DECLARATION

This project is my original work and has not been presented for a degree in any other University.

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This project has been written and submitted for examination with our approval as supervisors.

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# TABLE OF CONTENTS

Declaration......................................................................................................................... ii
Acknowledgements ............................................................................................................ iii
Table of contents ................................................................................................................ iv
List of Tables ........................................................................................................................ vi
Abstract................................................................................................................................ vii
List of abbreviations and definition of key terms ............................................................. viii

## CHAPTER ONE: INTRODUCTION

1.1 General background to the study ................................................................................. 1
1.2 General background to the language ............................................................................ 3
1.3 Statement of the problem .............................................................................................. 5
1.4 Objectives ..................................................................................................................... 5
1.5 Hypotheses ................................................................................................................... 6
1.6 Rationale of the study .................................................................................................. 6
1.7 Scope and limitation of the study ................................................................................. 6
1.8 Conceptual framework ................................................................................................ 7
  1.8.1 Properties of image schemas ................................................................................. 8
  1.8.2 Image schemas ....................................................................................................... 9
  1.8.2.1 Container ........................................................................................................... 9
  1.8.2.2 Force Image schema ......................................................................................... 12
  1.8.2.3 Path-schema ..................................................................................................... 15
1.9 Literature review ......................................................................................................... 17
  1.9.1 Kisukuma language ............................................................................................... 17
  1.9.2 Theoretical literature ............................................................................................ 19
1.10 Research methodology ............................................................................................... 21
  1.10.1 Data design .......................................................................................................... 22
  1.10.2 Data analysis ........................................................................................................ 22
1.11 Conclusion ................................................................................................................ 23

## CHAPTER TWO: KISUKUMA PREPOSITIONS

2.1 Introduction .................................................................................................................. 24
2.2 Spatial prepositions and embodiment behavior ......................................................... 24
2.3 Description of simple prepositions .............................................................................. 25
2.4 Description of Complex prepositions .......................................................................... 30
  2.4.1 Combinations of ha- with others prepositions ...................................................... 30
2.5 Lexicalized complex prepositions .............................................................................. 34
2.6 Overview of the Kisukuma prepositions and their image schemas ......................... 35
2.7 Prepositions and their image schemas ........................................................................ 37
  2.7.1 Simple image schemas ......................................................................................... 38
  2.7.2.1 Path image schemas ....................................................................................... 38
  2.7.1.2 Container image schemas .............................................................................. 42
  2.7.1.3 The force image schemas .............................................................................. 46
  2.7.1.4 Place image schemas ..................................................................................... 47
  2.7.1.5 Contact image schemas .................................................................................. 53
  2.7.1.6 Direction image schemas ................................................................................ 54
2.8 Conclusion .................................................................................................................. 55
LIST OF TABLES AND FIGURES

Figure 1: Container
Figure 2: Container image schema showing movement out of LM in one direction
Figure 3: Container image schema showing the spreading out of TR
Figure 4: Compulsion schema
Figure 5: Blockage schema
Figure 6: Counter force image schema
Figure 7: Diversion image schema
Figure 8: The removal of restraint image schema
Figure 9: The enablement image schema
Figure 10: The attraction image schema
Figure 11: Path image schema
Figure 12: Path image schema
Figure 13: “higulya” in the above sense
Figure 14: “higulya” in the ‘up’ sense
Figure 15: Ku-mpindo preposition ‘other side of’
Figure 16: Containment image schema for the preposition ng’w-, mu- and mugati
Figure 17: Multiplex Image Schema
Figure 18: Blockage image schema
Figure 19: Place image schemas
Figure 20: Part of the TR in the LM
Figure 21: Showing the ‘near’ for the preposition hihe
Figure 22: Showing the ‘in front of’ sense for the preposition habhuongi
Figure 23: Higulya ‘above’ sense
Figure 24: Showing the ‘behind’ sense of ha-numa
Figure 25: Showing the ‘below or under’ senses of hasilili
Figure 26: Showing the contact image schemas
Figure 27: Direction image schema
Figure 28: Path/contact image schema ‘over’ and ‘across’ sense
Figure 29: Path/contact image schemas
Figure 30: Partial inclusion
Figure 31: Path/contact image schema
Figure 32: Showing Ha-mhelo ‘in the corner’ sense
Figure 33: Showing the place/contact image schema for the preposition ha

Table 1: An overview of the Kisukuma prepositions
ABSTRACT

This study is based on a semantic analysis of Kisukuma spatial prepositions using image schema theory. Kimunasukuma dialect was used throughout in the analysis of this work. It was established that some of the prepositions were morphologically marked succeeding the tense marker in the verbal complex while some were lexically marked. The data analysis also displayed an astounding phenomenon in which Kisukuma prepositions incorporate the subject marker, the tense marker and the object to form a verbal complex. Kisukuma prepositions brought to mind simple and complex image schemas during data analysis. Simple image schemas such as container image schema, contact image schema, direction image schema, path image schema, and place image schema were analyzed. Complex image schemas included path and contact image schemas as well as place and contact image schemas. The study used concepts like trajector and landmark to illustrate the image schemas which were visualized from different spatial prepositions.

The study also found out that, the mismatch between the prepositions and the image schemas were principally accelerated by linguistic factor centred on the verb meaning which influences the evocation of the image schemas and the embodiment effects were also found to be instrumental in solving the mismatch realized between the number of prepositions and image schemas evoked. The study also confirmed that Kisukuma prepositions could be used as conceptual metaphors when expressing figurative meaning in the language. Kisukuma prepositions such as higulya, mu- ha-, hasilili, habhutongi, and hanuma were used in conceptual metaphors. The analysis showed that, not all prepositions can be used as conceptual metaphors. Furthermore, the study confirmed that, metaphors were built by two inputs; the preposition and the noun phrase. It was also established that a single preposition could stand as a conceptual metaphor. It was found out that, the source domain (LM) features had to be mapped onto the target domain (TR) in order to obtain the meaning of the metaphor.
LIST OF ABBREVIATIONS AND DEFINITION OF KEY TERMS

3PL  Third person plural
3PS  Third person singular
CM   Class marker
FUT  Future tense
LM   Landmark
PREP Preposition
PRES Present tense
PST  Past tense
TR   Trajector

Conceptualization/Visualization: It is the act of inventing or contriving an idea or explanation and forming it mentally (wordnetweb.princeton.edu/perl/webwn).

Container: It refers to all sorts of things which can be construed as (literal or metaphorical) containers. This could be a box, a room, a geometric shape, a cell, a body, a geometric region etc. (inst.eecs.berkeley.edu/~cs182/sp08/sections/week06.pdf)

Dialect: It is a linguistic variety in a continuum of several varieties belonging to a larger unit, the language. There is a close mutual inter-comprehensibility (Maselle 2001: xxiii).

Image schema: It is a recurring structure within our cognitive processes which establishes patterns of understanding and reasoning (Johnson 1987).

Landmark: It is a term in Cognitive grammar that is used to explain how preposition are conceptualized. A landmark is a location or an entity which acts as a figure of reference.

Language: It is a speech variety linguistically distinct from other varieties whereby inter-comprehension is severely limited, requiring an interpreter for meaningful communication (Maselle 2001: xxiii).

Trajector: is a term in Cognitive Grammar that is used to explain how prepositions are conceptualized. It is an entity that undergoes motion from one position to another within or outside the landmark
CHAPTER ONE: INTRODUCTION

This study focuses on the semantic analysis of Kisukuma spatial prepositions using the Image schema theory, a theory which is part of Cognitive Semantics. This chapter consists of the general background to the study, the historical background of the Kisukuma language, the statement of the problem, the objectives, the hypotheses, the rationale of the study, the literature review, the scope and limitation as well as the research methodology.

1.1 GENERAL BACKGROUND TO THE STUDY

The study about spatial prepositions has been a fascinating area in cognitive semantics due to the complexity associated with the conceptual representations in our minds. This complexity has attracted many scholars to study spatial prepositions in order to figure out how we are able to conceptualize and divide the space by using spatial prepositions. Some focused their analysis on how these spatial prepositions can be used in a non-spatial way as well as figuratively. The following are some of the studies which have been done on spatial prepositions in different languages.

Cox et al. (1981) studied young children’s understanding of spatial prepositions across cultures. The Bengali-English and Hindi speaking children aged 5-9 were asked to place an object “in front of” or ‘behind” a fronted or non-fronted object. All the children responded on the basis of inherent object cue when the fronted object was used. When the non –fronted was used children treated it as if it was a fronted-object facing them.

Vandelouse (1991) carried out a study on French spatial prepositions. His purpose was to provide a valuable insight into how the human mind organizes spatial
relationships. His study looked at different aspects such as a functional description of spatial prepositions, the contextual orientation of objects and the asymmetry of spatial relations to mention a few.

Meex (2001) studied the spatial and non-spatial senses of the German preposition ‘über’. It was a cognitive semantic analysis of the German preposition ‘über’ and it focused on its non-spatial senses. The main purpose of her study was to show how the multiple readings of ‘über’ constitute a continuum, ranging from the spatial relations via the temporal relations to a variety of abstract relations. In other sections of her study, she also presented a short overview of different spatial meanings. The study also demonstrated how each non-spatial usage can be related to corresponding spatial usage which motivates it.

Evans & Tyler (2003) carried out a theoretical analysis of the semantics of English prepositions available. All prepositions coded spatial relations between two physical entities. They also demonstrated how the prepositions under question could be used in a non-spatial way.

Šaric (2008) studied spatial concepts in Slavic. She explores the use of prepositions and their relevance for the other facets of prepositional semantics and the extension from spatial meanings to non-spatial meanings. Her study also explored the way prepositions in Slavic can be used figuratively through conceptual metaphors.

Mietzner (2010) study was also in the field of cognitive semantics. It looked at the spatial orientation in Nilotic languages and the forces of innovation. Her main motive was to show the multiple aspects and the variety of forces that influence language in the field of spatial orientation, directionality and perspective, with special a focus on Nilotic languages.
Achola (2011) also did an elaborate analysis of Dholuo spatial prepositions, image schemas were used to express how Dholuo prepositions express different spatial orientations. Her study also looked at the metaphorical extension as well the non-spatial use of Dholuo spatial prepositions.

From the studies above, it is obvious that there is not any study which has addressed why there is a mismatch between prepositions and the senses they convey. This study therefore, attempts an analysis of spatial prepositions in Kisukuma, a Bantu language spoken in Tanzania. The study utilizes some of the information from the mentioned literature.

1.2 GENERAL BACKGROUND TO THE LANGUAGE

Kisukuma is a Bantu language spoken in the northern part of Tanzania, covering a large area, known as Busukuma. It extends from the south of Lake Victoria to the Wembere plains in central Tanzania and from the western side of the Speke Gulf to the Serengeti plains in the east (Batibo 2007:2).

Kisukuma as a Western Tanzania Bantu language belongs to the Niger Congo language family. It is the largest language in terms of the number of speakers of the 150 Tanzanian ethnic groups (Languages of Tanzania Project 2009:2). Batibo (2007:02) asserts that Kisukuma is spoken by more than 5 million people although some sources e.g. Matondo (2010) show that the speakers are more than. According to the current statistics, Kisukuma is spoken by over seven million people who form 12.6% of the population in the south and south east of Lake Nyanza (Victoria) in the United Republic of Tanzania. Kisukuma is primarily spoken in regions such as Mwanza, Mara, Simiyu, Shinyanga, Kagera, Tabora, and in some parts of Mbeya and Rukwa.
The other name for Kisukuma is ‘Kigwe’, presumably, the original core of the Kisukuma language around which speakers from other speech communities amalgamated and later become known as Kisukuma speakers. Kisukuma is a recent name originally used by outsiders. It is paradoxical though that the original name, Kigwe, is not used now except as a cross reference in archives, and that many speakers do not know of it. Its reference is also restricted to one location near Lake Victoria rather than the whole Kisukuma speaking area (Maselle 2001:3).

