

**UNIVERSITY OF EDUCATION, WINNEBA**

**THE SYNTAX AND SEMANTICS OF COOKING VERBS IN DAGBANI**



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**UNIVERSITY OF EDUCATION, WINNEBA**

**THE SYNTAX AND SEMANTICS OF *COOKING* VERBS IN DAGBANI**



**A Thesis in the Department of Gur-Gonja Education, Faculty of Ghanaian Languages Education, Submitted to the School of Graduate Studies, in partial fulfilment of the requirements for the award of the degree of Master of Philosophy (Dagbani) in the University of Education, Winneba**

**MARCH, 2024**

## DECLARATION

### STUDENT'S DECLARATION

I, AWAL SUALISU, hereby affirm that this thesis is entirely my own original work and has not been submitted in whole or in part for credit toward another degree elsewhere, with the exception of citations and references from published sources that have all been identified and officially acknowledged.

SIGNATURE: .....

DATE: .....

### SUPERVISORS' DECLARATION

We hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis as laid down by the University of Education, Winneba.

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## **DEDICATION**

I dedicate this work to my maternal uncle, Mohammed Kampa and my mother Tahidu Bintu for their financial, and moral support throughout the programme.





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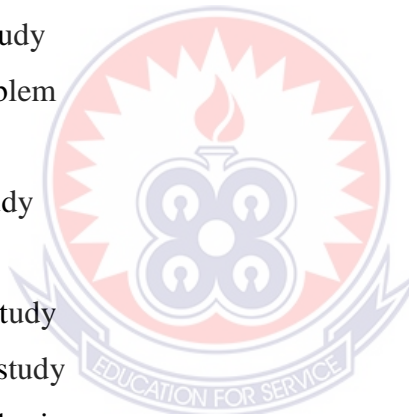
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## LIST OF ABBREVIATIONS

1	First Person Pronoun (1SG/1PL)
2	Second Person Pronoun (2SG/2PL)
3	Third Person Pronoun (3SG/3PL)
CONJ	Conjunction
CM	Causative marker
DEF	Definite article
FOC	Focus
IMPERF	Imperfective
IMP	Imperative marker
NEG	Negative
ND	No date
NOM	Nominalizer
PST	Past
PERF	Perfective
PL	Plural
POSS	Possessive
SG	Singular
TZ	‘Tuozaŋi’



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## ABSTRACT

This study examined the syntax and semantics of Dagbani cooking verbs, a Mabia language spoken in Northern Ghana. The study further examined the distributions of these cooking verbs, taking into account the issue of collocation and the case of transitivity. The study further explored the basic and extended semantics of Dagbani cooking verbs. Adopting the idea of Lehrer (1969), the study identified various dimensions of eliciting the culinary terms through [ $\pm$  features] in Dagbani. Data for this thesis were collected from both primary and secondary sources. The primary data were collected through semi-structured interviews, and self-generated data through native speaker intuition. The secondary data were collected from some Dagbani books including Dagbani dictionaries. Cognitive Linguistics is adopted for the analysis of Dagbani cooking verbs in this study. The activity-based cooking verbs are the prototypical verbs that make the food ready for consumption while the process-based assist the activity-based to facilitate the cooking. In addition, it is established that the cooking verbs do not collocate with all the food items in Dagbani. However, the choice of a verb depends on the type of food selected to cook. It is also revealed that all the Dagbani cooking verbs are naturally transitive. However, the intransitive forms demand some affixes to function syntactically. It is also revealed that some of the verbs go beyond the basic meanings they represent. The verb *duyi* 'cook' as the general term has extensions into more other domains than the other verbs. The data revealed that the cooking verbs can be extended to referred emotions, health status of the speaker, body temperature, children playing such as reciting folktales, swimming among others.



## CHAPTER ONE

### THE GENERAL OVERVIEW OF THE THESIS

#### 1.0 Introduction

This thesis discusses the syntax and semantics of COOKING verbs in Dagbani, a Mabia Language spoken in the Northern part of Ghana. The notion of *cooking* is an aspect of natural languages that requires linguist's attention. Unfortunately, much has not been done in this aspect more especially the Mabia Language fraternity. The study thus, explores the syntax and semantics of Dagbani cooking verbs and the semantic extensions of these *cooking* verbs in the language. *Cooking* as an activity is universal. The way we cook vary from culture to culture, and thus, different verbs are elicited. According to Upah (2014), a verb as, 'cooking' simply means to prepare food for the table by 'boiling,' 'roasting' or 'baking'. Someone who cooks is also known as a cook. He added that there are differences in how English and Jukun languages perceive, view and use the various cooking terms. This is because some of the terms present in English appear to be absent in Jukun language. I will later show that similar a partten exists in Dagbani.

Regarding background of the language, Hudu (2010) indicates that national censuses in Ghana combine four related ethnic groups that speak Mole-Dagbani, a Mabia (Gur) language. the Dagomba, Nanumba, Mamprusi, and Mossi ethnic groups (spoken mainly in Burkina Faso). The Dagbamba traditional state is Dagbon (the traditional seat of the Yaa Naa). Dagbani has three major dialects which are the Tomosili, (the Western dialect) spoken in Tamale and its surroundings, Nayahili (the Eastern dialect) spoken around

Yendi, and Nanuni, spoken by the people of Bimbila and its surroundings. Dagbani is one of the subjects that is taught from primary school up to the university (Issah, 2015).

The rest of the chapter is structured as follows: Section 1.1 discusses the background to the study. Section 1.2, 1.3, 1.4, and 1.5 outlines the statement of the problem, the purpose of the study, the objectives of the study, and the research questions respectively. The significance of the study and delimitation is presented in sections 1.6 and 1.7. The study finally presents the organization and the summary of the entire thesis.

### **1.1 Background to the study**

Studies on cooking verbs have gained scholarly attention across languages of the world. Among the scholars who have shown interest in working on this particular phenomenon include (Lehrer 1969, 1972; Newman, 1975; Usuramo, 2000; Agbo, 2009; Bartor, 2015; Sama-ae & Wongthai 2016; Dardis, 1983; Dogbey, 2020; Choi 2020). The idea of verbs forms a significant aspect of the grammar of every language. These verbs often occur in our everyday dialogue, especially when we talk about food. Every community has its distinctive food items and these food items have their independent vocabularies that are used in their preparation. The same vocabulary does not apply to all food items in a particular ethnic group. This mostly depends on the culture of the ethnic group. Dagbamba have a way of cooking that is generally accepted by their culture and tradition. As postulated by Lehrer (1969), the basic most inclusive sense is the word ‘cook’ and refers to the object (food) being transformed by the application of heat to an irreversible condition. In Newman’s (1975) study, she compares Lehrer’s English cooking verbs to

those of Hebrew's. Dogbey (2020:18) posits that cooking is the practice or skill of preparing food by combining, mixing, kneading, and heating ingredients using naked fire, oil, heat, vapor, or hot air. The word cooking has several senses. Similarly, Dardis (1983) considered the following components most significant as far as the concept of cooking is concerned; cooking as a process, irreversibility, heat, and edibility. According to Agbo (2009:70), verbs of cooking have been identified as the semantic class of verbs which inherently encode the activities of meal preparation. He identifies three of these verbs. They are verbs of heating, verbs of mixing, and verbs of parboiling. The verbs of heating essentially encode the direct application of heat. The heat from the fireplace is directed onto the food item. Sometimes this involves dipping the item into the fire and other times it involves keeping it a few centimeters away from the fire but with the heat rays directly piercing the food item. The verbs of mixing are those verbs that encode the information that the meal being prepared involves a variety of ingredients. Verbs of parboiling encode the meaning that the heat applied to the food item is controlled. This means that when the preparation of the meal is going on, there is utmost care to see to it that the heat applied is kept within a certain range of temperature in order to get the desired effect on the food item. Adopting the line of Agbo (2009), Choi (2020) is of the view that any activity that is involved in the cooking process is important. The very moment one sets the mind to step into the kitchen to commence cooking, any related verb is considered vital. Cook '*duyi*' in Dagbani is a general human activity that gives information about the readiness of food for consumption. The prototypical term *duyi* 'COOK' has several subsets depending the medium or the mode of preparing the meal. This study will also go in line with Choi (2020:29) who analyzes 134 English COOK

verbs arguing that Lehrer (1969) eliminated some verbs that were minimally used, French-loan words, and her inability to give an exact definition. According to Choi (2020), much attention was not given to the cooking verbs, therefore, the need to expand it by including culinary verbs that have been ignored for a long time by most linguists who only chose to look at cooking verbs with the notion of heat presupposed.

## **1.2 Statement of the problem**

Researchers across the globe especially linguists have developed interest in looking at the concept of cooking verbs. Among them are; English (Lehrer 1969, 1972 Newman 1975, Bator, 2015 Choi, 2020), Spanish (Dardis, 1983), Fijian (Usuramo, 2000), Patani Malay (Wongthai & Sama 2015) Igbo (Agbo, 2009), Ewe (Dogbey, 2020).

It is therefore not surprising that recent studies in the semantics of languages have mostly been based on the semantics of verbs. Atintono (2013) investigates on posture verbs in Grune, Salifu (2021), and Bashiru (2021) have investigated the semantics of cut and break verbs and eating and drinking verbs in Dagbani. However, the only literature in Dagbani which is somewhat related to this study is the work of Salifu (2021) who delimited his study on the eating and drinking verbs in Dagbani. All these studies sought to investigate the meaning of these verbs as well as their structure in sentences. The significance of the current study can thus not be underestimated as it discusses the syntax and semantics of cooking verbs in Dagbani. The literature on the linguistics of *COOK* verbs indicates that collocation remains a central issue of which Dagbani is not an exception. The preliminary data below, therefore, buttresses this claim;

- (1) a. *Dawuni*      *duyi*      *shinkaafa*      *maa.*  
 Dawuni      cook.PERF      rice      DEF  
 ‘Dawuni has cooked the rice’
- b.    \**Dawuni*      *duyi*      *koko*      *maa.*  
 Dawuni      cook.PERF      gruel      DEF  
 ‘Dawuni has cooked the gruel.’
- (2) a. *Samata*      *duyi*      *ti*      *zieri*      *maa.*  
 Samata      cook.PERF      1PL      soup      DEF  
 ‘Samata has prepared our soup.’
- b.    \**Samata*      *kɔyi*      *ti*      *zieri*      *maa.*  
 Samata      brew.PERF      1PL      soup      DEF  
 ‘Samata has brewed our soup.’

As seen from the aforementioned examples, *duyi* ‘cook’ collocates with *shinkaafa* ‘rice’ as a solid food substance in sentence (1a), but semantically not allowed to collocate with *koko* ‘gruel’ as a liquid food substance. However, *duyi* ‘cook’ collocates with some liquid food substances as can be seen in *zieri* ‘soup’ in sentence (2a). In addition, in example (2b), the collocation between the verb *kɔyi* ‘brew’ and the noun *zieri* ‘soup’ may be possible in the extended sense of the soup being delicious. Dagbani uses completely different verbs to indicate cooking for various levels of liquid and solid food substances. The current study, therefore, looks into these intriguing developments in the behavior of Dagbani verbs of cooking.

### **1.3 Purpose of the study**

The purpose of this study is to explore the syntax and semantics of cooking verbs in Dagbani.

### **1.4 Objectives of the Study**

The objectives of the study are to:

1. identify the verbs used in cooking in Dagbani;
2. investigate the syntax of Dagbani cooking verbs;
3. explore the basic semantics and semantic extensions of Dagbani cooking verbs.

### **1.5 Research Questions**

The study seeks to answer the following questions:

1. What are the verbs used in cooking in Dagbani?
2. What is the syntax of Dagbani cooking verbs?
3. What are the basic semantics and semantic extensions of Dagbani cooking verbs?

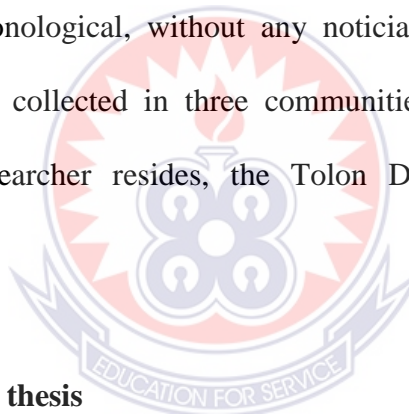
### **1.6 Significance of the Study**

This study is significant because it will help provide insight into cooking verbs in Dagbani and other languages as well as introduce the reader to the general understanding of verbs. I also have a strong conviction that this study will serve as reference material for others who will want to study in the area, most especially the numerous literatures on the semantics of cooking verbs cross-linguistically. This study will further advance the

study of Dagbani linguistics and provide a foundation for further investigation, notably into the Mabilia language family.

### **1.7 Delimitations of the study**

The study focuses on the concept of cooking verbs in Dagbani. Dagbani has three dialects Tomosili (Western dialect), Nayahili (Eastern dialect), and Nanunli (Southern dialect). These three dialects all have the same cooking terminologies, therefore, taking the data from any of them serves an equal purpose. Being a native speaker of the Tomosili (Western dialect), the research was done in that dialect. The differences between these dialects are mainly phonological, without any noticeable syntactic differences (Issah, 2023:1) The data were collected in three communities in three districts, Kumbungu District where the researcher resides, the Tolon District, and the Tamale Metro respectively.



### **1.8 Organization of the thesis**

The study is organized into five chapters. The first chapter introduces the topic thus discussing the general overview of the thesis. In this same chapter, the background of the topic as well as the language under which this research are perused and discussed. In this same chapter, the statement of the problem, the purpose of the study, the objectives of the study, the research questions, the significance of the study and delimitation of the study as well as how the entire thesis is organized are discussed. Chapter two of this thesis reviews the literature on the distribution of some cooking verbs, the concept of cooking and the lexicalization of the verbs used in cooking in Dagbani and their metaphorical

extensions. Notwithstanding, the theoretical framework adopted for this study is Cognitive Linguistics Approach. Chapter three looks at the methodology employed by the researcher in this thesis to gather accurate data for discussion. In this chapter, the research approach, research design, population, sample size, research site, sex and age of respondents, source of data, data collection strategy, and instruments used were all discussed.

Chapter four of this thesis investigates the distribution of these verbs. This is done by analyzing the individual verbs based on transitivity and how some of them collocate with the noun. It further revealed why some verbs do not collocate with some food items. Chapter five explores the basic semantics and semantic extensions of the prototypical verb 'Cook' *duyi* and other cooking verbs in Dagbani. Chapter six, the final chapter of this thesis summarizes and concludes the entire thesis. It also indicates the findings and some recommendations for future researchers.

### **1.9 The Chapter Summary**

This chapter has provided the general introduction of the thesis. The introduction discusses the background of the language thus a thorough description of the dialects as well as the population of the entire language group. The background of the study is also discussed. It went on further to explore on the statement of the problem and subsequently outlines the major thematic components such as the purpose of the study, the objectives of the study. The significance of the study and the scope of the entire thesis and its organization is finally discussed.



## CHAPTER TWO

### REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK

#### 2.0 Introduction

The main focus of this chapter is to review some relevant related literature on the syntax and semantics of Dagbani cooking verbs. This is done based on both foreign and Ghanaian languages. The review examines the concept of cooking verbs and how various languages lexicalize the idea of cooking verbs. It also discusses the various dimensions of eliciting the cooking verbs, the distributions, the issue of collocation and how semantically these cooking verbs can be extended across languages.

The chapter is therefore, organised as follows: Section 2.1 discusses the notion of *cooking* verbs in both Ghanaian and non-Ghanaian languages in general. The lexicalization of *cooking* verbs comes in 2.2, while section 2.3 presents literature on the syntax of cooking verbs. Section 2.4 discusses studies on the semantic classification of cooking verbs. Section 2.5 explores the semantic extension of *cooking* verbs whereas section 2.6 discusses studies on *cooking* verbs in Ghanaian languages. 2.7 focuses on Cognitive Linguistic Approach as the theoretical framework for the study. Finally, section 2.8 summarises and concludes the chapter.

#### 2.1 The notion of *cooking* verbs

This section discusses the general overview of *COOK*. It focuses on how linguists deliberated on the concept to pave way for its understanding. Definitions from different scholars are discussed from diverse perspectives.

Cooking is one of the essential activities in every household. It started since time immemorial and has therefore, become part and parcel of every generation. We cook to eat to survive. This is therefore, the reason why some scholars like Lehrer, Newman, Choi, Usuramo, and others deem it necessary to investigate on verbs related to several of life aspects including cooking, kingship terms, color terms, posture verbs, harvest verbs, cut and break verbs, eating and drinking verbs and others. Lehrer (1969) posits that all the languages in the world employ verbs to denote activities that have to do with cooking. It is significant to note that, the conceptualization and language representation of food preparation vary among cultures. There is also a high possibility of variation in the connection of verbs among languages due to the cultural differences among the languages. For instance, the data of the current study indicate that some Dagbani cooking verbs might not find their equivalents in the English language therefore the need to describe the activity to denote a sense of those particular cooking verbs. However, the mediums through which food is cooked or prepared tend to be similar and universal: fire, water, fat (or oil). As opine by Bobuafor (2018:135), 'different cultures have different ways of preparing and cooking food. They also construe and interpret the processes differently.

Nonetheless, Lehrer (1969) happened to be the famous scholar who has worked on cooking verbs in different languages. Recent works have largely relied on his works to explore more on this phenomenon (see Newman, 1975). Lehrer's work (1969, 1972) are essentially the works that explored the componential analysis of culinary verbs. Lehrer (1969) uses the work of Katz and Fodor (1963) and Lyons (1963) to study the lexical

field of cooking terms in English. Specifically, she analyzes English culinary verbs into components so that she can show that the items in the field are highly organized and that the semantic and syntactic analyses tend to support each other (Lehrer, 1969:39). As already indicated, Lehrer (1972) examines the semantic structure of the cooking vocabulary in several languages, which are seemingly unrelated in their cultural background, to evaluate the notion of a culinary triangle. In 1972, she analyzed cooking terms in French, German, Chinese, Japanese, Jacalteco, Yoruba, Navajo, and Amharic, in comparison with English cooking terms.

According to Lehrer (1969), the basic most inclusive sense of cook refers to an object (food) being transformed by the application of heat to an irreversible condition. It refers to the preparation of most other kinds of food. She added that the more general field of food preparation would not only include the subset of cooking lexemes, but subsets for mixing, chopping, coating, adding ingredients, separating substances, preserving, etc. The word *cook* has three levels of generality. In its most general sense (*cook1*) is the least marked which simply means to 'prepare food', belonging to the field of household tasks along with *dusting, washing, vacuuming*, and also belonging to the field of occupation, with *repair electrical appliances, sweep chimneys*. *Cook2* is considered as the second level which has to do with *baking*, meaning the preparation of cakes, cookies, breads, pastries, and other things that are sold in bakeries and prepared by professional bakers. *Cook3* is the third level which is described by Lehrer as the most marked sense because the cooking verbs identified in this level have to do with heat. The verbs identified include; *boil, fry, broil, and bake1(cook2)*. According to Lehrer (1969), these

three senses are not necessarily distinct from each other but there is a great overlap between them (also see Newman, 1975).

Adopting the work of Lehrer (1969), Newman (1975) works on the differences and similarities of English and Hebrew cooking verbs. Newman (1975:57) emphasizes that ‘the most all-embracing general term is **cook** in which three levels are distinguished. Cook1 is the widest sense of preparing a meal, referred to as an ACTIVITY- paralleling, cleaning, dusting etc. Cook2 is slightly more limited, in contrast with bake1 in which the field of edibles is divided into two: bake marked for bread, cakes, and pastries with the rest left for cook. Cook2 = [-bake].’ This also means that cooking and baking are activities possessing a temporal dimension. Cook3 is considered to be the most specific in describing the PROCESS involving the components discussed by Lehrer’s Cook3. In contrast with this assertion in Dagbani, the activity based cooking verbs are the prototypical cooking verbs whereas the process based cooking verbs are considered as the auxiliary verbs. Another key difference in the Dagbani data is that, the verbs related to baking as described by Lehrer (1969) as cook2 are all categorized under the activity based cooking verbs. This phenomenon shall be discussed into detail in chapter four of the study.

However, several criticisms have been made following the (Lehrer, 1969) study on cooking verbs. For instance, Newman (1975) examines the differences and similarities between English and Hebrew cooking terms indicating that, the definition of COOK given by Lehrer was weak and that English is very rich in cooking verbs to list only 35

and quote more than the number listed in other languages (Newman, 1975). Choi (2020) expanded Lehrer's 35 cooking verbs to 135 indicating that, the culinary verbs have been ignored for a long time by linguists. Choi also noted that Lehrer (1969) eliminated some verbs that were minimally used, the French loan words, and her inability to identify the exact definition.

