. For instance, sitting on the buttocks on a chair is described as *ta* 'sitting' while resting on knees is described as *koto shi* 'kneeling' and resting on his feet attract *sɔ shi* 'squatting'.

Again, in Dutch, speakers' use the verb *zitten* 'sit' to describe animals such as cats, dogs, cows resting on their rear or their hindlegs bent and buttocks touching the ground. They are described as sitting. (see Lemmens 2002:107). In Ga, when animals such as dogs, cows and cats rest on their hind legs bent with their buttocks touching the ground described as *sɔ* 'squatting'. In Likpe, a Ghana-Togo-Mountain language spoken in Ghana *si* 'sit' can be used to describe the postures of cats and dogs resting on their behinds (Ameka 2002:1086). The difference between Likpe and Ga is that in Ga, animals squat whiles in Likpe animals sit.

4.3.1.4 Ka 'be lying' posture

Humans

A person lying with the whole body or part of the body in a horizontal position and aligned to the ground is described as *ka* 'be lying' in Ga. The different lying postures

can either be a person lying on one side of the body, lying with face up or face down with limbs stretched or bent. A person can lie on a mat, on a bed, or on a sofa, illustrated in the examples below:

47a. gbekɛ lɛ **ka** shi yɛ shikpɔŋ.
child DEF lie down be at floor
'the child is lying down on the floor.'

b. yoo lɛ **ka** shi yɛ saatso lɛ nɔ.
woman DEF lie down be at bed DEF top
'the woman is lying down on the bed.'

c. nuu lɛ **ka** saa lɛ nɔ.
man DEF lie mat DEF top
'the man is lying on the mat.'

The verb *ka* has a sense of sleeping and is associated with lying. It can mean that in the examples above, they are not sleeping but just lying down to rest. In example (47a) *gbekɛ* 'child' is the figure and floor 'shikpɔŋ' is the ground,' in (47) *yoo* 'woman' is the figure and *saatso* 'bed' is the ground and lastly, in (47c) *nuu* 'man is the figure and *saa* 'mat' is the ground.

Objects

Objects that can be coded with *ka* 'be lying' include elongated objects such as sticks, stalks, pens, books, mats, tubers (e.g., yams, cassava), bottles, mirrors, and brooms, which assume a lying position on a ground. Flexible objects such as cloth and rope are also described with *ka* in Ga. Consider the following example:

48. niŋmaatso lɛ **ka** okpɔlɔ lɛ nɔ.
pen DEF lie table DEF top
'the pen is lying on the table.'(TRPS 59)

b. baagi lɛ nine lɛ **ka** baagi lɛ he.
bag DEF handle DEF lie bag DEF body
'the bag's handle is lying on the bag.'(TRPS 14)

c. kpaa lɛ **ka** tsoku lɛ nɔ.
rope DEF lie stump DEF top
'the rope is lying on the stump.' (TRPS 43)

d. tso lɛ **ka** sɛi lɛ shishi.
stick DEF lie chair DEF down
'the stick is lying under the chair.'

However, Ga speakers use *ka* 'be lying' to describe the location of objects such as balls which lack any vertical or horizontal shape on the ground which do not salient dimensions and a canonical base to support them in a vertical or standing position. Ameka & Levinson (2007), state that most languages in the world use the verb 'lying' to describe these objects. These are demonstrated in the examples below:

49a. bɔɔlu lɛ **ka** sɛi lɛ shishi.
ball DEF lie chair DEF down
'the ball is lying under the table.'(TRPS 16)

b. ball lɛ **ka** shikpɔŋ.
bɔɔlu DEF lie ground
'the ball is lying on the ground.

Other entities which can be coded with *ka* in Ga include fruits, stones and other objects with irregular shapes, illustrated in the examples below:

50a. akutu lɛ ka boolu lɛ mli.
akutu DEF lie bowl DEF inside
'the orange is lying in the bowl.' (TRPS 16)

b. tɛ lɛ **ka** tsu lɛ masɛi

stone DEF lie house DEF beside
'the stone is lying beside the building'.

The verb *ka* 'be lying' is used to describe natural features such as water bodies (rivers, dams and streams), farmlands, roads, footpaths and mountains. Guirardello-Damian (2002 & 2007), reports that Trumai a language spoken in Central Brazil and Keegan (2002), also observes that Mbay a language spoken in Central Africa describes landmarks which include river, dams and streams as lying objects. Interestingly, Lemmens and Perrez (2002), indicate that in Dutch, 'lying verb' is used to describe these entities in Dutch. The landmarks are coded as lying because of the horizontal nature of the entities. Ga speakers also use *ka* to describe landmarks in Ga. Ga is similar to Trumai and Mbay because these languages use lying to describe permanent entities in their languages. Consider the following examples in Ga:

51a. ŋmɔ lɛ **ka** faa lɛ naa.
farm DEF lie river DEF mouth
'the farm is lying at the bank of the river.'

b. gbɛ lɛ **ka** maŋ lɛ mli.
road DEF lie town DEF inside
'the road is lying in the town.

c. nane-gbɛ lɛ **ka** gɔŋ lɛ sɛɛ.

leg-path DEF lie mountain DEF back
'the footpath is lying behind the mountain.'

Geographical features such as rivers, dams, road and footpath are conceptualized in the language as *ka* 'lying' because these features lie at the surface of the earth and also as a result of their horizontal expansion. In example (51a), *ŋmɔ* 'farm' is the

figure and *faa* ‘river’ is the ground, in (51b) *gbɛ* ‘road’ is the figure and *maŋ* ‘town’ is the ground and finally, (51c) *nane-gbɛ* ‘footpath is the figure and *gɔŋ* ‘mountain’ is the ground.

