THE MORPHO-SYNTAX OF THE NAANDI DETERMINER PHRASE: A MINIMALIST APPROACH
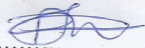
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B.Ed (Arts)

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts of the Department of Linguistics and Foreign Languages, Moi University

2014

DECLARATION

I declare that *"The Morpho-syntax of the Naandi Determiner Phrase: A Minimalist Approach"* is my original work and that it has never been submitted to any other institution for examination or award of degree. All the sources that I have referred to have been acknowledged by means of complete reference. No part of this thesis may be reproduced without prior written permission of the author and/or Moi University.
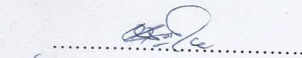
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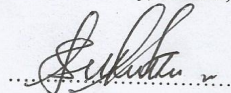This thesis has been submitted for examination with our approval as university supervisors

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DEDICATION

To
My dear husband,
Gilbert,
For his love and encouragement,
To
My lovely queens;
Sherry and *Shayne,*
For their patience and
To
My father-in-law,
Moses Chepkwony,
For his love for education

ABSTRACT

Studies have been done that analyze the structure of Determiner Phrases in world languages. In these studies, researchers hold varied views with regard to the number of elements and on their linear ordering patterns within the DP. Also, there is no consensus on whether the noun is the source of all the agreement features or they are distributed throughout the different functional projections within the DP. Finally, studies on DP within MP on Nilotic languages and Naandi in particular are rare. This study therefore, is a morpho-syntactic study which sought to analyze the DP in Naandi using the Minimalist Program. This study was guided by four objectives namely: to identify and describe the elements that make up the DP, to identify the linear ordering of elements within the DP, to investigate the DP-internal agreement and to apply MP's Agree, Move and Merge operations in the analysis of the DPs in Naandi. This study was grounded within MP for Linguistic theory. Specifically, it used MP's Merge, Move and Agree operations in the analysis of the Naandi DP. Descriptive research design was adopted. Purposive sampling was used in the choice of appropriate sentential constructions for the study. The data was collected using introspection, content analysis and participant observation. The data was then analyzed descriptively using MP. In terms of the number and linear order of elements, the study found out that there are up to eleven elements that can occur within the DP in Naandi. The noun occurs at the initial position whereas determiners and the

other modifiers are post-nominal. The dominant attested order is N + [article affix] + [Dem] + [Poss] + [Q] + [Numeral] + [AP] + [GenP] + [PP] + [Rel.C]. With regard to DP-internal agreement, the study noted that number, gender, possession, definiteness and deictic phi-features are distributed throughout the different projections within the DP in Naandi. These projections include: DemP, PossP, QP, NumeP, NumP, AP, GenP, PP and Rel.C. Following the universal DP hypothesis, the researcher argues that the DP in Naandi is underlyingly head-initial and that the noun initial surface order as attested is as a result of overt noun raising out of NP to NUM and a further overt movement of the complex [NumP + N] to the Spec-position of DP. The agreement features on functional projections are checked and valued at Spec-Head probe whereas on phrasal projections they are checked and valued at Head-Head probe. It is hoped that the findings of this study will inform policy making for education and will add to the knowledge that exists in linguistic literature and be a useful reference. The morpho-syntax of the marked DP where elements of D-category are used predicatively and occur pre-nominally could be done in Naandi. Also, a study on the mopho-phonemics surrounding the definites and indefinites in Naandi could be done. Finally, studies could be done on the morpho-syntax of the DP of other language families and on other phrases such as CPs and TPs using MP.

DEFINITION OF KEY TERMS

Agree: An operation within MP where constituents and elements establish a relation on the basis of feature-matching

Covert Movement: A type of movement that takes place after 'spell-out'

Economy principle: A principle which requires that syntactic representations and grammatical operations are kept to the bare minimum

Economy of derivation: A principle which states that movements and transformations only occur in order to match interpretable features with uninterpretable features

Economy of representation: A principle which states that grammatical structures must exist for a purpose.

Interpretable features: Features with semantic content.

Last resort principle: A constraint on movement of elements which requires that grammatical operation of movement do not apply unless they have to as the only way of satisfying some grammatical requirements.

Logical Form: A level at which representations include only semantic features.

Merge: One of the basic operations within MP which combines two elements to form a more complex structure in a bottom-up way in the process of structure building.

Minimal Link Condition: A constraint on movement which requires that movement chains should be as short as possible.

Move: An operation within MP by which a word or a phrase is moved from one position to another within a tree.

Minimalist Program: An approach to grammatical theory proposed by Noam Chomsky

in 1990s which seeks to replace the elaborate apparatus and processes of the GB theory with just a few simple and general principles of sentence structure.

Overt Movement: A type of movement that take place before 'spell-out'.

Phonetic Form: A level at which representations include only phonetic features.

Principle of Full Interpretation: A principle which requires that the interface representations of a sentence consist entirely of legitimate objects only.

Principle of Greed: A principle of movement which specifies that constituents move only in order to satisfy their own morphological requirements.

Principle of procrastinate: A principle on movement which requires that movement be delayed as much as possible.

Spell-out: A point in a derivation of a sentence at which phonetic and semantic features are processed by separate components of the grammar.

Uninterpretable features: Features that do not contain any semantic content.

ABBREVIATIONS

1:	1st person
2:	2nd person
3:	3rd person
A:	Adjective
Agr:	Agreement
AgrO:	Agreement of the object
AgrOP:	Agreement phrase for the object
AgrP:	Agreement Phrase
AgrS:	Agreement of the subject
AgrSP:	Agreement phrase for the subject
APs:	Adjectival Phrases
A-P:	Articulatory-perceptual interface
C-I:	Conceptual-Intentional interface
Comp:	Complement
C:	Complementizer
CP:	Complementizer Phrase
D:	Determiner Category

DEF:	Definiteness
Dem:	Demonstrative
DemP:	Demonstrative Phrase
Det:	Determiner
DP:	Determiner Phrase
DS:	Deep Structure
FI:	Full Interpretation
GB:	Government and Binding theory
HPSG:	Head-Driven Phrase Structure Grammar
IMP:	Imperfective aspectual marker
IND:	Indefinite noun
Int:	Intensifier
I(nfl)Ps:	Inflectional Phrases
ISO:	International Organization for Standardization
LF:	Logical Form
MOI:	Medium of Instruction
MP:	Minimalist Program
MT:	Mother Tongue
N:	Noun
NP:	Noun Phrase
NUM:	Number / Numeral
NumeralP:	Numeral phrase
NumP:	Number phrase
OB:	Object
PF:	Phonetic Form
PL:	Plural
POSS:	Possessive
PossD:	Possessive Determiner Phrase
PossP:	Possessive phrase
PPs:	Prepositional Phrases
Pred:	Pre-determiner
PST:	Past tense
Q:	Quantifier
QP:	Quantifier Phrase
Quant:	Quantifier
Rel:	Relative Clause
SDs:	Structural Descriptions
SG:	Singular
Spec:	Specifier
T:	Tense
TP:	Tense Phrase
VOS:	Verb Object Subject word order
VP:	Verb Phrase
VSO:	Verb Subject Object word order
XP:	Possible phrase in any natural human language

Contents

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abundantly and grant you many years in this world so that you continue to guide many other upcoming scholars.

To all my M.A lecturers; Prof. Kembo-Sure, Dr. Waitiki, Dr. Agalo, just to mention a few, I am very grateful for instilling in me the essence of academics, hard-work, determination and dedication. God bless you.

To my family, you have been a pillar and cornerstone in my life. My father, Sylvester and my mother, Magdalyne, thank you so much for bringing me to this world and laying my foundation in education. May God bless you abundantly. My in-laws, Moses and Raelly, I am grateful for your encouragement, moral and financial support you accorded to me. God bless you. To all my siblings especially my elder brother Paul thanks so much for being a role model and a mentor. To my dear husband, Gilbert, your love is beyond description. Thank you so much for your encouragement especially when I was low. I owe you much gratitude for always being there for me, for believing in me and for your moral and financial support. May God bless you abundantly. To my daughters, Sherry and Shayne, you give me a definition of being a mother. Thank you for your patience. May you grow up to be great scholars.

Lastly, I accept responsibility for any errors of omission and/or commission that this thesis may have.

CHAPTER ONE

1.0 INTRODUCTION

This chapter describes the background to the study, the statement of the problem, the

purpose and the objectives of the study. In addition, it outlines the research hypotheses,

the research questions and the relevance of the study. Finally, it states the scope and the

limitations of the study.

Background to the Study

1.1.1 Basic information about Naandi

This is a morpho-syntactic study that sought to describe and analyze the Determiner

Phrase (henceforth DP) in Naandi. It aimed at identifying the elements that make up the

DP, their linear ordering patterns and DP-internal agreement. Naandi is a Nilotic

language of Kenya. According to the International Organization for Standardization,

Naandi is language code number ISO 639-3 (http//:www.ethnologue.com/16).

Specifically, it is categorized under the Highland group of Nilotic languages; distinct

from River Lake Nilotes (exemplified by the Luo) and Plain Nilotes (exemplified by the

Maasai) (Kurgatt, 2012). It is spoken in Kenya's Nandi, Uasin-Gishu and part of Trans-

Nzoia Counties

Naandi belongs to the Kenyan Kalenjin group of languages. Kalenjin is a term that was

coined in 1950s (Choge 1997 and Jerono 2012) as an administrative name to refer to a

group of languages that are spoken in Kenya's larger Rift Valley. Before, these group of

languages were referred to as "Nandi-Speaking tribes" (Evans-Pritchard, 1965) and most

linguistic literature referred to the languages of the Kenyan Kalenjin as the Nandi

languages. This is because Naandi was considered as the Principle Variety of Kalenjin.

Kalenjin is a Naandi expression that means *I say (to you)*. According to the Kenya's 2009 census, the Kalenjin has a population of 4,967,328 people. They speak Kalenjin languages as Mother Tongue. These languages belong to the Nilo-Saharan language family. The other varieties that have been linguistically classified as Nandi in ethnologue 16 2009 are: Keiyo, Endorois, Kipsigis, Merkweta, Nandi proper (Cemual), Pokot, Sabaot, Terik (Nyang'ori), Tugen (south Tugen and Cherang'any) and Sebei.

1.1.2 The Structure of Naandi
Structurally, Naandi is a VSO/VOS language. Consider:

1. Ko-ø-piir Mary laakwet (VSO)

    PST-3SG-beat3 Mary-DEF 3OBchild-SGDEF

    (*Mary beat the child*)

2. Ko-ø-piir laakwet Mary (VOS)

    PST-3SG-beat 3OB-child-SGDEF Mary-DEF

    (*Mary beat the child*)

Morphologically, Naandi is an agglutinating language. Finegan (2004) defines agglutinating languages as those languages whose words can have several prefixes and suffixes that are characteristically distinct and readily segmented into their parts. For instance:

3. A-weend-i gaa

    1SG-go-IMP home

    (I am going home)

4. A-nyoo-nei gaa

    1SG-come-IMP home

    (I am coming home)

5. Ko-a-nyoo gaa

   PST-1SG-come home

   (I came home)

6. Ka-ø-nyoo gaa

   PST-3SG-come home

   (He/She came home)

7. Ki-i-nyoo gaa

   PST-2SG-come home

   (You came home)

From the above examples, this data show that words in Naandi have prefixes and suffixes that can be readily segmented into distinct parts. Consider the person marker for instance, the prefix *a-* in example (3), (4) and (5) is used to indicate first person singular whose plural is the prefix *ki*. For second person, the prefix *i-* in example (7) is used. Its plural form is the prefix *o-*. In third person however, the subject is in most cases null, both in singular and plural as in example (6) above. Also, tense in Naandi is either past or non-past. Past tense is further sub-divided into three; immediate, recent and distant. These are represented by the following prefixes; *ka-*(immediate) as in example (6), *ko-*(recent) as in example (5) and *ki-*(distant) as in example (7) above. Finally, aspect in Naandi is marked as either perfective or imperfective. Imperfective aspect indicates that the action is still in progress. The imperfective aspectual markers are suffixes that are attached to the verb. They range from *–i* as in example (3), *-nei* as in example (4) above. The other imperfective aspectual suffix is*–ei*.

1.1.3 Theoretical background on the analysis of the DPs

In traditional descriptive and early generative grammar, nouns were treated as the heads

of NPs. All the other elements within the NP were classified as specifiers, modifiers or

complements of the head noun. In this analysis, specifiers and the complements were the

dependents of the head noun. These NPs were analyzed as single-head constructions with

the following structure:

8.

```
              NP
             /  \
          Spec   N'
                 |
                 N  (Zlatic, 1998)
```
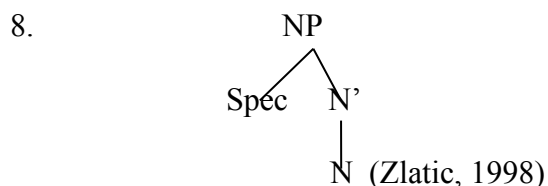
However, the principles of the extended x-bar theory that took centre stage in generative

grammar in 1980s led to a new approach to the analysis of various types of phrases. This

saw the introduction of the functional categories as heads of phrases and clauses.

Subordinate clauses began to be modeled as CPs headed by a Complementizer (C), finite

verb phrases as I(nfl)Ps headed by an auxiliary or verbal affix (Infl) and NPs as DPs

headed by the determiner. In this analysis, determiners are the lexical heads which take a

nominal projection as their complement and which yield a DP (Abney, 1987). In this

regard therefore, DPs are doubly-headed constructions with the following structure:

25.

```
              DP
             /  \
          Spec   D'
                 /  \
                D    NP       (Zlatic, 1998)
```
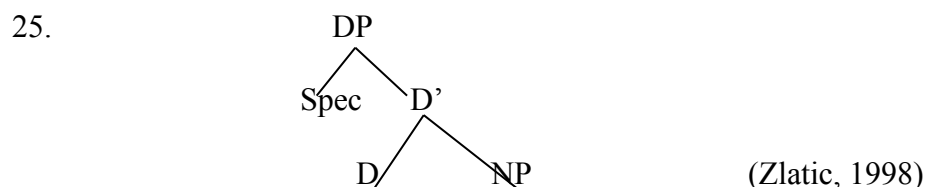
For example, *the old shirts* would be analyzed as follows:

26.

```
              DP
             /  \
```

```
        Spec    D'
               /  \
              D    NP
              |    /\
              |   /  \
            The    old shirts
```
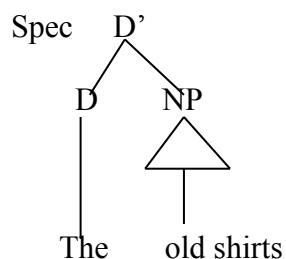
In MP, Chomsky adopted this proposition of DP-analysis by Abney (1987) and advocates that NPs should be analyzed as DPs. He notes that in construction building process, elements establish agree relation with each other and move within the tree in order to check for their syntactic features. Many researchers who advocate for this treatment of NPs as DPs acknowledge that it provides a uniform account of all syntactic categories: substantive and functional and that it provides a natural way of capturing co-occurrence restriction between nouns and determiners (Mateos 2000, Tamanji 2000, Eynde 2006, Chang 2009, Mose 2012, and Sulemana 2012). This study adopted this approach in order to find out how the DP in Naandi can be analyzed and described.

Many studies have been carried out with regard to the analysis of DPs in human languages. However, many of these analyses were grounded on traditional and early generative grammatical theories for instance, Eynde (2006). Other studies on DP are theory neutral (Zlatic 1998 and Lusekelo 2009). Still, other studies on DP have analyzed non-African languages (Zlatic 1998, Eynde 2006, and Rappaport 2002). Those studies on African languages that have used Modern theories and MP have focused on Bantu languages such as Swahili, Ekegusii, and Nyakyusa (Carstens 1991, Rugemalira 2007, Lusekelo 2009 and Mose 2012,).

This study was grounded on the MP for grammatical theory. It applied its operations of Merge, Move and Agree in order to determine the DP-internal agreement, identify and describe the elements within the DP, and their linear ordering patterns in Naandi.

1.2 Statement of the Problem

Linguists and researchers have varied views with regard to the number of elements that can occur within a single DP, on their linear ordering and on the co-occurrence restrictions on these elements. Kayne (1994) points out that human languages have universal underlying word order. Lusekelo (2009), Simpson (2005) and Zwart (2009) on the other hand, hold a contrary view. They note that the ordering of elements within the DP varies cross-linguistically. In relation to Naandi, the study sought to identify and describe the elements that make up the DP and to identify the linear ordering of these elements.

In addition, with regard to DP-internal agreement, Valois (1991) notes that the noun is the source of all the agreement features whereas the other internal elements simply inherit these features from the noun. Danon (2010) and Chomsky (1995), on the contrary, point out that the phi-features are distributed throughout the different functional projections within the DP and this triggers movement of elements within the DP to check for their features. In relation to Naandi, the study set out to establish whether the noun is the source of all the agreement features within the DP or whether they are distributed throughout the different functional projections.

Finally, studies on the analysis of the DPs within the MP framework, especially on Nilotic languages in general and on Naandi in particular are rare. (Mose, 2012) points out that MP is a universal research program that can account for all the syntactic operations in all the human world languages. In relation to Naandi, the study intended to apply MP's

Merge, Move and Agree operations in the analysis of the DP with a view of establishing whether it is enough in accounting for the morpho-syntactic properties of the Naandi DPs.

1.3 Purpose of the Study
This study was aimed at analyzing the morpho-syntactic properties of the DP in Naandi using MP's Agree, Merge and Move operations

1.4 Objectives of the Study
The specific objectives of this study included the following:

1. To identify and describe the elements that make up the DP in Naandi

2. To identify the linear ordering of elements within a DP in Naandi

3. To investigate the DP-internal agreement in Naandi

4. To apply MP's Agree, Merge and Move operations in the analysis of DPs in Naandi

1.5 Research Hypotheses
This study was grounded on the following assumptions:

1. That all the functional Ds belonging to the same category are in complementary distribution within a single DP

2. That the determiners always precede any other elements modifying nouns within the DP

3. That the determiners and the other modifiers show agreement with the noun that they co-occur with within the DP

4. That MP's Agree, Merge and Move operations are universal syntactic operations that can be applied to all natural human languages in general and Naandi in particular

1.6 Research Questions

This study sought to answer the following research questions:

1. What are the elements that make up the DP in Naandi?

2. What is the linear order of elements within a DP in Naandi?

3. Does the determiner agree with the other internal elements that make up the DP in Naandi?

4. Can the MP's Agree, Merge and Move operations be applied to the analysis of the DPs in Naandi?

1.7 Justification of the Study

For Chomsky, the primary aim of linguistics is to develop a theory of language (Radford, 1981: 1-2). This theory is developed by hypothesizing about the grammars of a particular language, collecting data on that language, testing the hypothesis, collecting data again and re-testing the hypothesis against the proposed theory (ibid). This theory of language is important because it will help in attaining explanatory adequacy in any given language which is so much sought by many linguists. This study therefore is relevant since it will be grounded on Chomsky's MP which is not a fully fledged linguistic theory but rather a research program that is meant to develop into a linguistic theory. By using it in describing and analyzing the DPs and investigating the agreement of its internal features in Naandi, it is hoped that it would help in hypothesizing about the DPs in Naandi and hence help in modifying and developing MP as a linguistic theory.