**Table 1: COOK as an English term and its subsets adopted from Lehrer (1969:45).**

Cook									
Boil		Fry		Broil			Bake		
Simmer	(full) boil	Sauté	French-fry	Grill	barbecue	Plank	Roast	shirr	scallop
		pan-fry	deep-fry		charcoal				

The above table indicates clearly that, *COOK* is seen as the prototypical verb in English having *boil*, *fry*, *broil*, and *bake* as its subsets. *Simmer* and *full boil* are subsets of *boil*. Whereas *sauté*, *pan-fry*, *French-fry*, *deep-fry* are subsets of *fry*. *Grill*, *barbecue*, *charcoal* and *plank* are subsets of *broil* while *roast*, *shirr* and *scallop* are subsets of *bake* (Lehrer, 1969).

According to Upah (2014), a verb such as, 'cooking' simply means to prepare food for the table by 'boiling,' 'roasting' or 'baking'. Someone who cooks is also known as a cook. He added that there are differences in how English and Jukun languages perceive, view, and use the various cooking terms. This is because some of the terms present in English appear to be absent in the Jukun language. The two languages have some unique features therefore both their syntactic and semantic analyses complement each other.

Nevertheless, the meaning components and classifications of these cooking terms will be, for any given individual, based on cultural cognitive validity. Therefore, the other properties of this lexical field will differ from language to language as well as from society to society. Such properties include nominalization, metaphorical extensions, syntactic characteristics, morphological characteristics, and collocational restrictions. (Upah, 2014).

In order to examine the culinary terms in English adequately, Upah (2014:26) argues that, the verbs will be taken as basic in describing the paradigmatic contrasts such as:

<i>Parch</i>	<i>Cook</i>	<i>Shirr</i>	<i>Brown</i>
<i>reduce</i>	<i>charcoal</i>	<i>sauté</i>	<i>burn</i>
<i>roast</i>	<i>grill</i>	<i>boil</i>	<i>poach</i>
<i>rissole</i>	<i>simmer</i>	<i>braise</i>	<i>pan-fry</i>
<i>fry</i>	<i>stew</i>	<i>broil</i>	<i>deep-fry</i>
<i>flamber</i>	<i>scar</i>	<i>barbecue</i>	<i>plank</i>
<i>scallop</i>	<i>bake</i>		

The semantic compounds found in English culinary terms include: *steam-bake*, *pot-roast*, *oven-poach*, *pan-boil* and *oven-fry*. These selected culinary terms by Upah (2014) are equivalent to Cook3 of Lehrer (1969) as the most marked sense of cooking verbs because of their ability to expose to heat. In the case of the Dagbani data which shall be discussed later, some of the culinary verbs like *pan-fry*, *deep-fry* identified by Upah (2014) do not exist because of the differences in the Dagbani word structure.

**Table 2. The semantics of five English cooking verbs in some Nigerian languages adopted from (Upah, 2014: 24).**

English	Yoruba	Hausa	Igbo	Tiv	Jukun	Igala
Cook	Se	Dafa	Sie	Jidi	Te	Hi
Fry	Din	Soya	Ghe	Kaa	Fe	De
Steam		Turara	N]a			
Roast	Sun	Gasa	Hxq	Ngbagh	Nwun	Ro
Boil	Bo		Gbo		Ne	Wo

The table above identifies five cooking verbs in English and how they are referred to in five Nigerian languages. An empty box in the table means that a particular English cooking verb does not exist in that language.

Kumtanode (2006) investigates cookery terms in four Thai regional dialects: Central Thai, Northern Thai, Northeastern Thai, and Southern Thai. She discovered that Northern Thai (NT) cooking terms outweighed those of the other dialects and that Northern Thai and Southern Thai shared many culinary terms denoting the same notions, such as */mok24/* 'to burn in hot ash'. Nonetheless, it is worth noting that Kumtanode's study of the process of making food edible was based on Western cooking methods. That is, food is cooked with heat.

Arguably, Panyaatisin & Prasithratsint (2012) reveal that heat is not always required during the NT cooking procedure. Indeed, several NT cooking terms that mean '*to cook without fire*' are missing from Kumtanode's work, such as */la:p/* 'to chop raw beef/buffalo meat with entrails and spices' and */sa:/* 'to mix meat and vegetables with spices as salad.'

These cooking terms are commonly used in the NT community, and to disregard them is to disregard essential cooking activities in NT culture. To uncover the culinary notions in NT cognition, the sense of "cooked" and "cooking system" in NT should be reinterpreted (Panyaatisin & Prasithrathsint, 2012).

Dogbey (2020) posits that the concept of using instruments in the cooking process reveals the nature of prepared food. *Cooking* is chemical and therefore, cannot be reversed (also see Newman 1975:57, Lehrer, 1969). There is also a total change in the object form when cooking is completed. The general idea is that ingredients that are supposed to be used in the cooking process are prepared before cooking commences. Even though all these processes depict cooking verbs, his work limits itself to the cooking as an event and after all ingredients are prepared and made set for the actual cooking to occur. What this means is that any verb that has to do with arranging, or ingredients are completely ignored and must not be given the needed attention. Doing a thorough scrutiny of his paper, you could realize that, he is not denying the fact that those verbs exist in Ewe, but his focus is rather not on that aspect. He added that cook verbs and their meanings in Ewe are signified by the medium of preparation and the syntactic factors that enumerate them. This therefore enshrines the verbs to function in context. In addition to this, it also gives an explicit account of the environment for their description. Comparing this to other languages, Ewe also considers the fact that, the verbs and their actions are culturally fixed, fit, and exist in the language. Also not in isolation, the grammatical features are studied in sentence order. These helps unravel the contextual efficacy, functional specificity, and feasibility of describing an event.



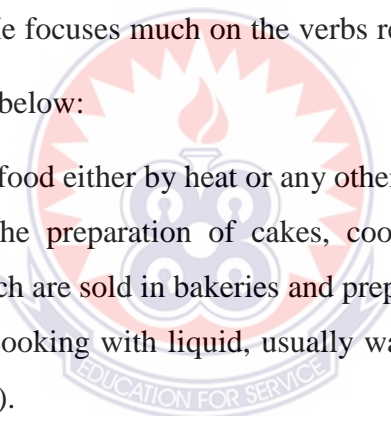
According to Dogbey (2020), cooking is the practice or skill of preparing food by combining, mixing, kneading, and heating ingredients using naked fire, oil, heat, vapor, or hot air. The most significant meaning components identified on the verb are the meanings that inherently revolve around the process or medium of the cooking and the name of the finished product, any other activity such as the use of instruments such as frying pan, spoon, griller, oven, ladle, and others to perform the cooking. These still neglected and not part of this study. The medium refers to liquid, conventional, vapor, or any form of an air current. The medium of cooking elicits culturally accepted verbs and specifies their semantic implication. The medium is conceptually acquired and when the verb is mentioned, native speakers' competence informs on the medium of the cooking and it inherently marked, hence left out in the expression. This feature significantly differentiates the various cooking terms elicited by the verb. Another factor identified has to do with whether the use of the verb involves the use of fire in cooking. It is interesting to note that not all cooking is done using fire or any form of heat as conceptualized by many languages. This was the thought of many until recent works proved it wrong (see Choi 2020).

Agbo (2009:70) postulates that verbs of cooking have been identified as the semantic class of verbs that inherently encode the activities of meal preparation. He identifies three of these verbs. They are verbs of heating, verbs of mixing, and verbs of parboiling. The verbs of heating essentially encode the direct application of heat. The heat from the fireplace is directed onto the food item. Sometimes this involves dipping the item into the fire and other times it involves keeping it a few centimeters away from the fire but with

the heat rays directly piercing the food item. The verbs of mixing are those verbs that encode the information that the meal being prepared involves a variety of ingredients. Verbs of parboiling encode the meaning that the heat applied to the food item is controlled. This means that when the preparation of the meal is going on, there is utmost care to see to it that the heat applied is kept within a certain range of temperature to get the desired effect on the food item.

## 2.2 Lexicalization of cooking verbs

According to Lehrer (1969:41) the following cooking verbs form part of the cook1, cook2, and cook3 of his study. He focuses much on the verbs related to the cook3 than the other subgroups as can be seen below:

- 
- Cook:** to prepare food either by heat or any other means.
- Bake:** refers to the preparation of cakes, cookies, breads, pastries, and other things which are sold in bakeries and prepared by professionals.
- Boil:** involves cooking with liquid, usually water or water-based liquid (stock, wine, milk).
- Simmer:** to cook below boiling point.
- Poach:** to cook by surrounding with simmering (not boiling). Poaching retains the shape of the food example egg, fish, and fruits.
- Stew:** is a long slow method of cooking in a liquid which is kept at simmering point.
- Braise:** refers to two processes carried out sequentially. Braised food (meat and vegetables) is 'browned in a little fat, then cooked in a little liquid over a low heat in a covered pan'
- Parboil:** 'to partially cook food in boiling water' the term is used only with solid; it contrasts with stew with respect to the length of the time involved (short vs. long).

- Reduce:** the process of boiling a mixture in an uncovered pan to evaporate surplus liquid and a more concentrated result. Reduce collocates with liquids and steam with solid.
- Fry:** is characterized by the use of fat (oil, grease) in cooking, although the fat may be present in the food being fried. Fry collocates with solid food substances.
- Broil:** to cook directly under a heating unit or directly under an open fire.

Nevertheless, there is a high possibility of having similar cooking verbs identified by Lehrer in Dagbani. But I emphasize that, some of his verbs are likely not to be found in my data due to the cultural diversity between Dagbani and that of English language. Perhaps, it could also be because of his negligence of some of the loan words found in the English language as postulated by Choi (2020) who discovered 135 English cooking verbs. Find below some of the cooking verbs lexicalized by Choi (2020:30)

- Bake:** to cook with dry, indirect heat, generally in an oven.
- Blend:** to combine two or more ingredients until each loses its individual identity and the whole becomes smooth in texture and uniform in color and flavor.
- Boil:** to cook in a covering liquid (water, fat, etc.) which has been heated to the bubbling, or boiling, point.
- Bread:** to roll a food such as a cutlet or slices of meat, eggplant, etc., in bread crumbs, usually after dipping in beaten egg
- Broil:** to cook food by exposing it to direct flame, generally located above, as in the arrangement known as a broiler.
- Brown:** to partially cook the surface of meat to help remove excessive fat and to give the meat a brown color crust and flavor.
- Carve:** to slice hot cooked meats.
- Caramelize:** to brown sugar for nutty flavor and brown color.
- Chiffonade:** to cut leaves into long thin strips.

<b>Chill:</b>	to cool to a fairly low temperature but not to the freezing point
<b>Chop:</b>	to cut into small, but not minute, pieces by striking repeatedly with a sharp blade
<b>Coat:</b>	to cover with a layer, usually thin, of some material or substance, for example, mayonnaise, aspic, flour, or the like
<b>Combine:</b>	to unite, especially unlike ingredients, by mixing thoroughly
<b>Concasse:</b>	to rough chop any ingredient, usually vegetables
<b>Crush:</b>	to compress with considerable pressure so as to bruise, mash, or break into bits.
<b>Cure:</b>	to preserve a food by salting, smoking, pickling and/or drying.
<b>Cut:</b>	to separate into pieces with the blade of a knife or with scissors.
<b>Debeard:</b>	to remove the shaggy, inedible fibers from a mussel.
<b>Decant:</b>	to pour out, as for example, wine from a bottle.

Based on some of the verbs identified by Choi, it could be realized that some of the verbs he identified sound like that of French. This means that a broader investigation and consultation had been done to gather more of the verbs including the loan words as was neglected by Lehrer. With regards to the Dagbani data yet to be discussed in the subsequent chapters, this phenomenon is likely to exist or not.

Making reference to García (2015) who relies on corpus selection, the verb *cook*, *fry*, and *roast* have been specifically identified as the semantic domain "to prepare something for eating by heating it in a particular way. García (2015) only focuses on verbs related to applying heat. He identifies seven sub-classes of cooking-related verbs relying on over 3000 English verbs identified by Levin (1993) who classified them based on relevant components. Nevertheless, three subgroups out of the seven domains have been carefully

looked at. A large number of different verbs from different angles of cooking have been identified.

Levin (1993) further argues that the list of "verbs creation and transformation" includes all those verbs that share similar syntactic behavior to the three main verbs of the domain of *cook, fry, and roast*. Levin (1993) separates the verbs of cooking related into seven subclasses known as build, grow, preparing, create, knead, turn, and performance verbs.

### **2.3 The syntax of cooking verbs**

This section discusses the review on how scholars observe the syntactic and semantic behavior of cooking verbs across languages. The literature reveals the position of the verb in different kinds of constructions. Agbo (2009) observes that the syntactic constructions have inherent properties that encode different terms of meaning. The distinction in syntax and semantics gives the basis for classifying verbs in general. The most interesting part of the Igbo cooking verbs according to Agbo (2009) is that, the prototypical term for cook in Igbo collocates with all the food items they have. For instance, the verb *ísí* 'to cook' is a generic verb that can collocate with all food items in the language. In other words, the verb *ísí* can take as direct object any nominal that, in an integral manner, implies a food item. This is different in many languages like Ewe, English, Jukun, and Dagbani.

The data bellow adopted from Agbo (2009:72) demonstrate with examples in (2) how this verb operates in Igbo sentences.

- (3) a. *àdá ísí jí*  
 Ada cook-TNS yam  
 ‘Ada cooked some yam’
- b. *Ezè ísí ánú*  
 Eze cook-TNS meat  
 ‘Eze cooked some meat’
- c. *Ngózi ísí ókà*  
 Ngozi cook-TNS maize  
 ‘Ngozi cooked some maize’

(Agbo, 2009:72)

In the above examples (2a-c), the verb *ísí* ‘to cook’ co-occurs with three different object NPs. In (2a) the verb co-occurs with the NP *jí* ‘yam’. In (2b) it occurs with *ánú* ‘meat’ and in (2c) it occurs with *ókà* ‘maize’. The sentences all have the same semantic interpretation of the cooking of a food item but the verb does not distinguish the method with which these food items become meals. Agbo noted that the native Igbo speaker will only have an indistinct idea of what kind of meal is being prepared when s/he hears the sentences in (2a-c). For example, in example (2a), the speaker will have the idea that the yam is being prepared for a meal but there are different ways of preparing yam meals in Igbo culture which the verb *ísí* does not signify. The same analysis can be applied to (2b and 2c) because there are different ways of preparing meat and maize meals in Igbo culture. Nevertheless, in the case of Dagbani, the prototypical term for *cook* does not collocate with all food items as observed by Agbo in Igbo. This shall therefore, be discussed subsequently in the analysis.

Regarding the syntax of cook 2 and bake1, Lehrer (1969:48) indicates that, these are the only lexemes in the field that can freely occur intransitively with an animate subject. *I can cook or I sauté mashroom* is acceptable, but not *I sauté* or *I fry*. She further observes that, most of the other verbs in the cooking field, especially the marked sense of cook and bake, seem to be basically transitive verbs, with intransitive forms derived from them.

Newman (1975:58) observes the following constructions as acceptable in English language:

4. I can: *cook, fry, grill, bake, roast*, but not *boil*.
5. Do you know how to: *cook, fry, grill, bake, roast*, but not *boil*.

He considers the following as ambiguous constructions in English because, an object is always needed to make the constructions transitive and to also prevent further questions such as: what are you cooking?

- I am
- a). *cooking*
  - b). *frying*
  - c). *roasting*
  - d). *baking*
  - e). *\*boiling*

(Newman,1975:58)

Lehrer (1970:247-253) cited in (Newman, 1975), some grammarians classify (a) to (d) as objects that can be deleted. He added that ‘once a verb takes on the character of an ACTIVITY as well as a PROCESS- the answer to the question: ‘what are you doing?’ as well as the answer to the question ‘how?’- then it becomes a candidate for conversion to

be used both transitively and intransitively.’ Newman (1975), and Lehrer (1969) observe that boiling is not a complete cooking term without its nominal object- it is a two-place verb essentially, with obligatory complement. They insist that the meaning of boiling is not complete in the speaker’s mind till its object is specified. Boiling is a weak cooking term with much stronger links with the general field of heating and temperature. It is hardly considered cooking because one does not need any skill to boil (Newman, 1975, Lehrer, 1969). However, sentence (a-d) is grammatically correct but ambiguous. It requires the speaker to complete the sentences by adding objects.

Using the competence theory of syntax, Bender’s (1999) primary work on recipes concentrates on the occurrence of null objects in English recipes. The idea that English recipes do not permit zero realization of object NPs served as the foundation for this work. The study found that English recipes typically contain null objects. Examples that illustrate this claim include; *seasoning with salt, baking until golden brown, allowing for cooling, and drying with a clean towel before frying*. He added that "while null objects are unacceptable in decontextualized sentences usually studied by linguists, they are more common in recipes. Additionally, it was discovered that the possibility of null objects in recipes appears to be restricted when using verbs. The study established that the language used in recipes has social significance since it indicates an author's position of authority. As it considered both the theoretical and sociolinguistic consequences of the prevalence of null objects in recipes, this study was well-balanced (Bender, 1999). The Dagbani structure does not also allow the null object construction. However, the possibility of the



existence of this phenomenon calls for morphological marker. This shall be discussed in the subsequent sections.

Similarly, Afful (2017) cited in Lin et al.'s (2002) study on recipes reveals that recipes favor the use of particular lexical phrases over others. For instance, a step in a recipe might be written as "*Put the oven on,*" whereas another author might write "*Preheat the oven,*" "*Heat the oven,*" or "*Switch on the oven.*" Skipping objects was also noted as a common occurrence in recipes. This supports the discovery of the null object in recipes made by Bender (1999), and (Newman, 1975).

In the view of Agbo (2009), there are three semantic sub-classes of Igbo cooking verbs. These are the verbs of heating, the verbs of mixing, and the verbs of parboiling. In his view, each member of their syntactic constructions has inherent properties that encode different terms of meaning. The distinction between syntax and semantics gives the basis for classifying verbs in general. These three semantic classes of cooking verbs were the only groups identified in Igbo. Agbo (2009) develops six syntactic and semantic tests for Igbo verb classes to help him determine the particular classes cooking belong to. Among the six, the verbs of cooking fall under achievement verbs, accomplishment, and active achievement verbs.

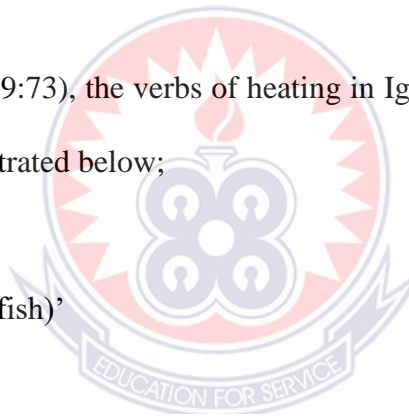
Below are detail demonstrations with examples on how this verb operates syntactically in Igbo sentences by Agbo (2009:72).

- (6a) àdá            *sì-rì*                            jí  
 Ada                cook-TNS                            yam  
 ‘Ada cooked some yam’
- b. Ezè                *sì-rì*                            ánú  
 Eze                cook-TNS                            meat  
 ‘Eze cooked some meat’
- c. Ngozi            *sì-rì*                            ókà  
 Ngozi            cook-TNS                            maize  
 ‘Ngozi cooked some maize’

(Agbo, 2009:72)

According to Agbo (2009:73), the verbs of heating in Igbo can operate both syntactically and semantically as illustrated below;

7. *ídá* ‘to heat’
8. *ímí* ‘to roast (meat or fish)’
9. *ihú* ‘to roast (crops)’
10. *ĩná* ‘to grill’
11. *íghé* ‘to fry’



These verbs have different shades of meaning when used in sentences. The sentences in examples (a-e) demonstrate how these verbs operate in Igbo sentences, while (a'-é) is the lexical representation of these verbs.

- 12a. Ngózí            *dù-rà*                            ófè/\*ázù  
 Ngozi            heat-IND                            soup  
 ‘Ngozi brought the soup to a boil’

- a'. BECOME heated' (ófé)
- b). òkoṅkwo      *mì-rì*      ázù/\*ófé/  
 Okonkwo      dry-TNS      fish  
 'Okonkwo smoked the fish'
- b'. BECOME dry' (ázù)
- c). Íféómá      *hù-rù*      édé/jí/\*ánú/\*ázù  
 Ifeoma      roast-TNS      cocoyam  
 'Ifeoma roasted the cocoyam'
- c'. BECOME roasted' (édé)
- d). Ókóró      *ñà-rà*      ókú  
 Okoro      heat-TNS      fire  
 'Okoro warmed himself'
- d'. BECOME warm' (Ókóró)
- e). Ókóró      *ñà-rà*      ókà  
 Okoro      heat-TNS      maize  
 'Okoro grilled the maize'
- e'. BECOME grilled' (ókà)
- f). Chinyèrè      *ghè-rè*      azù  
 Chinyere      fry-TNS      fish  
 'Chinyere fried the fish'



f. BECOME fried' (azu)

(Agbo, 2009:73)

García (2015) examines the syntactic behaviour of some cooking verbs taken in to account for how they differ depending on the context in which they appear." Relying on Levin (1993) who argues that alternations are in the expression of arguments, sometimes accompanied by changes of meaning in which verbs may participate. Following Levin (1998), three groups of alternations such as Transitivity alternations, Alternations involving arguments withing the VP and "Oblique" Subject Alternations.