According to Guthrie’s (1967) classification of the Bantu languages, Sukuma (F. 21) belongs to the group 20 of zone F of the Bantu languages, the group that also includes the Nyamwezi (F.22), Sumbwa (F 23), Kimbu (F. 24) and the Bungu language (F. 25). This classification is based more on geography than linguistic relatedness. Linguistically relating to its group members and neighbours, Sukuma language is assumed to have 84% lexical similarity with Nyamwezi, 59% with Sumbwa, and Nyaturu, 57% with Kimbu, 55% with Nilamba and 49% with Langi (Matondo 2010:1)

Batibo (1985) as quoted in Matondo (2010:1) says; some scholars treat Kisukuma as a dialect of Kinyamwezi, but the two are regarded as separate languages. Kisukuma has four major dialects. These dialects are named according to their geographical orientations. They include the following dialects: Kimunasukuma (Northern dialect), Kimunangweeli (Western dialect), Kimunakiiya (Eastern dialect) and Kimunadakama (Southern dialect). The four Kisukuma dialects mentioned above are mutually intelligible. Each of these major dialects also has minor sub dialects. Kimunasukuma dialect, of which I am a native speaker, is primarily spoken in the Mwanza region and it is considered to be a standard dialect. It is this dialect which will be taken into consideration when pursuing the analysis of Kisukuma spatial prepositions.
1.3 STATEMENT OF THE PROBLEM

Many studies have been done in Kisukuma language in the fields of phonology, morphology, grammar and other areas pertaining to the general historical background of the language. Scholars like Batibo (1985), for example did a phonological and morphological analysis of the Kisukuma language while Matondo (2006) carried out a study on tone mobility in Kisukuma. Therefore to the best of my knowledge, no study has looked at the semantic analysis of Kisukuma spatial prepositions. Looking at the Kisukuma spatial prepositions data, it is apparent that, there is a mismatch between the number of prepositions and the different spatial orientations they need to express. This is due to the fact that, the number of overt spatial prepositions in Kisukuma is limited in relation to the spatial senses they convey when expressing spatial orientations for different entities. This study therefore, seeks to investigate how it is possible that with a limited number of prepositions a wide range of spatial orientations can be expressed. The study also seeks to investigate whether expressing some spatial prepositions in the sense of conceptual metaphors is one way of the solving the problem of the apparent mismatch. The image schema theory is used for data analysis to solve the problem.

1.4 OBJECTIVES

In view of the statement of the problem above, the objectives of the study are;

1. To identify Kisukuma spatial prepositions expressing and their meanings.
2. To investigate how the few Kisukuma spatial prepositions express a wide range of spatial orientations by using different image schemas.
3. To find out whether spatial prepositions are used figuratively through conceptual metaphors as a strategy to solve the mismatches.
1.5 HYPOTHESES

1. Kisukuma has a limited number of spatial prepositions expressing a wide range of meanings and meanings.

2. The limited number of spatial prepositions can express a wide range of spatial meanings through the activation of image schemas.

3. Kisukuma spatial prepositions are used figuratively through conceptual metaphors as one way of solving the apparent mismatch problem.

1.6 RATIONALE OF THE STUDY

There are various studies that have been done by different scholars about the Kisukuma language but there has never been any study carried out in the area of semantic analysis of Kisukuma prepositions using the image schema theory. I therefore believe that this study, which is in the area of Cognitive Semantics, gives an insight into the semantic understanding of the uses of Kisukuma spatial prepositions.

The study also gives some insights about the relationship between language, mental representation and human experience, i.e. the way we conceptualize different concepts in our conceptual systems resulted from our spatio-physical experience in the real world.

The study also acts as an inspiration for other linguists to study different aspects of Kisukuma spatial prepositions in the Cognitive Semantics area.

1.7 SCOPE AND LIMITATION OF THE STUDY

This study limited itself to the study of spatial prepositions and not any other part of speech. The other parts of speech were only used where necessary to help in explaining the meaning of the prepositions used in Kisukuma.
The study exclusively dealt with the semantic analysis of Kisukuma spatial prepositions using the image schema theory. The study was delimitated to the analysis on how Kisukuma spatial prepositions can express the space in reference to the embodied experience which arise from our daily experience or encounters. Both complex and simple prepositions were used to analyze how Kisukuma spatial prepositions can refer to different senses when describing or locating different entities in relation to their spatial orientations.

1.8 CONCEPTUAL FRAMEWORK

The theory of image schema first developed within Cognitive Semantics and came to be highly influential in neighboring areas of studies such as cognitive and developmental psychology. The notion of image schema is closely associated with the development of the embodied Cognition Thesis. It was proposed by early researchers in Cognitive Semantics notably Lakoff & Johnson (1980) who raised a central question which stated as: “Where does the complexity associated with our conceptual representation come from?” Evans & Green (2006:176).

The answer they offered was that this complex system is, in large measure, due to tight correlation between the kinds of concepts human beings are capable of forming and the nature of the physical bodies we have Evans & Green (2006:177-178). From this perspective, our embodiment is directly responsible for structuring concepts. Johnson (1987) as quoted in Evans & Green (2006:178) proposed that embodied experience gives rise to image schemas within the conceptual system. Image schemas derive from sensory and perceptual experience as we interact with and move about in the world. For example, given that humans walk upright, and because we have a head at the top of our bodies and feet at the bottom, and given the presence of gravity
which attracts unsupported objects, the vertical axis of the human is functionally asymmetrical. According to Johnson (1987), this aspect of our experience gives rise to an image schema: the up-down schema.

Mandler (2004) as quoted in Evans & Green (2006:178), argues that image schemas are emergent. This means that because this experience is a function of our bodies and of our interaction in the world, this type of our experience arises in conjunction with our physical and psychological development during early childhood. In other words, image schemas are not claimed to be innate knowledge structures.

1.8.1 PROPERTIES OF IMAGE SCHEMAS

According to Johnson (1987), image schemas like CONTAINER schema are directly grounded in embodied experience; they relate to and derive from sensory experience. This notion is supported by Mandler (2004) as quoted in Evans & Green (2006:178). He argues that image schemas arise from sensory experiences in these early stages of human development that precede the formation of concepts. However, once the recurrent patterns of sensory information have been experienced and stored as an image schema, they give rise to a conceptual representation. This means that image schemas are concepts, but of a special kind. They are the foundations of the conceptual system, because they are the first concepts to emerge in the human mind, and precisely because they relate to sensory-perceptual experience, they are particularly schematic.

Image schemas are so fundamental to our way of thinking that we are not consciously aware of them: we take our awareness of what it means to be a physical being in a physical world very much for granted, because we acquire this knowledge so early in life, certainly before the emergence of language.
Image schemas are not the same as mental images. Mental images are detailed and result from an effortful and partly conscious cognitive process that involves recalling visual memory. Image schemas are schematic and therefore more abstract in nature, emerging from ongoing embodied experience. This means that you can’t close your eyes and “think up” an image schema in the same way you can ‘think up’ the sight of someone’s face or the feeling of a particular object in your hand. Because image schemas arise from embodied experience, which is ongoing, they can undergo transformations from one image schema into another. In order to get sense of what this means, consider the following example from Lakoff (1987:428).

Imagine a herd of cows up close-close enough to pick out the individual cows. Now imagine yourself moving back until you can no longer pick out individual cows. What you perceive is a mass. There is a point at which you cease making out individuals and start perceiving them a mass (ibid: 186).

Based on this idea it is apparent that there is a stage where our image schemas are transformed from one conceptualization to another. The distance between a person and the object can lead to the transformation of image schemas.

Talmy (2000) as quoted in Evans & Green (2006:187) calls the grammatical transformation from count to mass as debounding, and the transformation from mass to count, as excerpting. All these are motivated by image schematic transformations.

### 1.8.2 Image schemas

Image schemas can derive different kind of conceptual representations. There are several image schemas that are considered in this study. They include container image schemas, path image schemas, and force image schemas.

#### 1.8.2.1 Container

Here the concepts lexicalized by the prepositions such as *in, into, out, out of, out from* etc. are all thought to relate to the CONTAINER schema: an abstract schematic
concept that underlies all these much more specific lexical prepositional concepts mentioned above (Evans & Green.2006:180), which can be represented in the following diagram

![Figure 1: Container](image)

This image schema consists of three structural elements namely interior, boundary and exterior which are the minimum requirements for a container. The landmark (LM) represented by a rectangle, consists of two structural elements, the interior, the area within the boundary and the boundary itself. The exterior is the area outside the landmark contained within the rectangle.

Figure 1 above represents the basic CONTAINER schema. There are a number of other image schemas that are related to this schema which give rise to distinct concepts related to containment. In the following image schemas we are introduced to concepts like (trajector) (TR), the entity that undergoes motion, and which moves from a position inside the LM to occupy a location outside the LM. The terms TR and LM are closely related to the notions of figure of reference object, or ground. This is because the LM acts as a reference point when expressing a spatial orientation of an object. TR and LM derive from the work of Langacker (1987) and have been widely employed in cognitive semantics by scholars including Lakoff and Johnson (1987) among others (Evans & Green 2006:181). The following examples illustrate the above idea of container schemas.
4. John went out of the room.

<table>
<thead>
<tr>
<th>LM</th>
<th>TR</th>
</tr>
</thead>
</table>

**Figure 2: Container image schema showing movement out of LM in one direction (adapted from Evans & Green (2006:182))**

Here John, is a trajector (TR), he undergoes motion, moves from a position inside the LM to occupy a location outside the LM.

2. The honey spread out.

<table>
<thead>
<tr>
<th>LM</th>
<th>TR</th>
</tr>
</thead>
</table>

**Figure 3: Container image schema showing the spreading out of TR (Adapted from (Evans & Green 2006:182))**

In other words, liquid substances like ‘honey’ because of their physical properties can simultaneously be the LM and the TR. The LM is the original area occupied by the honey while the honey is also the TR because it spreads beyond the boundary of its original location. The image schemas shown in Figures 2 and 3 represent two concepts that are more specific and detailed than the image diagrammed in Figure 1, because they involve motion as well as containment.

Because image schemas derive from interaction with the world, they are inherently meaningful. Embodied experience is inherently meaningful in the sense that embodied experience has predictable consequences. For example, imagine a cup of coffee in your hand. If you move the cup slowly up and down, or from side to side,
you expect the coffee to move with it. This is the consequence of containment, given that it is defined by boundaries, it is thus constrains the location of any entity within these boundaries. This seems rather obvious, but this kind of knowledge, which we take for granted, is acquired as a consequence of our interaction with our physical environment (Evans & Green 2006:182)

1.8.2.2 Force Image schema

Image schemas derive from embodied experience; they derive from the way in which we interact with the world as stated before. To illustrate this idea, let us consider the image schema for FORCE. This schema arises from our experience of acting upon other entities, or being acted upon by other entities, resulting in the transfer of motion energy. Johnson (1987) as acknowledged in (Evans & Green 2006:182) illustrates the interactional derivation of this image schema (in other words, how it arises from experiences) as follows:

[F]orce is always experienced through interaction. We become aware of force as it affects us or some object in our perceptual field…when you eat too much the ingested food presses outwards on your tightly stretched stomach. There is no schema for force that does not involve interaction or potential interaction (Johnson 1987:43).

Image schemas can occur in clusters or networks of related image schemas. To explain this let us consider the FORCE schema, which actually consists of a series of related schemas. Force schemas share a number of properties (Johnson 1987). Different kinds of force schema as proposed by Johnson, which include the following:

COMPULSION schema emerges from the experience of being moved by an external force, for example being pushed along helplessly in a large dense crowd, being blown along a very strong wind and so on. In Figure 4 the arrow shows the direction where the object is moved by the external to an obstruction. The broken arrow shows the
direction of the force. COMPULSION schema can be represented as follows schematically.

![Figure 4: Compulsion schema](image)

Another one is the BLOCKAGE schema this image schema derives from encounters in which obstacles resist force, for example when a car crashes into an obstacle like a tree. The two dotted lines hitting back to the side from which the force was exerted communicate that the force exerted was resisted by an obstacle when it hit against it. The dotted line beyond the obstacle, i.e. on its right side, shows the direction the force had to take if it was not blocked.

![Figure 5: Blockage schema](image)

**COUNTERFORCE** schema derives from the experience of two entities meeting with equal force, like when one bump into another in the street. The arrows in the figure 6 below show that the two entities in motion meet together. The two entities may have equal or relatively equal force. This force schema can be represented as follows:

![Figure 6: Counter force image schema](image)
**DIVERSION** schema occurs when one entity in motion meets another entity and this result in diversion. For example a swimmer swimming against a strong current so that she is gradually pushed along the shoreline.

![Figure 7: Diversion image schema](image)

The two dotted lines portray that the force F1 and F2 diverged when they met. This could be probably due to the two forces having equal weight.

**REMOVAL OF RESTRAINT** schema captures a situation in which an obstruction to force is removed, allowing the energy to be released. This describes a situation like leaning on a door that suddenly opens. When it opens suddenly the energy will be released abruptly. This can be represented schematically as follows:

![Figure 8: The removal of restraint image schema](image)

**ENABLEMENT** schema derives from our sense of potential energy, or lack of it, in relation to the performance of a specific task. While most people who are fit and well feel able to pick up a bag of grocery shopping, for example, few people feel able to lift up a car. This could be diagrammed as follows:
The broken lines with the arrow show that there is a possibility for a person to lift an object which they think can be lifted.