Animals

Four-legged animals such as cows, goats, sheep, dog and cats are described as lying in Ga. In Ga, when these animals are in these postures, they are described as *bu* ‘be lying’. Again, two-legged animals such as fowls and birds are also described as *bu* ‘be lying’ in Ga. However, animals such as snakes are described as *ka* ‘be lying’. Snakes are described as *ka* ‘be lying’ because they do not have behinds and they crawl on their bodies. Consider the examples below:

52a. gbee lɛ **bu** okpɔlɔ lɛ shishi.
dog DEF lie table DEF down
‘the dog is lying under the table.’

b. tsina lɛ **bu** shi yɛ tso lɛ shishi.
cow DEF lie down be at tree DEF down
‘the cow is lying down under the tree.’

c. wuɔ lɛ **bu** shi **yɛ** **e-tsu** lɛ mli.
fowl DEF lie down be at 3SG.POSS-house DEF inside
‘the fowl is lying down in its pen.’

d. onufu lɛ **ka** ŋmɔ lɛ mli.
snake DEF lie farm DEF inside
‘the snake is lying in the farm.’

In Ga, the verb *bu* ‘be lying’ is used to code four legged and two legged animals lying on their side of their bodies while *Ka* ‘lying’ is used to describe animals that do

not have behinds like a snake. Unlike Ga which uses different verbs to describe animals in lying positions, Gurenɛ uses gã ‘be lying’ to describe four legged and two legged animals. Examples are from (Atintono 2013).

53a. baa la pue **gã** la bɔ’ɔ la nuurɛ.
dog DEF be crossed lie.STAT FOC room DEF mouth
‘the dog is lying across the entrance of the room.’ (LDFT 43)

b. bɔgereŋa la **gã** la tiŋa
black.ant DEF lie.STAT FOC land
‘the black ant is lying on the ground.’ (Atintono, 2013:188).

Ga and Gurenɛ have some similarities in the verb ‘lying’. Gurenɛ uses the verb *gã* ‘be lying’ to describe different entities which include humans, animals and objects. While in Ga *ka* ‘be lying’ is used to described humans, objects whilst *bu* ‘be lying’ is to describe four legged and two legged animals and *ka* for describing animals with no behinds.

4.3.2 General verbs yɛ ‘be at’

Some of the works are; Lyons (1967:388-399); Kimball (1972); Clark (1978); Freeze (1992); Ameka (1995 and 2007) and Koontz-Garboden (2009). The general locative verb *yɛ* has a wide range of use in Ga. Some of the uses include the location of entities such as a person in the house, location of abstract entities like wisdom in one’s head, containment uses and description of an event taking place (ongoing of marriage ceremony in a place) (see Atintono 2013). Ga speakers use *yɛ* ‘be at’ in this

context to refer to the general location of entities in the language. The verb *yɛ* can be used with animates as well as inanimate entities in the language.

54a. nuu lɛ **yɛ** tsu lɛ yiteŋ.
man DEF be at house DEF on top of
'the man is on top of the roof.'(TRPS 34)

b. gbekɛ-bii lɛ mii-shwɛ **yɛ** shwɛmɔ-he lɛ.
child-PL DEF PROG-play be at play-place DEF
'the children are play on the field.'

c. anaanu lɛ **y**ɛ tsu lɛ mli.
spider DEF be at house DEF inside
'the spider is in the room.' (TPRS 52)

d. tso lɛ **yɛ** nu lɛ mli.
stick DEF be at water DEF inside
'the stick is in the water.'

e. kpaa lɛ **yɛ** kpɔɔpoo lɛ he.
thread DEF be at cup DEF body
'the thread is on the cup.' (TPRS 26)

In example (54a) the man is the figure and the ground is the rooftop, in (54b) the children are the figure and the ground is the field, (88c the spider) is the figure and the ground is room, in (54d) the figure is the stick and the ground is water and in (54e) the figure is the tread and the ground is the cup.

4.3.2.1 Containment uses of yɛ 'be at'

The containment uses of *yɛ* 'be at' implies that an entity, is completely or partially contained in a Ground. In a containment relation, the Ground is often regarded to be a bounded region like a three-dimensional object which includes a container or a

room. In situations where the Ground is a container the Figure is necessarily in contact with part or parts of the Ground. The ground may also be encirclement. Consider the examples below:

55a. akutu lɛ **yɛ** boolu lɛ mli.
orange DEF be at bowl DEF inside
'the orange is in the plate.'(TRPS 02)

b. adeka lɛ **yɛ** baagi lɛ mli.
box DEF be at bag DEF inside
'the box is in the bag.'(TRPS 14)

c. loo lɛ **yɛ** tɔ lɛ mli.
fish DEF be at bottle DEF inside
'the fish is in the bottle.' (TRPS 32)

d. adanko lɛ **y**ɛ tsu lɛ mli.
rabbit DEF bet at house DEF inside
'the rabbit is in the hutch/cage.'(TRPS 54)

e. nuu lɛ **yɛ** tsu lɛ mli.
man DEF be at room DEF inside.
'the man is in the room.'

The use of yɛ disregards the actual postures of the entities in the container, whether the entities are standing or lying. The speakers focus on the containment more than the posture. Their posture is of no relevance to the speaker. In example (55a) the figure is the orange and the bowl is the ground, (55b) the figure is the box and the ground is the big, (55c) fish is the figure and ground is the bottle, (55d) the figure is the rabbit and the ground is the hutch and in (55e) man is the figure and the room is the figure.