Panyaatisin, & Prasithratsint (2012) collected 147 words from various sources, 35 words were selected for analysis. These terms were proved to possess certain syntactic and semantic properties. With reference to their syntactic properties, they came to the conclusion that all the Northern Thai cooking terms are transitive verbs.

Karlin (1998) investigates the semantics of verbs, tense and aspects used in cookbooks. His data included phrases and sentences with verbal modifiers that were taken from nine different recipes. The review of the data highlighted some significant conclusions using a quantitative technique. The usage of cardinal count adverbs like once, as in *Stir once*, and *add collard sauce*, demonstrated that the adverbials were utilized to show culmination. Also discovered was the fact that linguistic modals in recipes signify the sense of time of an action. This is achieved by using explicit duration in time units, such as *Bake in a prepared oven for 30-60 mins*, and in duration that is co-extensive with the duration of another activity, as seen in this example: Keep cooking while using a spatula to delicately

fold the cheeses. Finally, it was also discovered that these verbs might indicate a final product, as in *Break it up as finely as possible*, the location of an action, as in *Cut from head to toe*, the use of a tool, as in *Cut with a pastry cutter*, or speed, as in *Stir very gradually and with quick strokes*. Last but not least, it was also discovered that these verbs could signify an end result, as in *Break it up as finely as you can*, a location of an action, as in *Cut from head to toe*, the use of a tool, as in *Cut with a pastry cutter*, or a pace, as in *Stir very gently and with quick strokes*. Despite the article's excellent organization, the study did not provide any justification for the selection of its samples. Karlin again omits to mention what causes the differences in meaning. Based on the issue of transitivity discussed above, it is worth noting that the Dagbani cooking verbs can either be transitive or intransitive. However, the intransitive verbs demands morphological markers in their constructions.

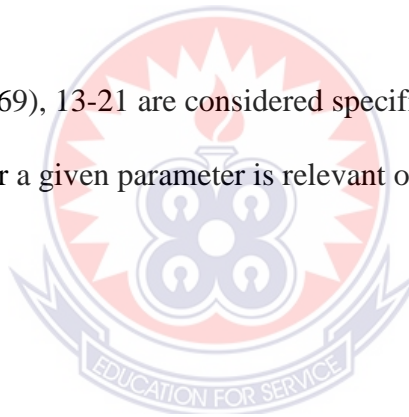
#### **2.4 A semantic classifications of cooking verbs**

This sub-section discusses various means by which cooking verbs can be elicited in different languages. The literature indicates clearly that the cooking verbs are not the same therefore the need to explore their various dimensions of contrast. There are significant semantic features that distinguish one cooking term from the others. For instance, Dardis (1983) observes that the Spanish cooking verbs can be distinguished among cooking in oil (or other fat), cooking in water (or other non-oily liquids), cooking by direct or indirect exposure to heat, and cooking by steam (see Lehrer 1969, Newman 1975). For Lehrer (1969), nine parameters or dimensions of contrast were proposed.

The nine parameters proposed by Lehrer (1969:47) include;

13. Use of water or not	[+Liquide or -Liquide]
14. Use of fat or not	[+Fat or -Fat]
15. Direct or radiated heat or conducted heat	[+Direct or -Direct]
16. Vigorous or gentle cooking action	[+Vigorous or -Vigorous]
17. Long or short cooking time	[+Long time or -Long time]
18. Large amount or small amount of some substances	[+Large or -Large]
19. Kind of cooking utensils	[+Relevant]
20. Special ingredients added (sauce)	[+Relevant]
21. Special purpose (e.g. preserve shape)	[+Relevant]

According to Lehrer (1969), 13-21 are considered specific unique components, but binary notation to show whether a given parameter is relevant or not to the semantic analysis.



**Table 3: The summary of classification of cooking verbs adopted from Lehrer (1969:49)**

	Non-fat liquid	Fat	Direct heat	Vigorous action	Long cooking time	Large amount of special substance	Other relevant parameters				
							collocate with	Kind of utensil	Special ingredients	Additional special purpose	Liquids
Cook3										+	+
boil1 boil2 simmer stew poach	+ + + + +	- - - - -		+ - - - -					+To soften +Preserve shape	+ + + - -	+ + + + +
Braise parboil steam reduce fry	+ + + + -	- - - - +		- + + + +		+Lid +Rack, sieve, etc. +Frying pan			+Reduce bulk	- - - + -	+ + + - +
Sauté Pan-fry French-fry deep-fry broil	- - - - -	+ + + - -					+Frying pan			- - - - -	+ + + + +
Grill barbecue charcoal plank bake2	- - - - -	- - - - -	+ + + + -			? (Griddle) +Wood board		+BarBQ sauce		- - - - -	+ + + + +

Roast shirr scallop brown burn	- - - -	- - - -	+ - - -	- - - -			+small dish +shell	+Cream sauce	+Brown surface	- - - -	+ + + +
Toast rissole scar parch flamber	- - - - -	- + + - -	+ - - - +	- - - - -				+Alcohol	+Brown +Brown +Brown +Brown +Brown	- - - - -	+ + + + +
steam- bake pot-roast oven- poach pan- broil oven-fry	+ + + - - -	- - - - + -	- - - + - -	- - - - - -			(?) Lid  +Frying pan			- - - - - -	+ + + + + +

Panyaatisin & Prasithratsint (2012) opine that, the Northern Thai (NT) cooking terms arrived at seven dimensions of contrast that are necessary to distinguish one term from the others. they divided the dimensions into primary and secondary ones. Primary dimensions of contrast are general and significant, but secondary ones are specific and less significant. HEAT, WATER, and OIL were found under their primary dimensions because they contain significant features that all the cooking terms need to be distinguished from one another. They are also necessary in identifying basic categories of NT cooking. In other words, in defining the cooking terms about their semantic components, all the primary dimensions of contrast must be taken into account. However, the Secondary dimensions of contrast are not required in defining every cooking term. They add specific features to each cooking term to make its meaning clear. They are usually descriptive features and are not binary ones. Four secondary dimensions of



contrast were identified: TIME, CHILI PASTE, SPECIFIC EQUIPMENT, and SPECIAL INGREDIENT (Panyaatisin, & Prasithratsint, 2012:25). In the case of Dagbani, all these dimensions are possible with the exception of the CHILI PASTE which can also be considered as ingredient.

In the view of García (2015:9), below are some of the sub verbs of cooking verbs identified:

- *Build verbs*

*arrange, assemble, **bake**, blow (bubbles, glass), build, carve, cast, chisel, churn, compile, **cook**, crochet, cut, develop, embroider, fashion, fold, forge (metal), grind, grow, hack, hammer, hatch, knit, make, mold, pound, roll, sculpt, sew, shape, spin (wool), stitch, weave, whittle.*

- *Preparing verbs*

***bake** (cake), blend (drink), **boil** (egg, tea), brew (coffee), clean, clear (path), **cook** (meal), fix (meal), fry (egg), **grill**, **hard-boil** (egg), iron, light (fire), mix (drink), **poach** (egg), pour (drink), prepare (meal), **roast** (chicken), roll, run (bath), **scramble** (egg), set (table), **toast**, toss (salad), wash.*

- *Knead verbs*

*beat, bend, coil, collect, compress, fold, freeze, knead, **melt**, shake, squash, squish, squeeze, twirl, twist, wad, whip, wind, work.*

The highlighted form of verbs in his data above gives a clear similarity between Lehrer (1969) cook3 which was identified as the most marked sense.

According to Sama-ae and Wongthai (2016) who identifies 19 cooking terms in Patani Malay, including: /ki:sa:/ กี่ซา, /ku:kuh/ กุกุฮ, /gu:la:/ กุลา, /go:yeŋ/ กอแรง, /go:leʔ/ กอและ, /k<sup>h</sup>iya:bu:/ ค็ือราบู, /ŋã:sɛ:/ งาแซ, /ci:lo:/ จ็ือลล, /nã:nĩ ʔ/ นานาะ, /tu:mih/ ตุมิฮ, /tu:moʔ/ ตูโมะ, /ba:ka:/ บากา, /pa:ŋɛ̃ ː/ ปาแง, /pi:nãʔ/ ป็ือนะ, /ɟi:yoʔ/ ย็ือโระ, /ɟi:cɔh/ ร็ือจาะฮ, /ɟi:nɛ̃ ː/ ร็ือแน, /ɟi:buh/ ร็ือบฮ, and /la:jo:/ ลาโย. He identifies five dimensions of contrast: PURPOSE, HEAT, TIME, EQUIPMENT and MAIN INGREDIENTS. Each of these dimensions entails the significant semantic features which distinguish one cooking term from others. Below is a thorough discussion on the five dimensions adopted by Sama-ae and Wongthai (2016)

**Purpose:** This dimension of contrast represents the purpose of the cooking methods of Patani Malay which entail three descriptive features: [+TO EAT], which means that when the cooking is finished, the food can be eaten immediately, [+TO COOK] which means when cooking is finished, the food has to be cooked by another method(s) before it is ready to be eaten, and [+TO PRESERVE] which means that when the cooking is finished, the food has to be preserved before it will be eaten. From the analysis, it found that most of the food in Patani Malay (11 from 19 cooking terms) has the purpose of [TO EAT]. This phenomenon is not different from Dagbani.

**Heat:** This dimension of contrast suggests that the food must be cooked by heat and be based on the levels of the heat which are high, medium and low. It

entails two descriptive features: [+HEAT] and [-HEAT]. The feature [+HEAT] which refers to the cooking by heat further entails four descriptive features: [+FIRE] referring to the cooking process by making the food touch directly to the fire to make it edible, [+WATER OR STEAM] referring to the cooking process of making the food cooked and edible by water or steam, [+OIL] referring to the cooking process of making the food cooked and edible by oil, [+COCONUT MILK] referring to the cooking process of making the food cooked and edible by coconut cream. The feature [-HEAT] means that the food is edible without using heat. From the analysis, it found that most of the food in Patani Malay (12 from 19 cooking terms) is cooked and made edible by using heat. Similarly, most of the food items in Dagbani are cooked by heat. Only a few can be cooked without heat as shall be discussed in the analysis section.

**Time:** This dimension of contrast represents the amount of time used in cooking methods according to main ingredients which turn raw food into edible food and indicated by two distinctive features [+TIME] and [-TIME]. The feature [+TIME] refers to cooking methods which require a long time and [-TIME] refers to cooking methods which require little time. From the analysis, it found that most of the cooking methods in Patani Malay (10 from 19 cooking terms) require a relatively long time. The Dagbamba food items are also cooked based on time.

**Equipment:** This dimension of contrast represents special equipment for cooking. It entails seven descriptive features as follows. • [+POT] refers to the container for cooking food composed of water and coconut milk. • [+FRYING PAN] refers to the shallow metal pan used for frying food and using oil. • [+GRID IRON] refers the cooking equipment to make the food touch directly the fire and heat. COOKING TERMS IN PATANI MALAY: AN ETHNOSEMANTIC STUDY 2nd International Conference on Language, Innovation, Culture and Education (ICLICE) 27th & 28th NOVEMBER, 2015 32 • [+STEAMER] refers to a covered cooking equipment with one or more insert pans that have special holes. • [+MORTAR] refers to the equipment used for making the ingredients broken into pieces. • [+JAR] refers to the equipment with a wide mouth to preserve the food. • [+MILLSTONE] refers to a mill used to grind grains. From the analysis, we found that most of the cooking methods in Patani Malay (4 from 19 cooking terms) use the pot as an equipment to cook. The main equipment used in cooking among the Dagbamba is the pot. The size of the pot will depend on the quantity of the food item.

**Main Ingredients:** This dimension of contrast represents special ingredients of cooking methods. It entails six descriptive features as follows. [+RICE] refers to rice grains. [+MEAT] refers to poultry and land animal. [+CHILLI PASTE] refers to a condiment made of chilli, shrimp paste and garlic. [+SPICES] refers to an aromatic or pungent substance such as clove,

cinnamon, coriander seeds. [+VEGETABLE] refers to various parts of plants that are edible. [+FRUIT] refers to various kinds of fruits. From the analysis, we found that most of the cooking methods in Patani Malay (7 from 19 cooking terms) use meat as the main ingredient. Some the ingredients used by Patani Malay people are also found in the Dagbamba cooking culture. The only difference is the fact that the Dagbamba ingredients are local. This shall be discussed later in chapter four and five.

## **2.5 Semantic extensions of cooking verbs**

The issue of metaphorical extensions has been an interesting domain by many scholars in the linguistics family. It has so far gained obvious attention by so many scholars in diverse perspectives. For instance, Sorgic and Stamenkovic (2013) examine the metaphorical extensions of colour terms white and black in Serbian and English. Achieng'Lilian (2019) in Kiswahili, Upah (2014: 34) in Jukun.

Cooking-related semantic extensions are based on how a language's native speakers see the world. A Jukun speaker might understand the phrase *"to be turned into a roasted yam"* to mean *"a scapegoat,"* but an English speaker might not (Upah, 2014: 34). Salau (2004), cited in Upah (2014: 34), claimed that using a semantic extension to the domains of emotion, temperature, and torture in various languages, the Pyam language in Plateau's culinary phrases might be used idiomatically. The verb he thinks might work with them is named by him. Verbs like "boil," "simmer," "steam," and "stew" can describe many emotional states. Burn, however, could also be used to depict pain, anger, deceit, and

punishment. Similar to this, you may also use culinary terms like roast, cook, steam, and bake to describe how hot something is (Salau, 2004 cited in Upah, 2014:34).

In the African setting, cooking is one of the essential gender responsibilities that defines a true African woman, claims (Achieng'Lilian, 2019). "Amepata jiku" is a Kiswahili term that means "he has found a cooking stove." Kiswahili marriage can be extended to signify that the man has discovered a cooking stove. By way of metaphorical projections, finding a new spouse could mean discovering a cooking stove.

Ndimande-Holongwa and Rushibiriwa (2014:400) cited in Achieng'Lilian (2019) emphasize this assertion in that the Jiko reflects the image of a woman in marriage as a cook, stove or kitchen, which is used to cook food for a man and the family. This also signifies that it is the responsibility of the woman to make sure the husband and the family eat properly. Thus, the place of a woman is in the kitchen (see Wenje, 2015). However, the culture of Dagbamba is in line with Kiswahili in this regard. Cooking as a responsibility mostly attached to women seems to be universal. The only difference is that the Dagbamba do not refer to the spouse as a stove.

According to Achieng'Lilian (2019), Wenje's observation goes in line with the popular quotation made on social media by the former president of Zimbabwe Robert Mugabe *'my brothers, marry a woman who can cook, do not marry for love or beauty. Because love dies and beauty fades, but hunger remains.'*

Another observation made by El-Asward (2014:41) is that in the Arabic world, it is an insult for a woman to be labeled as a bad *cook*. For Lilian, such mental imagery of women as *cooks* is not confined to the Kiswahili language but is evident in several African languages spoken in Kenya.

**Table 4: Outlines the response given by linguistics students from the university of Kenya providing the lexical terms for the expression to ‘to marry and to get married’ in their native languages adopted from Achieng’Lilian (2019:186).**

Speech Community	To marry (In reference to male gender)	To get married (In reference to female gender)
1. Luo	<i>Kendo, Nyambo</i> (To marry, no overt gender role in the two words)	<i>Dhi Tedo-</i> (She has gone to cook for someone) <i>Onyuome</i> (She is married)
2. (a) Luhya (Lwikato Dialect)	<i>Khuteshia-</i> To make one cook for a man, since the man is supposed to be served by the woman. The man is also supposed to protect the woman	<i>Khutekha-</i> She has gone to cook and perform chores reserved for women
(b) Luhya (Bukusu dialect)	<i>Khuila Omukhasi-</i> To acquire a cook/ He is married	<i>Omukhana Kachile Khutekha-</i> She has gone to cook
3. Kalenjin	<i>Kitunis-</i> He has brought a cook	<i>Kwondo-</i> She has gone to cook, especially Ugali
4. Ekegusii	<i>Konyonwa-</i> To marry <i>Omusacha-</i> A husband, one who looks for wealth	<i>Konyomwa-</i> To get married <i>Omurongi one-</i> The one who cooks and reference is made to Ugali
5. Teso	<i>Adukokin-</i> By paying dowry the man has formally invited the woman to his home, the woman becomes a man’s property/possession and marriage is symbolised having a home	<i>Adhukhokhina-</i> A married woman is seen to have a home, a kitchen to cook and she is now a member of a new clan. In short, a woman’s place is in the kitchen



Cooking is associated with the female gender in many civilizations, where women are typically expected to have exceptional culinary skills (Hines 2000, El-Aswad, 2014, Fox, 2014). Fox (2014) notes that in Western societies, a bride's aptitude for baking cherry pies would be praised. Additionally, El-Aswad claimed that because cooking is the epitome of femininity in Arabic culture, culinary talents were valued more highly than virginity.

In Hines (2000), Chin (2009), *food, women*, and *sexuality* are linked under the LUST IS FOOD or HUMAN BEINGS ARE FOOD conceptual metaphors. Surprisingly, a similar view is held by Rodriguez (2014), Fox (2014) cited in Hines (2000) who neatly unpacks it as follows; *If we do not eat, we die, if we have no sex, we simply fail to reproduce and human race eventually dies*. Equating *sex* with *eating* might suggest that *sex* is essential for our lives. More specifically, the sole purpose of women is to satisfy the appetites of men, just as food is produced for the sole purpose of eating.

In a different study, but one that is similarly concerned with food and sexuality, Faycel (2012) examines Tunisian Arabic's use of the conceptual metaphors "HUMAN BEING IS FOOD," "EMOTIONS ARE FOOD," and "LIFE IS FOOD." Faycel (2012) and Rodriguez (2014) contend that there are numerous experiences connected to food while studying the HUMAN BEING IS FOOD metaphor, including smelling, hunger, thirst, eating, tasting, chewing, swallowing, devouring, choking, digesting, vomiting, spitting, desiring, being satisfied, excreting, cooking and preparing. These experiences can be



used to conceptualize issues relating to people that either describe human characteristics or sociocultural ideals. In the case of Dagbani, human beings are not referred to as food but the cooking terms can also be extended to emotions as seen above. This phenomenon shall be discussed in chapter five of this study.

Faycel (2012) stipulates that the food domain has been extensively used in the conceptualization of human moral traits. Such that foods in their raw or cooked states can comfortably describe human traits as in the following expressions *Those are half-baked graduates* or *let him fry in his own mistakes*. Moreover, sweet-tasting foods provide positive models for conceptualizing human traits. The food domain furnishes various domains such as personalities, experience, love, and emotion/reason. To begin with personality, in Tunisian Arabic, people's embodied experiences with certain foods can be used about obedience and obstinacy under **A DISOBEDIENT PERSON IS DIFFICULT TO MANIPULATE FOOD** and **AN OBEDIENT PERSON IS AN EASILY MANIPULATED FOOD** conceptual metaphors. Experienced people are conceptualized as well-cooked foods as in the following Kiswahili expression *Huyo ni mwanamke aliyetokota akaiva* (which translates as that woman is well cooked to suggest that she is a mature woman). In the context of love, kindness, generosity, and hate, the following conceptual metaphors exist **LOVE/KINDNESS IS SWEET FOOD**, **HATE IS BITTER**, and **SWEET IS GOOD** and **BITTER IS BAD** in the context of wickedness, for example, in English one can say, she has such a sweet personality or, her demeanor left a bitter taste in my mouth. (Faycel, 2012).

Food metaphors are metaphorical extensions that either allude to the male or female genitalia (Kowalczyk, 2015, 2016), who have also lately examined food-semantic notions. According to her, symbolically speaking, food serves as the source domain that is translated onto its target domain, namely people. These mappings are determined by characteristics from a variety of domains, including the domains of taste (bitter, sweet, and sour), the domain of consistency (with characteristics like juicy, spongy, dry, sticky, smooth, even, uneven, loose, or lumpy), and lastly the domain of function. According to Kowalczyk, words like spoon, juice, milk, bun, nut, pancakes, make cheese, and have a cup of tea, sandwich, and toast are among the meals euphemistically used to refer to sexual activity. She contends that some foods fall under the following six categories of female private parts: vagina, labia, vulva, pubic hair, and hymen. These foods are used in relation to the female genitalia.

In relation to the human body, Pavlić (2020) also notes that the human body needs nourishment to function, which makes food an essential component of people's everyday experience. Cook and food are somewhat move together. The two are inextricably connected. Though, the act of consumption, food goes directly into the body, and on top of that the body is used as a tool in the process of preparing food. He argues that the basic human interactions with food are contained in two concepts: consumption and preparation. This is a reflection in language with a large number of different verbs connected with either consuming food (eat, swallow, devour, nibble, gnaw, munch, masticate, etc.) or preparing food (cook, boil, dice, peel, cut, stir, fry, bake, etc.).

Pavlić (2020) examines four food-related verbs, namely two verbs connected with food consumption, eat and swallow, and another two verbs connected with food preparation, cook and stir, and their metaphorical extensions. He demonstrates how people use these verbs in different metaphorical mappings that are used in everyday conversations.