In addition to the foregoing, it has been pointed out that the DPs are very important constituents in any natural language and that many African languages have not been well studied and described. Also, the need for studying these languages has been noted by different linguists and researchers (Mose 2012 and Trask 2001). Therefore, by analyzing and describing DPs in Naandi, it is hoped that it will add to the body of knowledge in linguistic literature especially with regard to the analysis of Nilotic languages in general and Naandi in particular.

Further, in Kenya, the language policy for education stipulates that MT (Mother Tongue) shall be used as a MOI (Medium of Instruction) in primary schools up to Grade Three (Kembo and Ogechi, 2006). Therefore, this study on identification and description of elements within the DP in Naandi will inform language policy making and would provide a good resource especially when it comes to the practice of corpus planning. That is, in standardization of a variety to be used as MOI in rural primary schools in Kenya especially in Nandi, Uasin-Gishu and parts of Trans-Nzoia counties.

Lastly but more importantly, with modernization, globalization, emergence and adoption of technology and appreciation of international trade, many people are shifting to using English and other languages like French and Portuguese that are considered as international languages of commerce and technology. Therefore, many indigenous languages are being displaced and others are almost dying. Therefore, this study is important in that the data on DP in Naandi that was collected and analyzed is hoped that it would help in the process of documentation and preservation of Naandi.

1.8 Scope and Limitations of the Study
This study was limited to a morpho-syntactic analysis of the DPs in Naandi. It has been observed that the DP has a very complex structure and role and that it exhibits both

simple and complex structures (Mose 2012, and Rijkhoof 2002). This therefore makes it a very important and fertile area of any linguistic research. This study identified and described the elements that make up the DP in Naandi. In addition, it identified the linear ordering pattern(s) of the elements of the unmarked order within the DP. Finally, it sought to investigate, using the MP's Agree, Merge and Move operations, how the internal elements that make up a DP in Naandi agree with each other in the process of construction-building.

This study only examined the structural pattern of the unmarked DP in Naandi where the noun is in the initial position while the determiners and modifiers are in post-nominal position.

In conclusion, this chapter has described the background to the study, the statement of the problem, the research objectives, the research questions, the research hypothesis and the significance of the study.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter discusses the different literature that is related to the current study; the elements that make up the DP, their linear order and DP-Internal agreement in Naandi. In addition, it outlines the basic tenets of the MP by Noam Chomsky which formed the basis of analysis of this study. In section 2.1.1 it discusses literature that is related and relevant to the identification and description of elements and their linear order patterns within DP. In section 2.1.2 it outlines and briefly describes literature that is related to DP-internal

agreement in human languages. Finally, in section 2.2.1 it discusses the basic tenets of the MP that relate to the analysis of the DPs in human natural languages.

2.1 Literature Review

2.1.1 Studies on the Elements within the DP

There are many studies that have been carried out that seek to analyze the DP structure of natural human languages. These studies are categorized as those on non-African languages and those on African languages.

2.1.1.1 Studies on Non-African Languages

There are many studies that have been done on world languages other than African that analyze and describe the structure of the DP.

To begin with, Abney (1987) proposed a DP-analysis which advocated that the NP is headed by a functional element D, identified with the determiner and since phrases are named after their heads, a phrase headed by a determiner is a DP. This parallels with that of a sentence, which is headed by an Infl(ection). Within this analysis, NPs still exist but they are the complements of the head determiner. This study was relevant to the current study in that it set the stage for a DP-analysis, now famously known as a DP-hypothesis, which was adopted in the current study. In addition, it informed the current study in that it describes the elements and their positions within the DP. This was very relevant in that it guided our analysis of the DP in Naandi.

In addition, Simpson (2005) studied the classifiers and the DP structure in Southeast Asian languages. This study was concerned with how the variation in DP structure can be accounted for across broad range of Southeast Asian languages. This study noted that the significant distortion of underlying DP structure is caused by XP movement inside DP

and the common raising of DP-internal heads to lexicalize and instantiate other higher head positions. This study cited examples from Asian languages such as Burmese, Vietnamese, Khmer, Cantese, Thai, and Nung among other languages.

This study was relevant to the current study in that it dealt with the identification of order of elements and the causes of different surface orders as attested by these languages. This study, therefore informed the current study especially on the identification of linear ordering patterns and the concept of movement of elements within the DP. However, it differed with the current study in that it dealt with Southeast Asian languages whereas the current study dealt with Naandi, a Kenyan Nilotic language hence these languages belong to different languages families. Also, the current study in addition, focused on DP-internal agreement.

Chang (2009) studied the Korean DP whose main focus was on the indefinite/definite markings and the occurrence of nominal phrases that are projected by a determiner head, such as articles and demonstratives. This study argues against Fukui (1995) who notes that nominals in Korean are NPs and demonstratives are adjectives and Lyons (1999) who notes that DPs cannot be projected in Korean syntax due to lack of grammatical D category, and inclusiveness cannot be realized because Korean has "no formal marking of definiteness". Chang (ibid) argues that DPs are universal and are not parameterized cross-linguistically. This study observed that the DP contains [+ref] feature which triggers N to move to D covertly at LF in Korean. This study validates DP-hypothesis even in languages without articles by allowing the demonstrative and a null D to be heads.

This study was relevant to the current study in that it was grounded with MP and DP-hypothesis. Therefore, it informed our study with regard to the description of elements

within the DP, on the co-occurrence of the elements belonging to the functional D category hence the need for each to project their own functional projection which applied to Naandi DPs too. Also, it informed our study on base-generated position of elements within the DP and on the possibility of analyzing DPs even in languages like Naandi which do not have the head determiner in its initial position. This is because, this study argues that DPs are universal and are not parameterized cross-linguistically. Following this proposal therefore, the current study argues that the DP in Naandi is actually head-initial and that the noun-initial surface order is as a result of movement of N –to –Spec DP. Chang's (ibid) study however, differed with the current study in that the two dealt with languages from different language families and the current study also focused on the internal agreement of elements within the DP.

2.1.1.2 Studies on African Languages

There are many studies on African languages that have been done that describe the elements within the DP. These studies range from theory-neutral studies to those based on particular theories. Some of these studies are described below:

First, Rugemalira (2007) studied the structure of the Bantu noun phrase and gave examples from Swahili, Mashami, Nyakyusa among other Bantu languages. This study identified and described the elements that can occur within the noun phrase in Bantu languages and their co-occurrence restriction. It noted that generally in Bantu languages the order is: Pred.>Noun>Det.>Modifiers>Post Modifiers. This study was similar to the current study in that they both dealt with the identification and description of the elements within a DP. Therefore, it informed the current study on the identification of elements and description of their linear order patterns within the DP in Naandi.

However, it differed from the current study in that this study is theory-neutral whereas the current one was grounded with MP. Secondly, it analyzed Bantu languages in general whereas the current study analyzed the DP in Naandi in particular which is a Nilotic language hence the two belong to different language families. Finally, this study only focused on the description of the elements within the noun phrase whereas the current study, in addition to this, sought to analyze their internal agreement.

Similarly, Lusekelo (2009) described the structure of the NP in Nyakyusa, a Bantu language spoken in South Western Tanzania and North Western of Malawi. This study was aimed at moving a step ahead from the focus on the concord across Bantu languages to the analysis of the order of elements within the NP. It noted that the dominant order of elements in Nyakyusa NP is: N > [(Poss) (Dem)] > [(Num) (Quant) (A)] > [(Int) (Rel)]. That is, a noun occurs first followed by the determiners which can either be a possessive or a demonstrative. This is then followed by modifiers category 1 which is a numeral, quantifier or an adjective. Finally, modifiers category 2 follow. This comprise of intensifiers and relative clauses. Here, N selects a determiner, either a Poss or Dem or both, selects mod 1 numerals or quantifiers and then selects mod 2; intensifiers or relative clauses. This study pointed out that: N + A + Int, N + Num + Rel and N + Quant + Rel are readily available in Nyakyusa.

This study was relevant to the current study in that it provided an explicit and a detailed description of the Nyakyusa NP structure. Therefore it informed the current study especially on the identification and description of the elements within the DP and their linear order patterns in Naandi. However, the study was different from the current one in that it is theory neutral whereas the current is grounded within MP. In addition, the two

studies dealt with languages from different language families; Nyakyusa, a Bantu and Naandi, a Nilotic hence their results could not be generalized one for the other. Lastly, in addition to identifying and describing the linear ordering of DP-internal elements in Naandi, the current study also sought to investigate the DP-internal agreement which was not covered in the study by Lusekelo.

In addition, Mose (2012) analyzed and described the structure and the semantic roles of DPs in Ekegusii using Minimalist approach. This study was based on the assumption that MP is a universal research program that can account for the syntactic operations in all natural human languages. It showed that the DP in Ekegusii projects various functional projections. These include; DemP- Demonstrative Phrase, PossD- Possessive Determiner and QP- Quantifier Phrase. Also, it noted that overt Noun raising is observed where NP raises to check agreement, possessive and number features. Further, it demonstrated that other elements that adjoin the NP are APs, PPs and Relative clauses. Moreover, it noted that functional Ds in Ekegusii generally occur in post-nominal position except for occasional instances when they are in pre-nominal position and that DP in Ekegusii perform the roles of; Agent, Theme, Experiencer, Locative, Goal, Source, Recipient and Instrument, where Theme and Agent are very common.

This study is similar to the current study in that it described the DP structure of Ekegusii, an African language using MP as a theoretical framework. Therefore, it was relevant and it informed the current study in terms of the description of elements within the DP, their linear order patterns and in the application of MP's Move and Merge operations and in the base-generation of elements within the DP in Naandi. However, it differed from the current study in two ways. First, this study described the DP structure in Ekegusii, which

is a Bantu language whereas the current study analyzed and described the DP structure in Naandi which is a Nilotic language. Secondly, in addition to describing the DP structure in Ekegusii, this study further analyzed the semantic roles of DPs which was not dealt with in the current study. On the other hand, in addition to analyzing and describing the structure of DP in Naandi, the current study also investigated on the DP-internal agreement. This area was not covered in this study by Mose (2012).

Finally, Sulemana (2012) studied the structure of the DP in Buli, a Gur language spoken in Ghana. This study was grounded within MP and it aimed at examining the class of determiners in the language. In addition, it focused at describing the internal components of the DP; particularly the sequential order of elements within it. The study noted that in Buli modifiers occur post-nominally. Therefore, in order to account for this order, the study argued that NP moves to Spec-DP due to the need for N to check its features with the D-head. Also, this study argued that NumP is always present in Buli overtly. The Num head position is occupied by the [+Plural] morpheme but when the noun has the feature [–plural], then Num realizes a null head. Further, this study noted that within the DP in Buli, functional elements project their own phrases such as NumeralP projected by the numeral and DemP projected by the demonstrative.

This study was relevant to the current study in that it was grounded within MP and it described the internal components within the DP and their sequential order. Therefore, it informed the current study especially with regard to the identification and description of elements within the DP, and on their linear ordering patterns. In addition, it proposed that NP moves within the DP, that there exists NumP and functional projections within the DP. These propositions were very vital in the current study, in that in Naandi too,

determiners and modifiers are post-nominal hence it formed the basis of our argument that the noun raises out of NP and the complex [N+NumP] moves overtly to Spec-DP. Also, it informed our analysis and argument that number and the other functional elements within the DP in Naandi too project their own functional projections such as DemP, PossP, QP,and NumeP. NumP in Naandi act as the landing site for the raised noun and is responsible for checking of agreement features within the DP. The two studies however, differed in that they dealt with languages from different language families and the current study further described the DP-internal agreement.

2.1.2 Studies on DP-Internal Agreement
Many researchers have investigated, analyzed and described the phenomenon of DP-internal agreement in various natural human languages. Some of these studies are discussed below:

2.1.2.1 Studies on Non-African Languages
To begin with, Cinque (1994) studied the Romance DP and argued that in Romance languages, there is evidence for partial N-movement to a functional head intermediate between N and D. Also, the study provided a description on the base-generated position of elements within the DP especially APs. The study further pointed to the existence of NumP which acts as a landing site for the noun that has raised out of NP. This study therefore, informed the current study especially with regard to the evidence of N- raising to a higher functional head and on the existence of NumP, an AgrP responsible for checking of agreement features within the DP. It therefore, supported our claims that in Naandi, there exists NumP which acts as the landing site for the noun that has raised out of NP and that the complex [N+Nump] further moves overtly to Spe-DP.

The two studies however, differed in that they dealt with languages from different languages families.

Similarly, Mateos (2000) presented an analysis of romance nominal projections within the general Principles and Parameters theory and the MP. This study sought to identify and describe the role of and the mechanism responsible for internal agreement. Mateos (ibid) agrees with the DP-Hypothesis proponents in arguing that nominal expressions are projections of the D category. The study noted that there exists overt noun movement in Romance to a functional projection intermediate between D and NP. By providing theory-internal evidence, this study showed that this intermediate functional category is NumP. Examples from French, Spanish and Italian were used to show the different elements taking part in the internal agreement relation and noted that the mechanism responsible for DP-internal agreement is feature-matching at Spec-Head configuration.

This study is similar to the current study in that they both deal with DP internal agreement and uses MP in their analysis. However, it differed with the current study in that it explored the phenomenon of agreement alone whereas the current study also sought to identify and describe the elements within the DP. Also, the two studies dealt with languages from different language families.

Eynde (2006) analyzed and described the NP-internal agreement and the structure of the Noun phrase in Dutch, and occasionally compared it with English and German. It gave a general treatment of NPs currently in generative grammar where the head of an NP is identified with the Det rather than with the Noun. This study acknowledged the fact that this treatment of DPs has advanced because it provides a uniform account of all syntactic categories: both substantive and functional ones and that it provides a natural way of

capturing the co-occurrence restrictions between nouns and determiners. However, this study pointed out that this treatment of DPs is offset by a number of empirical problems, for instance, treatment of genitives. Because of that, the study proposed an alternative analysis model where the nouns are identified as the heads of the noun phrases and Determiners are treated as members of independently motivated lexical categories, especially Adj and Pron. In this proposal therefore, all functional categories should be eliminated. In this study also, there is neutralization of the distinction between spec and mod and it has replaced the classical x-bar analysis with a treatment in which all prenominals are treated as head selecting functors. This treatment combines the strengths of the canonical NPs and DP treatments, and therefore can deal in a straightforward manner with various types of internal agreements.

This study is similar to the current study in that they both dealt with the DP-internal agreement and DP structure. Therefore, it informed the current study in the analysis of these two phenomena: structure and internal agreement. However, their differences were two-fold. First, they differ with regard to the theoretical framework. This study adopted HPSG in analyzing NP-internal agreement and proposes a new way of analyzing NPs that is in between the canonical NPs and DPs where in NP, N-head Det-head selector factors that select the modifier hence utilizes the advantages of DP analysis and does not bear the burdens of its analysis. The current study on the other hand, adopted Chomsky's MP which treats NPs as DPs hence will be a DP analysis where Det is treated as the head of the DP and NP as a complement of the det. Secondly, this study drew its examples from Dutch and occasional German and English. The current study analyzed DP structure in Naandi. These languages belong to different language families.

Rappaport (2002) studied Russian numeral phrases using a Minimalist approach. This study sought to update Babby's (1997) analysis which was done within the x-bar theoretical framework. In this study, it is noted that case assignment within MP can be achieved through two main mechanisms: Merger which operates on lexical items that is , a lexical item is lexically specified combining with a category with a particular case feature through selection hence assigning a lexical/inherent case; and Agree which implements case assignment and predicate agreement. This study also noted that numerals in Russian may be merged in syntactic structure with or without a value for case, that adjectives have unvalued features for all the feature types; that nouns also can be merged with or without a valued case feature, but gender and animacy must be valued and that the distinction between valued and unvalued case features accounts for the distribution and homogenous morpho-syntax within numerous phrases. Moreover, it was realized that structural case is assigned by the operation agree to nouns with an unvalued case feature and that a numeral with a valued case feature which will be copied onto the head noun can stand in a position of structural case, but not in one of the inherent case.

This study was similar and relevant to the current study in that it analyzed numeral phrases using minimalist approach which was also adopted in the analysis of DP structure and internal agreement in Naandi. Specifically, Rappaport (ibid) used the case assignment mechanism; the operation Agree which implements case assignment and predicate agreement. The current study in the analysis of DP-internal agreement in Naandi also employed MP's operation Agree. This was relevant in that in defining this operation Agree, Rappaport (ibid) pointed out that Agree is also the mechanism of noun-phrase-internal-concord where modifiers receive case, number, and gender features from

the noun that they modify hence made it possible for us to apply to the analysis of DP-internal agreement.

In addition, it analyzed numeral phrases which are part of the DPs in many languages, hence relevant since the current study sought to analyze DP in Naandi. However, this study differed with the current one in that Russian belongs to a different language family; that of Slavic whereas Naandi belongs to Nilo-saharan language family. Further, in addition to investigating the DP-internal agreement, the current study sought to identify, describe and analyze the elements that can occur within a single DP, and on their linear ordering patterns. These phenomena are not covered in this study by Rappaport.

2.1.2.2 Studies on African Languages
There are many studies on African languages that analyze the DP-internal agreement. Some of these studies are described below:

To begin with, Tamanji (2000) analyzed agreement and the internal syntax Bafut DPs. This study noted that there is a rich agreement system in Bafut since multiple elements agree with the noun within the DP. Therefore, in addition to the standard Spec-Head relation for checking of agreement features, the study proposed a Head-Head configuration for checking of agreement features of phrasal categories. Further, this study pointed out the existence of NumP and other functional projections within the DP. NumP helps in checking of agreement features within the DP without resorting to multiple AgrP.