4.3.3 Verbs of elevation

Verbs of elevation are verbs which locate the object on elevated grounds. Levinson & Meira (2003:485-486), observe that verbs of elevation in other languages are referred to as adpositions (preposition and postposition) which are used to describe as the location of entities. The most important meaning of verbs in this category is the objects are located on elevated grounds. Elevated grounds include rooftop, mountain top, tabletop, treetop, stumps and platforms. The table below shows a list of verbs of elevation in Ga. According to Murphy (2010), Cruse (2004), in semantics a word can have different meanings which are related to each other in different ways and this is referred to as meaning variation. The most important meaning of verbs in this category is that objects are located on elevated grounds. Elevated grounds include rooftop, mountain top, table top, tree top, stumps and platforms. The table below shows the list of verbs of elevation in Ga.

Table 5: list of verbs of elevation

Verb	Meaning	Animacy of figure
Nɔ and *Yiteŋ*	Be on top of, of stable support	Animates and inanimate
Tsotsoro, sɛŋ	Be dangling freely, be hanging	Animal and inanimate

4.3.3.1 Nɔ and yietŋ 'be o on top, of stable support'

Human

The general meaning of the verbs *nɔ* and *yiteŋ* implies that the object to be located is on an elevated ground with stable support from below. The meaning carried out by the verb is that the object is elevated off the ground, with stable support and this support can be supported from below or above (see Atintono 2013: 224). Ga speakers use *nɔ, yiteŋ* 'be on top/ 'be on top of, with stable support' to describe the standing, and sitting postures of persons located on elevated grounds like rooftops, walls, vehicles, platforms, embankments, table top, tree tops, mountains or hills top. These are illustrated in the sentences below:

56a. nuu lɛ damɔ tsu lɛ **yiteŋ**.
man DEF stand house DEF top of
'the man is standing on top of the roof.'(TRPS 34)

b. yoo lɛ ta afabaŋ lɛ **nɔ**.
woman DEF sit wall DEF top
'the woman is sitting on top the wall.'

c. gbekɛ lɛ damɔ gɔŋ lɛ **yiteŋ**.
child DEF stand mountain DEF on top of
'the child is standing on top of the mountain.'

d. nuu lɛ ta tso lɛ **nɔ**.
man DEF sit tree DEF top
'the man is sitting on the tree.'

The use of *nɔ* and *yiteŋ* 'be on top/ on top of' are used for both naturally elevated and artificial entities. Naturally elevated entities include tree top and mountain top and

artificially elevated objects such table top, wall, roof top etc. In example (56a), the figure is the man and the ground and the roof top is the ground, (56b) the woman is the figure and the ground is the wall, (56c) child is the figure and the mountain is the ground and in (56d) the man is the figure and the ground is the tree.

Animals and plants

Animals such as goats, sheep and cats climb to lie or stand on a rock, truck of a tree, roof top *nɔ* or *yiteŋ* is used to describe the posture.

57a. alɔnte lɛ ka tsu lɛ **yiteŋ.**
cat DEF lie house DEF on top of
'the cat is lying on top of the roof.'

b. too lɛ ka tsoku lɛ **nɔ.**
goat DEF lie trunk of a tree DEF top
'the goat is lying on the trunk.'

c. loofɔlɔ damɔ tso lɛ **nɔ.**
bird stand tree DEF top
'the bird is standing on the tree.'

d. kooloo lɛ ka tso lɛ **nɔ.**
animal DEF lie tree DEF top
'the animal is lying on the tree.'

In example (57a) the cat is the figure and the ground is the roof top, in (57b) goat is the figure-ground is stump, (57c) the bird is the figure and the tree is the ground and lastly, in (57d) the animal is the figure and the ground is the tree)

Plants or trees located on natural elevated grounds such as a tree on the side of a mountain and another tree on the peak of a mountain are both from the TRPS scenes. The tree located on the side of the mountain can be described as *nɔ* and the

one located on the peak of the mountain can be described as *yiteŋ*. Some speakers also described both scenes as *nɔ*. Consider the examples below:

58a. tso ma gɔŋ **yiteŋ** tutuuntu.
Tree stand mountain on top of exactly
'the tree is at the peak of the mountain.'(TRPS 65)

b. tso lɛ ma gɔŋ lɛ **nɔ**.
tree DEF stand mountain DEF top
'the tree is at the top of the mountain.' (TRPS 17)

From the examples above, (58a) and (b) the tree is the figure and the ground is the mountain. Example (58b) can be used to describe on the scenes depending on the speaker's choice of elevated verbs.

Objects

Objects are described with *nɔ* or *yiteŋ* when the objects are located on top of a stable base with support from above. The entities are located from support from elevated grounds. From the data, some objects were located on top of stable support from above. Consider the following examples.

59a. kɔɔpoo lɛ ma okpɔlɔ lɛ **nɔ**.
cup DEF stand table DEF top
'the cup is on the table.' (TRPS 01)

b. wolo ma kabɔdi lɛ **yiteŋ**.
book stand cupboard DEF on top of
'the book is on top of the cupboard.' (TRPS 08)

c. plɛte lɛ ma okpɔlɔ lɛ **nɔ.**
plate DEF stand table DEF top
'the plate is on the table.'

Example (59a) indicates that the cup is the figure and the ground is the table, in (59b) the figure is the book and the ground is the cupboard and in (59c) the plate is the figure and table is the ground.

