UNIVERSITY OF EDUCATION, WINNEBA

THE FORMATION AND USAGE OF GERUNDS IN NANDOME

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DECLARATION

STUDENT'S DECLARATION

I, Bernard Ngmenniabangne Bilikpe declare that this thesis, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted either in part or in whole, for another degree elsewhere.

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SUPERVISOR'S DECLARATION

I 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 thesis to my beloved father, Naa Mr. Charles Bilikpe and mother, Mrs. Marcella Dery Kuubeborb Bilikpe. I also dedicate the thesis to my siblings; Rev. Bro. Franklin Bilikpe, Ophelia Bilikpe, Ernest Bilikpe, Benedict Bilikpe and late Angela Bilikpe.

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GLOSSARY AND ABBREVIATIONS

GLOSSARY

Adjunct: A part of a phrase that is used to modify the meaning intended by the head word. For example using an adverb to modify a verb. That adverb is an adjunct.

Argument: A noun that is directly linked to a verb in a clause.

Complement: A part of a phrase that is needed to complete the meaning of the head word in a phrase. For example a noun acting as an object to a verb. That noun is a complement to the verb.

Deep Structure: The resultant structure after morphemes fix at the X-bar nodes

Determiner Phrase (DP): It is invariably a noun phrase that contains a determiner and the determiner is considered to be head of the phrase instead of the noun. It can basically be considered another approach to a noun phrase

Double object construction: when there are two nouns that both act as objects to a verb in one clause. This is also known as ditransitivity.

Head: This refers to the main word in a phrase. It is the key word which other words build around to make a phrase. The head is the main referent of the phrase.

Lexicon: An abstract collection of all the minimal grammatical units of meaning of a given language.

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Lower: To move a given linguistic item rightward.

Morpheme: The minimal grammatical unit of meaning. It is in abstract form.

Phonetic representation: the pronunciation of a word in speech.

Phonological representation: the underlying form of a word.

Phrase: A linguistic unit made up of a word or words. The unit has a word whose word class determines the class of the phrase. A sentence is an inflectional phrase (IP).

Raising: To move a linguistic item leftward.

Serial verb construction: A clause that has more than one verb denoting a series of action.

Specifier: A part of a phrase used to narrow (make specific) the meaning of the head word. An example is negating an action. The negation specifies the action.

Surface structure: A structure derived from another structure. Also known as superficial structure.

Underlying structure: An intial structure of a phrase (spoken or unspoken) from which another sentence is derived.

XP: 'X' represents a class variable of a head word and 'P' represents the phrase version of 'X'

ABBREVIATIONS

1PL	First person plural
1SG	First person singular
2PL	Second person plural
2SG	Second person singular
3PL	Third person plural
3SG	Third person singular
Adj	Adjective
Adv	Adverb
AdvI	Adverbial of instrument
AdvM	Adverbial of manner
AdvP	Adverbial of place
ADV P	Adverb phrase
AdvT	Adverbial of time
Ag	Repertitive particle
Art	Article
Asp	Aspect
BE	'be' verb
C	Consonant
D	Determiner
$D^{/}$	Determiner bar
Def	Definite article

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DP	Determiner phrase
Emp	Emphasis
Foc	Focus marker
FUT	Future marker
GER P	Gerund phrase
GM	Gerund marker
GSS	Ghana Statistical Service
H	Habit particle (lexical item used in VP)
Hab	Habit marker (used in gerund phrase)
$I^{/}$	Inflection bar
Int	Intensifier
Intj	Interjection
IP	Inflectional phrase
Loc	Locative
M	Modal particle
MUA	Merger under adjacency
MV	Main verb
N	North
NEG	Negation marker
NH	Noun head
NM	Noun modifier
NP	Noun phrase
NUM P	Number phrase

Num	Number marker
Obj	Object of a
P	Polarity particle
Perf	Perfect form of a verb
Pgr	Progressive marker
Pos	Possession marker
Post P	Postposition
PP	Preposition
Q	Quantifier
QM	Question marker
RVP	Remote verb particle
S	South
Spec	Specifier
Sub	Subject
SVC	Serial verb construction
TAM	Tense aspect modal
TAMP	Tense aspect modal particles
TD	Time depth particle
V	Vowel
$V^{/}$	Verb bar
VP	Verb phrase
W	West
X^{y}	X can occur y times at maximum

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X_y	X can occur y times at minimum
{ }	Alternation among the segments within
[ ]	Identifiable features of a sound segment
( )	Optionality of a segment in a rule
+xxxx	Presents of a feature xxxx
+	Morpheme boundary
-xxxx	Absence of a feature xxxx
——	Specific position in which a sound occurs
→	Becomes
/	In the environment of
α	sameness of a feature possessed by two or more sound segments
*	Ungrammatical

ABSTRACT

Out of preliminary observation of gerunds in Nandome, it is realised that the gerund marker {-bú} is not realised fully in speech but a split form of it, [-b] or [ú] are realised. Also, the gerund phrase in Nandome distinguishes between sentence adjuncts and adjuncts of a verb phrase. The movement of sentential adjuncts was found to resolve ambiguity in the gerund phrase. It was observed that degree emphasis can be achieved by making a gerund an argument to its root verb. In investigating this, 3 conversations and 2 stories were used. 374 gerunds were formed intuitively and crosschecked by two native speakers with linguistic training. A focus group discussion considered some aspects of gerunds and semantic interpretations. Generative phonology and the X-bar theory were used as frameworks for the research. Findings include the assertion that: the gerund in Nandome is marked by {-bú}, which never occurs fully phonologically. The marker is rather realised as: [b], [ú], [ʋ́], [fú], [fʋ́] or [bá], accompanied by tone rising in the verb root, but with exceptions. The gerund has a maximum of ten modifiers. Besides sentential adjuncts, modifiers are leftward of the gerund. The gerund phrase in Nandome is similar to the NP only in its sentential distribution. Negation and HABIT are possible in the gerund phrase. When adverbials are in the gerund phrase, they get negated and not the gerund. It is conclusive that all the preliminary observations are true. In addition, the study revealed etymological evidence that Nandome emerged from the southern dialects of Dagaare.
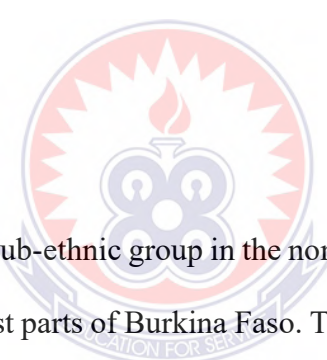
CHAPTER ONE

INTRODUCTION

1.1 Overview

The section gives: a brief history of the Nandome people; a background on the Nandome language; details on the language family; a note on Transformational Grammar; a brief explanation of what a gerund is; a background to the study; the statement of the problem; the objectives; the research questions; and the significance of the study. The limitations to the study as well as the organisation of the study are also presented in this chapter.

1.2 The Nandome People

The Nandome are a sub-ethnic group in the northwest of the Upper West Region of Ghana and in some southwest parts of Burkina Faso. The traditional home of the Nandome is Nandom. They speak Nandome, a dialect of Dagaare. The people of Nandom are part of the Dagaaba. The Dagaaba according to Bodomo (1997) are an outgrowth of the Mole-Dagbani group which migrated to the semi-arid Sahel region and the lower northern region within the 14th-17th century. This implies that there is northward continuum of dialects.

According to Kunbour (2002) the Dagaaba in pre-European era settled in small scale farming communities not organised into any state-like structure. Currently, Nandom is a paramountcy headed by the Nandom Naa (paramount chief of Nandom), the divisional

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chiefs and the sub-divisional chiefs alongside the 'Tingandem' (land owners) who wield religious power and serve as custodians of Nandom. Politically Nandom is also a District.

The Nandome are basically farmers; however, there have been formal education since the missionary era and for that reason professions such as teaching and nursing among others are prolific within the district. African Traditional Religion, Christianity and Islam are practised within the district.

Abdul-Korah (2007) notes that several waves of internal migration, beginning in at least the late 19th century have brought a sizable Dagaaba population to towns in the southern part of the nation, notably the Brong Ahafo Region. This is as well true with the Nandome.

1.3 The Nandome Dialect

Nandome is a dialect of Dagaare spoken in Nandom and its areas of influence such as Hamile, Fielmou and Ko. Bodomo's (1997) dialectal classification observed that Nandome is a northern dialect. According to Bodomo (1997) the other dialects of Dagaare include: the central dialect (which is the documented dialect), the southern dialect and the western dialect (which is mainly not spoken within Ghana).

It is inferable from section 1.2 that some speakers of Nandome will have English as a second language (in the case of those with formal education) and some will have some of the Akan dialects as a second language (in the case of those who travel southwards).

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Multilingualism is also possible in which the repertoire will be made of Nandome as L1, English as L2 and any Akan dialect as L3.

1.4 Basic Linguistic Features of Nandome

Eight (8) word classes are observable in Nandome (noun, verb, adjective, adverb, determiner, pre/postposition, conjunctions and interjection). Words in Nandome are monosyllabic or disyllabic. Nouns (except names of persons) and adjectives are mainly disyllabic. Affixes, both inflectional and derivational, are mostly suffixes (**bá** + {-rí} → **bárí** 'friends'). Possesion is realised as a zero morpheme. Unflected verbs used in clauses are in the perfect aspect by default.

Phonologically, it is a two-tone language, the tone is either high or low (**bá** 'friend' and **bà** 'erect', **fúr** 'to sip' **fùr** 'open eye widely'). Nine (9) different vowel phonemes have been observed: i, ɪ, u, ʋ, e, ɛ, o, ɔ and a. Besides /a/, the other vowels are in Advanced and unadvanced Tongue Root pairs. All these vowels have nasal counterparts. Twenty-four (24) consonants have also been observed, these include: p, b, t, d, f, v, s, z, ky, gy, k, g, kp, gb, mw, m, n, w, ŋ, ɲ, l, h, r and y. Syllabic consonants include nasals and liquids; m, n, ŋ, l and r.

Nandome allows consonant clustering on condition that the first phoneme is either /g/, or /b/ and the second phoneme is /r/. Such a cluster cannot occur in word initial position. For example: /**bágr**/ 'regrinding'; /**sabr**/ 'lung'. /g/ in word medial or word final position can be realised as [w]. For example: /**nyìg**/ and /**nyìw**/ 'burn'.

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Syntactically, the language follows the subject-verb-object pattern. Nandome marks focus, {**nẽ**} at the clause level. Sentence (1) below serves as an example;

1. **Der kɔ ne a wɪɛ**

    Dér   kɔ́   nĩ̃   à   wɪɛ

    Der   farm.Perf   Foc.   Def.   farm

    'Der farmed the farm'

In Nandome when two noun phrases follow consecutively, any premodifying determiner in the succeeding noun phrase(s) deletes. Observe the differences in (2a) and (2b) below;

2. a. **A bie a gan ne**

    à   bíé   à   gán   né

    Def.   child.Pos   Def.   book   that

    'that book of the child'

    b. **A bie gan ne**

    à   bíé   gán   né

    Def.   child.Pos   book   that

    'that book of the child'
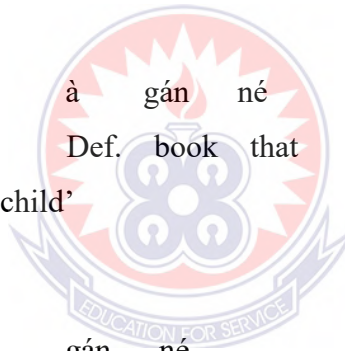
1.5 Language Family

Figure 1 below summarises the trace of language families down to Nandome. Writings in bold and upper case represent the language families that trace down to Nandome. Against each bold text are writings in bracket representing the other coordinate subgroups that are in the same level with the subgroup suggested by the bold text.

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Figure 1 is drawn based on information in Bendor-Samuel (1989) and Bodomo (1997). The idea of **Mabia** languages and the dialect classification in Dagaare are from Bodomo (1997).

NIGER-CONGO
(Afrosiatic, Nilo-Saharan, Austrineasia, Khoe and Indo-European)

ATLANTIC-CONGO
(Mande and Kodorfania)

VOLTA-CONGO
(Atlantic and Ijoid)

NORTH VOLTA
(South Volta and Dogon)

GUR
(Kru and Adamawa-Ubangi)

NORTHERN GUR
(Southern Gur)

OTI-VOLTA
(Bwa and Koromfe)

WESTERN OTI-VOLTA i.e MABIA
(Gurma, Eastern, Yom-Nawdm and Buli-Koma)

WESTERN MABIA i.e DAGAARE
(Moore, Gurenne, Dagbana, Kusaal, Buli)

DAGAARE

Northern Dialects
spoken in: Nandom, Lawra, Hamile, Ko e.t.c

Central Dialects
spoken in: Jirapa, Daffiama, Ullo, Nandawli e.t.c

Southern Dialects
spoken in: Kalleo, Wa, e.t.c

Western Dialect:
Birifor

Figure 1: Language Family Tree

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1.6 A Note on Transformational Grammar

According to Carnie (2013) and Radford (1988), in generative grammar it is argued that in every language there is a set of core (kernel) constructions and there are also a set of superficial constructions. Superficial constructions are gotten out of respective core constructions. These superficial constructions are created through processes that transform the core constructions, hence the term 'transformational grammar'. These processes involve the rearrangement of morphemes within the core constructions. The insertion or the deletion of some morphemes may also occur in the process. In this thesis, the clause is considered the core construction out of which a gerund phrase can be formed.
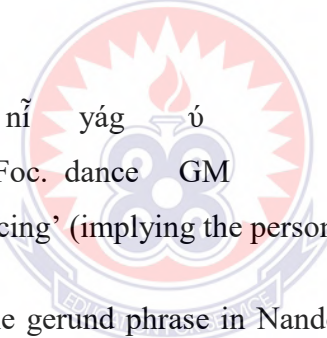
1.7 What is a Gerund?

According to Nordquist (2016) a gerund is a verbal form that functions as a noun. For example 'eating' (as in 'my eating surprised him') is a gerund because it is formed from a verb 'eat' but acts as a noun, in this case the subject. A gerund is however not a prototypical noun. This is because the internal structure of a gerund phrase is different from that of a noun phrase though they both have similar distributions in a sentence. Chomsky (1970) presumes this for all natural languages and this is true in Nandome. In English, 'his not driving a car is a suprise' is grammatical but the negation 'not' cannot be used the same way in a prototypical noun phrase. This is an example of a difference in internal phrase strucuture.

1.8 Background to the Study

Out of preliminary observation of gerunds in Nandome, there is evidence that the gerund marker {-bú} is not realised fully in speech. What is realised in speech is a split form of it, [-b] or [ú] or other variants [fú] or [bá]. It was also observed that the gerund phrase in Nandome distinguishes between adjuncts of a sentence and adjuncts of a verb phrase. There was also preliminary evidence that the formation of gerunds explains some structural ambiguity and also gives evidence of how the ambiguity can be resolved. It was also observed that communicating the intensiveness of an action can be achieved by making a gerund an argument to its root verb. (3) below is an example;

3. **O yag ne yagu**
   ʊ̀   yág   nĩ̀   yág   ʊ́
   3SG dance.Perf   Foc. dance   GM
   'He/she danced dancing' (implying the person danced intensively)

It was also observed that the gerund phrase in Nandome supports respective claims by; Abney (1987) that the gerund marker is a special instance of number, Baker (2005) that the process of gerund formation is a special instance where a nominal inflection dominates a VP and Chomsky (1970) on the features of a gerund.

Based on these preliminary findings, gerundial constructions in Nandome needed a descriptive account that uses scientific methods. This will help to ascertain the reality about these facts concerning the gerundial constructions in Nandome.

1.9 Statement of the Problem

Gerundial constructions in Nandome may have interesting features that could contribute immensely to linguistic knowledge. However, the problem that exists is that the gerundial construction of Nandome has not been scientifically studied and as a result we are unable to ascertain whether these tentative features actually exist in the language or not. Considering the gain involved in ascertaining the true status of these tentative features, it is important to carry out a research that will help draw trustworthy conclusions.

1.10   Purpose of the Study

The purpose of the study is to contribute towards the description of the grammar of Nandome, an undocumented language. The research seeks to unveil the grammar system surrounding gerundive nominalisation in Nandome with the hope that subsequent researches will cover other aspects of the grammar of Nandome.

1.11   Objectives of the Study

1. Identifying the morphological processes involved in gerundivisation in Nandome.

2. Identifying the internal structure of the gerund phrase in Nandome.

3. Identifying the sentential distribution of a gerund phrase in Nandome.

4. Identifying the semantic interpretations of the gerundial constructions in Nandome.

1.12   Research Questions

1. What morphological processes are involved in gerundivisation in Nandome?

2. How is the gerund phrase internally structured in Nandome?

3. How is the gerund phrase distributed in sentences in Nandome?

4. What semantic interpretations are possible with gerundial constructions in Nandome?

1.13   Significance of the Study

The study is one of the pioneering works in the Nandome dialect of Dagaare. It will significantly help the documentation of the dialect. Dagaare has several dialects, but among these dialects one is documented, that is the central Dagaare. Bodomo, (1997, p. 5) states that "most of the early missionary linguists who have worked on Dagaare in Ghana like Wilson (1962), Kennedy (1966) and Hall (1973) have based their analysis on it" that is central Dagaare.

The study also provides details on the gerundial system in Nandome. This will serve as a contribution to descriptive linguistics as well as contributing to the identification of the grammar of Nandome.

The study will also serve as a start point for other researchers. It touches on other areas within the language which subsequent researchers can pursue further. It also suggests further research areas that other researchers can work on. This will be a great boost to the language as an undocumented one.

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It will also be of importance to the comparative linguist. The findings of this research can be used as data for comparative studies in the establishment of language similarities and differences. This will be significant in language teaching and learning and also in measuring the degree of variance within the dialects of Dagaare.

1.14   Limitation

The major limitation is that there is no literature on the Nandome dialect as far as descriptive linguistics is concerned. The researcher therefore had to depend much on his intuition and observations as a native speaker. Language consultants were also contacted in trying to establish facts that directly affect the research. For example, in trying to establish the noun classes in Nandome the researcher had to use his intuition, his observation and and also made consultations. It would have been much easier if there was literature on that in the dialect.

1.15   Organisation of the Study

The study is in five (5) chapters. Chapter one contains general information about the people of Nandom, the language of Nandom, a note on transformational grammar, a brief explanation of what a gerund is, the background to the study, the statement of the problem; the purpose of the study, the objectives of the study, the research questions, the significance of the study and the limitations to the study.

Chapter two contains the review of related literature. It discusses the NP structure in Nandome, the VP structure in Nandome, the noun classes in Nandome, some works on

gerundial constructions and a DP approach to gerund formation. A review of the X-bar theory and gernerative phonology as theoretical frameworks is also in this chapter.

Chapter three has the methodology of the study. The chapter shows the design used for the study, the population, the population sample, the sampling procedures and techniques, the procedures for data collection and analysis.

Chapter four analyses the data and discusses the findings from the study. Finally, chapter five summaries the research findings, concludes the study, and makes relevant recommendations for future researchers. Chapter five also shows how the thesis contribute to existing knowledge.

1.16   Conclusion

Nandome is a language spoken in the Nandom district and paramouncy in the Upper West Region of Ghana. It is classified as a Western Mabia language. Gerunds in Nandme show evidence of some uniqueness and it is on this bases that gerunds in Nandome have been studied entirely. The objectives of the study include; identifying the morphological processes, the internal phrase structure of a gerund phrase, the distribution of gerund phrases in sentences and the semantics involved in the use of gerunds. The study is organised into five chapters; the introductory chapter, the literature review, the methodology, the findings and discussions and the summary.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

The review is done under the following sections: the NP structure of Nandome, the VP structure of Nandome, the noun class system in Nandome, the properties of the prototypical noun in Nandome, the features of a gerund as outlined by Chomsky (1970), gerundive nominalisation in Gur languages, gerundive nominalisations in other languages, and a DP approach to gerundive nominalisation. The last topic under the section looks at the X-bar theory and generative phonology as theoretical frameworks.

2.2 The NP structure in Nandome.

The aim of the section is to set out an NP structure of Nandome by drawing out what it has in common and in contrast with research findings in other dialects of Dagaare. Arguments made on Nandome are based on intuition and consultations with other native speakers. Under this section of the review, before making arguments for Nandome, works that describe the noun phrase (NP) structure of other dialects in Dagaare are reviewed.

Attention is drawn to a notion that has been widely refuted. Bendor-Samuel (1971) describes the NP of Gur languages as simple. He argues that the NP consists of either a noun followed by a numeral or a noun followed by a demonstrative. He further argues that it is rare to come across a noun followed by an adjective. He also states that it is not possible to come across a noun followed by a string of adjectives. Subsequent researchers in the

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Gur languages disagree. Abdul-Razak (2015), Angkaaraba (1980), Bodomo (1997) and Issah (2013) argue that the NP in Gur languages are complex rather than simple because they are able to take strings of adjectives and as it stands now, the number of adjectives is infinite.

Angkaaraba (1980) and Bodomo (1997) argue that the Dagaare NP can take up to, but not limited to, four adjectives as post modifiers. The post modifiers in the proposed respective order include; adjectives (Adj), quantifiers (Q), determiners (D); intensifiers (Int) and locatives (Loc). There is a plural (PL) marker that can attach itself to the determiner or to the last adjective or the noun head (in the absence of an adjective) in surface form. They also agree with the following pre modifiers: articles (Art), an NP and a noun modifier (NM). The parts can be organized fully into the following structure; consider NH as noun head (the subscripts indicate their ordering);

1) Art_1 NP_2 NM_3 **NH_4** Adj_5 $(PL)_6$ Q_7 D_8 Int_9 Loc_{10}

The order is similar in Nandome; however, there will be further discussions on the type of items that occupy the various slots. According to Bodomo (1997) the noun head can be a noun or a pronoun. This is equally the case in Nandome. In Nandome Art_1 is occupied by the definite article **a** 'the' and NP_2 is always a genitive noun. For example **a bie gan** 'the child's book'. NM_3 is always a noun that acts as an adjective to the noun head. For example **tanɛ dog** 'clay pot' **tanɛ** 'clay' is a noun which can be a noun head in another sentence but in this case it is acting as an adjective to **dog** 'pot'**.** Some major groups that can occupy

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NM$_3$ are nouns that act as adjectives denoting origin of the noun head and nouns that act as adjectives denoting material from which the noun head is made.

In Nandome, Adj$_5$ can appear in a string. It is rare to have more than four in a string. If they are however more than four they will not affect the grammaticality of the sentence. The order of these adjectives too do not affect grammaticality. This is unlike Abdul-Razak (2015) findings with the NP of Safaliba. (Safaliba is a language spoken by people located mainly in the Bole district in the Northern region of Ghana, near the border with Côte d'Ivoire). He used three informant Safaliba speakers and data from a written text. Abdul-Razak (2015) found out that adjectives have an order in Safaliba. Angkaaraba (1980) and Bodomo (1997) are both silent about adjective order in an NP. Abdul-Razak (2015) also makes mention of ordinals and cardinals as part of quantifiers which is similar to that of Angkaaraba (1980) and Bodomo (1997). Nandome has both forms of quantifiers. For example **been** 'one' and **ayi** 'two' as cardinals. **dangniunsob** 'first' and **ayisob** 'second' as ordinals. {-sob} marks the quantifier as ordinal. In respect to the D$_8$ Nandome has the following determiners (though the determiners may not be limited to what is herein presented). Most of them are demonstratives. They include: **nga** 'this'; **ol** 'that'; **ama** 'these'; **al** 'those (non-human)'; **bɛl** 'those (human)'; **menɛ** 'some'; **kang** 'one of'. As it has been stated earlier, they are not limited to these ones but these are the frequently used ones. In Nandome the locative is either a preposition or a postposition that suggests where the noun head is located. For intensifiers there is a frequent use of **paa;** it has no lexical meaning but it is used for emphasis. There is also **minga** 'he/she/itself' or 'he/she/it actually'.

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Thus far the study agrees that the NP in Nandome is similar to that outlined by Abdul-Razak (2015), Angkaaraba (1980) and Bodomo (1997). It is important to exemplify the outline with an NP from Nandome. (2) below is an NP construction in Nandome (the subscripts match them to the respective slots in (1));

2) **A$_1$ bie$_2$ gon$_3$ kpar$_4$ terbɛ$_5$ mwaarɛ$_5$ yɛlɛ$_5$ pɛlɛ$_5$ ayi$_7$ al$_8$ paa$_9$ a yagla zu$_{10}$**

à   bi´é gón kpàr tírb ɛ́   mwáár ɛ́ yɛ̀l ɛ́ pɛ́l ɛ́ áji´ ál

Def. child cotton shirt thick PL   short   PL large PL white PL two those

páá á   yàglà zú

Int Def hanger top

'those two thick, short, large white cotton shirts of the child, on the hanger'

In Nandome number can be realised by inflection on the noun, but when the noun is used together with an adjective the inflection is on the adjective. Determiners do have individual forms which are chosen to agree with the number inflection that modifies the noun head. In Nandome the surface realisation of number affects all the adjectives present in the phrase. For this reason all the adjectives in the structure '2' appear with the plural inflection.

There are a few complications posed by intensifiers. The intensifiers in an NP in Nandome has several positions and each of these positions it assumes in the NP correlates a certain type of emphasis. We can best state the whole process as follows; an intensifier places emphasis on a word that immediately precedes it, where it is preceded by a determiner the emphasis is on the head noun which has been specified by that determiner though the head noun does not immediately precede the intensifier. In (2) above the intensifier comes after the determiner and the emphasis is on the head noun **kparʊ**.

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However, since the definite article ***a*** does not always have a noun head preceding it, the intensifier cannot be placed behind it like other determiners. Now consider the structure below;

3)   **a bie paa kpar terbɛ al ayi a yagla zu**

à	bi´é	páá	kpàr	tírb	ɛ́	ál	áji´	á	yàglà	zú
Def	child	Int	shirt	thick	pl	those	two	Def	hunger	top

‘those two thick shirts of the child, on the hanger’

The meaning here is that the emphasis is on **bie** ‘child’ which means no other person’s shirt than the child’s shirt is being referred to.

Once the X-bar theory is the framework for this work, it is prudent that the NP in Nandome be represented in an X-bar frame to set a premise ahead of the analysis of data. Bodomo (2004) analysed the NP in Dagaare in a DP. The study agrees with Bodomo’s (2004) position for the reason that the DP analysis favours explanations in terms of nominalisation. Bodomo (2004) suggested one D$^/$ (D-bar) as intermediary between DP and the head D. This was because his analysis was contextualised and he decided to make do with a few relevant projections. With this research, the whole phrase is of importance. In line with this, two D$^/$s are used such that the locative can be projected as an adjunct. (3) is illustrated in (4) below;

4)
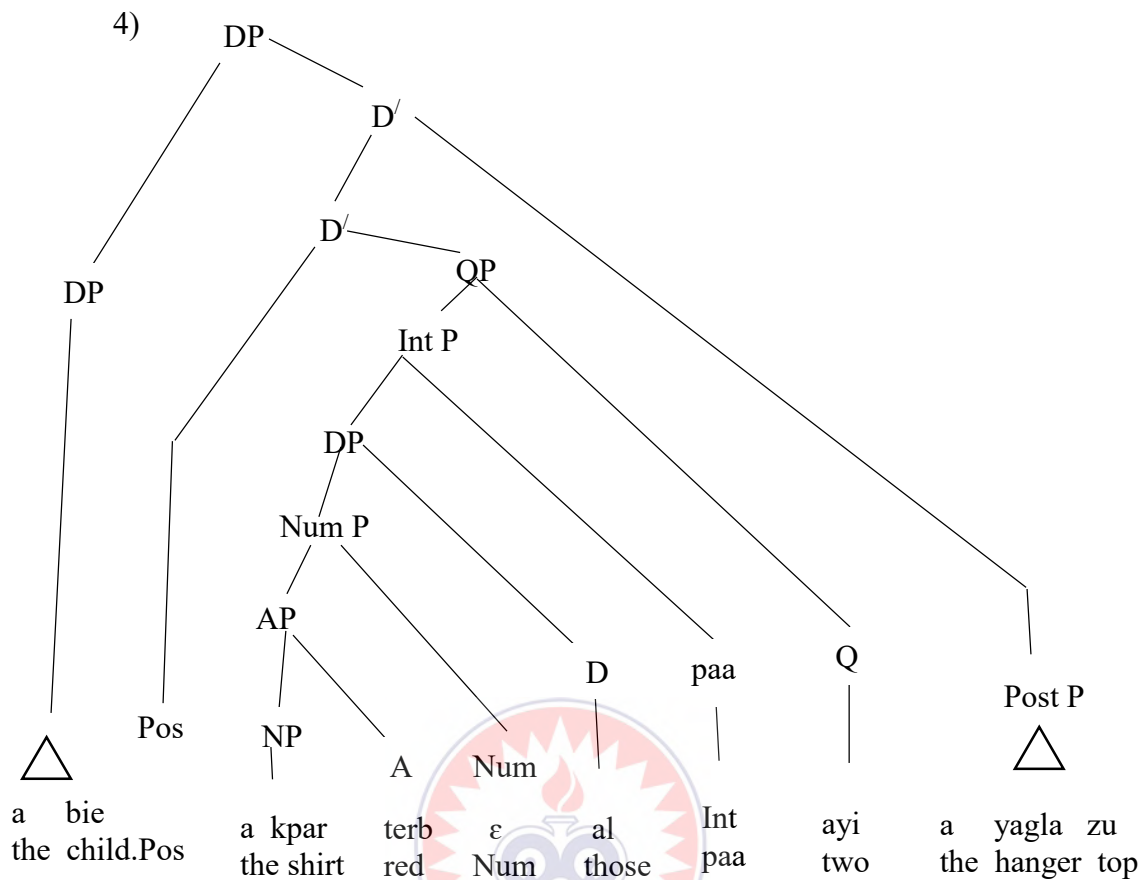
With the analysis in (4) above there is another DP. This is because in Nandome there can be two determiners in an NP. Another important fact is that when there are two consecutive nouns and both have determiners the determiner in the succeeding one deletes. For example in (4) where we have: **a bie a kpar terb,** the determiner in the succeeding noun will delete hence we have **a bie kpar terb.** This is very much similar to Bodomo's (2004) assertion where he laid a similar argument. When the quantifier is **been** 'one' it may only be realised for emphasis but it is usually not realised.

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2.3 Features of the Typical Noun in Nandome

The section tries to reveal the features of prototypical nouns in Nandome. Based on these features the nominalised forms will be tested to ascertain which feature they share with true nouns in terms of morphology and syntax.

Payne's (1997) work which was intended to serve as a guide to field linguistics, focused on how the linguist can best analyse non-prototype nouns. He first draws the distinction between prototypical nouns and non-prototypical nouns. The former refers to time-stable concepts such as 'rock' and 'tree'. In addition prototypical nouns can be identified semantically. The non-prototypical nouns may not express full properties of the prototypical nouns. These properties Payne (1997) categorised as distributional and structural. Distributional properties refer to how words are distributed in phrases. For example, nouns can serve as heads of noun phrases, subjects and objects in clauses. Structural properties have to do with the internal structure of the noun itself. For example, in some languages nouns exhibit case marking, number marking and gender marking among others. With these properties of the noun he notes that there are no universals and hence such properties must be searched for within the language. He suggested an approach in which non-prototypical nouns (such as nominals derived from the process of nominalisation) can be analysed by linguist. In the approach, nominals that are derived should be given a formal label (e.g. –ing participles) with an explanation given of their characteristic functions and key morphosyntactic properties.

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Following this, the nominals (gerunds) that are dealt with in this thesis are not considered as prototypical nouns. There is also the need to establish the distributional and structural properties of the prototypical noun to serve as a standard that will help place gerunds somewhere on the continuum from verbs to nouns.

Before making contextualised arguments for Nandome, the distributional properties of the noun in other dialects of Dagaare is reviewed. Note that the structure of the NP reviewed above is also important in terms of distributional properties. For this reason, the only aspect of distributional properties to be considered here is the functions of prototypical nouns within a clause (sentential distribution). Abdul-Razak (2015) captures this so well in his study on the NP of Safaliba. His findings fit well into the Nandome case. He states that the noun can be the head of a noun phrase. This is the same with Nandome as example (5) below illustrates (the illustrations are in Nandome);

5) **Ner zeɛ**

nìr   zìɛ́

person   red

'red person' (adaptation from Abdul-Razak, 2015)

In the phrase above **ner** 'person' which is a member of the noun class is the head of the NP because despite the colour modifier the phrase still refers to a person.

He also gives examples of the noun acting as subject, object and NP complement within a clause. All these are applicable in the case of Nandome as example (6) below illustrates;

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6)   a) **Dɛr de ne a bondere**

dɛ́r   dì   nĩ̀   à   búndìrí

der   eat.Perf   Foc.   Def   food

'Der ate the food' (adapted from Abdul-Razak, 2015)

Dɛr acts as the subject of clause (6a) because it can be referred to as the entity that undertakes the activity of eating. Now consider (6b) below;

6b) **e nyɛ ne Dɛr**

ĩ̀   ɲɛ   nĩ̀   dɛ́r

1SG   see.Perf   Foc.   Der

'I saw Der.' (adaptation Abdul-Razak, 2015)

Here **Dɛr** is used as an object of the clause because it can be referred to as the entity that undergoes the act of seeing. Also now consider (6c) below which illustrates the complement function of a noun in a clause;

6c) **baa nga e ne badaa**

báá   nŋá   ì   nĩ̀   bà   dáá

dog   this   BE   Foc.   dog   male

'This dog is a male dog.' (Adaptation from Abdul-Razak 2015)

With clause (6c) the noun **badaa** 'male dog' is coming after a copular and nouns that occupy such positions are complements. Semantically we can say **badaa** refers to the same entity being referred to by **baa nga** 'this dog' and again it only complements that behave in this way.

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Additionally in Nandome and presumably in all other dialects of Dagaare, prototypical nouns can also be objects of prepositions (as in 6d) below, or postpositions (as in 6e) below.

6d. **ne**	**daa**	6e.	**teɛ zu**
nĩ	dàà		tìɛ́ zú
with	stick		tree top

Bodomo (1997) in his study on central Dagaare, also mentions double object construction where there are two object positions: the direct object and the indirect object. These types of construction are possible in Nandome. All the related constraints outlined by Bodomo holds in Nandome. These constraints include the fact that: indirect object comes before direct objects; the focus marker occurs before all full NP objects; the focus marker intervenes when the indirect object is a pronominal form; in ditransitive the direct object is never in pronominal form. (7) below illustrates double object constructions;

7) **o ko ne Dɛr a gan**

ʊ̀	kʊ̀	nĩ	dɛ́r	a	gán
he/she	give.Perf	Foc.	dɛr	Def.	book

'he/she gave Der the book'

These functions that are outlined here in addition to the NP (DP) structure discussed earlier constitute the distributional properties of the prototypical nouns in Nandome.

On the structural properties of the noun, Payne (1997) argues that they involve such properties as marking gender, number, possession and case. Bodomo's (1997) chapter on the morphology of the Dagaare noun is reviewed. Bodomo (1997, p. 52) argues that

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'Dagaare is not a case language: nouns lack case markings'. Bodomo (1997, p. 52) further states that 'besides a few number of suffixes such as –**daa**, **saraa**, **nyangaa**, which are put on nouns denoting living things, Dagaare nouns are not automatically divided into masculine, feminine and neuter forms as done in some Indo European languages'. These two claims hold totally for the Nandome dialect. In the case of the few suffixes mentioned there are some examples below;

8)   bodaa 'he goat'

bosaraa (*bosera* in Nandome) 'a young she goat'

bonyangaa (bonyang in Nandome) 'an old she goat'

In sum we cannot state that the noun in Nandome marks gender, because these are few enough to be recognised as exceptions.

Bodomo (1997) further argues that the singular and plural suffixes are marked for most nouns. He however did not mention what type of nouns constitute the few that do not inflect for number in the dialect he worked on. However in Nandome, abstract nouns do not inflect for number. Some examples in Nandome include **ya** 'mind' and **potuo** 'wickedness', this might be a derived nominal in English but in Nandome it is a noun. In Nandome nouns can take a genitive marking in which case it becomes a pre-modifier of another noun. For example **a bie gan** 'the child's book.'

In conclusion, members of the noun class in Nandome can act as heads of NPs. They can also function as subjects, objects and complements in a clause. In terms of functioning as objects they can be direct or indirect objects of a clause or they can be

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objects of a preposition or a postposition. In connection with structural properties, members of the noun class in Nandome mark number. They however do not have a phonological realisation of case and they do not mark gender. These will serve as parameters for analysing and establishing the morphosyntactic properties of gerunds that will be studied in this research.

2.4 Noun Classes in Nandome

The review under this section is based on intuition, observation and consultations with some native speakers. In this section a sketch of the noun classes in Nandome will be given. The purpose is to set a bases towards the analysis where we will establish whether the gerundive nominals have features of any of the noun classes or they constitute an entirely new class.