This study was relevant and it informed the current study especially with regard to analyzing agreement of phrasal categories, of functional categories, on the noun raising to Spec-DP via Spec of the functional projections in overt syntax and on the analysis of a DP in a language where a noun occurs at the initial position while determiners and

modifiers occur post-nominally. However, the two studies analyzed languages belonging to different language families; Bafut a Bantu language spoken in Northwest Cameroon and Naandi, a Nilotic language of Kenya.

In addition, Carstens (1991) analyzed the morphology and the syntax of Determiner Phrases in Kiswahili. This study proposed that number should be analyzed as a syntactic category in order to provide a unified account for number words and number morphology. The study also proposed that the noun raises out of NP and incorporates number features in form of syntactic affixes contained in NumP triggering Spell-out. This study therefore, was relevant to the current study in that it was grounded within MP. Thus it informed our study especially with regard to the existence of NumP, N-raising out of NP and on the base-generated positions of elements within the DP. This was important since in the analysis of the DP in Naandi, the current study also proposes that, there exists NumP phrase which is the locus of number feature and is the landing site for the noun that has raised out of NP. This NumP is also responsible for checking of agreement features within the DP in Naandi.

This study however, differed with the current study in that the two analyzed languages from different languages families; Kiswahili, a Bantu language and Naandi, a Nilotic language.

Finally, Koopman, (2003) studied the structure of the DP in Maasai with major focus on the locality of agreement. This study argues that Spec-Head agreement hypothesis should not be abandoned. The study also noted that all DPs containing common nouns in Maasai has the clausal structure D CP and are basically relative clauses. Further, it observed that the head noun, the NP predicate, originates inside a small clause within the relative

clause, and moves to the subject position through predicate inversion. In its analysis of agreement, the study noted that there is asymmetric agreement within the DP in Maasai, heads that are in Spec-Head relation with a NP will show agreement for only those features which are present at that stage of the derivation. All agreement is due to local NP movement and that the morphemes at the left edge are heads that are merged low in the structure and they are moved into the D region.

This study was relevant to the current one in that it was grounded within MP and it analyzed the DP-internal agreement which was analyzed in the current study too. Also, it dealt with a language belonging to Eastern Nilotic family in which Naandi, too is a member. Therefore, it informed the current study with insights regarding the agreement phenomena; the domain for obtaining agreement and on the NP movement within the DP. So far, the study has discussed literature that was relevant to the current study. In the following section 2.2, the study discusses the MP framework which underpinned the analysis of the DP in Naandi.

2.2 The Minimalist Program

The MP is the most recent research program in syntactic theory that was developed within the framework of the Principles and Parameters theory. It was proposed by Chomsky, 1993, 1995, 2000 and 2001. Before the development of the MP, there existed other approaches to syntactic analyses. For instance, Traditional Grammar (TG), where grammar was analyzed in terms of parts of speech and their role in sentence construction. This approach was faced with inadequacies and this led to the formulation of Phrase Structural Grammar (PS) to substitute TG. PS had a rule in the form of: S   NP   Aux VP which accounted for the well-formedness of a sentence. However, PS could not account for all the sentences in the English language; for instance, the passive sentences.

Because of that, the Transformational Generative Grammar model (TGG) was formulated in 1960s. TGG consisted of series of rules such as deletion, passivization, dative movement and affix hopping rules. These rules guided on how several transformational processes were to be carried out before a sentence becomes grammatical.

The Government and Binding theory was formulated in early 1970s. GB consisted of seven sub-theories which helped in accounting for the well-formedness of grammar of language namely: X-bar, Government, Case, Control, Theta, Binding and Bounding theories. These sub-theories however, made syntactic analyses unnecessarily very complex. This led to the development of the MP for linguistic theory in the early 1990s.

Therefore, the MP was adopted in the current study because of three main reasons: First, the MP aims at eliminating many of the complex processes and apparatus that were employed by the earlier generative theories as outlined above. This means that there are only necessary and minimal apparatus that are used in any linguistic description and analysis. In addition, the simplification of the MP approach has led to greater breadth and depth of understanding and achievement of the descriptive adequacy as well as the explanatory adequacy which are the major concerns of any linguistic theory. Due to this, Chomsky (1995) noted that the human language faculty might be a computationally perfect solution to the problem of relation of sound and meaning. Finally, the MP integrates morphology and syntax in its analysis.

2.2.1. The Basic Tenets of the MP
MP is built around a number of leading ideas and assumptions that form the basis of syntactic analysis of natural human languages. To begin with, the principle of economy of the derivation and representation of syntactic structures underlies the MP (Chomsky

1993). This means that within the MP, only the minimal number of structures and processes should be used in order to account for the language phenomena.

Similar to the foregoing, within the MP, there are only two necessary 'interface' levels for the derivation and representation of linguistic expressions that are recognized: the Articulatory-Phonetic (A-P) interface, PF and the Conceptual-Intentional (C-I) interface, LF. PF is associated with the sound whereas LF is associated with meaning; hence it provides the interaction between sound and meaning.

In addition, within the MP, the grammar of a language is made up of two components: the lexicon and the computational system, Al-Shorafat (1998:124). The lexicon determines the lexical items that enter the Computational System (CS) fully formed with their inflectional as well as derivational morphemes whereas CS uses these lexical elements to generate derivations and structural descriptions.

According to Chomsky (1993), structures therefore are built by taking smaller structures and combining them by a computational procedure, starting with a set of lexical items drawn from the lexicon to form larger structures. The lexical or functional elements are at the bottom level of the structure building from which larger syntactic structures are build. Therefore, within the MP, the structure building process proceeds in a bottom-up way. For example, given the elements or phrase structures, A and B, they are combined to form a new larger structure C with the structure [c A B]. These labels and the structures that are build should be consistent with the principles of the X-bar theory.

Further, within the MP, in order for the derivation to have two fully formed structural representations, one at PF and one at LF, the representation must diverge at a particular point called 'spell-out'. This can be schematically represented as follows:

1.   Numeration (Lexicon)

Overt movements   spell-out

                                    Phonetic form (PF)

Covert movements

             Logical Form (LF)
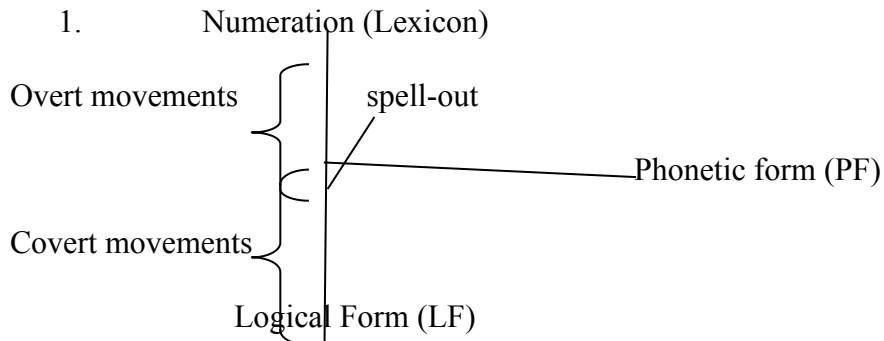
Furthermore, in the MP, there are two types of movements: overt and covert movement, Chomsky (1995). Overt movement is that which takes place before spell-out at PF whereas covert movement is that which takes place after spell-out, at LF as shown in the diagram (1) above. These two movements are triggered by the presence of strong and weak features respectively. Chomsky (1993) noted that features of functional projections can either be 'strong' (visible) or 'weak' (invisible) at the interface level, PF. These strong syntactic features therefore, must be checked, valued and deleted before Spell-Out for the derivation to converge, otherwise, it crashes. These features are checked overtly triggering overt movement of elements in the derivation. Weak features on the other hand, are invisible at PF hence they do not have any impact on the phonetics and the phonology of the structure. Therefore, they are checked, valued and deleted at LF.

These two movements should be in line with the principle of Full Interpretation (FI) which requires that there should be no illegitimate object that is visible at LF. Only legitimate objects have an interpretation at the (PF or LF) interface, and so this requires that the LF interface be made entirely of interpretable objects only. Thus, at LF, all the relevant features must have already been checked in order for a grammatical structure to result. Within MP, therefore, all the human natural languages are syntactically similar,

and the existence of superficial differences is as a result of languages applying in either overt or covert syntax. Specifically, within MP the word order is derived through movement of constituents.

Moreover, within MP, movement of constituents is triggered by the need to check features. This means that all movements of constituents are caused by feature checking requirements. Certain kinds of features must be checked or licensed by being in a certain structural configuration with the head which is lexically allowed to check that feature by virtue of its features. In general, this is done by moving the category marked for that feature to the Spec of a head which can check that feature, that is, into the head's checking domain. This movement enables the features of the moved lexical constituent to be compared with those of the landing site in a functional projection. After these features of a lexical element have been checked against those of a functional head, they are deleted. Therefore, within MP, feature-checking is the core operation that is attained through movement. In the analysis of the DP in Naandi, this operation of feature-checking through movement was at the core since the functional elements within the DP contained features that needed to be checked by moving the noun to their specifier positions.

Related to the foregoing, within MP, there are three constraints on movement that was proposed by Chomsky (1995). These are: The Minimal Link Condition, which states that movement is only allowed into the nearest relevant position alpha that is, constituents within syntactic representations must make the shortest move. The principle of 'Procrastinate' delays movement as long as possible, and requires that features which do not need to be checked "overtly" must be checked "covertly" after spell-out and before

LF. The Principle of 'Greed' allows immediate movement of an element in order to satisfy morphological property of its own. If any of these constraints is violated then the derivation will crash and it will result in an ungrammatical sentence.

Finally but more importantly, within MP, there is a unified analysis of all the elements within a sentence: lexical and functional categories. All the categories whether lexical of functional can head a phrase. It is important to point out that even some syntactic or grammatical elements such as Complementizer (c), Det., Agr, Inflection, Number, and Tense all can perform the function of the head phrase. Therefore, within MP, there are several phrases. This fact was important in the analysis of the DP in Naandi, in that, in the process of derivation, there are many functional projections headed by a functional element that were projected. For instance, DP-headed by a det., NumP-headed by number, QP-headed by a Q, DemP-headed by a Dem., PossP-headed by Poss among others.

2.2.2 MP'S Merge, Move, Agree and the DP in Naandi.
There are three basic structure-building operations within MP that was adopted in the analysis of the DP in Naandi. These are Merge, Move and Agree.

Merge is an operation which functions to build up larger structures out of smaller ones (Adger, 2002) in a bottom-up way. This operation is motivated by the need to group words into constituents or join two syntactic objects together. Schematically, Merge can be illustrated as follows:

2. Merge:
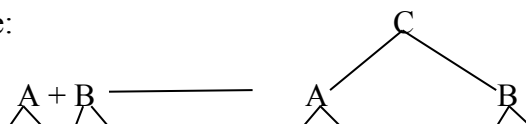
In the above structure, a lexical item or a phrasal category, A is merged with another item, B to form a new object, C. The new item created immediately contains the original objects. C is the mother of A and B, A and B are daughters of C and A and B are consequently sisters.

In the analysis of the DP in Naandi, this operation was applied. This is because in Naandi, there are many elements that occur within the DP that need to be combined to form a larger structure in the process of derivation. Consider the basic structure of the DP comprising of D and NP:

3.
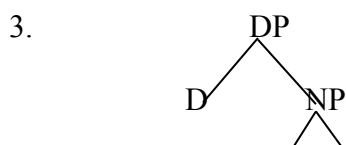
The operation Merge combines the phrasal category NP with the functional D-head to form a new larger structure DP.

Move is a syntactic operation within MP, which takes a structure formed by applications of merge, and then moves one of the elements of that structure into another position in the tree. Chomsky (1995) following Kayne (1994) points out that movement is always leftwards since heads and specifiers, which are the only positions to move to, are always to the left in the tree. Just like Merge, Move builds structures in a bottom-up way. The moved tree must be contained in the tree that was built so far. There should be lexical insertion followed by movement. The operation Move leaves a trace in the original place where an element was before the operation Move was applied.

Schematically, this would be presented as follows:

4. Move:
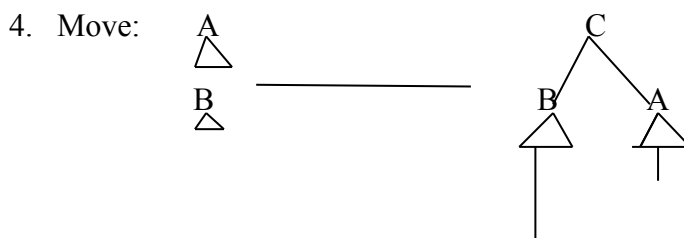
tb
‾‾‾‾‾|

From the above structure, the operation move takes a sub-structure A and B, and creates a

new phrase C which has A and a trace of B as immediate sub-structures.

In the analysis of the DP in Naandi, the operation move was applied in order to derive the

surface word order where the noun is at the initial position whereas the head determiners

and modifiers are post-nominal. In the current study, the researcher argues that the DP in

Naandi is underlyingly head-initial and the noun complement is actually at the final

position of the DP. Because of the presence of strong features on the D-head and other

functional projections within the DP in Naandi that need to be checked before spell-out,

following the principle of Full Interpretation, the noun complement moves overtly to

Spec-DP where it is spelled out and occupies it overtly. This ensures that the derivation

converges at both PF and LF. Consider:

5. Laakw-et

    ChildSG Def (The child)

```
              DP
           /     \
        Spec      D'
         |       /  \
       Laakw   D     NP
               |     /\
               et   tn
```
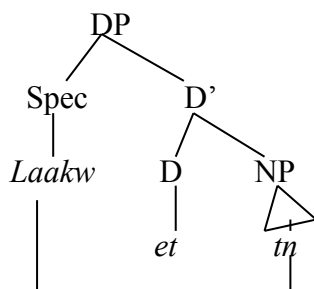
This operation Move was vital in the analysis of the DP in Naandi, since it made it

possible for NPs to be analyzed as DPs hence confirmed the universal DP-hypothesis and

refute claims by some researchers that languages which have the noun at the initial position cannot be analyzed as DPs headed by a determiner, Nweke (2011).

Finally, Agree is another syntactic operation within the DP that was applied in the current study. Agree establishes a relation between two elements on the basis of feature-match. Chomsky (1995) made a distinction between interpretable and uninterpretable phi-features. Interpretable features are those that have meaning whereas Uninterpretable features are those that have no semantic value. Later, Chomsky (1999) calls these features valued and unvalued features respectively. A feature, for instance; Definiteness, can take indefinite and definite values. Here, a lexical item can enter the derivation with some features still unvalued. For the derivation to converge, the unvalued features must be valued and deleted in order to save the derivation from crashing.

Therefore, Agree is a relation which takes place between a probe, carrying an uninterpretable feature and a goal, carrying a matching interpretable feature, in such a way that the goal C-commands the probe.

According to Chomsky (2001) thus, an element A agrees with B iff:

  i.   A and B are in proper local domain

  ii.   A carries at least one unvalued and uninterpretable feature [uF]

  iii. B carries a matching interpretable and a valued feature [iF]

  iv.   A C-commands B

  v.   B is the closest goal to A; there is no matching active goal between A and B carrying [iF]

  vi.   B bears an unvalued uninterpretable feature, which can be checked against A

Schematically, these can be presented as follows:

6. Agree: A B

    [uF] [iF]

    [uK] or

7. Agree: A B

    [uF] [iF]

    [iK] [uK]

In the above examples, after agree between A and B has taken place, [uK] in (6) above is checked as a reflex of the feature checking between [uF] and [iF]. In (7), [uK] checks its feature against [iK] on A. Therefore, both [uF] and [uK] are checked after application of Agree. Consider:

8. After Agree: A B

    [~~uF~~] [iF]

    [iK] [~~uK~~]

Agree was applied to the analysis of the DP-internal agreement. This is because elements within the DP in Naandi show agreement. Consider:

9. Laakw -et

    [~~uDefiniteness~~] [iDefiniteness]

    [iNumber] [~~uNumber~~]

    Child Def art affix (The child)

From the above example, the noun *Laakwa* and the definite article affix establishes an Agree relation with each other. The noun carries an uninterpretable and an unvalued

definiteness and an interpretable number features, the definite article affix on the other hand, carries an uninterpretable and an unvalued number and an interpretable and valued definiteness. Therefore, both [uDef] and [uNum] are checked, valued and deleted resulting in a grammatical DP.

It is important to note that the three operations, Merge, Move and Agree are applied simultaneously in the process of derivation. All are motivated by the need to check and value any uninterpretable and unvalued features which are illegitimate at LF and which could cause the derivation to crash rather than converge.

In conclusion, this chapter has discussed the literature that was relevant to the current study. In addition, it has described the Minimalist Program for grammatical theory and how it was used in the analysis of the DP in Naandi.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter describes the research site, the research design and the population of the study. In addition, it outlines the type and size of the sample, the sampling techniques, the data collection and data analysis techniques.

3.1 Research Site

This study was carried out in Nandi County. Nandi County is located in western part of Kenya. Specifically it is situated in the northern region of the Great Rift Valley. Nandi County was chosen as the research site for the study basically because Naandi is widely spoken as the MT by majority of the population in this county. In addition, the researcher comes from this region; therefore it was more convenient for the researcher when

compared with the other counties (Uasin-Gishu and Trans-nzoia) where Naandi is spoken as MT. Specifically, the study was carried out in Kamwega sub-location, Sang'alo Location, Mosop Sub-County.

3.2 Research Design

According to Mutai (2000), a research design is a specific plan for studying the research problem. It is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. This study was of qualitative type. It adopted a descriptive research design. This design was adopted because it results in fact finding and also in the formulation of important principles of knowledge and solutions to significant problems. The study sought to identify and describe the elements that make up the DP, their linear ordering pattern(s) and the internal agreement of these elements in Naandi. The 60 DPs that was obtained through self-generation by the researcher, 30 DPs from secondary sources, specifically content analysis of the bible stories in Naandi and from the *Oral Literature of the Kalenjin* (Chesaina 1991) and 30 DPs from participant observation where the researcher recorded, transcribed and analyzed the conversations in Naandi was described. The researcher believed that this descriptive design provided all the details that were necessary and relevant for the identification and description of the elements that make up the DP, their linear order pattern(s) and DP- internal agreement in Naandi.

3.3 The Sample and the Sampling Design

3.3.1 Population of the Study

The target population of the study comprised of all the speakers of Naandi and all the written scripts in Naandi.