4.3.3.2 Tsotsoro/sɛŋ 'be hanging'

Ga speakers describe objects which are hanging with support from above without a stable base. The support may be either vertical or horizontal. Speakers describe such objects as *tsotsoro* or *sɛŋ*. Inanimates objects such as dresses, bags, pictures and bulbs can be described as *tsotsoro* or *sɛŋ* but animate objects such as human beings are described as *sɛŋ*. Animals can also be described as *sɛŋ*. For example, when a person sits on a chair with the leg hanging without touching the floor, it described as *sɛŋ*. Therefore, *sɛŋ* is restricted to only human beings, illustrated in the sentences below:

60a. atade lɛ **tsotsoro** hanga lɛ nɔ.
dress DEF hang hanger DEF top
'the dress is hanging on the hanger.' (TRPS 09)

b. bɔɔbu lɛ **tsotsoro** shi yɛ ŋwɛi.
bulb DEF hang down be at up
'the bulb is hanging.' (TRPS 63)

c. mfoniri lɛ **tsotsoro** shi yɛ gbogbo lɛ he.
picture DEF hang down be at wall DEF body
'the picture is hanging on the wall.' (TRPS 28)

d. atade-i lɛ **tsotsoro** shi yɛ kpaa lɛ nɔ.
dress-PL DEF hang down be at rope DEF top
'the clothes are hanging on the line.'(TPRS 09)

From the example above, in example (60a) dress is the figure and hunger is the ground while in (60b) bulb is the figure and up is the ground. In example (60c) the picture is the ground and the wall is the ground and in example (60d) clothes are the figure and the line is the ground. In situations, where a person commits a suicide by hanging him/herself, speakers describe the situation as *sɛŋ/tsotsoro*. Consider the examples below:

61. e-**sɛŋ** shi yɛ tsu lɛ mli.
3SG-hang down be at house DEF inside
'he/she is hanging in the room.'

In example (61) he/she is the figure and the ground is the room.

The hanging positions of some birds like bats on trees or insects like bees on beehives are commonly described as *tsotsoro/sɛŋ* by speakers.

62a. aputumpata lɛ **sɛŋ** tso lɛ nɔ.
bat DEF hang tree DEF top
'the bat is hanging on the tree.'

b. loofɔlɔ lɛ **tsotsoro** tso lɛ nɔ.
bird DEF hang tree DEF top
'the bird is hanging on the tree.

In example (62a) bat is the figure and tree is the ground while in (62b) rope is the figure and tree is the figure

4.3.4 Distribution verbs

These groups of verbs describe the configuration of a figure. The verbs can spread out to cover part or the entire surface of the ground. For example, a table cloth covering the table and a napkin covering a spoon on a table. Distribution verbs came out from elevation verbs to describe the actual space an object is located in spatial concept. Distribution verbs occur with inanimate entities. The table below shows a list of distribution verbs in Ga.

Table 6: list of distribution verbs in Ga

Verb	Meaning	Configuration of figure
Ha	Be covered entirely	Distribution
Jwere	be scattered, of multiple objects	Distribution

4.3.4.1 ha 'be covered entirely'

Speakers use the verb *ha* 'be covered' to describe objects that cover the entire surface of the ground. The entities like cloths covering the upper surface of a table. The semantic requirement of the verb is that the object covers completely the upper surface of the ground to prevent the surface from been dirty. Objects that can be spread include animal skins, mats, blankets, cloth, napkin and creeping plants. Demonstrated in the examples below:

63a. tako lɛ **ha** awale lɛ nɔ.
napkin DEF be covered spoon DEF top
'the napkin is covering the spoon.' (TRPS 24)

b. mama lɛ **ha** okpɔlɔ lɛ nɔ.
mama DEF be covered table DEF top
'the table cloth is covering the table.'(TRPS 29)

c. mama lɛ **ha** saatso lɛ nɔ
cloth DEF be covered bed DEF top
'the bedsheet is covering the bed.'

d. jwɛi lɛ e-**ha** faa lɛ hiɛ.
weeds DEF PERF-be covered river DEF face
'the weeds have covered the surface of the river.'

In example (63a) napkin is the figure and ground is the spoon, in (63b) tablecloth is the figure while the table is the ground. In example (63c) bedsheet is the figure and the grounds are the bed and in (63d) weeds are the figure and the ground is the river.

4.3.4.2 Jwere 'be scattered'

Objects which are scattered are described by speakers as *jwere* 'be scattered'. Objects such as grains scattered on the floor, scattered stalks on the field, clothes scattered and ropes scattered on the floor. The semantics of *jwere* has much to do with the ground space on which the entities are distributed over. Thes are illustrated in the sentences below:

64a. abele lɛ **jwere** shikpɔŋ lɛ nɔ.
maize DEF be scattered ground DEF top
'the maize is scattered on the floor.'

b. atade-i lɛ **jwere** tsu lɛ mli.
Cloth-PL DEF be scattered house DEF inside
'the clothes are scattered in the room.'

c. kpaa lɛ **jwere** tsoku lɛ nɔ.
rope DEF be scattered stump DEF top (TRPS 23)
'the rope is scattered on the stump.'

From example (64a), maize is the figure and *shikpɔŋ* 'ground' is the ground. In example (64b) clothes are the figure and the room is the ground while in example (64c) the rope is the figure and the stump is the ground.

4.3.5 Attachment verbs

Attachment verbs are verbs that can insert, pierce, stuck and tie through an object to the ground. The ground can be soft or tough and the object can be a gun, arrow, pin, rope and others. In semantics, most attachment verbs are dynamic verbs which are used by the speaker to describe the attachment of the object and the ground (Levinson & Wilkins, 2006:518). Attachment verbs will be discussed under three subgroups; grip attachment verbs, piercing attachment verbs and rope attachment verbs. The table below shows attachment verbs in Ga.

Table 7: lists of attachment verbs in Ga

Verb	Meaning	Animacy of object	Nature of attachement
Kpɛtɛ	stick to	animate and inanimate	grip
Tsu	stab, prick	animate, inanimate	pierce
Gbu	prick, stab	animate, inanimate	pierce
Fi	be tied	animate, inanimate	rope

4.3.5 Grip attachment verbs

Verbs in this subclass describe the attachment of objects and the ground by way of adhesive or grip attachment. For example, a lizard on the wall. In most situations, the ground is a vertical one where the figure is attached to. For instance, the ground can be a wall and the figure can be a spider. It is worth noting that the ground that the figure is attached to is mostly elevated.