ATTRACTION schema derives from experiences like all the other schemas. It is conceptualized when one entity is drawn towards another entity due to the force exerted upon it. Examples include magnets, vacuum cleaners and gravity (Evans & Green 2006:187-189). Attraction schema can be represented schematically as follows:

![Figure 10: The attraction image schema adapted from Evans & Green (2006:189)](image)

**1.8.2.3 Path-schema**

Image schemas are often, perhaps typically comprised of more complex aspects that cannot be analyzed separately. For example, as already stated in section 1.8.2.1 the CONTAINER schema is a concept that consists of interior, boundary and exterior elements. But image schemas can also occur in a more complex form. One example for a complex image schema is the SOURCE-PATH-GOAL or simply PATH schema. A path is a means of moving from one location to another. It consists of a starting point or SOURCE, a destination or a GOAL and a series of contiguous locations in between which relate to the source and goal.

![Figure 11: Path image schema](image)
The point A in the figure 4 above stands for SOURCE, the arrow stands for PATH and point B stands for GOAL. The following is the description of the SOURCE-PATH-GOAL schema.

SOURCE explains the area where an entity initiates the action. For more explanation let us consider the following example; John left [England]. Based on the example England is a SOURCE. GOAL explains the place of destination. For example, John travelled [to France] H France here is the GOAL because is the place where John is destined.

SOURCE-GOAL this explains an area where the action started and where the action ended. For example, John travelled [from England] [to France] tells us that England is the SOURCE where John started his journey while France is the GOAL i.e. the destiny for John.

PATH-GOAL this explains a route which was taken by an entity to the place of destination. For example; John travelled [through the Chunnel] [to France]. Here through ‘the Chunnel’ is the PATH, or route and ‘to France’ is the GOAL.

SOURCE-PATH-GOAL this schema represents a prototypical motion event, where some mover starts at a source and moves via a path to arrive at a goal. For example, John travelled [from England] [through the Chunnel] [to France]. Here ‘from England’ is the SOURCE of the action travelling, “through the Chunnel” is the PATH through which John passed, and “to France” is the GOAL i.e. the destination for John.

This theory plays a momentous role in this study because it gives an insight about the relationship between language, mental representation and human experience. The study exploits the different image schemas such as container image schema, force image schema and path image schema to show how the few Kisukuma prepositions
express a wide range of spatial orientations. Furthermore concepts like trajector and landmark are used to elaborate the meanings of different image schemas.

1.9 LITERATURE REVIEW
This chapter deals with the review of different literature pertaining to the Kisukuma language. The chapter also shows how these literature benefits this study. The chapter also looks at the theoretical literature that helps in expressing different concepts in this study.

1.9.1 Kisukuma Language
Batibo (1985) focused on phonology and morphology of Kisukuma language. His study analyzed the syntactic structure of Kisukuma as well as the typological classification of the language. His study is important in our study in that it tells us how Kisukuma can be classified. The study gives us the syntactic knowledge on how to construct Kisukuma sentences.

Richardson (1966) focused his study on the role of tone in the structure of Kisukuma. He explicated how the high and low tones in Kisukuma are marked. The study also gives us the history of the Kisukuma language. His work gives us the phonology of Kisukuma as well some historical background of Kisukuma. This study utilized all these.

Bassire & Bassire (1997) wrote about the general history of the Sukuma people. He gave a comprehensive history about the cultural practices, social and economic activities of the Sukuma people. Their study gives rich information in our study about the history of the Sukuma people and their general practices.

Maselle (2001) did a thorough study of the linguistic history of Sisumbwa, Kisukuma and Kinyamwezi in Bantu zone F. In his work he gave out a detailed description of a
linguistic history of Kisukuma, the sound system of the language, and he also looked at the criteria used for Bantu languages classification. The study contributed into our study different insights about the classification of Kisukuma as well as the history of Kisukuma.

Wijsen & Raph (2002) gave a thorough analysis about the origin of the Sukuma people, their language and their cultural practices. Their analysis helps us in our study to know the social cultural practices as well as the origin of the Sukuma people.

Heine & Derick (2004) classify Kisukuma as Bantu language which falls under the Niger-Congo language family. They also classified different phonological systems pertaining to the sounds found in different Bantu languages including Kisukuma. Their study gives clear information into our study about the classification of Kisukuma as well its phonological system.

Matondo (2006) carried out the analysis about the interaction of verb stem reduplication and tone in Kisukuma. His study gives us the understanding of Kisukuma phonological systems.

Batibo (2007) wrote on the role of missionaries in the development of African languages. In his work he gave rich information on how the missionaries developed Kisukuma orthographic system modeling it on Kiswahili orthography. He also touched on the socio-cultural and economic practices of the Sukuma people. The work generally talks about how the missionaries developed Kisukuma in general. The study by Batibo is helpful in our study in that, it tells how Kisukuma was developed by the missionaries. Apart from that the study gives us the information about socio-cultural and economic practices which are performed by the Sukuma people.

Gunderson (2010) in his book Sukuma labor songs from western Tanzania attempted a classification of the Sukuma people based on their geographical orientations. He
also looked at the phonological and lexical differences found in the Sukuma groups he had classified. The study by Gunderson gives an insight in our study about the classification of Kisukuma based on their geographical orientations.

1.9.2 Theoretical literature

Lakoff & Johnson (1980) say,

> spatial orientations like up-down, on-off, center periphery, and near-far, provide an extraordinarily rich basis for understanding concepts in orientational terms...Our orientation of physical objects and substances provides a further understanding—that goes beyond mere orientation.

Lakoff and Johnson provide a rich knowledge of the way different spatial scenes can be conceptualized. They have further given the basis for understanding different spatial orientations. This study utilizes all these information when analyzing the Kisukuma spatial prepositions in the coming chapters.

Evans & Tyler (2003) provide the most comprehensive theoretical analysis of the semantics of English prepositions available. All English prepositions originally coded spatial relations between two physical entities. While retaining their original meaning, prepositions have also developed a rich set of non-spatial meanings. In their study, Evans & Tyler argue that all these meanings are systematically grounded in the nature of human spatio-physical experience. The study by Evans & Tyler is of paramount importance in this study, because it gives detailed accounts on how the prepositions are used to conceptualize the space. This study also adapted some of the image schemas when analyzing data in the coming chapters.

Taylor (2003:112) was concerned with the arbitrariness of preposition usage. He focused mainly on the spatial meanings of prepositions. He explained how prepositions in a spatial sense, serve to spatially locate one entity with reference to another and how even on their spatial senses, prepositions may also be associated with
various kinds of ‘functional’ relations, such as support containment (in) and accompaniment (with). This work gives a clear insight to this study on how prepositions serve to locate one entity with reference to another. The notions of containment and accompaniment are effectively utilized in this study when giving some explications how the few Kisukuma spatial prepositions express a wide range of spatial orientations.

Lakoff & Johnson as quoted in Evans & Green (2006:177-78) raised a question on where the complexity associated with our conceptual representation arise from. The response to their question was that, this complexity is due to a tight correlation between the kinds of concepts human beings are capable of forming and the nature of the physical bodies they have. From their response, the idea of embodied cognition, i.e. the image schema, became central. The above literature is useful in this study in that it tells us about the source of the complexity and how it is associated with our conceptual system. It also mentions the idea of image schemas which is central in our discussion in the coming chapters.

Evans & Green (2006:180) acknowledges that concepts lexicalized by the prepositions relate to the CONTAINER schema. The Container schema is an abstract image-schematic concept that underlies more specific lexical concepts. A lexical concept is a concept specifically encoded and externalized by a specific lexical form. They generally wrote about the image schemas. The work by Evans & Green is useful in this study to show how the concepts lexicalized by the Kisukuma spatial prepositions can underlie more specific lexical forms. Some image schemas are adapted from the literature above for more explication when it comes to the analysis of how the few Kisukuma spatial prepositions can be used to show a wide range of spatial orientations.
Brala (2007:301) asserts that, spatial cognition is seen as being at the heart of our thinking (spatial thinking invades our conceptions of many other domains as diverse as time, social structure or mathematics). He also studied the spatial categories ‘on’—‘in’ and their prepositional coding across languages. His general analysis of these two prepositions enriches this study which also uses spatial prepositions to show how the space can be divided.

Šaric (2008) studies the spatial concepts in Slavic. Her study looks at different aspects of spatial prepositions and how they can structure different conceptual structures when we are locating different entities in terms of their orientations. She further looks at the other facets of prepositional semantics: the extension from spatial meanings. The ideas discussed in her work, play a great role in the analysis of data in this study. Furthermore, her study gives a general insight into the general understanding of spatial prepositions and the way they are used in different linguistic contexts to refer to different senses in a language.

Achola (2011) gives a detailed insight about Dholuo spatial prepositions and how they can be used to locate objects in relation to their spatial orientations. Her study discusses different image schemas which can be conceptualized from the use of different spatial prepositions when locating different entities in relation to others. This study utilizes some of the information from her study. Some of the image schemas are adapted where necessary.

1.10 RESEARCH METHODOLOGY

This part discusses the methodologies that are applied in this study. It is structured into data design section and data analysis sections.
1.10.1 Data design

I employed the method of self-data generation. This methodology is backed by the fact that the researcher is a native speaker of the language under study. As Achola (2011) quotes Horrocks (1987:11) who says that, it is possible for a linguist who is a native speaker of the language under study to ask all the important questions regarding linguistic information and answer them by himself/herself.

The collected data were checked by other competent native speakers of the language aged 18 and above for more clarification and verification. At least 10 competent speakers were involved in this process. The researcher believed this age range would make them competent enough to verify the data. This helped the researcher to avoid some mistakes in data collection related to the language. The choice of these competent native speakers was purposeful in that the researcher believed that these speakers had enough knowledge of the language under study. Furthermore, these competent speakers assisted me to get different some Kisukuma spatial prepositions.

1.10.2 Data analysis

The collected prepositions were first categorized into simple and complex prepositions.

The image schema diagrams were used to analyze the data further by classifying them according to their appropriate image schemas such as force schema, path schema and container image schema to mention a few.

Concepts like trajector and landmark are used together with diagrams to give clear illustrations about the meaning of the prepositions portrayed using different image schemas.

Apart from that, diagrams are used to show how some spatial prepositions form a sort of semantic network when locating the space.
1.11. Conclusion

In this chapter we have looked at the background of the study and the language, the statement of the problem, the research objectives and their hypothesis, the rationale of the study, the scope and limitation of the study, the conceptual framework, and literature review pertaining to Kisukuma. The chapter also expresses the research methodologies which the researcher uses in this study. In the subsequent chapter we look into the analysis of Kisukuma prepositions.
CHAPTER TWO: KISUKUMA PREPOSITIONS

2.1 INTRODUCTION

This chapter deals with the description of Kisukuma spatial prepositions as well as the behavior they display when used in a sentence. After the descriptions of the prepositions, the study in the coming sections analyzes the different spatial prepositions together with their image schemas. Furthermore, the study tries to answer why there are mismatches between the prepositions and the wide range of spatial orientations they convey. There is an instance where one preposition conceptualizes more than one image schema while at the same time different spatial prepositions can be used to conceptualize one image schema.

2.2. Spatial prepositions and embodiment behavior

Kisukuma like any other human language has both complex and simple prepositions which play different roles in sentence structures. Generally prepositions are words belonging to the closed system parts of speech which are used to express relationships between two entities one being the prepositional complement (Quirk & Greenbaum 2000:80).

Being able to find objects in the world is one of the most basic survival skills required by any living organism. Similarly being able to describe where objects are, and being able to find objects on simple locative descriptions can be regarded as basic skills for any competent speaker of a language. Spatial descriptions pervade our lives and occur in a wide range of contexts, from locating objects, to reasoning about the world, to understanding the concept of place (Coventry & Carrod 2004:33). From the above statement, we can conclude that spatial skills required in our daily life are made possible by the use of spatial prepositions, which express different spatial-
configurations for different entities in the real world. This is accelerated by the interaction in the real world which creates the so called embodiment which is equivalent to the conceptual ideas we have. Therefore there is a relationship between the embodiment behaviour and the conceptual idea of embodiment.

Spatial prepositions have a momentous role in expressing the relationship between different entities and always must identify at least two objects which will act as frame of references. These references have been given different names such as figure and ground (Langacker, 1986), primary object and secondary object (Talmy 1983), trajector and landmark (Lakoff 1986) and theme and reference objects (Jackendoff 1983). Those different names are quoted from (Conventry & Carrod 2004:41). In our case landmark and trajector are adopted in the analysis of different image schemas in this study.