According to Pavlić (2020) swallow and stir verbs dominate metaphorically than eat and cook. For this study, *stir* and *Cook* are all part of the verbs that shall be analyzed in chapter four with *Cook* being the prototypical verb having *stir* as its subset. *Stir* and *Cook* can also be extended metaphorically in Dagbani Just like Pavlić (2020) asserts. Pavlić is of the view that the original and primary meaning of *stir* is connected with movement which was far from relating to cooking until recently when it was connected to a food-related verb and the first meaning that is listed in the Contemporary dictionaries is "to move food in a dish or pan using a spoon or other around an object. In this sense, *stir* can be placed in the group of verbs connected with food preparation along with the verbs *cook*, *fry*, *boil*, or *mix*. Notwithstanding, Pavlić *stir* as a cooking verb can be extended metaphorically based on rousing emotion, inciting a reaction, and Causing disturbance.

Buttressing the aforementioned argument that the human body is seen as a container that holds emotions, Pavlić (2020) holds the view that these emotions remain dormant until an external influence causes their manifestation. The basic meaning of the verb *stir* is connected with movement. The meaning changes diachronically to primarily refer to moving food, liquid, or some other substances inside the container. The metaphorical use

of the verb is therefore connected to human knowledge of the behavior of liquids or substances in a container. However, this assertion can also be possible in Dagbani as in making someone panicked which will be seen later in our subsequent discussions.

Aside from evoking emotions, *stir* is also used to denote that something is caused, incited, or instigated by something else as in: 1. *It was here that he would have stumbled upon the idea of stringing the conscience of the masses through a TV show that highlighted critical issues, presented gory case studies and requested people's participation.* 2. *It is a question that has stirred debate for decades.*

However, the metaphorical extensions observed by Pavlić regarding *cook* as the prototypical term thus '*cook a story*' meaning (telling a lie or hacking a system) has no similarities in Dagbani. Even though Dagbamba also has several metaphorical extensions regarding *cook* as its prototypical term which shall be discussed later in this study. However, the metaphorical extensions regarding *stir* can thus have some similar cases in Dagbani.

## **2.6 Studies on *cooking* verbs in Ghanaian languages**

This section reviews literature that has discussed the syntax and semantics of *cooking* verbs in Ghanaian languages. However, the discussion will specifically focus much on the Kwa language group since the researcher is yet to come across a study on the Mabia languages family.

### 2.6.1 The syntax and semantics of *cooking* verbs in Kwa languages

Bobuafor (2018) explores the grammar and meaning of five verbs that belong to the culinary field in Tafi a language spoken in the south-eastern part of Ghana. He indicates that one cannot describe Tafi cuisine without using these verbs. The verbs involved can be divided into two groups: the verbs in the first group focus on preparing food through a medium: *tɔ* is the general verb “cook, boil”; *pɔi* “bake, roast”; *gba* “fry, roast; sweep” and those in the second group focus on the vigorous physical activity that the cook performs: *ge* “drive, paddle” and *tú* “pound”. He observes that various translation equivalents of the verbs provide some clues to the significance of the verbs. The discussion has been framed in terms of general cooking verbs which seem to be distinguished at one level in terms of the medium through which the cooking takes place. That is at the basic level, *tɔ* applies to cooking in water, *gba* to cooking in oil, and *pɔi* to cooking by dry heat. There is also the specialization of activity verbs for particular actions carried out in producing some foods. The two salient ones are *ge* ‘drive’ for making dumplings and *tú* ‘pound’ for making fufu. He indicates that all these verbs have other uses and, in some cases, other senses that do not fall within the culinary domain.

Nevertheless, the investigation has laid bare how the various modes of preparing different kinds of food are construed from a linguistic point of view (Bobuafor, 2018). For instance, the cooking of banku-like foods is described differently in different Ghanaian languages. The Ewe use the verb “cook” for that and do not pay attention to the manner of cooking. The Tafi and the Akan describe it in terms of the activity and manner of movement of, and the turning of the ladle. Thus, they use the verb that also means to

drive a car (or perhaps more accurately to steer) or to paddle or row to talk about it’’. Along the same line, Dagbamba also uses the activity and manner of preparation for banku, T.Z, and other food items.

According to Bobuafor (2018), the general verb for Tafi *tɔ* is a bivalent verb that entails two participants, an Actor, and an Undergoer. It cannot occur in a one-place (intransitive) construction. It typically occurs in a two-place (transitive) construction. When it occurs in a two-place construction, it can be extended with a dative or locative participant as illustrated in the elicited sentences in (22a) and (b).

22a. Ésí átó ’édɔ́ kó ’ál’.

Ésí	<i>á-tɔ</i>	kí-dɔ́	kó	balí
Ésí	SM-cook	CM-thing	DAT	3PL

‘Esi cooked for them.’

b. Ésí átó ’édɔ́ ní osubhantabhā.

Ésí	<i>á-tɔ</i>	kí-dɔ́	ní	o-subha	ní	kábhā
Esi	SM-cook	CM-thing	LOC	CM-hearth	DEF	top

‘Esi cooked on the hearth.’

(Bobuafor, 2018:138)

As opines by Dogbey (2020), the verbs of cooking in Ewe can occur within transitive, intransitive, ditransitive constructions as well as in passive or middle constructions reading. However, ɖa [ɖà]: ‘cook’ (to cook) functions as a generic term for *cooking* which refers to cooking specifically in water through the application of fire.

**Cooking verbs that occur transitively and intransitive in Ewe**

- 23a. E-            *ɖa*            akple  
 3SG            cook            akple  
 ‘S/he cooked akple.’
- b. E-            *ɖa*            akple            kple            ati  
 3SG            cook            akple            CONJ            stick  
 ‘S/he cooked akple with a stick.’
- c. Agbeli la ɖa (The cassava cooked inchoative)
- d. Agbeli la bi (the cassava is cooked)
- e. Agbeli lae nyɔnu la ɖa (the cassava was cooked by the woman)

(Dogbey, 2020:20-25)

Example (23a) above is a transitive construction and an agent can be introduced referring to an instrument used in performing the cooking but the end product of the cooking is mentioned as the object. This fixed structure remains and the name of the end product of depicting what is cooked is always mentioned. Example (23b) is another transitive construction and it is acceptable because of the presence of the affirmative particle *kple*, which informs on the type of instrument used in the cooking. In this context, the construction is understood to have been caused by an unexpressed agent in the transitive clause. Another observation is that the (c, d, e) is intransitive constructions. Ewe and Dagbani seem to have similar syntactic behaviour. This phenomenon shall be discussed in chapter four of this study.

Afful (2017) examines the cross-cultural study on some Ghanaian and foreign recipes. The recipes were grouped into six moves to help guide his analysis. These were the title of the recipes, serving details, ingredients list, method, serving suggestion, and additional notes. These moves identified are worthy of discussion as they have a greater relationship to the current study. According to Afful (2017) the first core move was the recipe title. The titles of the recipe performed identification or labeling functions as it aims as identifying the meal type and orienting readers as to what they should expect to be cooked. The titles in the Ghanaian recipes were captioned in a Ghanaian Language with their translation equivalents in English. He noted that the titles in both Ghanaian and the foreign recipes did not show any significant difference.

Another core step most relevant to the current study was the ingredients and the method. The ingredients were in two folds thus the obligatory and optional ingredients used in preparing the dish. However, the method as another step focuses on the procedure and process needed for cooking. The Ghanaian recipes, had two steps. The first step dealt with the methods associated with the preparation of the main dish. The second step involved the methods used in the seasoning of the meal (Afful, 2017).

Afful (2017:40) reveals that the semantic distinctions of verbs in recipes were categorized into;

24. Verbs related to cooking: *heat, scald, sauté, stir-fry, simmer, boil, fry, grind, roast.*

25. Verbs related to cleaning: *rinse, wash, drain, strain, break, sieve.*

26. Verbs related to cutting: *chop, peel, crush, mash, shred, crack, trim off, slice, grind.*



27. Verbs related to seasoning: *season, marinate, dissolve*.

28. Verbs related to adding to the dish: *pour, add, sprinkle, stir*.

29. Verbs related to shaping of food: *mix, roll up*.

Verbs such as *wash, cut, clean, heat, add, peel, mix* and *put* were commonly used in both Ghanaian and foreign recipes. Most of the verbs in both data sets were also transitive. Examples of such verbs are, *cook, fry, put, mix, break, dissolve, stir* and *drain*. However, some of the transitive verbs had null objects (Afful, 2017).

## **2.7 Theoretical Framework of the Study**

This section provides a general review of the Cognitive Linguistic Approach as a model used to analyze data on the syntax and semantics of Dagbani cooking verbs.

According to Evans et al. (2007:2), the study of language, the mind, and sociocultural experience is studied through the interdisciplinary field of Cognitive Linguistics. In the study of language, Cognitive Linguistics is dedicated to the idea that meaning and form cannot be separated from one another. Cognitive Linguistics is a modern school of linguistic thought and practice. It is concerned with investigating the relationship between human language, the mind and socio-physical experience (also see Evans, 2012). What this simply means is that, the sense behind every lexical unit is derived from the mind relative to the experiences. However, the form of every lexical item contributes immensely to its meaning.

Still on the background of Cognitive Linguistics Theory (CLT), Evans et al. (2007:), adds that, in the 1970s and early 1980s, early research was dominated by a relatively limited number of scholars based mostly (but not solely) on the western seaboard of the United States. Cognitive Linguistic study began to take root in northern continental Europe throughout the 1980s, particularly in Belgium, Holland, and Germany. By the early 1990s, there was a rising proliferation of Cognitive Linguistics research across Europe and North America, as well as a rather large international-distributed community of scholars identifying as 'Cognitive Linguists.' This resulted in the development of the International Cognitive Linguistics Association in 1989, following a major meeting in Duisburg, Germany, and the establishment of the journal *Cognitive Linguistics* a year later. In recent years, Cognitive Linguistic Theories have gotten sophisticated and specific enough to begin offering predictions that can be tested using a wide range of converging methodologies from the cognitive sciences (Evans et al. 2007).

Langacker (1991b) cited in Evans et al. (2007) reveals that, (CLT) is a self-conscious intellectual movement.' Cognitive Linguistics is best described as a 'movement' or an 'enterprise', precisely because it does not constitute a single closely-articulated theory. Instead, it is an approach that has adopted a common set of core commitments and guiding principles, which have led to a diverse range of complementary, overlapping (and sometimes competing) theories. It is concerned with the conceptual and experiential basis of language in the mind of the speaker. In the view of Croft (2009), the principles of Cognitive Linguistics offer an alternative which is more plausible and fruitful for understanding the nature of language (at least in the minds of its practitioners and

sympathizers). However, CLT has also come with a lot of criticisms. Croft (2009) is of the view that, Cognitive Linguistics is in danger of being too narrow in defining itself as a theory of language, in the same ways that formal syntactic and semantic theories have been criticized as too narrow. This observation according to him does not make the foundations invalid. He added that, the theory is incomplete since it is too limited to only ‘inside the head’ of the entire human body. Notwithstanding, Croft (2009) suggested that, Cognitive Linguistics would have been more successful when revisited by extending it ‘outside the head’ and incorporating a social-interactional perspective on the nature of language. Cognitive Linguistics can do so by incorporating certain foundational work in pragmatics and sociolinguistics. Integrating these two perspectives, the cognitive and the social, would be an important step forward in providing a genuine theory of language (Croft, 2009). Many theoretical perspectives are put together to come out with the Cognitive Linguistics such as, Mental Space Theory, Conceptual Metonymy, Conceptual Metaphor Theory, Cognitive Lexical Semantics and Conceptual Blending Theory etc. This will be a benefit and a guide to the current study as it will go in line with the guiding principles of Cognitive Linguistic Approach by Evans et al. (2007).

The first principle is the ‘embodied cognition thesis’ or Conceptual structure is embodied. According to Evans et al. (2007), due to the nature of our bodies, including our neuro-anatomical architecture, we have a species-specific view of the world. The fact that our experience is embodied – that is, structured in part by the nature of the bodies we have and by our neurological organization – has consequences for cognition. In other words, the concepts we have access to and the nature of the ‘reality’ we think and talk

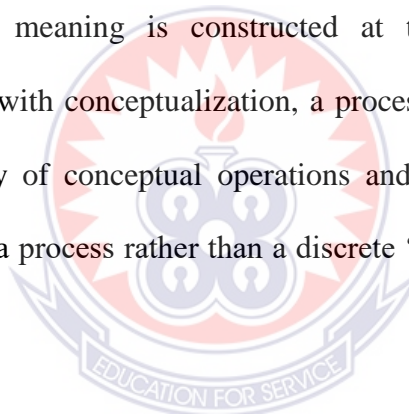
about are a function of our embodiment. We can only talk about what we can perceive and conceive, and the things that we can perceive and conceive derive from embodied experience. From this point of view, the human mind must bear the imprint of embodied experience. This simple means that, human beings see the world differently since our mental experiences are not the same.

The second guiding principle by Evans et al. (2007) asserts that, language refers to concepts in the mind of the speaker rather than, directly, to entities which inhere in an objectively real external world. This means that the meaning of lexical items naturally exists in our minds which are activated at the point of establishing meaning to words and other linguistic units. However, Evans observes that the claim that semantic structure can be equated with conceptual structure does not mean that the two are identical. Instead, cognitive semanticists claim that the meanings associated with linguistic units such as words, for example, form only a subset of possible concepts. After all, we have many more thoughts, ideas and feelings than we can conventionally encode in language. To buttress this, Langacker (1987) observes that, ‘we have a concept for the place on our faces below our nose and above our mouth where **moustaches** grow. We must have a concept for this part of the face in order to understand that the hair that grows there is called a **moustache**’. However, there is no English word that conventionally encodes this concept (at least not in the non-specialist vocabulary of everyday language).

The third guiding principle holds that semantic structure is encyclopedic in nature. This means that lexical concepts do not represent neatly packaged bundles of meanings. (The

so-called dictionary meaning), but rather serve as ‘points of accesses’ to vast repositories of knowledge relating to a particular concept or conceptual domain. Nevertheless, this claim does not deny the fact that words have conventional meanings with them. An example could be seen where **sad** and **happiness** carries different sense could be as a result of the conventional range of meanings associated with them.

The final guiding principle by Evans et al. (2007:9) is that ‘Meaning construction is conceptualization’ which means that language itself does not encode meaning. Instead, as we have seen, words (and other linguistic units) are only ‘prompts’ for the construction of meaning. Accordingly, meaning is constructed at the conceptual level. Meaning construction is equated with conceptualization, a process whereby linguistic units serve as prompts for an array of conceptual operations and the recruitment of background knowledge. Meaning is a process rather than a discrete ‘thing’ that can be ‘packaged’ by language.



However, Cognitive Linguistic Approach seeks to improve our understanding of cognition in general by acting as a guide for the human mind. It examines how the human mind affects language in relation to our experiences. The interpretation of cooking verbs in Dagbani emanates from the mind of the speaker. The Cognitive Linguistic Approach is important to the current study since it guides explore on the syntax and semantics of *cooking* verbs in Dagbani.

## 2.8 Summary of chapter

This chapter reviewed relevant literature of studies on the syntax and semantics of *cooking* verbs across languages in the world. As indicated at the early stage of this chapter, *cooking* verbs are universal concepts in nature. The choice of linguistics units relating to *cooking* varies from culture to culture. They do not have similar lexical form or conceptualized the same way in languages. Some languages use a phrasal form while others use a single form of the lexical items to denote *cooking* verbs in their languages. Some language like Ewe for example denotes the meaning of the verb through the medium of cooking, the activity, and the process involved (See Dogbey, 2020, Lehrer, 1969, Newman, 1975). The various parameters or dimensions of eliciting the cooking verbs and the collocational issues are also discussed linguistically. Every language has a general term for *cook*. In some other languages they have the prototypical term for cook collocates with all the food items they have in the language (Agbo, 2009)

The chapter also explored on the syntactic aspect of the cooking verbs thus, the distribution of the cooking from language to language. It is however, realized from the literature that the cooking verb can perform the function of transitive and intransitive. Other cooking verbs can perform the function of serialization. The chapter again discussed the metaphorical extensions relating to *cooking* verbs. The literature revealed that most of the cooking verbs are elicited through human body parts, experiences, moral traits etc. The chapter concludes with discussions on the Cognitive Linguistic Approach as the theoretical framework for the study.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter discusses the methodology used in this study. The research design, population, participants, sampling technique, data collection strategies and instruments, and data sources are all discussed in this chapter. The chapter also discusses the approach used in data analysis as well as ethical concerns. The rest of this chapter is organized as follows: Section 3.1 outlines the research approach and design, while Section 3.2 discusses the population. The participants involved are presented in section 3.3 and discussion of the sampling technique in section 3.4. The source of data is presented in section 3.5 while ethical issues are discussed in section 3.6. Section 3.7 presents the data analysis procedure whereas Section 3.8 summarizes and concludes the chapter.

#### **3.1 The research approach and design**

The data was analyzed using the qualitative research approach. Jackson (2007) is of the view that qualitative research approach is primarily concerned with understanding human beings' experiences in a humanistic, interpretive approach. According to Green and Thorogood (2014) cited in Haven and Groote (2019:232), qualitative research aims to answer the "how," "why," and "what" questions of a phenomenon. Haven and Groote (2019:232) postulate that qualitative research often uses language as its data, be it written or oral, although it may use photos, videos, or other types of behavioral recordings. They added that qualitative data are often collected via an interview, a focus group (structured group discussion), or observation.

Flick (2004), observes that qualitative research approach aims at describing life-worlds ‘from the inside out’, from the point of view of the people who participate. By so doing it seeks to contribute to a better understanding of social realities and to draw attention to processes, meaning patterns, and structural features. According to Creswell (2012), in qualitative inquiry, the intent is not to generalize to a population, but to develop an in-depth exploration of a central phenomenon.

The research design adopted for this study is the descriptive design. The design was chosen to investigate the syntax and semantics of *cooking* verbs in Dagbani. With this approach, the researcher intends to use the data to provide an in-depth and a narrative description of the phenomena. Abutabenjeh & Jaradat (2018:244) postulate that ‘descriptive designs provide a wealth of information that is easy to understand and interpret, and they may also identify problems and suggest solutions. Descriptive designs guide studies describing the occurrence of a variable, or the relationship between variables, and help the researcher decide when to make observations and how many observations to make’. This simple means that, the researcher’s selections may depend on the nature of the dataset or the problem-solving skills of the researcher who will be using the results of the study. For the purpose of this study as already indicated, the descriptive design is adopted for the analysis of the cooking verbs in Dagbani as some of the verbs demanded a detail description of the phenomenon. The researcher provides a detail description of different kinds of pictures and images of events depicting cooking.



### **3.2 Population**

Population as far as this study is concerned aims at the characteristics of the individuals involved in the data collection process. Waples & Gaggiotti (2006) argues that a group of individuals of the same species that live together in an area of sufficient size that all requirements for reproduction, survival, and migration can be met.

According to Acharya et al. (2013), a sample is a subset of the population, selected to be representative of the larger population. According to Sidhu (2012), a population is any group of individuals that have one or more characteristics in common that are of interest to the researcher. He further opines that population concerns the aggregate or totality of objects or individuals regarding which inferences are to be made in a sampling study. This means that population involves all individuals and documents among others that are proposed to be covered in the scheme of study.

The researcher employed purposive sampling to get the target population who were all speakers of Dagbani for the study. Participants were sampled from the Tomosili the Western dialect (speakers around Tamale). The other two dialects are the Nayahili (speakers located around Yendi) representing the Eastern dialect, and the Nanunli (speakers around Bimbila) for the Southern dialect. Among the communities that were purposively selected include: Kumbungu, Lungbung, and Tamale respectively. All in the Northern Region of Ghana.

### 3.3 Participants

A total number of fifteen (15) participants were purposively selected, with a varying age between twenty (20) to seventy (70) years. Out of this, two (2) were males and the remaining thirteen (13) were all females. Ten (10) out of the fifteen (15) participants were food vendors thus two (2) male vendors and eight (8) female vendors. The remaining five (5) were housewives. The fifteen (15) participants were purposively chosen from three communities including Kumbungu, Lingbung, Tamale respectively. Five (5) participants from each community. Afterward, a thorough scrutiny was done by giving the data to colleagues from the University of Education, Winneba Ajumako Campus to check its validity. Before then, focus groups from Kumbungu where the researcher resides were already consulted.

### 3.4 Sampling technique

The purposive sampling technique was adopted by the researcher in the selection of the participants for this study. Participants in this study were native speakers of Dagbani. The purposive sampling technique helped to explore and gain in-depth knowledge of how *cooking* verbs are lexicalized and conceptualized metaphorically in Dagbani. According to Barreiro & Albandoz (2001), purposive sampling is the one in which the person who is selecting the sample tries to make the sample representative, depending on his opinion or purpose, thus making the representation subjective. Etikan & Bala (2017) are of the view that, purposive sampling is based on the judgment of the researcher as to who will provide the best information to succeed for the objectives of the study. They further noticed that the people involved in conducting the research must focus on their

subjects who have the same view and opinion on the information required and are ready to be interrogated to share with them. Similarly, Rai and Thapa (2015) postulate that purposive sampling is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research.