4.3.5.1 kpɛtɛ 'be stick to'

In this subclass of verbs, the object is stick to the ground. The objects can be animate or inanimate. Objects such as plasters, handles of objects and lizards and insects (spider) are stick to the ground. Ga speakers use the verb *kpɛtɛ* for entities of

which are stick or lean on the ground. In Ga, *kpɛtɛ* 'be stick to' and the ground is on the *he* 'body'. The positional verbs do not mark plurality. As shown in example (65c). Consider the examples below.

65a. anaanu lɛ **kpɛtɛ** gbogbo lɛ he.
spiedr DEF be stick to wall DEF body
'the spider is on the wall.' (TRPS 07)

b. plasta lɛ **kpɛtɛ** e-nane he
plaster DEF be stick to 3SG-leg body
'the plaster is on the leg.'(TRPS 35)

c. ni-ji lɛ kpɛtɛ shinaa lɛ he.
handle-PL DEF be stick to door DEF body
'the handles are on the door.' (TRPS 62)

d. tɛlifon lɛ **kpɛtɛ** gbogbo lɛ he.
telephone DEF be stick to wall DEF body.
'the telephone is on the wall.' (TRPS 25)

In example (65a) the figure is the spider and the ground is the wall while in (65b) the figure is the plaster and the ground is the leg. For example (65c) the figure is the handles and the door is the ground. Finally, in example (65d) the telephone is the figure and the wall is the ground.

4.3.5.2 Tsu and gbu piercing-attachment verbs

Piercing attachment verbs describe a figure which is inserted to pass through the ground. The insertion is often done by humans. The piercing figures are often long with a sharp end or point that can be inserted deep into the ground or pass through

the ground to exit it at the other side. The piercing objects include skewer, a sword and an arrow. The ground can be an apple, orange, paper and others. The piercing objects are usually inanimate entities piercing through animate and inanimate objects. *Tsu* and *gbu* 'to pierce' are the verbs used in Ga. Speakers of Ga use *tsu* and *gbu* to pierce through objects. The verbs are used to describe both loose and tight objects when pierced the ground, illustrated in the sentences below:

66a. abui lɛ e-**tsu** akutu lɛ mli kɛje kpo.
needle DEF PERF-to pierce.PST orange DEF inside through outside
'the needle has pierced through the orange.' (TRPS 70)

b. dade lɛ e-**tsu** apolo lɛ mli kɛje kpo.
metal DEF PERF-pierced.PST apple DEF inside through outside
'the needle has pierced through the apple.'(TRPS 30)

c. dade lɛ e-**gbu** wo-ji lɛ a-mli.
skewer DEF PERF-pierce.PST paper-PL DEF PREF-insinde
'the skewer has pierced through the papers.'(TRPS 22)

From the analysis, it is realized that in example (65a) needle is the figure and ground is the orange, in (65b) metal is the figure while apple is the ground. In (65c) the skewer is the figure and the papers are the ground.

4.3.5.2 Rope-attachment verb

Rope attachment verbs are used to describe an object attached to a ground by being tied to it by an agent. The rope attachment figures include flexible entities or rope-

like entities such as a rope, a string, elastic string, thread, twine, belt, tubes, wire, cloth or hairband and scarf tied around the Ground. These figures are mostly inanimate. The entities are completely tied to the ground (see Atintono, 2013: 263).

Kutscher and Genç (2007), report that in 'Laz', a language spoken in Georgian the object is completely tied to the ground. In Ga the verb for rope attachment is *fi* 'to be tied'. The verb is used to describe both loosely tied objects and firmly tied objects. Consider the examples below:

66a. oblayoo lɛ e-**fi** bɛɛti yɛ e-mliteŋ.
young woman DEF PERF-tie.PST belt be at 3SG-POSS.waist
'the young woman has tied the belt around the waist.' (TRPS 42)

b. e-**fi** yɛ e-yitso duku
3SG-tie.PST be at 3SG-head scarf
'he/she has tied the scarf around the head.' (TRPS 46)

c. fiifi lɛ **fi** tso lɛ he.
balloo DEF tie.PST tree DEF body
'the balloon is tied around the stick.'(TRPS 20)

d. kpaa lɛ **fi** tsoku lɛ he.
rope. DEF tie.PST stump DEF body
'the rope is tied around the stump.' (TRPS 55)

In example (66a) the figure is the belt and the ground is the waist, in (66b) the figure is the scarf and the ground is the head whilst in (66c) balloon is the figure and the stick is the ground. Lastly, in (66d) the rope is the figure and the ground is the stump.

4.4 Summary

The chapter is in two parts. The first part discussed positional and posture verbs in Ga. Positional verbs associated with humans are sit, stand and lie. When a person stands or sits it means the person is in an upright/vertical position and when the person lies down it means the person is in a horizontal position (Newman 2002). Newman identifies four cognitive domains in relation to positional verbs. The domains are; Spatio-temporal domain, the force dynamic domain, active zone and socio-cultural domain. The three human posture verbs were delved into the cognitive semantics point of view. The second part discussed the semantics of posture and positional verbs in Ga. The discussion was done under five categories. These are; Body position or posture verbs, general verbs, verbs of elevation, distribution verbs and attachment verbs

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.1 Introduction

The study is aimed at examining the notion of spatial orientation in Ga. It especially, discussed spatial concepts in the language from the cognitive linguistics perspective. In this chapter, I present a summary of the entire thesis in section 5.2 and section 5.3 highlighting the key findings pertaining to the study and concluded with recommendations for future studies in spatial concepts in the final section.