3.3.2 The Sample Size
A sample is a sub-set or a small part of the total number of the population that is studied.
The sample of the current study comprised of ten speakers of Naandi and two written
documents in Naandi; the bible and *Oral Literature of the Kalenjin* (Chesaina 1991). The
researcher believed that this sample was representative enough and hence would give
accurate and appropriate data that would be easily generalized.

3.3.3 Sampling Techniques
A sampling technique refers to a scheme or a plan which spells out the process of
selecting a suitable sample or representative part of a population for the purpose of
determining parameters or characteristics of the whole population (Mutai, 2000). It is
important because it helps the researcher in determining how s/he will generalize the
results to the study. The current study adopted a non-probability sampling technique. This
technique was used because the study was interested in obtaining sentential constructions
in Naandi that contain DPs. Therefore, the technique that was to be adopted for such a
study must not be based on randomization.

Specifically, purposive sampling technique was used in the current study. This was done
in three stages. First, the researcher self-generated sentences in Naandi then using
purposive sampling; extracted sixty DPs from these sentences. Secondly, the researcher
purposively selected ten speakers of Naandi who were engaged in a conversation. The
researcher participated in their conversations and recorded it. The researcher then
extracted sentences from these conversations that gave the thirty DPs in Naandi. Finally,
the researcher sampled out randomly three stories from the Naandi bible and four from
Oral Literature of the Kalenjin (Chesaina 1991) from which thirty DPs were obtained.

3.4 Data Collection Techniques

The current study employed three techniques of data collection. To begin with, it used introspection as a data collection technique. This is where the researcher relied on native speaker competence in Naandi in self-generating sixty (60) DPs in Naandi. This technique was adopted because it was a cost effective method of obtaining data particularly because it does not involve any travelling to the field.

In addition to introspection, the current study used secondary method of data collection. This involved the process of reviewing written documents. Specifically, it employed content analysis of three bible stories in Naandi; "*Ng'olyot agabo yaetab ng'ony*" (The Creation Story), *"Saet ne kiinet Kiptaiyat Jesu Alamalyet"* (The Lord's Prayer) and "*Kalewenet agobo Kolindet*" (The Sower and the Seed) (Bukuit ne Tilil 1969:5-6, 888 and 896) and four stories from *Oral Literature of the Kalenjin*; "*Werik che Tupcho Tisap*" (The Seven Brothers), "*Tibik Taman ak Aeng*" (The twelve Girls) both narrated by Tapsiarga Cheruiyot from Lelmokwo Nandi, "*Amu nee Asi Kowalei Borto Nyiritiet*" (Why Chameleon Changes its Color) and "*Atindiot-ab Robta Nekimarobon*" (The Story of the Drought) both narrated by Hadija Kiptoo from Eldoret (Chesaina 1991). Here the researcher obtained thirty (30) DPs. This method was employed because it provided a relatively easy and inexpensive access to a vast amount of data required for the study. Also, it was a cost effective method of obtaining a large scale of data.

Finally, the study used participant observation technique to obtain thirty (30) DPs. This was adopted because, observation offers the social researcher a distinct way of collecting data (Mutai, 2000). It draws on the direct evidence of the eye to witness the events first hand. Mutai (ibid) defines participant observation as the method in which the observer participates in the daily lives of the people under study, either openly in the role of

researcher or covertly in some disguised role observing things that happen, listening to what is said and questioning people over some length of time. While participating in conversations among Naandi speakers, the researcher listened to and recorded the conversations in Naandi. This was done in order to obtain sentential constructions in Naandi containing DPs for the study. The recorded conversations were then coded, transcribed and analyzed. This technique was used because the researcher was interested in identifying the linear word order of elements within the DP in Naandi, therefore, conversations gave a natural way of the elements as they occur within the DP. This enabled the researcher to identify these linear order patterns within the DP.

In total, the researcher used one hundred and twenty DPs in the study. This amount of data was used because, in addition to identifying and describing the elements within the DP, the researcher was also interested in identifying the linear ordering of elements within the DP. This therefore meant that adequate amount of data was needed in order to reach at a good conclusion on how the elements are ordered within the DP in Naandi.

3.5 Data Analysis Techniques

According to Mutai (2000), data analysis is the process of interpreting the data that has been collected. It involves partly computation and partly intuitive knowledge of which variable to examine and what relationships to explore. In the current study, the researcher used open coding. This is whereby intuitive knowledge is used in identifying the underlying sentential constructions that have been collected and subsequently coding them as DPs. After coding, the different structures of the DPs in Naandi were presented and described. Finally, MP's Agree, Merge and Move operations were applied in the analysis of DPs in Naandi.

3.6 Ethical Considerations

All the information that was gathered in this study would be used for academic purpose only. In addition, in the case of participant observation, the researcher would not disclose the names of the participants in order to enhance privacy. Finally, a research permit was obtained from the National Council for Science, Technology and Innovation. (NACOSTI).

In conclusion, this chapter has described the research site, the research design and the population of the study. Also, it has outlined the type and the size of the sample, the sampling technique, the data collection and data analysis techniques that were adopted in the study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.0 Introduction

This chapter presents and analyzes data of the DP in Naandi. It identifies, describes and investigates the internal agreement of the elements that occur within a single DP in Naandi using a Minimalist perspective. First, the study looks at the internal structure of the DP in Naandi. In sub-section 4.1 it presents and analyses data on the identification and description of the elements within the DP. Sub-section 4.2 presents data on the linear ordering of elements within the DP. Finally, sub-section 4.3 provides an investigation of the DP-internal agreement.

4.1 Elements within the DP in Naandi

In Naandi, there are up to eleven elements that can occur within DP. These include:

Nouns, pronouns, article affixes, demonstratives, possessives, quantifiers, numerals,

adjectival phrases, prepositional phrases, genitive phrases and relative clauses. Each of these elements is described below:

4.1.1 Nouns

According to Warriner (1982), a noun is a word used to name a person, place, thing or idea. They are classified as common, proper and compound nouns. Other classifications are concrete and abstract, count and mass nouns. Traditionally, a noun phrase is a single noun or a group of words, comprising a determiner, a noun and a modifier, which is used to refer to a person, a place, a thing or an idea and whose head is the noun. Within the minimalist framework and the DP analysis, Abney (1987), this canonical NP is analyzed as a DP and a noun that occurs within the DP acts as a complement of the head determiner.

As mentioned in Chapter one, the tradition which currently prevails in generative grammar is the one which treats NPs as DPs being headed by a functional category containing D-feature and has an NP as its complement (Abney 1987, Carstens 1991, Culicover 1997, Tamanji 2000, Mateos 2000, Adger 2002, Sulemana 2002, Chang 2009, Danon 2010 and Mose 2012) . Ideally, a DP should have the head determiner occurring at the initial position followed by the other elements. Some researchers argue that those languages that have the noun at the initial position and those that do not have articles like Korean and some Slavic languages are better analyzed as NPs rather than DPs (Fukui 1995, Zlatic 1998, Chierchia 1998 and Lyons 1999). However, the proponents of the universal DP hypothesis argue that the functional structure in narrow syntax is uniform across all languages and that there exists a DP in all languages (Culicover 1997, Lin 2008 and Chang 2009).

Based on the DP surface word order, Naandi is a head-final language. This means that the noun complement within the DP usually occurs at the initial position whereas the head determiner occurs at the final position. Also, there exists article affixes; definite and indefinite and overt demonstratives, possessives and quantifiers which follow the noun and they belong to the D- category within the DP in Naandi. Despite this noun-initial surface order in Naandi, in this study, following the proponents of the universal DP-hypothesis, the researcher argues that the DP in Naandi is underlyingly head-initial. Structurally, therefore, following MP's operations Agree, Merge and Move the noun-initial surface order as attested in Naandi, is as a result of overt noun raising out of NP and a further movement of NumP to Spec position of the DP motivated by the need to check and value agreement features with the various functional projections within the DP, as will be shown in Chapter Five.

Crosslinguistically, nouns are usually classified into two main categories. These are: Substantive and Derived nouns. Substantive nouns refer broadly to nouns in their normal forms, having a separate and independent existence and functioning syntactically as nouns. Derivative nouns on the other hand refer to those nouns that are formed through the nominalization processes such as affixation or morphological transformations and zero-derivation or conversion or affixation of a null morpheme which may occur through change in tonal pattern.

4.1.1.1 Substantive Nouns
Hollis (1909) classified substantive nouns in Nandi into eleven distinct classes. In that study, the term Nandi is used to refer to all the Kalenjin dialects comprising of Naandi proper, Kipsigis, Keiyo, Tugen, Marakwet and Sabaot and including Maasai. In Hollis' (ibid) classification, nouns are classified based on how they form plurals either with or

without the article. In the current study however, substantive nouns are classified into seven distinct classes based on how they form plurals in the indefinite form. This classification is adopted since it is the plural indefinite morpheme(s) that determines which class a noun falls into. Hollis' (ibid) Class VIII substantive nouns take –*ta*, or –*to*, or –*da* or –*do* in forming their singular definite article. For example:

Pesen	pesen-**do**	pesen-**ua**	pesen-u-ek
Debt SGIndef	DebtSGDef	DebtPLIndef	DebtPLDef

From the above example, it is clear that the indefinite noun *Pesen* (debt) forms its indefinite plural by adding –*ua*. This noun behaves like Class III nouns in the current study; therefore they are better analyzed as Class III other than having a different Class for these nouns.

Similarly, Hollis' Class IX substantive nouns are classified based on how they form their singular definite form. Like, Class VIII, they too take –ta, to, da or –do definite article affixes. Consider:

Ei	Ei-**to**	Ei-**n**	Ei-ik
OxSGIndef	OxSGDef	OxPLIndef	OxPLDef

From the above example, it is clear that the noun *Ei* (Ox) forms its plural indefinite form by adding the sound-*n* to its indefinite form. This behaves exactly like Class II substantive nouns in the current study.

Therefore, in order to have a uniform basis of classification, it is important that Hollis' Class VIII and IX be analyzed as belonging to Classes III and II respectively since they take the indefinite plural morpheme(s) typical of Class II –*n* and Class III –*ua* substantive nouns.

In addition, Holli's (ibid) Class VI does not apply to Naandi since his examples, for instance *suwe - suwe-nut* falls rather in Class V which takes the indefinite plural morpheme of *–sio* instead of *–nut* as indicated in that study. Finally, Class XI substantive nouns on names of tribes, traders and callings are better classified under derivative nouns since they behave exactly like nouns that are derived from verbs that denote agents.

Therefore, as mentioned earlier, substantive nouns in this study are classified into seven distinct classes. Each of these classes is described below:

4.1.1.1.1 Class I
This class comprises of those nouns that form their indefinite form of plural by adding the suffix *-i* to the indefinite singular form. This is the most common way in which nouns in Naandi form their plural form. Most nouns belonging to this class have their indefinite singular form ending in *–a*. For example:

Singular	-	**Plural**
1. Kaina	-	Kaina-**i**
Name SG Indef	-	Name PL Indef
2. Kina	-	Kina-**i**
Breast SG Indef	-	Breast PL Indef

Some of the nouns which belong to this class change their final sound(s) in singular before forming their plurals. For instance, nouns which end in *–a, -ya* and *–wa* usually drop these final sounds before adding *–oi* to form their plurals. Consider:

3. Cheplang**a**	-	Cheplang-**oi**
Leopard SG Indef	-	Leopard PL Indef
4. Kim**ya**	-	Kim-**oi**
Ugali SG Indef	-	Ugali PL Indef

5. Laak**wa**   -   laak-**oi**

    Child SG Indef   -   child PL Indef

Other nouns belonging to this Class that end with a glide -*ua* , drop this suffix before adding the suffix –*onoi* to form their indefinite plural. Consider:

6. Kipleng**wa**   -   Kipleng-**onoi**

    Rabbit SG Indef   -   Rabbit PL Indef

7. Choor**wa**   -   choor-**onoi**

    Friend SG Indef   -   Friend PL Indef

The other nouns that can be classified as belonging to this class, simply add the suffixes –*oi* or –*ai* to the indefinite singular to form the indefinite plural form. These nouns end in a consonant sound. Consider:

8. Ngor   -   Ngor-**oi**

    Cloth SG Indef   -   Cloth PL Indef

9. Ingok   -   Ingok-**ai**

    Chicken SG Indef   -   Chicken PL Indef

4.1.1.1.2 Class II
This class constitutes nouns which form their indefinite form of plural by adding –*n* to the singular indefinite form. Most of these nouns are disyllabic and end in a vowel sound. Consider:

10. Sese   -   Sese-**n**

    Dog SG Indef   -   Dog PL Indef

11. Moso   -   Moso-**n**

    Monkey SG Indef   -   Monkey PL Indef

Some monosyllabic nouns belonging to this class form their plural by adding –*un* to the singular indefinite form. This group of nouns takes –*ut* singular definite article to form their singular definite form and –*ek* plural definte in forming their definite plural forms. For example:

    12. Ser   -   Ser-**un**

        Nose SG Indef   -   Nose PL Indef

    13. E   -   E-**un**

        Hand SG Indef   -   Hand PL Indef

In addition, other nouns in this class form their plural by adding –*in* to the singular indefinite form. Most of these nouns end in –*t,* and take the singular definite article –*it* to form their definite singular form. In forming their plural definite form, these nouns simply drop the final –*n* of the indefinite form and they add -*k* as will be shown in sub-section 4.3. Consider:

    14. Ket   -   Ket-**in**

        Tree SG Indef   -   Tree PL Indef

A few other nouns that end in –*i* and –*ny* also add –*in* to form their plural indefinite form. Those that end in –*i* take the singular definite article –*ta* or –*to* whereas those that end in –*ny* take –*do* singular definite article as will be shown in Sub-section 4.3.

    15. Koi   -   Koi-**in**

        Stone SG Indef   -   Stone PL Indef

    16. Kwony   -   Kwony-**in**

        WomanSG Indef   -   Woman PL Indef

Further, other nouns belonging to this class add *–en* to the singular indefinite form in order to form their indefinite plural. Most of these nouns which add *–en* to form their indefinite plural, usually end in a *–r* sound. Consider:

17. Mbar   -   Mbar-**en**

     Land SG Indef   -   Land PL Indef

18. Ter   -   Ter-**en**

     Pot SG Indef   -   Pot PL Indef

Other monosyllabic nouns in this class form their plural by adding *–on* to the singular indefinite form. Consider:

19. Sot   -   Sot-**on**

     Gourd SG Indef   -   Gourd PL Indef

20. Muk   -   muk-**on**

     Lit SG Indef   -   Lit PL Indef

Other nouns belonging to this class that end in *–ywa* drop this last sound before adding *–on* to form their plurals. Consider:

21. Ai**ywa**   -   Ao-**on**

     Axe SG Indef   -   Axe PL Indef

22. Kipso**ywa**   -   Kipso-**on**

     Cock SG Indef   -   Cock PL Indef

Therefore, as illustrated above, Class II substantive nouns take *–n* as their indefinite plural morpheme with *–un, -in, -en* and *–on* as its allomorphs.

4.1.1.1.3 Class III

These are nouns which form their plural by adding *–ua* to the singular indefinite form. Consider:

23. Sus   -   Sus-**ua**

     Grass SG Indef   -   Grass PL Indef

24. Bor   -   Bor-**ua**

     BodySG Indef   -   BodyPL Indef

In addition, some monosyllabic nouns belonging to this class form their indefinite plural form by adding –*tinua,* or -*otinua,* to the singular indefinite noun. This illustrates the fact that monosyllabic stems tend to take longer suffixes.For example:

25. Or   -   Or-**tinua**

     Path SG Indef   -   Path PL Indef

26. Lol   -   Lol-**otinua**

     Bag SG Indef   -   Bag PL Indef

Further, other monosyllabic nouns belonging to this class add –*usua* to the singular indefinite form in order to form the plural indefinite form. Consider:

27. **Kat**   -   Kat-**usua**

     Neck SG Indef   -   Neck PL Indef

28. **Kut**   -   Kut-**usua**

     Mouth SG Indef   -   Mouth PL Indef

Other nouns that may be considered as belonging to this class end in -*ia* or –*o.* They usually drop these sounds before adding -*ua* to form the plural indefinite form. Consider:

29. Kebeber**ia**   -   Kebeber-**ua**

     Portion SG Indef   -   Portion PL Indef

30. Logoiy**o**   -   Logoiy-**ua**

News SG Indef   -   News PL Indef

In conclusion, Class III substantive nouns take –*ua* as their indefinite plural morpheme with –*tinua, -otinua* and –*usua* as its allomorphs suffixed to monosyllabic nouns belonging to this class.

4.1.1.1.4 Class IV
This class comprises of nouns that were first known as collective nouns but have come to obtain a singular form by suffixing -*ia, -ya -yo, -o* and –*cho* to the plural indefinite form. As such, their indefinite plural form is usually the root form. Consider:

31. Mur-**ia**   -   Mur

  Rat SG Indef -   Rat PL Indef

32. Kechei-**ya**   -   Kechei

  Star SG Indef -   Star PL Indef

33. Pun-**yo**   -   Pun

  Enemy SG Indef -   Enemy PL Indef

34. Kerich-**o**   -   Kerich

  Medicine SG Indef - Medicine PL Indef

35. Solop-**cho**   -   Solop

  CockroachSGIndef - CockroachPLIndef

In addition, other nouns which may be considered as belonging to this class usually change the final –*e* sound in plural indefinite form into –*io* or-*ia* in forming their indefinite singular form. For example:

36. Mokor-**io**   -   Mokor**e**

  Rich SG Indef -   Rich person PL Indef

37. Pand-**ia**   -   Pand**e**

             Maize SG Indef   -   Maize PL Indef

In summary, Class IV substantive nouns take a zero indefinite plural morpheme since these indefinite plural forms are their base forms. The indefinite singular form on the other hand, take different suffixes ranging from –ia, –ya, –o, -io, -yo and -cho as their indefinite singular morphemes as illustrated above.

4.1.1.1.5 Class V

This class consists of those nouns which form their indefinite plural by adding –sio to the singular indefinite form. Most of these nouns end in vowel sound (s). For example:

      38. Aino   -   Aino-**sio**

         River SG Indef   -   River PL Indef

      39. Tupcho   -   Tupcho-**sio**

         Sister/BrotherSGIndef -   Sister/Brother PL Indef

Other nouns belonging to this class drop the final sound(s) in indefinite singular form before adding –sio. Consider:

      40. Poi-yo   -   Poi-**sio**

         Old manSGIndef   -   Old man PL Indef

In addition, other nouns belonging to this class add –osio, -isio or -usio instead, to form the indefinite form of plural. Consider:

      41. Kepen   -   Kepen-**osio**

         Cave SG Indef   -   Cave PL Indef

      42. Keny   -   Keny- **isio**

         Year SG Indef   -   Year PL Indef

      43. Bet   -   Bet-**usio**

Day SG Indef   -   Day PL Indef

Class V substantive nouns therefore take *–sio* as their indefinite plural morpheme with *–osio, -isio* and *–usio* as its allomorphs as described above.