Spatial prepositions occur within locative expressions. The simplest form is composed of the preposition, the verb and two noun phrases as in the “The Cat is in the basket” here the “The cat” is referred to as a located object (trajector) and the basket as the reference object (landmark). More details of this are provided later when we are analyzing the Kisukuma spatial prepositions in different image schemas. Kisukuma, as any as other language, consists of both simple and complex prepositions. These are discussed below. Simple prepositions are discussed first.

2.3. Description of simple prepositions

The Kisukuma simple prepositions are kw-, ngw-, h-, ku-, wa-, na-, mu-, ha-, hanze, hihe, and hagati. They are discussed below.

Kw- is used to show the spatial orientation and directionality of something either above or on the surface. The preposition kw- has the following possible senses; ‘to’,
‘from’, and ‘at’. The preposition **kw-** is prefixed at the object. The following examples elucidate the established statement above.

3. (a) Mary a-li-ja **kw-**i-shamba.
   Mary 3PS-PRES-go PREP farm
   Mary is going to the farm.

   (b) Juma a-l-INGA **kw-**ishanga
   Juma 3PS-PRES-come PREP-farm
   Juma is coming from the farm

   (c) Juma a-li- **kw-**iduka
   Juma3PS-PRES PREP-shop
   Juma is at the shop.

Based on the example 3, it is apparent that the preposition **kw-** is used as the preposition ‘to’, ‘from’, and ‘at’ in the examples (3a), (3b), and (3c), respectively, to show the spatial orientation as well as the direction of some entity. Sentence (3a) and (3b) gives us the idea of path image schema in that there is a movement of one entity from one area to another. The locative verb (the verb complex) forces the image schema of location in (3c). How the semantic of a verb effects on image schemas can also be seen in sentence (3a) and (3b), the action of the verb forces the mind to form the image schema of location.

The important aspect to note in the above sentences is that the Kisukuma language has often no verb for “to be”. The language creates a locative or directional verb in the following way. The verb form merges with the person marker a- ‘he’, tense marker **li-** and the preposition to yield a locational or directional verb in example (3c). The noun is also incorporated in this prepositional verb. This kind of verb complex forces the mind to visualize a place image schema. This phenomenon applies to various sentences in the coming sections of this study.
**Ng’w**- is a preposition that means ‘in’. It is usually attached at the initial position of the preposition complement in the verbal complex. The preposition **ng’w**- is attached as a suffix after the tense marker and it is as well attached as a prefix before the prepositional complement or object. The object is also incorporated in the preposition structure which helps us to have a clear visualization of what image schema the sentence yields. Let us look at the following example for more clarification.

4. Juma a-li-**ng’w**-ishimo
   Juma 3PS-PRES-PREP-hole
   *Juma is in the hole.*

**H**- is a Kisukuma preposition which means ‘at’, ‘under’ and, ‘on’. It gives a spatial direction to where an entity is found or located and it is morphologically marked as prefix on the object if a sentence has a full lexical verb. Let us see the following example:

5. (a) Juma w-igasha-ga **h**-isumbi.
   Juma 3PS-PST-seat-PERF PREP-chair
   *Juma has sat on the chair.*

   (b) Juma a-li-**h**-iduka
   Juma 3PS-PRES-PREP-shop
   *Juma is at the shop*

   (c) Juma a-kw-igasha **h**-itina ya meza
   Juma 3PS-FUT-seat PREP- the table
   *Juma will sit under the table*

Based on examples (5a), and (5c), it is apparent that the preposition **h**- is attached to the objects chair and shop. Example (5b) gives us a different morphology of the preposition in that, the preposition **h**- combines with a person marker **a**-, tense prefix **li**-, and the object to form a verbal complex.

**Ku**- is a preposition in Kisukuma which means ‘to’. It is usually attached at the beginning of the verb and the noun to show directionality. The verb –**ja** ‘go’ in the
sentence (6) below forces our mind to conceptualize that students will take a certain direction to school. Let us consider the following example:

6. Bhanafunzi bha-li-haya **ku-ja ku-shule**  
   Students 3PL-PRES-want PREP-go PREP-school.  
   *Students want to go to school*

The preposition **ku-** in sentence (6) tells the direction where students will be heading. The same preposition is attached to the verb as well as the object. This does not change the role of the preposition in giving the direction.

**Wa-** is a preposition which is equivalent to the English preposition ‘of’. It is usually lexicalized, that is, it is overtly realized. Here the preposition **wa-** expresses a relationship between the two entities that is, a child and a teacher.

7. Ng’wana **wa** ng’walimu wise  
   Child PREP teacher our  
   *A child of our teacher*

The preposition **wa-** according to the way it is used in sentence (7) can be classified into a non-spatial preposition category because it does not give any spatial relation between the two entities mentioned in a sentence. It rather gives information about the relationship between the two entities in a sentence. In short it is used syntactically in genitive constructions.

**Na-** is a preposition which is equivalent to the English preposition ‘with’. It shows instrumental aspect in a sentence and it is lexically marked. It tells us the relationship between the subject (Rachel) and the instrument (a spoon).

8. Rachel a-li-lya **na** shijiko  
   Rachel 3PS-PRES-eat PREP spoon  
   *Rachel is eating with a spoon*

The preposition **na-** also falls under the non-spatial preposition, because it only plays an informative role rather than spatial one.
**Mu**- is equivalent to the preposition ‘in’ or ‘inside’ in English. The preposition **mu**- is incorporated into the verbal complex as well as the objects. It is used to express the location of some entities in a language.

9. Juma a-li-**mu**-numba
   Juma 3PS-PRES-PREP-house
   *Juma is in the house* or *Juma is inside the house.*

The preposition **mu**- in sentence (9) expresses that Juma is in a place where he cannot be easily accessed. The preposition gives us the notion of containment.

**Ha**- is equivalent to the English prepositions ‘on’, ‘against’ and ‘at’. It is usually prefixed to the object if expressed with a lexical verb. This is however, applies to example (10a) and (10b). In example (10c) the preposition **ha**- combines with a class marker prefix i-, tense marker li- and the object to form a verbal complex. The object here is incorporated in the structure of the prepositional verb. It expresses direction as well as location in a sentence. The examples below exemplify the above claims:

10. (a) Dotto a-li-lola **ha**-ndugu
    Dotto 3PS-PRES-look PREP-wall
    *Dotto is looking at the wall.*

    (b) Juma a-ki-pama **ha**-nyango
    Juma 3PS-PST-knock PREP-door
    *Juma knocked himself against the door.*

    (c) Pich a i-li-**ha**-meza
    Picture CM-PRES-PREP-wall
    *The picture is on the table*

**Hanze**- means ‘outside’, it is a preposition which is used to show a relationship between the verb and the object, it also gives direction in a sentence. It is lexicalized. The preposition gives us the direction to where the entity being expressed in a sentence is moving to. Let us see the following example.

11. Juma a-li-ja **hanze** ya numba
    Juma 3PS-PRES-go PREP
    *Juma is getting out the house*
**Hihe**- is a Kisukuma spatial preposition which is equivalent to the English preposition ‘near’. It is used to show how two entities are placed to each other in a certain location. It is morphologically marked. In a nutshell the preposition is incorporated in the verb structure. This could be exemplified by the following sentence:

12. Rachel a-li-hihe na numba  
Rachel 3PS-PRES is PREP the house  
*Rachel is near the house*

It is apparent that the preposition **hihe** in sentence (12) relates Rachel with the house. In other words the preposition **hihe** falls under the relational or locative prepositions, because it gives the direction where Rachel is oriented in relation to the house. **Na**- in sentence (12) is used as an article ‘the’.

### 2.4 Description of Complex prepositions

This section discusses the complex prepositions, their meanings and how they work to conceptualize different concepts.

#### 2.4.1 Combinations of ha- with others prepositions

The preposition **ha**- is equivalent to the English prepositions ‘on’, ‘against’ and ‘at’. It is usually prefixed on the object. This preposition is used to form different complex prepositions with different adverbs. The preposition **ha**- senses combine with different adverbs to form a prepositional compound. For more clarifications let us see how the preposition **ha**- combines with adverbs to form complex prepositions in Kisukuma.

**Ha-bhutongi**- means ‘in front of’. This preposition is used to express the spatial orientation of different entities in relation to their backgrounds or reference points. It is the combination of the simple preposition **ha**- together with the adverb **bhutongi**
which means ‘in front’. They both form a verbal complex which functions to give
direction in a sentence. In the example (15) the preposition expresses the relationship
in terms of positions which the two entities assume in the sentence.

15. Juma a-li-\textbf{ha-bhutongi} yise.
   Juma 3PS-PRES-PREP us
   \textit{Juma is in front of us.}

\textbf{Ha-mhelo}- is the preposition which means ‘aside’, and ‘in the corner’. It is used to
give a spatial orientation of some entities in relation to others in a sentence. It is the
combination of the preposition \textit{ha}- and the adverb \textit{mhelo} which together mean ‘aside’
or ‘in the corner’. The combination forms a verbal complex (locational) which serves
to express location assumed by different entities.

16. Mpila gu-li-\textbf{ha-mhelo} ya meza
    A ball 3PS-PRES-PREP table
    \textit{A ball is in the corner of the table.}

In the sentence (16) above, the preposition ‘\textit{hamhelo}’ gives us the location of the ball
in relation to the table. The preposition \textit{ya} which is a non-spatial preposition is used
together with \textit{hamhelo}.

\textbf{H-igulya}-is marked both morphologically and lexically. It is morphologically marked
by combining with the class marker prefix \textit{i}-, tense marker \textit{li}- to form verbal complex
which results into locational verb. The preposition could refer to different senses
when expressing spatial orientations for different entities. The preposition \textit{higulya}
may refer to the following senses: ‘over’, ‘above’, ‘on top of’, ‘across’, and ‘on’. Let us look at the following examples:

17. (a) Kalamu i-li-\textbf{higulya} ya meza
    Pen CL-PRES-PREP the table
    \textit{A pen is on the table}
Based on sentence (17a), (17b), and (17d) above, the preposition *higulya* expresses the relationships between the two entities in the sentence. The two entities are in physical contact with each other while in sentence (17c) and (17e) the preposition *higulya ya* expresses the relationship between the two entities with no physical contact. The examples (17c) and (17d) the preposition *higulya* is lexicalized. It is not attached to any of the sentence constituents. The ‘*ya*’ and ‘*yi*’ in sentence (17a), (17c), (17d) and (17e) is used as an article ‘the’ though it is not something to make sense straight away. This could be a subject to further studies.

**Mpindo**- means ‘the other side of’. This preposition can be used together with the preposition *ha*- ‘at’ and *ku* ‘to’. Any combination with the two prepositions does not alter the meaning of the preposition *mpindo*. The preposition is merged by the person marker *a*, tense prefix *li* and the object to form a verbal complex which expresses place. It is used to express the location relation between the different entities mentioned in a sentence. For more clarifications let us have a look at the following examples:
18. (a) Dotto a-li-**ku-mpindo** ya numba
Dotto 3PS-PRES-PREP house
*Dotto is to the other side of the house.*

(b) Dotto a-li-**ha-mpindo** ya numba
Dotto 3PS-PRES-PREP house
*Dotto is to the other side of the house.*

Based on the examples above the preposition **-mpindo** gives us the location of one entity in relation to the other. It clearly gives the place of the entity Dotto in relation to the place where it is located i.e. a house. The two prepositions integrated in the verbal complex play a locative role in language use. It is this reason therefore which made the two sentences to have the same meaning.

**Ha-numa**- means ‘at the back’. This preposition is used to express locations assumed by different entities in relation to others in a sentence. It mediates between the located object and its reference subject. It is the combination of the preposition **ha-** (at) and the adverbial –**numa** ‘back side’. Let us have the following example for more clarifications:

19. Jane a-li-**ha-numa** ya numba
Jane 3PS-PRES-PREP house
*Jane is at the back of the house*

In example (19) the preposition **ha-numa** gives us the spatial orientation of the entity called Jane in relation to the house, which is our reference point.

**Ha-silili**- is a Kisukuma preposition which may refer to the following senses; ‘below’, ‘down’ or ‘under’. It is the combination of the preposition **ha-** and the adverb –**silili** ‘down’. It gives a direction in terms of spatial location depending on the position one entity assumes in relation to another. The preposition is morphologically marked in the verb and it is attached to the tense marker as we can see this in example (20a) and (20b). The preposition could also be lexicalized as it is witnessed in sentence (20c) below. The following examples give more clarifications about the above assertions.
20. (a) Chupa i-li-**ha-silili** ya meza
    Bottle CM-TNS-PREP the table
    A bottle is under/below the table.