5.2 Summary of chapters

The study started with an overview of the entire thesis. A general introduction to the notion of spatial orientation in Ga was provided, as well as a brief background to the language under study. Also, the objective of the study namely: To establish distribution analysis of spatial concepts in Ga, to outline the uses of both non-metaphorical and metaphorical uses of body parts concepts in Ga, to outline the uses of positional verbs in Ga and to establish a semantic analysis of positional verbs in Ga were clearly outlined with specific questions to serve as a guild.

Besides, the significance of the study was also stated. It further discusses the method for the data collection (primary). The main material for eliciting of data was the Topological Relations Picture Series (TRPS) 1993 edition. The data was

recorded and transcribed. It was concluded with the organization of the thesis chapters.

Chapter two was subdivided two sections, the first section reviews related works in cognitive linguistics. The second section discusses the theoretical frameworks: cognitive linguistics approach and grammaticalization. Cognitive linguistics and grammaticalization complement each other, the reason for the selection of cognitive linguistics approach and grammaticalization. It also provides a better understanding of figurative language that is metaphor and metonymy in relation to body part terms. Grammaticalization, on the other hand, accounts for the development of spatiotemporal terms and other grammaticalized forms.

In chapter three, data elicited were analyzed. The study provided a list of body parts terms and their locative terms in Ga. Again, the grammaticalization of body part terms in the language was discussed. Some conditions for grammatization were discussed. The conditions for grammaticalization includes: phonetic bleaching and loss in semantic force, frequency in use, pragmatic inferences and conceptual strategies. Besides, figurative use of body part nouns was analyzed in Ga.

Chapter four is sub-divided into two parts. The first section discussed positional and locative verbs in Ga drawing inspiration from Newman (2002b, 2009), Ameka & Levison (2007) and Levison & Wilkins (2006). Three positional and posture verbs were realized in Ga namely; *ka* ‘be lying’ which means the entity is in a horizontal position, *damɔ* ‘be standing’ in vertical/ upright posture and lastly, *ta* ‘be

sitting' which is associated with a vertical or upright position with support from below. The verb ka 'be lying' is used to describe both animate and inanimate objects. The verb *damɔ* is only associated with animate entities such as humans and animals. *Ma* 'be standing' is for inanimate objects only and *Ta* 'be sitting' for animate.

The second part of the chapter was devoted to the semantic analysis of the positional, posture and locative verbs in Ga from the perspective of cognitive linguistics. The semantics of the verbs were discussed under five sub-groups namely; verbs of body position or posture, general locative verb, verbs of elevation, verbs of distribution and attachment verbs.

Chapter five is the concluding chapter of the study. Key findings and suggested recommendations of the study are outlined in this chapter.

5.3 Key findings

I present a summary of the work during the analysis of the write up. From the analysis it was observed that, spatial relations are from human body part terms and the parts of the body were grammaticalized as spatial concepts. The human body was divided into five (5) major regions by Svorou (194). The regions such as the front region, top region, back region, down region and side region, were discussed. These regions include their locative denotations.

FRONT REGION includes; eye, face forehead, mouth, head and breast or chest.

BACK REGION namely; back, buttocks, loins and anus.

SIDE REGION includes; flank, ribs, abdomen, heart and ear.

TOP REGION such as head and back. According to Svorou (1994) head and back developed into top region whilst buttock and hips developed into the bottom region. In Ga, *yitso* is the term for head but it is not used as a spatial gram. *Yìtéŋ* is used in spatial concept. *Yiteŋ* which refers to the part of the head normally covered by hair and including the hair itself and is morphologically made up of *yì* 'head' and *téŋ̀* 'middle'. *Yìtéŋ̀* specifies not just any top region but the topmost region of an entity, the top of the head is the uppermost region of the human body. It is also used to locate entities that have a higher vertical elevation than the average human being or entities whose height is greater than the eye-level. Therefore, it would be used to indicate the location of an entity on the top of entities such as a building, a tall cupboard, or a cliff and others. *Nɔ* 'top', which is not a body part terms are used to indicate the location on the upper surface of an object, regardless of height.

Furthermore, it also discusses the use of some body parts in figurative language. Body parts such as face, head, eye, mouth, heart, stomach and mind were discussed in figurative language. In general, figurative use of body parts expressions are used in our everyday expressions in Ga and other languages.

Again, positional and posture verbs were discussed in Ga. Positional verbs associated with humans are 'sit, stand and lie'. When a person stands or sits, it means the person is in an upright or vertical position and when the person lies down it means the person is in a horizontal position (Newman, 2002). The three human

posture verbs in Ga were delved into extensively from the cognitive semantics point of view. The posture and positional verbs in Ga are; *ka* 'to lie' associated with animate entities such as humans and animals. *Damɔ* 'to stand' also associated with humans and animals. *Ma* 'be standing' is associated with inanimate objects like trees, cars, buildings, televisions, radio and others. Lastly, *ta* 'to sit' is also, associated with humans. The semantics of the posture and positional verbs in Ga was discussed. The discussion was done under five categories. These are; Body position or posture verbs, general verbs, verbs of elevation, distribution verbs and attachment verbs. In the discussion of the body position, it was realized that, human beings can lie, sit, squat, kneel and lean but animals lie and squat.

5.4 Recommendations

This section outlines aspects of the study which have not been investigated yet. An investigation into the semantics and grammar of posture, positional and locative verbs in Ga. Again, researchers can delve into The Basic Locative Construction (BLC) in Ga which group languages into types and other Ghanaian languages as well. An investigation into the three types of frame of reference i.e intrinsic, relative and absolute in Ga. Finally, research into semantics and pragmatics of verb system in Ga and other Kwa languages will help to establish the similarity and differences among the languages.