4.1.1.1.6 Class VI
This Class comprises of those nouns that do not vary in the plural except for the change of tonal pattern. Consider:

44. *Ke*chir   -   Ke*chir*

    SheepSGIndef   -   SheepPLIndef

45. *Ta*purpur   -   Tapur*pur*

    ButterflySGIndef   -   ButterflyPLIndef

Class VI substantive nouns thus have a zero indefinite plural marker since they have the same forms for both the indefinite singular and indefinite plural but change supra-segmentally.

4.1.1.1.8 Class VII
This Class comprises of suppletive substantive nouns. Hurford, (2007) defines suppletion in morphology as the use of two or more phonetically distinct roots for different forms of the same word. In this study, it is used to refer to those nouns that form their plural forms irregularly. Consider:

46. Ara   -   Nee

    Sheep SGIndef   -   Sheep PL Indef

47. Kiy   -   Tugun

    Thing SG Indef   -   Thing PL Indef

Class VII substantive nouns therefore take a zero indefinite plural marker since they take different base forms for the singular and plural.

In conclusion, substantive nouns are classified into seven distinct classes based on how they form their plurals in the indefinite form as illustrated above. It is important to point out that while there is a definite and an indefinite form of the noun in Naandi, in normal speech, the two forms seem to be in free variation. The definite form is usually preferred and the indefinite form is becoming degenerate in the language. Class I nouns take *–i* as their indefinite plural morpheme with *–oi, -onoi* and *–ai* as its allomorphs. Class II substantive nouns take *–n* as their plural morpheme with *–in, -on, -un* and *–en* as its allomorphs. Class III nouns take *–ua* as their indefinite plural morpheme with *–tinua, -otinua* and *–usua* as its allomorphs attached to monosyllabic nouns belonging to this class. Class IV nouns take a zero indefinite plural morpheme since the indefinite plural forms of these collective nouns are their root forms. Their singular indefinite forms take different suffixes ranging from *–ia , -ya, –o, -yo,* and-*cho.*

Class V nouns take *–sio* as their indefinite plural morpheme with *–isio, -osio* and *–usio* as its allomorphs. Class VI substantive nouns take a zero indefinite plural morpheme but unlike Class IV, Class VI nouns have the same forms for the indefinite singular and plural forms. The difference is with the tonal pattern where the singular is pronounced with a rising intonation whereas the plural with a falling intonation. Finally, Class VII nouns too take a zero indefinite plural morpheme since this class comprises of those nouns that form their plural forms irregularly, they have different root forms for the singular and plural forms.

These morphological affixes that determine which class a noun falls into are important in analyzing the morpho-syntax of the DP in Naandi since they affect the form that the other elements within the DP will take. This is because they mark the singularity and plurality

and also definiteness and indefiniteness of the noun. Therefore, the other elements within the DP in Naandi have to agree with the noun based on these two dimensions, [+Number, +Definiteness].

4.1.1.2 Derived Nouns
Derivation is a morphological process that gives rise to new lexical items. In Naandi, nouns can be derived from adjectives, verbs and other nouns through the process of affixation or morphological transformations or through zero derivation or affixation of a null affix or conversion.

4.1.1.2.1 Nouns Derived from Adjectives
Generally, in Naandi, nouns that are derived from adjectives are abstract nouns. They are derived through the process of suffixation. The affixes *–yo* and *–yet* are attached to the adjective to form indefinite and definite nouns respectively. In forming the definite form, the final *–o* sound changes to *–e* before the definite affix *–t* is added to the indefinite form of the derived noun. Also, there is a change in the vowel quality so that the sound *–a* in the adjective changes into *–o* in the derived noun. For example:

Adjective	-	**Noun-Def**	-	**Noun+Def**
Paipai	–	Poipoi-yo	-	Poipoi-yet
Happy	-	HappinessIndef	-	HappinessDef
Ya	-	Yoit-yo	-	Yoit-yet
Bad	-	badnessIndef	-	BadnessDef

In addition, other abstract nouns are derived by adding *–in* and *–do* article affixes which act as the nominalizer to the adjective. The definite form is formed by adding the definite article affix *–do* to the indefinite form of the derived noun. Consider:

Tui	-	Tui-**in**	-	Tui-in-**do**

Black	-	BlacknessIndef	-	BlacknessDef
Oo	-	Oo-**in**	-	Oo-in-**do**
Big	-	BignessIndef	-	BignessDef

4.1.1.2.2 Nouns Derived from Verbs

In Naandi, nouns that are derived from verbs undergo various processes including suffixation, pre-fixation and zero derivation or conversion. Indefinite singular nouns that denote agents are derived by suffixing –*in* to the verb. Orthographically, the indefinite plural form is similar to the verb from which it is derived except for a change in the tonal pattern since there is lengthening of a vowel sound in between. The definite form of nouns under this category is formed by adding the suffixes –*det* in singular and –*ik* in plural to the verb. Consider:

Verb	**- NounSGIndef**	**- NounSGDef**	**– NounPLIndef**	**– NounPLDef**
*K*ol	- Kool-**in**	- Kool-in-**det**	- Ko*ol*	– Kool-**ik**
Plant	Farmer SGIndef	FarmerSGDef	FarmerPLIndef	FarmerPLDef
*Ti*en	- Tien-**in**	- Tien-in-**det**	- Ti*en*	- Tien-**ik**
Sing	SingerSGIndef	SingerSGDef	SingerPLIndef	SingerPLDef

Other nouns that denote agents performing an action to an experiencer and having *i-* as its initial sound are formed by prefixing *Ka-* to the verb and suffixing –*in* and –*det* in the singular and –*ik* in the plural to the verb to form indefinite singular, definite singular and definite plural respectively. The initial *I-* sound of the verb is dropped. For example:

Inyaa	– **Ka**-nyaa-**iin**	– Ka-nyaa-in-**det**	-Ka-nyo-i	- Kany-oi-**ik**
Treat	DoctorSGIndef	DoctorSGDef	DoctorPLIndef	DoctorPLDef
Ineet	-**Ka**-neet-**iin**	- Ka-neet-in-**det**	- Ka-neet	- Ka-neet-**ik**
Teach	TeacherSGIndef	TeacherSGDef	TeacherPLIndef	TeacherPLDef

Other indefinite singular gerunds are derived from verbs by adding the suffixes –*o, -yo, -so*, and –*isio* to the verb. The indefinite plural is formed by adding the affix –*sio* to the indefinite singular form. The definite form is formed by adding –*yet, -et* or –*iet* in the singular and –*ek* in the plural. The final –*o* in singular and plural indefinite forms is changed to   –*e* before adding –*t* and –*k* when forming the definite singular and plural forms respectively. Consider:

Choor -   Choor-**so**   – Choors-**et**   - Choor-so-**sio**   - Choor-so-si-e̱-**k**

Steal   StealingSGIndef StealingSGDStealingPLIndefStealingPLDef

Cham-   Choom-**yo** -Choom-**yet**   -Choom-yo-**sio**   - Choom-yo-si-e̱-**k**

Love   LovingSGIndef LovingSGDef   Loving PLIndef   LovingPLDef

In addition to the above, nouns in Naandi can also be derived through the process of zero derivation or through tonal inflection. This means that orthographically, the noun and the verb from which it is derived are the same except for the change in the tonal pattern. The verb is pronounced with a falling tone whereas the noun is pronounced with a high tone. Consider the following examples.

	Verb	-	**Noun**
48.	*Ko*onyit		*Koo*nyit
	Respect	-	Respect

Furthermore, proper nouns (names) are derived from verbs through the process of pre-fixation. This is because in Naandi, naming is done basing on the event or the activity that is taking place when the child is born. Some verbs do not vary their form except for the addition of the gender prefixes *Che-* and *Kip-* . Consider:

49. Tanui (To faint)   Chep-tanui (Feminine)

Kip-tanui (Masculine)

In addition, when deriving these proper nouns, the final sounds of some verbs undergo some changes before the addition of the gender prefixes. For instance, some verbs that end in –*e* change this sound to –*o.* Consider:

    50. Ruut-e (visit)   Che-ruut-o (Feminine)

                                        Kip-ruut-o (Masculine)

Other verbs drop the final sounds before adding the prefixes *Che-* and *Kip-* to form proper nouns. Consider:

    51. Chirchir-en (Hurry)   Chep-chirchir (Feminine)

                                        Kip-chirchir (Masculine)

Further, other verbs add both the prefix and suffix to the verb. Consider:

    52. Ru (Sleep)   Che-ru-iyot

Finally, other verbs add another prefix, denoting tense, besides the gender prefix to form proper nouns. These verbs also drop the final sound –*u.* Consider:

    53. Nyoru (Get)   Kip-ki-nyor (Masculine)

                                        Chep-ki-nyor (Feminine)

4.1.1.2.3 Nouns Derived from other Nouns

In Naandi, the nouns that are derived from the other nouns are generally abstract and proper nouns. Abstract nouns are always derived from the singular indefinite form of the noun. These nouns that are derived from other nouns are formed through the process of both pre-fixation and suffixation. Abstract nouns are formed by suffixing –*ndii* and –*ndii-t* to the noun to form the indefinite and the definite forms respectively. For example:

    53. Laakwa   -   Laakwa-**ndii**   -   Laakwa-**ndii-t**

        ChildSGIndef   -   ChildishnessIndef -   Childishness Def

54. Chorua   -   Chorua-**ndii**   -   Chorua-**ndii-t**

FriendSGIndef -   FriendlinessIndef -   FriendlinessDef

Proper nouns (names) in Naandi are also derived from other nouns. This is because besides the activity that is taking place, children in Naandi are named depending on the time, place and the season of the year when they are born. These proper nouns are derived by adding the gender prefixes *Chep/Che-* and *Kip/Ki-*. The nouns, from which proper nouns are derived from, do not vary their forms. Consider the following example.

55. Kemboi (Night)   Kip-kemboi(Masculine)

Chep-kemboi (Feminine)

56. Rop (Rain)   Kip-rop (Masculine)

Che-rop (Feminine)

57. Kemei (Drought)   Kip-kemei (Masculine)

Chep-kemei (Feminine)

Further, other nouns can also be derived from names of tribes of people. These nouns form their singular indefinite and definite forms by suffixing *–in* and *–det* respectively. The plural definite form is formed by suffixing *–ek* to the plural indefinite form which is the root form. Consider:

SG Indef	-SG Def	-PL Indef	-PL Def	-Gloss
58. Nandi-**in**	-Nandi-in-**det**	-Nandi	-Nandi-**ek**	-Nandi
59. Lem-**in**	-Lem-in-**det**	-Lem	-Lem-**ek**	-Luhya

In conclusion, nouns that are derived from adjectives are abstract nouns that add *–yo* and *–yet* to the adjective to form indefinite and definite nouns respectively. Other nouns that

are derived from adjectives simply suffix *–in* and *–do* indefinite and definite article affixes respectively which act as nominalizers giving rise to the indefinite and definite nouns respectively. Those nouns that are derived from the verb and denote agents and those that are derived from names of tribes simply add the indefinite and definite article affixes *–in* and *–det* respectively that are the nomilizers giving rise to indefinite and definite nouns respectively. These nouns do not vary in plural indefinite form from that of the verb or name of the tribe, however those that are derived from the verb suffix *–ik* to form plural definite form whereas those that are derived from names of tribes add *–ek* or *–iek* to form the definite plural form.

It is important to point out that these nominalization processes are very productive in the sense that they give rise to new lexical items in the language as well as new meanings of these lexical items.

4.1.2 Pronouns

Crystal (2003:210) defines pronouns in English as elements or words which stand for a noun, a whole noun phrase or several noun phrases. Pronouns in Naandi have person distinctions but unlike English, they do not have gender distinctions. In Naandi, there are seven types of pronouns namely: personal, possessive, demonstrative, reflexive, relative, indefinite and interrogative pronouns. In this section, only four types of pronouns are described namely: personal, reflexive, indefinite and interrogative pronouns. Demonstrative pronouns will be discussed in sub-section 4.1.4, Possessive pronouns in sub-section 4.1.5 and relative pronouns in sub-section 4.1.10.

4.1.2.1 Personal Pronouns

Personal pronouns are used by languages to identify speakers and addressees. In Naandi, personal pronouns make a neat two-by-three system combining number; singular and plural with person; first, second and third person. Consider:

	Singular	**Plural**	**Gloss**
1st Person	Ane	Achek	(I, We)
2nd person	Inye	Akwek	(You, You)
3rd person	Ine/Inendet	Ichek/Icheket	(He/She/It, They)

The above personal pronouns in Naandi can occur alone as a subject or an object of a sentence.

> 60. *Ane* ne a-nyonei
>
> I   whoSG am come (I am the one coming)

Also, these personal pronouns may be combined with the verb as the subject or the object. When this happens the personal pronouns are indicated by special affixes; prefixes as well as infixes. For example, the prefix *A-* represents the first person singular. Consider:

> 61. *A*-wend-i
>
> I SG goPRT IMP (I am going)

Ki- represents first person plural. Consider:

> 62. Ka-*ki*-bwa
>
> PST 1perPL come PL PER (We have come)

I- represents second person singular. Consider:

63. Ka-***i***-nyo

PST 2perSG comeSG PER (You have come)

O- represents second person plural. Consider:

64. ***O***-bend-i

You PL go PRT IMP (You are going)

However, third person, both singular and plural, are represented by a null prefix. Consider:

65. --wend-i

He/she/itSG go PRT IMP (He/She/It is going)

66. Ka--bwa

PST 3perPL come PERF (They have come)

4.1.1.2 Reflexive Pronouns
According to Crystal (2003:210) reflexive pronouns in English reflect the meaning of a noun or a pronoun in the clause. In Naandi, reflexive pronouns are formed by suffixing *–kei* or *–ei* (self) to the personal pronoun or by prefixing *ak-*. Consider:

Personal Pronoun	Reflexive pronoun	Gloss
Ane	Ane-kei / Ak-ane	Myself
Achek	Achek-ei/ Ak-achek	Ourselves
Inye	Inye-kei/ Ak-inye	Yourself
Akwek	Akwek-ei /Ak-akwek	Yourselves
Ine	Ine-kei /Ak-ine	Himself, Herself, Itselt
Ichek	Ichek-ei /Ak-ichek	Themselves

For example:

67. Laakwet ine-kei / Laakwet ak-ine (The child himself/herself)

The reflexive affix –*kei* may immediately follow a noun like example (67) above or can be suffixed to the verbs especially where personal pronouns are identified with special affixes. Consider:

68. Ki-samis-i-*kei*

1per PL dirty IMP self (We are dirtifying ourselves)

The reflexive pronoun –*kei* in the above example (68), refers back to the antecedent *Ki-* which stand for a first person plural.

4.1.1.2 Indefinite Pronouns

Finegan (2004: 38) notes that indefinite is a name that is used to refer to pronouns whose referents are identifiable but they are not specified. In Naandi, there are two indefinite pronouns. These are: *Ake* (singular) /*Alak* (Plural) which is the same as other, another or the one in English and *Tugul* which is equivalent to each, every, all, whosoever and whatsoever. Indefinite pronouns express the notion of quantity and in most cases *tugul* in Naandi is used as a quantifier equivalent to universal quantifier *all* in English. When indefinite pronouns occur within the DP in Naandi, they usually follow the noun. Consider:

69. Laakwet **ake**

   ChildSGDef another (Another child)

70. Laagok **alak**

   ChildPLDef other (Other children)

71. Chi **tugul**

   PersonSGIndef every (Every person)

Indefinite pronouns can stand on their own to substitute nouns especially when the noun they are substituting had been mentioned earlier. Consider:

72. Kararan matundiat **ake** ko-ya **ake**

    GoodSG fruitSGDef other beSGPRT badSG other

    (Another fruit is good while the other is bad)

In the above example, (72), the noun can be eliminated to remain with the indefinite pronouns standing alone so that it becomes:

73. Kararan **ake** ko-ya **ake**

    Good SG other beSGPRT bad other

    (Another one is good while the other is bad)

When *tugul* is used to mean *all*, the noun usually takes a definite article affix. For example:

74. Tiong'ik **tugul**

    AnimalPLDef all (All the animals)

75. Muren-ik **tugul** ang'wan

    ManPL Def all four PL (All the four men)

However, when it is used to mean *each, every*, *whosoever* and *whatsoever,* the noun takes the indefinite article affix. Consider:

76. Chii **tugul**

    Person SG Indef each (Each person)

77. Ui **tugul**

    Place every (Every place)

4.1.1.3 Interrogative Pronouns

Interrogative pronouns are means through which languages ask questions about personal as well as non-personal nouns. In Naandi, there are four interrogative pronouns. These are: *Ng'o?* (Who?), *Ngiro?* (Which?), *Ne?* (What?), and *Ne u ne?* (What sort of? / What kind?). When *Ngiro?* (which?) and *Ne u ne?* (what sort of?) co-occur with the noun, the noun assumes its indefinite form. Ne u ne? (What sort of?) usually precede the noun whereas Ngiro? (which?) follows the noun within the DP. Consider:

78. *Ne u ne* laakwa ne kanyo gaa

     What sort of childSGIndef whoSG PSTcome home

     (What sort of a child came home?)

79. Laakwa **ngiro** ne kanyo gaa

     Child SGIndef which who PST come home (Which child came home?)