    (b) Bhanafunzi bhose bha-li-**ha-silili** ya ng’walimu
    All students 3PL-PREP the teacher
    All students are under the teacher.

    (c) Juma a-k-igasha-ga **ha-silili** ya nima
    Juma 3PS-PRES- live PREP there
    Juma lives down the hills.

2.5. Lexicalized complex prepositions

This section expresses complex prepositions that have become lexicalized and developed a meaning of their own. The only benchmark which alienates them from the complex category is their usages. These prepositions are **hagati** ‘in the middle’ and **mugati** ‘in’ or ‘inside’.

**Hagati**- is the preposition which means ‘in the middle’. It is a location or relational preposition because it describes the location of one entity in relation to another. It is usually attached on the tense marker prefix and it morphologically marked. The ‘**ya**’ in the sentence (21) below is used to express a relationship between the two entities.

21. Dr. Schroeder a-li-**hagati** ya luwanja
    Dr. Schroeder 3PS-PRES-PREP the pitch
    Dr. Schroeder is in the middle of the pitch.

**Mugati**- means ‘inside’ it has the same morphology as the above discussed preposition. This preposition expresses the relationship or the location in which a particular entity is located. The preposition **mugati** serves to show containment in a language. It talks about a hidden place in which different entities could be found.

22. Thobias a-li-**mugati** ya numba.
    Thobias 3PS-PRES-PREP the house
    Thobias is inside the house.
Based on example (22), the preposition mugati mediates between the two entities mentioned in the sentence. It tells us where the entity Thobias is located in relation to the other entity which is the house.

2. 6. Overview of the Kisukuma prepositions and their image schemas

The following list shows an overview of the Kisukuma spatial prepositions and their image schemas. Table 1 consists of the prepositions, the image schemas they derive and the examples from Kisukuma which are glossed in English.
### Table 1: An overview of the Kisukuma prepositions

<table>
<thead>
<tr>
<th>No</th>
<th>Preposition</th>
<th>Image Schemas</th>
<th>Example</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>kw-</td>
<td>Path</td>
<td>Mary a-li-ja kw-ishamba</td>
<td>Mary is going to the farm</td>
</tr>
<tr>
<td></td>
<td>kw-</td>
<td>Path</td>
<td>Mary a-li-inga kw-ishamba</td>
<td>Juma is at the shop</td>
</tr>
<tr>
<td></td>
<td>kw-</td>
<td>Place</td>
<td>Juma a-li-kw-iduka</td>
<td>Tecla is on top of the house</td>
</tr>
<tr>
<td></td>
<td>kw-</td>
<td>Contact</td>
<td>Juma a-li-kw-igulya ya numba</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ng’w</td>
<td>Containment</td>
<td>Juma a-li-ngw’-ishimo</td>
<td>Juma is in the hole</td>
</tr>
<tr>
<td>3</td>
<td>h-</td>
<td>Contact</td>
<td>Juma w-igashaga hi-sumbi</td>
<td>Juma has sat on the chair.</td>
</tr>
<tr>
<td></td>
<td>h-</td>
<td>Place</td>
<td>Juma a-li-h-iduka</td>
<td>Juma is at the shop</td>
</tr>
<tr>
<td></td>
<td>h-</td>
<td>Place</td>
<td>Juma a-kw-igasha h-itina ya meza.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>ku-</td>
<td>Path</td>
<td>Bhanafunzi bha-li-haya ku-ja ku-shule</td>
<td>Students want to go to school</td>
</tr>
<tr>
<td>5</td>
<td>wa-</td>
<td></td>
<td>Ng’wana wa ng’walimu wise.</td>
<td>A child of our teacher.</td>
</tr>
<tr>
<td>6</td>
<td>na-</td>
<td>Instrument</td>
<td>Rachel a-li-lya na shijiko</td>
<td>Rachel is eating with a spoon.</td>
</tr>
<tr>
<td>7</td>
<td>mu-</td>
<td>Containment</td>
<td>Juma a-li-mu-numba</td>
<td>Juma is in the house</td>
</tr>
<tr>
<td>8</td>
<td>ha-</td>
<td>Direction</td>
<td>Dotto a-li-lola ha-ndugu</td>
<td>Dotto is looking at the wall.</td>
</tr>
<tr>
<td></td>
<td>ha-</td>
<td>Force</td>
<td>Juma a-ki-pama handungu</td>
<td>Juma knocked himself against the wall.</td>
</tr>
<tr>
<td></td>
<td>ha-</td>
<td>Place /contact</td>
<td>Picha i-li-ha-ndugu</td>
<td>The picture is on the wall.</td>
</tr>
<tr>
<td>9</td>
<td>Hanze</td>
<td>Direction</td>
<td>Juma a-li-ja hanze ya numba</td>
<td>Juma is going out of the house.</td>
</tr>
<tr>
<td>10</td>
<td>Habhutongi</td>
<td>Place</td>
<td>Juma a-li-ha-hutongi yise</td>
<td>Juma is in front of us</td>
</tr>
</tbody>
</table>
A schema consists of a small number of parts and relations, by virtue of which it can structure indefinitely many perceptions, images, and events. Image schemata operate at a level of mental organization that fall between abstract propositional structures, on the one side, and particular concrete images on the other (Johnson 1987: 29).

When we observe keenly the overview of prepositions in table 1 above, it is obvious that there are some Kisukuma prepositions which visualize simple image schemas and others visualize complex image schemas. Let us start our analysis by looking at the simple image schemas.
2.7.1 Simple image schemas

It is apparent that there is a mismatch between the image schemas and different spatial prepositions that Kisukuma uses for the same image schema from Table 1 above. Besides that, there is also an instance where one preposition has different image schemas like kw-, and higulya just to mention a few. This implies that one schema can accommodate several prepositions, for example path image schema can accommodate prepositions like ha-, h- kw-. These discrepancies were organized by taking the abstract image schemas and discuss which preposition fits into what schema. The question why there is the mismatch between the occurrence of image schemas and the occurrence of the prepositions was answered. The following are the image schemas which can be visualized or conceptualized from the use of different Kisukuma spatial prepositions.

2.7.2.1 Path image schemas

As already stated, Table 1 shows that there are several Kisukuma prepositions which fit into the same image schema. The following prepositions are conceptualized to have the same image schema in Kisukuma: kw-, and ku-. These two prepositions collectively give us what is known as path image schema. Apart from displaying the path image schema the two prepositions under question may also derive other image schemas as it is seen in the coming sections of this chapter. Let us start with the preposition kw-. In Kisukuma the preposition has four senses which include ‘to’, ‘from’, ‘on top’ and ‘at’. For the purpose of this section only two senses of it are used to describe the path image schema.

23. (a) Mary a-li-ja kw-ishamba
    Mary 3PS-PRES-go PRE farm
    Mary is going to the farm
The preposition *kw-* in sentence (23a), and (23b) functions as locative or directional preposition. The preposition expresses the direction and the location where the trajector Mary is heading to in relation to the landmark. The farm here is what is referred as a landmark because when we are talking about the TR the farm stands as our frame of reference. The above sentences can be easily conceptualized that the TR is on movement from one area to another. The TR therefore moves on the path towards the area of destiny.

In sentence (23a) and (23b) the preposition *kw-* expresses a spatial scene which is known as SOURCE GOAL image schemas; it expresses the movement of a trajector (Mary) from one place to another (the GOAL). The different direction is triggered by the action of the verb. The verbs –*ja* ‘go’ and –*inga* ‘come’ give us the directions.

*Ku-* is used as a directional or relational preposition the same as *kw-*.. The only new thing here it is attached to the verb *ja* ‘go’ as well as to the noun *shule* ‘school’. It expresses the direction the TR moves to in relation to its landmark. The preposition when used in a sentence can be visualized as denoting a path where one entity moves to another. Let us look at the following example:

24. Bhanafunzi bha-li-haya *ku-ja ku-shule*
    Students 3PL-PRES-want PREP-go PREP-school
    *Students want to go to school*

When sentence (24) is conceptualized it gives us a spatial scene that when the TRs will start their journey to school, they will have to follow a certain path which will take them to their destination (which is our landmark). The above conceptualization gives the path image schema which involves three important aspects the SOURCE, the PATH and the GOAL.
The two spatial prepositions above both give us the following diagrammed spatio-configurations.

```
A | TR | LM | B
```

**Figure 12: Path image schema**

Figure 12 is the conceptualization of the two Kisukuma spatial prepositions discussed. Point A stands for the SOURCE, the arrow stands for the PATH while point B stands for the GOAL. The two broken lines coming from point A and B facing the TR explain the different directions which are visualized in sentences (23a), (23b) and (25). The actions of the verbs ‘to come’ and ‘to go’ have great influence on the visualized image schema in Figure 12 and determine the direction between trajector A to the LM and trajectory B to the LM. Apart from the descriptions of the preposition *higulya ya* in section 2.4, this preposition can also be used to conceptualize different path image schemas. To exemplify this let us look at the following examples where *higulya* is used in the ‘over’ sense.

25. Ndege i-li-lala *higulya ya* numba
    Plane CM-PRES-fly PREP the house
    *The plane flies over the house*

The trajector (the plane) in the sentence above is conceived as being on a path which moves above and across the landmark (the house). The preposition *higulya* as it is used in the ‘above’ sense gives us the following spatial configurations or image schema.
Figure 13: “higulya” in the above sense (adapted from Riemer (2010: 244))

The dotted lines show that there is no physical contact between the trajector and the landmark while the arrow shows the direction of the path which the trajector takes. The circle stands for the trajector.

In sentence (26) the preposition *higulya* has been used in the sense of ‘up’.

26. Anna a-li-ja higulya aho
    Anna 3PS-PRES-go PREP there
    *Anna is going up there.*

The preposition *higulya* in the ‘up’ sense conceptualizes the position of the landmark to be somewhere higher in relation to its trajector. There is a sense of movement of a trajector towards the landmark. The trajector moves on its path towards the landmark.

This spatial scene can be diagrammed as follows:

![Diagram of a spatial scene with TR and LM labeled and a dotted line connecting them with an arrow showing the direction of the path.](image)

Figure 14: “higulya” in the ‘up’ sense
The arrow shows the direction as well as the path on which a trajector moves through to the landmark.

**Mpindo**- which means ‘other side’ expresses a situation whereby a trajector moves from one side of the landmark to the other side. There may be or may be no contact between the trajector and the landmark. The preposition also conceptualizes the trajector to be invisible whilst the landmark is the only visible entity from one side. This could be exemplified by the following example.

27. Mpila gu-li-gwa **ku-mpindo** ya numba
   Ball CM-PRES-fall PREP house
   *A ball is falling to the other side of the house.*

Sentence (27) gives us a spatial scene which can be diagramed as follows;

**Figure 15: Ku-mpindo preposition ‘other side of’**

The broken line show where the trajector is going to land.

2.7.1.2 **Container image schemas**

Riemer (2010:241) points out that our real life experience of containers establishes some pieces of typical knowledge about containment, which are:

42
1. The experience of containment usually involves protection from or resistance to external forces.

2. Containment restricts the movement of whatever is in the container.

3. As a result whatever is contained has a relatively fixed location, it is in the container.

4. The object in the container may be either visible or invisible to an observer.

5. A container can be accessed from the inside and the outside

The CONTAINER image schema consists of the structural elements interior, boundary and exterior: these are the minimum requirements for a CONTAINER.

From the five assertions by Riemer (2010), this study organizes different prepositions in Kisukuma and show how they can fit into this image schema. Further, our study looks at different container image schemas which can be conceptualized through the use of the prepositions under question. The Kisukuma prepositions which fall in this schema are: ng’w-, mu-, and mugati. They are discussed below.

As already established in the previous section the preposition ng’w- serves to conceptualize the inside part of something ‘in the’. It is therefore used to express the idea of containment of some entities in relation to their landmarks. It generally conceptualizes the containment aspect in a language. Consider example 28.

28. Juma a-li-ng’w-ishimo
    Juma 3PS-PRES-TNS-PREP-hole
    Juma is in the hole

In example (28) the preposition ng’w- conceptualizes the trajector (Juma) to be contained by its landmark. It gives us a spatial scene that the “hole” as our landmark has demarcations which limits the (TR) within the container, and the trajector has a relatively fixed location within the hole and it is restricted in terms of movement. The ‘hole’ here is a container and it has a defined shape which contains the trajector (Juma) from outside forces.
Mu- is basically used in Kisukuma to show containment aspects for different entities which are being expressed in a sentence. The preposition mu- shares most of the features of the preposition ng’w-. To explicate the above assertions let us have a look at the following examples:

29. Bhanafunzi bhali-mu-numba
Students 3PL-PREP-house
Students are in the house
From example (29) the preposition mu- ‘inside/in’ expresses the notion of containment. It gives the spatial scene of the container image schema.