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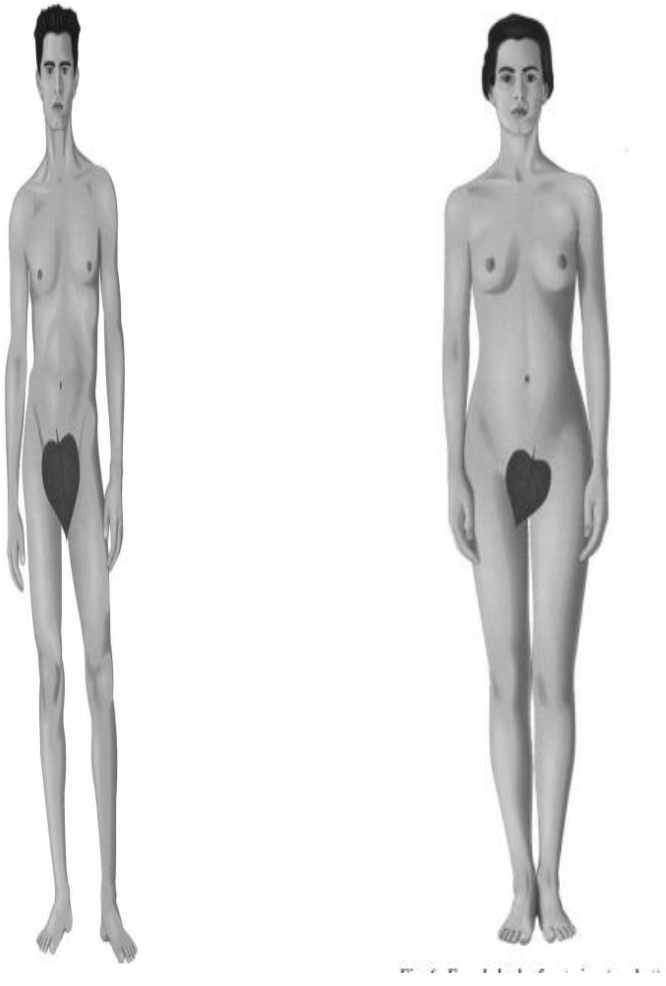
Appendices

Appendix 1 Picture elicitation guide (culturally friendly pictures)

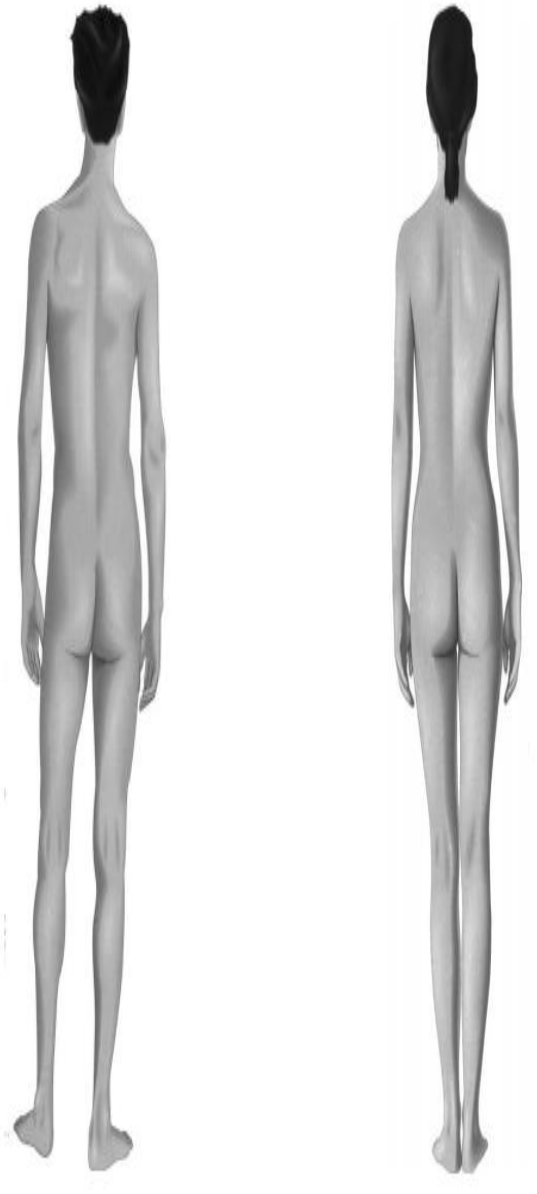
Front view of the human body



Culturally friendly picture of the male and female body.

Pictures taken from (Enfield 2006:153-154)

Appendix 2 Picture elicitation guide (back view of the human body)