Bodomo (1997) studied the central dialect of Dagaare (see the introductory pages for more information). He suggested nine classes of the noun in Dagaare. Class 1 is based on a semantic classification where all its members have the feature +HUMAN. The other classes are based on phonological classifications. This is similar with Nandome where there is a class with +HUMAN members. The rest of the classes are also based on phonology. The difference comes in the different phonological bases and the number of classes. The noun classes in Nandome are as follows;

Class 1; members in this class are semantically classified. They have the property +HUMAN. In Nandome they can further be divided into two:

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a) the three-term sub-class;

dɔ́ɔ́ 'man' **dɛ́ɛ́bɛ́** 'men'

pɔ́g 'woman' **pɔ́gbɛ́** 'women'

nír 'person' **níbɛ́** 'people'

They are named 'three-term' because it is only these nouns and other compound nouns involving any of these nouns that take the suffix {-bɛ´} for their plural.

b) This sub-class contains kinship nouns. They take the suffix {-mìnɛ̃̄} to form their plural. Examples include;

yɛ́b 'sibling (brother/sister)' **yɛ́ɛ́bmínɛ̃̄** 'siblings'

sã̄ã̄ 'father' **sã̄ã̄mínɛ̃̄** 'fathers/uncles'

Class 2; contains nouns with close syllable endings. These can be further divided into four sub-classes. These include**;**

a)   Nouns with closed syllables that have duplicates of the same vowel as the nuclei:

kùùr 'hoe' **kùè** 'hoes'

ɲúúr 'yam' **ɲi´é** 'yams'

b) Nouns with closed syllable endings that have /r/ as coda:

yúór 'name' **yéé** 'names'

yùòr 'pot' **yèè** 'pots'

dɛ́r 'ladder' **dɛ́ɛ́** 'ladders'

c)   Nouns with closed syllable endings that have [gr] as coda:

     bágr 'shoulder' **bágɛ́** (or **báwɛ́**) 'shoulders'

     bígr 'tree fibre' **bígɛ́** (or **bíwɛ́**) 'fibres'

d) Nouns with closed syllable endings that have any other consonant as coda:

     tòòb 'ear' **tòbè** 'ears'

     gyɛ́l 'egg' **gyɛ́lɛ́** 'eggs'

Class 3; nouns ending with open syllable. These can be divided into three classes;

a) Nouns with open syllable ending with low tone nucleus:

     sʊ̀ɔ̀ 'knife' **sɔ̀rʊ́** 'knives'

     dìè 'room' **dì`rú** 'rooms'

     bàà 'river' **bàrʊ́** 'rivers'

b) Nouns with open syllable, ending with high tone nucleus:

     nʊ́ɔ́ 'fowl' **nʊ́ʊ́r** 'mouths'

     mʊ́ɔ́ 'grass' **mʊ́ʊ́r** 'grasses'

     báá 'dog' **báár** 'dogs'

Class 4; disyllabic nouns in which the last syllable has an onset and is opened:

     kpàrʊ̀ 'shirt' **kpàrì** 'shirts'

     li´lé 'chick' **li´li´** 'chicks'

Class 5 is the class that tackles the issues of nasality in terms of noun classes. It can further be divided into two main sub-classes. The classes include;

a) Nouns with open syllables with nasal vowels as nuclei:

tĩĩ 'medicine' tĩĩnĩ 'medicines'

kṽɔ̃ 'water' kṽɔ̃nĩ 'different collections of water'

b) Nouns ending with a nasal consonant (not /ŋ/):

pɛ́n 'rag' pɛ́mɛ̃́ 'rags'

tám 'bow (/arrow)' támɛ̃́ 'bows'

c) Nouns ending with /ŋ/:

sɔ́ŋ 'rabbit' sɔ́n 'rabbits'

ɔ̀ŋ 'mouse' ɔ̀n 'mice'

Class 6 conains non-count nouns in Nandome. They can be further divided into three observable groups

a) Abstract non-count nouns;

yá 'mind'

pòtùò 'wickedness'

b) Liquid non-count nouns

zĩĩ 'blood'

dʊ́rʊ́ 'urine'

súúr 'glue'

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c) Concrete non-count nouns

   múné 'rice'

   tànὲ 'soil'

There is always an Advanced Tongue Root (ATR) influence in the morphological processes which are observable from the examples above. There could be some exceptions. For example **nuu** 'hand' belongs to class (3b) and should have the plural **nuur.** However despite that this plural form is grammatical in some dialects of Dagaare, it is ungrammatical in Nandome. In Nandome it rather belongs to class (3c) and thus takes the plural **nuru** 'hands'.

2.5 Verbs and the VP in Dagaare

Once the NP in Nandome is established above, the next most important part of the clause to consider is the VP. Bodomo (1997) divides the VP into three parts: preverbal, verb and postverbal.

2.5.1   Preverbal particles

Bodomo (1997) outlines the following preverbal particles in Dagaare ('T'=tense particles; 'P'=polarity particles; 'M'=modality particles; 'Asp'=aspect particle; 'H'=habitual particle; 'Ag'=repetetive and 'TD'=time depth particles);

T, P, M Asp AND TD PARTICLES	DAGAARE	NANDOME
TODAY (ALSO ONCE UPON A TIME) 'TD' 'Asp'	da	daŋ/d. w*
ONE DAY AWAY 'TD'	zaa	zaa
TWO OR MORE DAYS AWAY 'TD'	daar	daar
H(ABITUAL) 'M' 'Asp'	maŋ	me
STILL　　　'M'	naŋ	kyaa
ACTUALLY 'M'	soroŋ	sere
ONCE AGAIN, AS USUAL 'M' 'Asp'	yaa	yaa
SUDDENLY, JUST　　　'M' 'Asp'	diɛ	dɛ
NON-FUTURE NEGATIVE 'P'	ba	bɛ
FUTURE AFFIX　　'P' 'T'	na	na
FUTURE NEGATIVE 'P' 'T'	koŋ	kon
IMPERATIVE SUBJUNCTIVE NEGATIVE 'M' 'P'	ta	ta
AG(AIN) 'M' 'Asp'	la	lɛ

Table 1: Preverbal Particles in Dagaare and Nandome

All particles marked as tense ('T'), aspect ('Asp') and modal ('M') constitute the Tense-Aspect-Modal Particles (TAMP). TAMP insert at the I-node in an inflectional phrase (IP) and are therefore not part of VP. TAMP include; **daŋ, me, kyaa, sere, yaa, dɛ, na, kon, ta** and **lɛ.** There is an additional TAM particle **te** 'some time ago', which occurs in Nandome and maybe other dialects of Dagaare. In Nandome and perhaps in other dialects of Dagaare the particle **te** is what really expresses 'the once upon a time' notion. A past event within the day is expressed by **daŋ**/**daw**. **te** can also be used for an immediate past event. **te** (hereafter referred to as Remote Verb Particle (RVP)) however is mainly used to express remoteness in time either past or future. **Te** shows aspect since it creates a

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stretch of time within which other events, progressive or completed, can occur. This particle always immediately precedes the main verb in surface structures. (9) and (10) below are examples;

9) **O te baarɛ na**

ʊ̀	tì	bààr	ɛ	nã̀
3SG	Asp	grow	Pgr	Foc.

'he/she/it was growing at the time referred to'

10) **O te baa na**

ʊ̀	tì	bàá		nã̀
3SG	Asp	grow.Perf		Foc.

'he/she/it was already grown at time refered to'

Since **te** shows aspect, it implies that it is part of TAMP. This will later explain why (in the case of **te**) there is an I-lowering before the verb phrase comes under a determiner phrase during the formation of a gerund phrase. In the case of **dang,** it does not appear in a gerund phrase at all. The other group of TD particles is made of noun-like adverbs such as **zaa** 'yesterday'; **daar** 'a day before yesterday'; and **deya** 'a year back', among others. Because of their time information to sentences, they can best be considered as sentential adjuncts. This will later help explain why such particles as **zaa** and **daar** can occur rightward of a gerund in the gerund phrase.

This study proposes a sequence for verb particles in Nandome, take 'MV' as 'main verb' in addition to the other abbreviations in the table above. The subscripts are for easy correspondence with the example that will follow;

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11) TD$_1$ M$_2$ P$_3$ H$_4$ Ag$_5$ RV$_6$ MV$_7$

Consider (11) above as a provision of slots. Not all the slots can be filled in a single construction.

12) **O kyaa$_2$ bɛ$_3$ me$_4$ lɛ$_5$ te$_6$ wa$_7$ ɛ$_3$**

    ʊ̀   kyã̀ã̀ bɛ́   mĩ́   lὲ   tì   wà   ɛ́

    3SG still NEG. H   again Asp come Foc.

     'as at the time being referred to, s/he still kept refusing to come again'

13) **O daar$_1$ kyaa$_2$ bɛ$_3$ wa$_7$ ɛ$_3$**

    ʊ̀   dáár   kyã̀ã̀   bɛ́   wà   ɛ́

    3SG two-days-ago   still   NEG   come Foc.

    'the day before yesterday s/he still had not come'

2.5.2   Main verb

    Bodomo (1997) argues that the verb in Dagaare is labelled as aspect; that is the perfect (complete) or imperfective (progressive/incomplete)**.** The perfect aspect is realised as a zero and there for has the same phonetic form as the uninflected verb. Some examples of such inflexions in Nandome are illustrated below;

14) **zɔ̀**   'run' (root)

    zɔ̀   perfect aspect

    zɔ̀rɛ   imperfect aspect

    He also recognises that verbs can be classified into pairs or even several classes of opposition depending on the derivational process such as causativity, transitivity, reversitivity and many others. This happens in Nandome as the following examples prove;

15)   **ko** 'kill   **kpi** 'die'

         le 'tie'   **kyɛr** 'untie'

2.5.3   Postverbal particles

The only post verbal particle that exists in Dagaare is the focus marker which Bodomo (1997) refers to as the 'factitive' because according to him the particle marks affirmation. Bodomo (1997) argues that it originates from VP specifier position and then lowers to a position behind the verb, the cuurent study supports the view. Bodomo (1997) further argues that the particle is in complementary distribution with the negative marker. However, that is not the case in Nandome. In Nandome when the negative marker is used the focus marker **nã̃** is reduced to a vowel /e/ or /ɛ/ based on ATR assimilation to the vowel system of the preceding word (see examples 16 and 17). This phonological reduction is preceded by a semantic reduction where it loses polarity and maintains only focus. It occurs before all NP complements of the verb but it never occurs after adjuncts postverbally. This is consistent with Bodomo's (1997) findings. In Nandome when the verb preceding the focus marker ends in a consonant, the consonant in the focus marker is assimilated totally into the consonant ending the verb preceding the focus marker. Observe (16) and (17) below are illustrations;

16) **o kul la**

    ʋ̀   kúl   lá
    s/he   go.home.Perf   Foc
    's/he went home'

17) **o kong kul e**

   ʋ̀   kʋ̀ng   kúl   é

   s/he FUT.NEG go home   Foc. (reduced)

   'he/she will not go home'   (Nandome version of Bodomo's (1997) example)

2.5.4 Adverbials

Bodomo argues that Dagaare has the following types of adverbials which also exist in Nandome (examples are from Nandome and in brackets); temporal (**fongfong** 'quickly'), spatial (**ka** 'here'), manner (**vɪla** 'well'), intensity (**yaga** 'a lot'), emphasis (**dɛ** 'just/indeed'), negation (**koraa** 'not at all') and doubt (**kaapɔɔ** or **a mine kang** 'maybe'). In Nandome there is an additional type of adverbial which denotes the sequence in which events occur. Some examples of such adverbs include **gbabeen** 'once'; **gbɛɛayi** 'twice' and so on. It can be deduced from Bodomo (1997) that apart from adverbials of doubt the other adverbials occur postverbally after the focus marker. Adverbials of negation always take a negative preverbal particle; **bɛ,** and as such the focus marker is reduced to a vowel **e** or **ɛ** based on ATR. Some clausal illustrations are below in (18) and (19);

18) **kaapɔɔ a bie na kyen na**

   kààpɔ́ɔ́   à   bi´é   nã̀   kyén   nã̀

   maybe   Def child FUT   go   Foc.

   'maybe the child will go'   (adapted from Bodomo, 1997)

19) **O bɛ wa togtog e**

   ʋ̀   bɛ́   wà   tógtóg   é

   s/he NEG   come not at all   Foc. (reduced)

   'she did not come at all' (adapted from Bodomo, 1997)

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2.6 Gerunds in Dagaare and other Gur languages

It must be admitted that the documented facts on nominalisation are few among the Gur languages. The available few are presented below.

Bodomo and Oosterndorp (1994) and Bodomo (2004) were of the view that studying the interaction between serialisation and nominalisation would shed some new light on either of them or even both of them. In line with the nominalisation facts, Bodomo (2004) argues that gerundive nominalisation in Dagaare is a special instance of number. By this, he agrees with Abney (1987). Abney (1987) considers that the process of gerundive nominalisation takes place in a DP. The NUM P (number phrase) in this case is not projected by the AP and Num, instead it is projected by VP and Num. In this light, a movement rule applies which takes only the lexical verb to the terminal node of Num. In the case of serial verb constructions (SVCs) all the lexical verbs in the series move. This is illustrated below in (20);

20)

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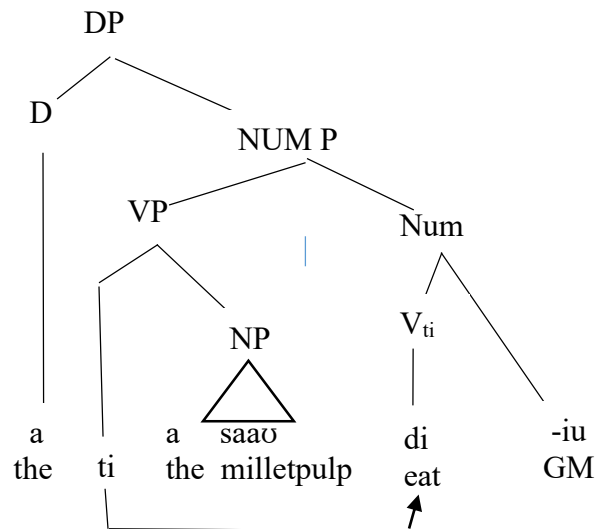
His assertion accounts for the internal syntactic structure of the gerundive nominal. From the assertion, it is clear that tense cannot reflect in nominalisation because tense is outside VP. However Bodomo (2004) further asserts that since the uninflected verb is in the perfect aspect by default, the perfect aspect reflects in the nominalisation. It is also clear why there is an inversion of the verb and its direct object. He also illustrates that the subject precedes the object which then precedes the gerund. An example is in (21) below;

21) **dɛre gama nyɛ sɔroo**

    deri books these reading

    'deri reading of these books' (cf. Bodomo, 2004)

It will be proved later that gerundive nominals in Nandome go through a process similar to the findings on gerunds in Bodomo's (2004) study. However, the current study in Nandome will go further to explain how the preverbal particles move behind the underlying object and directly preceded the gerund.

Abubakari (2011) studied predicate clefting and SVCs in Kusaal, a Gur language spoken in north-eastern Ghana. Among other things in the study, he supports the phenomenon of nominalisation as presented in Dagaare by Bodomo (2006). Abubakari (2011, p. 28) agrees that 'it is also feasible to have two arguments where the subject must occur before the object' as exemplified in the phrase in (22) below;
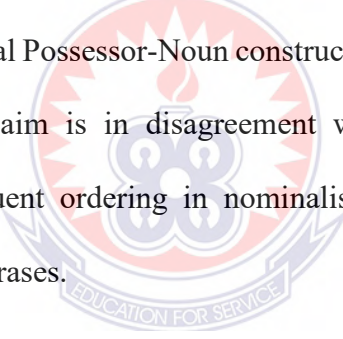
22) **Asibi   ni'im   sen'b.**
    Asibis's meat   roast.Nmlz
    'Asibi's roasting of meat.' (cf. Abubakari, 2011).

2.7 Gerunds in other Languages

This section takes a look at nominalisation in different languages. This will help guide the research and also identify gabs that could possibly be filled by this research. It will also help reveal some typological facts surrounding nominalisation.

A cross-linguistic study by Nikitina (2007) investigated nominalisation and word order in Niger-Congo languages. Nominalisation and word order has been a fascinating aspect of language and it is very central to the current research. Nikitina (2007) agrees with Williamson (1986) that a number of Niger-Congo languages have head-final nominalisations with the object preceding the nominalised verb (O-VNMLZ), but at the same time have no head-final Possessor-Noun construction. Examples cited include: Gade, Yoruba and Igbo. This claim is in disagreement with Koptjevskaja-Tamm's (2003) generalization that constituent ordering in nominalisations always reflects constituent ordering in regular noun phrases.

Judging from the NP structure for Nandome which was settled on in section 2.2 of this chapter, it would be realised that possessives are not accepted in the final position of an NP. It will subsequently be proved that gerundive nominalisation in Nandome leads to an object verb inversion thereby arguing that Nandome is a good example of the observation made by Nikitina (2007) that most Niger-Congo languages prepose the underlying object during nominalisation.

Perekhvalskaya (2011) studied nominalisation in Mwan. Mwan is a southern Mande language (part of the Niger Congo) spoken in the Kongasso sub-prefecture in

central la Cote d'Ivoire with about 20,000 speakers. The study revealed four major things about gerunds in Mwan. First of all, the study found that the gerund marker is an agglutinative suffix. Secondly, the gerund combined both nominal and verb features. The study also found out that gerunds were found to be derivable in a regular way with the meaning utterly predictable. The third is that gerunds maintain sentential government. In other words, gerundive nominalisation carry the embedded meaning of a sentence. The last of the major findings is that the nominal can occur in subject, complement, direct object and indirect object positions (that is they have the same sentential distribution as the noun).

Based on the study in the Mwan langauge, it was indicated that the gerund bears all the features of a gerund as outlined by Chomsky (1970) (see section 2.8 of this chapter). That is they have a productive transformational rule, a straight forward semantic relation with their root verbs and they lack the internal structure of an NP. One interesting thing is that Mwan is morphologically an isolating language but the gerund marker was found to be an agglutinating one. The study in Nandome as already noted will prove that gerunds have similar features as noted by Chomsky (1970) and Perekhvalskaya (2011). It will then be possible to state that Nandome as a language possess true gerunds. The gerund marker in Nandome will be argued as being an isolating suffix.

Udemmadu (2012) researched into the morphology of nominalisations in Igbo. Igbo is spoken by one of the largest ethnic groups in West Africa, located in south-eastern Nigeria. The formation of gerunds is through the principle of prefixation and suffixation. For CV verbs it is by prefixing **o** to the verb root alongside complete or partial duplication

of the verb root which is suffixation, the formula is 'o/o + verb root × 2 = gerund. For instance **ri** 'eat' is gerundivised as in (23);

23)   a. o + ri + ri di ya mma 'Eating is good for him/her'

He also states that complex gerunds can be derived from verbs whose structure is CVCVCV. And the process is through the prefixation of a nasal 'm/n' to the verb, that is, 'm/n + verb = complex gerund'. For instance:

   23) b. m + malite = mmalite (beginning)

Udemmadu's (2012) work will be revisited shortly. However Adomako (2012) also researches into the morphological processes involved in deriving nominals from verbs in Akan. Akan is a language spoken mainly in Ghana and Cote d'Ivoire. In Ghana, where the research was based, it is the language that is largely spoken. His main focus was Asante Twi. Adomako observed that with nominalisation the processes involved could be prefixation together with suffixation; suffixation alone, or reduplication (complete/partial) together with prefixation. Inferring from his gloss, gerundive nominalisation also accept such processes. Abakah (2015) reiterates the involvement of reduplication in the process of nominalisation. Some examples include (24a)-(24d);

24)   a. **tìtì** 'train' **n`tìtíɛ** 'training'

         b. **nàntɪ** 'walk' **nántɪ** (**ɛ́**) 'walking'

         c. **fʷʊrʊ.fʷʊrʊ** 'climb' **afʷʊrʊfʷʊrʊ** 'climbing'

         d. **tɪntam** lift **atɪntam** 'lifting' (cf. Adomako, 2012)

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Ameka (2006) studied the grammars in contact in the Volta basin, West Africa. He touched on gerundive nominalisation in Ewe and Likpe. He observed that Ewe forms its gerunds by preposing the internal argument of a verb to its reduplicated form. An example is (25) below;

25)   a. **fa   te** > **te-f a- f a**

        plant yam   yam-redup- plant

       'plant yams'   'yam planting'

He also identified that Likpe is an active noun class language and as a result uses noun markers for nominalisations. For gerundive nominalisation Likpe uses the prefix {bu-}. According to Ameka (2006) the noun class marked by this prefix is equivalent to the class called infinitive in Bantu languages. This can also take a preposed internal argument. Consider the following examples;

      b. bu-yu 'stealing'

      c. bi-sɪ´ bu-tə´kə´   'yam planting'

Another way is by preposing the internal argument to a verb nominalised by reduplication. For example;

      d. bi-sɪ´ tə´kə´tə´kə´ 'yam planting'

Ameka (2006) observed that Likpe uses a noun class marker to form gerunds. This study is interested in finding out whether gerunds in Nandome can be formed with evidence of any noun class marking. It will be proved that gerunds in Nandome cannot be inflected to mark number and are therefore considered as a subclass of non-count nouns.

In both Ewe and Likpe, gerunds have the feature of object preposing. This makes them good examples of Nikitina's (2007) observation that a good number of Niger-Congo languages prepose their objects during nominalisation. The preposing of objects tackles an aspect of the internal syntax of gerunds.

In all the works: Adomako (2012), Ameka (2006) and Udemmadu (2012), a trend in Niger-Congo languages is observable. We can say that in a good number of Niger-Congo languages, reduplication plays a role in gerundive nominalisation and for that matter nominalisations in general. This is evident from the fact that all the three works reflect the involvement of reduplication.

All the three languages involved are Niger-Congo languages. However there are an equally good number of Niger-Congo languages which do not involve reduplication during the process of gerundive nominalisation. Perekhvalskaya's (2011) study on Mwan which is a Mande language shows no evidence of reduplication in the process. Abubakari's (2011) and Bodomo's (2006) respective researches on Kusaal and Dagaare show no evidence of reduplication. The two are Gur languages and they both showed no reduplication in the process. Adéníyì (2010) worked on Edo (an Atlanti-Congo and for that matter a Niger-Congo language) by looking at tone and nominalisation. He, among other things, observed that the gerundive nominalisation used a discontinuous morpheme {$\grave{u}...mw\grave{e}$} added to a verb stem and there was no reduplication involved. It may then appear that despite that the involvement of reduplication is not utterly predictable it depends to some extent on the language sub-classes within the Niger-Congo family. It will further be proved in the chapter on analysis that Nandome which belongs to the Gur branch also does not involve

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reduplication in the formation of its gerunds. This makes it consistent with Dagaare and Kusaal.

Per the literature herein reviewed not many authors have discussed the allomorphy of the gerund marker. In the case of languages with reduplication, it is somewhat difficult to discuss allomorphy because in such cases it is not just a morpheme attachment but a process. In Nandome allomorphy will be discussed revealing a special phenomenon where the morpheme is never fully realised as an allomorph in speech, at least per the data collected for this research. Nevins's (2010) view may be of importance to settling the issue. Nevins's (2010, p. 7) holds the view that 'the choice of phonologically unrelated allomorphs can sometimes be the fortunate result of historical divergence'. Nevins's (2010) further gives an example of Moroccan: the fact that the Moroccan Arabic object clitic used to be **-hu**, but now has developed into two distinct (and synchronically unrelated) allomorphs, [-h], chosen after vowel-final stems (e.g. xtQa-h 'his error'), and [-u], chosen after consonant-final stems (e.g. ktab-u 'his book'). A study limited only to the contemporary Moroccan Arabic will not have evidence of selecting either [-h] or [-u] as a morphophoneme until the study stretches out to the old Moroccan Arabic or other dialects of Arabic. Similarly, to solve the problem in Nandome concerning which allomorph should represent the morpheme as the gerund marker, there is the need to look into the other dialects of Dagaare which are relatively older than Nandome.

So far, the works herein reviewed have basically touched on the morphological aspects of nominalisation while the syntax aspect has been brief. However there is much more to talk about in the syntax. Before it can be established that a language has true

gerunds or not there should be an analysis of the syntax of the gerunds in the language. It can be said, at least from this review, that most African languages possess true gerunds. A true gerund is one that maintains consistency of the features outlined by Chomsky (1970) (see section 2.8).

Boadi (unpublished) in his work on Akan verbal prefixes touches on the syntax and semantics of the gerund extensively. He observes that in Akan the gerundive nominaliser is a non-finite inflection which is attached to the verb by an I-lowering rule. There are obligatory movements of the underlying subject and the object, to the left of the gerund. There is also an optional movement of underlying adjuncts. There is a recursive genitival such that all the pre-modifiers of the gerund occur in the possessive. In line with semantics he also identified that it is possible to have a 'manner-of-action reading' from the Akan gerundive phrase. This sort of reading depends on the condition that: the underlying subject of the gerund is referring to an individual and that the verb governing the gerundial complement construction belongs to the semantic class of cognition or to the class of emotions. Below is an example that incorporates all the ideas observed above;

26) ɔ   pɛ   kwasi   suˊkuu   ɛ-kɔˊ
    3SG. STAT.like kwasi.AS school.AS NOM-go
     s/he likes Kwasi's going to school.

'AS' means associative marker which is also the genitival in Akan. The meaning of sentence (26) is that the person likes the way **Kwasi** goes to school. This is the manner reading. In Nandome similar readings occur under similar conditions. The 'manner-of-action' reading might be a feature for a wide range of natural languages. It occurs in

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languages like English which have no genetic affiliation with Akan or Nandome. For example;

27)   I enjoy Mike Tyson's fighting

This sentence could refer to the fact that the person enjoys the way Mike Tyson fights. The fact that this happens in languages of varying genetic affiliations shows that it is a feature which may be common to many natural languages. Nandome shows an additional feature of HABIT interpretation in gerundive constructions. It inflects to denote this and this inflection is unlike other morphological processes in the language which use affixes. This particular inflectional process in Nandome uses deletion of the phonological segments in word final position. The deletion of the final phonological segment is obligatory for the gerund, the underlying object and any item that occurs between them. More details with examples will be given in the analysis. Boadi (unpublished) also observes that when there is a negative marker in the gerund phrase that has adverbials, it is the adverbials that get negated and not the gerund. A similar thing occurs in Nandome. Some examples to this effect are given in section 4.5.3 in the analysis.

Nepožitková (2010) did a descriptive work on the gerunds of English. He observed that they accept both verbal and nominal modifications. He agrees that the gerund marker is only the suffix {-ɪng}. He realised that all post modifiers of the gerund were verbal modifiers. The nominal modifiers appeared as pre-modifiers though some verbal modifiers also occur as pre-modifiers. The post-modifiers possible with the gerund include: an object complement, and indirect object complement, adverbs and adverbials and the purpose

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clause (which is also an adverbial). Pre-modifiers include: the indefinite, nouns and pronouns (subjects), adverbs, negation, aspect and passive auxiliaries. Some constructions that exemplify Nepožitková's (2010) account of the internal structure of gerund phrases are in (28) below (gerunds are boldened);

28) a. She criticised the parents for John not **performing** well in class.

   b. He questions his **being** late to class.

The examples in (28a) and (28b) above show how some of the modifiers occur with gerunds.

Nepožitková (2010) also observed that gerunds express agents either in the nominative form or in the accusative form. In the nominative case, gerunds express agents in a genitive form. As in (29) below (agents are in bold);

29) a. I like **his** reading the book.

   b. I like **him** reading the book.

In the case of (29a) the agent is in the nominative case and in (29b) the agent is in the accusative case. He further draws attention to the fact that the agent is in nominative case when focus is on the action denoted by the gerund. On the other hand when the agent is in the accusative it means focus is on the agent and not the action denoted by the gerund. The research would reveal that in Nandome the agent (subject) always takes a nominative case.

Nepožitková (2010) also mentions that the gerund in English is able to occupy all the positions that a prototypical noun occupies. These include: the subject, object (direct, indirect and prepositional) and the complement positions.

Kremers (2003) researched into the gerunds known as **masdars** in Arabic. Though he did not explicitly lay down the processes involved in the formation of gerunds it can be inferred from his work that roughly, the processes of deriving gerunds involves deletion of vowels in word final position and sometimes together with a vowel change or deletion, in the root verb. Examples include: the gerund, **wasf** 'the act of describing' from the verb **wasafa** 'to describe', and **tatawwur** 'the act of developing', from **tatawwara** 'to develop'.

Kremers (2003) revealed that the gerunds behave very much like nouns. Masdars take the definite article, case ending and the plural. All these are hallmarks of the prototypical noun in Arabic. Some examples from him are in (30) below;

30) **tatawwur-.t -u-n**   **al-tatawwur-āt-u**
    developing-PL-NOM-INDEF   the-developing-PL-NOM
    (cf. Kremers, 2003)

He further explains that the masdar can take either a subject or an object argument alone. In such instance, the single argument is automatically licensed a genitive. It can also take both subject and object simultaneously. In this case it will license only the subject as genitive. In such an instance the object if introduced with a preposition can also be licensed as a genitive. The object can also be expressed in the accusative. The example is in (31) below;

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31)   a.   sāhadtu   tadmīr-a   -l-qaysar-i   li -l-madīnat-i

             I.witnessed destroying-ACC the-Caesar-GEN   to the-city-GEN

             'I witnessed Caesar's destroying of the city' (cf. Kremers, 2003)

      b.   sāhadtu   tadmīr-a   -l-qaysar-i   li -l-madīnat-a

             I.witnessed destroying-ACC the-Caesar-GEN   the-city-ACC

             'I witnessed Caesar's destroying the city' (cf. Kremers, 2003)

In addition to the above, he adds that the gerund has all the sentential distributions of a noun. It can occupy positions as the subject, object, complements of prepositions and adjuncts.

In all the three works reviewed; Boadi (unpublished), Nepozitkova (2010) and Kremers (2003), all from very distinct language families, there are two major trends revealed. The distinct nature of the languages leaves clues that the trends in question apply to a wide range of natural languages and these trends may even be language universals. The trends that show up are that: it is possible for subjects to be inherited as genitives in all the three works reviewed. This is semantically explainable in that when a character performs an act it gives him sole ownership of the act such that no other character can claim to be the doer of that particular act. In all three the gerund has all the distributions of a noun. To this light the study of gerunds in Nandome will show that gerunds also inherit the subject in a genitive form. Additionally, the gerunds in Nandome have the distributions of a noun. The distributions of the noun in Nandome have earlier been reviewed and would serve as the bases for establishing that the gerund in Nandome can occur in all those distributions.

2.8 Features of the Gerund

The section attempts a complete definition of what a gerund is with regard to Chomsky (1970). The features outlined here will be used as the parameters for establishing that the verbal nominals under study in this work qualify to be gerunds.

Chomsky (1970) defines the gerund on three parameters. The first is that they 'can be formed fairly freely from propositions of subject-predicate form' (Chomsky 1970, p. 187) which means that they reflect a doer and an action or a state. This transformational process in English is accounted for by the –*ing* suffixation process. An example of a phrase include;

32) John's being eager to please (cf. Chomsky, 1970)

Secondly 'the nominal does not have the internal structure of a noun phrase' (Chomsky, 1970, p. 187). This is illustrated by the fact that in (32) one can introduce negation whereas it is not possible to introduce negation in a prototypical noun phrase. This thus implies it is possible to have the structure in (33) below;

33) John not being eager to please (cf Chomsky, 1970)

Lastly Chomsky (1970, p. 187) mentions that there should be 'generality of the relation between the nominal and the associated proposition.' The following semantic interpretation: 'the act of doing something' or 'the state of being' has this generality between the gerund in English and its proposition. It will be proved later in this research

work that the gerundive nominals of Nandome under study here, meet all these three parameters and can therefore be called true gerunds of the language.

2.9 A DP Approach to the Study of Gerund Phrases

Baker's (2005) DP analysis approach to the study of gerunds is reviewed. Further amendments will be made to suit the case of Nandome, the language of study. In (34) below, is Baker's (2005) proposed DP analysis for the study of gerunds.

34)
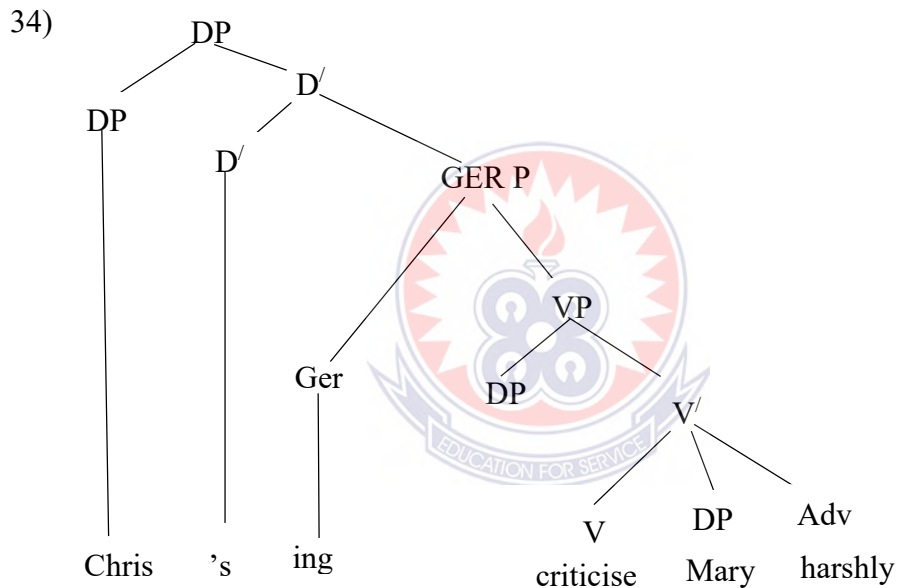
The modifications are that a right headed gerund phrase (GER P) is preferred to Baker's left headed phrase because the right headed phrase suits the parameters of Nandome. A hierarchical $V^/$ projection is also preferred to the flat representation that Baker (2005) used because the hierarchical arrangement is more typical of the X-bar; however the flat structure will be used in terms of serial verb constructions (SVCs) to avoid complexities. The reason for the modification is that these modifications will help explain some aspects

of the internal structure of the gerund phrase in Nandome. The modified version of (34) above is represented in (35) below. (35) is the modified DP to be used for the analysis of gerunds in Nandome.

35)
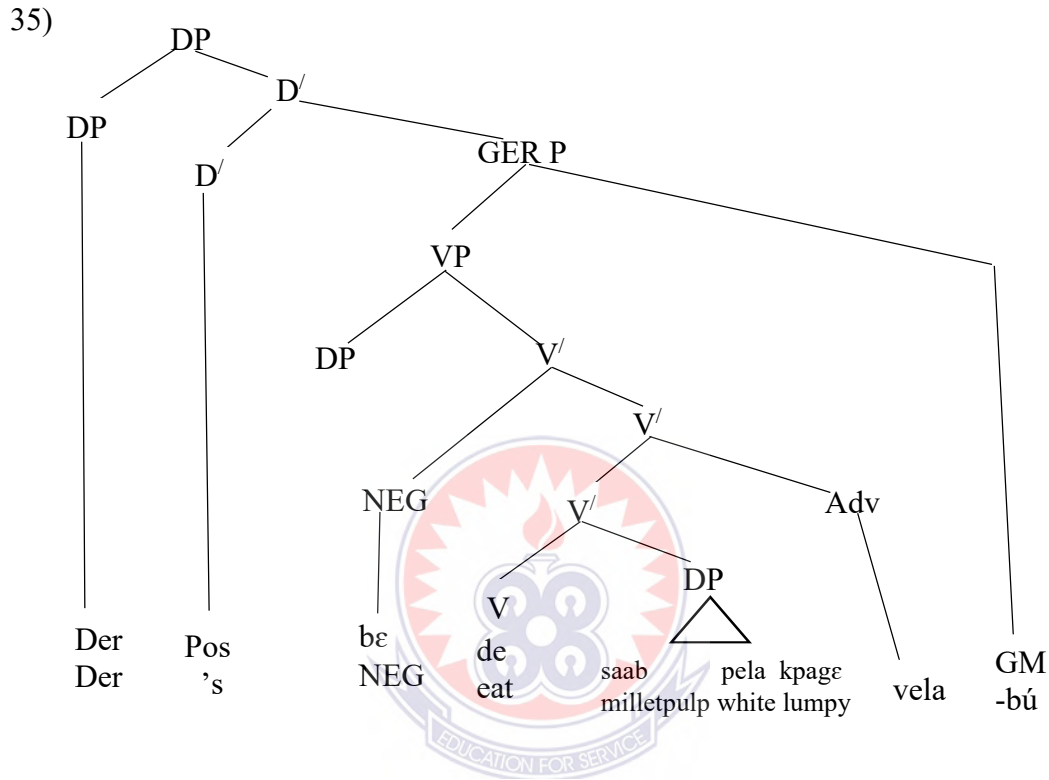
The diagram above shows the special DP situation where there is a special nominal inflection (GM) that defies normality to dominate a VP. (35) above is very similar to Abney's (1987) proposed DP analysis which Bodomo (2004) used in his analysis (see 20). The slight difference is that Baker (2005) does not consider GM as a special instance of number inflection unlike Abney (1987) and also Baker makes DP the specifier to VP. However, it will later be proved that the gerund in Nandome is unable to inflect for number which still proves that Abney's (1987) version still holds some explanations for gerund formation in Nandome. Baker (2005) also made this adaptation to help him explain that gerunds are made of two parts where one part belongs to the verb category and the other

belongs to a nominal category. By this claim Baker (2005) was debunking the view that a gerund is one entity that has both noun and verb qualities simultaneously. This argument was within a larger argument as to whether a single form can belong to more than one category. The likes of Baker (2005) argue that a form cannot belong to more than one category whilst others like Wetzer (1996) argue the opposite. This study provides evidence in support of Baker's (2005) view that a gerund is not one entity that simultaneously belong to two categories rather they are made up of two parts which belong to different categories.

2.10   Theoretical Framework (X-bar theory and generative phonology)

2.10.1 The X-bar theory

The section of the literature review dives deep into concepts expressed by the X-bar theory and a rationalization for its selection as the theoretical framework. Details of the theory can be found in Carnie (2013), Chomsky (1970), Jackendoff (1977) and Radford (1981 and 1988). According to, Alexiadou, Haegman and Stavruo (2007), Carnie (2013) and Radford (1988), a generative approach considers that there are two major components; the lexicon (morphemes or building blocks) and a structure-building system which combines these building blocks into larger units.

According to Carnie (2013), there are three rules or principles common to all phrases in all languages and these rules represent the structure-building system from a minimal level (X) to a maximal level (XP). These rules include;

Specifier rule: $XP \rightarrow (YP)\ X^/$

Adjunct rule: $X^/ \rightarrow X^/\ (ZP)$

Complement rule: $X^/ \rightarrow X\ (WP)$

The rules are exemplified in (36) below (Carnie, 2013) which represents the build-up of a verb phrase (VP) in Nandome. 'X' as stated in the rule is a variable and it is hereby replaced with V.