According to Etikan et al. (2016:2) ‘the purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participant possesses. It is a nonrandom technique that does not need underlying theories or a set number of participants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by knowledge or experience. It is typically used in qualitative research to identify and select the information-rich cases for the most proper utilization of available resources.’

However, the researcher based on the assumption that the subjects selected had the requisite knowledge of the culinary verbs. After a careful study on the research site, it was realized that the women could have been more of help than the men since the culture and tradition of the North demands that women be friendly in the kitchen. Food vendors from the car park stations and markets were included in the sample because they also possess knowledge of the acts involved in the activities of *cooking*. The focus groups in my community and colleagues from the university did a thorough examination of the data to confirm its validity.

### **3.5 Source of data**

The data was collected from two sources: primary and secondary. The primary data was done through one-on-one semi-structured interviews with the speakers of Dagbani. The data was equally recorded for further transcription and interpretation. With regards to the secondary data, the researcher collected data from two Dagbani dictionaries Mahama (2007), Naden (2014). Salifu (2021) was also contacted and other literature books (*Wuni Bimbirili* by Adam (2016)). Being a native speaker of Dagbani, some sentences were constructed by the researcher for analysis in the thesis. Such data were presented to other native speakers to check if they were grammatically correct.

#### **3.5.1 Data collection techniques**

This study employed several data collection strategies. The researcher primarily collected data through semi-structured interviews and the speaker's intuition. For the literate individuals, a questionnaire was also created. Participants were also allowed to interact with images and video clips depicting various cooking activities. This improved the participants' comprehension of the procedure and increased their involvement in the interactive session. The research took place in three (3) communities namely: Kumbungu, Lingbung, and Tamale respectively. The interview was held in May and June of 2023. Furthermore, two literary works were perused, eliciting phrases that depicted the actions of cooking food. These approaches were triangulated to assist in gathering sufficient reliable data for the study.

### 3.5.2 Documents

According to Rapley (2007) cited in Bowen (2009), the document is a systematic procedure for reviewing or evaluating both printed and electronic (computer-based and Internet-transmitted) material. Like other analytical methods in qualitative research, document analysis requires that data be examined and interpreted to elicit meaning, gain understanding, and develop empirical knowledge. Documents contain text (words) and images that have been recorded without a researcher's intervention. This means that the researcher only transcribes and interprets exactly what has been taken from the text without any manipulation. In line with this, Buckland (1997) opines that documents denote the textual record. In addition to this, a document is a form of information storage and retrieval system that has been concerned with text and text-like records such as images, names, numbers, and alphanumerical codes.

However, the researcher read some Dagbani books to elicit *cooking* verbs that are found in them. The Dagbani books read particularly was *Wuni binbimrili* by Adam (2016). In addition, the Dagbani dictionaries that were also carefully scrutinized was Mahama (2017) and Naden (2014).

### 3.5.3 Native speaker's introspection

As a native speaker of Dagbani, the researcher constructed some of the data based on his intuition. However, the researcher could not have all the data produced by himself, or the data at hand could have been barely adequate, therefore, the need to consult other speakers of the language. All of the preliminary set of cooking verbs was judged by

representatives of native Dagbani speakers to decide whether each of them was truly a Dagbani culinary term. The data were also compared with the data from participants for accuracy and reliability.

### **3.6 Ethical issues**

Ethical issues play a fundamental role when it comes to data collection in a qualitative research approach. The researcher opens up to the subjects or the participants on why the information is needed to prepare their minds on the confidentiality of their responses. Research ethics are moral principles that govern how the researchers should carry out their work. These principles are used to shape research regulations agreed upon by the researcher and the respondents. As opines by Creswell (2009), ethical issues should always be taken into consideration throughout the research process, from the research problem, setting purpose and research questions, data collection, analysis, and interpretation to disseminating the research. According to Creswell (2009), it is crucial to respect vulnerable groups and not put the participants in danger. Participant confidentiality needs to be protected. Creswell does clarify, though, that some individuals might not want their identity to be kept a secret. Because of this, the researcher did not hide anything from the respondents. The researcher made it known to his subjects that the research was meant for academic purposes and that their identity was completely safe.

### **3.7 Data analysis**

Data analysis is the most crucial part of any research. Data analysis summarizes collected data. It involves the interpretation of data gathered through the use of analytical and

logical reasoning to determine patterns, relationships, or trends. The data were collected through observation, interview, recording, documentation, and native speakers' intuition. Evans et. al (2011) reveals that there are two concepts in every aspect of managing data and presenting results, these are *variables* (or parameters) and *category*. To them, these concepts reflect our understanding of the data. For example, we can discuss and analyze data more comprehensively when occurrences are assigned to categories (Evans et. al, 2011:103).

After collecting the data, the researcher repeatedly listened to the audio of the raw data recorded by the participants. Data were compiled into smaller themes and more general categories in accordance with the previous research questions that served as the study's direction, as per Gruba and Evans et. al (2011) orientation.

### **3.8 Summary of chapter**

This chapter based its discussion on the methodology employed in the data collection process, presentation, and analysis of this study. The chapter further discussed the research design (qualitative method), population, participants, sampling technique (purposive), source of data (primary and secondary), ethical issues, and how the data were analyzed.

## CHAPTER FOUR

### THE SYNTAX OF DAGBANI COOKING VERBS

#### 4.0 Introduction

This chapter discusses the syntactic distribution of Dagbani cooking verbs. The first part presents the various culinary terms in Dagbani. Based on the data gathered from the speakers of the language, it is realized that the cooking verbs are of two kinds. The first one has to do with cooking as an **activity**, and the second one was identified as cooking as a **process**. For this study, all the verbs identified by the respondents are listed and then the discussion focuses more on the prototypical cooking verbs that were identified as **activity**. It is however, intriguing to note that all the Dagbani culinary terms that fit the syntactic and semantic patterns identified in this study were all cooking terms that signify an action during the time of cooking. However, some of the activities are observed either **before, during** or **after** the cooking. Nevertheless, the chapter addresses two main issues focusing on the first and second objectives of this study. The first section of this chapter, 4.1, discusses the various classifications of cooking verbs in Dagbani, whereas section 4.2 discusses the syntactic distribution of the various culinary terms in Dagbani, while, 4.3 concludes the chapter.

#### 4.1 Classification of *Cooking* Verbs in Dagbani

Depending on what kind of food is being prepared, several verbs in Dagbani are used to express cooking activities. Some of the COOK verbs based on **activity** are summarized here in Table 5 below (1 - 19), along with their basic meanings. It is important to emphasize as already indicated in the aforementioned chapters that, it is possible for an



English cooking verb to have more than one different culinary terms denoting several senses in Dagbani. On the other way round, most of the Dagbani culinary terms do not also have their exact equivalent terms in the English language. This therefore, called for a description of the activity. This happened to both the activity and the finished food item. In some instances, the use of the general terms *cook* and *food* will be used to indicate both the activity and the item that has no equivalent term in Dagbani respectively.

**Table 5: Summary of Dagbani COOK verbs based on activity and their glosses**

Cooking verb	The glosses
1. <i>duyi</i>	‘to cook’ prototypical term in Dagbani. Example; <i>shinakaafa</i> ‘plain rice’, <i>nyuli</i> ‘yam’, <i>nimdi</i> ‘meat’ <i>zeri</i> ‘soup’ and others.
2. <i>ɲɔ</i>	‘to smoke’ example; <i>nimdi</i> ‘fresh meat’, <i>zahim</i> ‘fresh fish’.
3. <i>Chim</i>	‘to fry’ example; <i>nimdi</i> ‘fresh meat’, <i>zahim</i> ‘fresh fish’ <i>sima</i> ‘groundnut’
4. <i>waai</i>	‘to parboil’ to cook partially. Example; <i>nimdi</i> ‘meat’, <i>bira</i> ‘hibiscus’
5. <i>moni</i>	‘to prepare’ example; <i>sayim</i> ‘TZ’, <i>bonku</i> ‘banku’.
6. <i>kali</i>	‘to prepare’ example; <i>yama</i> ‘a local food made from cornflour’
7. <i>kɔyi</i>	‘to brew’ example; <i>Koko</i> ‘porridge’ <i>daam</i> ‘alcohol’.
8. <i>to</i>	‘to pound’ example; <i>sakoro</i> ‘fufu’.
9. <i>Bu</i>	‘to beat’ example; <i>dori</i> ‘dawadawa powder’.
10. <i>ɲɔri</i>	‘to knead’ example; <i>gora/nyombeeka</i> ‘bean-leaves (boiled)’.
11. <i>lɔhi</i>	‘to soak’ example; <i>gaalii</i> ‘gari’, <i>tim</i> ‘medicine’.
12. <i>Gari</i>	‘to mix’ example; <i>gaalii</i> ‘gari’
13. <i>Tuui</i>	‘to mash’ example <i>bihim</i> ‘cowmilk’ with ‘ <i>fula</i> ’.
14. <i>mali</i>	‘to bake’ example; <i>maha</i> ‘cake’ <i>kulikuli</i> ‘cake’.
15. <i>Niɲ</i>	‘to cook’ example; <i>wasawasa</i> and <i>tuubaani</i>
16. <i>Nyeligi</i>	‘to melt’ the process of changing a solid food to a liquid form

	by heating it.
<b>17. Sam</b>	‘to smash’ no heat is involved in this cooking event. Example; <i>kantɔŋ</i> ‘local food’.
<b>18. She</b>	‘to roast/bake’ <i>sima</i> ‘groundnut’, <i>kawana</i> ‘corn’, <i>nimdi</i> ‘meat’ <i>paanu</i> ‘bread’.

The table (5) above presents a list of cooking verbs with their glosses and a few examples in Dagbani. Based on the data collected on the field, these were selected among the numerous cooking verbs as the prototypical cooking verbs on the **activity-based** to indicate the readiness of the consumption of the meal.

**Table 6: Classification of Dagbani cooking verbs based on [±] features proposed by Lehrer (1969:49)**

Cook verb	water	Fat/oil	Heat	Vigorous action	Ingredients	Longer time	Shorter time	utensil
<b>1. <i>duyi</i></b>	±	±	±	±	±	±	±	±
<b>2. <i>she</i></b>	–	–	+	–	–	±	±	+
<b>3. <i>ŋo</i></b>	–	–	+	–	–	±	±	+
<b>4. <i>chim</i></b>	–	±	+	±	+	±	±	+
<b>5. <i>vuli</i></b>	–	–	+	–	–	±	±	–
<b>6. <i>tam</i></b>	+	–	+	±	–	±	±	+
<b>7. <i>waai</i></b>	+	–	+	+	±	–	–	+
<b>8. <i>moni</i></b>	+	–	+	+	–	+	–	+
<b>9. <i>kali</i></b>	+	+	+	+	+	+	–	+

<b>10. kɔyi</b>	+	-	+	+	+	+	-	+
<b>11. fari</b>	+	-	+	+	-	+	-	+
<b>12. to</b>	±	-	-	-	-	±	±	+
<b>13. bu</b>	+	-	-	-	-	-	+	+
<b>14. ηɔri</b>	+	-	-	-	+	-	+	+
<b>15. lɔhi</b>	+	-	-	-	+	-	+	+
<b>16. gari</b>	+	-	±	-	+	-	+	+
<b>17. tuui</b>	+	-	-	-	+	-	+	+
<b>18. daai</b>	+	+	+	+	+	+	-	+
<b>19. mali</b>	-	+	+	+	+	+	-	+
<b>20. bihi</b>	+	-	+	+	-	+	-	+
<b>21. niη</b>	+	-	+	+	+	+	-	+
<b>22. sam</b>	+	-	-	-	+	-	+	+

The table (6) above presents a summary of the features of Dagbani cooking verbs. The feature [±water] indicates whether or not water is applicable to the activity. The feature [+water] component means water is applicable, and the feature [-water] means water is not needed to complete that cooking event. This is therefore the same thing applied to the other features such as; [±fat/oil], [±heat], [±vigorous action], [±special ingredients], [±longer time/shorter time], and [±utensil].

#### 4.1.1 Cooking as a process

This phase of this study is more of a recipe perspective. Choi (2020) citing the Oxford English Dictionary indicates that a recipe is ‘a statement of the ingredients and procedure necessary for the making or compounding of some preparation, especially of a dish in cookery. Thus, recipes are typically prescriptive with a series of directives so that the cook can follow the sequence of operations obligated. However, my definition of cooking as a process will involve the various ways in which the actual cooking is achieved. I shall refer to these verbs as auxiliary cooking verbs.

**Table 7: Summary of Dagbani COOK verbs based on process**

Cooking verb	The gloss
1. <i>dam</i>	‘to stir’ the process of mixing in a form of circular motion.
2. <i>Jahi</i>	‘to sieve’ it is the separation of lumps of a powdered material or grinded particles.
3. <i>dooi</i>	It is the process of separating water or oil from cooked food. Example; <i>nyu’ duyira</i> ‘cooked yam’ or <i>nimdi</i> ‘meat’.
4. <i>yuyisi</i>	It is the process of sprinkling ingredients such as <i>yalim</i> ‘salt’, <i>naanzuzim</i> ‘powdered peper’, <i>zahir’ zim</i> ‘fish powder’ to make the food delicious.
5. <i>gbiem</i>	It is the process of removing vegetables from their sticks or roots by using bare hands. Example; <i>ayoyo</i> ‘amaratus’, <i>bira</i> ‘hibiscus’ etc.
6. <i>pa zim</i>	Is the process of introducing corn or cassava flour when preparing t.z.
7. <i>nyuhi</i>	Is the process of serving food, especially t.z.
8. <i>tohi kom</i>	It is the process of adding a small quantity of water when preparing t.z
9. <i>puyisi</i>	It is the process of removing the unwanted parts of vegetables to prepare for cooking.
10. <i>te</i>	to sieve out solid particles from a blended solution.

<b>11. <i>chari</i></b>	‘to chop into pieces’ by the use of a sharp a knife.
<b>12. <i>piɛhi</i></b>	to peel away the outer part of yam or cassava.
<b>13. <i>niɛm</i></b>	‘to grind’ the process of reducing food into a very fine consistency.
<b>14. <i>vuli</i></b>	‘to shear/unhair’ taking the hairs of animals such as goat, sheep, rabbit, off the skin using fire.
<b>15. <i>fari</i></b>	‘to simmer’ example <i>mana</i> ‘okro’, etc.
<b>16. <i>ɲɔri</i></b>	‘to knead’ example; <i>gora/nyombeeka</i> ‘bean-leaves (boiled), etc.
<b>17. <i>daai</i></b>	‘to grind partially’ example; <i>mana</i> ‘dry okro’, <i>kuuka/tikari</i> ‘baobab leafs’.
<b>18. <i>tam</i></b>	‘to cook’ collocates with all food items but specifically used on <i>kpaligu</i> ‘dawadawa’, <i>moyu</i> ‘herbs’.

The table (7) above presents a list of cooking verbs with their glosses and few examples in Dagbani. Based on the data collected on the field, these were selected among the numerous cooking verbs as a **process** to mean that these verbs do not necessarily make food ready for eating but have a consistent support in accomplishing the entire cooking process. These verbs are described in this study as auxiliary cooking verbs.

To support the data in table (7), Newman (1975) postulates that cooking as an **ACTIVITY** involves Cook1 which is described as the widest sense of preparing a meal. Examples include; paralleling, cleaning, dusting. Cook3 is considered to be the most specific in describing the **PROCESS** involving the components discussed by Lehrer’s Cook3. Cook2 was noted to be food items that associated to baking. It is, however, interesting to note that many scholars have looked at cooking verbs in diverse perspectives as indicated in chapter two of this study. However, in this study my definition of cooking as an **activity** goes in line with Lehrer’s (1969) Cook3 which

focuses on the actual cooking verbs in the language of the current study. When these verbs are successfully applied the next step will be to consume the food.

#### **4.2 Syntactic distribution of Dagbani cooking verbs**

As can be seen above, among the numerous verbs collected from various sources, 19 verbs were selected as **activity**, and 17 as **process** for analysis. These terms were proved to possess certain syntactic and semantic properties. The semantic properties of the cooking verbs encode the relevant information to determine the syntactic structures in which the verbs can occur. Regarding the syntactic properties, the Dagbani cooking terms can either be transitive or intransitive verbs in nature. Its focus is on how the cooking verbs in Dagbani can be distributed in terms of positions. As seen from the literature, the verb can occur in various positions depending on the structure of the language. As far as this study is concerned, this section shall take care of two fundamental issues. Section 4.2.1 looks at the issue of collocation and the kind of complement the verbs are capable of taking, while 4.2.2 examines the issue of transitivity in the Dagbani cooking verbs.

##### **4.2.1 Cooking verbs, the mode of cooking, and the food item they collocate with**

As observed earlier, various cooking verbs select the kind of food items they collocate with. It is important to note that, not all cooking verbs are capable of selecting some food items. It will be ungrammatical to select some cooking verbs to collocate with some food items in Dagbani. Unlike Igbo in Nigeria, Agbo (2009) reveals that, the prototypical term for cook in Igbo collocates with all the food items they have. For instance, the verb *ísí* 'to cook' is a generic verb that can collocate with all food items in the language. This section

gives a thorough discussion of this phenomenon by indicating the verbs that some food items in Dagbani collocate with. This is however, be motivated by both the type of food item selected to cook. The choice of a certain verb is justified by the individual food item that is being selected to cook. As part of collecting credible data, enough time was taken to listen to several conversations among people on several occasions like the naming ceremonies, weddings etc. Later in this section, I share an interesting conversation between a farmer and his wife, and another one with a brother and a sister that confirms the data regarding this collocation issues in the Dagbani cooking verbs.

**Table 8: Summary of the Cooking verbs and the specific food items they collocate in Dagbani**

Cook verb	Mode of cooking	Some food items as complements
1. <i>duyi</i>	To cook. It can complement several food items.	<i>shinikaafa</i> ‘plain rice’, <i>nyuli</i> ‘yam’, <i>nimdi</i> ‘meat’ <i>zeri</i> ‘soup’ and others.
2. <i>she</i>	‘to roast’ This is done using fire or heat.	<i>sima</i> ‘groundnut’, <i>kawana</i> ‘corn’, <i>nimdi</i> ‘meat’ <i>paanu</i> ‘bread’.
3. <i>no</i>	Cooking using fire or any form of heat on the body of the food item.	<i>Nimdi</i> ‘fresh meat’, <i>zahim</i> ‘fresh fish’
4. <i>chim</i>	Cooking with either oil, hot sun, or empty pan.	<i>sima</i> ‘groundnut’, <i>kawana</i> ‘corn’ <i>nimdi</i> ‘fresh meat’, <i>zahim</i> ‘fresh fish’
5. <i>vuli</i>	The act of removing the feathers or the hair from the meat in a very fast manner.	<i>noo nimdi</i> ‘hen’s meat, <i>bua nindi</i> ‘goat meat’ <i>nay’ nimdi</i> cow meat.
6. <i>Tam</i>	It is a kind of cooking that involves intense heating of the food item.	<i>moyu</i> ‘herbs’, <i>kpaligu</i> ‘dawadaw’.
7. <i>waai</i>	‘to parboil’ this is done by heating the food item partially	<i>nimdi</i> ‘meat’, <i>bira</i> ‘hibiscus’
8. <i>moni</i>	a form of cooking done by moving the steering stick inside the cooking pot with a hot mixture of water and flour	<i>sayim</i> ‘TZ’, <i>bonku</i> ‘banku’
9. <i>kali</i>	A form of cooking involves water, oil,	<i>yama</i> ‘a local food made

	and corn flour	from cornflour'
<b>10. <i>kɔyi</i></b>	It involves the use of water throughout the process.	<i>Koko</i> 'porridge' <i>daam</i> 'alcohol.'
<b>11. <i>Fari</i></b>	Cooking the food item vigorously	<i>mana</i> 'okro soup'
<b>12. <i>To</i></b>	It a form of hitting the food item with a pestle	<i>Sakoro</i> 'fufu'
<b>13. <i>Bu</i></b>	A form of beating the food item mixed with liquid with the use of bare hands.	<i>dori</i> 'dawadawa powder'
<b>14. <i>ɲɔri</i></b>	It involves using one's hand to mix or disintegrate the food	<i>Gora</i> 'fresh beans leaves'
<b>15. <i>lɔhi</i></b>	An act of mixing the food item with large quantity of water.	<i>gaalee</i> 'gari'
<b>16. <i>gari</i></b>	act of cooking with small quantity of water.	<i>gaalee</i> 'gari'
<b>17. <i>tuui</i></b>	a smooth mashing of the item with liquid to its inseparable level.	<i>bihim</i> 'cowmilk'.
<b>18. <i>daai</i></b>	A form of partial grinding.	<i>mana</i> 'dry okro', <i>kuuka/tikari</i> 'baobab leaves'.
<b>19. <i>mali</i></b>	involves the use of hot oil	<i>Maha</i> 'maize powder cake' <i>kulikuli</i> 'groundnut cake'
<b>20. <i>bihi</i></b>	involves applying heat to the food to soften and separate it from its husk.	<i>Shinkaafa</i> 'fresh rice'
<b>21. <i>nij</i></b>	exposing the food to steam or moist heat to cook it.	<i>Wasawasa</i> 'a local food made from yam pills powder' and <i>tuubaani</i> 'a local food made from beansflour'
<b>22. <i>kabi</i></b>	Overcooking. This is done either by mistake or lack of the culinary skills.	<i>Nyuli</i> 'yam' <i>banchi</i> 'cassava,' <i>shinkaafa</i> 'rice,' <i>Kawana</i> 'corn'.