The typical knowledge of containment is due to our bodily experience which results into the formation of different conceptual constructs commonly known as embodied experience. From this knowledge the Kisukuma speaker can easily conceptualize the use of the preposition mu- to be referring to containment of some entities. The trajectors (TRs) Juma and students are contained in a relatively fixed location. The fixed location is what is referred as to as a landmark (LM) or figure of reference.

Mugati-, which means ‘inside of’, expresses the relationship between the trajector and its landmark. This can be exemplified by the following example.

30. Juma a-li-mugati ya numba yakwe
Juma 3PS-PRES-PREP-his house
Juma is inside of his house
In example (30) the preposition mugati expresses the notion of containment in the sense that the trajector is contained in a landmark (house) and it therefore has the protection from outside forces. It is restricted in terms of movement and it has a relatively fixed location in a container. The prepositions in examples (28), (29) and (30) can be conceptualized into one container image schema as diagrammed below:
Furthermore the preposition mu- and ng’w- which have been discussed earlier on can also express the notion of multiplex image schema especially when a speaker talks about a group of entities. Let us consider the following example:

31. Bhanhu bhoše bha-li-mu-soko
   All people 3PS-PRES-PREP-market
   All people are in the market.

It is apparent that the preposition mu- ‘in/inside’ gives us multiplex image schema. The trajectors are scattered all over the landmark and they are not bounded. According to Saeed (2004:362), this type of image schema is used when referring to numerous entities by using the quantifier ‘all’. The above sentence can be conceptualized in the following spatial scene as diagrammed below.
2.7.1.3 The force image schemas

As it has been noted earlier on that image schemas derive from embodied experience; they derive from the way we interact with the world. The force image schema arises from our experience of acting upon other entities, or being acted upon by other entities, resulting in the transfer of motion energy (Evans & Green 2006:182). From the above note, the preposition ha- in Kisukuma can be used to express a situation where the force image schema can be conceptualized.

When the preposition ha- is used in a sense of ‘against’ it yields a visualized scene of force image schema. To exemplify the above assertion let us look at the following example:

32. Juma a-ki-pama ha-ndugu
   Juma 3PS-PST-knock-PREP-wall
   *Juma knocked himself against the door*

In example (32) the preposition ha- which means ‘against’ is used to show the physical confrontation between the two entities i.e. the landmark and its trajector. For our case in sentence (32) above, it can be visualized that the TR (Juma) got into a physical interaction with the LM (wall) which resulted into blockage. This can be mentally conceptualized as expressing the notion of force image schema in which two entities interact. It is apparent that when the trajector knocked at the wall force was exerted from the trajector onto the landmark. The above conceptualization can give us the following diagrammed spatial scene:

![Figure 18: Blockage image schema (adapted and modified from Evans & Green 2006:188)](image-url)
The thick arrow in Figure 18 shows the direction of the TR. The broken line to the other side of the LM shows the direction the TR would have taken if it would have not been blocked by the landmark.

2.7.1.4 Place image schemas

When we are using prepositions in our languages, we normally communicate some concepts which are easily conceptualized by listeners to denote something concrete in a real world. In Kisukuma prepositions like kw-, h-, and hagati are able to create a space which result into place image schemas. The prepositions kw-, h-, and ha- can produce the same image schema, whilst the preposition hagati demonstrate a distinct image schemas from the three prepositions above, but they all show place. Let us now look at the following examples for more clarification:

33. (a) John a-li-kw-iduka
   John 3PS-PRES-PREP-shop
   \textit{John is at the shop}

   (b) Juma a-li-h-iduka
   Juma 3PS-PRES-PREP-shop
   \textit{Juma is at the shop}

Based on the two sentences above, it is apparent that the prepositions kw-, and h- which together mean ‘at’ give us a visualized spatial scene denoting a location. The prepositions above express a location where the TRs are located in relation to their landmarks. The image schemas derived from the above sentences conceptualize the TRs and the LM to be in proximal relationship or even in contact for the case of (33a) and (33b).

As we asserted in section 2.5 the preposition hagati plays a locative role in a sentence but it yields a different image schemas from the one conceptualized by the two prepositions kw- and h-. Hagati- ‘in the middle’ in Kisukuma expresses a spatial orientation of one entity in relation to another. It mediates between the trajector and
the landmark in terms of the position they assume. Let us have a look at the following example:

34. Janet a-li-**hagati** ya luwanja
    Janet 3PS-PRES is PREP-the pitch
    Janet is at in middle of the pitch

The preposition **hagati** expresses the spatial orientation of the TR in relation to its landmark. The image schema visualized from the use of the preposition **hagati** ‘in the middle’ gives a spatial scene in which the TR is at the centre of its LM considered from all dimensions. This can be diagrammed as follows:

![Figure 19: Place image schemas](image)

The TR in Figure 19 is centred at the middle of the LM from all dimensions.

The preposition **ha**- can be also used to conceptualize an instance where the trajector is partially inside the landmark. This can be exemplified by the following example (35).

35. Ichimu lya-chima **ha**-ngongo gwa ng’ombe.
    Spear CM-PRES-stab PREP the cow’s back
    A spear has stabbed a cow at the back.

Sentence (35) show that the trajector is inside the landmark and therefore there is contact between the two entities. The preposition **ha**- establishes the spatial scene that the landmark has internal structure and it is therefore possible for the trajector to
attach itself into the landmark’s internal structure. The spatial scene for example (35) is given in figure 20 below.

Figure 20: Part of the TR in the LM

Apart from the prepositions h-, ha, kw- and hagati, there are also other Kisukuma prepositions which are visualized to create place image schemas. The prepositions like hihe, ha-bhutongi, higulya ya, ha-numa, hasilili, and mpindo are analyzed to show how they can conceptualize the schema under question.

The hihe- preposition which means ‘near’ serves as a locative or directional preposition. It expresses a direction or location of one entity in relation to another. To exemplify this let us consider the following example:

36. Rachel a-li-hihe na numba
   Rachel 3PS-PRES is PREP the house
   *Rachel is near the house*

From the example (36) it is apparent the preposition hihe ‘near’ expresses the location where the trajector (Rachel) is in relation to the landmark (the house). There is no direct contact between the landmark and the trajector, but the two entities are in proximity. The above conceptualization can be diagrammed as follows:

Figure 21: Showing the ‘near’ for the preposition ‘hihe’
Ha-bhutongi which means ‘in front of’ is used in Kisukuma to explain the relationship between different entities in relation to their reference points (landmarks). It expresses the spatial orientation of one entity in relation to another. Consider the following example.

37. Juma a-li-**habhutongi** yise
   Juma 3PS-PRES-PREP us
   *Juma is in front of us*

In example (37), the TR (Juma) as an entity which moves, is oriented a bit far from its reference point ‘us’ which is our landmark. The mental conceptualization of this sentence gives us the following image schema.

![Figure 22: Showing the ‘in front of’ sense for the preposition habhutongi.](image)
The arrows show the direction where the landmark is located in relation to the trajector.

The preposition **higulya ya** used in the ‘above’ sense in the following sentence:

38. Feni i-li-**higulya ya** bhulili
    Fan CM-PRES-PREP the bed
    *A fan is above the bed*

The preposition **higulya** in example (38) is used in a stative sense. The trajector here lacks the path component in the sense that the trajector is stationed in a specified place. The preposition is therefore playing a locative role to show the place where the TR is located in relation to the LM. The abstract representation of the spatial configuration for the above sentence would be diagrammed as follows:
The diagram above shows that there is no contact between the trajector (a fan) and the landmark (a bed).

**Ha-numa**- which means ‘at the back side or behind’ shows a relationship between the landmark and the trajector in terms of their positions. There is no contact between the TR and the LM. For more clarification let us have the following example: -

39. Jane a-li-**hanuma** yise  
   Jane 3PS-PRES-PREP us  
   *Jane is behind us*

Example (39) can be conceptualized in a spatial scene that the TR (Jane) is spatially located behind the LM (us). The spatial configuration being derived from sentence (39) elucidates a sort of proximity between the trajector and the landmark but with no contact between them. This spatial configuration can be diagrammed as follows:
Figure 24: Showing the ‘behind’ sense of ha-numa

The arrows show the location of the trajector from the landmark.

Ha-silili- has the senses of ‘below’, ‘down’ or ‘under’ in Kisukuma. As we have seen in section 2.4.1 the preposition ha-silili serves a relational or locative function in a sentence. It expresses the relationship between the TR and the LM in terms of the location or position they occupy to each other. To be clear of the above arguments let us look at the example 38.

40. Chupa i-li-*ha-silili* ya meza
    A bottle CM-PRES-PREP the table
    A bottle is under the table

Sentence (40) can be conceptualized in the spatial scene that shows the TR to be positioned or oriented somewhere under the LM. The relationship between the TR and the LM is that of proximity but there is no contact between the two entities. This image schema can be diagrammed as follows:-

2.7.1.5 Contact image schemas

These are image schemas which involve a direct contact between the landmark and the trajector. In Kisukuma we have several prepositions which can be used to conceptualize this kind of image schemas when used in a natural language to explain different concepts. In Kisukuma prepositions such as h-, higulya, and ha- can give conceptualizations of a simple contact image schema. To exemplify this let us look at the following examples.

41. (a) Juma w-igashaga h-isumbi
   Juma 3PS-PST-seat-PRES-chair
   *Juma has sat on the chair*

   (b) Kalamu i-li-higulya ya meza.
   Pen 3PS PRES-PREP-table
   *A pen is on the table.*

   (c) Mary a-li-ha-bhulili
   Mary 3PS-PRES-PREP-bed
   *Mary is on the bed.*

The prepositions h-, higulya and ha- in sentences (41a), (41b) and (41c) give us a spatial scene of contact between the landmarks (chair, table and bed) with the trajector (Juma, Mary and Kalamu). These prepositions can be visualized to create the following spatial scene:
Figure 26: Showing the contact image schemas.
Based on Figure 26, it is apparent that there is the direct contact between the landmark and the trajector.

2.7.1.6 Direction image schemas

The preposition ha- can conceptualize a spatial scene which expresses direction assumed by the TR in relation to the LM. The example below gives us the visualization that Dotto (TR) is looking towards a certain direction where the LM (wall) is located.

42. Dotto a-li-lola ha-ndugu
    Dotto 3PS-PRES-see-PREP wall
    *Dotto is looking at the wall*

The conceptualization from example (42) can be diagrammed as follows:

*Figure 27: Direction image schema*

The arrow in Figure 27 shows that, the trajector is looking at the landmark. There is no any movement of a trajector towards the LM.
2.8 Conclusion

From the analysis in this chapter it is worth noting that, Kisukuma has both simple and complex prepositions and they can be used to refer to a wide range of spatial orientations. The study reveals that some of the prepositions both simple and complex are morphologically marked while some are lexically marked. The analysis looked at how the preposition ha- is combined by other preposition to form a complex preposition. The prepositions hagati and mugati are analyzed as lexicalized complex prepositions. The prepositions overview was also given in Table 1. Apart from that, we see how different Kisukuma spatial prepositions can be used to conceptualize different simple image schemas. The simple image schemas which were analyzed include path image schemas, container image schemas, place image schemas, force image schemas, contact image schemas, and direction image schemas. In the subsequent chapter our study looks at the analysis of complex image schemas as well as the conceptual metaphors in Kisukuma.
CHAPTER THREE: COMPLEX IMAGE SCHEMAS AND CONCEPTUAL METAPHORS

3.1 Introduction

In the previous chapter we dealt with concrete uses of Kisukuma spatial prepositions and their meanings when expressing different spatial orientations. Simple image schemas were also analyzed. In this chapter are going to analyze complex image schemas as well as the use of the same Kisukuma spatial prepositions in a figurative way through conceptual metaphors.

3.2 Complex image schemas

This section deals with the complex image schemas. A complex image schema involves more than one activity at a go. We are going now to analyze complex image schemas such as path/contact image schemas, place/contact image schemas. Prepositions which fall under this category include h-igulya, hanze, ha-silili, ha-mhelo, and ha-.

3.2.1 Path and Contact image schemas

The preposition higulya in the sense of ‘over’ and ‘across’ can also be used to conceptualize a situation in which a trajector moves along an imaginary path on the landmark to the other side. The movement involves contact between the landmark and the trajector and also a path image schema. To strengthen the latter idea let us consider the following examples.