36)
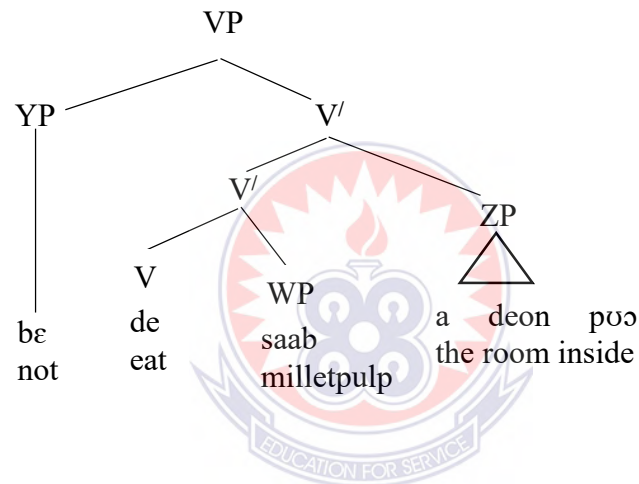
Based on the specifier rule the VP branches into the specifier and $V^/$, based on the adjunct rule the $V^/$ branches into the adjunct and another $V^/$, based on the complement rule the $V^/$ branches into V and complement. Morphemes from the lexicon then attach to the available spots at a level known as the deep structure. Through transformations a surface structure can be derived from the deep structure. The surface structure represents the spoken and the logical forms in the language. The relationship between the deep structure and the surface structure will be revisited in explaining why this theory was selected as a framework.

There is the need to further give some explanations concerning the thematic role assignment and case markings of the argument within X-bar syntax. This will be easily understood after a rundown of the c-command and government relationship between elements. The structure in (37) below is (is adopted from Radford 1988) for reference as the explanation goes on.

37)

```
          A
        /   \
       B     C
            /  \
           D    E
               /  \
              F    G
```
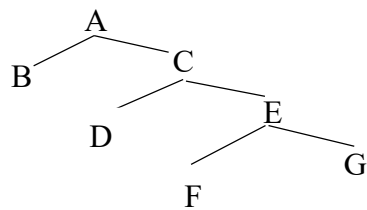
Radford (1988, p. 115) 'X c-commands Y iff (=if and only if) the first branching node dominating X dominates Y, and X does not dominate Y, nor Y dominate X (a branching node which branches into two or more immediate constituents)'. In (37) for example 'A' dominates 'B' and 'C' and 'C' in turn dominates 'D' and 'E' implying 'A' dominates 'D' and 'E' as well.

Based on the above clarification, it can be said that 'B' c-commands 'C' because the branching node that dominates 'B' also dominates 'C' and 'B' does not dominate 'C', nor 'C' dominate 'B'. In the same way 'B' c-commands 'D', 'E' and 'F'. 'D' also c-commands 'E', 'F' and 'G'.

In terms of government, first of all there are four governors (Radford 1981), these include; verbs, pre(post)positions, tense and possession. In all four cases a noun is always the governed. When any of the governors, 'X' c-commands a noun without another

governor, 'Y' in between 'X' and the noun, then 'X' is said to govern that noun. It is in this governing mode that a governor X can assign a theta role and/or a case marking. Verbs and prepositions assign an objective case to nouns; tense assigns a nominative case to nouns; and possession assigns a genitive case to nouns. Much details can be found in Alexiadou et al (2007), Carnie (2013) and Haegeman (1994). According to Radford (1988) thematic roles include but may not be limited to;

  a. Theme (patient) = entity undergoing the effect of some action

  b. Agent (actor) = instigator of some action

  c. Experiencer = entity experiencing some psychological state

  d. Benefactive = entity benefiting from some action

  e. Instrument = means by which something comes about

  f. Locative = place in which something is situated or takes place

  g. Goal = entity towards which something moves

  h. Source = entity from which something moves

According to Harley (2009 and 2011) there are three mechanisms for the syntactic manipulation of morpheme order in the X-bar. These mechanisms are explained below;

  a. Head-movement (Combines morphemes under one mother node in the syntax).

  b. Affix-specific linearization requirement (Morpheme is a suffix/prefix with respect to its sister constituent).

  c. Merger Under Adjacency (MUA) (Combines morphemes which are adjacent but not under one mother node at the end of the syntax).

Only (a) and (c) will be explained because they will be employed in this research. Harley (2011) describes Head movement has left adjoining in nature. It also involves the movement of a minimal category to another minimal category where they are combined under the same node. In this combination the moved Head adjoins to the left of the other Head. This results in a right headed new minimal category.

38)
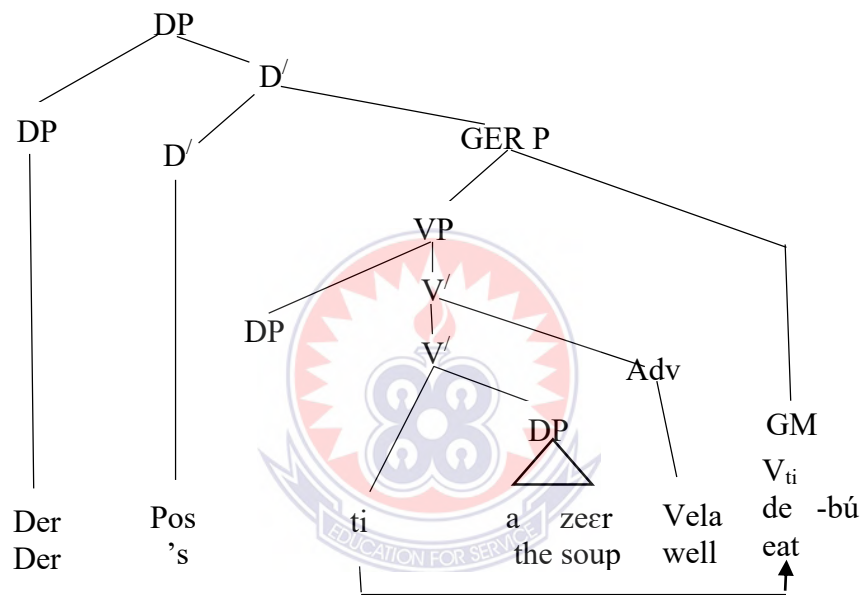
Harley (2011) argues that linear adjacency is a key restriction on the process; terminal nodes cannot undergo MUA if they are not linearly adjacent. Consider the adjacency of the specifier (negation) and the head (V). The adjacency is what makes the merging possible in (39) below. The merging is also facilitated by the fact that there are two (2) specifier branches (see 35 above) and as a result the one adjacent to the verb is forced to merge with the verb. This is further backed by the fact that in a normal sentence in which the VP has

only one specifier branch, such merging never occurs. If the specifier is a focus marker, it deletes during gerund formation.

39)

```
                    DP
               ┌─────┴──────┐
             DP            D′
           ┌──┤      ┌──────┴──────────────┐
          DP  D′    D′                   GER P
              │     │           ┌──────────┴────────────┐
              │     │          VP                        │
              │     │      ┌────┴────┐                    │
              │     │     DP        V′                    │
              │     │              ┌─┴────────┐           │
              │     │             V′          Adv         │
              │     │         ┌────┴────┐      │          │
              │     │         V        DP      │          │
              │     │                 ╱─╲      │          │
         Der  Pos  bɛ-de          a  zeɛr    vela        GM
         Der  's   NEG eat       the  soup   well        -bú
```
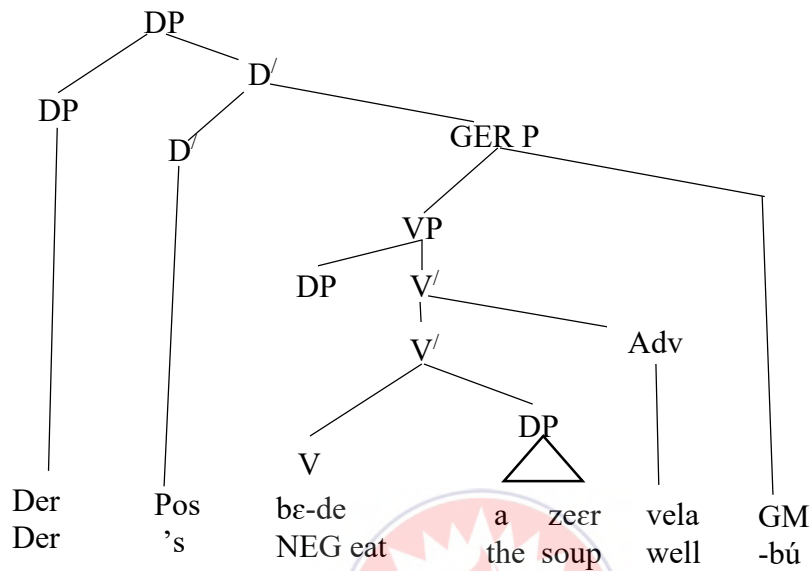
Reasons are now discussed for why the X-bar theory is chosen as the theoretical framework for this research. The relationship between the lexicon, the deep structure and the surface structure is revisited here. Alexiadou et al (2007) summarises the relationship in the diagram below.

```
            Lexicon
               │
         Deep structure
               │
        Surface structure
            ┌──┴──┐
   Phonetic form   Logical form
```
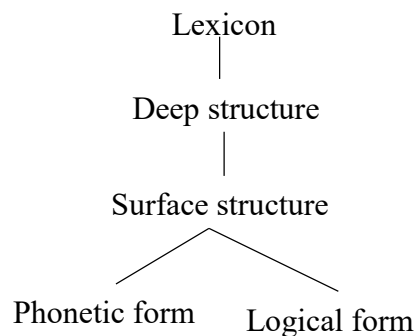
At the level where the lexicon inserts into the structure system both lexical (content words) and functional (grammatical words) categories are considered. This will enhance the research since the study will have to deal with both lexical and functional categories. For example, the verb roots are lexical categories and the gerund marker is a functional category. The X-bar theory presents a deep structure and a surface structure that are mediated by transformations. The current research also deals with a deep structure (that is the normal clause) and how transformations will compress the clause in Nandome into an argument (the gerund phrase) in another sentence.

2.10.2 Generative phonology

Kenstowicz and Kisseberth (1979) and Schane (1973) agree that generative phonology is a component of generative grammar that assigns the correct phonetic representations to utterances in such a way as to reflect a native speaker's internalized grammar. Kenstowicz and Kisseberth (1979) and Schane (1973) also agree that there are two phonological levels; the underlying representation which is the most basic form of a sound or word and the phonetic representation which is the pronunciation that is heard in speech. Between these two levels are the phonological rules that map an underlying representation to its phonetic form(s). Generative phonology also considers speech as a string of discrete sounds segments such that each segments has a set of concurrent features that distinguish it. These features are known as the distinctive features. Rules can be generalized based on the distinctive features of sounds.

This thesis looks at the underlying representation of the gerund marker and the rules that map it on to its phonetic representations as it is known to the native speaker of Nandome.

2.11   An overview of the IP in Nandom

The main purpose of this section is to put the clause of Nandome into X-bar analysis, that is, the IP analysis, where inflection (I) replaces the variable (X). The significance is that there are some issues in the formation and usage of gerunds that are explainable by the underlying sentence structure in Nandome. (41) below is an IP analysis of (40) below:

40)   **Dɛr mwɛ ne a baa vela ne daa**
      dɛ́r mwɛ̀   nĩ̀   à   báá vìlá nĩ̀   dàá
      Der hit.Perf   Foc Def   dog well with stick
      'Der hit the dog well with stick'

41)

Der	+TAM	ne	mwɛ	a	baa	vela	ne	daa
der		Foc	hit	Def	dog	well	with	stick
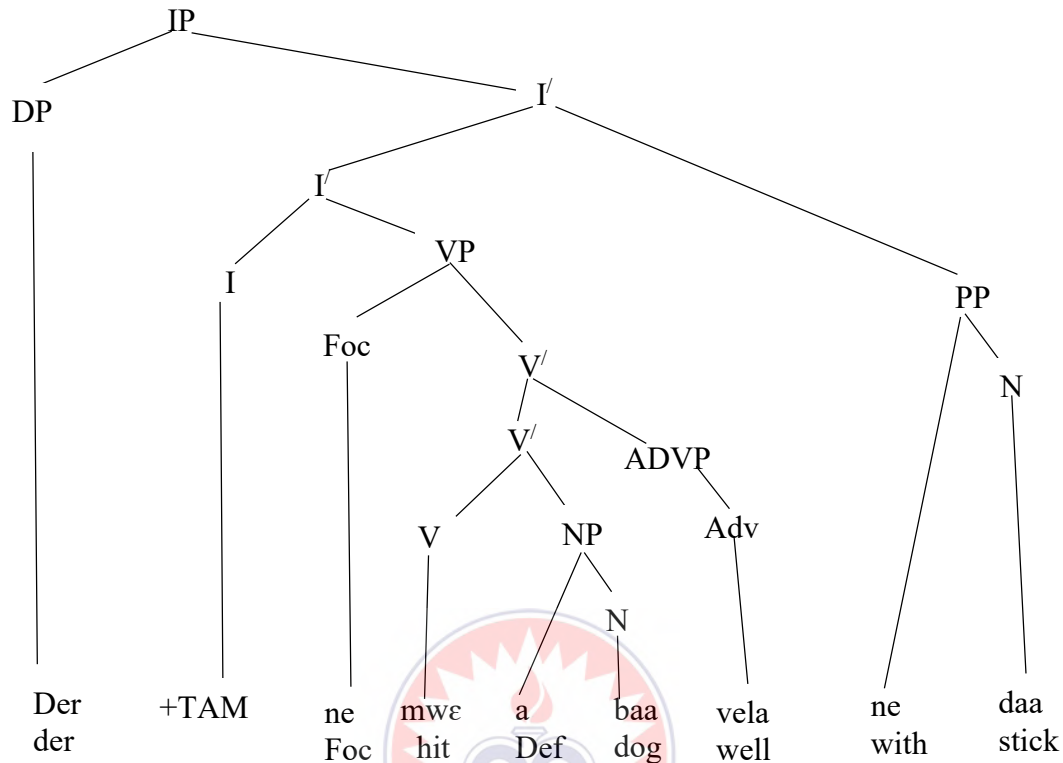
There are some important facts to note. First of all, under the terminal, I, the range of items that are generated there include the TAMP as it was explained in section 2.5.1 in the literature review. More importantly such items are outside VP. The specifiers of VP include; the focus marker (Foc) and the negation marker (NEG).

In Nandome there is no clear syntactic distinction between the sentential adjuncts and the VP adjuncts. However, in chapter four it will later be proved that in Nandome the gerundive phrase provides evidence that such a distinction exists in the language. To this effect, it is worth noting that adverbials (such as **ne daa**) occur as sentential adjuncts while

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adverbs (such as **vela**) occur as VP adjuncts. This will later boost the explanation of the internal structure of the gerund phrase.

2.12 Conclusion

The NP in Nandome has the following structure; Art_1 NP_2 NM_3 **NH_4** Adj_5 $(PL)_6$ Q_7 D_8 Int_9 Loc_{10}. The VP in Nandome has the following structure; TD_1 M_2 P_3 H_4 Ag_5 RV_6 MV_7 Foc_8 NP Adverbials. Nouns in Nandome have been classified into six (6) classes. The focus marker in Nandome moves from the left side of the verb to the right side of the verb in speech. Gerund phrases have a sentential distribution similar to that of the NP; however, gerund phrases have an internal phrase structure different from that of the NP. In most Niger-Congo languages an object to a verb is preposed when that verb is being nominalised and evidence in Nandome supports this. The X-bar theory holds that a phrase has four components; the head, the specifier, the complement and the adjunct. Among all these the head is the most obligatory one. The c-command relationship is needed to enable case marking and thematic role assignment. Verbs, tense, pre(post)positions and possession are those that can assign thematic roles or mark case. A noun is always the one given the thematic role or the case marking.

CHAPTER THREE

METHODOLOGY

3.1 Overview
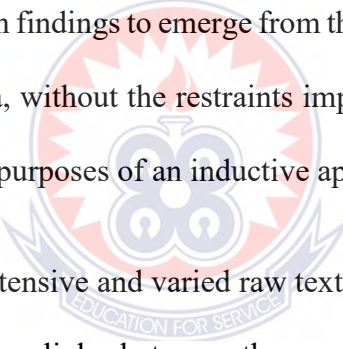
This chapter discusses the general approach and specific techniques that were adapted for the research. This chapter entails the research design, research area, population for the study, the sample size and the sampling techniques. The instruments used for the data collection are also discussed. The procedure for the analysis of data is also explored in the chapter. The chapter further gives details on the limitations of the methodology employed in conducting the study.

3.2 Research Design

The research adopts a qualitative approach. Lynn (2005) states the characteristics of qualitative research more clearly. She describes them as 'qualtoid characteristics'. They include: data collection being multi-method, data being natural and emergent; analysis being inductive, pattern seeking, descriptive and user-centred. Her idea of multi-methods will be seen in the triangulation of research instruments below. The purpose of the multi-method approach is to minimise methodological lapses so that the appropriate data can be collected for analysis. The fact that the data should be natural and emergent refers to the spontaneity of the occurrence of events. Simply put, they occur subconsciously and can be accounted for by some underpinnings. This is an idea captured by Creswell (2009) when he speaks of natural setting in qualitative research. The aspect of the analysis being

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inductive, is directly related to pattern seeking. These patterns are the rules that underlie certain observable happenings.

Under qualitative research there are several approaches. This study will make use of the inductive approach to qualitative data analysis (which is within the framework of grounded theory). Creswell (2009) and Lynn (2005) spoke of the inductive approach as a feature of qualitative research. According to Thomas (2006: p. 238) the inductive approach can best be defined as 'approaches that primarily use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher.' He further explains that the primary purpose of the inductive approach is to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data, without the restraints imposed by structured methodologies. He identifies the following purposes of an inductive approach;

    a.   to condense extensive and varied raw text data into a brief, summary format;

    b. to establish clear links between the research objectives and the summary findings derived from the raw data and to ensure that these links are both transparent and

    c.   to develop a theme, model or theory about the underlying structure of experiences or processes that are evident in the text data.

Simply put, inductive analysis is to seek patterns from natural data. In inductive analysis one should be able to state a simple pattern that underpins several occurrence. These occurrences could as well be an infinite set.

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This is very much in line with what descriptive linguistics is about. According to Lehmann (1999, p. 11) reiterating Chomsky (1965), 'describing a language is an activity (and derivatively, its result) that formulates, in the most general way possible, the patterns underlying the linguistic data. Its purpose is to make the user of the description understand the way the language works.' In the sense of the first purpose of inductive analysis, the language data represents the extensive and varied raw data that is mentioned whilst the underlying language structure that will be realised represents the condensed brief summary of the data. In the context of this study, the research intends to seek the morphological, syntactic and semantic patterns underlying the formation and usage of gerundive nominals.

The second purpose of the inductive approach is to establish clear links between the objectives and the summary of the findings gotten from the raw data. In this light the objectives stated in the first chapter of this report are in direct correlation with the findings in chapter four (4). These findings represent the underlying patterns concerned with the formation and usage of gerunds.

The third purpose of the inductive approach is purported for the formulation of themes, models and theories. In line with this the main aim of descriptive linguistics is towards the description of the grammar of a given language and for that matter, the linguistic theory. In our context the current study seeks to contribute to the identification of the grammar of Nandome. All these prove that the inductive approach to qualitative research is in line with descriptive linguistics.

3.3 The Research Area

The research site is Nandom. According to GSS (2014) Nandom is located in the north-western corner of the Upper West Region of Ghana between Longitude 2°25 W and 2°45W and Latitude 10°20 N and 11°00 S. The total land area is 404.6 square km (GSS 2014). Nandom shares boundaries with Hamile to the north and to the west, Lawra to the south and Lambousie Karni in the east.

Nandom is a district, expectedly, it is a centre for industry and commerce such as trade in farm produce and animals. People are also engaged in industries such as carpentry, weaving, pottery, blacksmithing, wielding, vulcanising among others. There is the existence of literacy related jobs like teaching, nursing and law. All these have seen the influx of a good number of non-native Nandome though they still form a very minute percentage.

Nandom also enjoys a wide range of social amenities. Some of these include: accessibility to electricity, potable water, good road network, good communication network services (including all network services in Ghana) and very notably educational institutions from elementary to tertiary levels. All these contribute to the immigration of a non-native population though they still form a very minute percentage.

Nandom despite being broken into communities is united by festivals, funerals, parties, amenities like market and schools and joint settlements. This creates an interrelated social life and consequently a strong lingual contact among natives. Figure 2 below is the location of Nandom;

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Figure 2: Location of Nandom in the World.

Source: (An adaptation from Ghana maps, 2014)

3.4 Population

Nandom has a total of 18 communities. The total population for all these communities is 46,040 according to GSS (2014). 54.7 percent of the population represent the working-age (persons aged 15-64). 37.2 percent and 8.1 percent represent the dependent-age (ages 15-64 and 65 + respectively). The male-female ratio is 94:100. Figure 3 below is a population pyramid of Nandom;
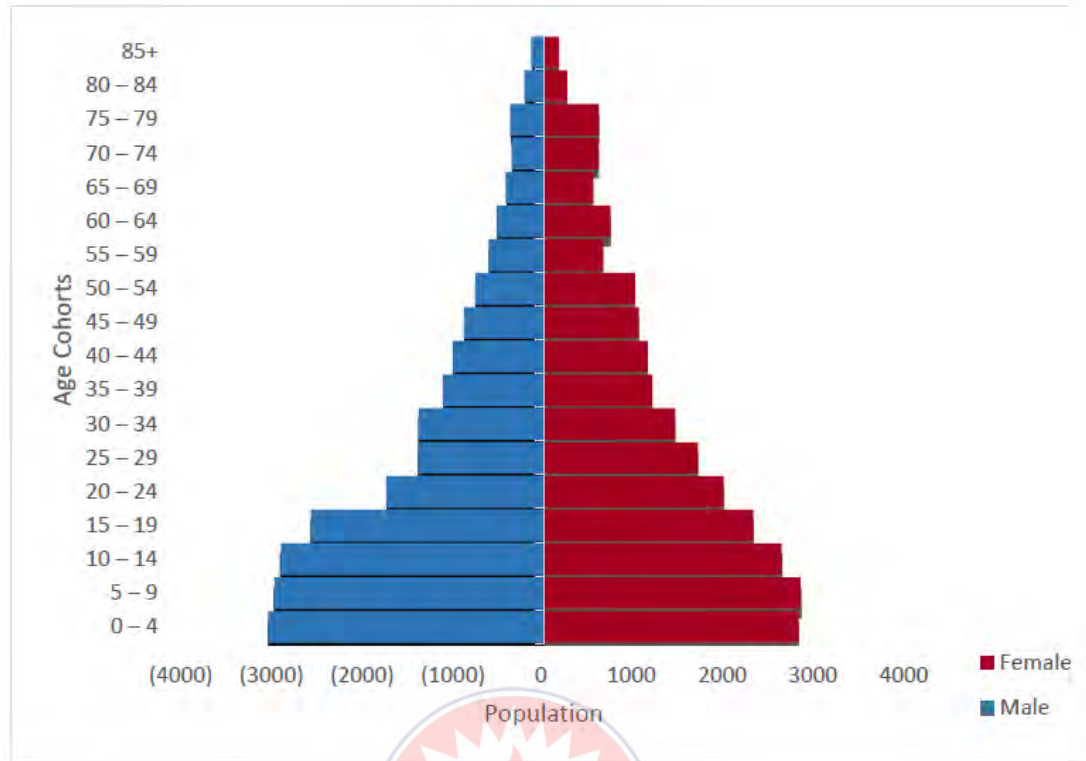
Source: Ghana Statistical Service, 2010 Population and Housing Census

Figure 3: Population Pyramid of Nandom

3.5 Sample Size

The research took a sample size of three (3) communities and six (6) participants. The three (3) communities include; Bu, Daabeteng, and Tantuo. One (1) male and one (1) female was chosen from each of the communities to constitute six (6) participants for a focus group interview. Two (2) people were also sampled for cross check. The sample size is in a tabular form below;

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Community	No. of Persons	Strategy used	Instrument responded to:
Bu	2	Purposive sampling	Focus group discussion
Daabeteng	2	Purposive sampling	Focus group discussion
Tantuo	2	Purposive sampling	Focus group discussion
Not needed	2	Purposive sampling	Crosscheck
Total	**8**		

Table 2: Sample Size

3.6 Sampling Strategies

Three (3) communities were conveniently sampled from the total of 18. This is because there is a strong social network among the people and currently there are no observed evidences of geographical dialects in the usage of Nandome. This makes the selection of any communities a typical case for the others.

These communities were chosen for easy accessibility and mobilisation of the focus group participants. The easy mobilisation is based on the fact that illiterate farmers from the three communities established gardens around a waterlogged area common to them.

A purposive sample of eight (8) participants in two phases was used. In one phase, six (6) participants were selected to constitute a focus group. A male-female pair within the age ranges of 40-80 were selected from each of the three communities. In this phase a selected participant had to be;

a. a monolingual native speaker of Nandome. Monolinguals were chosen to help cut off the effects of language influence. In this context being monolingual means they will be native speakers of Nandome

b. within the age range of 40-80. The age below 40 years is left out because most people within this age range, as far as Nandom is concerned, have at least, either been to school before or have travelled to the southern part of the country in search of greener pastures. This means they will pick up at least either English or one of the southern languages and cease to be monolinguals. The people above 80 were also left out because people at that age might begin to lose their proper articulation due to teeth loss or some physiological factors. They are also few and relatively hard to get (see figure 2).

c. be devoid of any speech or mental deformity. Participants were not victims of cases such as loss of teeth, spoonerism or delayed speech among others. People with mental disorder were also not selected because they will be a risk in terms of cooperation and their speech may also be affected. Speech defects will negatively influence phonological judgements.

In the other phase, two (2) native speakers with linguistic study background were purposively selected. These were Dagaare teachers. These persons were the experts who did crosschecks.

3.7 Instruments for Data Collection

The reliability of every research lies in the exactitude and accuracy of the methods for gathering data. These methods herein are in line with the theoretical framework as suggested by Creswell (2009) and Sikes (2004). The selection of data collection methods also took into consideration the personal and contextual conditions on the field during the research as suggested by Kusi (2012). These methods are also directly related to the research questions since the data collected is what is analysed and used in answering the research questions. The methods of data collection found to be showing all these qualities are: natural intuition; focus group interview; stories and conversation.

These instruments present a good blend of the two main forms of data collection outlined by Radford (1988). These include: the recorded sample of speech (corpus of utterance) and informant intuitions where you elicit information from the native speaker. Corpus utterances (in this case, conversations and stories) provide natural data though some specific areas of interest may not show up in such data. The informant intuition (in this case, focus group discussion) gives the researcher the chance to tackle the areas of specific interest though the naturalness of such data may be affected by some constraints such as fear or bias. The selection of instruments here tries to achieve a balance. Each research instrument is discussed below.

3.7.1 Focus Group Discussion

This instrument represents the informant approach to gathering linguistic data. It helped the researcher to be specific on the data he sought. According to Kusi (2012), focus group interview is the process of gathering a particular group of people, according to an identified feature, and eliciting their views and ideas about an issue that they have experienced or witnessed with the researcher as a moderator. According to Elliot (2005: p. 1) '…the group needs to be large enough to generate a rich discussion but not so large that some participants are left out.' This instrument made use of six (6) participants in total.

In the first session of the focus group discussion (March 26, 2016), the researcher elicited the gerund forms of twenty (20) verbs sampled from the verb list. The gerund forms were used in simple sentences. Less obvious aspects on the formation and the usage of gerunds were also discussed. Such areas include: the issue of nasalisation in the formation of gerunds; and some exceptional formation processes (in the analysis these are considered exceptions to the rule). Information on the syntax was also elicited. The researcher first elicited gerundial sentences from the participants. The researcher sometimes rephrased the sentences elicited from the participants, in order to seek further information on some targeted areas in the syntax. Further probing questions were asked. The target areas include; finding out the TAMPs that occur in gerund phrases, gerunds formed from SVC, gerund phrases formed from double object constructions and the use of adverbials in a gerund phrase.

The second session of the focus group discussion (April 2, 2016) focused on the semantic aspect of the usage of gerunds. The instrument was used to seek responses on the following semantic themes; habit reading in gerund usage, manner-of-action reading in gerund usage, negation in gerund usage and emphatic use of gerunds. The researcher first elicited gerundial sentences from the participants, he then rephrased these gerundial sentences from the participants in a way that will elicit reaction to the targeted areas. The researcher also create scenarios (based on the target areas) that will elicit gerundial sentences that will denote the scenario given. Further probing questions were used. The guide for the focus group discussion is in Appendix G.

3.7.2   Storytelling session

The researcher took part in storytelling sessions. These were mostly short stories. The storytelling was chosen so that the researcher will be able the pick the data from a natural settings since it is a form of entertainment. Ten (10) stories were recorded from different story tellers. Two stories were transcribed see Appendix D and Appendix E.

3.7.3   Conversation

Conversation refers to an informal interaction between two or more people. This instrument also represents the spontaneous collection of linguistic data. Conversations were recorded and transcribed. Out of eight conversations recorded, three were transcribed: a conversation concerning cooking (see Appendix A), a conversation between a buyer and a seller in the market (see Appendix B) and a conversation between family members in a

farm (see Appendix C). Several conversations were recorded and the transcribed ones have been chosen because they record a relatively higher number of gerunds.

3.8 The Verb List

The verb list is made up of one hundred and fifty (150) verbs from the researcher's natural intuition, seventy-seven (77) verbs elicited by the use of the Ibadan wordlist and one-hundred and forty seven (147) verbs from the usage of the language by other speakers. In total the verb list contains three-hundred and seventy-four (374) verbs (See appendix F). The researcher added data from his natural intuition to help widen the database for the research. The corresponding gerunds for these verbs were provided with information from speech contexts and through researcher's intuition. The whole list (verbs and their corresponding gerunds) was given to the two native speakers with formal linguistic training (mentioned earlier) for crosschecks. Native speakers with formal linguistic training were chosen because the list contained transcriptions which cannot be read by people without formal linguistic training. The list is divided into seventeen semantic groups. Each verb has a label as transitive (tr), intransitive (intr) or both (tr/intr). See verb list in Appendix F.

3.9 Transcription of Recordings

Transcription was carried out with the help of two editors. The editors were people who could read and write Nandome. These editors equally listened to the recordings and read the transcripts. This was done to ensure that the transcripts reflect what was actually said. With the focus group discussions and the conversations there were points of interruption. This problem pertained more with the market conversation where there were

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other conversations and noises. The researcher and the editors had to listen intensively to get the exact words that were said.

3.10   Data Analysis

The data was analysed with the inductive approach by focusing on rule identification. The theoretical frameworks for the thesis; the X-bar theory and generative phonology, both fall in line with this type of analysis. The X-bar theory gives the researcher the chance to observe the language in terms of phrase structure and to summarise the observations into brief transformational processes. In this vein the X-bar theory is in line with the inductive analysis approach. Generative phonology also gives the researcher the chance to observed the data and summarize the observations into phonological rules.

The analysis was done according to research questions; the morphological processes, the internal structure of the gerund phrase, the distributional properties of gerund phrases and the semantic interpretations of gerund phrases.

3.11   Accessibility

The researcher resided in Nandom, the language area, from mid-February, 2016 to mid-April, 2016. The researcher made trips to each of the three (3) communities. The trip to these communities was to seek the consent of the participants before involving them in the focus group discussion. This was done with an uncle, Mr. Paul Bilikpe as a guide who helped link up the researcher with people who meet the purposive sample. The guide was a companion in the trip, to help locate the suggested people. These suggested people, aside

meeting the purposive sample criteria, were people who had gardens around a waterlogged area common to the three communities.

The focus group discussions happened on March 26, 2016 and April 2, 2016. The discussion were scheduled on Saturdays (around afternoon), a day before market day which is always a Sunday. Saturday was chosen so that all the six participants will meet at the garden side since they will be coming to harvest vegetables for sale on Sunday. The discussions took place around afternoon when people will like to relax due to the high sunshine and tiredness.

3.12   Limitation of the Methodology

The limitation on the methods outlined above is that the methods despite being a blend, was more skewed to the collection of data from speech contexts. This gave the researcher much work to do when it came to transcription and glossing. This constituted a great challenge considering the time he had at his disposal.

3.13   Conclusion

The study used one focus group discussion (3 males and 3 females), recording of conversations and storytelling sessions as instruments for collecting data. The research also used his natural intuition. A verb list was creaed with 374 verbs and their corresponding gerund counterparts. Large amounts of data was collected and preferable ones were selected and transcribed with the help of two editors. These editors were native speakers with formal linguistic training.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Overview

This chapter of the thesis gives the detailed breakdown of the data collected on the formation and usage of gerunds in Nandome. The analysis of the data is according to research questions and will be so captured in this chapter. The major aspects of the chapter include, the morphological processes involved in the formation of gerunds, the structural properties, the distributional properties of the gerunds in Nandome, and the semantics involved in the usage of gerunds.

4.2 The Morphological Processes (Question 1)

The morphological processes include the phonological changes that occur during the formation of gerunds and the conditions that inform these changes. This can also be looked at as the different forms of the gerund marker in Nandome. The allomorphs of the gerund marker and the conditions of their occurrence is outlined below. These conditions of occurrence (rules) are stated using the notations provided by generative phonology. The allomorph to select to represent the morpheme is also discussed.

4.2.1   Allomorphs of the gerund marker

The gerund marker in Nandome is the suffix {-bú}, its allomorphs include; [b], [ú], [ʋ́], [fú], [fʋ́], [bá]. The reason for considering {-bú} as the morpheme will be discussed

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later. These are respectively realised in the following orthography; b, u, o, fu, fo, ba. There will be examples when the rules are stated.

4.2.2   Conditions for the Allomorphs of Gerunds

Before stating the rules, it is prudent to give the interpretation of the notations of generative phonology. According to Schane (1973): '→' means 'becomes'; '——' means 'position in relation to neighbouring sounds'; '/' means 'in the environment of'; '()' means 'optionality'; '{}' means 'any one of the elements within it'; 'C' means 'consonant'; 'V' means 'vowel'; the features of a segment is presented in square brackets "[ ]". "-" and "+" respectively show the absence and presence of a feature; 'α' shows sameness in a feature possessed by two or more sounds. "+" is also used for morpheme boundary. Take 'GM' as gerund marker, {bú}. The features of the sound segments representing GM are outlined in (1) below;

1. GM → $\begin{bmatrix} +C \\ -nasal \\ -delayed\ release \\ +bilabial \\ +voice \end{bmatrix} \begin{bmatrix} V \\ -nasal \\ +high \\ +back \\ -/+ATR \end{bmatrix}$ → {bú}

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4.2.2.1 Major rules (conditions)

These rules lead to the phonemic form of the gerunds in Nandome. Consider the data below (see more in the Appendix F);

	Verb root	Gerund	Gloss
2.a	tùò	túó**fú**	'act of carrying'
2.b	dáá	dáá**fʊ́**	'act of pushing'
2.c	íáw	íáw**fʊ́**	'act of flying'
2.d	dɔ̀w	dɔ́w**fʊ́**	'act of giving birth'

Based on the data (2a)-(2d) above it is observed that {bú} becomes [fú] or [fʊ́], based on ATR similarity, when the verb root with or without an onset ends in two vowel segments or a vowel followed by /w/ (which is a semi-vowel). Out of this we can then formulate (2) below as a rule;

$$
2. \quad \{bú\} \rightarrow \begin{bmatrix} +C \\ -nasal \\ +strident \\ +labial \\ +dental \\ -voice \end{bmatrix} \begin{bmatrix} V \\ -nasal \\ +high \\ +back \\ \alpha ATR \end{bmatrix} / \left(\begin{bmatrix} [+C] \\ \begin{bmatrix} -C \\ -syllabic \end{bmatrix} \end{bmatrix} \right) \begin{bmatrix} V \\ \alpha ATR \end{bmatrix} \left\{ \begin{bmatrix} V \\ \alpha ATR \end{bmatrix} \begin{bmatrix} -C \\ -syllabic \\ +sonorant \\ +rounded \end{bmatrix} \right\} + \underline{\quad\quad}
$$
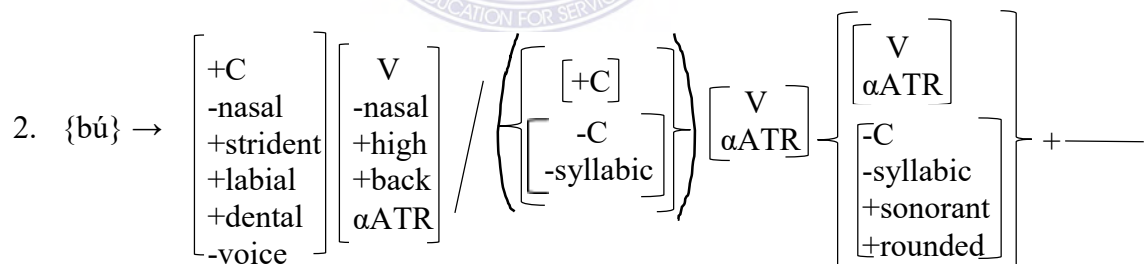
An exception to rule (2) include;

	Verb	Gerund	Gloss
2.i	nyṹũ̀	ɲṹũ̀/*ɲṹúfú	'act of smelling'

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The exception is based on the fact that the verb root is made of an onset and two vowel segments which should have formed its gerund based on rule (2) above, instead it forms the gerund outside the box by only a simple tone change from low to high.