The table (8) above gives us a clear classification of cooking based on activity, the mode of cooking, and the specific food items they collocate with. Below are detailed examples of every individual cooking verb listed in the aforementioned table;

### 1. *duyi* 'to cook'

It is the prototypical verb in Dagbani. It is the process of preparing a meal for consumption. This is done through the application of heat or any other means. This term




collocates with several food items in Dagbani but not all. Let us illustrate with examples to buttress this claim by analysing a conversation between a farmer and the wife:

- (30) FARMER: kuli-mi yiŋa nti *duyi*.  
 Go-IMP home CONJ cook  
 ‘Go home and cook’
- (31) WIFE: tɔ n shira.  
 ok 1SG love  
 ‘Ok, my love’
- (32) FARMER: niŋ-mi yom.  
 do-IMP fast  
 ‘Be fast’
- (33) WIFE: N shira ka bɔ ka n yɛn *duyi*?  
 1SG honey CONJ what CONJ 1SG PART cook  
 ‘What will I cook, honey’
- (34) FARMER: A suhi ni ti a shɛli.  
 2SG heart CONJ give 2SG something  
 ‘Anything your heart desires’
- (35) WIFE: *shinkaafa* ka n ni *duyi*.  
 Rice CONJ 1SG CONJ cook  
 ‘I will cook rice’
- (36) FARMER: Tɔ!  
 OK.

The above conversation we have witnessed thus (30)-(36) is a soft conversation between a farmer and his wife who happen to be on the farm performing their farming activities. When it was getting darker, the farmer asked the wife to go home and start preparing food and he would join her later. The wife interrogated him to find out the type of meal the husband would like to eat that day. The husband replied by saying that, the wife should go and cook the food of her choice. As the verb *duyi* ‘to cook’ appears in sentences (30) and (33), I paid keen attention to confirm the kind of food item it will collocate with. The wife responds in sentence (35) affirming that *duyi* ‘to cook’ as the prototypical term collocates with *shinkaafa* ‘rice’ as we have seen in the data above (30-36).

*Another dialogue between a brother and a sister:*

- 
- (37) BROTHER: Bɔ ka a yɛn *duyi* zuŋɔ?  
What FOC 2SG FUT cook today  
‘What will you cook today?’
- (38) SISTER: Sheli kani nayila gaalii.  
Something NOT except gari  
‘There is nothing except gari’
- (39) BROTHER: \*Gbaai tooi *gaalii* maa *duyi*.  
Just fetch gari DEF cook  
‘Just fetch the gari and cook’
- (40) SISTER: Bee *n* *gari*?  
Or FOC soak  
‘No to soak’

(41) BROTHER:            *N*    *gari*            pa            *n*    *duyi*.  
    FOC   soak            NOT            FOC   cook  
    ‘To soak not cook’

The second conversation we have again witnessed above (37-41) is another conversation I observed during the research between a brother and a sister who happened to live with their parents in the family house. The brother asks the sister in sentence (37) what she would cook and the sister replies in sentence (38) by saying that there were no foodstuffs in the house except gari. The brother in a hungry mood mistakenly asked the sister in sentence (39) to fetch the gari and cook. The sister quickly corrected him in sentence (40) as he admitted in sentence (42) by quickly correcting himself. However, what we have seen in sentence (39) indicating to us that, it is ungrammatical in Dagbani to complement *gaalii* ‘gari’ with cook. Therefore, *gari* ‘to soak’ collocates with *gaalii* ‘gari’ in Dagbani.

## 2. *She* ‘to roast’

The verb *she* collocates with some selected food items that are solid. The end product remains solid after the cooking is done. Let us illustrate some examples below;

(42a) Bukandi            *she*            *nyuli*            ka            ti            ŋubi.  
    Bukandi            roast.PERF            yam            CONJ            1PL            chew  
    ‘Bukandi has roasted yam for us to chew.’

b.            \*Bukandi            *she*            *gora*            ka            ti            ŋubi.  
    Bukandi            roast.PERF            local food            CONJ            1PL            chew  
    ‘Bukandi has roasted local food for us to chew.’

(43a) Fataw            *she*            *sima*            ti      o            mam.  
 Fataw            roast.PERF    groundnut      give   his           girlfriend  
 ‘Fataw has roasted groundnut for his girlfriend’

b.    \*Fataw            *she*            *kpaligu*            ti      o            mam.  
 Fataw            roast.PERF    dawadawa      give   3SG           girlfriend  
 ‘Fataw has roasted dawadawa for his girlfriend’

As seen from the data above (42a) and (43a) give correct constructions indicating the right food item that is capable of complementing the verb *she* ‘roast.’ However, the verb-noun collocation between *she* ‘roast’ and *gora* ‘local food,’ *kpaligu* ‘dawadawa’ in example (13b) and (14b) respectively are not grammatically correct in Dagbani.

### 3. *ɲo*: ‘to smoke’

The verb also collocates with some selected solid food substances. Examples are illustrated below;

(44a) Ayisha            *ɲo*                            *nimdi/zahim*            maa            zaa.  
 Ayisha            smoke.PERF            meat/fish            DEF            all  
 ‘Ayisha has smoked all the meat/fish.’

b.    \*Nima            *ɲo*                            *sakoro*            maa            zaa.  
 Nima            smoke.PERF    fufu            DEF            all  
 ‘Nima has smoked all the fufu.’

#### 4. *Chim*: ‘to fry’

The verb *Chim* is a component for both oil and soil related cooking verbs that also collocate with solid food substances as we have witnessed in table 3 above. Example (16a) is grammatically correct while (45b) is not because of the type of food item selected.

(45a) Fati                    *chim*                    *nimdi/zahim/sima/kawana*    n-ti    o            ba.  
 Fati                    fry                    meat/fish/groundnut/corn    give    3SG    father  
 ‘Salamatu has fried meat/fish/groundnut/corn and gave out for consumption’

b.    \*Zara                    *chim*                    *dori*                    ka                    ti            ŋubi.  
 Zara                    fry.PERF                    dawadawa powder    CONJ                    3PL    chew  
 ‘Zara has fried dawadawa powder for us to chew’

c.    Bε    di    bi            *chim*                    *nimdi*    maa.  
 3PL    PST    NEG    fry.PERF                    meat    DEF  
 ‘Beninya did not fry the meat (earlier today).’

d.    Bε    daa    bi            *chim*                    *nimdi*    maa.  
 3PL    PST    NEG    fry.PERF                    meat    DEF  
 ‘Beninya did not fry the meat (two or more days ago).’

#### 5. *vuli*: ‘to shear/defeather/unhair/dress

The act of removing the feathers from the meat in a very fast manner. This is done to the meat of animals such as goats, sheep, and rabbits, using fire. Examples are illustrated below;

(46a) Azindoo        *vuli*                *piɛɣu/bua/nahu*                maa.  
 Azindoo        dress.PERF    sheep/goat/cow                DEF  
 ‘Azindoo has roasted the sheep’

b.     \*Azindoo                *vuli*                *shinkaafa*                maa.  
 Azindoo                dress.PERF    rice                                DEF  
 ‘Azindoo has sheared the rice’

The data in sentence (46) above shows that, the verb *vuli* in sentence (46a) can complement meat-related food item in Dagbani. However, the verb *vuli* does not collocate with any other food item including *shinkaafa* ‘rice’ as can be seen in example (46b).

#### 6. *tam*<sup>1</sup>: ‘to cook’

The verb is one of the unique cooking verbs that collocate with both liquid and solid food items. Examples of such are illustrated below;

(47a) Samata        di                *tam*                *kpaligu*                la                zuŋɔ.  
 Samata        PST                cook.PERF    dawadawa    FOC                today  
 ‘Samata has prepared dawadawa today’

b.     N        yaba                                *tam*                *mɔɣu*                ti                ma.  
 1SG    grandfather                boil.PERF    herbs                give                1SG  
 ‘My grandfather has boiled herbs for me’

<sup>1</sup> *Tam* is one of the verbs that requires detail explanation. The verb is elicited from the activity in the cooking process. It is a form of cooking that requires placing the utensil on the fire, just like any other cooking process. The verb seems to collocate with all the food item but has a unique food item that is suitable for its’ usage. It has no equivalent term in English, therefore, *cook* is used.

- c. \*M ma *tam* *sakoro*.  
 1SG mother boil.PERF fufu  
 ‘My mother has boiled fufu’

In the above data we have witnessed, the *tam* sounds like the prototypical term cook as I already pointed out in the previous discussions. The verb collocates with so many cooking verbs but equally has a unique food item it complements. As can be seen in 18a and 18b, the objects that are most suitable to collocate with this verb is the kpaligu ‘*dawadawa*,’ and *mɔ̃yɔ̃* ‘herbs’ in Dagbani. However, it will be ungrammatical to collocate *tam* ‘cook’ with *sakoro* ‘fufu’ as can be seen in (47c).

### 7. *waai*: ‘to parboil’

The verb collocates with several solid food items. The choice of items selected in (48a to c) is grammatically acceptable in Dagbani while (48d) is not.

- (48a) Lihiriba *waai* *nimdi* maa vienyala.  
 Lihiriba boil.PERF meat DEF well  
 ‘Lihiriba boiled the meat well’

- b. Awabu *waai* o *sima* la kɔ̃hi.  
 Awabu boil.PERF 2SG groundnut FOC sell  
 ‘Awabu has boiled his groundnut to sell’

- c. Damba *waai* *bira* maa zaa.  
 Damba boil.PERF hibiscus DEF all  
 ‘Damba has boiled all the hibiscus’

<b>d.</b>	*Doobia	<i>waai</i>	<i>sayim</i>	maa.
	Doobia	boil.PERF	T.Z	DEF
	‘Doobia has boiled the T.Z’			

### 8. *moni* ‘to stir’

It is a form of cooking activity that involves moving the steering stick inside the cooking pot with a hot mixture of water and flour. It primarily involves the use of energy and the application of some skills. The term is a form of steering that is applied during the preparation of T.Z and banku to make it ready to serve. The term collocates with *sayim* ‘TZ’, *bonku* ‘banku’ in (20a) but not in (20b) as can be seen in the data below:

<b>(49a)</b>	Salima	bi	<i>moni</i>	<i>sayim/bonku</i>	maa.
	Salima	NEG	stir.IMPERF	t.z/bonku	DEF
	‘Salima did not stir the t.z/banku’				

<b>b.</b>	*Rahi	ku	tooi	<i>moni</i>	<i>sakoro.</i>
	Rahi	NEG	can	stir	fufu
	‘Rahi cannot stir fufu’				

### 9. *kali*<sup>2</sup>: ‘to cook’

The verb is a unique local cooking verb that collocates with a special food item in Dagbani called *yama*. Let us illustrate some examples below as (50a) gives us a grammatical construction while (50b) does not.

<sup>2</sup> *Kali* is one of the unique culinary terms that do not have their equivalent lexical items in English. The mode of cooking is almost the same as preparing t.z. it is also a form of steering but in a style manner. The verb is applied to food item such as *yama* a local food prepared with corn flour. Cook or prepare is used to represent its’ equivalent term in English.



(50a) Damu            ku            tooi            *kali*            *yama*.  
 Damu            NEG            can            cook            a local food  
 ‘Damu cannot prepare yama (a local food)’

b.    \*Damu            ku            tooi            *kali*            *sayim*.  
 Damu            NEG            can            cook            T.Z  
 ‘Damu cannot prepare T.Z’

9. *kɔyi*: ‘to brew/prepare’

*Kɔyi* is a liquid-based food substance and therefore collocate with liquid food items. Examples of food items that collocate with *kɔyi* ‘to brew’ are illustrated in (51a). However, (51b) is not acceptable in Dagbani as *kɔyi* cannot collocate with *zɛri*.

(51a) Dasana            ni            *kɔyi*            *koko*            zuŋɔ.  
 Dasana            FUT            brew.PERF            porridge            today.  
 ‘Dasana will prepare porridge today’

b.    \*Dasana            ni            *kɔyi*            *zɛri*            zuŋɔ.  
 Dasana            FUT            brew.PERF            soup            today  
 ‘Dasana will brew soup today’

11. *fari* ‘to simmer’

It is the act of cooking where the food item is allowed to go through vigorous boiling point. The idea behind this activity is to soften the food item before adding ingredients. *Fari* collocates with *mana* ‘okro’ in (52a) but does not collocate with *daam* in (52b).

(52a) Tizaa            *fari*                                      *mana*                      maa                      duyɪ.  
 Tizaa            simmer.PERF                      okro                      DEF                      cook  
 ‘Tizaa simmers the okro and cooked it’

b.        \*Tizaa            *fari*                                      *daam*                      maa.  
 Tizaa            simmer.PERF                      alcohol                      DEF  
 ‘Tizaa simmers the alcohol and cooked’

#### 12. *to*: ‘to pound’

*To* is a cooking verb that involves energy. This cooking verb in Dagbani collocates with *sakoro* ‘fufu’ in (53a) but not *bonku* ‘banku’ in (53b) as can be seen in the examples below;

(53a) Muna            ma                      ni                      *to*                      *sakoro*                      maa.  
 Muna            mother                      FUT                      pound                      fufu                      DEF  
 ‘Muna’s mother will pound the fufu’

b.        \*Muna            ma                      ni                      *to*                      *bonku*                      maa.  
 Muna            mother                      FUT                      pound                      banku                      DEF  
 ‘Muna’s mother will pound the banku’

#### 4.2.1.13 *bu* ‘to beat’

This activity does not involve any form of heat. The food item that is identified here to collocate with this verb is *dori* in (54a), a gruel prepared with ‘dawadawa powder.’ However, the same verb is not in the same position to collocate with *gaalii* ‘gari’ in (54b).

(54a) Gundaa      *bu*              *dori*              ni              o              nyu.  
 Gundaa      beat.PERF      gruel              CONJ              3SG              drink  
 ‘Gundaa has prepared a gruel to drink’

b.      \*Gundaa      *bu*              *gaalii*              ni              o              nyu.  
 Gundaa      beat.PERF      gruel              CONJ              3SG              drink  
 ‘Gundaa has cooked gari to drink’

#### 14. *ɲori* ‘to knead’

This cooking verb is applied to food items like the fresh leaves of beans vigorously cooked after which the activity begins. The food item that collocates with this is *gora* ‘a typical local food prepared with local ingredients (55a) but cannot collocate *shinkaafa* ‘rice’ in (55b) based on the grammatical rules of the language.

(55a) Rukaya      *ɲori*              *gora*              *ɲubi*.  
 Rukaya      smash.PERF      food              chew.PERF  
 ‘Rukaya prepared food and chewed’

b.      \*Rukaya      *ɲori*              *shinkaafa*              *ɲubi*.  
 Rukaya      smash.PERF      rice              chew  
 ‘Rukaya prepared rice to chew’

#### 15. *lɔhi* ‘to soak’

*Lɔhi* is the process of preparing food by mixing the food item with liquid especially water. This process of cooking involves no heat. The process involves a large quantity of water. The manner of eating when this action is completed is *nyu* ‘to drink’. The term collocates with *gaalii* ‘gari’ in (56a) but not *mana* ‘okro’ in (56b).

(56a) Shikurubihi                    maa                    *lɔhi*                    gaalii.  
 Students.PL                    DEF                    soak.PERF                    gari  
 ‘The students soaked gari and went to school’

b. \*Shikurubihi                    maa                    *lɔhi*                    mana.  
 Students.PL                    DEF                    soak.PERF                    okro  
 ‘The students have soaked okro’

### 16. *gari* ‘to mix’

This is another similar form of food preparation that involves mixing the item with several ingredients like pepper, salt, onion, and others. This process involves small quantity of water compared to *lɔhi* ‘to soak.’ The manner of eating when this action is completed is *ɲubi* ‘to chew’. Gari collocates with *gaalii* as can be seen in (57a), but not Kawana ‘corn’ in (57b).

(57a) Samaru                    bi                    *gari*                    *gaalii*                    maa.  
 Samaru                    NEG                    mix.PERF                    gari                    DEF  
 ‘Samaru didn’t mix the gari’

b. \*Samaru                    bi                    *gari*                    *kawana*                    maa.  
 Samaru                    NEG                    mix.PERF                    corn                    DEF  
 ‘Samaru didn’t mix the corn’

### 17. *tuui* ‘to mash’

This is another relevant culinary term that is very similar to *gari* ‘soak’ but the activity is completely different. The food item that collocates with *tuui* is *bihim* ‘cowmilk’ as can be seen in (58a). However, in (58b) the verb cannot collocate with *koko* ‘gruel.’

(58a) Adamu ni *tuui* *bihim* maa.  
 Adamu FUT mash cowmilk DEF  
 ‘Adamu will mash the cowmilk’

b. \*Adamu ni *tuui* *koko* maa.  
 Adamu FUT mash porriadge DEF  
 ‘Adamu will mash the porriadge’

18. *daai* ‘to grind partially’

This activity is done at the final stage of the meal in some selected meal preparations. It makes the soup ready for usage. The verb does not apply to all soup preparations but a few selected ones. This culinary term in Dagbani collocates with *mana* ‘dry okro’, *kuuka/tikari* ‘baobab leaves.’ As can be seen in (59a) but does not collocate with *bira* ‘hibiscus’ in (59b).

(59a) Bamunu *daai* *mana*.  
 Bamunu cook.PERF okro  
 ‘Bamunu has prepared okro’

b. \*Baamunu *daai* *bira*.  
 Bamunu cook.PERF hibiscus  
 ‘Bamunu has prepared hibiscus’

**19. *maali*<sup>3</sup>** ‘to bake’

The process of this cooking in Dagbani involves deeply the use of hot oil. *Mali* collocates with *maha* ‘cake’ *kulikuli* ‘cake’ as can be seen in example (60a). However, the verb does not collocate with *nimdi* ‘meat’ in (60b).

<b>(60a)</b>	Hajia	<i>mali</i>	<i>maha</i> .
	Hajia	bake.PERF	cake
	‘Hajia has baked cake’		

<b>b.</b>	*Hajia	<i>mali</i>	<i>nimdi</i> .
	Hajia	bake.PERF	meat
	‘Hajia has baked meat’		

**20. *bihi*** ‘to dehusk’

The *bihi* as a cooking verb is the method of cooking food involves applying heat to the food to help soften and separate it from its husk. An example of food or grain that undergoes this method of cooking is *shinkaafa payiri* ‘fresh rice’ in (61a), but does not collocate with *tuya* ‘beans’ in sentence (61b).

<b>(61a)</b>	Nafisah	<i>bihi</i>	<i>shinkaafa</i>	<i>maa</i> .
	Nafisah	cook.PERF	rice	DEF
	‘He/She has dehusked the rice’			

<b>b.</b>	*Nafisah	<i>bihi</i>	<i>tuya</i>	<i>maa</i> .
	Nafisah	cook.PERF	beans	DEF
	‘Nafisah has dehusked the beans’			

<sup>3</sup> *maali* is noted to be a typical Dagbani cooking term that collocates with some selected food items. The equivalent term for the verb in English is bake. Note that bread baking will not fit this term in Dagbani due to the cultural differences between English and Dagbani.

**21. *nij***<sup>4</sup> 'to steam'

The method is about exposing the food to steam or moist heat to cook it. In this case, the food is well-handled to make sure it is fully cooked. *Wasawasa* and *tuubaani* are examples of food prepared by this method. The verb collocates with *wasawasa* 'a local food' in example (62a) but does not collocate with *daam* 'alcohol' in (62b).

(62a) Sana            *nij*                            *wasawasa.*  
 Sana            cook.PERF                            a local food  
 'Sana has prepared (a local food)'

b.    \*Sana            *nij*                            *daam.*  
 Sana            cook.PERF                            alcohol  
 'Sana has prepared (a local food)'

**21. *kabi*** 'to burn'

This culinary term *kabi* is one of the crucial terms in almost every language. It is a form of overcooking. One can burn food by over roasting, over baking, overfrying, etc. Lehrer (1969:46) indicates that "burn in the culinary field is related to brown as gradable member of a pair. She added that to burn is to brown too much".

(63a) Adam            *kabi*                            *sima*                            *maa.*  
 Adam            burn.PERF                            groundnut                            DEF  
 'Adam has burned the groundnut'

<sup>4</sup> *nij* is considered prototypical cooking verb because of some selected food items. The indigeneous Dagbani speaker knows that the *nij* collocates with only two local food item such as *wasawasa* and *tuubaani*. Apart from these two, it will be very difficult to select any other food item to complement this verb.