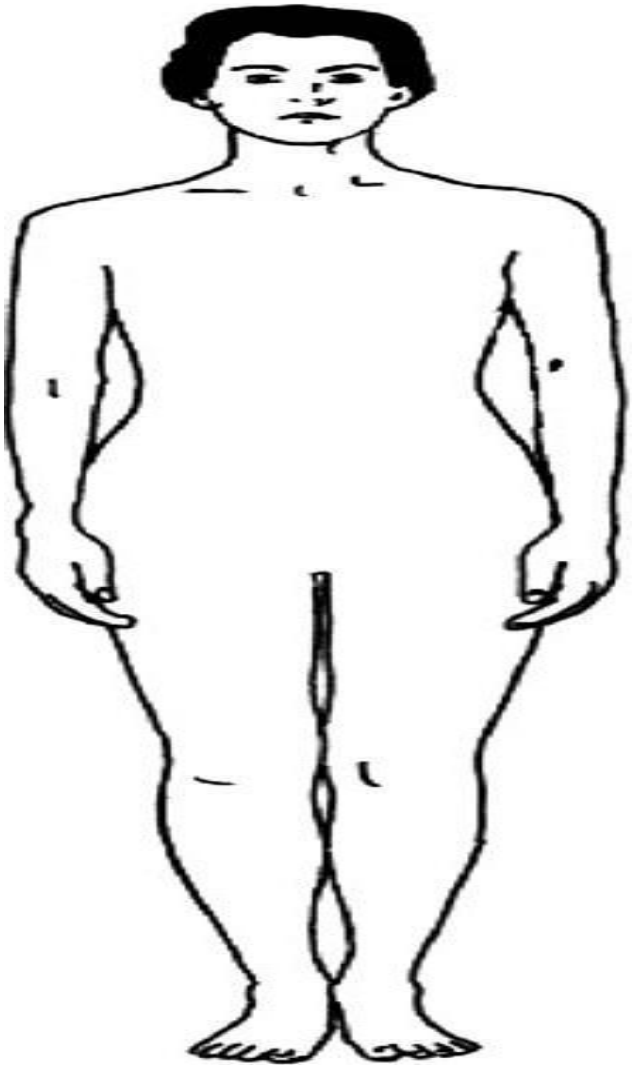


Back view of a male body Back view of a female body

Pictures taken from Enfield (2006: 150-152)

Appendix 3: **Picture elicitation guide for 'Body Colouring Task'**

An outline of the human body



Picture taken from Van Staden and Majid (2006:160)

Appendix 4a: Parts of the human body in Ga and their locative denotation.

Ga	**English**	**locative denotation**
Yitso	head	top, above, up,
hiɛ	face	front
naabu/naa	mouth	edge, entrance/opening
toi	ear	edge
tsitsi	chest	front
nine	hand	side
musu	belly	inside
sɛɛ	back	behind
dunaa	buttocks/ anus	tail end/rear
heloo/he	skin/ body	surface, around, surroundings
nane	leg	under
mawu	ribs	side

4b: A list of internal body part terms in Ga

Ga Term	**English Gloss**
Musu	'stomach'
La	'blood'
Kuɛ	'neck'
Tsui	'heart'
Wu	'bone'

Appendix 5: Samples of some figurative meanings in Ga.

***Yitso* 'head'**

Ga Expression	**Literal meaning**	**English Gloss**
Ebɛ **yitso.**	'he/she does not have a head'	He/she is not intelligent
E**yitso** mli kwɔ.	'His/her head is deep'	He/she is secretive
E**yitso** mli kpaa etse.	The thread in the head is torn'	He/she is insane.

Hiɛ 'face'

Ga Expression	**Literal meaning**	**English Gloss**
Ehiɛ bɛ fɛo	He/she's face is not beautiful	'He/she is sick/indispose'
Ekɛ ehiɛ tsumɔ shikpɔŋ	He/she used her face to clean the ground.	'he/she is disrespectful.'

Hiɛŋmɛi 'eye'

Ga Expression	**Literal meaning**	**English Gloss**
Tɛ yɛ ehiŋmɛi mli	'there is stone in the eye.'	He/she can identify beautiful or nice thing.'
Gbɛɛ ohiŋmɛi mli	'Open your eye wide'	Be vigilant
Ju hiŋmɛi kɛkwɛ nii	'Steal eye to look at something'	To glance at (usually a furtive one from the side of the eye.'

***Naabu/naa* 'mouth'**

Ga Expression	**Literal meaning**	**English Gloss**
Enaa kuɔ	'He/she mouth's breaks.'	he/ she gossips
Mɔ onaabu mli	'Hold your mouth.'	Shut up! / keep quiet.'

***Tsui* 'heart'**

Ga Expression	**Literal meaning**	**English Gloss**
Etsui nɔ ewo	'He/ she heart is up'	He/she is angry
Ebɛ tsui	'He/she does not have heart'	He/she is quick tempered
Na tsui	'get heart'	Be patient

Etsui etɔ	'He/she heart is satisfied.'	He/she is satisfied

***Musu* 'stomach'**

Ga Expression	**Literal meaning**	**English Gloss**
Emusu mli joɔ lɛ	'He/she stomach is bitter.'	He/she is selfish
Ehiɛ musu	'She is having stomach.'	She is pregnant

***Jwɛŋmɔ* 'mind'**

Ga Expression	**Literal meaning**	**English Gloss**
Ejwɛŋmɔ mli kwɔ	'His/her mind is deep'	He/she is intelligent
Ejwɛŋmɔ mli tseee lɛ	'He/she mind is torn apart.'	He/she is insane
Etsɛ ejwɛŋmɔ sɛɛ	'He called his mind back.'	He remembered him.

Appendix 6: Samples of semantics posture and positional verbs in Ga

List of body position or posture verbs

Verb	Meaning	Animacy of figure	Body position
Ma	be in a standing posture	Inanimate	Vertical/upright
Ta	be in a sitting posture	Animate	Vertical
Ka	be in a lying posture	Animate, inanimate	Horizontal
Sɔ	be in squatting posture	Animate	vertical, crouching

Kpasa	be leaning, in a standing posture	Animate	tilted, leaning
Kpɛtɛ	be in leaning, in a standing posture	Animate	tilted, leaning

List of verbs of elevation

Verb	Meaning	Animacy of figure
Nɔ and *Yiteŋ*	Be on top of, of stable support	Animates and inanimate
Tsotsoro, sɛŋ	Be dangling freely, be hanging	Animates and inanimate

List of distribution in Ga.

Verb	Meaning	Configuration of figure
Ha	Be covered, entirely	distribution
Jwere	be scattered, of multiple objects.	distribution

Lists of attachment verbs in Ga.

Verb	Meaning	Animacy of figure	Nature of attachment
Kpɛtɛ	Be stick	Animate and inanimate	Grip
Tsu	Prick, stab	Animate, inanimate	Pierce
Gbu	Prick, stab	Animate, inanimate	Pierce
Fi	Be tied	Animate, inanimate	Rope