4.1.3 The Article

In Naandi, the indefinite singular form of the noun is usually its root form. To mark definiteness therefore, definite article affixes are attached to the noun. According to Hurford (1994), the definite article affixes are "lightweight" elements. They are "lightweight" in the sense that they comprise of one or two sounds that are suffixed to the noun. These affixes are morphologically inflected for number. This means that their form changes depending on whether the noun it is joined to is singular or plural. In Naandi, the singular definite article affix is generally -*t*. Class II, Class III, Class IV, Class V and abstract nouns derived from other nouns that end in vowel sound(s) take the singular definite article affix –*t* in forming their singular definite form. Consider:

Singular Indefinite   -   Singular Definite   Gloss

80. Sese	-	Sese-**t**	Dog
81. Poiyo	-	Poiyo-**t**	Old man
82. Choorwa-ndii	-	Choorwa-ndii-**t**	Friendliness

This definite article affix may change its form depending on the Class and the type of the noun that it is attached to. For instance, Class I substantive nouns, gerunds derived from verbs and other nouns derived from adjectives that end in –*a* or –*o* usually change these sounds to –*e* before adding –t in order to form their singular definite form. Consider:

83. Karn**a**	-	Karn<u>e</u>-**t**	Iron
84. Chepyos**o**	-	Chepyos<u>e</u>-**t**	Woman
85. Choors**o**	-	Choors<u>e</u>-**t**	Stealing
86. Yoity**o**	-	Yoity<u>e</u>-**t**	Badness

Other Class II nouns that add –*en* and Class III nouns that add either –*tinua* or -*otinua* to form their indefinite plural forms simply add –*et* to the singular indefinite form in order to form their definite form. For example:

87. Ter	-	Ter-**et**	Pot
88. Lol	-	Lol-**et**	Bag

In addition, other Class II and Class III nouns that end in –*t,* affix –*it* to the singular indefinite form in order to form their singular definite form. For instance:

89. Iit	-	Iit-**it**	Ear
90. Ket	-	Ket-**it**	Tree

Further, Class VI and a few Class I substantive nouns usually add –*iet* definite article affix to the singular indefinite form in order to form their singular definite form. Consider:

| 91. Tapurpur | - | Tapurpur-**iet** | Butterfly |
| 92. Ngor | - | Ngor-**iet** | Cloth |

Moreover, a few Class II nouns that add –*un* and Class V substantive nouns that add –*usio* to form their indefinite plural form take the definite article affix –*ut* in order to form their singular definite form. For example:

| 93. E | - | **E-ut** | Arm |
| 94. Bet | - | **Bet-ut** | Day |

Nouns that denote agents that are derived from verbs and those that are derived from names of tribes suffix –*det* in order to form their singular definite form. For instance:

| 95. Tien-in | - | Tien-in-**det** | Singer |
| 96. Nandi-in | - | Nandi-in-**det** | Nandi |

Finally, other Class II nouns which end in –*i* or –*ny* and Class III that end in –*p, -k, -r,* lateral and nasals bilabial –*m* and alveolar–*n* and nouns that are derived from adjectives take –*ta, -to, -da* or -*do* singular definite article affixes in forming their singular definite forms. Generally, those substantive nouns that end in –*k, -p, -I* and –*r* take either –ta or –to whereas those nouns that end in bilabial–*m*, alveolar -*n*, velar -*ng'* or palatal –*ny* nasal sounds and lateral –*l* take –*da* or –*do*.For example:

97. Ng'elyep	-	Ng'elyep-**ta**	Tongue
98. Ei	-	Ei-**to**	Ox
99. Kong'	-	Kon-**da**	Eye
100. Tum	-	Tum-**do**	Ceremony

The plural definite article affix, in Naandi, is generally –*k*. Class I substantive nouns that end in –*ai* and a few that end in –*oi* simply add –*k* in order to form their definite plural form. Consider:

Plural Indefinite	-	**Plural Definite**	**Gloss**
101. Kina-i	-	Kina-i-**k**	Breasts
102. Kim-oi	-	Kim-oi-**k**	Ugali

Also, Class IV nouns that end in –*e* add –*k* to the plural indefinite form in order to form their plural definite form. For example:

103. Pand-**e**	-	Pande-**k**	Maize

Other Class I substantive nouns that end in -*oi* drop their final sound –*i* before adding –*k* to form their definite plural form. For example:

104. Karn-o**i**	-	Karn-o-**k**	Iron
105. Choor-ono**i**	-	Choor-ono-**k**	Friends

Class III, Class V substantive nouns and gerunds that are derived from verbs that end in –*a* and –*o* in their plural indefinite form usually change these sounds into –*e* before adding –*k*. Consider:

106. Moo-tinu**a**	-	Moo-tinu**e**-**k**	Stomach
107. Aino-si**o**	-	Aino-si**e**-**k**	Rivers
108. Tuiyo-si**o**	-	Tuiyo-si**e**-**k**	Meetings

In addition, all Class IV nouns that end in other sounds than –*e*, Class II nouns that end in –*un* and Class VI nouns that end in –*r* simply add –*ek* to the plural indefinite form in order to form their plural definite form. Consider:

109. Isir	-	Isir-**ek**	Louse

110. Ser-un	-	Ser-un-**ek**	Noses
111. Kechir	-	Kechir-**ek**	Sheep

Further, Class II nouns that end in *–n, -en* and *–on*, Class IV nouns that end in *–n* , nouns that are derived from verbs that denote agents and other Class VI nouns, add *–ik* plural definite article affix to the plural indefinite form in order to form their plural definite form. For example:

112. Sese-n	-	Sese-n-**ik**	Dogs
113. Kwen	-	Kwen-**ik**	Firewood
114. Pun	-	Pun-**ik**	Enemies
115. Tapurpur	-	Tapurpur-**ik**	Butterflies
116. Ka-bat	-	Ka-bat-**ik**	Farmers

Class II nouns that form their indefinite plural form by suffixing *–in* to the singular indefinite form, drop the final sound *–n* before adding *–k* in order to form their definite plural form. Consider:

117. Iit-**in**	-	Iit-**ik**	Ears
118. Koi-**in**	-	Koi-**ik**	Stones

In Naandi, within the DP, the definite article affix usually follows the noun since they are suffixed to the noun. They mark definiteness. Definiteness is a formal property of nominal expressions which signals whether or not the referent of a phrase is assumed by the speaker to be identifiable to the addressee (Lambrecht 1994:79, Jerono 2012:6 and Mose 2012:45)

4.1.4 Demonstratives
Demonstratives are very common elements that occur within the DP in Naandi. Crosslinguistically, demonstratives are deictic expressions that perform the function of

'pointing at' (Mose, 2012:44). They are used to indicate the position of something in relation to the speaker (Hurford, 1994:59). The Naandi demonstratives make a neat two-by-three system, combining number (singular/ plural) with relative nearness to or relative distance from the speaker. They include:

A. *Ni* and *Chu*: These are demonstratives that point to objects that are near the speaker. They are equivalent to *this* and *these* in English.

B. *Noo* and *Choo*: These demonstratives are used to point at the objects that are not far from the speaker; those that are near the hearer. They are equivalent to *that* and *those* in English.

C. *Niin* and *Chuun*: These are used to indicate the objects and things that are far from both the speaker and the hearer. They are equivalent to *that over there* and *those over there* in English.

Apart from the above demonstratives in Naandi, there are also locative demonstratives that point to a specific place. These demonstratives are used with the word *olto* (the place). They too are categorized based on the above dimension of nearness to and distance from the speaker. They include:

A. *Yu* and *Oli:* They refer to a place(s) near the speaker or the spot of the one speaking equivalent to *here* or *where I am*,

B. *Yo* and *Olo*: They point to a place(s) near the hearer or the spot of the one being spoken to equivalent to *there* or *where you are*, and

C. *Yuun* and *Oliin*: They indicate a place(s) far from both the speaker and the hearer or the spot of the one being spoken about equivalent to *over there* or simply *there*.

Further, in Naandi, all these demonstratives can take the emphatic suffix –*tok*. This suffix is attached to the demonstrative in order to lay emphasis on the demonstrative. When a lot of emphasis is desired, the demonstrative is repeated after the suffix –*tok* has been attached to the first demonstrative. These emphatic forms are used especially when the speaker wants to emphasize the exact referent (person or object) or the exact position or location of something. Consider:

      119. Noo-tok

         SGEmp (That very object)

      120. Yuun-tok yuuun

         SG3Emp (That very place over there and not any other)

Demonstratives in Naandi therefore can be categorized into three different types as follows:

4.1.3.1 Proximal Demonstratives

These are those demonstratives that refer to objects or places that are near the speaker. The usual form of these demonstratives is: *Ni* (This object) and *Chu* (These objects). When they are used with the word *olto,* they take the forms; *Yu* (This place) and *Oli* (These places). The emphatic forms of these demonstratives are: *Ni-tok* (This very object), *Ni-tok ni* (This very object and not any other), *Chu-tok* (These very objects), *Chu-tok chu* (These very objects and not any other), *Yu-tok* (This very place), *Yu-tok yu* (This very place and not any other), Oli-tok (These very places), and *Oli-tok oli* (These very places and not any other).

4.1.3.2 Medial Demonstratives

This comprises of those demonstratives that refer to objects or places that are not far from the speaker; those that are near the hearer. The usual forms of these demonstratives are: *Noo* (That object) and *Choo* (Those objects). The locative forms are: *Yoo* (That place) and *Oloo* (Those places). Their emphatic forms are*: Noo-tok* (That very object), *Noo-tok noo* (That very object and not any other)*, Choo-tok* (Those very objects), *Choo-tok choo* (Those very objects and not any other), *Yoo-tok* (That very place), *Yoo-tok yoo* (That very place and not any other)*, Oloo-tok* (Those very places), and *Oloo-tok oloo* (Those very places and not any other).

4.1.3.3 Distal Demonstratives
This constitutes those demonstratives that point to an object or a place that is far from both the speaker and the hearer. They take *Niin* (That object (over there)) and *Chuun* (Those objects (over there)) as their usual form. When they are used with the word *olto (the place)*, these forms change to: *Yuun* (That place (over there)) and *Oliin* (Those places (over there)). Their emphatic forms are: *Niin-tok* (That very object (over there)), *Niin-tok niin* (That very object (over there) and not any other), *Chuun-tok* (Those very objects (over there)), *Chuun-tok chuun* (those very objects (over there) and not any other), *Yuun-tok* (That very place (over there)), *Yuun-tok yuun* (That very place (over there) and not any other), and *Oliin-tok* (Those very places (over there)), and *Oliin-tok oliin* (Those very places (over there) and not any other).

Within the DP in Naandi, the demonstratives usually follow the nouns. They mark definiteness. This means that they are always definite identifying things that are presupposed to be known to the hearer. For example, by using the expression, *emonotok* (that very land), the hearer must know the particular land, the speaker is talking about.

Further, in Naandi, demonstratives are inflected for number. Therefore, as will be shown in sub-section 4.3, within the DP, these demonstratives have to agree with the other elements; nouns, possessives, quantifiers and adjectives in number.

4.1.5 Possessives

Possessives determiners are the other elements that occur within the DP in Naandi. Possessives show possession and they contain the feature (+Poss). This is because whenever they are suffixed to the nominal expressions, they cause them to be possessed.

Possessive determiners in Naandi are inflected for number and person. These features make the possessive determiners in Naandi to have different forms based on whether the possessum/possessor is one (singular, 1st ,2nd or 3rd person) or more than one (plural, 1st , 2nd and 3rd person).

Therefore: *-nyu (my), -ng'uung (your)* and *-nyi (his/hers/its)* are used when the possessum as well as the possessor is one; *-nyoo (our), ng'woong (your)* and *nywaa (their)* are used when the possessum is one (singular) but the possessors are more than one (plural); *-chuuk (my), -kuuk (your)* and *–chiik (his/hers/its)* are used when the possessum is more than one (plural) but the possessor is one (singular) and *-chook (our), -kwook (your),* and *–chwaak (their)* are used when both the possessum and the possessors are more than one.

One possessee

Person	Singular	Plural	Gloss
1st	-nyu	-nyo	my, our
2nd	-nguung	-ngwoong	your, your
3rd	-nyi	-nywa	his/her/its, their

More than one possessee

1st	-chuuk	-chook	my, our
2nd	-kuuk	-kwook	your, your
3rd	-chiik	-chwaak	his/her/its, their

When these possessive determiners are used predicatively or absolutely, they take the prefix *Na-* or *Ne-* in singular, and *Che-* or *Cha-* in plural. The forms of these possessive determiners undergo some slight changes in plural form. Consider:

Singular	**Plural**	**Gloss**
Na-nyu /**Ne**-nyu	**Cha**-chu-get or **Che**-chuuk	Mine
Ne-ng'uung	**Che**-kuu-get	Yours

Further, when there is need to lay emphasis on the possessor; these possessive determiners may add personal pronouns after them. Consider:

> 121. Laakwe-nyu *ane*
>
> Child1Poss per 1SG (My child and not any other person's)

Possessives usually follow nouns within the DP in Naandi. Possessives in Naandi mark definiteness. They indicate that the referent is specific. They are also inflected for number and person. Therefore, within the DP, these possessives must agree with the other elements that it co-occurs with in [+Number, + Person] grammatical features. Further, they contain the feature [+Poss], this means that in the process of feature checking and feature valuation, the noun has to check for agreement features with the possessive.

4.1.6 Quantifiers
Another element that occurs within the DP in Naandi is the quantifier. In Naandi, there are only two quantifiers. These are: *Chang/Ng'iisyat* (many/ much) and *Ng'ering / tutikin*

(little/few). These two quantifiers in Naandi are used with both count and mass nouns. Consider:

122. Beek *tutikin*

Water little (Little water)

123. Kalamok *tutikin*

Pen PLDef few (Few pens)

Apart from the above two, in Naandi, as mentioned earlier, the indefinite pronoun *tugul* is used as quantifier equivalent to universal quantifier *all* in English.

Quantifiers in Naandi are inherently indefinite identifying things or objects that are not specific. This means that whenever they occur within the DP in Naandi, they must co-occur with the definite article affixes.

It is important to point out that these quantifiers may be introduced by a plural relative pronoun *Che* which acts as a definite marker since quantifiers are inherently indefinite. When this happens, quantifiers occur in form of relative constructions. Since quantifiers express quantity, they always co-occur with plural nouns. Consider:

124. Kenyisiek **che**-*chang*

YearPLDef (which are) manyPL (Many years)

125. Beek **che**-*tutikin*

Water (which is) little PL (Little water)

When quantifiers co-occur with the demonstrative within the DP in Naandi, the relative pronoun is usually dropped. Consider:

126. Kenyisie-**chu**-chang

Year PLDef thisPL manyPL (*These many years)

4.1.7 Numerals

Numerals are the other elements that can occur within the DP in Naandi. Crosslinguistically, numerals are categorized into two distinct types namely: Cardinals and Ordinals.

4.1.7.1 Cardinal Numerals

Hurford (1994:23-24, 146-147) notes that cardinal numerals are words or longer expressions we count by, and express how many items there are in some collection of things. In Naandi, they answer the question *ata?* (How many?).

Cardinal numerals are inflected for case. The accusative case is the root form of these cardinal numerals whereas in the nominative case, these cardinal numerals take the suffix –*u* to indicate this. In the situation where the cardinal numerals are in tenths or hundreds, the nominative suffix –*u* is suffixed to the first cardinal. Consider:

Accusative	Gloss	Nominative
Aeng	Two	Aeng-**u**
Somok	Three	Somok-**u**
Mut	Five	Mut-**u**
Taman	Ten	Taman-**u**
Taman ak lo	Sixteen	Taman-**u** ak lo
Bokol ak agenge	One hundred and one	Bokol-**u** ak agenge

Consider the following examples as used in a sentence to illustrate on this distinction.

127. Ki-keer-e laagok *ang'wan*

IPL seePRT IMP childPLDef fourACC (We see four children)

128. Keer-o laagok *ang'wan-**u***

SeePRT IMP childPLDef fourNOM (Four children see me)

4.1.7.2 Ordinal Numerals

Ordinal numerals on the other hand, are words or longer expressions used to express the order in which an item stands in a given sequence. Ordinals in Naandi answer the question *nebo ata?* (which in order of number?). For instance, *Netai* (first), *Nebo somok* (third) and *Nebo mut* (fifth).

Generally, numerals in Naandi mark indefiniteness. They denote that the objects, things, ideas, or people that are referred to are not known by the addressee. However, the use of cardinal *agenge* (one) shows definiteness. This means that these numerals must always be accompanied by the definite article affix. The cardinal agenge (one) can either take the definite article affix or not, depending on the wish of the speaker. Consider:

129. Tipi-ik *aeng*

    GirlPLDef two (Two girls)

130. Tie *agenge*

    GirlSGIndef one (One girl)

131. Chep-to *agenge*

    Girl SGDef one (The one girl)

Naandi numerals always have to agree with the other elements that they co-occur with within the DP in number. Consider:

132. Laakwe-t *agenge*

    ChildSG oneSG (One child)

133. Laago-k *aeng*

    ChildPL twoPL (Two children)

134. Laakwe-t *ne-tai*

    ChildSG firstSG (The first child)

135. Laago-k *che-tai*

ChildPL firstPL (The first children)

4.1.8 Adjectival Phrases

Hurford (1994: 8) defines an adjective as a word that is typically serving as a modifier of a noun to denote a quality and describe some property of the thing referred to by the noun, such as its shape, colour, age, value. Size, origin or the impression it gives.

Adjectives are classified as either attributive; occurring before the nouns they modify or predicative occurring in the predicate position following a copular verb "be" in the English sense. In Naandi, there are no true adjectives as in the English sense. All the words that are used in adjectival sense are active third person single-word sentences. Consider:

136. Tui

Black 3rd per (S/he/it is black)

137. Koi

Tall 3rd per (He/she/it is tall)

These third person single-word sentences in most cases are joined to the relative *Ne* in singular and *Che* in plural and therefore they are in relative construction form. Consider:

138. Chii-to **ne** *koi*

Person SG DEF who (be) SG tall SG (The tall person)

139. Bii-k **che** *ko-en*

Person PL DEF who (be) PL tall PL (The tall people)

These relative pronouns **ne** and **che** as used in adjectival relative constructions act as definite markers which specify the referent and they fall into the class of determiners.

This is because, whenever an adjective co-occurs with a demonstrative (a determiner) in a DP, this relative pronoun is dropped and the adjective occurs alone. Consider:

140. Chii-chi koi

Person SG Indef thisSG tall SG (This tall person)

141. Bii-chu ko-en

Person PL Indef this PL tall PL (These tall people)

Therefore, these relative pronouns *ne* and *che* occupy the same position with a demonstrative within the DP in Naandi and hence can be analyzed as belonging to the same class. Thus they cannot co-occur with one another within a single DP. However, they can co-occur with a definite article affixes as shown in example (138) and (139) above and a possessive.