<b>b.</b>	*Adam	<i>kabi</i>	sakoro	maa.
	Adam	burn.PERF	fufu	DEF
	‘Adam has burned the fufu’			

#### **4.2.2 The issue of transitivity in the Dagbani cooking verbs**

This section discusses the syntactic distribution of cooking verbs in Dagbani. The major focus of this section is to explore the possibility of the verb’s complement having the grammatical ability to occupy the position of the object or not. It is worth noting that the Dagbani cooking verb can either be transitive or intransitive. The transitive verbs are verbs that have objects in the sentence whereas intransitive ones are those that do not have objects but are grammatically correct in the sentence. Fiktorius (2019) postulates that transitive verbs express an action and are followed by an object. The grammatical term object means a noun, pronoun or noun phrase that are impacted by the action of the verb in a given sentence whereas an intransitive verb is simply defined as a verb that does not take a direct object. There is no word in the sentence that tells who or what receives the action. While there may be a word or phrase following an intransitive verb, such words and phrases typically answer the question “how”. In this study, I shall investigate every single verb from the data with examples to determine whether or not this phenomenon applies to the Dagbani cooking verbs. Section 4.2.2.1 will therefore tackle the transitive verbs while 4.2.2.2 discusses the intransitive verbs.

##### **4.2.2.1 Cooking verbs that occur transitively in Dagbani**

This sub-section aims to test all cooking verbs from the data to determine whether they are capable of taking the object or not. Here, the food items serve as objects in all the



illustrations we have given since they are occupying their positions. Another key observation in this section worthy of mentioning is that, all the verbs indicate perfective in all the constructions. Example (64-85) gives a detailed illustration of this argument below;

- (64) Abu            *duyi*                            *nyuli*            maa.  
 Abu            cook.PERF                            yam            DEF  
 ‘Abu has cooked the yam’
- (65) Asan            *she*    *sima*            la.  
 Asana            roast.PERF                            groundnut    DEF  
 ‘Asana has roasted the groundnut’
- (66) Danaa            *ɲɔ*    *nimdi*            maa.  
 Danaa            smoke.PERF                            meat            DEF  
 ‘Danaa has smoked the meat’
- (67) Fusei            *chim*    *zahim*            maa            vienyɛla.  
 Fusei            fry.PERF                                    fish            DEF            well  
 ‘Fusei has fried the meat very well’
- (68) Awal            *vuli*    *bua*            maa            nyam.  
 Awal            dress.PERF                                    goat            DEF            nicely  
 ‘Awal has dressed the goat nicely’
- (69) M            ma                            *tam*                            *kpaligu*            ti            m            beli.  
 1SG            mother                            cook.PERF            dawadawa    give            1SG            sister  
 ‘My mother has prepared dawadawa for sister’

- (70) Sana *waai* *sima* la.  
Sana boil.PERF groundnut DEF  
'Sana has boiled that groundnut'
- (71) O *moni* *sayim* maa.  
2SG stir.PERF tz DEF  
'He/she has prepared the TZ'
- (72) Adamu *kali* *yama* maa.  
Adamu cook.PERF food(local) DEF  
'Adamu has prepared a local food'
- (73) Ashetu *kɔyi* *daam.*  
Ashetu brew.PERF alcohol  
'Ashetu has brewed alcohol'
- (74) Samata *fari* *mana* maa zaa.  
Samata cook.PERF okro DEF all  
'Samata has cooked the okro'
- (75) M *paya* *to* *sakoro* maa.  
1SG.POSS wife pound.PERF fufu DEF  
'My wife has pounded the fufu'
- (76) Neindoo *bu* *dori* maa.  
Neindoo beat.PERF gruel (local) DEF  
'Neindow has prepared the gruel (local)'
- (77) Azindoo *ɲɔri* *gora* maa.  
Azindoo knead.PERF food (local) DEF  
'Azindoo has cooked the local food'

- (78) Shikurubihi            maa            *lshi*            *gaalii*            maa.  
Students.PL            DEF            soak.PERF            gari            DEF  
'The students have soaked the gari'
- (79) Shikurubihi            maa            *gari*            *gaalii*            la.  
Students.PL            DEF            mix.PERF            gari            DEF  
'The students have mixed the gari'
- (80) Afa            *tuui*            *bihim*            maa.  
Afa            mash.PERF            cowmilk            DEF  
'Afa has mashed the cowmilk'
- (81) Samata            *daai*            *tikari*            zuṅɔ.  
Samata            cook.PERF            soup            today  
'Samata has prepared soup today'
- (82) M            ma            *mali*            *maha*            zuṅɔ.  
1SG.POSS            mother            bake.PERF            cake            today  
'My mother has baked cake today'
- (83) Awabu            *bihi*            *shinkaa*            maa            zaa.  
Awabu            boil.PERF            rice            DEF            all  
'Awabu has boiled all the rice'
- (84) Dagbandoo            paya            niŋ            wasawasa.  
Dagbandoo            wife            cook.PERF            food  
'Dagbandoo's wife prepared food'
- (85) M            ma            *sam*            *kantɔŋ.*  
1SG.POSS            mother            smash.PERF            soup  
'My mother has prepared soup'

The data above were all given by my consultants. Examples (64-85) are all transitive constructions and an agent can be introduced referring to an instrument used in performing the cooking but the end product of the cooking is mentioned as the object. As I pointed out in the previous discussions, all the cooking verbs gathered were all proven to be transitive thus they can occur in the transitive constructions as can be seen in (64-85). Another observation made by the consultants were the case of causative constructions in the data. We realized that the transitive constructions do have agents always acting on the patient (the food item). Also, all the verbs were noted to be perfective in their constructions. It is important to make emphasize that the *la* example 65, 70, and 79 are all indicating definite articles in Dagbani because of the nouns that precede it. It can only be a focus marker when it precedes a verb in Dagbani.

#### 4.2.2.2 Cooking verbs that occur intransitively in Dagbani

Another crucial observation worthy of discussion in this study is the intransitive constructions that proved to exist in the language. The intransitive nature of the cooking verbs seems to be complicated. By testing the data, we have come to the realization that the verbs needed to be attached by an affix to be able to go by the grammatical rules of the language. There is a total morphological interference in the data. In other ways, the morphological features that allow the intransitive constructions to be used in the language include; *-ya, -mi, -ma, -ri, -ra, -bu, -la, -rimi*. In the following examples, I shall use a transitive construction to open the discussion to help us get a clear picture of the phenomenon we are talking about. For instance, example (86) is a transitive construction. To make it intransitive, the object *shinkaafa* ‘rice’ needs to be deleted. However, the

attempt to delete the object will make the sentence ungrammatical as can be seen in example (87). To make (87) grammatically correct as I already indicated, there is the need to introduce the morphological feature or an affirmative particle listed above, as can be seen in (88-97)

(86) Adam            dɔyi                    shinkaafa.  
 Adam            cook.PERF            rice  
 ‘Adam has cooked rice’

(87) \*Adam            dɔyi  
 Adam            cook.PERF  
 ‘Adam cook’

Nevertheless, the constructions in (88-97) below are intransitive and are acceptable in Dagbani because of the presence of the affixes and the affirmative particles which inform on the type of instrument and the state of the item used in the cooking. In this context, the construction is understood to have been caused by an unexpressed agent in an intransitive clause.

(88) Adam            *dɔyi-ya*.  
 Adam            cook-PERF  
 ‘Adam has cooked’

(89) Ashetu            *koyi-ya*                    zuŋɔ.  
 Ashetu            brew-PERF            today  
 ‘Ashetu brewed today’

The *-ya* in example (88-89) indicates perfectiveness in the intransitive constructions. They are given the indication that the cooking event has already taking place and eventually ready for consumption.

(90) Rahi            *duyi*            *mi.*  
 Rahi            cook.PERF    FOC  
 ‘Rahi has cooked’

(91) Sana            sa            *gari*            *mi.*  
 Sana            PST            mix.PERF    FOC  
 ‘Sana had cooked’

Example (90-91) has a null perfective marker, indicating that cooking has taken place already but specifically, the *-mi* marks focus in the constructions.

(92) Abu            *tam-ma.*  
 Abu            cook-IMP  
 ‘Abu should cook!’

(93) Dawuni            *chim-ma.*  
 Dawuni            fry-IMP  
 ‘Dawuni should fry!’

The application of *-ma* in the above constructions (92-93) is imperative. It gives an authoritative command to the subject to act on the verb. This therefore qualifies the construction to be causative as well. It also gives the indication that cooking is yet to commence.

(94) Azara            *duyi-ri*            *mi.*  
 Azara            cook-PROG    FOC  
 ‘Azara is cooking’

(95) Fati            *kɔyi-ri*            *mi.*  
 Fati            brew-PROG    FOC  
 ‘Fati is brewing’

(96) Damu            *duyi-ra.*  
 Damu            cook-PROG  
 ‘Damu is cooking’

The above morpheme *-rimi*, and *-ra* in (95-96) are progressive markers indicating that cooking is still ongoing.

(97) Damata            *mi*            *duyi-bu.*  
 Damata            know            cook-NOM  
 ‘Damata knows how to cook’

In the case of (97) above, the *-bu* is a nominalizer in this construction. It drives the verb to a noun when the morpheme is added.

### 4.3 Conclusion

This chapter presented and discussed the syntax of *cooking* verbs in Dagbani. The chapter discussed 23 *cooking* verbs based on **activity** and 21 *cooking* verbs based on **process** in Dagbani. As part of the syntactic component of this chapter, three key components have been discussed including the issue of collocation, transitive, and intransitive constructions

in Dagbani. As noticed earlier, the mode of cooking and the choice of food items selected to cook play a pivotal role in constructing a meaningful sentence in Dagbani.





## CHAPTER FIVE

### SEMANTIC CLASSIFICATION OF COOKING VERBS IN DAGBANI

#### 5.0 Introduction

This chapter examines the semantic relationships the verbs of cooking have with each other by using the cognitive linguistic approach to reveal the principal meanings of the verbs. As a result of the nature of cooking, different verbs are used to describe cooking events in Dagbani based on the mode of cooking. This chapter intends to take care of the final objectives of this study. I shall divide this into two subsections. The first section thus 5.1 looks at the basic meanings of the cooking verbs whereas 5.2 examines the metaphorical extensions of some of the verbs in the language. 5.3 presents the findings under the assumptions of the Cognitive Linguistic Approach while section 5.4 summarizes and conclude the entire chapter.

#### 5.1 Basic Meanings and Uses of Dagbani Cooking Verbs

This sub-section discusses the basic meanings of the cooking verb identified in the study. Unlike the syntactic component of the above chapter where a brief introduction of each verb had been given before discussions, the semantic part aims at exploring the verbs in connection with the Cognitive Linguistic Approach. As a matter of fact, the second set of Evans et al. (2007) guiding principles for cognitive linguistics states that, language refers to concepts in the mind of the speaker rather than, directly, to entities which inhere in an objectively real external world. This means that the sense attributed to entities has gone beyond what they represent. The idea of selecting the exact food item to complement the right cooking verb emanates from the mind of the Dagbani speaker which is therefore

motivated in constructing meaningful sentences or structures. For instance, the verb *duyi* ‘cook’ as the prototypical term that does not collocate with all the food items in Dagbani. However, selecting the right verbs to construct meaningful sentences depends on the linguistic competence of the speaker which emanates from his or her mind. The speaker selecting the nouns such as *sayim* ‘t.z’ in sentence (68), *nyuli* ‘yam’ in (69), and *shinkaafa* ‘rice’ in (70) represent the concepts and therefore exist in the mind of the speakers. The following examples (68-97) present the summaries of some of the COOK verbs with their basic meanings followed by a discussion of their semantics.

### 1. *duyi* ‘to cook’

The term *duyi* is the prototypical verb in Dagbani. It is the process of preparing a meal for consumption. This is done through the application of heat or any other means. *Duyi* collocates with several food items such as *sayim* ‘TZ’, *nyuli* ‘yam’, *shinkaafa* ‘rice’ *nimdi* ‘meat’ *zeri* ‘soup’. in Dagbani. Below is the justification of the assertion:

(98)	Abiba	<i>duyi</i>	sayim	zuŋɔ
	Abiba	cook.PERF	t.z	today

“Abiba has cooked t.z today”

(99)	Muna	sa	<i>duyi</i>	nyuli	sohila
	Muna	PST	cook.PERF	yam	yesterday

“Muna had cooked yam yesterday”

(100)	Nafisah	<i>duyi</i>	shinkaafa	maa	zaa
	Nafisah	cook.PERF	rice	DEF	all

“Nafisah has cooked all the rice”

## 2. *She* ‘to roast’

The verb *she* is a form of cooking that involves introducing the food item to the heat. This is done by putting the food item deep into the fire or a few centimetres away from the heat. *She* collocates with *nyuli* ‘yam’ *sima* ‘groundnut’, *Kawana* ‘corn’

- (101) Adamu                    *she*                    sima                    la.  
 Adamu                    roast.PERF                    groundnut                    DEF  
 “Adamu has roasted the groundnut”

- (102) Damata                    *she*                    nyuli                    maa.  
 Damata                    roast.PERF                    yam                    DEF  
 “Damata has roasted the yam”

- (103) Dasana                    *she*                    Kawana                    ti                    o                    ba.  
 Dasana                    roast.PERF                    corn                    give                    3SG.POSS                    father  
 “Dasana has roasted corn for his father”

## 3. *ηo* ‘to smoke’

It is a form of cooking that involves exposing the raw food item a few centimetres away from the heat. The main purpose of this is to preserve the food, and prevent it from rotting for future use. This is mostly done with fish or any other type of meat. *Do* collocates with fish and meat.

- (104) Salam                    *ηo*                    nimdi/zahim                    maa.  
 Salam                    smoke.PERF                    meat/fish                    DEF  
 ‘Salam has cooked the meat/fish’

#### 4. *chim* ‘to fry’

The term *chim* is a form of cooking that involves the use of oil, sea sand from the river site, or empty pan or pot. The Dabgamba people are known to fry their food either by using oil or sea sand. The verb denotes cooking. However, it can be done in two different ways: liquid (using oil) or solid (using dirt in a pan or an empty hot pan). Unlike the English language where they have pan-fry, dry-fry and others (see Lehrer, 1969). According to Dogbey (2020:22), the English general meaning of ‘fry’ (cooking in oil) while the term ‘roast’ refers to cooking in a plain bowl or a bowl filled with an amount of sand. In the case of Dagbani where the sand is involved, the verb still remains fry. Examples of food items that complement this verb include; *sima* ‘groundnut’, *kawana* ‘corn/maize’, *nyuli* ‘yam’, *nimdi* ‘meat’, *zahim* ‘fish’,

(105) Salamatu                    *chim*                    nimdi/zahim    n-ti    ka    bε    ηubi.  
Salamatu                    fry.PERF                    meat/fish                    give    CONJ 3PL    chew  
‘Salamatu has fried meat/fish and gave out for consumption’

(106) Adama                    ni                    *chim*                    sima/kawana                    ka    ti    ηubi.  
Adama                    FUT fry.PERF                    groundnut/corn                    CONJ 1PL    chew  
‘Adama will have fried groundnut for us to chew’

#### 5. *vuli* ‘to unhair/dress’

This culinary term is applied by introducing the heat to the outer part of the meat. This is done speedily to remove the feathers or hairs from the meat. For example, hen, guinea fowl. *Vuli* also means, taking away the hair of animals such as goats, sheep, rabbits, from the skin. It is mainly done to prepare the meat for cooking. Even though, the skin part of the meat can be consumed when this activity has taken place.

(107)	Fushani	<i>vuli</i>	piɛɣu	maa.
	Fushani	dress.PERF	sheep	DEF
	‘Fushani has dressed the sheep’			

#### 6. *tam* ‘to cook’

The term *tam* is a kind of cooking that involves intense heating of the food item. Literally, the term denotes the act of placing the cooking utensil, usually the pot on the fire. The term has a greater link with the prototypical term *duyi* than the other culinary verbs in the language. The two verbs substitute each other in some cases but also have their unique independent functions. The notion behind the verb *tam* is that, it collocates with food items that take long duration in the cooking process. In some cases, it has a similar meaning to the English culinary term *boil* as in boiling herbs. *Tam* collocates with *mɔɣu* ‘herbs’, *kpaligu* ‘dawadaw’.

(108)	M	ma	sa	<i>tam</i>	kpaligu	sɔhila.
	1SG	mother	PST	cook.PERF	dawadawa	yesterday
	‘My mother had prepared dawadawa yesterday’					

(109)	M	ba	<i>tam</i>	mɔɣu.
	1SG	father	boil.PERF	herbs
	‘My father has boiled herbs’			

#### 7. *Waai* ‘to parboil’

The term *waai* is done by heating the food item with liquid. It is to prepare the food for second round of cooking. This cooking verb is further described as partial because it demands another form of cooking to complete the process. However, when the food item

has undergone this process, the food can equally be ready for eating or consumption. The verb *waai* collocates with *nimdi* ‘meat’, *bira* ‘hibiscus’

(110) Napari            *waai*            nimdi            maa.  
 Napari            boil.PST            meat            DEF  
 ‘Napari has boiled the meat’

(111) Waliwali        *waai*            o            sima            la            kɔhi.  
 Waliwali        boil.PST            1SG            groundnut            FOC            sell  
 ‘Waliwali has cooked his groundnut to sell’

(112) Chimsi            *waai*            bira            maa            zali.  
 Chimsi            boil.PST            hibiscus            DEF            put  
 ‘Chimsi has parboiled the hibiscus down’

#### 8. *moni* ‘to stir’

The term *moni* is a form of cooking activity that involves moving the steering stick inside the cooking pot with a hot mixture of water and flour. Unlike the process of preparing porridge or stew, where the steering is done slowly and gently which denote different verb in Dagbani, this cooking term primarily involves the use of energy and the application of some skills. The term is a form of steering that is applied during the preparation of T.Z and banku to make it ready to serve. The term collocates with *sayim* ‘TZ’, *bonku* ‘banku’

(113) Adama            bi            *moni*            sayim/bonku            maa            vienyɛla  
 Adama            NEG            stir.PST            t.z/bonku            DEF            well  
 ‘Adama did not prepare the t.z/banku well’

**9. *kali*** ‘to cook’

The term *kali* is another culinary term that is very similar to *moni*. The activity is the same but denotes different culinary terms. The crucial meaning component of the verb is that it describes the manner of cooking. The verb *kali* collocates with *yama* ‘a local food made from cornflour’. The process of preparing this meal involves the use of oil.

- (114) Arishetu      bi      *kali*              yama              maa              vienyela.  
 Arishetu      NEG      cook.PST      food              DEF              well  
 ‘Arishetu did not prepare the food well’

**10. *kɔyi*** ‘to brew/prepare’

The term *kɔyi* is a form of cooking activity involves the use of a ladle to steer the food while preparing it. It involves the use of water throughout the process. *Kɔyi* collocates with *koko* ‘porridge’ *daam* ‘alcohol’.

- (115) Ayisha              *kɔyi*              koko              ka              ti              nyu.  
 Ayisha              brew.PERF      porridge      CONJ              1PL      drink  
 ‘Ayisha prepared porridge and we drank’

**11. *fari*** ‘to simmer’

*Fari* is the act of cooking where the food item is allowed to go through a slowly boiling point at a low temperature. The idea behind this activity is to soften the food item before adding ingredients. *Fari* collocates with *mana* ‘okro’.

- (116) Amina              *fari*              mana      maa      ka              duyɪ              li.  
 Amina              simmer-PERF      okro      DEF      CONJ              cook-PERF      2SG  
 ‘Amina cooked the food by simmering it’

**12. to** ‘to pound’

The term *pound* is the process of hitting the food item (cooked cassava or cooked yam mixed with cooked plantain or cocoyam) with a pestle. The food is put inside the mortar while carefully marshed by the pestle. This process demands several people’s participation with only one person turning the food in the mortar while the rest will be doing the pounding. However, one person can equally do both activities using the two hands simultaneously. The food item that collocates with this is *sakoro* ‘fufu’.

(117)	Mahamaru	ni	<i>to</i>	sakoro	yɔɣɣɔ.
	Mahamaru	FUT	pound	fufu	tonight
	‘Mahamaru will pound fufu tonight’				

**13. bu** ‘to beat’

The term *bu* is the process of beating the food item mixed with liquid with the use of bare hands or even a spoon for immediate consumption is known as *bu* in Dagbani cooking verbs.. This activity does not involve any form of heat. The food items identified here may include *dori* ‘dawadawa powder’

(118)	Dawuni	<i>bu</i>	dori	ni	o	nyu.
	Dawuni	beat.PERF	gruel	CONJ	1SG	drink
	‘Dawuni prepared dawadawa powder to drink’					

**14. ɣɔri** ‘to knead’

This cooking verb is applied to food items like the fresh leaves of beans. The leaves are vigorously cooked after which the activity begins. It involves using one's hand to mix or disintegrate the food. The food item that collocates with this is *gɔra* ‘a typical local food prepared with local ingredients. The special ingredients that are used to garnish this food



item include; fresh fried fish, onion, salt, pepper all mixed with the beans cake (kose). However, the term is elicited from the activity. This food item is one of the local foods that do not have its equivalent in English. The general term beans cake fry shall therefore be used as substitute. It is important to note that Dagbamba also knead maize and millet flour in the process of preparing porridge.