From the data we also find such examples as;

Verb	Gerund	Gloss
3.a é	é**b**	'act of doing'
3.b vú	vú**b**	'act of crawling'
3.c là	lá**b**	'act of laughing'
3.d pù	pú**b**	'act of flowering'

Based on (3a-3d) and their likes, it means that {bú} is realised as [b] when the verb root with or without an onset consonant, has one vowel segment and no coda. We then formulate the rule (3) below;

3. $\{bú\} \rightarrow \begin{bmatrix} +C \\ -nasal \\ -delayed\ release \\ +bilabial \\ +voice \end{bmatrix} / \left(\begin{Bmatrix} [+C] \\ \begin{bmatrix} -C \\ -syllabic \end{bmatrix} \end{Bmatrix} [V] \right) + \underline{\hspace{2cm}}$
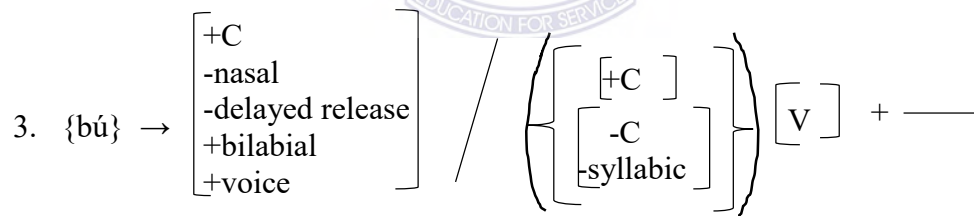
There are some exceptions to rule (3). Some of these include;

Verb	Gerund	Gloss
3.i lò	lóbá/*lób	'act of falling'
3.ii zɔ̀	zɔ́bá/*zɔ́b	'act of running'

3.iii	zǐ	zǐmǎ̃/*zǐb	'act of sitting'
3.iv	kɔ̃̀	kób/kɔ̃̀n	'act of crying'
3.v	kpì	kũ̌ũ̃/*kpíb	'act of dying'

(3i and 3ii) present an irregularity where GM is realised as [bá] instead of [b]. What is common between (3i-3iii) is that all of them talk about a state of posture. However there are other posture verbs that follow the rule such as **gɔ̀** 'bend' **gɔ́b** 'the act of bending'

In the data we also find examples in the nature of (4a-4h) below (see more in the Appendix F);

	Verb	Gerund		Gloss
4.a	fór	fórú		'act of removing from a lot'
4.b	kàb	kábʋ́		'act of food getting burnt'
4.c	ár	árʋ́		'act of harvesting maize'
4.d	gból	gbólú		'act of searching thoroughly'
4.e	ɛ̀nì	ɛníbʋ́	ɛnʋ́	'act of sucking'
4.f	yɛ́lí	yɛ́líbʋ́	yɛ́lʋ́	'act of winnowing'
4.g	tùòrì	túóri´bú	túórú	'act of meeting'
4.h	gbi´ni´	gbi´ni´bǔ	gbi´nǔ	'act of slowing down'

Based on (4a-4d) and their likes we observe that {bú} is realised as [ú] or [ʋ́], based on ATR, when attached to a verb root that ends in a consonant. The GM loses its consonant segment; [b], in order to avoid consonant sequence (see chapter one section 1.4 for details on consonant clustering). This is formalized in (4A) below;

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$$4.A \ \{bú\} \rightarrow \begin{bmatrix} V \\ -nasal \\ +high \\ +back \\ \alpha ATR \end{bmatrix} \Bigg/ \left(\left\{ \begin{bmatrix} [+C] \\ \begin{bmatrix} -C \\ -syllabic \end{bmatrix} \end{bmatrix} \right\} \begin{bmatrix} V_1{}^2 \\ \alpha ATR \end{bmatrix} \left\{ \begin{bmatrix} +C \end{bmatrix} \right\} \left(\begin{bmatrix} V \\ \alpha ATR \end{bmatrix} \right) + \underline{\quad} \right.$$

The exception here include;

Verb	Gerund	Gloss
4.i gúr	gʊ̃ɔ̃/*gúrú	'act of sleeping'

On close observation one will also notice that (4e-4h) differ from (4a-4d). The difference been that (4e-4h) undergoes an extra phonological process before the acceptable surface form. That process is vowel deletion. The vowel deletion occurs where there is a vowel immediately before the morpheme boundary. A deletion rule applies to delete that vowel after GM adjoins and then subsequently the consonant segment of the GM; [b], deletes to avoid consonant sequencing. The intermediary rule that accounts for the vowel deletion is formalized in (4B) below;

$$4.B \ \left(\left\{ \begin{bmatrix} [+C] \\ \begin{bmatrix} -C \\ -syllabic \end{bmatrix} \end{bmatrix} \right\} \begin{bmatrix} V_1{}^2 \\ \alpha ATR \end{bmatrix} \begin{bmatrix} +C \end{bmatrix} \begin{bmatrix} V \\ \alpha ATR \end{bmatrix} + \{-bú\} \rightarrow 1 \quad 2 \quad 3 \quad \text{Ø} \quad 5 \quad 6 \right.$$

$$\qquad 1 \qquad\qquad 2 \qquad 3 \qquad 4 \quad 5 \quad 6$$

4.2.2.2 Subsidiary rules (conditions)

The subsidiary rules consider suprasegmental features. Without them it is not possible to arrive at the actual phonetic forms of gerunds in Nandome. These subsidiary rules detail the conditions around nasalisation and tone. The rules are as follows;

4.2.2.2.1 Subsidiary rules on nasalisation;

Nasalisation is analysed with respect to examples such as (5a-5d, see more in the Appendix F)

	Verb	Underlying structure	Gerund	Gloss
5.a	lɛ̃m/lɛm		lɛ̃mʊ̌/lɛ́mʊ̃	'act of tasting'
5.b	sã̌m/sàm		sǎmʊ̃/sámʊ̃	'act of washing softly'
5.c	zǎnĩ/zánĩ	zǎnĩʊ̃/zánĩʊ̃	zǎnʊ̃/zánʊ̃	'act of dreaming'
5.d	stã̌nĩ/tànĩ	tǎnĩʊ̃/tánĩʊ̃	tǎnʊ̃/tánʊ̃	'act of shouting'

From examples in the nature of 5a-5d, it is observable that when a nasal consonant occurs word medial, all the vowels to the right of the nasal consonant are obligatorily nasalised. The vowel in GM is also nasalised provided there is no oral consonant interjecting. However the nasal influence is weak when it spreads to the left; this results in an optional nasal influence on the vowels to the left of the nasal consonant. Also where there is a vowel immediately before the morpheme boundary, it gets nasalised before it is deleted. The evidence for this is that even in the phonetic form of the root verb such vowels are nasalised (some examples include 5c and 5d). The brief discussion is formalised in (5) below;

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$$5. \left(\left\{ \begin{bmatrix} +C \\ \begin{bmatrix} -C \\ -syllabic \end{bmatrix} \end{bmatrix} \right\} \right) \begin{bmatrix} V_1{}^2 \\ \alpha ATR \end{bmatrix} \begin{bmatrix} +C \\ +nasal \end{bmatrix} \left(\begin{bmatrix} V \\ \alpha ATR \end{bmatrix} \right) + \begin{bmatrix} V \\ -nasal \\ +high \\ +back \\ \alpha ATR \end{bmatrix} \rightarrow 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6$$
$$\underset{1}{} \quad \underset{2}{} \quad \underset{3}{} \quad \underset{4}{} \quad \underset{5}{} \quad \underset{6}{} \qquad (+nasal) \quad +nasal \quad +nasal$$
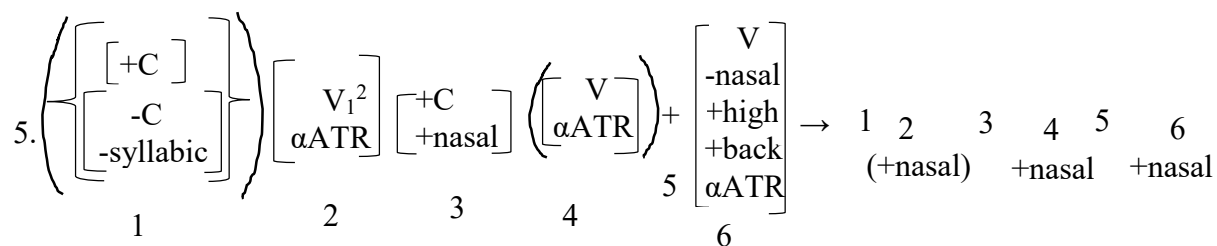
There is also a pattern observed about how gerunds are formed from open monosyllabic

verb roots with a nasal vowel segment. Consider the examples in (6a)-(6d);

	Verb	Gerund	Gloss
6.a	põ̃	pób	'act of sharing'
6.b	nɔ̃	nɔ́b	'act of stewing vegetables'
6.c	dʊ̃	dʊ̀b	'act of biting'
6.d	mɔ̃	mɔ́b	'act of wrestling'

On observing the data above one will realise that nasality is lost during gerund formation

if the verb root has a consonant followed by a nasalised vowel. Rule (6) below formalizes

the observation;

$$6. \left(\left\{ \begin{bmatrix} +C \\ \begin{bmatrix} -C \\ -syllabic \end{bmatrix} \end{bmatrix} \right\} \right) \begin{bmatrix} V \\ +nasal \end{bmatrix} \rightarrow \underset{-nasal}{1 \quad 2} \quad + \begin{bmatrix} +C \\ -nasal \\ -delayed\ release \\ +bilabial \\ +voice \end{bmatrix}$$
$$\underset{1}{} \qquad \underset{2}{}$$

81
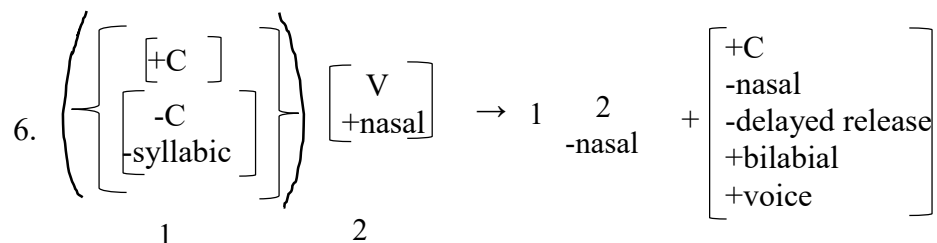
4.2.2.2.2 Subsidiary rules on tone;

Under tone there are also some observable changes during the formation of gerunds. First of all observe the data in (7a)-(7d) below;

	Verb	Gerund	Gloss
7.a	zɛ̀	zɛ́b	'act of smearing'
7.b	hèw	héwfú	'the act of getting hiccups'
7.c	sɛ̀b	sɛ́bʊ́	'act of dancing'
7.d	fù	fúb	'act of parboiling'

It will be observed that any vowel in the root verb that is of low tone takes on a high tone after the GM adjoins. This is because the vowel in GM is a high tone vowel and even where this vowel does not occur the tone still affects the vowels in the root verb. The observation is summarised in (7) below;

$$7. \begin{bmatrix} V \\ \text{Low Tone} \end{bmatrix} \rightarrow \begin{bmatrix} V \\ \text{High Tone} \end{bmatrix} \bigg/ \left(\left\{ \begin{bmatrix} +C \\ \begin{bmatrix} -C \\ -\text{syllabic} \end{bmatrix} \end{bmatrix} \right\} \right) \underline{\quad} \left(\left\{ \begin{bmatrix} +C \\ \begin{bmatrix} -C \\ -\text{syllabic} \end{bmatrix} \end{bmatrix} \right\} \right) + \{bú\}$$

This rule has some exceptions. These exceptions are mostly geared towards disambiguation. Some examples include (7i)-(7vi) below, they are presented in pairs;

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	Verb	Gerund	Gloss
7.i	fúr	fúrú	'act of pulling a liquid into one's mouth'
7.ii	fùr	fùrú	'act of open one's eye wide'
7.iii	díɛ́li´	díɛ́lʊ́	'act of leaning against something'
7.iv	dìɛ̀lì	dìɛ̀lʊ́	'act of drying'
7.v	píɛ́rí	píɛ́rʊ́	'act of arranging things in line'
7.vi	pìɛ̀rì	pìɛ̀rʊ́	'act of analysing'

Looking at the data presented immediately above, the difference between (7i) and (7ii) is that the vowel in the root verb is high in (7i) and low in (7ii). The case is similar with (7iii) and (7iv) and with (7v) and (7vi). The argument is that when there are two different root verbs that are phonemically similar but phonetically differ in tone, the one with the low tone will not change to high tone during gerund formation. Such instance will flaunt rule (7) above.

In the literature, Perekhvalskaya (2011) argued that in Mwan the gerund marker is an agglutinating affix though the language is an isolating one. This turns out differently in Nandome in that the gerund marker in Nandome is an isolating one just like the morphology of the entire language. Though we cannot be conclusive at this point there is a possibility that agglutinating gerund markers index something about some isolating languages like Mwan. Also the presence of a gerund marker in Nandome proves that there is a regular meaning relationship between the gerunds and their verb roots such that

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wherever the marker occurs it is interpreted as 'the act of doing whatever action that is suggested by the verb root'. In this light the gerunds in Nandome agree with Chomsky's (1970, p. 187) view that there should be 'generality of the relation between the nominal and the associated proposition.' The other issue is about the reduplication. In the literature we established that though Niger-Congo languages in most cases involve reduplication in their formation of gerunds there are some that do not involve reduplication. This in the literature review is alluded to language sub-families within the Niger-Congo family. The Gur sub-family seems to be one of those that do not involve reduplication in the formation of gerunds. It has already been observed in Kusaal and Dagaare (by Abubakari, 2011 and Bodomo, 2004 respectively) that there is no reduplication in the formation of gerunds. Nandome now also lends us further evidence that the Gur language sub-family does not involve reduplication in gerund formation.

4.2.3 Why {-bú} is considered as the gerund marker (morpheme)

{-bú} is taken as the morpheme though it is never phonetically realised. First of all, there is evidence from tonal changes. The vowels in the verb root still change to a high tone when the gerund marker is realised as [-b] (see examples 3c and 3d). What causes this tonal change is the fact that the [-ú], which is the bearer of the high tone was present at some level in deep structure but later drops the tone and gets deleted. Thus the gerund marker is {-bú} which breaks up due to phonological reasons.

Secondly, there is evidence that the consonant segment of the morpheme; [b] deletes in order to avoid unaccepted consonant sequence (see chapter one section 1.4 for

details on consonant sequence). (4a)- (4h) above exemplify this argument. Thus the gerund marker is {-bú} which breaks up due to phonological reasons.

There is also etymological evidence of a split. In the introduction it is stated clearly that Dagaare (of which Nandome is a dialect) originated from the Mole-Dagbani languages. This gave rise to a continuum of emergent dialects as you go northward. Nandome is one of the northern dialects which implies it emerged from the southern dialects of Dagaare. In some of the southern dialects (such as Waali and the dialects spoken around Kaleo), currently {-bú} (open to ATR influence) is the gerund marker. For example **di´i´bú** 'act of eating' and **pííríbʋ́** 'act of sweeping'. In the dialect spoken around Jirapa (which is more northward than Waali and the Kaleo dialects) the [b] is averagely lost leaving {-ú}. For example **di´i´ú** 'act of eating' and **píírʋ́ʋ́** 'act of sweeping'. In Nandome however the {-bú} splits where [-b] occurs in an environment already discussed and [-ú] also in another environment already discussed. For example **díb** 'act of eating' and **píírʋ́** 'act of sweeping'. There are emergence of new forms ([-fú] and [-ba]), though they still involve either [-b] or [-ú], and this has also been discussed. The situation in Nandome therefore buys into the findings of Nevins (2010) who argues that in Moroccan Arabic the object clitic used to be {-hu} and later split into [h] and [u] having different distributions.

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4.3 The Internal Structure of the Gerund Phrase (Question 2)

This section of the analysis gives details about the elements that can occur in the gerund phrase. It also gives details about the order of these elements. The X-bar theory is used in this section to help justify why those elements occur in the phrase and why they follow the order that they follow. The elements in the gerund phrase are first presented before giving explanations with the X-bar theory, specifically the DP analysis.

4.3.1 A description and a DP analysis of gerund phrase in Nandome

Before making any arguments, a few examples of sentences with gerunds or gerundivised verbs are given in (8)-(14) below;

8. **A wɛɛ kɔb ne nii me e ne fɔng**
    à   wíέ   kɔ́   b   nǐ   nĩ´ĩ´   mĩ   ì   nǐ   fɔ́ng
    Def farm.Pos plough. GM with cattle always BE Foc fast
    'the ploughing of the farm with cattle is always fast'

9. **A lili pagu ne tigr a deon poɔ bɛ me ko a mutong ɛ**
    à   li´li´   pág   ʋ   nǐ   ti´gr   á   dìón   póɔ́   bέ
    Def chick.Pos   close   GM with cage.Pos Def. room inside.Pos NEG
    mĩ   kʋ̀   á   mʋ́tɔ́ng   έ
    always give them   sun   Foc
    'The closing of the chicks with cage in the room does not always give them sun'

10.   **A Der bondere deb a weɛ poɔ ne nuu me tɛr re laaro**

à   dɛ́r   bóndìrí   dí   b   á   wìɛ́   poɔ   nĩ̃

Def   Der.Pos   food.Pos   eat   GM Def.   farm   inside   with

núú   mĩ̃   tèr   rí   láárʋ́

hand   always   have   Foc   laughter.

'the Der's food's eating the farm inside with hand have laughter'

(Der's eating of the food with the hand in the farm was funny)

11. **A Der zeɛr fong lɛ deb a motɔng sang, a deon poɔ, ne pɔlo, ne nuu wa ne ne suur**

à   dɛ́r   zíɛ́r   fɔ́ng   lɛ̀   dí   b   à   mʋ́t*ɔ́ng*   sáng ,

Def   Der.Pos soup.Pos   fast   again eat GM Def   afternoon   time,

à   dìón   pʋ́ɔ́   nĩ̃   pɔ̀lò   nĩ̃   núú   wà   nĩ̃   nĩ̃   sùùr

Def.   room   inside, with   pride, with   hand   bring with Foc.   anger

'Der's eating of the soup fast again in the afternoon inside the room with pride with the hand brought about anger'

Based on the data above, we can suggest that the gerund takes both premodifiers and postmodifiers. There are six (6) slots to the left of the gerund (premodifiers) and an infinite number of slots for sentential adverbials that move in to settle to the right of the gerund. The diagram below summarises the observation;

12.

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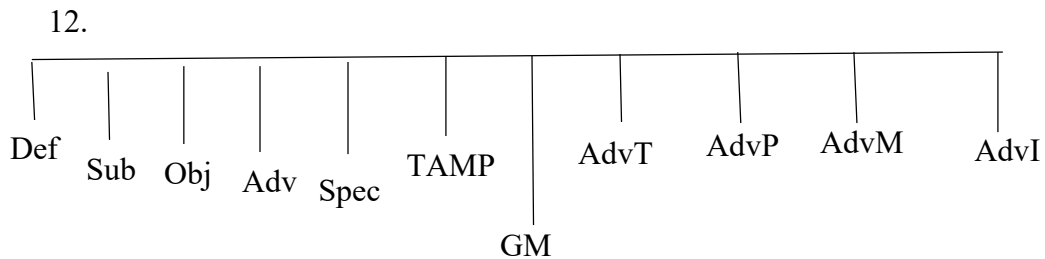
The postmodifiers must not necessarily be arranged in the order given. The order can change while the sentence maintains grammaticality. However, though (12) is spoken, it is still an underlying structure to anther surface form. This phenomenon is mediated by the movement of the adverbials across the gerund where they settle in between the Subject and Object arguments. Consider the (13)-(18) below;

13. Yoɔra soɔ teɛ kyɛb ne a lɛ

yʋɔ́rà   sʋ̀ɔ̀   tìɛ́ kyɛ́ b   nĩ̃   á   lɛ̀

Yuora.Pos   cutlass.Pos tree cut GM BE. Def. that

'Yuora's cutlass's tree's cutting is that' (that is how Yuora's cutting of a tree with a cutlass is)

14. A nii weɛ kɔb me e ne fɔng

à   nĩ́ĩ̃́   wíɛ́   kɔ́   b   mĩ̃   ì   nĩ̃ fɔ́ng

Def cattle.Pos   farm.Pos farm GM always BE Foc fast

'the cattle's farm's ploughing always is fast' (the ploughing of the land by the cattle is fast)

15. A Delle nuu saab deb ne a lɛ

à   dèlé   núú   sááb   dé   b   nĩ̃ á   lɛ̀

Def Delle.Pos   hand.Pos milletpulp   eat GM BE Def that

'the Delle's hand's milletpulp eating is the that' (that is how Delle's eating of TZ with the hand is)

16. A deon poɔ tiwr lili pagu bɛ me ko a mutong ɛ

à   dìón póɔ́   ti´wr   li´li´   pág ʋ́   bɛ́   mĩ̃

Def   room inside.Pos cage.Pos   chick.Pos   close GM NEG always

kʋ̀ á   mʋ́tɔ́ng ɛ̀

give them sun   Foc

'The room inside's cage's chick's closing not always give them sun' (closing the chicks in the room does not give them sunlight)

17. A Der weɛ poɔ nuu bondere deb me tɛr re laaro

à	dɛ́r	wíɛ́	poɔ	núú	bóndìrí	dí	b	mĩ̃
Def	Der.Pos	farm	inside.Pos	hand.Pos	food.Pos	eat	GM	always

tɛ̀r	rí	láár	ʋ́
have	Foc	laugh	GM

'the Der's farm inside's hand's food's eating have laughter' (Deri's eating with the hand at the farm makes you laugh)

18. A Der motɔng sang, deon poɔ, pɔlo, nuu zeɛr fong deb wa ne ne suur

à	dɛ́r	mʋtɔ́ng	sang,	dìon	pʋɔ́,	pɔ̀lò,	núú
Def.	Der.Pos	afternoon	time.Pos	room	inside.Pos	pride.Pos	hand.Pos

zíɛr	fɔ́ng	dí	b	wà	nĩ̃	nĩ̃	sùùr
soup.Pos	fast	eat	GM	bring	with	Foc	anger

'The Der's afternoon time's room inside's pride's hand's soup's fast again eating brings anger' (Der's eating the soup fast again with the hand and with pride in the afternoon caused anger)

Observing (13)-(18), we can suggest that in a more superficial gerund phrase we can have as many as ten (10) premodifiers before the gerund. We can thus say that there are ten slots which should not all compulsorily be filled before the sentence can be grammatical. These slots, in their appropriate sequence, are presented in the diagram below;

19.

Def   Sub   AdvT   AdvP   AdvM   AdvI   Obj   Adv   Spec   TAMP   GM
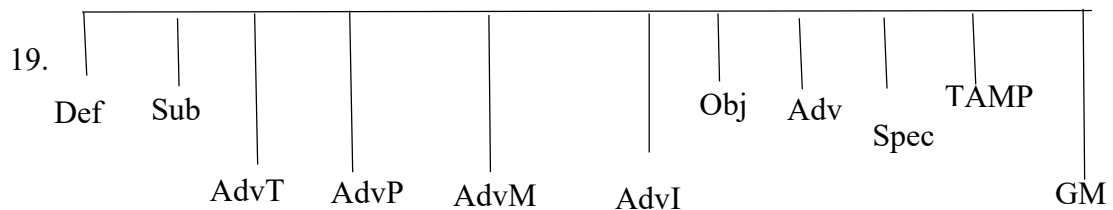
The order of the sentential adjuncts at the right side of the gerund does not affect grammaticality but at the left side of the gerund the order is important. They must follow as diagram (19) above.

The internal structure of the gerund phrase can be accounted for by the X-bar theory. The adapted version of the DP analysis of gerunds by Baker (2005) is used in offering these explanations. Mergder Under Adjacency and Head-to-Head movement which were explained in the literature review will be employed in accounting for the structure of the gerund phrase in Nandome. Sentence (21) below is the underlying sentence from which the gerund phrase in (20) is derived.

20. **A Der motɔng sang, deon poɔ, pɔlo, nuu zeɛr fong bɛ deb e na**

à dɛ́r mútɔ́ng sang, dìón púɔ́, pɔ̀lò núú
Def. Der.Pos afternoon time.Pos room inside.Pos pride.Pos hand.Pos

zíɛ́r fɔ́ng bɛ́ dí bì nǎ̃
soup.Pos fast NEG eat GM do Foc.

'The Der's afternoon time's room inside's pride's hand's soup's fast not eating did'
(Der not eating the soup fast with his hand and with pride in the afternoon in the room is good)

21. **A der bɛ de a zeɛr fɔng a mutong a deon ne pɔlo ne nuu e.**

à dɛ́r bɛ́ dí à zíɛ́r fɔ́ng à mútɔ́ng à dìón
Def. Der NEG eat.Perf Def. soup fast Def. afternoon Def. room

nĩ̃ pɔ̀lò nĩ̃ núú e
with pride with hand Foc

'Der did not eat the soup fast with the hand and with pride in the afternoon in the room'

(22) below is a diagram in which the underlying sentence (21) is represented;

22.

The tree diagram contains:

- IP
  - DP (A / The, Der / Der)
  - I′
    - I′
      - I ([+TAM])
      - VP
        - Foc (bɛ, NEG)
        - V′
          - V′
            - V (de, eat)
            - DP (a / the, zeɛr / soup)
          - ADVP
            - Adv (fɔng, fast)
    - Adverbials

a motɔng sang,   a deon pɔɔ
the afternoon time, the room inside

ne pɔlo,   ne nuu
with pride,   with hand

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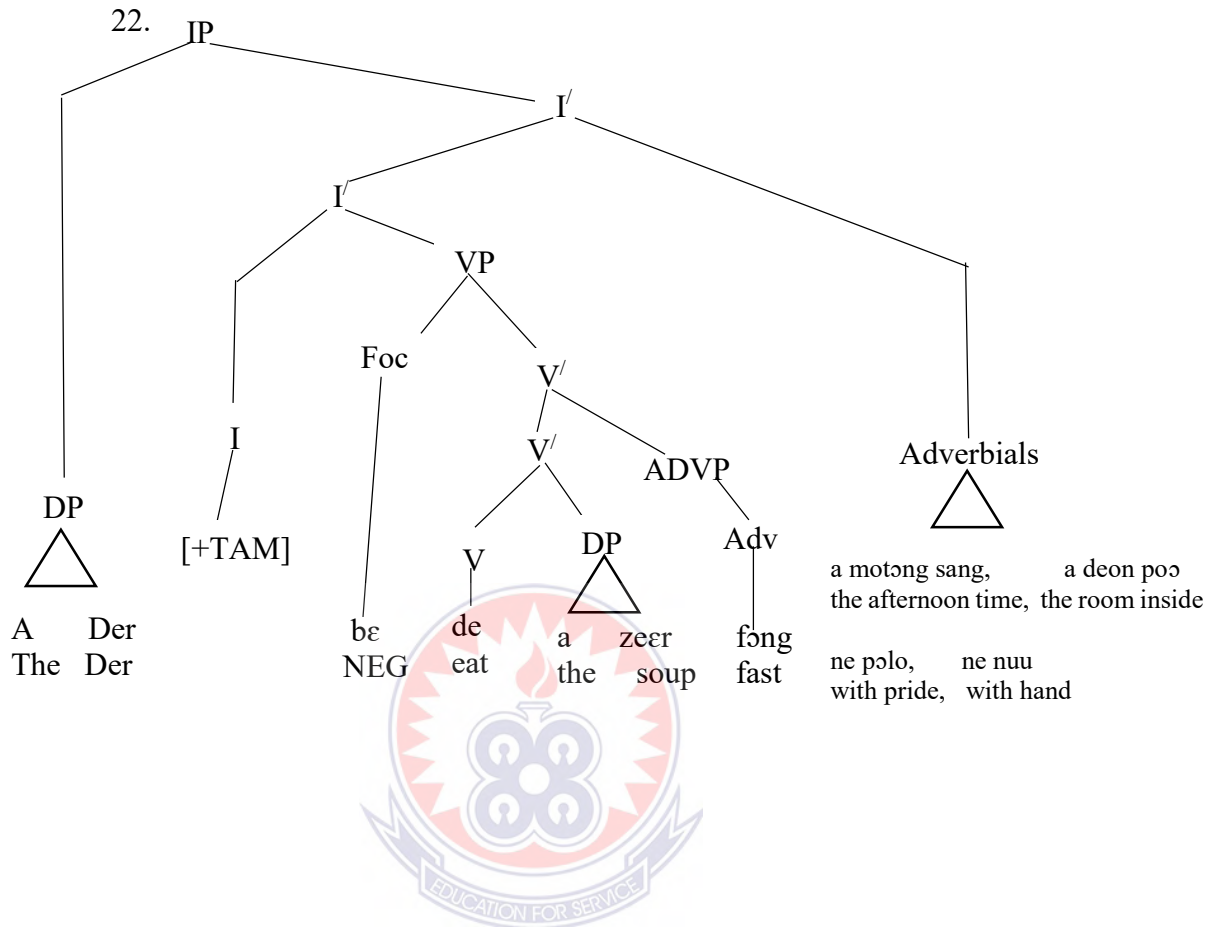
The VP in (22) above then comes under the dominance of the DP as in (23) below;

23.

IP
DP
D'
GER P
VP
DP
V'
NEG
V'
V'
ADVP
DP
Adv
Adverbial
adjuncts

DP	V	DP			
a Der	Pos	bɛ	de	a zeɛr	fɔng	GM	a motɔng sang, a deon pɔɔ
the afternoon time, the room inside
the Der	's	NEG	eat	the soup	fast	-bú	ne pɔlo, ne nuu
with pride, with hand
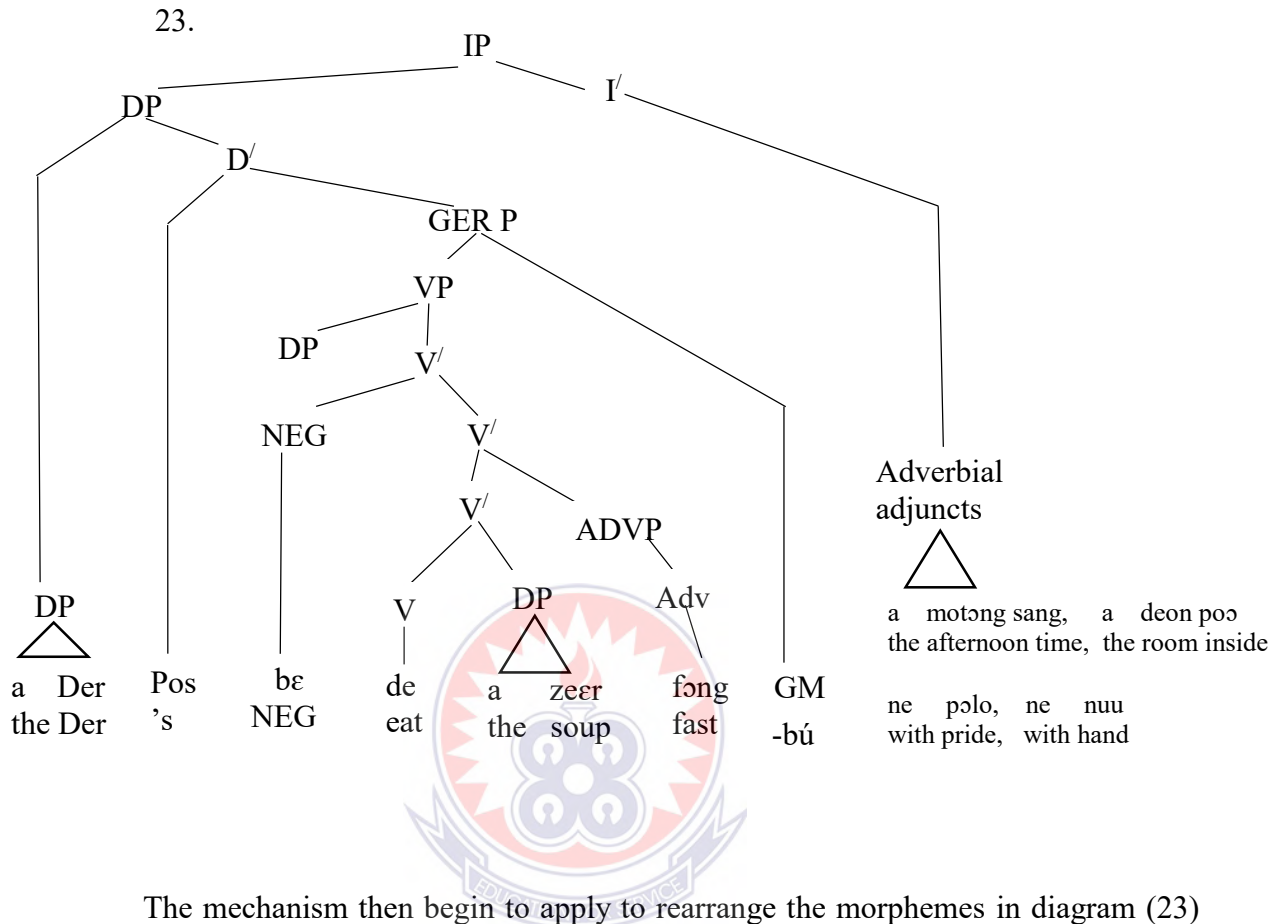
The mechanism then begin to apply to rearrange the morphemes in diagram (23)

above. First there is a merging of the specifier with its main verb. The merging reflects

phonologically as the word boundary between the specifier and the verb is lost and they

are pronounced as one word. The merging is illustrated below in (24). (24 is the adapted

version of Baker, 2005).

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24.
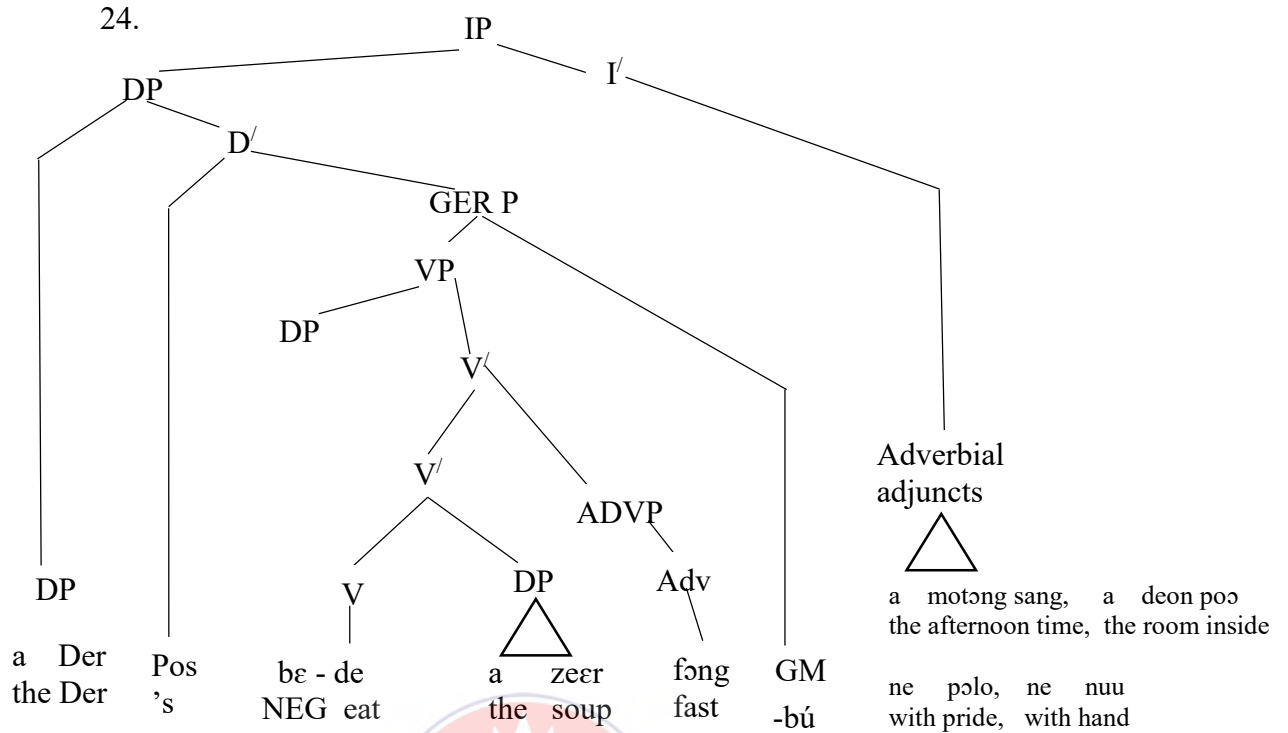
Head-to-head movement then occurs to diagram (24) above. The merged head, **bɛ-de,** moves to the GM. As Harley (2011) rightly said head to head movement mostly results in a right headed new form. When the newly merged head moves to the GM it adjoins to the left of GM resulting in a right headed gerund. This phenomenon is illustrated in (25) below;

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25.

```
                              IP
                        /          \
                  DP              I/
                /    \               \
             /       D/               \
            /       /   \              \
           /       /    GER P          \
          /       /     /    \          \
         /       /    VP      GM         \
        /       /   /   \    /  \         \
       /       /  (DP)  V/  /    \         \
      /       /         |  /      \         \
     /       /         V/ \        \         \
    /       /         /  \ ADVP     \         \
   /       /        V    DP   \      \    Adverbial
  /       /         |    /\    Adv    \    adjuncts
 DP      /          |   /  \    |      \      △
 △      Pos        ti  a  zeɛr fɔng   Vti
a  Der  's              the soup fast bɛ-de  -bú
the Der                              NEG eat  GM
```

a motɔng sang, a   deon pɔɔ
the afternoon time, the room inside

ne pɔlo, ne   nuu
with pride,   with hand

The two mechanisms offer explanations to lots of things. First, they explain why the specifier is always unbreakably adjacent to the gerund; second they explains why the GM is a suffix to the verb root; third they explain why all elements in the VP occur to the left of the gerund, and fourth they explain why there are no TAMPs as part of the gerund phrase. However the default perfect in the main verb is captured in the gerund. This is consistent with Bodomo's (2004) finding. These explainations further give understanding to the ungrammaticality of the sentences in (26) to (28) below;

26. *A kɔb weɛ ne nii me e ne fɔng

à   kɔ́   b   wíɛ́   nĩ̌   nĩ́ĩ̌́   mĩ̌   ìnĩ̌   fɔ́ng
Def plough. GM farm with cattle always BE fast
'the ploughing farm with cattle always is fast'

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27. ***A Der motɔng sang, deon poɔ, pɔlo, nuu zeɛr bɛ fong deb e na**

à	dér	mútɔ́ng	sang,	dìón	púɔ́,	pɔ̀lò	núú
Def.	Der.Pos	afternoon	time.Pos	room	inside.Pos	pride.Pos	hand.Pos

zíɛ́r	bɛ́	fɔ́ng	dí	b	ì	nã̌
soup.Pos	NEG	fast	eat	GM	do	Foc.