43. (a) Dotto a-ka-bhita higulya ya nima aho a-li-ja kaya
    Dotto 3PS-PST-walk PREP the hill when 3PS-TNS-go home
    Dotto walked over the hill when he was going home.

(b) Modoka i-li-bhita higulya yi daraja
    Car CM-PRES-pass PREP the bridge
    A car passes across the bridge.
The preposition *higulya* gives us a spatial scene that the trajector is in a motion and it takes its path by being in contact with the landmark.

**Figure 28: Path/contact image schema ‘over’ and ‘across’ sense (Adapted from Riemer (2010))**

The broken line in Figure 28 shows the imaginary path which the trajector took when going to his destination. The arrow shows a direction the trajector is heading to. The dark line represents a path.

**Hanze**- means ‘outside’ or simply ‘out’. It expresses the movement of an entity from one position to another. It also gives us the notion of path image schema but in a different fashion from Figure 28 image schema. Consider the following example:

44. Juma a-li-ja **hanze** ya numba  
   Juma 3PS-PRES-go PRES –house  
   *Juma is getting out of the house*

The preposition **hanze** expresses a physical motion of a trajector from the landmark (house) to another location. The meaning of ‘out’ in example (44) can be clearly understood by combining the path and the containme image schemas. When the preposition in sentence (44) is used by a Sukuma speaker, it brings out the following diagrammed image schema:

**Figure 29: Path/contact image schemas (Riemer (2010: 242))**
The scene from Figure 29 involves an object labelled TR moving along a path from a position of containment within a bounded entity marked LM.

The Figure 29 also underlies diverse uses of out. We will see these usages below when discussing the figurative use of Kisukuma spatial prepositions. Apart from the above clarifications, it is worth noting that the preposition hanze in Kisukuma can also express a situation where a trajector is partially contained by the landmark. This is possible when referring to a trajector which can move from the landmark while leaving the rest of its body inside the landmark. When this preposition is used by a Kisukuma speaker it gives a spatial scene that conceptualizes the partial inclusion of a trajector. This spatial scene violates the features of containment in the sense that the trajector is not fully contained and protected from external forces. This partial inclusion can be further explicated by using the following example together with its image schema.

45. Nzoka i-li-fuma hanze ya ng’obho.
Snake CM-PRES-go PREP the hole
_A snake is getting out of the hole._

The trajector (snake) when coming out from its landmark it cannot come out completely at once. One part of the body must remain in the landmark while the rest projects outside the landmark. There is also a movement of a TR from the LM to the outside location. It is therefore worth noting that, the TR has to follow a certain path when moving outside the LM. This is what is referred as to as partial inclusion. This spatial scene can be diagrammed as follows:
The preposition ha-silili which shows the ‘down’ sense expresses the direction of the TR from a high or higher point of something to a lower one. For more clarification let us have the following example:

46. Iwe li-ka-pilingita ha-silili ya lugulu
Stone CM-PST-roll PREP the hill
The stone rolled down the hill.

Sentence (46) demonstrates that the TR moved along its path on the LM from a higher point to the lower one. This spatial scene apart from showing the spatial orientation into which the stone rolled gives us the notion of path image schema. The TR moved from the upper part of the hill downwards on its LM. The spatial scene conceptualized above tells us that there is a contact between the TR and its LM.
3.2.2 Place and contact image schemas

The preposition **ha-mhelo** which plays a locative role in a sentence can also yield a complex image schema. This preposition when used in Kisukuma, gives a spatial scene which sees a TR located at the edge or in the corner of the landmark. It involves physical contact between the TR and the LM, but not in all instances of its use. It is therefore specifies the locational relation between the landmark and the trajector. For more clarification let us consider the following example:

**47. Shitabho shi-li-** **ha-mhelo** ya meza

The book  CM-PRES-PREP the table

*The book is in the corner of the table.*

Sentence (47) gives us a spatial scene which visualizes the TR being in a physical contact with the LM but the position in which the TR is located is not at the center of the LM. The above conceptualization can be depicted as follows:

![Diagram](image.png)

**Figure 32: Showing ha-mhelo ‘in the corner’ sense**

The preposition **higulya ya** and **kw-igulya ya** can as well produce the above depicted image schema. The two prepositions are synonymous in the sense that they convey the same meaning. But they are not true synonyms. These two prepositions can share the same image schema with **ha-mhelo** but the vice versa is not true. **Ha-mhelo** seems to be specific in terms of the trajector position on the landmark. Consider the following examples.

**48. (a) Juma a-li-** **higulya ya** numba

Juma 3PS-PRES-PREP top PREP house

*Juma is on top of the house*
The prepositions **kw-igulya** and **hi-gulya** in the sentence (48a) and (48b) above give us a spatial scene of contact image schema between the landmark (house) and the trajector (Juma). The image schema in Figure 32 can adequately apply to sentences (48a) and (48b). The TR from the meaning conceptualized from sentences, (48a) and (48b) seems to be stationed somewhere on the LM.

The preposition **ha-** apart from the ability to visualize simple image schemas it can also be used to conceptualize complex ones. The preposition **ha-** in the example (49) expresses the location of the trajector in relation to the landmark (the wall) and it involves contact between the two entities. Let us look at the following example.

49. Picha i-li-**ha**-ndugu
   Picture 3PS-PRES-PREP-wall
   *The picture is on the wall.*

![Figure 33: Showing the place/contact image schema for the preposition ha-](image)

In Figure 33 the TR is fixed on the landmark, which is the wall. We can therefore say the LM and the TR are detachable.
3.3 Explanations for the mismatch between prepositions and their senses

The mismatch between the prepositions and the spatial orientations is probably common in most of the world languages. The mismatch conveyed may be due the reasons discussed below.

3.3.1 Linguistic factors

From a linguistic point of view, the mismatch between the prepositions and the senses they convey may be due to the influence of the verb in relation to the prepositions. Verbs normally force our minds to configure different visualizations from a single preposition. Let us look at the following examples with the preposition kw- for more clarification.

50. (a) Mary a-li-ja kw-i-shamba.
    Mary 3PS-PRES-go PREP farm
    *Mary is going to the farm.*

    (b) Juma a-l- inga kw- i-shamba
    Juma 3PS-PRES-come PREP-farm
    *Juma is coming from the farm*

    (c) Juma a-li- kw-iduka
    Juma 3PS-PRES PREP-shop
    *Juma is at the shop.*

When we look at the preposition kw-, it is apparent that it has been used to refer to different senses. This is due to the effect of the verb which for example in (50a) and (50b) has influenced the change of the direction from going ‘to’ to coming ‘from’ and kw- becomes ‘at’ in (50c)

3.3.2 Embodiment effects and the nature of our physical bodies

We can say that because image schemas derive from sensory and perceptual experience as we interact with and move about in the world, it is therefore possible for us to acquire some spatial knowledge on how to locate different objects which are not
related to prepositions adequately. This makes it possible for a single preposition to have more than one visualizations or image schemas. At the same time due to embodiment effects, it is possible for different prepositions to conceptualize a single image schema. This is because spatial experience has a very limited number of basic configurations that keep repeating themselves. This enables a speaker to use these limited number of spatial prepositions to refer to any possible number of spatial relations in his conceptual space.

3.4 CONCEPTUAL METAPHORS

Metaphor is emphasized in cognitive semantics as an inherent and fundamental aspect of semantic and grammatical structure (Langacker 1987:100). This contrasts with the more traditional view of metaphor as a special, additional feature of particular utterances associated with imaginative or artistic uses of language rather than with everyday speech. On the traditional view of metaphor, they are assumed not to reveal anything fundamental about the nature of meaning (Riener 2010: 246). For the purpose of this study, the traditional view of metaphors is adopted to analyze the figurative use of Kisukuma spatial prepositions.

Apart from that, Lakoff’s conceptual metaphor theory ideas were used. Conceptual metaphor theory rests on three essential propositions.

1. First, the view that a metaphor is a cognitive phenomenon rather than purely lexical one.

2. Second, the view that metaphor should be analyzed as a mapping between two domains.

3. Third, the notion that linguistic semantics is experientially grounded.

The cognitive nature of metaphor involves the fact that it is not a purely lexical phenomenon, situated superficially at the level of language, but it is instead a deep-
seated conceptual phenomenon that shapes the way we think and not just the way we speak. Conceptual metaphor theory systematically adduces various kinds of evidence for the conceptual rather than just lexical nature of metaphors. Metaphors come in patterns that transcend the individual lexical items. (Geeraerts 2010:204)

Metaphoric images may be used creatively. The sets of expressions that illustrate metaphoric patterns are open-ended; they do not only comprise conventionalized expressions but may also attract new ones. Conceptual metaphor theory is the analysis of the mappings inherent in metaphoric patterns. Metaphors conceptualize a target domain in terms of source domain and such a mapping takes the form of an alignment between aspects of the source and target. Conceptual metaphor theory is the idea that metaphors are grounded in experience and language is shaped by human experience (Geeraerts 2010: 204-5).

3.5 Kisukuma spatial prepositions and conceptual metaphors

The central schemas of spatial prepositions relate primarily to the domain of physical space, whereas figurative senses activate more abstract domains. Image schemas which are employed to structure physical experience are also used to structure abstract thoughts (Saric 2008:36).

Figurative use of language departs from literal meaning in order to achieve a special effect or meaning. We therefore go into details to see how Kisukuma spatial prepositions are used in a figurative way through conceptual metaphors. Kisukuma metaphors are built by using two inputs for creating metaphors which are: preposition and a noun phrase e.g. **higulya ya sheria** ‘above the law’. The noun phrase in this input gives us the conceptual entries about the TR. That is to say, the features of the landmark are mapped onto the TR. The LM the object ‘law’ gives us features which are related to power. These features are then transferred into the
interpretation of the metaphor. Another way of creating metaphors is with the input that involves only the preposition to refer to a conceptual metaphor. These phenomena are exemplified when looking how these prepositions are used as conceptual metaphors.

The fact that metaphors are grounded in experience and language is shaped by human experience enables native speaker of a language to use metaphors to communicate different ideas in a language. The communicated metaphors can be easily understood because they are all grounded in human experience. A Kisukuma speaker, just as a speaker of any other language, can use spatial prepositions figuratively to communicate or conceptualize any experience he has encountered in the real world.

To explain the way Kisukuma spatial prepositions can be used in a figurative way. Let us consider some examples from different Kisukuma spatial prepositions for more clarification.

3.5.1. Higulya – above

Higulya is used figuratively in more than one sense. As we have established that conceptual metaphors have great relationship with experiential grounding namely the notion of embodiment, it is this notion of embodiment which gives rise to various types of images schemas. Let consider the following examples.

51. Juma a-li-higulya ishikuiji
   Juma 3PS-PRES-PREP nowadays
   *Juma is above nowadays*

The word ‘above’ in example (51) implies that Juma is higher in terms of social achievements than he used to be in the past. The social achievements could be economic, political, cultural, educational etc. These social achievements are there as our abstract landmark whose features are mapped onto the TR. Beside that the word
‘above’ could also be used in a satirical way to offend, to criticize or to show dissatisfaction about somebody’s behaviour. We are able to understand that by transferring the features associated with image schemas conceptualized from the preposition higulya and map them to the TR. This is strongly supported by the fact that image schemas never change only meaning changes.

This is also be supported by Geeraerts (2010:206) who says, metaphors conceptualize a target domain in terms of the source domain and such a mapping takes the form of an alignment between aspects of the source and target. From the above example, it should be noted that social achievements such economic, political, cultural, educational act as features of an abstract landmark and it is these which are mapped onto the TR (Juma). We can therefore conclude that Juma (TR) is our target domain while the social achievements are our source domain. The features from the source domain are mapped onto the target domain.

52. Rais a-ti-higulya ya sheria
Rais 3PS-PRES-PREP the law
President is not above the law

If sentence (52) is taken literally, then the law is conceptualized as a tangible body onto which a president lands on. In the literal sense the law would be therefore be taken as a landmark in the above sentence whilst the TR is the president.

The core meaning for example (52) is that the president has no supreme power to change the law or to do anything which is against the law. The preposition higulya is therefore used figuratively. We can therefore conclude that the features such as power, ability, and authority etc. which are obtained from the source domain ‘above the law’ are mapped onto the target domain ‘the president’ to give us the meaning already established.
As it has been established earlier on, image schemas which are employed to structure physical experience are also used to structure abstract thought. From this perspective therefore we can say that, features which are associated with the preposition ‘above’ could be easily used to express the metaphorical meaning of the sentence (52) by simply mapping its features on the TR.