<b>(119)</b>	Rukaya	<i>ɲori</i>	gɔra	maa	zaa.
	Rukaya	knead.PERF	beans cake fry	DEF	all
	'Rukaya prepared all the beans cake fry (kose)'				

#### 15. *lɔhi* 'to soak'

The term *lɔhi* as a cooking verb is the process of preparing food by mixing the food item with liquid especially water. The term collocates with *gaalii* 'gari'. This process involves no heat. This preparation process involves a large quantity of water. This is done by pouring the amount of gari needed into cup or bowl. Pour water onto the gari and pour out the water with the roots or chaff leaving the gari behind. Add sugar to taste. Add milk or water to make it light. It is important to note that *lɔhi* can also apply to food items such as maize, millet, wheat, rice, before grinding and cooking.

<b>(120)</b>	Shikurubihi	maa	<i>lɔhi</i>	gaalii.
	Shikurubihi	DEF	soak.PERF	gari
	'The students have soaked gari'			

#### 16. *gari* 'to mix'

This is another similar form of food preparation that involves mixing the item with several ingredients like pepper, salt, onion, and others. This process involves small quantity of water compared to *lɔhi* 'to soak'.

- (121) Failatu        bi        *gari*        gaalii        maa        vienyɛla.  
 Failatu        NEG    mix.PERF    gari        DEF        well  
 ‘Failatu didn’t mix the gari well’

**17. *tuui* ‘to mash’**

The term *tuui* is another form of cooking which is very similar to *gari* ‘soak’ but the activity is completely different. It is the process of smoothly smashing the item with liquid to its inseparable level. The food item that collocates with *tuui* is *bihim* ‘cowmilk.’

- (122) Adamu        ni        *tuui*        bihim        maa.  
 Adamu        FUT    mash.PERF    cowmilk    DEF  
 ‘Adamu will mash the cowmilk’

**18. *daai* ‘to cook/prepare’**

The term *daai* is a form of cooking that relates to some selected local soup preparation. This activity is done at the final stage of the meal preparation. It makes the soup ready for usage. The verb does not apply to all soup preparations but a few selected ones. This culinary term in Dagbani collocates with *mana* ‘dry okro’, *kuuka/tikari* ‘baobab leaves.’

- (123) Bamunu        daai        kuuka/mana        zuɲɔ.  
 Bamunu        cook.PERF    baobao leaves soup or okro        today  
 ‘Bamunu has prepared baobao leaves soup or okro today’

**19. *mali* ‘to bake’**

The term *mali* is a cooking verb that involves the process of using hot oil. Apart from bread where the mode of preparation involves putting the item deep into the fire denoting different, *she* ‘roast’ in Dagbani. The act of roasting in Dagbani is completely different in

other languages. For instance, the English speaker refers to this process as baking and not roasting. This is different in Dagbani. Lehrer (1969) observes that *bake* refers to the preparation of cakes, cookies breads, pastries, and other things which are sold in bakeries and prepared by professionals. Mali collocates with *maha* 'maize powder cake' *kulikuli* 'groundnut cake.'

(124)	Sharifa	mali	maha/kulikuli.
	Sharifa	bake.PERF	maize powder/groundnut cake
	'Sharifa has baked maize powder/groundnut cake'		

## 20. *bihi* 'to dehusk'

This method of cooking food involves applying heat to the food to help soften and separate it from its husk. An example of food or grain that undergoes this method of cooking is fresh rice and fresh corn. It is significant noting that, the *bihi* cannot collocate with the fresh corn in Dagbani even though the process is the same.

(125)	Rahama	<i>bihi</i>	shinkaafa	maa.
	Rahama	dehusk.PERF	rice	DEF
	'Rahama has dehusked the rice'			

## 21. *nij* 'to steam'

The method is about exposing the food to steam or moist heat to cook it. In this case, the food is well-handled to make sure it is fully cooked. *Wasawasa* and *tuubaani* are examples of food prepared by this method.

(126)	Nima	<i>nij</i>	wasawasa	zuŋɔ.
	Nima	steam.PERF	a local food	today
	‘Nima has steamed <i>wasawasa</i> (a local dish) today’			

## 5.2 Semantic Extensions of Some Dagbani Cooking Expressions

The data suggests that expressions regarding cooking verbs may have semantic meaning expansions. It is therefore, pertinent to note that the literal (Lit) meanings of these verbs must be considered. Some of these verbs are illustrated and discussed in (127-140).

Generally, the sense behind every lexical unit can best be determined either in a phrase or a sentence form but not in a single unit construction. However, the interpretation of words could be a result of the individual experiences as opined by Evans et al. (2007:07) under the first principle of cognitive linguistics of which this study depends on ‘the concepts we have access to and the nature of the ‘reality’ we think and talk about are a function of our embodiment. We can only talk about what we can perceive and conceive, and the things that we can perceive and conceive are derive from embodied experience. From this point of view, the human mind must bear the imprint of embodied experience.’

(127)	Adam	<i>duyi</i>	n	suhi.
	Adam	cook.PERF	1SG	heart
Lit:	‘Adam has cooked my heart’			
	‘Adam has made me angry’			

(128) N                nii                                n        *duyi*.  
 1SG                body                                FOC    cook.PERF

Lit: ‘My body is hot’

‘I have been frustrated’

(129) ηuni    yɛn    *duyi*                tuya                ka                ti                pili?  
 Who    FUT    cook.PERF    beans                CONJ                1PL                start

Lit: ‘Who will cook beans for us to start?’

‘Who will commence the folktales?’

(130) Napari                *duyi*                                kom.  
 Napari                cook.PERF                                water

Lit: ‘Napari has cooked water’

‘Napari swims’

The *duyi* as we have observed above in (127), (128), (129), and (130) are semantically known to be a cooking verbs. Obviously, the first sense that comes to mind when these terms are heard is the cooking. Contextually, the verb is derived from its original meaning to a different meaning domain. The expression in (127) literally indicates that, Adam as the agent in the sentence is cooking someone’s heart which can be extended to mean making someone angry. However, in (128), the meaning is extended to the health status of the speaker, indicating that his body temperature is abnormal. In (129), the expression can be extended to indicate the starting point of a folktale among children. In addition, example (130) can semantically be extended as someone swimming. As postulated by Butari (2014), the verb ‘cook’, can be used to depict pain, anger, deceit, and punishment. Also, culinary terms like roast, cook, steam, and bake can be extended

to describe how hot something is (Butari, 2014). This is a similar instance we have witnessed in the Dagbani data above.

(131) O                    kɔba                    n                    *waai*.  
                                  2SG                    bones                    FOC    boil.PERF

Lit: ‘His body is boiled’  
       ‘His body shrinks’

It is observed in (131) as one of the body parts-related extensions. The verb *waai* in the expression literally denotes that, someone’s bones had been parboiled. By extension, we say that the person is severely sick which leads to the body shrinking.

(132) Bia                    maa                    *ɲɔri*                    o                    ma                    zaa.  
                                  Child                    DEF                    knead.PERF    3SG                    mother                    all

Lit: ‘The child has kneaded his mother’  
       ‘The child has disturbed the mother’

(133) Rauf                    *moni*                    o                    paya.  
                                  Rauf                    stir.PERF                    1SG                    wife

Lit: ‘Rauf has stired his wife’  
       ‘Rauf has disturbed his wife’

It can be observed in example (132) that *ɲɔri* is one of the non-heat cooking verbs in the data, whereas *moni* in (133) is a heat category cooking verb. The verbs are extended to mean that the child is disturbing his mother in a room, while Rauf also disturbs his wife.

(134) Sana            nina            *chim*            m            mōhi.  
           Sana            eyes            fry.PERF        FOC        red

Lit: ‘Sana’s eyes have fried red’  
       ‘Sana is angry’

In example (134) *chim* is considered as one of the heat-related cooking verbs. The literally sense of this expression is that, someone’s eyes are red. By extension, the verb rather depicts the emotion of the speaker. It gives the indication of being angry.

(135) Danaa            *tam*                            n            yala.  
           Danaa            cook.PERF                    my        matter

Lit: ‘Danaa has cooked my things’  
       ‘Danaa has forgotten of me’

The verb *tam* is a process-based cooking verb which literally denotes placing the pot or utensil on a fire for cooking to begin. The verb can however, be extended to mean the idea of forgetting someone as can be seen in example (135) above.

(136) Azindoo            *daai*                            loori            maa.  
           Azindoo            cook.PERF                    car            DEF

Lit: ‘Azindoo has cooked the car’  
       ‘Azindoo has pushed the car’

The term *daai* is seen as an auxiliary cooking verb. It could also be extended to signify pushing something, as can be seen in example (136).

(137)	O	<i>moni</i>	n	nya	o.
	1SG	stir.PERF	CONJ	see	he/she

Lit: 'He has stired and saw him'

'He has struggled to see him'

The term *moni* is one of the prototypical cooking verbs in Dagbani. However, the meaning extension of this verb in example (137) is 'to struggle'. It gives an impression that somebody is struggling to see someone.

(138)	Alasani	<i>gari</i>	Fushani.
	Alasan	mix.PERF	Fushani

Lit: 'Alasan has mixed Fushani'

'Alasan is older than Fushani'

The verb *gari* is one of the non-heat verbs in Dagbani. It collocates with *gaalii* 'gari'. The sense behind the verb in (138) has gone beyond cooking. It is an expression regarding age. The extended meaning of it is that, Alasan, in the subject position is older than Fushani in the object position.

(139)	Samata	<i>kɔyi</i>	ti	zɛri.
	Samata	brew.PERF	1PL	soup

Lit: 'Samata has brewed us soup'

'The soup is either delicious or not'

In the actual sense, the verb *kɔyi* collocates with liquid food items. In addition, in example (139), the collocation between the verb *kɔyi* 'brew' and the noun *zɛri* 'soup' may be possible in the extended sense of the soup being delicious or otherwise.



### 5.3 Formalization of the results in the framework of Cognitive Linguistics

Considering the findings in the aforementioned discussions, this section seeks to explore the data based on the theoretical perspective of Cognitive Linguistics, taking into consideration *duyi* ‘cook’ as the prototypical term in Dagbani. The focus is to examine how the theory reflects in the data analysis using the general term *duyi* ‘cook’ to demonstrate.

#### 5.3.1 *duyi* ‘cook’

The verb *duyi* is the prototypical verb in Dagbani. It is the process of preparing a meal for consumption. This is done through the application of heat or any other means. Nonetheless, distinct verbs are used for the activity of cooking as mentioned above because of a particular semantic characteristic of some food items and how they are prepared. As I indicated, this section discusses the semantics of the prototypical verb *duyi* to represent the numerous verbs collected to determine how the Cognitive Linguistics Approach reflect in the data. Starting from the first principle among the four outlines by Evans et al. (2007). Let us consider the following examples.

(140)	Adam	<i>duyi</i>	bindirigu.
	Adam	cook.PERF	food
	‘Adam has cooked food’		

(141) Bε    *duyi*            bia    maa    nii.  
           3PL    cook.PERF    child    DEF    body

Lit:    ‘They have cooked the boy’s body’

          ‘They have beaten the child’

It can be observed from the above data (140) and (141) that the same verb is used in both sentences. It is worth to note that the two sentences are grammatically correct with respect to the syntactic distribution of the verb. To determine the semantic relationship of the two sentences may call for the different views. This may be as a result of how each and every one of us perceive the world. According to the first principle of Cognitive Linguistics, Evans et al. (2007) states that, the nature of our embodiment and the neuro-anatomical architecture influences how we perceive the world. In other words, the concepts we have access to and the nature of the ‘reality’ we think and talk about are a function of our embodiment. We can only talk about what we can perceive and conceive, and the things that we can perceive and conceive derive from embodied experience. The use of **body** as the object to the verb *duyi* in example (141) may sound difficult to interpret by someone. He/she may argue that, **body** is a component of food as seen in example (140). Another person may not see anything wrong with the two constructions since he/she may easily interpret them without any difficulty.

In addition, the second guiding principle asserts that language refers to concepts in the mind of the speaker rather than, directly, to entities which inhere in an objectively real external world. Based on the view of Cognitive Linguistic the interpretation of the two example emanates from the mind of the speaker. The Dagbani speaker upon hearing the

two examples above needs to understand the semantic realization of the same cooking verb used. The concepts in the mind of the Dagbani speaker influences the meaning representation. we have many more thoughts, ideas and feelings than we can conventionally encode in language.

Furthermore, the third tenet of Cognitive Linguistics states that meaning construction is encyclopaedic in nature. The attempt to focus on only the dictionary meaning of words might mislead the speaker. Evans et al. (2007) opines that the lexical items do not represent neatly packaged bundle of meanig. They added that the so called dictionary meanings only serves as a ‘point of access’ to vast repositories of knowledge relating to a particular concept or conceptual domain. A different response of perceptual experience or simulation is triggered in each of the aforementioned cases.

Let us also consider consider the example below to throw more light on how the theory fits in to this study taking into consideration the third guiding principle known as meaning construction is encyclopaedic in nature. Study the example below:

(142)	Soochi	<i>kɔyi</i>	koko	maa.
	Soochi	brew.PERF	gruel	DEF
	‘Soochi has brewed the gruel’			

According to the third guiding principle of Cognitive Linguistics, meaning construction is encyclopedic in nature. In the above example, different reaction of perceptual experience or simulation is activated. A distinct meaning representation comes to the mind of the

Dagbani speaker upon hearing the above sentence. The first meaning could denote the completion of the food preparation and ready for consumption while the other meaning could denote that the meal is delicious or not. The same cooking verb *kɔyi* ‘brew’ prompts an entirely different perceptual simulation of an act involving the readiness of the food and the deliciousness of the food. In a nutshell, all what I am arguing is that, there is a high possibility of applying the Cognitive Linguistics in the current study as can be seen in the above data.

#### **5.4 Conclusion**

This chapter discussed the semantics of *cooking* verbs in Dagbani. The chapter looked at the semantic classification of cooking verbs as one of the most fundamental components in this study. As established earlier, the 23 cooking verbs that were identified in Dagbani as an activity were the focus. The chapter, in addition explored the basic meanings of these verbs and subsequently channelled the discussion on their possible semantic extensions.

## CHAPTER SIX

### SUMMARY, FINDINGS AND RECOMMENDATION

#### 6.0 Introduction

This chapter presents the overall conclusions of the study. It discusses the summary and findings of the study, and some recommendations for future studies. The rest of the chapter is organised under the following divisions: Section 6.1 presents the summary of the chapters while section 6.2 discusses the findings of the study. Section 6.3 concludes the study whereas 6.4 provides some recommendations for future studies.

#### 6.1 Summary of chapters

This chapter sought to examine the syntax and semantics of ‘‘COOK’’ verbs in Dagbani. The data was analysed using Cognitive Linguistic Approach as theoretical framework of the study. Cognitive Linguistic Approach is centred on the idea that our understanding of language is shaped by our social and cognitive experiences.

The study consists of six chapters. It commenced with chapter one which presented aspects like the introduction to the study background to the study, statement of the problem, the purpose of the study, research objectives, research questions, significance of the study, delimitation, and finally discussed the organisation of the study.

The second chapter reviewed literature on the notion of cooking verbs in general and other relevant thematic areas. This was done systematically based on Ghanaian and Non-Ghanaian languages. The chapter further introduced the theoretical framework under the

auspices of cognitive linguistics, a method that centres on the relationship between language and the mind and how it influences our socio-physical experiences.

The third chapter examined the methodology employed in the study. The chapter discussed the research design, population, the participants and sampling techniques. The sources of data and the techniques used in data collection were also discussed. The last section of the chapter presented the ethical issues that guide the study.

The fourth chapter provided the lexicalization and the syntax of *cooking* verbs in Dagbani. The first part of this chapter assembled thirtysix (36) cooking verbs in Dagbani. The cooking verbs identified were then divided into two; the activity based and the process-based cooking verbs. Also, the syntactic components of this chapter, thus the issue of collocation, transitive and the intransitive construction were finally discussed. The chapter was able to answer the first and second part of the objectives.

1. What are the verbs used in cooking in Dagbani?
2. What is the syntax of Dagbani cooking verbs?
3. What are the basic semantics and semantic extensions of Dagbani cooking verbs?

Chapter five focused on two fundamental domains. The first part discussed the basic semantics of cooking verbs. Under this, the actual focus was on the first meaning that comes to mind when the verb is mentioned. The chapter proceeded to the discussions on the semantic extension of 'COOK' verbs in Dagbani as the last part of the three objectives stated.

## 6.2 Findings of the study

This study aimed at exploring the syntax and semantics of *cooking* verbs in Dagbani. Thirtysix (36) cooking verbs were identified followed by discussions on their syntactic distributions as well as the semantic realizations. Again, the study examined the basic meanings of each verb and possible semantic extensions of some of the verbs. A number of key findings were identified in this study. The data indicated that, Dagbani cooking verbs can be divided into two. The first one has to do with cooking as an **activity**, and the second one was identified as cooking as a **process**. Out of the 36 verbs collected, 18 were identified as the prototypical cooking verbs (activity), and 18 as auxiliary cooking verbs (process). Among the activity-based verbs include; *duyi* ‘cook’, *she* ‘roast’, *ɲɔ* ‘smoke’, *chim* ‘fry’, *vuli* ‘unhair’, *tam* ‘cook’, *waai* ‘parboil’, *moni* ‘stir’, *kali* ‘cook’, *kɔyi* ‘brew’, *fari* ‘simmer’, *daai* ‘cook’, *bihi* ‘dehusk’, *niɲ* ‘cook’, *kabi* ‘overcook’, *to* ‘pound’, *bu* ‘beat’, *ɲɔri* ‘knead’, *lɔhi* ‘soak’, *gari* ‘mix’ *tuui* ‘mash’ *sam* ‘smash’ *nyɛligi* ‘melt’. The auxiliary cooking verbs also include; *dam* ‘stir’, *jahi* ‘sieve’ *dooi*, *yuyisi*, *gbiɛm*, *pazim*, *nyuhi*, *tohisayim*, *puyisi*, *te*, *chari*, *piehi*, *mili*, *niɛm*, *mili*.

Among the verbs collected, twelve<sup>12</sup> verbs were identified as cooking verbs that cannot do without heat, while seven (7) were identified as non-heat cooking verbs. It is possible for an English cooking verb to have more than one different culinary term denoting several senses in Dagbani. On the other way round, most of the Dagbani culinary terms do not also have their exact equivalent terms in the English language. This then called for a description of the activity. This happened to both the activity and the finished food item. In some instances, the use of the general terms ‘cook’ and ‘food’ was used to

indicate both the activity and the item that has no equivalent term in Dagbani respectively.

Another key finding under the syntactic distribution was the fact that, not all the prototypical *cooking* verbs are able to take all the food items as complement of the verb. Regarding the issue of transitivity, all the Dagbani cooking verbs are identified as transitive verbs. However, the intransitive forms demand a kind of morphological interference to satisfy the grammatical construction in Dagbani. The morphological features that allow the intransitive constructions to be used in the language include; *-ya, -mi, -ma, -ri, -ra, -bu, -la, -rimi*. Some of these surfixes function as imperative, nominizer, perfective and imperfective/progressive, focus markers.

It was also revealed that, some of the verbs go beyond the basic meanings they represent. However, the verb *duyi* ‘cook’ as the general term has extensions into other domains than the other verbs. The data revealed that, the cooking verbs can be extended to mean emotions, health status of the speaker, body temperature, children playing such as reciting folktales, swimming.

### **6.3 Conclusion**

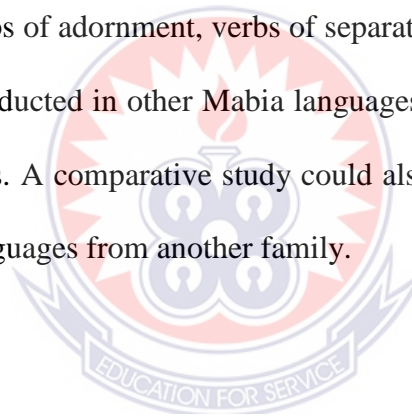
This thesis explored the syntax and semantics of *cooking* verbs in Dagbani. The data confirmed that, the Dagbani cooking verbs can either be activity based or process-based verbs in the cooking domain. The activity-based cooking verbs are the prototypical verbs that make the food ready for consumption while the process based assist the activity based to facilitate the cooking. This was therefore described as the auxiliary cooking



verbs. There are eighteen (18) activity-based cooking verbs and eighteen (18) process-based cooking verbs in Dagbani.

#### **6.4 Recommendations for further studies**

The current study is on the syntax and semantics of *cooking* verbs in Dagbani using the Cognitive Linguistic Approach as a theoretical framework. A key recommendation is that it will be fascinating to see theories like the componential analysis theory adopted by Katz and Fodor (1963) being used to analyse similar topics such as the one under study. I also recommend that other researchers can use the same approach to analyse other verbs such as wear verbs, verbs of adornment, verbs of separation, cover verbs. Again, research on this topic can be conducted in other Mabia languages to see how cook verbs function in these sister languages. A comparative study could also be done on the topic in Mabia languages and other languages from another family.



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