'The Der's afternoon time's room inside's pride's hand's soup's fast not eating did'
(Der not eating the soup fast with his hand and with pride in the afternoon in the room is good)

28. ***A Der zeɛr me fong deb a motɔng sang, a deon poɔ, ne pɔlo, ne nuu wa ne ne suur**

à	dér	zíɛ́r	mĩ̀	fɔ́ng	dí	b	à	mútɔ́ng
Def.	Der.Pos	soup.Pos	always	fast	eat	GM	Def.	afternoon

sáng,	à	dìón	púɔ́,	nĩ̌	pɔ̀lò,	nĩ̌	núú	wà	nĩ̌	nĩ̌	sùùr
time	Def.	room	inside	with	pride	with	hand	bring	with	Foc.	anger

'The Der's soup's always again fast eating Def.afternoon time, Def.room inside, with pride, with hand bring anger'

In (26) above, the sentence is ungrammatical because **weɛ** 'farm' should occur to the left of the gerund; however, in (26) it occurs to the right of the gerund. In (27) above the sentence is ungrammatical because the adjacency between the specifier, **bɛ,** and the gerund is broken. In (28) above, the ungrammaticality is due to the fact that **me** 'always' is a modal and modals generate outside VP so they cannot be part of the gerund phrase.

In explaining government, theta role assignment and case marking, the analysis duels on the understanding of c-command created under the theoretical review. Discussions are with reference to diagram (25) above. **Der** which is in the DP specify position (and any element with the same privilege of occurrence) takes the genitive case and bears the theta

role of AGENT during gerund phrase formation. The genitive form is explainable by the adjacency with the possession morpheme. However it is not possible for a noun in such a position to be assigned a theta role. This does suggest that nouns in DP specifier position during gerund formation are always the underlying subjects of the clause which is being turned into a gerund phrase. The finding here contrasts with Nepožitková's (2010) finding in studying the gerunds of English. He observed that the underlying subject in the gerund phrase could be in the nominative or the objective case. However in Nandome the underlying subject of a gerund phrase is always in the nominative and genitive case.

A zeɛr 'the soup' occurs as complement of the verb. All elements with the same privilege of occurrence as **zeɛr** take the genitive form and bear the theta role of PATIENT during gerund phrase formation. The theta role result from the fact that the noun was governed by the verb. After the movement of the verb the PATIENT role is maintained by the noun. However the noun in such a position takes a genitive form. This is because since the verb has moved away, there is no other governor interjecting government from the possession morpheme. Observe the bold forms in (25) above. The first branching node that dominates **Pos** is **D$^{/}$** and **D$^{/}$** also dominates **zeɛr,** but neither does **Pos** dominate **zeɛr** nor **zeɛr** dominate **Pos.** Hence **Pos** c-commands **zeɛr.** Since **Pos** is a governor c-commanding **zeɛr** and there is no other governor interjecting then **Pos** governs **zeɛr.** It is based on this that **Pos** assigns **zeɛr** genitive case.

4.3.2 Ambiguity arising from gerund formation

Structural ambiguity can arise in gerund formation in Nandome. This ambiguity is caused by nouns in DP specifier positions. Consider sentence (29) below and the two possible interpretations it has;

29. A bie bondere deb bɛ veɛl ɛ

à   bie   bóndìrí   dí b bɛ́ vìɛl ɛ̀

Def. child.Pos   Food.Pos eat GM NEG nice Foc.

'the child's food's eating not nice'

(eating the child's food is not good)/ (the way eating is done by the child is not good)

The construction in (29) has two meanings. It could mean that **bie** 'child' is the AGENT of the eating and it could also mean that the food that was eaten belongs to or was meant for **bie** 'child'. This is illustrated in the different structural outlines in (30a) and (30b) below.

30. a

```
                              IP
            ┌──────────────────┴──────────────┐
           DP                                  │
        ┌───┴────┐                             │
        │        D'                            │
        │     ┌───┴──────┐                     │
        │     │        GER P                   │
        │     │      ┌────┴─────┐              │
        │     │     VP          GM             │
        │     │   ┌──┴──┐     ┌──┴──┐          │
        │     │  DP    V'     │     │          │
        │     │      ┌──┴──┐  │     │          │
        DP    │      V    DP  │     │          I'
       /△\    │      │   /△\  │     │         /△\
      a  bie  Pos    ti Bondere Vti  -bú     bɛ   veɛl ɛ
    the child 's          food  de   GM    NEG nice Foc
                                eat
```
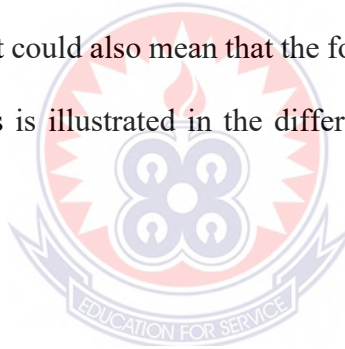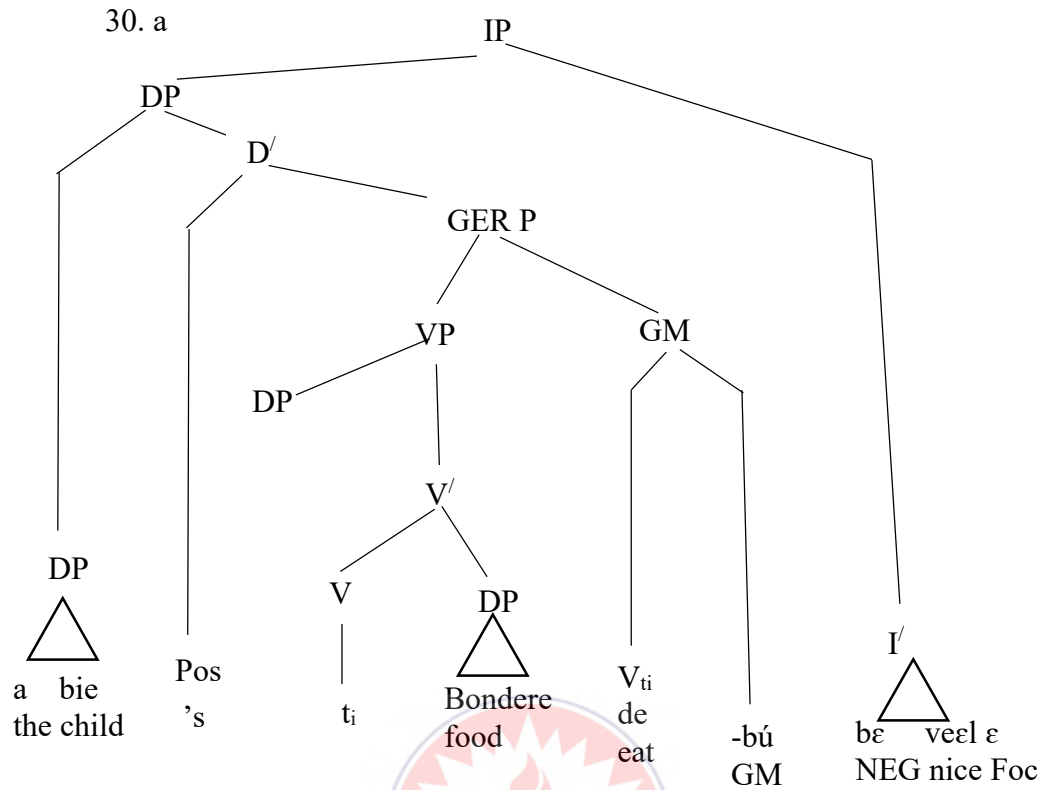
The construction analysed in (30a) has the meaning that **bie** 'child' is the AGENT who carried out the eating. This is because where **bie** occurs is where the subjects of the underlying clause occur. Now (30a) is in contrast with (30b) below;

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30.b
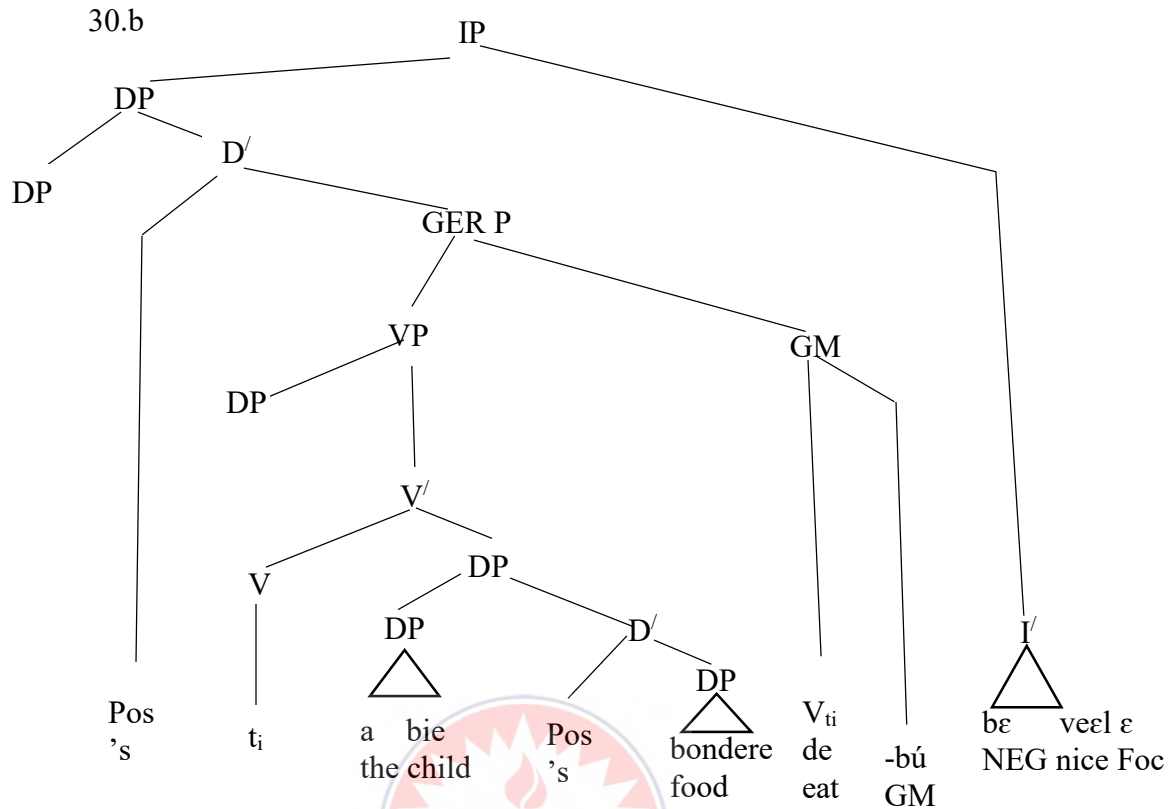
The construction in (30b) means that the eating was carried out on the food which belongs to or is meant for the child. This is because where **bie** occurs in (30b) makes it a genitival modifier to the underlying object, **bondere** 'food'. It will be proved later how the ambiguity can be resolved by the use of sentential adverbials.

The theory also holds some explanations for the movement of sentential adverbials. The movement of adverbials from the right side to the left side of the gerund is enabled by the recurrence in the DP. The DP that specifies VP expands thereby creating empty slots which will serve as landing sides for the adverbials. These adverbials though they lack strict order in their initial rightward position, gain a strict order when being moved to the left side of the gerund. For simplicity diagram (25) is modified by cutting off all projections

under the left branch apart from the VP. With these modifications the movement of adverbials (raising of adverbials) is illustrated in (31) below;

31.

Once again remember that the illustration in (31) is presenting an expansion of the circled DP in (25). This implies that the expanded DP in (31) is what fits into the position of the circled (DP) in (25). The illustration in (31) explains why sentential adjuncts come in between the subject and the object arguments. Violation of this phenomenon will lead to ungrammaticality as in (32) and (33) below;

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32. *A motong sang, deon poɔ, pɔlo, nuu Der zeɛr fong deb wa ne ne suur

à	mútɔ́ng	sáng,	dìon	púɔ́,	pɔ̀lò,	núú	dɛ́r
Def.	afternoon	time.Pos	room	inside.Pos	pride.Pos	hand.Pos	Der.Pos

zíɛr	fɔ́ng	dí	b	wà	nĩ̀	nĩ̀	sùùr
soup.Pos	fast	eat	GM	bring	with	Foc.	anger

'The afternoon time's, room inside's, pride's, hand's Der's soup's fast again eating bring anger'

(Der's eating the soup fast with his hand and with pride in the room in the afternoon caused anger)

33. *A Der zeɛr motong sang, deon poɔ, pɔlo, nuu fong deb wa ne ne suur

à	dɛ́r	zíɛr	mútɔ́ng	sáng	dìon	púɔ́	pɔ̀lò
Def.	Der.Pos	soup.Pos	afternoon	time.Pos	room	inside.Pos	pride.Pos

núú	fɔ́ng	dí	b	wà	nĩ̀	nĩ̀	sùùr
hand.Pos	fast	eat	GM	bring	with	Foc.	anger

'The Der's soup's afternoon time's, room inside's, pride's, hand's fast again eating bring anger'

(Der's eating the soup fast with his hand and with pride in the room in the afternoon caused anger)

It is also understandable why sentential adverbials are in the genitive form after they move to the left of the gerund. The reason is that once they occupy the empty DP specifier slots they are adjacent to the possession morpheme (Pos) and in DP analysis the possession morpheme attaches to the noun in the DP specifier position (Carnie, 2013).

The adverbials also have some theta role assignments. **Ne nuu** 'with hand' is a prepositional phrase where the preposition assigns the noun the theta role of instrument. **Ne pɔlo** 'with pride' is a prepositional phrase where the preposition assigns a manner role

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to the noun. **A deon pɔɔ** 'the room inside' is a postpositional phrase where the postposition assigns the noun the theta role of location. **A motɔng sang**, is a DP 'the afternoon time'. Because the noun **sang** 'time' occurs there is no need assigning the time role again. In Nandome generally time role is not always assigned rather the noun **sang** 'is always used to show that time is being indicated'.

There is proof that sentential adverbs can help solve the ambiguity talked about in (30a) and (30b). This is how it works. Sentential adverbs are moved to DP specifier position which lies in between the subject argument and the object argument. It does follow that sentential adverbs come after subject arguments but before object arguments. Following this we can disambiguate (30a) with (30b) by raising the sentential adjunct to the left side of the gerund. This is done below in (34) and (35);

34. **A bie motɔng sang bondere deb bɛ veɛl ɛ**

à	bie	mútɔ́ng	sáng	bóndìrí	dí	b	bɛ́	vìɛ̀l	ɛ̀
Def.	child.Pos	afternoon	time.Pos,	food.Pos	eat	GM	NEG	nice	Foc.

'the child's afternoon time's food's eating not nice' (the child's way of eating the food in the afternoon was not nice)

35. **A motɔng sang bie bondere deb bɛ veɛl ɛ**

à	mútɔ́ng	sáng	bie	bóndìrí	dí	b	bɛ́	vìɛ̀l	ɛ̀
Def.	afternoon	time.Pos	child.Pos	Food.Pos	eat	GM	NEG	nice	Foc.

'the afternoon time's child's food's eating not nice' (eating the child's food in the afternoon is not nice)

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Now in the sense of sentence (34) the meaning is that the child is the AGENT doing the eating and this is because sentential adverbials come after subject arguments. In the sense of (35) the meaning is that the food that was eaten belongs to or is meant for the child and this is because sentential adverbials come before object arguments and **bie** 'child' happens to be a genitival modification to the object argument so the sentential adjunct comes before it.

4.3.3 The exceptional cases of I-lowering

In the literature review, it was argued that **te** and **lɛ** are TAMPs and as such they not part of the VP. All along in this chapter we have also argued that it is the VP that exceptionally comes under the projection of a nominal inflection (Ger P) and then both are dominated by a DP. It then follows that **te** and **lɛ** cannot take part in gerund phrase formation. However **te** and **lɛ;** unlike the other TAMPs, occur in gerund phrases whilst such constructions maintain grammaticality. This constitutes an exceptional case. Such constructions include (36) and (37) below;

36. **A laa lɛ deb na wa ne a yele**

à	láá	lὲ	dé	b	ná	wà	nĩ̃	à	yélé
Def.	bowl.Pos	again	take	GM	BE	come	with	Def	issue

'The bowl's again taking is come with issue' (taking the bowl again brought an issue)

37. **A baalo so a n bɛ te kyenu**

à	báálʊ́	só	à	ĩ̃	bɛ́	tì	kyén	ú
Def.	sickness	own	Def.	1SG.Pos	NEG	Asp.	go	GM

'The sickness own my not going' (being sick caused my not going (as at the time referred to))

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The only possible way to account for the grammaticality of forms like this is to subscribe to the view of I-lowering exceptionally linked to **te** and **lɛ** but not any other TAMP. This I-lowering happens before the VP goes under the dominance of GER P. (39) below is an illustration of the I-lowering. Before that (38) is the underlying form of the gerund phrase in (37).

38. N bɛ te kyen ɛ

ĩ	bɛ́	tì	kyén	ɛ́
1SG.	NEG	Asp.	go	Foc.

'I not at that time go' (I did not go (as at the time referred to))

(38) is analysed in (39) in terms of I-lowering;

39.
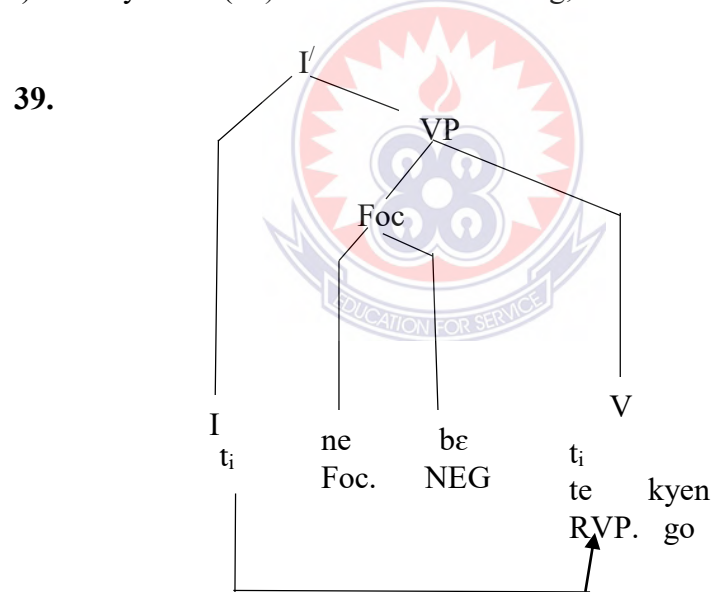
The argument is that the illustration in (39) above happens before the VP goes under the dominance of GER P where it undergoes the other processes. This is evident in the fact that, whenever **te** or **lɛ** occurs alongside a specifier in a gerund phrase or in verb phrase it

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breaks the adjacency between the specifier and the gerund (see construction (37) and (38) where **te** occurs alongside the specifier **bɛ**). After I-lowering all the other syntactic processes concerning gerund formation in Nandome still apply. I-lowering exceptionally occurs when **te** or **lɛ** is involved and it is therefore not an obligatory process that must happen at all times.

4.3.4 Forming gerunds from double object constructions

Before going into any illustrations, some examples are presented in (40a) and (41a) below. They are the underlying clauses from which the gerund phrases in (40b) and (40b) are derived;

40. a. **O lɛ ko ne Mwen a gan**

    ʊ̀   lɛ̀   kʊ̀   nĩ́   mwín à   gán

    3SG again give.Perf Foc. Mwen Def book

    'He/she gave Mwen the book again'

b. **O Mwen gan lɛkob na song na**

    ʊ̀   mwín   gán   lɛ̀   kʊ́   b   nã̀   sóng   nã̀

    3SG.Pos Mwen.Pos book.Pos again give.Perf GM will help Foc

    'His/her giving Mwen the book again will help'

41. a. **Bayuo bɛ yang a dobaa bondere a zaanuora sang ɛ**

    báyúó bɛ́   yáng à   dobáá bóndìrí a   zaanʊ̀ɔ́rà sang ɛ́

    Bayuo NEG put Def. pig   food   Def. evening time Foc

    'Bayou not put pig food the evening' (Bayuo has not fed the pigs in the evening time)

b. **Bayuo zaanuora sang dobaa bondere bɛyangfo sa na**

báyúó	zaanʊ̀ɔ́rà	sáng	dobáá	bóndìrí	bɛ́	yang	fʊ́
Bayuo.Pos	evening	time.Pos	pig.Pos	food.Pos	NEG	put	GM

sà	ná
better	Foc.

'Bayou's evening time's pig's food's putting better.' (Bayuo not feeding the pigs in the evening time)

Observing the above sentences, one will realise that the two objects of the verb maintain their adjacency during gerund formation. The specifier maintains its merging relationship with the verb. The adverbial also moves in between the subject and the two objects. All these are evidence that apart from the fact that the VP contains two objects all the processes are the same as that in the instance of the single object construction. (42) below is a brief illustration with the construction in (41) above;

42.

```
                                    IP
                    DP                              
                         D′                         
                              GER P                 
                                   VP          Ger      
                              DP                        
                                   V′                   
                         V              DP              
      DP                          DP         DP         
                    Pos                           V_ti        I′
      Bayuo         's     t_i    a    dobaa  bondere  bɛ-yang
                                 the   pig    food    NEG.put  -bú    sa    na
                                                               GM   better Foc
```
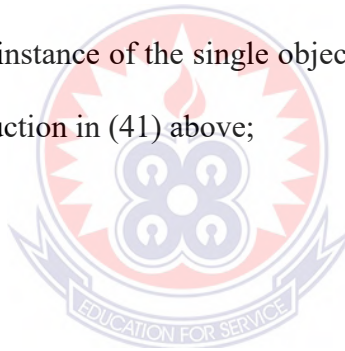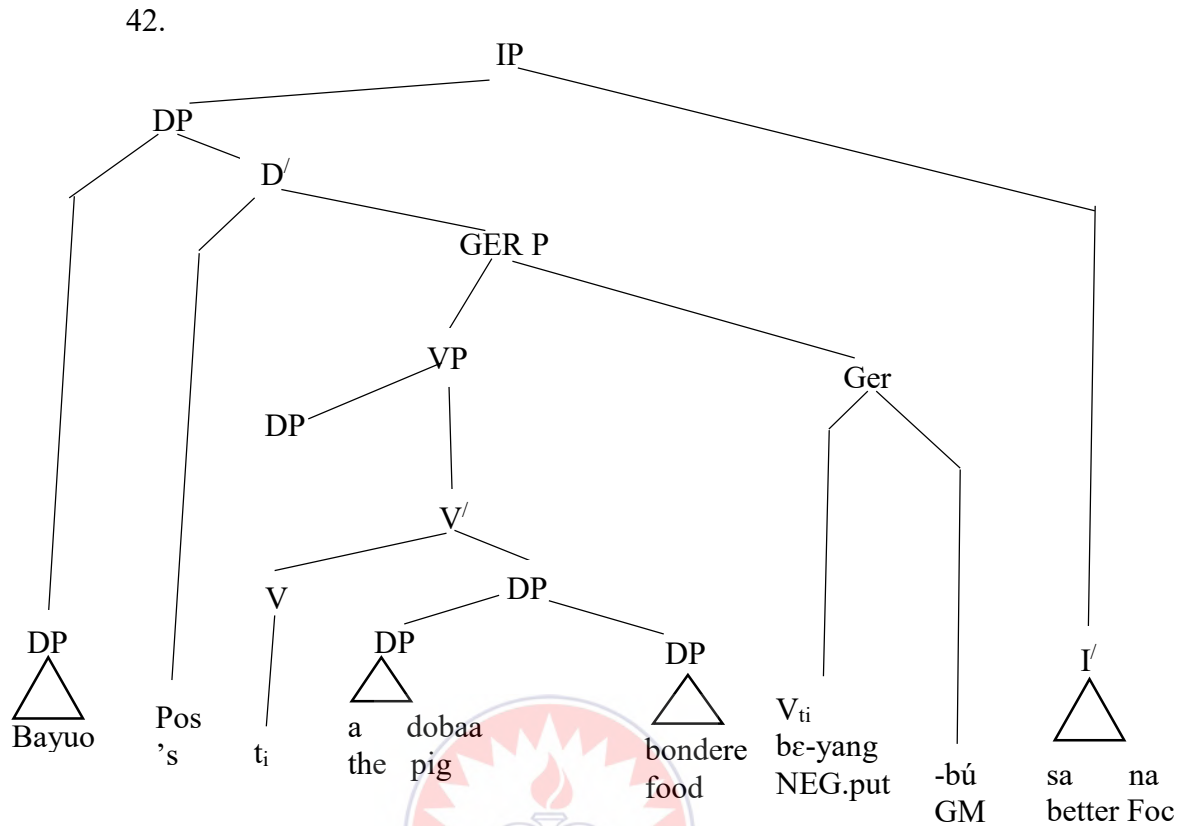
(42) above is the illustration of how gerunds are formed out of double object constructions. It is very similar to the formation of gerunds from a single object construction. Everything discussed in the case of gerund formation from single object constructions equally holds for gerund formation in terms of double object constructions. The two object arguments are given the theta role of BENEFATIVE and PATIENT respectively as they appear in the sentence. Both arguments are also in the genitive case after the movement of the verb. This as we said earlier is because after the movement of the verb, possession (Pos) is then able to govern the two object arguments. The movement of sentential adverbs to the left of the gerund is also possible and it happens the same way as diagram (31) illustrates.

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4.3.5   Forming gerunds from serial verb constructions (SVC)

In the literature review it was mentioned that Bodomo (2004) proposed that gerund phrases are formed from SVCs in a similar way as how gerund phrases are formed from single verb constructions. It was also stated that there is proof that a similar phenomenon happens in Nandome. Consider the grammaticality of the forms in (43)-(45) below;

43. a. **Der va ne a waab ko**

dɛr   và   nĩ̃   à   wááb   kʊ́

Der   hit.Perf   Foc. Def. snake   kill

'Der hit the snake kill' (Der hit and killed the snake)

b. **a waab va kob**

à   wááb   và   kʊ́   b

Def. snake   hit   kill   GM

'the snake hit killing' (Der's hitting and killing the snake)

44. a. **o gɔr re daar bal**

ʊ̀   gɔ́r   rí   daar   bál

3SG   cut.Perf   Foc. wood   tired

'He/she cut wood tired' (he/she chopped firewood and got tired)

b.   **daar gɔr balo**

daar   gɔ́r   bál   ʊ́

wood   cut   tired   GM

'wood cut getting tired' (hie/her chopping firewood and getting tired)

45. a. **bɛ kyen na wa**

    bὲ   kyén   nà   wà

    3Pl. walk.Perf   Foc   come.Perf

    'they walk come' (they walked and came)

  b. **kyen waab**

    kyén   wáá   b

    walk   come   GM

    'walk coming' (their walking and coming)

     (43a)-(45a) are the underlying forms from which the gerund phrases in (43b)-(45b) are respectively derived. A simple pattern runs through the derivational processes. This pattern is that the verbs maintain their order. The first verb in the underlying structure becomes the first verb in the gerund phrase. The last verb bears the gerund marker. This implies that the verbs move to the GM in a rightward precedence such that the rightmost verb moves first and attaches to the gerund marker. There is an illustration below in (46);

46.
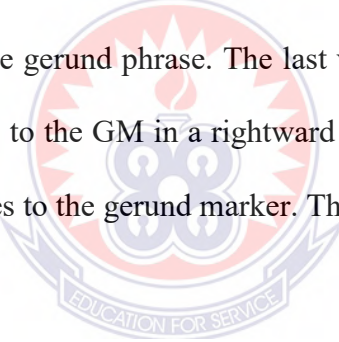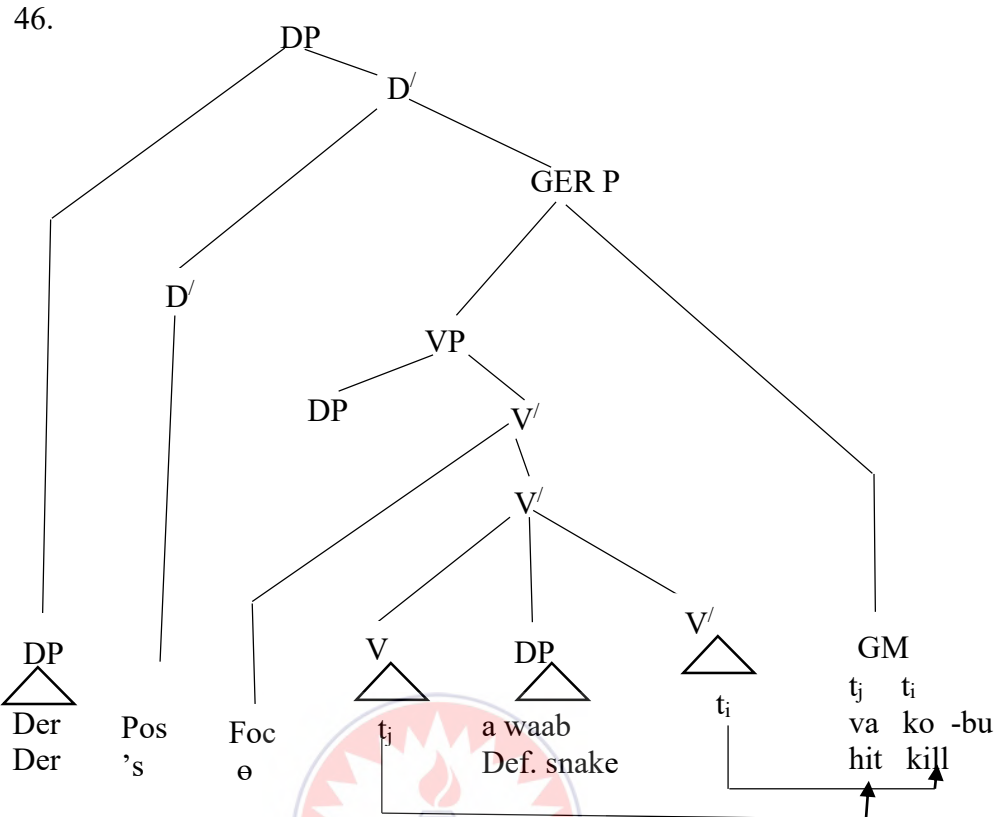
The number of verbs in the series do not have a definite number but one could hear usages of SVCs involving about up to five verbs in a series. In such cases their movement is still in the rightward order of preference.

There are instances of SVCs which represent a sentential adverbial in a way different from how canonical sentences take adverbials. In fact canonical sentences underlie such SVCs. Observe below the construction in (47a) which is a canonical sentence that underlies (48a) which is a SVC that underlies (48b) which is a gerund phrase.

47. a. O va ne waab ne daa

ò   và   nĩ́   waab   nĩ́   dàà

3SG. hit.Perf   Foc.   snake   with   stick

'he/she hit snake with stick'

48. a. **O de ne daa va ne waab**

ò   dé   nĩ́   dàà   và   nĩ́   wááb

3SG. take.Perf   Foc.   stick   hit.Perf   with   snake

'he/she take stick hit snake'

b.   **daa waab de vab**

dàà   wááb   dé   vá   b

stick.Pos   snake.Pos   take   hit   GM

'stick's snake's take hitting'

   However a gerund phrase can also be derived directly from the canonical sentence in (47a) in the form of (47b) below;

47b. o waab vab ne daa

ò   wááb   vá   b   nĩ́   dàà

3SG.Pos   snake.Pos   hit   GM   with   stick

'his/her snake's hitting with stick' (his/her hitting a snake with a stick)

(47b) is opened to the movement (raising) of the adverbial(s) as illustrated in (31), such that, it is possible to also say **o daa waab vab**.

   Observe that in (47a) above there is an adverbial of instrument and in (48a) above the adverbial of instrument is captured in a different way. The formation of the gerund phrase (in 48b) from the SVC in (48a) is illustrated in (49) below;

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(49) Below is an illustration of the formation of a gerund phrase from (48a);

49.
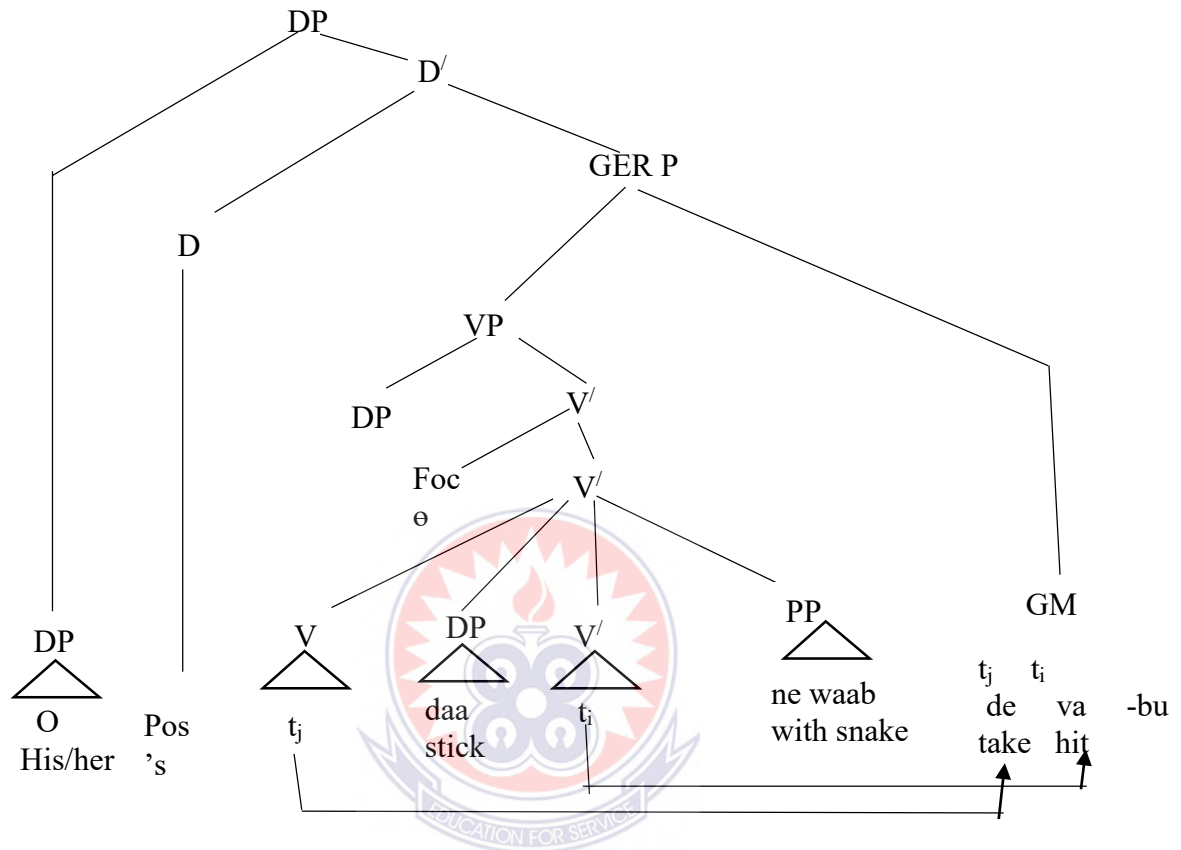
From the above illustration we have the gerund phrase in (48b) (the preposition, **ne** 'with', deletes during gerund formation). Note that **daa** 'stick' is theta marked as instrument and **waab** 'snake' is theta marked as patient. This gives us an interesting phenomenon where similar gerund phrases can be derived from canonical sentences or from SVCs which are in turn derived from canonical sentences.

On the issue of SVCs, Bodomo (2004) found out that in his dialect of study gerunds formed from constructions equivalent to (48a) were not easily seen to be grammatical. In

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Nandome the gerunds formed are grammatical. It thus appears that there are slight syntactic differences between the two dialects as far as gerund formation is concerned.

The internal structure of gerunds in Nandome support Nikitina (2007) who stated that a good number of Niger-Congo languages prepose their objects during gerund formation. In the literature review Nikitina's (2007) is backed by evidences from; Dagaare (studied by Bodomo, 2004), Kusaal (Abubakari, 2011), Ewe and Likpe (studied by Ameka, 2006) and Akan (studied by Boadi unpublished). Nandome further contributes to Nikitina's (2007) statement in that the object is preposed during the formation of gerunds. All these are also in disagreement with Koptjevskaja-Tamm's (2003) who claims that constituent ordering in nominalisations always reflects constituent ordering in regular noun phrases. Nikitina (2007) also argues that most of the Niger-Congo languages have head final gerunds, that is, the gerund marker occurs to the right of its verb root. Nandome, Dagaare and Kusaal which are Gur languages all have head final gerunds. It can therefore be stated relatively that Gur languages do not involve reduplication during the formation of gerunds but they make use of suffixation during the formation of gerunds.

The internal structure of the gerund phrase in Nandome is also consistent with the claims of Chomsky (1970) and Perekhvalskaya (2011) that the gerund phrase does not always have the internal structure of the prototypical noun phrase. This is evident in Nandome in that the elements that are possible in the gerund phrase are varied from the elements possible in a prototypical noun phrase. For instance the gerund phrase cannot take adjectives like the noun phrase does and the noun phrase cannot take negation like the gerund phrase does.

The X-bar theory was used to analyse the internal structure of gerund phrases and it is appropriate to discuss the implications that the findings herein, have on the theory. This implies that the current research agrees with the concepts in the theoretical review. In terms of the DP structure used for the analysis of gerund formation, Abney's (1987) version which was used by Bodomo (2004) suggests that the gerund marker is a special instance of number. Baker (2005) considered the gerund marker as just a nominal inflection. However, findings in Nandome in this research show that the gerund in Nandome is unable to take number inflection and this is complemented by earlier findings in Bodomo (2004). In this respect, the idea that the gerund marker is a special instance still holds for some languages. Following that the gerunds in Nandome cannot inflect for number we can also conclude that they belong to the class of non-count nouns. This is unlike Ameka's (2006) findings with Likpe, where gerunds are formed sometimes by using noun markers.

The formation of gerunds in a DP also proves Baker (2005) point that a gerund is not a single entity that belongs simultaneously to the noun and the verb category; rather, it is a form made of two parts where one part is from the verb category and another part is from the noun category. This claim is further buttressed by the fact that the gerunds in Nandome are bimorphemic and never monomorphemic.