In Naandi, attributive adjectives occur post-nominally. Consider:

142. Laakwet *ne-kararan*

ChildSGDef whoSG beautiful (The beautiful child)

Predicative adjectives on the other hand occur pre-nominally. Consider:

143. *Kararan* laakwet

Beautiful childSGDef (The child is beautiful)

Generally, in Naandi, adjectives form their plural form by adding the suffix *-en* to the singular form. Consider:

Singular	Plural	Gloss
Birir / Ne-birir	Birir-**en** / Che-birir-**en**	Red
Nyalil / Ne-nyalil	Nyalil-**en** / Che-nyalil-**en**	Green

Monosyllabic adjectives that end in -*i* drop this final sound before adding the suffix –*en* in order to form their plural form. For example:

Tu**i** / Ne-tu**i**	Tu-**en** / Che-tu-**en**	Black
Ko**i** / Ne-ko**i**	ko-**en** / che-ko-**en**	Long

Other adjectives change the vowel sound –*a* occurring within the word into –*o* in forming their plural form. The suffix –*en* plural morpheme may or may not be suffixed to these adjectives. Consider:

P<u>a</u>ip<u>a</u>**i** / Ne-p<u>a</u>ip<u>a</u>**i**	P<u>o</u>ip<u>o</u>-**en** / Che-p<u>o</u>ip<u>o</u>-**en**	Happy
K<u>a</u>r<u>a</u>r<u>a</u>n/Ne-k<u>a</u>r<u>a</u>r<u>a</u>n	K<u>o</u>r<u>o</u>r<u>o</u>n-**en**/Che k<u>o</u>r<u>o</u>r<u>o</u>n-**en**	Good

Other adjectives that end in –*t* form their plural by adding the suffix –*in* and also changing the vowel sound –*a* occurring within the word into –*io*. For example:

Ner<u>a</u>t / Ne-ner<u>a</u>**t**	Ner<u>io</u>t-**in** / Che-ner<u>io</u>t-**in**	Fat
Sakit<u>a</u>t / Ne-sakit<u>a</u>**t**	Sakit<u>io</u>t-**in** / Che-sakit<u>io</u>t-**in**	Slender

Further, other adjectives with monosyllabic roots form their plural by adding the suffix –*ach* before adding –*en* to form their plural form. This is because monosyllabic words in most cases take longer suffixes as compared to their longer counterparts. These adjectives can be used without the suffix –*en* and still denote a plural form. For example:

Ya / Ne-ya	Ya-**ach**-*en* / Che-ya-**ach**-*en*	Bad
Lel / Ne-lel	Lel-**ach**-*en* / Che-lel-**ach**-*en*	New

Moreover, other adjectives form their plural irregularly. These adjectives too may or may not suffix -*en.* For instance:

Ming'in / Ne-ming'in	Mengech-**en** / Che-mengech-**en**
Small	

Oo / Ne-oo   Ech-**en** / Che-ech-**en**

Big

The adjectives in Naandi may be modified by the intensifier; *missing or kot* (very). Unlike in English, the intensifier in Naandi immediately follows the adjective it modifies. Consider:

144. Laago-chu aeng kororon *mising*

ChildPLINDEF DemPL twoPL goodPL veryINT

(These two very good children)

145. Laago-chu aeng kororon *kot*

ChildPLINDEF DemPL twoPL goodPL veryINT

(These two very good children)

In Naandi, the word "*kosiir*" (to surpass) is used to express comparative and superlative forms of adjectives. Consider:

146. Ane ne-ming'in *ko-siir* ine

(I am younger than him/her) (Comparative)

147. Ya laakwa-ni *ko-siir* tugul

(This child is the worst of all) (Superlative)

Comparative form of the adjective may also be expressed using '*kitigin*' (a little more) and *'kotamne'* (more so). Consider:

148. Laakwet ne-ming'in *kitigin*

(The Smaller child)

149. Ng'om Mary *kotamne* John

(Mary is bright but John is brighter than Mary)

Further, the superlative form of the adjective may also be represented by use of the adjective in its simple form and by use of other parts of the verb '*siir*' (to pass). For example:

150. Ine ne-oo eng laagok tugul

He/she big of childPL all

(He/she is the biggest of all the children)

151. Paipai laakwa-ni ako no ne-*siir-ei* tugul eng poipoi-yet

Happy childSG this but that surpasses all in happiness

(This child is happy but that one is the happiest)

Within the DP in Naandi, adjectival phrases immediately follow the noun. They are inflected for number and definiteness. Therefore, it must agree with the other elements within the DP.

4.1.9 Prepositional phrases
A preposition is typically a small word in English that occurs before a noun phrase making another phrase; a preposition phrase with it (Hurford, 1994:190). The term 'preposition' reflects the grammatical place of prepositions, 'positioned before' noun phrases. A preposition expresses the relationship between one word and the other. It must always have an object to complete them; typically a noun or a pronoun.

Prepositional phrases therefore are phrases which in English begin with a preposition and end either in a noun, a pronoun, a gerund or a clause, which is the object of the

preposition. They may occur as simple phrases comprising of a preposition and its object or as a longer phrase comprising of a preposition, one or more modifiers and the object of the preposition.

In Naandi, there is only one main simple preposition *eng* which is equivalent to *at, by, for, from, in, off, on, out, to* and *with* English prepositions. This preposition indicates the relation of a noun, an adjective or a pronoun to the other words in a sentence. This preposition marker expresses place, for instance:

> 152. Mi oriit **eng** kabati-it
>
> BePST inside in cupboard (It is in/inside the cupboard)

In addition, it expresses instrument for example:

> 153. A-sir-ei baru-et **eng** kalamit
>
> 1persSG write IMP letterDefSG with penDefSG
>
> (I am writing a letter with a pen)

Further, this preposition may be used to express comparison. For instance:

> 154. Ng'om laakwa-ni **eng** niin
>
> CleverSG childDefSG thisDEFSG than that (over there)
>
> (This child is clever than that one over there)

Moreover, it is used to qualify the meaning of a verb. Consider:

> 155. Ru-e pusi-it **eng** meeseet ng'wony
>
> LiePSTSG catDefSG under tableDefSG down
>
> (The cat is lying under the table)

Apart from this simple preposition *eng* in Naandi, prepositions can also be expressed by the use of simple or applied forms of the verbs. Both the definite and indefinite forms of the nouns can be used to express prepositions. For example:

156. Mi laakw-et **kot oriit / Oriit-it-ab kot**

    BePST childDEF/SG houseDEF/SG inside

    (The child is inside the house)

Further, prepositional functions can be expressed through the use of the applicative marker *–chi* which is incorporated in the verb. This suffix means for, to, against, on behalf, in, into, on, onto among others and they make the verb to acquire applicative forms. Consider:

157. Ke-yat-chi

    To open on behalf of (to open on behalf of/ To open for someone)

Others forms which make the verb acquire applicative functions and correspond to person distinctions include, *-woo* (1 per SG), *-weech* (1per PL), *-uun* (2perSG*),-wook* (2perPL) and *chi/chi-ni* (3perSG/PL). Consider:

158. Yat-weech

    Open for us (Open for us)

159. A-Yat-uun

    1perSG Open for you (I am opening for you)

4.1.10 Genitive Phrases
As mentioned earlier, in Naandi, possession is realized in two ways. First, it is expressed through the use of possessive determiners as discussed in sub-section 4.1.5 and secondly, through the use of lexical possessives or genitives or possessive constructions. Trask

(1996) defines a genitive as a term used in the grammars of certain languages to denote a construction in which a noun is possessed or modified by another noun or noun phrase, particularly when an overt marking of the relation occurs on the noun which is possessed or modified.

In Naandi, genitive constructions are formed in three ways. To begin with, they are formed through the use of a linker genitive particle –*ab* which joins the possessor or the governed word to the possessee/possessum or the governing substantive. This linker genitive particle –*ab* is equivalent to *of* in English. Consider:

> 160. Ngo'olyot-ab Jehovah
>
> (Possessee N) (Possessor phrase)
>
> WordSGDef of God (The word of God)

In the above example, the noun *Jehovah* is the possessor phrase (governed word) which immediately follows the possessee noun or the governing substantive, *ng'olyot*. It is important to note here that this linker genitive particle does not vary in number. Consider:

> 161. Ng'alek-ab Jehovah
>
> Word PL Def of God (The words of God)

When expressing kinship or family relationship, this linker particle -*ab* undergoes some changes. For instance, when it is used with *Kwanda* (father) to express father-child relationship, either *Kwand-ab* or *Kwombo* is used. Consider:

> 162. Kwand-**ab**/ **kwombo** Chepkemboi
>
> (Father of Chepkemboi/Chepkemboi's father)

When it is used with *Kamet* (mother) to express mother-child relationship, *Kamet-ab* or *Kobot* is used. Consider:

163. Kamet-**ab**/ **kobot** Chepkemboi

(Mother of Chepkemboi/ Chepkemboi's mother)

When it is used with *chepto* (daughter) to express daughter-parent relationship, *chept-ab* or *chepo* is used. Consider:

164. Chept-**ab** John/ **che-po** John

(Daughter of John/ John's daughter)

When it used with *werit* (son) to express son-parent relationship, *werit-ab* or *Arap*, is used. It is important to note that, *Arap* is only applicable in expressing son-father relationship whereas *werit-ab* is applicable in expressing the relstionship between son and both the father and mother. Consider:

165. Werit-**ab** John/ **Arap** John

(Son of John/John's son)

In addition, genitive phrases in Naandi can be formed through the use of the relative particle *nebo* in singular and *chebo* in plural which means "belonging to". Just like the linker genitive particle –ab, *nebo/chebo*, join the possessee noun or the governing substantive to the possessor phrase or the governed word. It is important to point out here that the relative particle agrees with the possessee noun in number. Consider:

166. Chii-to **ne-bo** emo-no-tok

Person DEFSG who SG(be) ofSG landSG thatEMPSG

 (The person of that land/ The person belonging to that land)

167. Bii-k **che-bo** emo-no-tok

PersonDEFPL who PL (be) ofPL landSGthatSGEmph

(The people of that land/ The people belonging to that land)

Finally, genitive phrases in Naandi, can be formed through the use of a particle *bo* which is placed before the possessor phrase. The possessee noun follows the governed word. It is important to note that this particle *bo* is used predicatively when it occurs at the initial position and it does not vary in number regardless of whether the possessee noun is singular or plural. Consider:

168. Bo Mary laakwet

Be of MarySG childDEF SG (The child belongs to Mary)

169. Bo Mary laagok

Be of MarySG childDEF SG (The children belong to Mary)

In Naandi, the order of the genitive or the possessor phrase with respect to the possessee noun or the governing substantive is NGen. This means that the possessor usually follows the substantive or the possessee noun. Consider:

170. Laakwet-ab Mary

Child Def SG of Mary

N   Gen

(The child of Mary/Mary's child)

Other languages however, have the order GenN, where the genitive precedes the noun, for instance, Finnish, Consider:

171. Tyto-n kissa

Girl-gen cat

Gen   N

(The girl's cat)   (Sulkala and Karjalainen 1992:227 in Dryer,

S.M. and   Haspelmath, M. (eds) *WALS Online*)

In the above example, the *tyton* is a genitive noun phrase or the possessor phrase whereas *Kissa* is the possessee noun.

Further, other languages for instance English exhibit both orders, that is, NGen where the possessee noun precedes the possessor phrase as well as GenN where the possessor phrase precedes the possessee noun. Consider:

> 172. Mary's child
>
> Gen   N
>
> 173. The child of Mary
>
> N   Gen

The data above show that there is a parametric variation with regard to the ordering of the noun and the genitive within the DP across languages.

It is important to note here that these genitive phrases are vital elements in that they assign the DP a possessive or a genitive case. Also, genitive phrases express some semantic relations between a genitive noun phrase and a noun; in Naandi this relationship ranges from possession (alienable and inalienable), part-whole, product-material, functional association, and kinship relations among other relations; which are determined by inference from the semantics of the words involved or from the context. Therefore, there are various thematic types of these genitive phrases which include: Possessor, Agent, rheme among others.

4.1.11 Relative Clauses

Jacobs (1993) defines relative clauses as specialized constructions that are used to provide identifying information. They are subordinate clauses, whose arguments share a referent with a main clause element on which these subordinate clauses are

grammatically dependent. They modify a noun or a noun phrase and in some languages they are introduced by relative pronouns that indicate that these clauses have the same referent as the noun that they modify.

Relative clauses are categorized as bound or free; restrictive or non-restrictive; and finite or non-finite. In Naandi, bound relative clauses are very common. These are those relative clauses that are used to qualify an explicit noun or element occurring in the matrix clause and have the same referent as this noun or element in the main clause. In Naandi, this is indicated through the use of a relative pronoun; *ne* in singular and *che* in plural which joins the relative clauses to the noun that they modify. Consider:

> 174. Ko-wo sukul laakw-et **ne ko-a-keer amut**
>
> PSTgo to school ChildDefSG whoSG PST 1perSG see yesterday
>
> (The child whom I saw yesterday went to school)

In the above example, the embedded relative clause; *ne ko-a-keer amut*, modifies the noun *laakwet*, the relative pronoun; *ne*, refers back to the referent or the antecedent of the noun *laakwet*.

These bound relative clauses can either be restrictive or defining limiting the possible referent of the noun or non-restrictive or non-defining merely providing supplementary information about the referent. In example (174) above, the relative clause; *ne ko-a-keer amut* is restrictive because it modifies the meaning of the noun *laakwet* and it is essential to the sentence since it limits the range of reference of the noun *laakwet* to only that child whom I saw yesterday. Consider:

> 175. Ko-wo sukul kiruokindet ne ko-a-keer amut
>
> PSTgo school chiefDEFSG whoSG PST see yesterday

(The chief whom I saw yesterday went to school)

In the above example, the relative clause; *ne ko-a-keer amut* is non-restrictive in the sense that it does not limit the range of reference of the noun *Chief* since the referent is already known*,* but merely gives additional information.

As noted earlier, the embedded relative clauses are joined to the matrix clauses by the use of a relative pronoun; *Ne* in singular and *Che* in plural. It is important to point out here that, unlike in English where the relative pronoun agrees with the subject in case and animacy, in Naandi, this relative pronoun agrees with the subject in number only. Therefore, it is universal and can be used with both animate/ inanimate and human/non-human subjects. Its form also does not vary regardless of whether the noun it modifies is a subject or a direct object. Consider:

176. Chii-to *ne*-kanyo gaa

PersonSGDef whoSG comePSTSG home

(The person who came home)

177. Ket-it *ne* ka-ki-til

TreeDefSG that PSTcut (The tree that was cut)

Naandi uses a gapping strategy to indicate the role of the shared noun in the embedded clause. This is whereby a gap is left within the embedded relative clause where the shared noun or referent could have been inserted. For instance, in example (176) above, a gap is left after the verb *kanyo* where the noun could have been. This is because when it is broken into two sentences, we could have: *Chii-to* (The person) and *Kanyo chii-to gaa* (The person came home)

It is important to note here that when a relative clause co-occurs with the word *olto* (the place), the form of the relative pronoun changes to *Ye*. For instance:

178. Olto *ye*-ya

PlaceSGDef bePRT bad

(The place which is bad)

When the negative is joined to the relative, the suffix *–ma* is used after the relative particle. Therefore, *ne-ma* and *che-ma* are used in the singular and plural forms respectively. *Ye-ma* is used with the word olto (The place). Consider:

179. Pi-ik *che-ma* bwa gaa

PersonPLDef whoPL NEG comePSTPL home

(The people who did not come home)

180. Olto *ye-ma* ya

PlaceSGDef whichSG NEG bad

(The place which is not bad)

In Naandi, the embedded relative clause immediately follows the noun that it modifies. This is the case in other languages like English, French and Arabic. However, in other languages like Turkish, Japanese and Chinese, the relative clause precedes the noun that they modify. This means that there is a parametric variation with regard to the ordering of relative clauses and nouns across languages. Within the DP in Naandi, relative clauses typically occur at the final position. Consider:

181. Tipiik taman **che**-bwonei gaa

GirlPLDEF tenPL whoPLcomeIMPERF home

(Ten children who are coming home

4.2 The Linear Ordering of Elements within the DP in Naandi

As mentioned in sub-section 4.1, there are eleven elements that can occur within the DP

in Naandi. These elements comprise of the noun; substantive as well as derivative, the

article affix; indefinite and definite, the demonstrative, the possessive, the quantifier, the

numeral; both cardinal and ordinal, the adjectival phrase, the genitive phrase, the

prepositional phrase and the relative clause.

In the unmarked surface DP order in Naandi, the noun usually occurs at the initial

position of the DP. The determiners (article affixes, demonstratives, possessives and

quantifiers) and the other modifiers (numerals, adjectival phrases, prepositional phrases,

genitive phrases and relative clauses) immediately follow the noun. The dominant

attested order is N + [Article affix] + [Dem] + [Poss] + [Q] + [NumeP] + [AP] + [GenP]

+ [PP] + [Rel.C].

In Naandi, simple DPs are very common. This is where the noun occurs with either one

or two other elements. Consider:

Sequence	Example	English Gloss
N Art affix	Laakw-*et*	"The Child"
	ChildSG DefSG	
N Dem	Betusie-chu	"These days"
	DayPL thisPL	
N Poss	Borta-nyi	"His/Her body"
	BodySG mySG	
N Q	Kenyisiek che-chang	"Many years"
	YearPL bePL manyPL	
N Card Numeral	Werik tisap	"Seven sons"
	SonPL sevenPL	
N Ord Numeral	Ng'etet ne-tai	"The first boy"
	BoySG whoSG fisrtSG	
N A	Logoiywek che-miach	"Good news"
	NewsPL whichPL goodPL	
N PP	Tiong'ik eng ng'ony	"Animals on earth"
	AnimalPL on earth	
N GenP	Ng'olyo-t-ab Jehovah	"The word of God"
	WordSG of God	
N Rel.C hard"	Chi ne igiileg-ei	"A person who works
	PersonIndefSG whoSGwork hardPRS	
N InterrPron	Chepyoso ng'iro?	"Which woman?"

WomanIndefSG which

Pron   Ane   "I"

1st perSG

The data in Naandi shows that there are three main positions or slots that are readily available for elements to occupy. The first position is the nominal position which is the initial position of the DP in Naandi. This slot is generally reserved for the noun which is the complement of the head determiner. This position can also be occupied by the pronoun when it is used in place of a noun in Naandi. It is important to point out that, although the noun occurs at the initial position in the surface order, it is actually the head-determiner that occupies the initial position in an underlying structure as will be discussed in chapter five. Also, it is important to note that a noun can occur alone as a DP in Naandi since it is possible to have a DP with a null determiner.