53. Juma a-li higulya ya mawe  
Juma 3PS-PRES-PREP stones  
*Juma is broke.*

If taken literally, sentence (53) produces a spatial scene that conceptualizes Juma the (TR) to have a physical contact with the (LM) stones. The spatial scene could portray the trajector probably seated or standing on top of the stone.

In Kisukuma sentence (53) expresses a quite different sense. The prepositional phrase higulya ya mawe which means ‘on top of stones’ expresses a figurative meaning that Juma is broke. His economic status is degenerating; it does not improve but continues dropping every now and then. Here the features of our LM (the stone) e.g. a stone is hard, destructive, it can harm people etc. are mapped onto the TR (Juma) to communicate that Juma is experiencing unstable economic conditions.

### 3.5.2. Mu-In

The preposition *mu*-can express different concepts in a figurative way without employing a spatial orientation of some entities in a sentence. Let us look at the following example.

54. Juma a-tali *mu*-giti  
Juma 3PS-PRES-PREP- darkness  
*Juma is still in darkness*

The example (54) gives a spatial scene where the TR Juma is contained in a LM (which is darkness); this is the literal meaning. In example (54) darkness as a
conceptual metaphor communicates a very distinct sense from the previous expressed one. The figurative meaning for sentence (54) is that Juma does not understand what he is being told at that particular moment or he is not aware of anything taking place at that moment. We can see that the features pertaining to darkness are transferred to the TR which is our target domain from the LM which is our source domain (LM). We all understand that in darkness people cannot see different objects. We therefore take that meaning to refer to Juma’s situation.

For further analysis of the figurative use of the preposition **mu-** let us consider the following example.

55. Juma wa-kulila **mu-mbeho**  
   Juma 3PS-PST-grow PREP-shadow  
   *Juma grew up in the shadow*

Sentence (55) if is taken literally it portrays that the shadow is a place in which the TR grew up. The TR is therefore contained in the shadow which is our landmark. The meaning does not seem to be plausible though. Sentence (55) therefore communicates a figurative meaning that Juma grew up in comfort. The family in which he grew up was economically stable and he did not experience any destitute life.

The inference can be simply made from the features related to the shadow. The shadow as our source domain (LM) its features are mapped onto the target domain, i.e., the TR (Juma). We all know when a person is under the shadow, he experiences comfortable moment than the one who is not in the shadow. The shadow protects us from heat. It is this interpretation which gives us the established metaphorical meaning in (55).

56. Tu-li-mhola **mu-Yesu**  
   3PL-PRES-okay PREP Jesus  
   *We are okay in Jesus.*

Sentence in (56) expresses the figurative use of the preposition **mu-** which implies that people are okay under Jesus mercy or power. We all understand that containment
involves protection from outside forces. We can therefore say that Jesus has a supreme power over our lives and He protects us from different calamities. We can therefore take all these attributes to get to the metaphorical meaning established. The first impression from sentence (56) is that, Jesus is conceptualized as a container in which people are safe. However, this visualization does not give a clear sense. The features deduced from the LM (Jesus) which is our source domain are then mapped onto our target domain, the TR (we). From this mapping we are then able to conclude that the power from Jesus makes us stay safe.

Riember (2010:247) says that, a metaphor is a cognitive process which helps us to conceptualize our experience by setting up correspondences between easily understood things and hard to understand things. His statement backs up the above discussed concepts about the figurative use of Kisu kuma prepositions.

3.5.3. Ha-silili and mu-

The two prepositions can be used in the same sentence but both of them cannot be used figuratively. For our case here the preposition hasilili ‘down’ is used as a conceptual metaphor.

57. Janeth a-li-hasilili mu-darasa
Janeth 3PS-PRES- down PREP-class
Janeth is down in the class
Sentence (57) can be viewed in the following terms: that Janeth as a trajector is located somewhere down in the class which is the LM. The meaning is not plausible when this sentence is uttered in a certain context. The preposition hasilili is used in a figurative way to convey a more abstract sense apart from the literal one. The plausible meaning for sentence (57) is that Janeth is not good in class work when compared with others. Her academic ability is very low. The features such as low, poor or unhappy which are deduced from the preposition hasilili in its abstract sense
are mapped onto the TR (Janeth) to give us the meaning stated. We all understand that when someone is down, it means that she is uncomfortable, a low achiever etc. These features help us to figure out the hidden meaning of any conceptual metaphor simply by mapping these features to our target domain.

3.5.4. Ha-numa ‘behind’

The preposition ha-numa can also be used as a conceptual metaphor when it is used in different usages. The figurative use of this preposition is sometimes determined by the context in which it is produced. Let us consider the following example for more clarification:

58. Janeth a-li-ha-numa yise
   Janeth 3PS-PRES-PREP us
   *Janeth is behind us*

Sentence (58) may have two possible meanings. The first meaning being that, the TR (Janeth) is located behind the landmark. The second meaning, which is determined by the context such as the topic under discussion, implies that Janeth is lagging behind in some aspects such as economic, education, age, or any other aspect compared to us. In the second explication, the preposition ha-numa is therefore used as a conceptual metaphor to convey a figurative meaning. The features pertaining to the preposition ha-numa acts as our abstract landmark in which its features such as lagging behind in terms of socio-economic, education etc. are mapped onto the TR (Janeth) to give the already established sense.

3.5.5. Ha-bhutongi ‘ahead’

The preposition ha-bhutongi can as well perform the same function assumed by the preposition ha-numa but the context comes into play in order to give a plausible interpretation because the preposition can have two possible meanings, as seen in the explanation that follows sentence (59).
59. Kenedy a-li-habhotungi yise
    Kenedy 3PS-PRES-PREP us
    *Kenedy is ahead of us.*
When sentence (59) is used by a Kisukuma speaker, it gives a spatial scene that the
TR is located in front of the LM. This meaning is plausible only if there is a physical
condition which satisfies this interpretation. Depending to the context in which the
utterance is produced, let say people are discussing development, the preposition
habhotungi can be used as a conceptual metaphor. Sentence (59) figuratively implies
that Kennedy has made a further step in doing something before all of us. This could
be in any aspect of life. We know that when a person is ahead signifies that he has
excelled in certain aspects of life. These aspects may include high education,
economic, social status etc. The different aspects of life in which Kennedy is ahead of
us act as an abstract LM and are mapped onto the TR (Kennedy) to show or express
the fact that he has moved further than us.

3.5.6. Ha- ‘at’
This preposition can be used figuratively in Kisukuma. Consider sentence (60) below.

60. Juma a-li-ha-nzila maka
    Juma 3PS-PRES-PREP-way cross
    *Juma is at the cross-road*
Sentence (60), when taken literally, expresses the fact that the TR is located or
stationed at the landmark, and therefore there is contact between the landmark and the
trajector. When the sentence is taken as a conceptual metaphor, it gives a different
meaning from the one established in (60). Depending on the context such as a person
is in problem, the spatial preposition in (60) can be used figuratively to show that
Juma is in dilemma. He is confused and undecided. The abstract features associated
with the LM ‘crossroad’ which may mean to be in a dilemma, confused, undecided, to
have no direction, etc. are mapped onto the TR (Juma) to give us the established
meaning above.
We can therefore say that image schemas play an important role in the interpretation of the abstract ideas. This can be supported by Johnson (2005:24) when he says that;

The principle philosophical reason why image schemas are important is that they make possible for us to use the structure of sensory and motor operations to understand abstract concepts and to draw inferences about them. The central idea is that image schemas, which arise recurrently in our perception and bodily movement have their own logic which can be applied to abstract conceptual domains. Image-schematic logic then serves as the basis for inferences about abstract entities and operations.

Johnson’s statement gives us the evidence that image schemas can play a vital role in the interpretation of metaphors.

### 3.6 Conclusion

From the analysis in this chapter we see how different Kisukuma prepositions can produce complex image schemas. The complex image schemas include; path and contact image schemas and place contact image schemas. The question as to why there is the mismatch between the prepositions and the senses they convey was attempted. We see that the verb in Kisukuma plays a great role to direct the mind into different conceptualization. We also say that the embodiment effects also play a great role to explain the mismatch.

Furthermore the analysis in this chapter, tells us that there is a limited number of prepositions which can be used figuratively. Some of the figurative uses are activated by the context and the topic under discussion. In order for the hearer to interpret the intended meaning they have to consider the context in which the utterance is produced as well as the topic under discussion.

Apart from that, we also see that there are two inputs (preposition +NP) and (preposition alone) which form conceptual metaphors in Kisukuma. The preposition combines with a noun phrase to form a conceptual metaphor. The preposition can also stand alone as a conceptual metaphor. We also see that image schemas never change
only the meaning of the preposition changes into a metaphorical one. The same image
schemas can be used as a tool to understand the figurative meaning of an expression
and the non-figurative expression.

The interpretation of the metaphor is unidirectional based on the mapping of the
features from the source domain to the target domain. In some of our examples such
as (58) and (59), we see that the LM was absent but the gap was filled in by the
features taken from the figurative sense of the preposition which were to be mapped
onto the TR which was also called the target domain. The embodiment plays a great
role in filling the gap left by the landmark.
4.1 Introduction

This chapter presents a conclusive précis anchored on the findings in relation to the research objectives. Besides that, this chapter also gives some recommendations for further research in the areas which are out of the scope of this study, but which are closely related to it.

4.2 Conclusions

The study was carried out to identify Kisukuma spatial prepositions and their meanings, to investigate how it is possible for the few Kisukuma spatial prepositions to express a wide range of spatial orientations. It was also aimed at finding out whether these spatial prepositions are used figuratively through conceptual metaphors. Various hypotheses were then formulated from the objectives which had to be proved or disproved.

Based on data analysis in this study, it is apparent that Kisukuma has spatial prepositions of which some have more than one meaning. So there is a mismatch between the number of the prepositions and the senses they convey. The analysis of preposition showed that, some of the prepositions were morphologically marked and some were lexically marked. The morphologically marked ones were attached either to or combined with a person marker, tense marker and the object to form a verbal complex.

We also found that the few Kisukuma spatial prepositions could yield different image schemas when they were used to refer to different aspects in real life situations and that one image schema could represent several prepositions. The image schemas that adequately described the meanings of Kisukuma prepositions further the simple image
schemas which were classified into contact image schemas, path image schemas, container image schemas, force image schemas as well as direction image schemas. Kisukuma prepositions, in addition, evoked complex image schema like path/contact image schema and place/contact image schemas which were analyzed. The reason for the different mismatches between the prepositions and their meaning were two factors namely the linguistic factor in which a verb plays a crucial role and also the embodiment effects and the nature of our physical bodies. The verb in some cases forces our minds to configure different visualizations depending on the action of that verb as it is discussed in 3.3.1. In a nutshell we can say that a semantic meaning of the verb helps to evoke the image schemas. The embodiment effects and the nature of our physical bodies play a role in that most of the image schemas we visualize are experientially grounded. Therefore, the asymmetrical nature of our bodies also plays a great role in the mismatch. The image schemas, such as up and down, emerge due to nature of our physical bodies, which now makes us able, for example, to use a single preposition such as higulya ‘above’ to explain different things in space.

Further, in an attempt to investigate if Kisukuma spatial prepositions could be used as conceptual metaphors, we discovered that metaphors in Kisukuma are built by using two inputs. The first input involves the preposition and the noun phrase (PREP +NP). The second input is the preposition alone. Some prepositions without a noun phrase gave us conceptual metaphors. We also saw that there was a unidirectional mapping between the TR and the LM. The features from the LM are mapped onto the TR for interpretation.

The mapping process in these kinds of metaphors depends on the features associated with each preposition which in turn fills the gap for an abstract source domain (LM). These features were finally mapped onto the target domain (TR) for interpretation.
We also saw that there was a unidirectional mapping between the TR and the LM. Since image schemas for the prepositions never changed, and only the meaning changed, these image schemas played a vital role in obtaining the meaning of the metaphors. In the conceptual metaphors context was required for their interpretation.

4.3 RECOMMENDATIONS

This study was strictly a semantic analysis of Kisukuma spatial preposition and not any other part of speech. I would like to recommend the same study for other parts of speech such as verbs, adverbs, and adjectives. This will widen our understanding about different aspects of grammar, especially if studied within Cognitive Semantics. This is important because, the theory of image schema is a recent theory in linguistics which has not been used much in African languages.

Lastly, another study should be done so as to establish semantic networks of different Kisukuma spatial prepositions. The study will enable us to identify the proto-scene for different prepositions together with their related senses.
REFERENCES


Gunderson, F. (2010). *Sukuma labor songs from Western Tanzania: We never sleep, we dream of farming*. Leiden: Brill.


inst.eecs.berkeley.edu/~cs182/sp08/sections/week06.pdf

wordnetweb.princeton.edu/perl/webwn