With the internal structure of the gerund phrases it has been proven that all arguments to the left of the gerund are in the genitive form and it has also been explained with the X-bar theory why this is so. Additionally these findings are consistent with other findings in works on gerunds. In the literature review it is stated that it may be linguistically universal that the subject arguments are inherited into gerund phrases as genitives. This

claim is based on findings from Boadi (unpublished), Nepozitkova (2010) and Kremers (2003). In Nandome the underlying subject is also inherited as a genitive. In this light Nandome shares something extra with Boadi (unpublished) which is also a Niger-Congo language but belongs to the Kwa sub group unlike Nandome which is Gur. The extra thing is that Boadi (unpublished) mentions that all arguments to the left of the gerund are in the genitive and the genitive recurs to make this possible. In Nandome all arguments that occur to the left of the gerund are also in the genitive which is made possible by the recurrence of the DP. Despite this similarity there is also a difference between the current research and Boadi (unpublished). The difference is that Boadi identified that gerund formation is through I-lowering. In the case of Nandome there are two exceptional cases of I-lowering. However gerunds in Nandome are formed with the DP as it has been illustrated in this chapter. Still considering the mechanism of gerund formation the findings in Nandome are much similar to that of Bodomo (2004) who also argues that the gerunds are formed in a DP that exceptionally dominates a VP. The difference in mechanisms of the formation of gerunds may also index language groupings. For example, Bodomo (2004) and the current study looked at Gur languages and in both instances gerund formation takes place in a DP.

4.4 The Sentential Distribution of Gerund Phrases (Question 3)

The sentential distribution can also be termed as the external distribution or clausal distribution of the gerund phrase in Nandome. The research question seeks to find out which clausal elements that the gerund phrase in Nandome can represent. This will be explained using the X-bar theory once again. There is proof in the X-bar syntax that the gerund in Nandome can function in all the positions of a noun: as subject, as object, as indirect object and as object of preposition or postposition. The analysis here will be much related to case assignment.

Frist of all, the gerunds in Nandome are capable of occurring in clause subject position. The following sentences (50) and (51) are evidences;

50. A libie pob song o na

à	li`bi´é	pó	b	song	ʋ̀	nà
Def.	money.Pos	share	GM	help.Perf	3SG	Foc.

'the money's sharing come help him/her' 'sharing the money helped him'

51. A tero sɛlo wa ne ne maaro

à	tìro	sɛ́l	ʋ́	wà	nĩ̌	nĩ̌	mʰáárʋ́
Def.	trees.Pos	plant	GM	come	Foc.	with	shade

'the planting of the trees brought shade'

Radford (1981) is of the view that an NP is marked nominative when it occurs as subject of a tense clause. (52) is an illustration of a gerund phrase acting as subject of a tense clause.

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52.
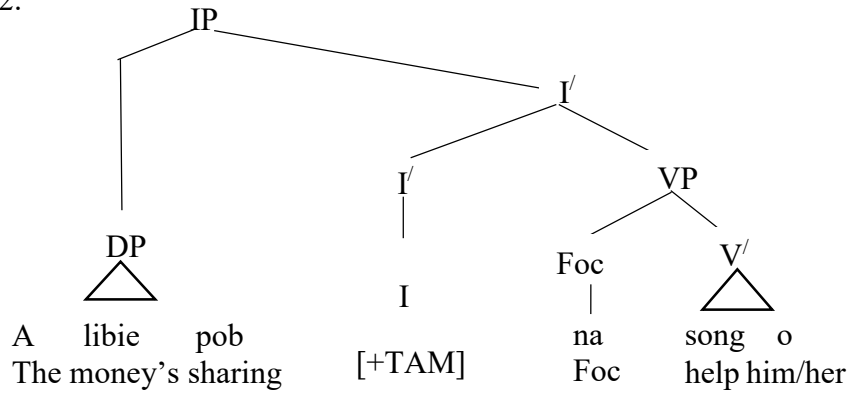
The gerund phrase in (50) comes under the DP of the IP in (52) and it is a subject of a tense clause and for that reason matches the definition of a nominative case as stated by Radford (1981: p. 327) 'NP is nominative if the subject of a tensed clause'. The nominative case is not shown phonologically. In this light the gerund phrase is similar to the prototypical noun.

The gerund can also take an object position in a clause. (53)- (55) are examples of the gerund acting as object.

53. O zagr re a yir kulu

ʋ̀   zágr   ré   à   yi´r   kúl   ú
3SG. refuse.Perf   Foc.   Def.   home.Pos   go   GM
'he/she refuse home's going' (he/she refused the going home)

54. bɛ bang ne nii kɔb

bɛ̀   báng   nǐ   nĩ´ĩ´   kɔ́   b
3Pl   know   Foc.   cattle.Pos   farm   GM
'They know cattle's farming'

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55. a ko ne a kyenu pɔlo

à	kʊ́	nĩ̌	à	kyén	ú	pɔ́lʊ́
3Pl[-human]	give	Foc.	Def.	walk	GM	style

'they gave the walking a style'

The constructions in (53) and (54) above contain gerunds which are in object position whilst (55) above contains a gerund which is in an indirect object position. Radford (1981) argues that NPs are put in an objective case if governed by a verb without another governor interjecting (that is if a verb minimally c-commands a noun). Consider (56) below.

56.

From the above illustration in (56), the verb actually minimally c-commands the two nouns which implies that since the verb is a governor it case marks the nouns as objective. The objective case assignment to gerunds just like that of prototypical nouns is not realised phonologically.

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Gerund phrases can also occupy the position of prepositional or postpositional objects. (57) and (58) below are constructions that exemplify that;

57. A dambeɛ wa ne ne zɔba

à	dambĩɛ̃	wà	nĩ	nĩ	zɔb	á
Def.	fear	come.Perf	Foc.	with	run	GM

'The fear came with running' (the fear caused running)

58. sɛsɛb song ne a sagɛ peero poɔ

sèsèb	sòng	nĩ	à	sàgɛ́	píír	ʋ́	pʋ́ɔ̀
wind	help	Foc.	Def.	rubbish.Pos.	sweep.	GM	inside

'wind help the rubbish sweeping inside' (the wind helped in the sweeping of the rubbish)

(57) above, presents a gerund in the position of a prepositional object whilst (58) presents a gerund in a postpositional object position. According to Radford (1981) an objective case can also be assigned by a preposition or postposition. This is illustrated in (59) below.

59.
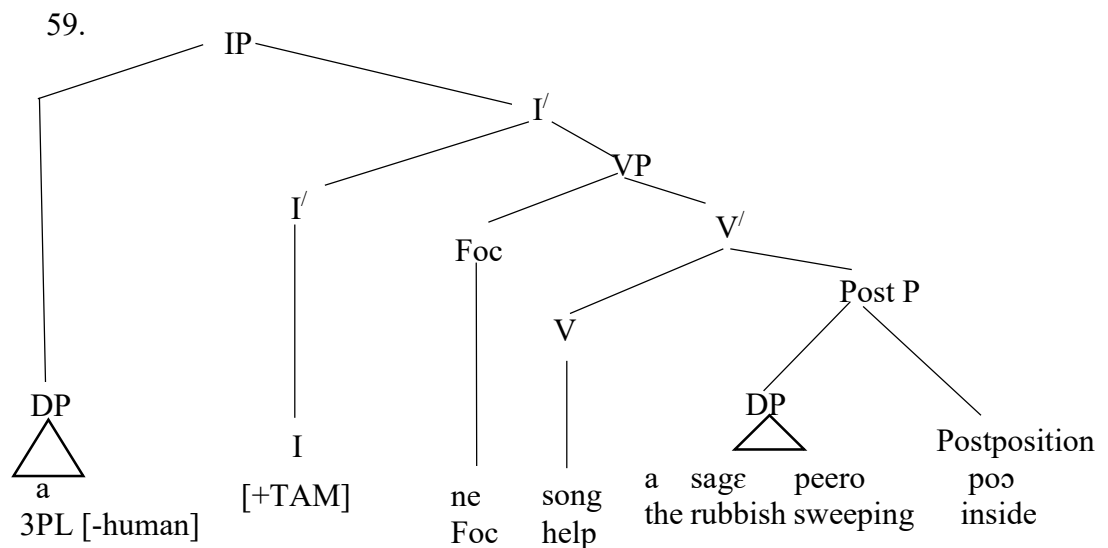
The illustration above indicates that the postposition, **poɔ** 'inside' minimally c-commands the gerund, **peero** 'sweeping' and thus is able to assign it objective case. Once again the case assigned is not realised phonologically. A similar thing happens with the prepositions. This is not different from how prototypical nouns occur in prepositional or postpositional object positions.

The gerund phrase in Nandome can also be put in the genitive form. In this sense it is able to modify another gerund or noun. Consider constructions (60) and (61) below.

60. A yir mɛb zie ne a ka

à   yi´r   mɛ́   b   zi´é   nĩ̌   à   ká
Def.   house.Pos.   built.   GM.Pos   place   BE   Def.   here
'the house's building's place is the here' (the place for the building of the house is here)

61. A labɛ pɛgfo bɛro na wa ne a lɛ

à   lábɛ́   pɛ́g   fʊ́   bɛ́r   ʊ́   nã̌   wà   nĩ̌   à   lɛ́
Def. bowl.Pos.   wash   GM.Pos   stop   GM   BE.   come   with   Def.   that
'the bowl's washing's stopping is come with the that' (stopping the washing of the bowls is what brought about that)

Alexiadou et al (2007) and Carnie (2013) are of the view that in a DP a noun can be assigned a genitive case when it occurs in the specifier position of a DP adjacent to the possession (Pos) which is the head. The illustration in (62) evidences this. Consider (62) below.

62.

```
                                    IP
                  DP                       
            ┌──────────┴──────┐       ┌──────┴──────┐
           DP              D′         │            I′
            △         ┌────┴────┐      │            △
        a  yir  mɛb   D        DP     │        ne  a   lɛ
    the house building Pos      △              is  the that
                        's    zie
                              place
```

The gerund in Nandome is able to occupy all the positions that a prototypical noun phrase can occupy; these positions are mentioned in the review. Boadi (unpublished), Chomsky (1970) and Perekhvalskaya (2011) have all had similar findings. Following this we can conclude that Nandome possesses true gerunds because the gerunds in Nandome possess all the qualities that Chomsky (1970) suggested. The findings also confirm that the Case theory has worked to perfection with Nandome. It also further agrees with the DP analysis especially when it comes to the issue of the genitive marking of a noun.

4.5 The Semantics of Gerunds in Nandome (Question 4)

This section of the analysis deals with the possible interpretations that gerund constructions may have to the speaker as well as the listener. In some cases the conditions underlying a given interpretation will be outlined. The section is divided into four strands: the manner-of-act interpretation; the habit interpretation; negation and habit within the gerund phrase and the emphasis interpretation.

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4.5.1　Manner-of-act interpretation

A gerund construction can be interpreted as focusing on a manner-of-act. According to Boadi (unpublished), in discussing gerunds in Akan, gerundial constructions can be interpreted as having a MANNER semantic component. Lees 1960, Bowers 1969, Fraser 1970, all cited in Boadi (unpublished), have had similar findings in English. Consider the following gerund constructions in (63) and (64) below;

63. e nɔnɛ ne a dɔɔ nga kyenu

ĩ   nɔ̀nɛ́ nĩ   à   dɔ́ɔ́   ngà   kyén   ú

1SG like Foc. Def. man's this walk GM

'I like the man's this walking' (I like this man's walking)

64. o kyɔɔre ne a dɔɔ bondere deb

ʋ̀   kyɔ̀ɔ̀rè   nĩ   à   dɔ̀ɔ̀   bóndìrí   dí   b

3SG imitate.Perf Foc. Def. man food.Pos eat GM

'he imitate the man food's eating' (he imitated the man's way of eating food)

In (63) the interpretation is that the speaker is reporting that he likes the MANNER in which the man walks. Similarly in (64) the interpretation is that a person is reported to have imitated the MANNER in which the man eats. However there are conditions that determine the MANNER interpretation. These conditions as found from the available data in Nandome are similar to those found in Boadi (unpublished). These include;

65. a. The verb that governs the gerund phrase should be one that belongs to the class of cognition. Such verbs include: learn (**zane**); know (**bang**); teach/show (**wul**); imitate (**kyɔɔre**); describe (**mane**) among others. Some examples include;

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b. **Zane mwab**

    zànì   mwá   b

    learn write GM

    'learn writing' (learn how to write)

c. **Mane a sɛbo**

    mání   à   sɛ́b   ʋ́

    describe Def. dance GM

    'describe the dancing' (describe how the dancing is)

66. a. The verb governing the gerund phrase should belong to the class of emotions.

    Such verbs include: like (**nɔnɛ**); dislike (**bɛ nɔnɛ**); hate (**kyiir**) among others. Some

    examples include (b) and (c).

b. **e bɛ nɔnɛ ne a dɔɔ nga laaro**

    ĩ   bɛ   nɔ̀nɛ́ nĩ̃   à   dɔ́ɔ́ ngà láár ʋ́

    1SG NEG like Foc. Def. man's this laugh GM

    'I don't like the man's this laughing' (I don't like this man's way of laughing)

c. **bɛ kyiir ri a bie zema**

    bɛ̀ kyi´i´r ri´ à bi´é zím á

    3Pl hate Foc. Def. child sit GM

    'they hate the child's sitting' (they hate the child's way of sitting)

    However not all gerundial constructions can express the MANNER interpretation.

Consider the gerundial constructions below in (67) and (68).

67. e nɔnɛ ne kyenu

ĩ   nɔ̀nɛ́   nĩ̀   kyén   ú

1SG   like   Foc.   walk   GM

'I like walking'

68. e bɛ nɔnɛ kyenu ɛ́

ĩ   bɛ̀   nɔ̀nɛ́   kyén   ú   ɛ́

1SG   NEG. like   walk   GM   Foc.

'I don't like walking'

These do not express MANNER interpretation. This reveals a major difference in terms of MANNER reading between the verbs of cognition and the verbs expressing emotional state. The difference is that verbs within the class of cognition do not need the gerund phrase to have an underlying subject in the gerund phrase. However, the verbs that express an emotional state need the gerund phrase to have an underlying subject. Where the underlying subject of the action is omitted in the case of verbs expressing state of emotions the construction cannot have a MANNER interpretation, this is evident in (67) and (68) where there is no underlying subject of the action.

4.5.2 Syntax and semantics of Habit in a Gerund phrase

Gerunds in Nandome are able to express habit. This interpretation is realised phonologically. The interpretation denotes that the act expressed by the gerund is carried out habitually. Consider the following examples in (69) and (70) that contain gerunds.

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69. a.   **a o pɔg bɔb na so o bɛ zane ɛ**

à   ù   pɔ́g   bɔ́   b   ná   só   ù   bɛ́

Def.   3SG   Pos   woman   Pos   search   GM   BE   cause   3SG   NEG

zàní   ɛ́

learn.Perf   Foc.

'the his woman's searching is cause he/she not learn' (his searching for a woman

   caused him not to learn)

b.   **a o pɔɔ bɔ na so o bɛ zane ɛ**

à   ù   pɔ̀ɔ̀   bɔ́   ná   só   ù   bɛ́   zàní

Def.   3SG   Pos   woman   Pos   search.GM.Hab   BE   cause   3SG   NEG   learn

ɛ́

Foc.

'the his woman's searching habitually that cause he/she not learn' (his habit

   womanising caused him not to learn)

70. a.   **a o koɔ ɔŋfo na song**

à   ù   kṹɔ̃   ɔ́ng   fʊ́   ná   song

Def.   3SG.Pos   water.Pos   fetch   GM   BE   help.Perf

'the his/her water's fetching that help' (his/her fetching of the water is what

   helped)

b.   **a o koɔ ɔŋ na song**

à   ù   kṹɔ̃   ɔ́ng   ná   song

Def.   3SG.Pos   water.Pos   fetch.GM.Hab.   BE   help.Perf

'the his/her water's fetching that help' (his/her habitual fetching of water is

   what helped)

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The HABIT interpretation is marked phonologically though not through the addition of a sound or a lexical item but rather by deleting the final phonological segment of the gerund, the final phonological segment of the underlying object and the final phonological segment of any lexical item in between the underlying object and the gerund. It is only an adjective to the underlying object that can appear in between the underlying object and the gerund. Some examples include (69b) and (70b) above.

The HABIT interpretation comes with a syntactic condition. The condition is that the gerund must take for a modifier, an underlying object. Examples include (69b) and (70b) where **pɔɔ** 'woman's' and **koɔ** 'water's' serve as underlying objects respectively. This condition explains the ungrammaticality of (69c) and (70c) below;

69.c.   *   **a o bɔ na so o bɛ zane ɛ**

à   ʋ   bɔ́   ná   só   ʋ   bɛ́   zání   ɛ́

Def. 3SG.Pos search.GM.Hab   BE   cause 3SG   NEG   learn   Foc.

'the his/her searching habitually that cause he/she not learn'

70. c.   *   **a o ɔŋ na song**

à   ʋ   ɔ́ng   ná   song

Def. 3SG.Pos fetch.GM.Hab.   BE   help

'it is his/her fetching that help'

With the available data it is only an adjective to the underlying object that can come in between the object and the gerund as long as HABIT interpretation is involved. (71) below is an example;

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71. a. **O nɔnɛ ne sa vela deb**

ʋ	nɔ̀nɛ́	nĩ̌	sà	vìlá	dí	b
3SG	know	Foc.	milletpulb	good	eat.	GM

'he/she know millet pulp good eating' (he/she likes the eating of good milletpulb)

b. **O nɔnɛ ne sa vel de**

ʋ	nɔ̀nɛ́	nĩ̌	sà	vìl	dí
3SG	know	Foc.	milletpulb	good	eat.GM.Hab

'he/she likes millet pulp good eating habitually'

(he/she likes the eating of good milletpulb habitually)

In both (71a) and (71b) observe the items in bold and you will notice that the clipping affects the adjective **vela** 'good'.

In the presence of HABIT the adverb loses its position and moves to the right of the gerund. (72) below is an example to this effect.

72. a. **a saab fong mɔb**

à	sááb	fóng	mɔ́	b
Def.	milletpulp	fast	cook.	GM

'the milletpulp fast cooking' (the act of cooking the milletpulp fast)

b. **a sa mɔ fong**

à	sà	mɔ̀	fóng
Def.	milletpulp	cook.GM.Hab	fast

'the milletpulp fast cooking habitually' (the act of habitually cooking the milletpulp fast)

Observe (72a) and (72b) and notice the movement of the adverb **fong** 'fast'.

4.5.3   Interpreting negation and habit within a gerund phrase

The use of negation and HABIT respectively in relation to other element in the gerund phrase raises an interesting issue in the semantics. There is a pattern that they both follow. That is, if they occur in the gerund phrase and there are adverbials in that phrase, they turn to affect the adverbial and not the gerund anymore. The same thing happens when there is an adjective qualifying the underlying object (73a and 73b) exemplify negation and (74a and 74b) exemplify HABIT;

73. a.   **a Der bondere bɛdeb a weɛ poɔ**

à   dɛ́r   bóndìrí   bɛ́   dí   b   á   wìɛ́   poɔ
Def Der.Pos   food's   NEG eat. GM   Def. farm inside
'the Der's food's not eating the farm inside' (Der not eating the food in the farm)

b.   **A Der zeɛr bɛ deb a motɔng sang, a deon poɔ**

à   dɛ́r   zíɛ́r   bɛ́   dí   b   à   mʊ́t**ɔ́ng**   sang,   à
Def. Der.Pos soup.Pos   NEG. eat GM the afternoon   time.Pos   the
Dìón   pʊ́ɔ̀
room   inside.Pos
'The Der's soup's not eating the afternoon time the room inside'
 (Der not eating the soup in the room in the afternoon)

74. a.   **A sa mɔ fong**

à   sà   mɔ̀   fóng
Def. milletpulp   cook.GM.Hab   fast
'the milletpulp fast cooking habitually' (the habitual cooking of milletpulp fast)

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b. **A sa vel mɔ fong**

à	sà	vìl	mɔ̀	fóng
Def.	milletpulp	good	cook.GM.Hab	fast

'the goodg milletpulp fast cooking habitually' (the habitual cooking of good milletpulp)

In (73a) there is only one adverbial; that is **a wɛɛ poɔ** 'the farm inside' and the negation affects it. Therefore construction (73a) can be interpreted that **Der** ate but not at the farm. An interpretation that **Der** did not eat at all will be wrong. It thus shows that the negative affects the adverbial. It is a similar thing with (74a) where we also have one adverbial **fong** 'fast'. It can be interpreted that the person is in the habit of cooking fast. It could further mean that the person does not like cooking milletpulp but any time he/she does it he/she does it fast.

The (b) counterparts are different and they present a much complex issue. In the (b) counterparts there are more than one adverbial. In (73b) for example there are two adverbials; **a motɔng** sang and **a deon poɔ**. In this context negation affects both adverbials. We can therefore interpret (73b) as that in the afternoon when he was in the room he/she did not eat. It implies that at another time either than the afternoon when he was in the room, he ate. It could also imply that in the afternoon when he was at another place either than the room, he ate.

Similarly in the case of HABIT whenever there are two or more adverbials they are all taken into consideration in the interpretation of the construction. In (74b) for example there are two adverbials; **vela** 'good' (where the final segment has been deleted leaving

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vel) and **fong** 'fast'. (74b) can be interpreted as; he/she has the habit of cooking good milletpulp fast. It could therefore imply that he/she does not like cooking nice milletpulp but anytime he/she attempts it, it is done fast.

The findings here concerning the interpretation of negation is consistent with the finding of Boadi (unpublished) in his study on Akan gerunds. For example, in English as well, the sentence 'his not coming early delayed the event', means the person came but not early. It is wrong to interpret that the person did not come at all. When languages of wide variations have something in common it signals a possibility of a language universal.

4.5.4 Emphatic use of Gerunds

Gerunds in Nandome also have an emphatic use. The emphatic usage of gerunds is observable primarily in the syntax. Emphasis concerning the use of gerunds reflects in the syntax. It is an interesting phenomenon where a gerund becomes an argument to the verb root from which it was formed. Consider the sentences in (75a)-(75c) below;

75. a. **Dɛr zaa yag na**

        dɛ́r   zã̆ã̆   yág   nã̆

        Der   yesterday   dance.Perf   Foc.

         'der yesterday dance' (Der danced yesterday)

   b. **Dɛr zaa yag ne yagfo**

        dɛ́r   zã̆ã̆   yág   nĩ̆   yágfʋ́

        Der   yesterday   dance.Past   Foc.   dance.GM

        'der yesterday dance dancing' (Der did a lot of dancing testerday)

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   c.   **yagfo zaa yag na**

      yág   fʊ́   zǎǎ   yág   nǎ

      dance   GM   yesterday   dance   Foc.

       'dancing yesterday dance' (dancing was done a lot yesterday)

(75a) presents the normal sentence whilst the (75b) and the (75c) present the emphatic forms. The emphasis is marked by the syntax. In (75b) the gerund **yagfo** 'dancing' is an object to its own root verb **yag** 'dance', whilst in (75c) the gerund **yagfo** 'dancing' is the subject to its root verb **yag** 'dance'. (75b) can be interpreted as that **Der** danced beyond measure or he danced more than other people who may have also danced on a similar platform. Observe that in (75b) the subject, **Der**, of the verb **yag** 'dance' is important in the interpretation. In (75c) there is similar emphasis except that the subject **Der** is not present. This results from passivisation of (75b) that deletes the subject, **Der,** and subsequently takes the gerund **yagfo** 'dancing' from the object position to subject position. In terms of the passivized version, the emphasis is on the intensity of the act but not the doer.

4.6 Conclusion

The GM is [bú] which never occurs fully in speech, it is either the consonant deletes or the vowel deletes. There are six allomorphs of the gerund marker [b], [ú], [ʊ́], [fú], [fʊ́] and [bá]. The first five allomorphs occur based on phonological conditions. The internal phrase structure of the gerund phrase is: Def Sub Obj Adv Spec TAMP GM AdvT AdvP AdvM AdvI. This internal phrase structure is different from the internal strucuture of the NP as we saw in the literature. Gerund phrases can occur as subjects, objects, complements

and objects of pre(post)position which is similar to the sentential distribution of an NP. TAMPs are not allowed in the gerund phrase. There are two exceptional instances of I-lowering where the TAMPs, **te** (RVP) and **lɛ** 'again' are involved. When there is an adverbial and NEG in a gerund phrase, the NEG affects the adverbial and not the gerund. A similar thing happens when both an adverbial and HABIT occur in a gerund phrase. When HABIT and adverb are both present in a gerund phrase the adverb moves from the left side of the gerund to the right side of the gerund.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

The chapter gives an overview of the entire study; summarises the findings of the study; outlines the conclusions drawn from the findings; states their contribution to knowledge; makes recommendations and suggests areas for further study.

5.2 An Overview of the Study

Out of preliminary observation of gerunds in Nandome, there is evidence that the gerund marker {-bú} is not realised fully in speech. What is realised in speech is a split form of it, [-b] or [ú] or other variants [fú] or [bá]. It was also observed that the gerund phrase in Nandome distinguishes between adjuncts of a sentence and adjuncts of a verb phrase. There was also preliminary evidence that the formation of gerunds explains some structural ambiguity and also gives evidence of how the ambiguity can be resolved. It was also observed that communicating the intensiveness of an action can be achieved by making a gerund an argument to its root verb. It was also observed that the gerund phrase in Nandome supports respective claims by Abney (1987), that the gerund marker is a special instance of number. It was also observed that the gerund phrase supports Baker's (2005) view that, the process of gerund formation is a special instance where a nominal inflection dominates a VP as well as Chomsky's (1970) view on the features of a gerund.

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Based on these preliminary findings, gerundial constructions in Nandome needed a descriptive account that uses scientific methods. This will help to ascertain the reality about these facts concerning the gerundial constructions in Nandome.

5.3 Summary of Findings

The study has come up with findings in relation to the research questions posed in chapter one of the thesis. The summary of the findings is presented according to research questions: the morphological processes in gerund formation; the internal structure of gerund phrases; the sentential distribution of gerunds; and the semantic interpretation of gerund phrases.

5.3.1   Morphological processes involved in gerund formation (Question 1)

1. There are six allomorphs ([b], [ú], [ʋ́], [fú], [fʋ́] and [bá]) of the GM in Nandome and none of them satisfies the elsewhere condition per the data. {-bú} is selected as the one representing the gerund marker though it is never realised in its full form. However there is evidence from tonal changes that {-bú} occurs in the deep structure. In surface structure the vowels /ú/ deletes after it drops the tone on the vowels in the root verb. Due to this verbs that are low tone in the root verb, gain high tone during gerund formation. There is also evidence that in certain conditions (which are discussed above) the consonant /b/ deletes to avoid unaccepted consonant sequencing.

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2. Segmentally, the GM in Nandome is a split of what exists in some southern dialects of Dagaare like those spoken in Wa and Kalleo. {-bú} is realised in surface structures in the Waale and Kalleoba dialects of Dagaare. However, phonologically in Nandome there is a split where [b] and [ú] occur in respective and mutually exclusive environments.

3. Whenever a nasal consonant occurs in word medial position, nasal assimilation spreads optionally to the left and obligatorily to the right. For example **sǎmṽ̀/sámṽ̀/* sámʋ́** 'the act of washing softly'

4. When the GM, {-bú}, is affixed to a verb root the vowels in the verb root change to a high tone, for example **kàb** 'burn' **kábʋ́** 'burning'. However there are exceptions; when two gerunds are segmentally similar but differ in tone, the gerund whose verb root contains low tone vowels remain as low tone vowels. For example, **fúr** 'sip' and **fúrú** 'act of sipping'; **fùr** 'open one's eye widely' **fùrú** 'act of opening one's eye widely'

5.3.2 The internal structure of gerund phrases (Question 2)

5. The gerund phrase has a different internal make up from the normal noun phrase.

The gerund phrase: Def Sub Obj Adv Spec TAMP GM AdvT AdvP AdvM AdvI

The noun phrase: Art_1 NP_2 NM_3 **NH_4** (pl) Adj_5 (pl)$_6$ Q_7 D_8 Int_9 Loc_{10}.

This confirms Chomsky's (1970) claim that gerund phrases do not have the internal structure of a noun phrase.

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6. There are 10 slots for modifiers in the gerund phrase (as outlined in 5 above). All these modifiers can occur to the left of the gerund. In the presence of HABIT the adverbs, if present, must occur to the right of the gerund.

7. Sentential adjuncts have a default position at the right side of the gerund whilst VP adjuncts occur to the left side of the gerund. This is how the gerund phrase is able to distinguish between sentential adjuncts and VP adjuncts (examples are in construction 11 and 18, chapter 4).

8. All underlying arguments to the left of the gerund are always in the genitive case and have respective theta roles. The underlying subject in a gerund phrase is in the genitive due to its adjacency with the possession marker in a DP. The underlying object is in the genitive because it is governed by possession after the lexical verb has moved. The adverbial arguments are in a genitive case because of their adjacency to the possession marker in a DP (refer to 25 in chapter 4).

9. The gerund marker in Nandome is a special instance of number which explains why the gerund cannot take number inflection. This is in line with Abney's (1987) and Bodomo's (2004) claim that gerunds are formed as a result of a number morpheme being affixed to the verb.

10. Gerund formation in Nandome provides evidence for Baker's (2005) Reference-Predication Constraint and the theory of lexical categories. Baker's (2005) view is that gerunds are formed through an exceptional phenomenon whereby a VP is dominated by a nominal inflection.

5.3.3   The sentential distribution of gerunds (Question 3)

11. Gerund phrases can occupy all the positions that a noun can occupy. This confirms Chomsky's (1970) claim that gerunds have similar external distributions as a noun phrase.

12. All forms of case assignments possible with nouns are possible with gerund phrases and the same applies to the theta roles. This further proves Chomsky's (1970) point that gerund phrases have similar external distribution as the noun phrase.

5.3.4   The semantic interpretation of gerund phrases (Question 4)

13. Whenever there is an adverbial(s) in the gerund phrase the negation or HABIT affects the adverbial (see 73 and 74 in chapter 4).

14. In the emphatic use of gerunds, the gerund becomes an argument to its own verb root. When the speaker's focus is on the doer, an explicit subject is used with the gerund as the object. When the focus is on the action, the subject is not explicitly mentioned; however the gerund becomes the passive subject (see 75b and 75c in chapter 4).

15. Gerunds can have a manner-of-action interpretation based on some conditions. The verb governing the gerund phrase should belong either to the semantic class of cognition or emotions. Where the verb belongs to the semantic class of emotional verbs, there must be an underlying subject in the gerund phrase that it governs (refer to 65 and 66 in chapter 4).

5.4 Conclusions Drawn from the Study

Based on the findings of the research we can make the following conclusions in relation to the preliminary observations made under section;

16. The gerund marker {bú} is not realised fully in speech, rather it is realised in speech as; [b], [ú], [ʋ], [fú], [fʋ] or [bá]. However in some dialects such as Waali it is realised fully in speech.

17. The gerund phrase of Nandome gives structural distinction between VP adjuncts and sentential adjuncts. VP adjuncts can only occur to the left of the gerund whilst sentential adjuncts can occur to the right or left of the gerund.

18. The study of gerunds in Nandome explains structural ambiguity created by the position of genitive nouns during gerund formation. Gerund formation also provides information on how the ambiguity can be resolved.

19. Emphasis on the intensity of an action can be achieved by making a gerund an argument of the verb root it is formed from.

5.5 Contribution to Knowledge

The study contributes to knowledge in the following ways;

20. Hitherto this study, it is generally known in linguistics that the morpheme is always realised as an allomorph. But the study in Nandome shows that the gerund marker is not realised fully in allomorphy.

21. The study adds evidence to the fact that Nandome emerged from the southern dialects of Dagaare which are relatively older than Nandome.

22. The study explains how elements become part of the gerund phrase and why they follow the order which they follow.

23. The study explains an ambiguity that is caused by the positioning of a genitive noun during the formation of gerund phrases. Hitherto this study the ambiguity was unexplained. The study also further gives a way of resolving the ambiguity.

24. The study also gives a structural distinction between the VP adjuncts and the sentential adjuncts. Before this study the observable structural difference that exist is the fact that sentential adjuncts can switch position in a canonical sentence whilst VP adjuncts are static in position in the canonical sentence.

25. Communicating the intensity of an action can be achieved by making a gerund an argument to its root verb. Such a construction can be in the active or the passive.

5.6 Suggestions for Further Studies

One study cannot exhaust everything that is worthy of being known. Based on this, the following areas for further studies are suggested. These areas include;

26. Further studies into the involvement of sentential adverbs in the formation of gerund phrases in Nandome. The current study captured four different types of sentential adverbials and there could be more.

27. A detailed study into the sound system of Nandome. Such a study can take into consideration the claims made concerning nasality as a start point.

28. There should be a detailed study on nasality within the Nandome phonology. This will add up to the knowledge about nasality that this current study has provided.

29. It is also important to do a detailed study on the phonological realisations of the focus marker. There are several realisations of the focus marker.

5.7 Conclusion

In this chapter the areas touched on are: an overview of the study; a summary of the findings of the study; an outline of the conclusions drawn from the findings; what contributions the findings have to knowledge; the recommendations and suggestions of areas for further study. The preliminary observations are all found to be true. This implies that the study contributes to knowledge. This thesis was successfully conducted and all its research questions answered.

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APPENDIX A

Kitchen Conversation

A saab mob ba, a Dagaara poɔ fo me maal le a daŋ

à   sááb.Pos mɔ́   b   bá   à   dàgàrà   púɔ́   fʋ̀   mǐ   máál   lí   à   dàŋ

Def millet-pulp cock GM Intj Def Dagaaba inside 2SG always make   Foc Def kitchen

'the cooking of millet pulp among the Dagaaba you clean the kitchen'

A peero, labɛ ne zɛduli pɛgo ne al ne za

á   píír   ʋ́   láb   ɛ́   nǐ   zɛ̀dúúl   i´   pég   ʋ́   nǐ   à   ál

Def sweep GM bowl PL.Pos and pot   PL.Pos wash GM and Def   those(non-

human)

nɛ̃́   zà

that   all

'the sweeping bowls' and pots' washing and all that'

Ama za wa e baare a paa tan a vuu gbowfu

ámá   zà   wá   ì   báárí   à   pǎ̃ã̀   tá   n   à   vʋ̃ʋ̃   gbɔ́w   fʋ́

these all come   do finish Def then reach Foc Def fire.Pos   set   GM

'when all this is done then it gets to the setting of fire'

Fo na gbo na duuli a mii koɔ

fʋ̀   nã̀   gbɔ́w   nã̀   dʋ́ʋ́lí   à   mii   kʋ̃ɔ̃́

2SG will   set   Foc put-on-fire Def fermented   water

'you will set and put the fermented water on fire'

147

ɛ e a zɔ bin, kyɔɔbe a vuur ne a al nɛ za bin

ɛ́	ì	à	zɔ̃̀	bìn	kyɔ́ɔ́bí	à	vúúr	nǐ	à	ál	nɛ̃̌	zà	b`ì´n
and	do	Def	flour	put	prepare	Def	spatula	and	Def	those	that	all	put

'and fetch the flour down, prepare the spatula and all those things down'

a mii koɔ wa te piili a kab a, fo saa a zɔ kyir yang ɛ dam

à	mii	kʊ̃̀ɔ̃̀	wá	tì	pi´i´li´	à	ká	b	à	fʊ̀	sã̃̌	à
Def	fermented water	come	Asp	start	Def	boil	GM	Def	2SG	mix	Def

zɔ̃̀	kyi´r	yàŋ	ɛ́	dàm
flour	pour	put	and	stir

'when the fermented water starts the boiling you mix the flour, pour it and stir'

a buuli yaŋu ne a lɛ

à	bùùli`	yáŋ	ʊ́	nǐ	á	lɛ̀
Def	poridging	put	GM	BE	Def	that

'that is the act of making it poridge'

ɛkyɛ see fo saa a zɔ mane a mii koɔ na kaarɛ a

ɛ́kyɛ́	séé	fʊ́	sã̃̌	à	zɔ̃̀	máni̇̃	à	mii	kʊ̃̀ɔ̃̀	nã̃̀	káá	rɛ́	à
but	must	2SG	mix	Def	flour	tally	Def	fermented	water	BE	boil	Pgr	Foc

'but you must mix the flour to tally with the fermented water that is boiling'

a zɔ wa zuo a na en taw

à	zɔ̃̀	wà	zùò	à		nã̃̌	ì	n	tàw
Def	flour	come	more	3-non-count	will	do	Foc	thick

'if the flour is more than it will be thick'

148

al me bɛ wa ta a na en kɔɔle a lɛ a saab na tɔɔ na kpaw

á	l	mĩ	bɛ́	wá	tá	à	nã̀	ì	n	kṽɔ̀lé	à	lɛ̀	à
3-non-count	if	also	NEG	come	reach	Def	BE	do	Foc	light	Def	that	Def

sááb	nã̀	tṽɔ̃	nã̀	kpáw
millet-pulp	will	can	BE	lumpy

'if it is not enough it will be light and that way the millet pulp can be lumpy'

fo na dam ɛ paw bɛr a na ka na lɛɛbe buulu

fṽ	nà	dám	ɛ́	pàw	bɛ̀r	à		nà	ká	nã̀	lìɛbì	búúlú
2SG	will	stir	and	cover	leave	3-non-count		will	boil	Foc	turn	porridge

'you will stir and cover it will boil and turn to porridge'

a buulu wa karɛ a kyab ne a lɛ

à	búúlú	wá	ká	rɛ́	à	kyá	b	nĩ	à	lɛ̀
Def	porridge	come	boil	Pgr	Def	come-up	GM	BE	Def	that

'when the porridge is boiling that is the point of coming up'

fo na ɔŋ ne menɛ bɛr ɛ duuri a zɔ

fṽ	nà	ɔ́ŋ	nĩ	mìnɛ̃	bɛ́r	ɛ́	dúúri´	à	zṍ
2SG	will	fetch	Foc	some	leave	and	put	Def	flour

'you will fetch some away and put the flour'

fo piili a damo fo na kyaa duure a zɔ a, a sadaa ne a lɛ

fṽ	pi´i´li´	à	dám	ṽ	fṽ	nà	kyàà	dúúr	é	à	zṍ	á	à	sà
2SG	start	Def	stir	GM	2SG	BE	still	put	Pgr	Def	flour	Foc	Def	millet-pulp

dáá	nĩ	á	lɛ̀
male	BE	Def	that

'you start the stirring whilst you are still adding the flour that is the thickest part of the millet pulp'

a sadaa wa te karɛ pure a nyɔgo na o nyɔg a lɛ

à	sà	dáá	wá	tì	ká	rɛ́	pùr	è	à	ɲɔ́	gú	nǎ	ʋ̀	ɲɔ́g	à
Def	millet-pulp	male	come	Asp	boil	Pgr	burst	Pgr	Foc	catch	GM	BE	3SG	catch	Def

lɛ̀

that

'when the thick part of the millet-pulp starts boiling and bursting that is the holding together'

fo na piili na ɔŋnɛ a buulu lɛ yang. A yɔlo ne a lɛ

fʋ̀	nǎ	pi´i´li´	nà	ɔ̀ŋ	nɛ́	à	búúlú	lɛ́	yàŋ	nɛ́	à	yɔ́l	ʋ́	nǐ	á
2SG	will	start		Foc	fetch	Pgr	Def	porridge	again	put	Pgr	Def	dilute	GM	BE	Def

lɛ̀

that

'you will start fetching the porridge and putting it into the millet-pulp again that is the diluting'

foo wa te yɔle man a fo bɔɔba fo bɛr ɛ baa dam a kɔr

fʋ̀	ʋ̀	wá	tì	yɔ́lí	mán	à	fʋ̀	bɔ́ɔ́bá	fʋ́	bɛr	ɛ́	báá	dàm	ɛ́	kɔ̀r
2SG	if	come	Asp	dilute	enough	Def	2SG	desire	2SG	stop	and	finally	stir	and	fetch

'if you dilute enough to your desire you stop stir finally and fetch out'

APPENDIX B

MARKET CONVERSATION

Dɔɔ menɛ ne sagr a yaani

Dɔ́ɔ́   mìnɛ̃ɛ̃   nǐ   sàgr   á   yááni�

Man   PL   2PL   agree   Def   morning

'men respond to the greeting'

Abesong.

à   bè   sòŋ

Def   BE   well

'it is well'

a kamazeɛ en a ŋmen.

à   kámázìè   ì   n   àŋmín

Def.   maize red   do   Foc   how-much

'how much is the red maize'
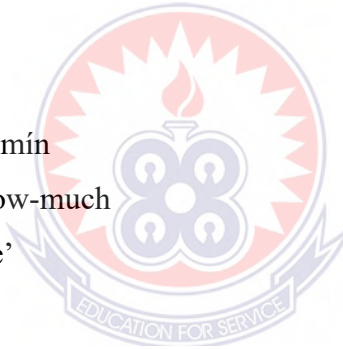
a laa en 'twenty'

à   láá   ì   n   tùénti`

Def   bowl   BE   Foc.   twenty

'the bowl is twenty'

ɛ a pela me e aŋmen

ɛ́   à   pìlà   mĩ̀   ì   àŋmín

what-of   Def   white   also   BE   how-much

'what of the white, it is how much'

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a kamame za dab ne a lɛ

à	kámá	mẽ̌	zà	dá	b	nĭ	á	lὲ
Def	maize	PL	all	buy	GM	BE	Def	that

'that is the price for all the maize'

A kaman yele a yuon nŋa pãã kpɛmɛ na zuo

à	kámã̌ǎn	yélé	á	yùòn	ŋà	pã̌ã̌	kpɛ́mé	nǎ	zùò
Def	maize.Pos	issue	Def	year	this	Emp	difficult	Foc	than

'the maize issue this year is very difficult'

e na da na aa nŋa buu yel a na maale

ĩ	nǎ	dá	nǎ	àámá	bṹṽ̌	yél	á	nǎ	máálí
1SG	will	buy	Foc	these	what	issue	Def	will	solve

'I will buy these, what issue will it solve'

[tɔɔ da a yagmɛ wɛ]

tɔ́ɔ̀	dà	à	yáŋmẽ̌	wὲ
Intj	buy	Def	plenty	then

'then buy plenty'
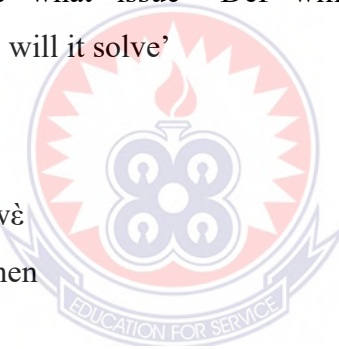
a bɛ tɛr mwaa bɛru be

à	bɛ́	tɛ́r	mwàà	bɛ́r	ú	bí
Def	NEG	have	cut	leave	GM	Foc

'is there no discount'

[A mwaa bɛru te na lo wɛ]

à	mwã̌ã̌	bɛ́r	ú	tì	nǎ	ló	nǎ	wὲ
Def	cut	leave	GM	1PL	will	fall	will	then

'the discount then we will lose'

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maa da a aaŋa n loba me naa lɛ wɛ

mã̃ã	dá	à	ááŋá	ĩ̃		ló	bá	mĩ	nǎ	ǎ	lɛ̀	wɛ́
1SG.if	buy	Def	this	1SG.Pos		fall	GM	also	BE	Def	that	then

'if I buy this then i will also lose'

yele anŋa yele na

jélé	áŋǎ	yélé	nǎ
issues	these	issue	BE

'these issues are really issues'

A Kaman daaru kpɛmɛ na dɛ, ɛkyɛ a yi na kob zie

à	kámã̃ã̃n	dáárʊ́	kpɛ́mɛ̃	nǎ	dɛ́	ɛ́kyɛ́	á	yi´	n	á	kɔ́	b	zi´é
Def	maize	price	difficult	Foc.	really	but	Def	out	Foc	Def	farm	GM.Pos	place

'the price of maize is really high but it is from the farming'

Nyɛ a kaman fu na kɔ bur ra, a dɔb me en gbɛɛ ayi,

ɲɛ̃	á	kámã̃ã̃n	fʊ̀	nǎ	kɔ́	búr	rà	à	dɔ́	b	mĩ	ì	n	gbɛ́ɛ́	áyi´
look	Def	maize		2SG	BE	farm	sow	Foc	Def	wed	GM	always	BE	Foc	times two

'look when you farm and sow maize the wedding is twice'

a fɔrɔ ɛkyɛ a aru bang wa, ɛkyɛ ama za kuɔbɛ na fu na de

à	fɔ́r	ʊ́	wà	ɛ́kyɛ́	à	árʊ́	bàŋ	wà	ɛ́kyɛ́	ámá	zà	kúɔ̀	bɛ́	nǎ	fʊ́
Def	earthen	GM	come	and	Def	harvest	after	come	but	these	all	farmer	PL	BE	2SG

nǎ	dé
will	take

'The earthening up comes before the harvest then comes but all these you will invite farmers'

Kamaan me kyãã me bɔɔyab kuolu yangu

Kámǎ̃ǎn	mǐ	kyǎ̃ǎ	nǎ	bɔ́	ɔ́b	kùòlú	yáŋ	ʋ́
Maize	also	still	BE	want	Pgr	fertilizer.Pos	put	GM

'maize is still always in need of fertilizer'

a ɛndee bɛ e mɛ kyi a.

à	ɛ́ndéé	bɛ́	í	mɛ̃́	kyi´	á
Def	really	NEG	do	like	millet	Foc.

'really they are not like millet'

Kamaan fũũ dɛ bɛ yang a kuolu ziri na a bɛ maalɛ ɛ

Kámǎ̃ǎn	fǔ̃ǔ	dɛ́	bɛ́	yàŋ	á	kùòlú	zi`ri´	nǎ	à	bɛ́	máál	ɛ́	ɛ́
Maize	2SG	really	NEG	put	Def	fertilizer	lie	BE	Def	NEG	maal	Pgr	Foc

'maize if you just don't give it fertilizer is a lie that is will produce'

a tẽẽsog na sang a na wɛ, a tẽẽsɔg sangu na.

à	tĩ́ĩsɔ́g	nǎ	sã̀ŋ		à	nǎ	wɛ̀	à	tĩ́ĩsɔ́g	sǎŋ	ʋ́	nǎ
Def	land	BE	spoil	Perf	Foc	BE	then	Def	land	spoil	GM	Foc

'the lang is spoiled the spoiling of the land is the cause'

a bangyera bɛ na yel kɛ te ta kyãã dɔmnɛ a yeng a, a kuolu ne a lɛ.

à	báŋgyírá	bɛ́	nǎ	yèl	kɛ́	tí	tá	kyǎ̃ǎ	dɔ̀mnɛ̃́	à	yèŋ	á
Def	defecate	3PL	have	say	Perf	that	3PL	NEG	still	defecate	Pgr	Def	outside	Foc

à	kùòlú	nĩ́	á	lɛ̀
Def	fertilizer	BE	Def	that

'the feaces they say we should not be defecating outside that is the fertilizer'

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A nasa kuolu ama tẽẽsɔg sang na

à   nàsà   kùòlú   ámǎ   tĩ́ĩsɔ́g   sǎŋ   nǎ

Def   foreign   fertilizer   these   land.Pos   spoil.GM.Hab   Foc

'these foreign fertilizer is continuous spoiling of the land'

Milu na be bon za puɔ

mi´l   ú   nǎ   bè   bón   zà   púɔ́

familiarize   GM   BE   in   thing   all   inside

'the act of familiarizing is in everything'

mane a zeɛ, labɛ anu ɛ a pela labɛ ata

mánĩ́   à   zìè   lá   bɛ́   ànùù   ɛ́   à   pìlà   lá   bɛ́   átá

measure   Def   red   bowl   PL   five   and   Def   white   bowl   PL   three

'measure five bowls of the red maize and three bowls of the white maize'

milu na be bon za puɔ a tẽẽsɔg me mili na wɛ.

míl   ú   nǎ   bè   bón   zà   púɔ́   à   tĩ́ĩsɔ́g   mĩ   mi´li´   nǎ   wè

familiarize   GM   BE   in   thing   all   inside   Def   land   also   familiarize   have   then

'the act of familiarizing is in everything the land is used to the fertilizer'

A nasa kuolu ama bɛ yangu ku kyɛ bon ne.

à   nàsà   kùòlú   ámǎ   bɛ́   yáŋ   ú   fʊ̀   kùŋ   kyɛ́   bón   é

Def   foreign   fertilizer   these   NEG   put   GM   2SG   FUT/NEG   harvest   thing   Foc

'Not applying foreign fertilizer you will not harvest a thing'

Alɛ dɛb tɔtɔ, a fu laa bome manu bɛ veɛlɛ

álɛ́   dɛ́b   tɔ́tɔ́   à   fʊ̀   láá   bóm   é   mán   ʊ́   bɛ́   vìèl   ɛ̀

Ecl   man   too   Def   2SG.Pos   bowl.Pos   thing   PL.Pos   measure   GM   NEG   nice   Foc

'a man too the way your measuring things with a bowl is not good'

Fo ko me kyaa ɔŋ bilaŋ dɔɔlii

fʊ̀   kʊ̀   mĩ́   kyãǎ ɔ̀ŋ   bíláŋ dɔ́ɔ́lì ì

2SG would also still fetch small   add QM

'Will you not still fetch small and add?'

Bɛ mene labɛ maglu na a magle so bɛ me ɔŋ puɔ.

bɛ̀   mìnɛ̃́   lá   bɛ́   mágl   ʊ́   nǎ   à   máglì só   bɛ́

3PL some.Pos bowl   PL.Pos mangle GM   BE 3PLnon-human mangle cause 3PL

mĩ́   ɔ̀ŋ   pʊ́ɔ́

always fetch add

'some of them is mangling that their bowls are mangled that is why they also fetch some
to add'

A kaman tɛr re niun vela paa

à   kámã̌ã̌n tɛ́r   rí   ni´ú   vìlà páá

Def maize   have Foc face nice Emp

'the maize has a nice look'
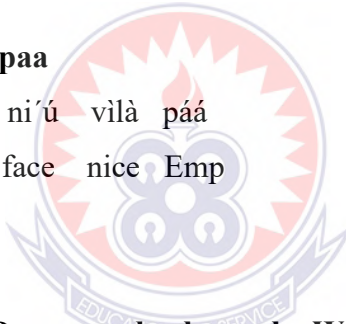
A te ka dem me pãã sa a Daga pɛre be, baa yel a Wa be

à   tì   ká dèm   mĩ́ kyãǎ sá   à   dàgà pɛ́rí bè   bàá   yèl

Def 3PL here people also still   better Def Dagaare south there especially say

à   wà bè

Def Wa there

'our place is also still better than the southern Upper West especially Wa there'

a bɛ Kaman dab dɛ bɛ tɛr e kaafu

à   bɛ̀   kámã̌ã̌n dáb dɛ́   bɛ́   tɛ́r   ì   káá   fʊ́

A 3PL.Pos   maize price just NEG have do see   GM

'the price of their maize does not have to be touched'

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ne barka

nĩ bárká

2PL thank

'Thank you all'

APPENDIX C

Farm Conversation

e dang na wa a ka bimhara sang wa nyɛ

ĩ   dáŋ   nǎ   wà   à   ká   bi´màòrá sáŋ   wà   ɲɛ̃̌

1SG Asp have come Def here   morning   time come.Perf see Perf

'I came here in the morning and I came and saw'

dobaa yag a nyu kpatol kang.

dòbáá yág   à ɲi´ é kpántól kàŋ

pig   digout.Perf Def yam PL mount one

'pig dug out one of the yam mounts'

e te bɔɔb be a yawfu ɛkyɛ vuo bɛ nyɛb ba.

ĩ   tì   bɔ́ ɔ́b bì à   yág   fʊ́ ɛ́kyɛ́ vùò   bɛ́   ɲɛ́ b   bá

1SG Asp want Pgr Foc Def digout GM   but   time.Pos NEG get GM BE

'I have been wanting to dig out but not getting time is the issue'

Bɛ daa bɛ yel a dobaa nyie yawfu.

bɛ̀   dàà   bɛ́   yél   à   dòbáá   ɲi´é   yáw   fʊ́

'3PL two-days-ago 3PL NEG say.Perf Def   pig.Pos yam.Pos.PL dig-out GM

'two days ago did they not speak about the digging out of yam by the pig'

fu yel kɛ te dem bɛ na ɛ

fʊ́   yèl   kɛ́   tí dèm bɛ́   nǎ̃   ɛ̀ɛ́

2SG say.Perf   that 1PL own NEG BE Foc

'you said that it was not ours'

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Fu naa e na te yag a sang nɛ za.

fʊ̀	nǎǎ̃	í	ná	tí	yág	à	sáŋ	nɛ̌	zà
2SG	should/have	do	Foc	1PL	digout	Def	time	that	all

'you should have made us dig out the yam all that time'

e paa bang kɛ a nŋa na a e be.

ĩ̃	pǎǎ̃	bàŋ	kɛ́	à	ŋá	á		nɛ̌	í	bí
1SG	Emp	know	that	Def	this	3PL	non-human	will	do	or

'did I know that this is how things will happen or?'

Nyɛ a kpantol na e lɛ a, dobaa tugu naa nŋa.

ɲɛ̌	à	kpántól	nɛ̌	ì	lɛ̀	á	dòbáá	túg	ú	nǎ	ǎ̃	ŋǎ
see	Def	mount	BE	do	that	Def	pig	Pos	dig	GM	BE	Def	this

'see how the mount is this is the pig's digging'

Ne maa erɛ, bon vuure beba bɛ me yaare ɛ.

nĩ̌	màá	ìrɛ̀	bón	vʊ́ʊ́rí		bé	bá	bɛ́	yààrí	ɛ́
2PL	careful	do	Pgr	thing	living	PL.Pos	stay	GM	NEG	unlikely	Foc

'you doing it carefull living things staying there is not unlikely'

A veɛl la te na yag a.

À	vìɛ́l	lá	tì	nà	yág	á
Def	good	Foc	3PL	have	dig-out	Foc

'it is good we have dug out'

A nyie amene piili bulu.

à	ɲí´	é	àmìnɛ́	pí´i´li´	búl	ú
Def	yam	PL	some	start	Foc	germinate	GM

'some of the yams have started germinating'

159

Ne maa bine a bon bule ta erɛ a wa kar ɛ.

nĩ   màá   bi´n ẽ̌   à   bón   búl   é   tá   ì   rɛ́   á

2PL careful put   Pgr Def thing germinator PL should/NEG do Pgr 3PL-non-human

wà   kár   ɛ́

come   break   Foc

'carefully be putting the germinated ones so as not letting them break'

Fo bɛ nyɛ a nyuur nŋa na e lɛ a, n bang ɔn kpɛ na.

fʊ̀   bɛ́   ɲɛ̌   à   ɲúúr ŋã̌   nã̌   ì   lɛ̀   àá   ĩ̀   bàŋ   kɛ́   ɔ   n kpɛ̀ nã̌

2SG NEG see Def yam   this BE do that Foc/QM 1SG know that mouse PL enter Foc.

'have you not seen how this yam is? I know that mice entered'

A bie nŋa na kyãã bɛ tɛr a ka tab a,

à   bi´é   ŋà   nã̌   kyã̌ã̌ bɛ́   tɛ́r   à   ká   tá   b   à

Def child this BE still NEG have Def here.Pos reach GM Foc

'this child still have not gotten here'

u bɛ waar a nyie tuofu be.

ʊ̀   bɛ́   wàà   r   à   ɲi´   é   túó   fʊ́   bí

3SG NEG come Pgr Def yam PL carry GM or?

Is he/she not coming for the carrying of the yam?

A buɔlu bɛ na buɔli yel ku u bono na u erɛ bɛ tɛr a sããfu.

à   búɔ́l ʊ́   bɛ́   nã̌   bʊ̀ɔ̀lì yèl   kʊ̀   ʊ́   bʊ̀nʊ̃̀ nã̌   ʊ́   ìrɛ́   bɛ́   tɛ̀r   à

Def call GM 3PL BE call   say give 3SG   what BE 3SG do Pgr NEG have Def

sã̌ã̌   fʊ́

appear GM

'when they called him/her what is he/she doing that his/her appearing here is still not possible'

wob a nyu bule al ku me en te bor.

wòb	à	ɲù	búl	é	ál	kù	mɛ̃	ìn	tí	bùr
pick	Def	yam	germinate	PL	those	give	1SG-object	1SG	Asp	sow

'pick the germinated yam for me to go and sow'

a seɔn tarɛ ne kpɛb

à	sĩɛ́ɔn	tár	ɛ́	nĩ̌	kpɛ́	b
Def	rainy-season	reach	Pgr	Foc	enter	GM

'the starting of the rainy season is closer'

o lɛ ne nŋa na te waar ra.

ʋ̀	lɛ́	nĩ̌	ŋǎ	nã̌	tì	wàà	r	rá
3SG	Emp	BE	this	BE	Asp	come	Pgr	Foc

'is he/she who is from afar coming'

bɛr a gangarɛ wobu ɛ mhag a nyuur ne ku me.

bɛ̀r	à	gàŋgàr	ɛ̀	wób	ʋ́	ɛ́	mág	à	ɲùùr	nɛ̃̌	kù	mɛ̃̌
stop	Def	stick	PL.Pos	pick	GM	and	pick	Def	yam	that	give	1SG-object

'stop the picking of the sticks and pick that yam for me'

a nyie wobu, pob ba oo.

à	ɲiˊ	é	wób	ʋ́	pó	b	bá
Def	yam	PL.Pos	pick	GM,	share	GM	BE Intj

'the picking of the yams is based on sharing'

A te gangarɛ ama pawfu na tõ na ko tee.

à	tì	gàŋgàr	ɛ̀	ámà	páw	fʋ́	nã̌	tõ̌	nã̌	kù	tì	í
Def	1PL.Pos	stick	PL	these	cover	GM	will	work	Foc	give	1PL	QM

'this our covering with sticks will it for us?'

161

A dun me na e me a bang ne yã kang.

à	dú	n	mĩ	nã̃	ì	mὲ	á	bàŋ	nì	yǎ	kàŋ
Def	animal	PL	also	BE	do	like	Def	know	Foc	sense	some

'animals are like they have some sense'

A dobaa nyε a ka yõ na tεr a kangarε u na bang kε ka na bon be.

à	dòbáá	ɲɛ̌	à	ká	yõ̌	nã̃	tὲr	á	kàŋgàr	ὲ	ʋ̀	nã̃	báŋ	kέ	ká
Def	pig	see	Def	here	alone	BE	have	Def	stick	PL	3SG	will	know	that	here

nã̃	bón	bé
BE	thing	present

'when the pig sees that is only here that the sticks are it will know that this is where something is'

Lε a kpantole amene pawfu na e na.

lὲ	à	kpántólé	ámìnɛ̃̌	páw	fʋ́	nã̃	í	nã̃
then	Def	mount	some.Pos	cover	GM	will	do	Foc

'then the covering of some of the mounts will do'

Te wob paw paw ne a kpantole amene.

tí	wòb	pàw	pàw	nĩ̌	à	kpántólé	ámìnɛ̃̌
1PL	pick	cover	cover	Foc	Def	mount	some

'Let us cover up some of the mounts'

Nyε sakpɛ̃̃ wa yel kε a waab ba a ka za me paale kũɔ̃.

ɲɛ́	sà	kpɛ̃̌ɛ̃	wà	yèl	kέ	à	wáá	b	bá	à	ká	zà	mĩ̌	pààlí	kũɔ̃
see	rain	big	come	say	that	Def	come	GM	Foc	Def	here	all	always	full/Foc	water

'if a big rain is to fall the whole of this place is always full of water'

162

A lɛ wa e a lɛ a me tuo a nyie.

à	lɛ́	wá	ì	à	lɛ̀	à	mĩ̀	tùó	nã̌	ã̌	ɲíˊ	é
Def	if/that	come	do	Def	that	3PL	always	carry	Foc	Def	yam	PL

'if it happens that way it always carries the yams off'

A nyie tuofu yooro na a kpantol, me yoore.

à	ɲĩˊ	é	túó	fʊ́	yʊ́ʊ́r	ʊ́	nã̌	à	kpántól	mĩ̌	yʊ́ʊ́rí
Def	yam	PL	carry	GM,	dissolve	GM	BE	Def	mount	always	dissolve

'the carrying of the yams is dissolving that the mount dissolves'

ɛ a kũɔ̃ paa me tuo ne a nyie kyere ne.

ɛ́	à	kʊ̃ɔ̃	pã̌ã̌	mí	tùó	nĩ̌	a	ɲíˊ	é	kyé	ré	nĩ̌
and	Def	water	then	always	carry	Foc	Def	yam	PL	go	Pgr	with

'the water then always carry the yams and go away with them'

a nyie ne mune buosob bu me bɔɔb kũɔ̃ yaga.

à	ɲíˊ	é	nĩ̌	mùnè	bùó	sób	bú	mĩ̌	bɔ́	ɔ́b	kʊ̃ɔ̃	yágá
Def	yam	PL	and	rice		which	one	BE	always	want	Pgr	water	much

'yams and rice which of them always wants more water'

mune na nɔnɛ kõɔ̃ yaga

mùnè	nã̌	nɔ̀nɛ̀	kʊ̃ɔ̃	yágá
Rice	BE	like	water	much

'is rice that likes much water'

Ne e a ka o e a mune kɔb zie wɛ.

nĩ̌	í	à	ká	ʊ̀	í	à	mùnè	kɔ́	b	ziˊé	wɛ́
2PL	do	Def	here	3SG	do	Def	rice.Pos	farm	GM	place	then

'you make this place the place for rice's farming'

a mune na te kɔ, detaare ne deyã, ɛ bang leɛbe yang a nyie kob.

à	mùnè	nǎ	tí	kɔ́	dìtáárí	nǐ	dìjã̀	ɛ́	bàŋ	líɛ́bì	yàŋ	à	ɲi´
Def	rice	BE	Asp	farm	two-years-ago	and	last-year	and	then	turn	put	Def	yam

é	kɔ́	b
PL	farm	GM

'it is the rice that we farmed last two years and last year before turning to the farming of yams'

a mun kɔ suule taa a na tan sɔgɔ a mune kun lɛ maale vela ɛ

à	mùn	kɔ́	súúli´	táá	à	nǎ	tá	n	sɔ́gɔ́	à	mùnè
Def	rice	farm	GM	Hab follow each-other	Def	will	reach	Foc	point	Def	rice

kùn	lɛ́	máálí	ɛ́
FUT/NEG	again	produce	Foc

'the repeated farming of rice consecutively it will reach a point '
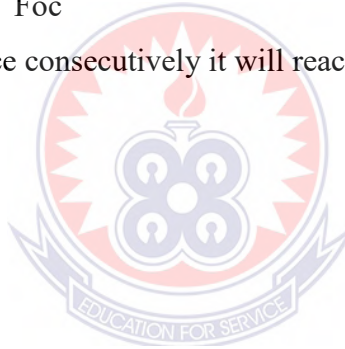
APPENDIX D

STORY (Nabaglɛ ne o bie)

Ne kurekure zaa

nĩ̌   kù   ré   kù   ré   zàá

2PL   wait Pgr wait Pgr   all

'All attention'

Te kure na

tì   kù   ré   nǎ̃

1PL wait Pgr   Foc

'We paying attention'

Nabaglɛ bɛ noo a pɔg tɛr poɔ

nàbáglɛ́ bɛ́   núú   à   pɔ́g tɛ̀r   pʊ̀

hunter   NEG   BE   Def   wife have stomach

'is it not a hunter, the wife had a pregnancy'

A pɔg na bɔɔb a dɔwfo a nabaglɛ yi kpɛ wɛɛ nɛn bɔb

à   pɔ́g nǎ̃ bɔ́   ɔ́b   à   dɔ́w fʊ́   á   nàbáglɛ́ yi´ kpɛ̀ wɪɛ   nɛ̌n

Def   wife BE   want Pgr Def born GM Def   hunter   out   enter bush meat.Pos

bɔ́   b

search   GM

'when the wife was about giving birth the hunter went out into the bush to search for meat'

A kyɔle a kyɔlo wa te nyɛ wala bɔɔb a mwɛb

à   kyɔ́li´ à   kyɔ́l   ʊ́   wà   tì   ɲɛ́   wálá   bɔ́   ɔ́b   à   mwɛ́ b

Def   roam   Def roam   GM come Asp see antelope want Pgr Def   shoot GM

'did the roaming and came to see an antelope and planned for the shooting'

165

A wala zɛle ɛ o ta mwɛ o ɛ ɛkyɛ oo tuur a ul wala

à	wálá	zélì	ɛ́	ʊ́	tá	mwɛ̀	ʊ̀	ɛ́	ɛ́kyɛ́	ʊ́ʊ́	tùùr	à
Def	antelope	beg	that	3SG	NEG/present	shoot	3SG	Foc	but	3SG	follow	Def

ʊ́l	wálá
3SG	antelope

'the antelope begged that he shoud not shoot him but he should follow he the antelope'

A lɛ na u piili a wala tub bɛ te kpɛ koɔ gaw

à	lɛ̀	nǎ̃	ʊ̀	pi´i´li´	à	wálá	tú	b	bɛ́	tì	kpɛ̀	kʊ̃̌ɔ̃̌
Def	that	BE	3SG	start	Def	antelope.Pos	follow	GM	3PL	Asp	enter.Perf	water

gáw̃
cross

'is that way he started the following of the antelope till they entered water and crossed'

bɛ wa tan tew kpɛɛ kang nye nebɛ maalɛ kyug

bɛ̀	wà	tá	n	téw̃	kpɛ́ɛ́	kàŋ	ɲɛ́	ní	bɛ́	mààl	ɛ́	kyúg
3PL	come	reach	Foc	town	big	one	see	person	PL	make	Pgr	moon

'they came to one big town and saw people building a moon'

A wala yang a nabaglɛ oo ze

à	wálá	yáŋ	à	nàbáglɛ́	ʊ́ʊ́	zǐ̃
Def	antelope	make	Def	hunter	3SG	sit

'the antelope made the hunter sit'

A lɛ na a nabaglɛ ze ɛkyɛ a wala kyɔlekyɔle

à	lɛ̀	nǎ̃	à	nàbáglɛ́	zǐ̃	ɛ́kyɛ́	à	wálá	kyɔ́li´	kyɔ́li´
Def	that	BE	Def	hunter	sit	but	Def	antelope	roam	roam

'that way the hunter sat but the antelope went round'

166

a bɛlbɛl a kyug maalu kaa ɛ lɛ kyen a nabaglɛ zema zie

à	bél	bél	à	kyúg	máál	ʋ̀	kàá	ɛ́	lɛ̀	kyén	à	nàbáglɛ́	zǐ	má
Def	watch	watch	Def	moon.Pos	make	GM	see	and	again	went	Def	hunter	sit	GM

zi´é

place

'watched the making of the moon and went back to the hunter's sitting place'

a wa yel ko a nabaglɛ ɛ a bie ul na be a ma pouri a ɛ ol no maalɛ a kyug

à	wà	yèl	kʋ̀	à	nàbáglɛ́	ɛ́	à	bi´é	ʋ́l	nǎ	bè	á	mǎ̃
Def	come	tell	give	Def	hunter	that	Def	child	that	BE	inside	Def	mother.Pos

púóri´	à	ɛ́	ʋ́l	nʋ́	mààl	ɛ́	à	kyúg
stomach	Foc	that	3SG	BE	make	Pgr	Def	moon

'came and told the hunter that the child in the mother's stomach is the one making the moon'

ɛ lɛ yel ko nabaglɛ ɛ polo na a bie poli yang o meŋa

ɛ́	lɛ̀	yèl	kʋ̀	nàbáglɛ́	ɛ́	pʋ́l	ʋ́	nǎ	à	bi´é	pʋ́lì	yàŋ	ʋ̀	mìŋǎ̃
and	again	tell	give	hunter	that	vow	GM	BE	Def	child	vow	put	3SG	self

'and again told hunter that it is vowing that the child vowed on him/herself'

a bie bɛ baŋ kɛ a saa ne a nabaglɛ ɛ

à	bi´é	bɛ́	bàŋ	kɛ́	á	sàà	nǐ	á	nàbáglɛ́	ɛ́
Def	child	NEG	know	that	Def	father	BE	Def	hunter	Foc

'the child did not know the father is the hunter'

167

ɛ paa manɛ korɛ a taabɛ ɛ oo na tun sɔr kyen teŋzu

ɛ́	pãã̌	mán	ɛ̃̌	kὺ	rὲ	à	táá	bɛ́	ɛ́	ύύ	nã̌	tú	n	sɔ́r
and	then	describe	Pgr	give	Pgr	Def	colleague	PL	that	3SG	will	follow	Foc	road

kyén	téŋzú
go	earth

'and was then describing to the colleagues that he/she will travel to earth'

ɛkyɛ ɛ ol wa kyen a be

ɛ́kyɛ́	ɛ́	úl	wá	kyén	á	bὲ
but	that	3SG	come	go	Def	there

'but that when he/she goes there'

a o pɔg deb bibir ɛ a banuo oo na de na yang zaw

à	ʋ̀	pɔ́g	dé	b	bi`bi´r	ɛ́	à	bá	nṹǯ	ύύ	nã̌	dé	nã̌
Def	3SG	wife	take	GM	day	that	Def	friend.Pos	fowl	3SG	will	take	Foc

jàŋ	záw
put	pen

'the day for marrying a wife when they friend brings the fowl he will put it in the pen'

ɛ zie wa te kyen na oo paa ir a nuo ko

ɛ́	zi´é	wá	tì	kyén	nã̌	ύύ	pãã̌	i´r	à	nṹǯ	kὺ
that	place	come	Asp	go	BE	3SG	then	remove	Def	fowl	kill

'that when it is late he/she will then pick out the fowl and kill'

ɛkyɛ ol wa ko a nuo ne aa bibir ne na o me na kpi

ɛ̌kyɛ́	ɔ́l	wà	kὺ	à	nṹǯ	nɛ̌	àá	bi`bi´r	nɛ̌	nã̌	ʋ̀	mĩ̌	nã̌	kpi´
but	3SG	come	kill	Def	fowl	that	BE	day	that	BE	3SG	also	BE	die

'but that when he kills that fowl that day is the day he will die'

168

a wala yel ko a nabaglɛ ɔl ne a yir te tab ɛ a pɔg na dog na

à	wálá	yèl	kù	à	nàbáglɛ́	ɛ́	úl	nĩ̀	à	yi´r	tì	tá	b	ɛ́
Def	antelope	tell	give	Def	hunter		that	3SG	with	Def	house	Asp	reach	GM	that

à	pɔ́g	nã̀	dúg	nã̌
Def	wife	will	born	Foc

'the antelope tld the hunter that on his reaching the house the wife will give birth'

A nabaglɛ kol te tarɛ a yir a pog dɔg

à	nàbáglɛ́	kúl	tì	tá	rɛ́	à	yi´r	à	pɔ́g	dɔ́g
Def	hunter	go	Asp	reach	Pgr	Def	house	Def	wife	born

'the hunter went home on reaching the house the wife gave birth'

A bɛ kuoli a bie o te baa te de a pog

à	bɛ́	kúóli´	à	bi´é	ú	tí	bàà	tì	dé	à	pɔ́g
Def	3PL	rear	Def	child	3SG	Asp	grow	Asp	take	Def	wife

'they reared the child till he grew and till he took a wife'

A bɛ wa ne a banuo o sere de yang a zag poɔ

à	bɛ́	wá	nĩ̀	à	bá	nṹɔ́	ʋ̀	sírí	dé	yàŋ	à	zàg	pʋ̀ɔ̀
Def	3PL	come	with	Def	friendship	fowl	3SG	actually	take	put	Def	pen	inside

'they brought the friendship fowl and he actually took it and put it in inside the pen'

A pog kulu bibir, a wa ta a benɛ yago

à	pɔ́g	kúl	ú	bi`bi´r	á	wà	tà	à	bínɛ́	yág	ú
Def	wife	Pos	marry	GM	day	Def	come	reach	Def	benɛ	Pos	dance	GM

'the day of marrying the wife when it got to the benɛ dancing'

169

A saa, a nabaglɛ, o mag dakɔg te ze ne a zaw nuor

à	sãã̃	à	nàbáglɛ	ʊ̀	mʰág	dàkɔ́g	tí	zǐ	nǐ	à	zàg	nʊ́ɔ́r
Def	father	Def	hunter	3SG	pick	stool	Asp	sit	with	Def	pen	front

'the father the hunter he picked a stool and sat in front of the pen'

A zie te kyere a saa kyaa ze

à	zi´é	tì	kyé	ré	à	sãã̃	kyáá	zǐ
Def	place	Asp	go	Pgr	Def	father	still	sit

'it was getting later and the father still sat'

A bie me kyen te sogri ɛ oo bɛ ire kpeɛr be

à	bi´é	mǐ	kyén	tì	sògrì	ɛ́	ʊ́ʊ́	bɛ́	i´r	é	kpìɛ̀	r	bí
Def	child	always	go	Asp	ask	that	3SG	NEG	get-up	Pgr	enter	Pgr	or

'the child always ask is he not getting up and going in or'

A saa yel kɛ a benɛ bɛ na yagr ɛkyɛ a zie me erɛ tolo a na so oo kyaa ze

à	sãã̃	yèl	kɛ́	à	bínɛ́	bɛ́	nã̀	yág	r	ɛ́kyɛ́	à	zi´é	mǐ	ìr
Def	father	say	Perf	that	Def	benɛ	3PL	BE	dance	Pgr	and	Def	place	also	do

ɛ̀	túlʊ́	à	nã̀	só	ʊ́ʊ́	kyã̃̀ã̃	zǐ
Pgr	heat	Def	BE	cause	3SG	still	sit

'theh father said it is the benɛ that they are dancing and because the weather is also hot that is why he is still sitting'

A lɛ na a e lɛɛ a zie te bɔɔb veɛfo

à	lɛ̀	nã̀	à	í	lɛ̃̀ɛ̃̀	à	zi´é	tì	bɔ́	ɔ́b	víɛ́	fʊ́
Def	that	BE	Def	do	throughout	Def	place	Asp	want	Pgr	break	GM

'that was what happened throughout till breaking of day was about to'

A lɛ a bie na pole bin na bɛ wa nyɛ eb ba o wo

à	lɛ́	à	bi´é	nɑ̃̀	pùlì	bì`n	nà	bɛ́	wà	ɲɛ̃́	í	b	bá	ὺ	wó
Def	that	Def	child	BE	vow	put	BE	NEG	come	get	do	GM	Foc	3SG	confess

'what the child vowed when it did not work he confess'

Wob o wo oo meŋa

wó	b	ὺ	wó	ύύ	mìŋɑ̃̀
Confess	GM	3SG	confess	3SG	self

'he confessed himself'

A zano na sɛg kɛ te zane yi a ka ne a kaŋ bɛ na me wa dɔg

à	zánὗ	nɑ̃̀	ség	kɛ́	tí	zánĩ̌	yi´	à	kà	nĩ̌	à	kàŋ	bɛ́	nɑ̃̀	mĩ̌
Def	lesson	BE	worth	that	1PL	learn	out	Def	here	BE	Def	one	3PL	BE	always

wà	dɔ́g
come	born

'the lesson worth of us to learn from here is that when they give birth to some one'

O lɛ kpi a polo na o tɔɔ pole wan

ὺ	lɛ́	kpì`	à	púl	ύ	nɑ̃̀	ὺ	tɔ̃̌ɔ̃̌	pùlì	wá	n
3SG	again	die	Def	vow	GM	BE	3SG	maybe	vow	come	with

'and he dies again is the vowing that the person may have vowed in his/her coming'

APPENDIX E

STORY (Gaa noɔr)

Ne kurekure zaa

nĩ   kù   ré kù   ré   zàá

2PL wait Pgr wait Pgr   all

'All attention'

Te kure na

tì   kù   ré   nã̌

1PL wait Pgr   Foc

'We paying attention'

dɛb ne o pɔg lɛ bɛ bebe a bɛ tɛr dɔwfo ɛ

dɛ́b nĩ   ù   pɔ́g lɛ́   bɛ́ bébé à   bɛ́   tɛ̀r dɔ́w fú   ɛ́

man with 3SG wife BE 3PL exist Def NEG have born GM Foc

'man and wife are there without the ability of giving birth'

wa yi bibikaŋ bɛ kyen gaa pɛr nuor yangfo a te ko a nuor

wà   yi´ bi`bi´ kàŋ bɛ́ kyén gàá   pɛ́r   núɔ́r yáŋ   u   à   tì   kɔ̃̌   à   núɔ́r

come out day   one 3PL go   ebony under mouth put GM Def Asp cry Def mouth

'there came one day they went to under an ebony for vowing and there they vowed'

a gaa ko bɛ a dɔwfo

à   gàá kù   bɛ́   à   dɔ́w fú

Def ebony give Perf 3PL Def born GM

'the ebony gave them the ability of giving birth'

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a bɛ dɔg a bibir te baari wa dɔg a bipɛbaara o e pogle

à	bɛ́	dɔ̀g	à	bì	bì`i`r	tì	báárí	wà	dɔ̀g	à	bì	pɛ́r	bààrá	ʊ̀
Def	3PL	born	Def	child	PL	Asp	finish	come	born	Def	child	under	finisher	3SG

í	pòg	lè
do	girl	small

'they finished gaving birth to the children when they gave birth to the last child it was a female'

a pogle veɛlveɛl te zuo a ma nɔnɛ a ol kaŋ a kyɛlɛ nɛ

à	pòg	lè	vɪɛl	vɪɛl	tí	zùò	à	mã̀	nɔ̀n	ɛ̀	à	ʊ́l	káw̃
Def	girl	small	beautiful	beautiful	Asp	than	Def	mother	like	Pgr	Def	3SG	than

à	kyɛ́lɛ́	nɛ̃̀
Def	rest	that

'the female was too beautiful and the mother likes her than the rest'

wa yi bibikaŋ bɛ kyen a nuor iru a gaa pɛr te ta

wà	yi´	bì`bi´	kàŋ	bɛ́	kyén	à	nʊ́ɔr	i´r	ú	á	gàá	pɛ́r	tì
come	out	day	one	3PL	go	Def	mouth	remove	GM	Def	ebony	under	Asp

tá
reach

'a day came they went to the ebony to fulfil the vow'

a e bɔb ba a gaa bɔɔb a pogle

à	ì	bɔ́	b	bá	à	gàá	bɔ́	ɔ́b	à	pòg	lè
Def	do	want	GM	BE	Def	ebony	want	Pgr	Def	girl	small

'it was that the ebony was showing interest in the girl'

a gaa yel kɛ a pogle no bɛ na iri a nuor

à	gàá	yèl	kɛ́	á	pòg	lè	nṹ	bɛ́	nã̀	i´r	i´	à	nʊ́ɔ́r
Def	ebony	say	that	Def	girl	small	BE	3PL	will	remove	with	Def	mouth

'the ebony said that it is the small girl they will used to fulfil the vow'

a bɛ kyɔɔbe te baare ɛ kontonbili me be a taŋ zu

à	bɛ́	kyɔ́ɔ́bí	tì	báárí	ɛ́	kɔ̀ntɔ́mbi´li´	mĩ̀	bé	à	tã́w̃	zú
Def	3PL	prepare	Perf	Asp finish	and	dwarfs	also	present	Def	mountain	top

'they prepared and there were also dwarfs on the top of the mountain'

a pogle yel kɛ a ol kob ba bɛ waar be

à	pòg	lè	yèl	kɛ́	à	ʊ́l	kʊ́	b	bá	bɛ́	wàà	r	bí
Def	girl	small	say	that	Def	3SG. Pos	kill	GM	BE	3PL	come	Pgr	or

'the small girl said that is it her killing that they are preparing to or'

a ma yel kɛ a ol kob ba bɛ waar

à	má	yèl	kɛ́	à	ʊ́l	kʊ́	b	bá	bɛ́	wàà	r
Def	mother	say	Perf	that	Def	3SG.Pos	kill	GM	BE	3PL	come	Pgr

'the mother said it was her killing that they were preparing to'

a bie yel kɛ bɛ baŋ kɛ oo nɔnɛ wele pɛlbo

à	bi´é	yèl	kɛ́	bɛ́	bàŋ	kɛ́	ʊ́ʊ́	nɔ̀n	ɛ̃̀	nĩ̀	wélé	pɛ́lb	ʊ́
Def	child	say	Perf	that	3PL	know	that	3SG	like	Pgr	Foc	whistle.Pos	blow	GM

'the child said they know she likes whistles blowing'

ɛ yel kɛ wele be na dion

ɛ́	yèl	kɛ́	wélé	bé	nã̀	di`ón
and	say	Perf	that	whistle	present	Foc	room

'and said there is a whistle in the room'

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ɛ a saa zɔ kpɛ te mag wa ko o oo pɛlbe ɛ kpi

ɛ́	à	sáã̀	zɔ́	kpɛ̀	tì	mʰág	wà	kʊ̀	ʊ̀	ʊ́ʊ́	pélbì	ɛ́	kpi`
that	Def	father	run	enter	Asp	pick	come	give	3SG	3SG	blow	and	die

'that the father should run inside and pick it and come and give it to her to blow and die'

a saa zɔ kul a wele mago oo me lɛ bɛle a ma bɛr

à	sàà	zɔ̀	kúl	à	wélé	mág	ʊ́	ʊ̀ʊ̀	mĩ̀	lɛ́	bɛ̀lì	à	mã̀	bɛ́r
Def	father	run	go	Def	whistle	pick	GM	3SG	also	again	deceive	Def	mother	leave

'the father run inside to bring the whistle and she aslo deceived the mother away'

o yel ko a ma oo zɔ kpɛ ɔŋ koɔ wa ko o o nyu ɛ kpi

ʊ̀	yèl		kʊ̀	à	mã̀	ʊ̀ʊ̀	zɔ́	kpɛ̀	ɔ̀ŋ	kʊ̃ɔ̃̀	wá	kʊ̀	ʊ̀	ʊ̀
3SG	say.Perf		give	Def	mother	3SG	run	enter	fetch	water	come	give	3SG	3SG

ɲú	ɛ́	kpi`
drink	and	die

'she said the mother should run inside and fetch water and bring it to her to drink and die'

a ma kul a koɔ ɔŋu ɛ a saa wa ne a wele

à	mã̀	kú	á	kʊ̃ɔ̃̀	ɔ̀ŋ	ú	ɛ́	à	sáã̀	wà	nĩ̀	à	wélé
Def	mother	go	Def	water.Pos	fetch	GM	and	Def	father	come	with	Def	whistle

'the mother went home to fetch the water and the father brought the whistle'

o de a wele do zen a gaa zu ɛ pɛlbɛ

ʊ̀	dé	á	wélé	dó	zĩ̀	n	à	gàá	zú	ɛ́	pɛ̀l	bɛ́
3SG	take.Perf	Def	whistle	climb	sit	Foc	Def	ebony	top	and	blow	Pgr

'she took the whistle and climbed and sat on the ebony and blowing'

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[SONG]

a kontonbili na be a taŋ zu paa kpa yawfu

à	kɔ̀ntɔ́mbi´li´	nã̀	bé	à	táw	zú	pã̀ã̌	kpá	yáw	fʊ́
Def	dwarfs		BE	present	Def	mountain	top	then	engross	dance	GM

'the dwarfs that were on the mountain top then engrossed in dancing'

a bie kyaa pɛlbɛ a wele yiele ne

à	bi´é	kyã̀ã̌	pɛ̀l	bɛ́	à	wélé	yi´él	é	nĩ̀
Def	child	still	blow	Pgr	Def	whistle	sing	Pgr	with

'the child was still blowing the whistle and singing'

a kontonbili wa nyug a bie siuri a gaa zu kuli te kpɛn a bɔo

à	kɔ̀ntɔ́mbi´li´	wà	ɲúg	à	bi´é	si´úri´	à	gàá	zú	kúli´	tì	kpɛ̀n	bɔ̀ʊ̀
Def	dwarfs		come	catch	Def	child	lower	Def	ebony	top	go	Asp	enter	hole

'the dwarfs came and caught the child lowered him from the ebony and took her home and entered a hole'

APPENDIX F

VERBS AND THEIR GERUND COUNTERPART

Physical verbs	Gerunds	Interpreation-Act of:
1. tùò **(tr)**	túófú	carrying
2. tõ̀ **(tr/intr)**	tób	working
3. sɔ́r **(tr)**	sɔ́rú	counting
4. báárí (tr/intr)	báárú	finishing
5. mwɛ̀ (tr)	mwɛb	beating
6. lɔ́b (tr)	lɔ́bú	throwing
7. nyìw/nyìg (tr)	nyíwfú /nyígú	burning
8. nyɔ́w/nyɔ́g (tr)	nyɔ́wfú/nyɔ́gú	catching
9. mwɛ̀ (tr)	mwɛb	shooting with a gun
10. tɛ̀ (tr)	tɛb	shooting with an arrow
11. fíl (tr)	fílú	shooting with catapult
12. kyìɛ̃̀ (tr/intr)	kyíɛ̃fú	tearing
13. kà (tr/intr)	káb	breaking
14. mwɛ́r (tr/intr)	mwɛ́rú	breaking/bursting
15. túw/túg (tr)	túwfú/túgú	diging
16. pɛ̀nì (tr/intr)	pɛ́nú	carving
17. tɛ̀ɛ̀lɛ̀ (tr)	tɛ́rú	keeping something for someone
18. lɛ̃̀ (tr/intr)	léb	tying
19. kyɛ̀r (tr/intr)	kyɛ́rú	untying
20. pàg/pàw (tr/itra)	págú/páwfú	closing
21. yùò (tr/intr)	yúófú	opening
22. maalı (tr/intr)	máálú	repairing
23. maalı (tr/intr)	máálú	making a new thing

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24. nyìb (tr)	nyìbʋ́	having sex
25. puuli (tr/intr)	púúlú	folding
26. puuli (tr)	púúlú	swimming
27. dúg/dúw (tr)	dúgú/dúwfʋ́	swimming
28. púg/púw (tr)	púgú/púwfʋ́	whisking or beating
29. yɛ́lí (tr/intr)	yɛ́lʋ́	winnowing
30. pùr (tr/intr)	púrú	bursting
31. dɪɛnì (intr)	díɛ́nʋ̃́	playing
32. pìr (tr/intr)	pírʋ́	cracking/peeling
33. nɛ̃́ (tr)	nɛ́*b*	stepping on
34. tʋnɪ (tr/intr)	tíí*n*ʋ̃́	ironing
35. mwaa (tr/intr)	mwááfʋ́	cutting
36. pɛ́*l* (tr/intr)	pɛ́lʋ́	peeling
37. kyɔg/kyɔw (tr)	kyɔ́gʋ́/kyɔ́wfʋ́	putting a container under something that is pouring
38. kyóg/kyów (tr)	kyóg*ú*/kyówf*ú*	continueing an undertaking
39. sò (tr)	sòb	bathing
40. vili (tr/intr)	vi´lú	coiling
41. mhá (tr)	mháb	cracking nuts
42. mpà (tr/intr)	mpàb	slapping
43. mpag/mpaw (tr/intr)	mpágʋ́/mpáwfʋ́	picking
44. dúúri (tr)	dúúrú	sprinkling something powdery
45. mír (tr)	mírʋ́	sprinkle something liquid
46. dúúre (intr)	dúúrú	floating

47. dɔ́l (tr/intr)	dɔ́lʋ́	stretching out something folded or cramped
48. yɛ́r (tr/intr)	yɛ́rʋ́	spreading an object
49. dɛnɩ (tr/intr)	dɛ́nʋ̃́	straightening a bend object
50. zɛ́g/zɛ́w (tr/intra)	zɛ́gʋ́/zɛ́wfʋ́	raising something up
51. dìɛ̀lì (tr/intr)	dìɛ̀lʋ́	drying
52. yaa (tr/intr)	yááfʋ́	removing clothes
53. yaarɩ (tr/intr)	yáárʋ́	picking something out of a liquid
54. sɛ̀ (tr/intr)	sɛ̀b	sewing
55. kpà (tr/intr)	kpáb	locking
56. kpà (tr/intr)	kpáb	hammering on something
57. kyóri´ (tr/intr)	kyórú	putting something on top of each other
58. dɔglɩ/dɔwlɩ (tr/intr)	dɔ́glʋ́/dɔ́wlʋ́	putting something on top
59. zììlì (tr)	zíílú	putting someone on the seat
60. gáálí (tr)	gáálʋ́	putt something someone to bed
61. kʋ́ (tr)	kʋ́b	killing
62. tʋ̀ɔ̀rì (tr/intr)	tʋ́ɔ́rʋ́	pulling off tiny strips with the hand
63. mɔ̃́ (tr/intr)	mɔb	turn something rounding in a circular form
64. mɔ̃́ (intr)	mɔ́b	wrestling

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65. pὲ (tr)	pɛb	milking an animal
66. síl (tr/intr)	sílʋ́	pouring liquid that has settled on top of solid
67. míl (tr/intr)	mílʋ́	fencing an area
68. gbé (intr)	gbɛ́b	getting blunt
69. bɩɛlɩ (tr)	bíɛ́lʋ́	cutting a tiny piece of an object
70. kpír (tr/intr)	kpírʋ́	breaking off a small part of an object
71. puo (tr/intr)	púófʋ́	perforating
72. wὲl (tr/intr)	wɛ́lʋ́	splitting something into pieces
73. wὲlì (tr/intr)	wὲlʋ́	scooping the top part of a liquid
74. zug/zuw (tr/intr)	zúgú/zúwfʋ́	suddenly pouring in a large quantity
75. fug/fuw (tr)	fúgú/fúwfʋ́	fanning oneself or fire
76. dὲ (tr/intr)	dɛ́b	cutting one nails
77. pɛplɩ (tr)	pɛ́plʋ́	blowing air onto something
78. gɔ̀ŋ (tr/intr)	gɔ́ŋfʋ́/gɔ́w̃fʋ́	bending a rigid item
79. gbòl (tr)	gbólú/gbolú	using a stick to push something in a hole
80. gból (tr/intr)	gbólú	searching thoroughly
81. gàr (tr/intr)	garʋ́	placing an object across another or a distance
82. gùr (tr/intr)	gúrú	bending severely

83. kyur (tr/intr)	kyúrú	items falling through the bottom by losing the fastening
84. fùr (tr/intr)	furú	covering a small opening by fixing a well fit item
85. mʊ́l (tr/intr)	mʊ́lʊ́	letting something sticky touch other things
86. zὲ (tr)	zέb	smearing
87. zὲb (tr)	zɛbʊ́	fighting
88. mĩĩ (tr)	mĩ́ĩ́fú	shaking
89. wɔ́wrí/wɔ́grí (tr/intr)	wɔ́wrʊ́/wɔ́grʊ́	shaking the content in a container
90. pʊ̃́ɔ̃̀ (intr)	pʊ̃́ɔ̃̀fʊ́	getting rotten
91. sã̀w̃ (tr/intr)	sã̀w̃fʊ́	spoiling
92. fɔ́b (tr)	fɔ́bʊ́	caning/whipping
93. gyi´l (tr)	gyi´lú	a group fighting one entity
94. gyi´l (tr)	gyi´lú	gathering round the place where there is an event
95. i´r (tr/intr)	i´rú	removing
96. fʊrɪ (tr/intr)	fɪírʊ́	tightening
97. nĩ̀ɛ̃̀ (tr/intr)	nĩ̀ɛ̃́fʊ́	nipping an object in soil or any other substance
98. yúl (intr)	yúlú	dripping
99. ɔ̀ŋ/ɔ̀w̃ (tr/intr)	ɔ̀ŋʊ́/ɔ̀wfʊ́	fetching
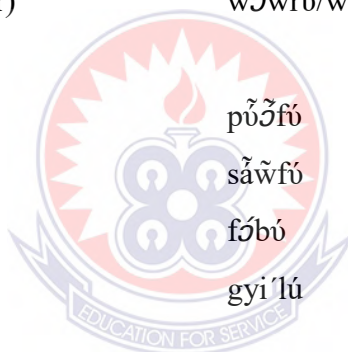
| 100. kɔ̀r (tr/intr) | kɔ́rʊ́ | fetching in large quantities |
| 101. bùr (tr/intr) | búrú | soaking something |

Body process verbs

102. fùr (tr/intr)	fùrú	opening one's eye wide
103. dʊ́rɪ (tr)	dʊ́rʊ́	urinating
104. nyɛ̀ (tr)	nyɛ̀b	shitting
105. nyìr (tr/intr)	nyírʊ́	showing your teeth
106. là (tr)	láb	laughing
107. kyìr (intr)	kyìrʊ́	sneezing
108. kyír (tr)	kyírʊ́	spiting
109. kɔ̀r (tr)	kɔ̀rʊ́	coughing
110. wɛ́l (tr/intr)	wɛ́lʊ́	digesting
111. bìɛ̀rì (tr/intr)	bìɛ̀rʊ́	being sick
112. kpɛ̀w̃/kpɛ̃ŋ (intr)	kpɛ̃́w̃fʊ́/kpɛ̃́ŋʊ́	gaining strength or recover
113. haní (tr/intr)	hánú	sweating
114. vʊʊrí (tr/intr)	vʊ́ʊ́rʊ́	breathing
115. tãã (tr/intr)	tã́ã́fʊ́	elongating
116. dɛnĩ (tr)	dɛ́nʊ̃́	clearing throat
117. kààrì (tr)	káárʊ́	clearing mucus from one's throat
118. fɪɪrɪ (tr)	fíírʊ́	blowing one's nose
119. kɔ̃̀ (intr)	kób/kɔ̃̀n	crying
120. gúr (tr)	gʊ̃́ɔ̃́/gúrú	sleeping
121. mʰɛ́l (intr)	mʰɛ́lú	collapsing
122. giˊériˊ (intr)	giˊérú	belching
123. hiˊériˊ (intr)	hiˊérú	yawning

124. hèw (intr)	héwfú/hégú	hiccupsing
125. yàrɛ́ (intr)	yáb	being mad
126. yʊ̀ɔ̀rì (intr)	yʊ́ɔ́rʊ́	loosing enthusiasm
127. kpi` (tr/intr)	kṹĩ̃	dying/withering
128. tìw̃/tìŋ (tr)	tíw̃fʊ́/tíŋʊ́	getting choke
129. dɔ̀w/dɔ̀g (tr/intr)	dɔ́wfʊ́/dɔ́gʊ́	giving birth
130. màw/màg (intr)	màwfʊ́/màgʊ́	shivering
131. máw/mág (tr/intr)	máwfʊ́/mágʊ́	designing a smock

Motion verbs

132. kyén (intr)	kyénú	walking/going
133. wà (intr)	wááb	coming
134. si´w/si´g (intr)	si´wfʊ́/si´gú	descending
135. lò (intr)	lóbá	falling
136. zɔ̀ (intr)	zɔ́bá	running
137. íáw/íág (intr)	íáwfʊ́/íágʊ́	flying
138. tɔ́l (tr/intr)	tɔ́lʊ́	passing
139. lìɛ̀bì (tr/intr)	líɛ́bʊ́	turning
140. tù (tr)	túb	following
141. sɛ̀b (tr/intr)	sɛ́bʊ́	dancing
142. màmáb (intr)	màmábʊ́	struggling through mud
143. gbòngbóri´ (intr)	gbòngbórú	moving in a hasty unstable manner through the dark
144. gyɔ̀ngyɔ́rí (intr)	gyɔ̀ngyɔ́rʊ́	wobbling in motion
145. gàw̃/gàŋ (tr)	gáw̃fʊ́/gáŋʊ́	overtaking
146. fú (tr/intr)	fúb	speeding
147. vú (tr)	vúb	crawling
148. vú (intr)	vúb	dragging

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149. tàw/tàg (tr/intr)	táwfʋ́/tágʋ́	shifting
150. dáá (tr)	dááfʋ́	pushing
151. vír (tr)	vírʋ́	pulling
152. páw/pág (intr)	páwfʋ́/págʋ́	hurrying
153. kúl (intr)	kúlú	going home
154. tùòrì` (tr)	túórú	meeting
155. píl (tr/intr)	pílʋ́	unexpectedly going without returning
156. gbi´ni´ (tr/intr)	gbi´nʋ̃́	slowing down
157. nììrì (tr/intr)	níírʋ́	dodging
158. kyól (tr/intr)	kyólú	passing a point
159. zɔ̀m (tr/intr)	zɔ́mʋ̃̀	riding
160. gyɔ́r (intr)	gyɔ́rʋ́	jumping little by little

Transfer/possession verbs

161. tìr (tr/intr)	tírʋ́	delivering something
162. kʋ̀ (ditr)	kʋ̀b	giving
163. dé (tr)	déb	receiving
164. tùr (tr/intr)	tùrú	thrusting an item forward
165. dà (tr/intra)	dàb	buying
166. zú (tr)	zúb	stealing
167. fáá (tr)	fááfú	snatching/seizing
168. só (tr)	sób	owning
169. dì (tr)	díb	owing
170. tɛ̀r (tr)	tɛ́rʋ́	having
171. ɲɛ̃ (tr)	ɲɛ́b	getting
172. pɛ́w̃/pɛ́ŋ (tr)	pɛ́w̃fʋ́/pɛ́ŋʋ́	lending/borrowing
173. zɛ̀lì (tr)	zélʋ́	begging
174. pɔ̃̌ (tr)	pób	dividing/sharing

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175. kyɩɛrì (tr)	kyíɛ́rʋ́	contributing money or possessions
176. piiri´ (tr)	pi`i`rú	chancing a desirable item
177. dùòrì (tr/intr)	dùòrú	putting things in groups for sale
178. yá (tr/intr)	yáb	paying
179. kaa-i´r (tr)	kaa-i´rú	choosing
180. tʋɔ́lí (tr)	tʋɔ́lʋ́	sending something through someone to another
181. fór (tr/intr)	fórú	removing from a lot
182. tɔ̃́ (tr)	tɔ̃́b	to push hastily

Cook

183. dʋ́g (tr/intr)	dʋ́gʋ́/ dʋ́wfʋ́	cooking
184. ká (intr)	káb	boiling
185. kàb (tr/intr)	kàbú	burnting
186. dʋ́wlí/dʋ́glí (tr/intr)	dʋ́wlʋ́/dʋ́gʋ́	puting on fire
187. kyíĩ́ (tr/intr)	kyíĩ́fʋ́	frying
188. sɛ̃́ (tr/intr)	sɛ́b/sɛ̃́m/	roasting
189. wáálí (tr/intr)	wáálʋ́	steaming
190. fù (tr/intr)	fúb	par boiling
191. ɔ̃́ (tr/intr)	ɔ̃́b/ɔ̃́m	smoking
192. ùr (tr/intr)	ùrú	trapping in heat
193. úr (tr/intr)	úrú	scrapping the outside of a pot
194. kɔ̀ (tr/intr)	kɔ̀b	scrapping the under of a pot

195. mʋ̀ɔ̀lì (tr/intr)	mʋ̀ɔ̀lʋ̀	boiling a mixture of okro and other vegetables
196. nɔ̃́ (tr/intr)	nɔ́b/nɔ́m	stewing vegetables
197. tɔ̀ (tr/intr)	tɔ̀b	pound
198. ɛ́ɛr (tr/intr)	ɛ́ɛrʋ̀	grinding
199. mɔ̃́ (tr/intr)	mɔ̀b/mɔ̃̀m	stirring a thick food item
200. dɑ̃̌m (tr/intr)	dɑ̃̌mʋ̃̌	stirring liquid food
201. gbɔ̀w/gbɔ̀g (tr/intr)	gbɔ́wfʋ́/gbɔ́gʋ̀	setting fire
202. mĩ̀ĩ̀ (intr)	mĩ̀ĩ̀fú	fermenting
203. vóri´ (tr/intr)	vórú	overcooking
204. gyɔ́r (tr/intr)	gyɔ́rʋ̀	pounding little by little
205. kɔ̀r (tr/intr)	kɔ́rʋ̀	fetching the last part
206. sùw/sùg (tr/intr)	súwfú/súgú	fetching soup with a ladle

Plant verbs

207. bʋ̀r (tr/intr)	búrʋ̀	sowing
208. bʋ̃̌ʋ̃̌ (tr/intr)	bʋ̃̌ʋ̃̌fʋ́	sowing seeds which will later be planted
209. sɛ̀l (tr/intr)	sɛ́lʋ́	transplanting
210. dɔ́ (tr/intr)	dɔ́b	weeding
211. kɔ̃́ (tr/intr)	kɔ́b	farming
212. dé (tr/intr)	déb	harvesting (general)
213. kyɛ̀ (tr/intr)	kyɛ́b	harvesting (millet)
214. kyɛ̀ (tr/intr)	kyɛ́b	cutting
215. mwà (tr/intr)	mwáb	harvesting rice
216. pɛ́ (tr/intr)	pɛ́b	harvesting groundnuts

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217. ár (tr/intr)	árʊ́	harvesting maize
218. pɔ́r (tr/intr)	pɔ́rʊ́	harvesting something pluggable
219. fɔ́r (tr/intr)	fɔ́rʊ́	earthening up
220. vʊ̃ɔ̃ (tr/intr)	vʊ̃ɔ̃fʊ́	uprooting
221. kyɔ́r (tr/intr)	kyɔ́rʊ́	watering
222. lɔ́ní (tr/intr)	lɔ́nʊ́	sowing again after failure germinate
223. búl (intr)	búlú	germinating
224. lʰà (intr)	lʰáb	a seed splitting during germination
225. túw/túg (tr/intr)	túwfú/túgú	harvesting tuber crops/dig
226. kpír (tr/intr)	kpírʊ́	early harvesting of tuber crops
227. tɔ̀m (intr)	tɔ̃mʊ̃/tɔ́mʊ̃	shooting new branches or leaves
228. fàl (tr/intr)	fálʊ́	making mounds
229. pù (intr)	pùb	flowering
230. wɔ̃ (intr)	wɔ́b/wɔ́m	bearing fruit (outside soil eg mango)
231. nyὲ (intr)	nyὲb	bearing fruits (inside soil eg yam)
232. gbĩɛ́lí (intr)	gbĩɛ́lʊ́	a plant bending to one side
233. gbὲὲnì (tr/intr)	gbέέnʊ́	plugging vegetable leaves

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Eat

234. dṹ (tr)	dùb	biting
235. ɔ̀b (tr)	ɔ̀bʊ́	chewing
236. vɔ́l (tr)	vɔ́lʊ́	swallowing
237. ɲú (tr)	ɲúb	drinking
238. lɛ̃m (tr)	lɛ̃mʊ̃́	tasting
239. ɛ̀nì (tr)	ɛ̀nʊ́	sucking
240. mɔ̀w/mɔ̀g (tr)	mɔ́wfʊ́/mɔ́gʊ́	eating something powdery
241. fúr (tr)	fúrú	sipping
242. ɲĩ́ĩ́ (tr)	ɲĩ́ĩ́fú	biting a very small quantity with the front teeth
243. túúli´ (tr)	túúlú	feeding one with liquid food
244. sù (tr)	súb	feeding one with solid food
245. lów/lóg (tr/intr)	lówfú/lógú	eating everything one was served
246. dì (tr/intr)	díb	eating
247. nyà (tr)	nyáb	eating hastily and hungrily
248. nyɑ̃̀ɑ̃̀ (tr)	nyɑ̃̌ɑ̃̌fʊ́	fetching a big morsel of solid food
249. zà (tr)	záb	eating food in haste
250. kyíínì (tr/intr)	kyíínú	using one's finger to wipe a plate after eating

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Clean

251. pɛ́w/pɛ́g (tr/intr)	pɛ́wʊ́/pɛ́gʊ́	washing
252. mi`i`li` (tr/intr)	mi´i´lú	cleaning a surface with a cloth
253. fɔ̀w/fɔ̀g (tr/intr)	fɔ́wfʊ́/fɔ́gʊ́	scrapping with a sponge
254. sɔ́w/sɔ́g (tr/intr)	sɔ́wfʊ́/sɔ́gʊ́	rinsing
255. sǎm (tr/intr)	sǎmṽ	washing lightly
256. ʊ́r (tr/intr)	ʊ́rʊ́	washing severely
257. pììrì (tr/intr)	píírú	sweeping
258. mwʊ́r (tr/intr)	mwʊ́rʊ́	squeezing a cloth during washing
259. mwɔ̀wrì/mwɔ̀grì (tr/intr)	mwɔ́wrʊ́/mwɔ́wrʊ́	squeezing water out of a cloth
260. và (tr/intr)	váb	using a cloth to lash off dust
261. dú (tr/intr)	dúb	scrapping
262. yàglì (tr/intr)	yáglʊ́	hunging
263. dìèlì (tr/intr)	dìèlʊ́	drying
264. lʰɔ̀r (tr/intr)	lʰɔ́rʊ́	putting in water with the intend of washing
265. lim (intr)	li´mú	fully submerging in water
266. wɔ́brì/wɔ́rbì (tr/intr)	wɔ́brú/wɔ́rbú	wiping something off a surface with a wet hand

Ambient verbs

267. tʊ́l (tr/intr)	tʊ́lʊ́	heating
268. mhǎ̃ǎ̃ (intr)	mhǎ̃ǎ̃fʊ́	cooling

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269.	ɲíl (tr/intr)	ɲílʊ́	melting/causing to melt
270.	kò (intr)	kób	drying
271.	gúr (intr)	gúrú	liquid solidifying
272.	ɲiˊéliˊ (tr/intr)	ɲiˊélú	being a little burnt by heat
273.	dì (tr/intr)	dí	burning

Posture

274.	àr (intr)	àrú	standing
275.	zɪ̃̌ (intr)	zɪ̃̌má	sitting
276.	díɛ́liˊ (tr)	díɛ́lʊ́	leanv
277.	gã̌ (intr)	gááb	lying
278.	gṹ̌ũ̌ (intr)	gṹ̌ũ̌fú	bending down
279.	géŋ/géw̃ (intr)	géŋú/géw̃fú	stretching out
280.	lò (intr)	lóbá	falling
281.	i`r (intr)	i`rú	getting up
282.	dɔ̃̌m (intr)	dɔ̃̌mʊ̌	squatting

Mind related

283.	tíɛ́rí (tr)	tíɛ́rʊ́	remembering
284.	tíɛ́rí (intr)	tíɛ́rʊ́	thinking
285.	bàŋ/bàw̃ (tr)	báŋʊ́/báw̃fʊ́	knowing
286.	wùl (tr)	wúlú	teaching/showing
287.	pìɛ̀rì (tr)	pìɛ̀rú	analysing
288.	yi`i`ri` (tr)	yi`i`rú	forgetting
289.	zání (intr)	zánʊ́	dreaming
290.	bɔ́ (tr)	bɔ́b	wishing/wanting
291.	nɔ̃̌nɛ̃̀ (tr)	nɔ̃̌mú	liking/loving

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292. kyi´i´r (tr/intr)	kyi´i´rʊ́	hating/forbiddening
293. sàg/sàw (tr)	ságʊ́/sáwfʊ́	agreeing
294. zàgrì/zàwrì (tr)	zágrʊ́/záwrú	refusing
295. pu`o`ri` (intr)	púórú	praying
296. ɲág/nyáw (intr)	ɲágʊ́/nyáwfʊ́	going wild
297. bìlɛ̀ (tr)	bílú	planning evil for each other
298. gyìɛ̀lɛ̀ (tr)	gyíɛ́lú	staring at someone with evil intention
299. fùg/fùw (tr)	fúgʊ́/fùwfù	frightening
300. mɔ̃́ (intr)	mɔ́b	doing well
301. ìaŋ/ìaw̃ (tr)	íáŋʊ́/íáw̃fʊ́	respecting

Speech verbs

302. bʊ̀ɔ̀lì (tr)	bʊ́ɔ́lʊ́	calling
303. ɛ̀r (intr)	ɛ́rʊ́	speaking
304. yèl (tr)	yélú	telling
305. pòr (tr/intr)	pòrú	mentioning
306. sòòri` (tr/intr)	sóórú	asking/enquireing
307. yi´éli´ (tr)	yi´élú	singing
308. tànì (tr)	tànʊ́	shouting
309. wáálí (tr)	wáálú	whispering
310. mání (tr/intr)	mánʊ́	describing/explaining
311. súóli´ (tr)	súólú	narrating a story
312. tʊ́ (tr)	tʊ́b	insulting
313. pùòri` (tr)	púórú	greeting

Sensation verbs

314. ɲɛ̃́ (tr)	ɲɛ́b	seeing
315. kàà (tr)	kááfʋ́	looking/watching
316. bɛ́l (tr)	bɛ́lʋ́	looking
317. gyír (tr)	gyírú	looking
318. wɔ̃̀ (tr)	wób	hearing
319. kyɛ̀lì (tr)	kyɛlú	listening
320. tɔ̀ (tr)	tɔb	touching
321. ɲʋ̃̀ʋ̃̀ (intr)	ɲʋ̃̀ʋ̃̀	smelling
322. ɲùùrì` (tr)	ɲúúrú	getting the smell of something
323. fʋ́ɔ́rí (tr)	fʋ́ɔ́rʋ́	massaging/caressing
324. kàb (tr)	kábʋ́	burning
325. vààrì (tr)	váárʋ́	getting burnt by hot liquid
326. fòr (tr)	fórú	burning to the extent of peeling one's skin
327. wɔ̀glì/wɔ̀wlì (tr/intr)	wɔ́glʋ́/wɔ́wlʋ́	burning by steam
328. ɛ̀b (tr)	ɛ́bʋ́	pinching with fingures
329. kyɔ̀r (tr)	kyɔ́rʋ́	stabing/pinching
330. ɔ̀ɔ̀b (tr/intr)	ɔ́ɔ́bʋ́	paining
331. ɲì`ì`nì` (tr/intr)	ɲí´í´nʋ̃̀	feeling the impact of tickling
332. ɲílɛ́ (intr)	ɲílʋ́	shining
333. zàŋ/zàw̃ (tr/intr)	záŋʋ̃́/záw̃fʋ́	itching/scratching
334. mɔ́r (tr/intr)	mɔ́rʋ́	swelling
335. tɛ̀lbì (tr)	tɛ́lbʋ́	to pressing something with fingers

Measure

336. mã̃nĩ̀ (tr/intr)	mánʊ́	measuring
337. yààrì (intr)	yáárʊ́	enlargening
338. dúóri´ (tr/intr)	dúórú	increasing
339. si´gri´/si´wri´ (tr/intr)	si´grú/si´wrú	reducing
340. yὲlì (tr/intr)	yὲlʊ́	widening
341. bàà (intr)	bááfʊ́	growing
342. kὲrì (intr)	kέrʊ́	growing tall
343. tá (intr)	táb	growing fat
344. kòŋ (intr)	kóŋʊ̃́/ków̃fʊ́	growing slim
345. pààlì (tr/intr)	páálʊ́	filling
346. gbɔ̀g/gbɔ̀w (intr)	gbɔ́gʊ́/gbɔ́wfʊ́	reducing
347. gàŋ/gàw̃ (tr/intr)	gáŋʊ̃́/gáw̃fʊ́	being more than (countable)
348. zùò (tr/intr)	zúófʊ́	being more than (non-count)

Building verbs

349. bà (tr/intr)	báb	erecting
350. kyóri´ (tr/intr)	kyórú	putting things on top of each other
351. kpà (tr/intr)	kpáb	roofing
352. kpà (tr/intr)	kpáb	hammering
353. yàg/yàw (tr/intr)	yágú/yáwfú	removing the roofing
354. fɔ́b (tr/intr)	fɔ́bʊ́	building a mud wall
355. mὲ (tr/intr)	mέb	building
356. pì`lì` (tr/intr)	pi´lú	to roofing with grass

Locatives

357. ìàŋ/ìàw̃ (tr/intr)	íáŋ̃/íáw̃fʊ̀	puting inside
358. bìn (tr/intr)	bínʊ̀	putting down
359. gbǒ (tr/intr)	gbób/gbǒm	piling/heaping
360. tĩ̌ɛ̃ (tr/intr)	tĩ̌ɛ̃fʊ̀	pointing towards
361. kyààrì (intr)	kyáárʊ́	facing
362. mʰã̌ (intr)	mʰáb	gathering

Natural process verbs

363. fú (tr/intr)	fúb	blowing of air
364. ɲígrí/nyíwrí (intr)	ɲígrʊ́/nyíwrʊ́	lightening during rain
365. tànì (intr)	tánʊ́	thundering during rain
366. ɲʊ̀r (intr)	ɲʊ́rʊ́	draining into the soil
367. màànlì (tr)	máálʊ́	bless sun
368. pùr (intr)	púrú	the sun shining
369. sɔ́b (intr)	sɔ́bʊ́	night falling
370. vìɛ̀ (intr)	vìɛ́fʊ́	day breaking
371. i´r (tr)	i´rú	being created (by God)
372. wà (intr)	wááb	raining
373. kpὲ (intr)	kpέb	a season coming in
374. yi´ (intr)	yi´b	a season going out

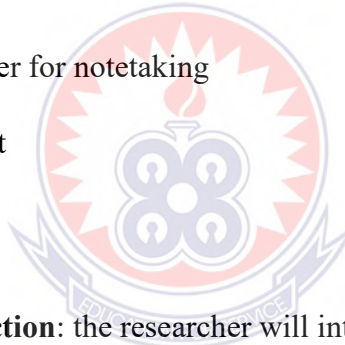# APPENDIX G

FOCUS GROUP DISCUSSION GUIDE

RESEARCH TOPIC: FORMATION AND USAGE OF GERUNDS IN NANDOME
NANDOME
MARCH/APRIL, 2016
SIX PARTICIPANTS (3 MALE: 3 FEMALE)

Materials and supplies for focus group discussion

- The focus group discussion guide for the facilitator

- Recorder

- Pen and jotter for notetaking

- Refreshment

ITENARY
Welcome/Introduction: the researcher will introduce himself

- Welcoming/thanking participants

- Who the researcher is

- Essense of the focus group discussions

- What will be done with the information (assurance of confidentiality)

- Time allowed for questions

Make them understand what the exercise is about through examples and also elicit examples from them to test understanding

Topics for discussion (1ˢᵗ session)

- Gerund forms of some sampled verbs use in simple sentences

- Some special gerund formation processes use in simple sentences

- Continue to elicit gerundial sentences from them, rephrase the sentences to elicit what you want to find out. Targeted areas include;

    o Which TAM particles occur in in gerund phrases

    o Gerund phrases formed from SVCs

    o Gerund phrases formed from double object construction

    o Used of sentential adverbials in gerund phrases

Topics for discussion (2ⁿᵈ session)

- Welcome/revision with examples from them

- Continue to elicit gerundial sentences from them

- Rephrase their gerundial sentences in a way that will elicit reaction on the targeted areas

- Create scenarios that will call on them to rephrase their sentences to denote the scenario given. Make them understand they are to describe the scenario using a gerundial construction. Targeted areas include;

    o Denoting habit in gerund phrase

    o Denoting manner of action in gerund phrases

    o Interpreting negation in gerund phrases

    o Placing emphasis in gerundial constructions

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