The second slot is the head determiner position. This position is reserved for the functional elements containing the D-feature traditionally referred to as central determiners in English. These functional elements comprise of the definite and indefinite article affixes, demonstratives, possessives and the quantifiers. These elements immediately follow the noun complement within the DP in Naandi. From the data in Naandi, when a noun co-occurs with these functional elements, the combinations of NP + DemP and NP + PossD are very frequent.

It is important to point out that in as much as these elements belong to the same category, unlike in English, in Naandi these elements are not in complementary distribution. This means that it is possible for all these elements to occur within a single DP in Naandi. When this happens, the article affix immediately follows the noun since it is suffixed to

it. Demonstratives, possessives, quantifiers follow in that order. Their unmarked order is NP + DemP + PossD + QP. Consider:

182. Laago-chu –chuuk tugul

ChildPLIndef thisPL myPL allPL

(All these my children)

The third and the final slot is the modification position. This position is occupied by the modifiers category 1 and modifiers category 2 respectively. Modifiers category 1 comprise of the numerals both the cardinals and the ordinals and the adjectival phrase. In Naandi, it is possible to have the cardinal as well as ordinal numeral occurring within a single DP. Whenever this happens, the ordinals generally precede the cardinals. Consider:

183. Laago-k che-tai aeng

ChildDefPL whoPLfirst twoPL (The first two children)

However, their ordering is not water-tight. This means that a cardinal can precede an ordinal. Consider:

184. Laago-k aeng che-tai

ChildDefPL twoPL whoPLfirst (The first two children)

Within the DP in Naandi, numerals generally precede adjectives. Consider:

185. Laakw-et ne-tai agenge ne-ng'om

Child Def SG whoSG first oneSG whoSG cleverSG

(The first one clever child)

However, their linear order is not strict. This means that it is possible to have an adjective occurring before the numeral. Consider:

186. Laago-k che-ng'om-en che-tai aeng

Child DefPL whoPL cleverPL whoPL first twoPL

(The first two clever children)

Therefore, the dominant attested order of the noun and the modifiers category 1 is N + NumeP + AP.

Modifiers category 2 consists of the GenPs, PPs and Rel.Cs. These elements are adjuncts that are adjoined to the DP. When there is adjunction of these elements, the DP realizes a null determiner unless it co-occurs with the other elements of category D. When they all occur within a single DP, the dominant attested order is NP + GenPs + PPs + Rel. Cs. Consider:

187.   Ng'olyot –ab Jehovah eng ichek che isuubi inendet

WordSG of GodSG to them WhoSG follow Him

(The word of God to those who follow Him)

Finally, it is important to point out that in Naandi, it is possible for all these elements; the noun complement, the functional elements containing the D-feature, modifiers category 1 and modifiers category 2; to occur within a single DP. When this happens, the dominant attested order is; NP + DemP + PossD + QP + NumeP + APs + GenPs + PPs + Rel.Cs. Consider:

188. Ng'ale-chu tugul tai mut kororon bo Jehovah eng okwek che igiilegei eng imanda

NewsDefPL thisPL allPL first fivePL goodPL of God for youPL whoPL work hardPRS in truth (All these first five good news of God for those who work hard in truth)

Within the DP in Naandi therefore, there are three positions that are readily available for the different elements to occur. These positions are the nominal, the head-determiner and the modification positions, numbered as 1, 2 and 3 respectively. Position 1 is the nominal position and it can only be occupied by the noun or a pronoun. Position 2 is the position immediately after the noun. It can be occupied by the determiners: Article affixes, demonstratives, possessives and the quantifiers. Position 3 (a) can be occupied by modifiers category 1 which comprise of the numerals and adjectives. Position 3 (b) can be occupied by modifiers category 2 comprising of prepositional phrases, genitive phrases and relative clauses.

Table 4.1: A Summary of the order of Elements within the DP in Naandi

1(Nominal)	2 (Head-Det position)				3(a)(Modification)		3(b)(Modification)		
Nom	**Det**				**Mod Cat1**		**Mod Cat 2**		
Noun	A	B	C	D	A	B	A	B	C
Pron	(Def art)	(Dem)	(Poss)	(Q)	(Nume)	(AP)	(GenP)	(PP)	(Rel.C)

From the above discussion on the linear ordering of elements within the DP in Naandi, I can conclude that the noun complement generally occurs at the initial position whereas the elements of D-category and the modifiers occur at the final position. Other world languages too behave like Naandi. For instance, Bantu languages like Kiswahili (Carstens

1991), Nyakyusa (Lusekelo 2009), and Ekegusii (Mose 2012) and Asian Languages like Thai, Khrer, Hmong, Malay and Vietnamese (Simpson 2005). However, it is important to note that this is not true for all languages. In English (Adger, 2002) and Burmese (Simpson (ibid)) for instance, the elements of D-category and the modifiers comprising of the numerals and adjectives occur pre-nominally within the DP. This implies that there are parametric variations with regard to the linear order of elements cross-linguistically hence the classification of languages as either head-initial or head-final.

Basing on these linear ordering facts across languages, in Chapter Five, following the proponents of the universal DP hypothesis, the researcher argues that the Naandi DPs are underlyingly head-initial and that the noun-initial DP surface order as attested is as a result of noun-raising and overt movement to Spec-DP where they are spelled-out and hence occupy it overtly. This movement is triggered by agreement features that are distributed throughout the different functional projections within the DP.

In addition, in Naandi, it is possible for the elements belonging to D-category to co-occur within a single DP. However, in other languages like English (Adger, 2002) all these elements are in complementary distribution; they have exactly the same distribution hence they compete for the same position; the D-head. Based on this, in Chapter Five, the researcher argues that in order to capture this co-occurrence possibility of D-elements in Naandi, there is need for each of these functional elements to project their own functional projection below the DP. These projections are headed by each relevant element hence DemP headed by a Demonstrative, PossP headed by a Possessive and QP headed by Quantifier. This is important since these elements will not have to compete for the same D-head position.

4.3 The DP-Internal Agreement in Naandi

According to Hurford (1994:15), agreement is the relationship between one word in a

sentence or a phrase and some other word, whereby the form of one word is dictated by

the other word. The word whose form is dictated by the other one is said to agree with it.

Morphosyntactically, agreement is a relation between syntactic constituents by virtue of

the fact that the word forms they consist bear similar information, either inherently or by

means of morphological affixation or inflection.

As noted earlier, there are eleven elements that can occur within a single DP in Naandi.

Nouns, pronouns, article affixes, demonstratives, possessives, adjectival phrases and

relative clauses are inflected for number. Nouns are inherently classified for gender

grammatical feature with the prefixes *Chep-* and *Kip-* prefixed to proper nouns to indicate feminine and masculine gender respectively. Definite article affixes, overt demonstratives, overt possessives, overt adjectives and overt relative clauses mark definiteness whereas indefinite article affixes, quantifiers and numerals indicate indefiniteness. Possession is an inherent grammatical feature of possessive determiners and genitive phrases, and deictic grammatical feature is an inherent feature of the demonstartives. These agreement features are known as phi-features. Therefore, all the elements that occur within the DP must agree with each other based on the above dimensions.

For instance, within the DP in Naandi, the determiners and all the other modifiers have to agree with the noun that they co-occur with in number feature. Number is a grammatical dimension where elements mark singularity and plurality overtly. In Naandi, the elements that occur within the DP are morphologically inflected for number. Nouns, for instance, have distinguishable singular and plural forms either with or without the article affix. Consider:

189. Laakw-et

ChildSG Def SG

(The child)

In the above example, the noun *laakwa* (child) is in a singular form; therefore it determines the form of the definite article affix which must be singular form too. Therefore, because number is an inherent feature of the nouns within the DP in Naandi thus, it determines the form (singular or plural) of the other elements that follow it. As such, the noun *laakwa* (child) enters the derivation with a valued number feature. The

definite article affix on the other hand, enters the derivation with an unvalued number feature. As they establish an agree relation with the noun, the noun values the unvalued number feature on the definite article affix. Therefore, in the above DP (188), the definite article affix inherits number fature from the noun that it co-occurs with. Consider an example below, when the DP (188) is in plural.

190. Laago-k

ChildPL Def PL (The children)

The other elements too, demonstratives, possessives, quantifiers, adjectives and relative clauses that can occur within the DP in Naandi, are too morphologically inflected for number. Consider:

191. Laakwa-ni-nyu

ChildSG DemSG PossSG (* This my child)

192. Laago-chu-chuuk

ChildPL DemPL PossPL (*These my children)

193. *Laakwa-chu-chuuk

Child SG DemPL Poss PL (*These my child)

194. *Laago-ni-nyu

Child PL Dem SG Poss SG (*This my children)

From the above examples, the DPs in (190) and (191) are well-formed since the noun, the demonstrative and the possessive agree with each other in number. The noun *laakwa* (child) in (190) is in singular form; therefore it dictates the form of the demonstrative *ni* (this) which is singular pointing at a single object and the possessive *nyu* (my) which is

also singular since the possessed item and the possessor is one. In (191) since the noun

laakwa (child) is in plural, then it follows that the demonstrative and the possessive *chu*

(these) and *chuuk* (my) respectively take the plural form. The possessive takes the plural

form *chuuk* (my) since the possessed items are more than one. This is because as they

establish an agree relation, the noun probes for a goal with these elements (demonstrative

and possessive). The agree relation, then values the unvalued number feature on the

demonstrative and the possessive and they become inflected for this number feature.

The DPs in (192) and (193) on the other hand, are ill-formed. This is because the noun

laakwa (child) in (192) is in singular form whereas the demonstrative *chu (*these) is in

plural pointing at more than one objects and the possessive *chuuk* (my) is also in plural

form indicating that the possessed items are more than one. The noun *laagoi* (children) in

(193) is in plural form whereas the demonstrative *ni* (this) is in singular identifying a

single object and the possessive *nyu* (my) is in singular indicating that the possessed item

is one. Therefore, the elements (noun, demonstrative and the possessive) that make up

these DPs do not agree since they do not contain similar number information.

Consider an example where all these elements occur within the DP in Naandi

195. Laak*wa*-ni nyu *ne*-tai agenge *ne*-ng'om *ne*-ka-nyo gaa

ChildSG DemSG mineSG firstSG oneSG cleverSG whoSG

PSTcomeSG home (*This my first one clever child who came

home)

196. Laag*o*-chu chuuk *che*-tai aeng *che*-ng'om-*en che*-ka-*bwa* gaa

ChildPL DemPL minePL firstPL twoPL cleverPL whoPL PSTcomePL home (*These my first two clever children who came home)

From the above illustrations, number is an inherent feature of nouns within the DP in Naandi. Therefore, when a noun co-occurs with the other elements within the DP, these elements (definite article affixes, demonstratives, possessives, quantifiers, numerals, adjectives, and genitive phrases and relatives clauses) inherit this number feature from the noun and they become morphologically inflected for this number feature.

In addition, elements within the DP in Naandi, can agree in definiteness phi-feature. Definiteness is a formal feature of nominal expressions which signals whether or not the referent is specific. Definite is used when the referent is specific. Indefinite on the other hand, is used when the referent of a phrase is not specific.

In Naandi, definiteness is marked through the process of suffixation, where either the indefinite or the definite article affixes are joined to the root noun both in singular and plural forms. Also, definiteness is marked through the use of overt demonstratives, overt possessives, and overt quantifiers.

Therefore, definiteness in Naandi is an inherent feature of the definite article affixes, demonstratives, possessives, adjectival phrases and relative clauses. Indefinite article affixes, quantifiers and numerals indicate indefiniteness. Within the DP in Naandi therefore, whenever any of these elements co-occur with the noun, the noun inherits this definiteness phi-feature. Consider:

197. Laakw-et

Child DEF (The Child)

198. Laakwa-ni

    Child this DEF (This child)

199. Laakwe-nyu

    Child my DEF (my child)

200. Laakwa agenge

    Child one DEF (One child)

201. Laakwa ake

    Child another DEF (Another Child)

From the above illustrations therefore, the article affixes, demonstratives, possessives, quantifiers and numerals enter derivation with a valued definiteness grammatical feature. The noun on the other hand enter the derivation with an unvalued definiteness feature, the noun then probes for a goal with these other elements containing the feature +definiteness. Definiteness then is valued on the noun after establishing an agree relation with these elements. Since all these elements containing +definiteness can occur as the head-D within the DP in Naandi, we can thus conclude that the head of DP is the locus of definite feature. During the process of derivation as will be shown in Chapter five therefore, the noun raises out of NP and NumP further moves overtly to Spec of DP where it is spelled out in order to check for definiteness feature with the D-Head. Consider the following examples:

202. Laak*wa* ne-ka-nyo gaa

    ChildIndefSG whoSG PSTcomeSG home

    (A child who came home) INDEF

203. Laakw-*et* ne-ka-nyo gaa

ChildDefSG whoSG PSTcomeSG home

(The child who came home) DEF

204. Laak*wa-ni* ka-nyo gaa

ChildIndefSG thisSG PSTcomeSG home

(This child who came home) DEF

205. Laak*wa nenyu* ne-ka-nyo gaa

ChildIndefSG mySG whoSG PSTcomeSG home

(My child who came home)DEF

206. Laak*we-nyu* ne-ka-nyo gaa

ChildDefSG mySG whoSG PSTcomeSG home

(My child who came home) DEF

Finally, elements within the DP in Naandi can agree in terms of gender. Gender is a grammatical feature of DPs. Nouns are inherently classified for gender. Within the DPs in Naandi therefore, gender is marked through the use of gender affixes *Chep*-(she) and *Kip*-(he) that are prefixed to proper nouns (names of people). In Naandi, therefore these two gender prefixes distinguishes two genders, feminine and masculine, respectively. Consider:

207. *Chep*-too

Fem visit V (A female person born when there were visitors)

208. *Kip*-too

Masc-visit v (A male person born when there were visitors)

Further, these gender prefixes can be prefixed to certain substantives and they often form part of the substantive noun. Consider:

209. *Chep*-kericho

   Fem Medicine (Medicine woman)

In addition, in Naandi, the titles of people are marked for gender with *Chep-o* and *arap* being used to signal 'daughter of' and 'son of' respectively. Other titles include *kobot* and *kwombo* meaning 'mother of' and 'father of' respectively. Consider:

210. *Chep*-o Rono

   Daughter Fem of Rono (Daughter of Rono)

211. *Arap* Rono

   SonMasc of Rono (Son of Kip-Rono)

212. *Kobot* / *Kamet*-ab Rono

   Mother Fem of Rono (Mother of Rono)

213. *Kwombo* / *kwanit*-ab Rono

   FatherMasc of Rono (Father of Rono)

Whenever this type of nouns occurs within the DP, then the gender is known. Gender therefore can be said to be interpretable or valued in some nouns in Naandi. Unlike in English where possessives are marked for gender, all the other elements within the DP in Naandi have an uninterpretable or unvalued gender.

4.4 Chapter Summary

In this chapter, the study has pointed out that there are eleven elements that can occur within the DP in Naandi. The dominant attested order is: NP + DemP + PossD + QP + NumeP + APs + GenPs + PPs + Rel.Cs .In addition, it has discussed how the agreement features are distributed throughout the different functional categories within the DP in Naandi. In Chapter Five, the study focuses on how these agreement features distributed

throughout these different functional projections are checked and valued within the DP in Naandi.

CHAPTER FIVE

A MINIMALIST ACCOUNT OF THE NAANDI DP

5.0 Introduction

This section presents and analyses data on the theoretical account of elements within the DP in Naandi. In Sub-section 5.1 it argues that the DP in Naandi is underlyingly head-initial and that the noun-initial surface order attested is as a result of noun raising out of NP to NUM and a further overt movement of NumP to Spec position of the DP in the process of feature checking and feature valuation. Sub-section 5.2 presents data on MP's Agree, Merge and Move operations and the DP in Naandi. Finally, Sub-section 5.3 presents data on how the agreement features are checked and valued within the DP in Naandi.

5.1 The Naandi DPs as underlyngly Head-Initial

Traditionally, in descriptive and the first decades of generative grammar, noun phrases were analyzed as being headed by nouns which took dependents; modifiers, complements and specifiers.

However, the principles of the extended x-bar theory saw the introduction of functional categories as heads of clauses. This is because many linguists saw the need of having a uniform analysis for both the substantive and functional categories in syntax. This led to the analyses of various phrases such that Clauses became to be analyzed as CPs being headed by the complementizer, finite verbs as I(nfl)Ps being headed by an inflectional

affix or an auxiliary and noun phrases as DPs being headed by a determiner. According to the proponents of the DP analysis, determiners are lexical heads that take NP as their complement. (Abney 1987, Carstens 1991, Culicover 1997, Mateos 2000, Adger 2000, Chang 2009 and Sulemana 2002)

A DP therefore is a phrase that is headed by a determiner and has an NP as its complement. Such phrases must have an element of the D category at its initial position and an NP at its final position. Adger (2003) presents a basic structure of the DP within Minimalist syntax as follows:

1. The students

```
            DP
           /  \
          D    NP
          |    /\
         The  /  \
             Students
```
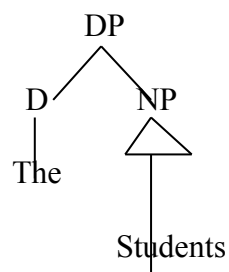
There has been a debate by linguists as to whether NPs without articles should be analyzed as DPs or NPs. For instance, Lyons (1999), Fukui (1995), Chierchia (1998) and Zlatic (1998) argue that DPs cannot be projected in some Slavic languages and others like Korean that lack grammatical D category or definite articles since they have no formal marking for definiteness. Also, other linguists such as (Nweke, 2011) have argued that those languages with the noun occurring at the initial position and the determiners following the noun within the DP should be analyzed as NPs rather than DPs. In this study, the researcher adopts the universal DP hypothesis which proposes that the DP is headed by a functional element of the D-category containing a D-feature.

As mentioned earlier, in Naandi, in the unmarked DP surface word order, the noun occurs at the initial position whereas determiners and modifiers usually follow the noun. This surface DP order depicts the DP in Naandi as head-final because the noun appears at the initial position and the head determiner occurs at the final position. Consider:

2. Laakw-et

ChildSGDEF (The child)

```
            DP
          /    \
       NP        D
        |         \
     Laakwa       -et
```
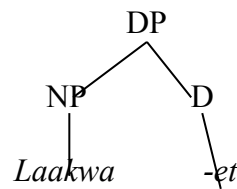
The above DP in Naandi, gives the correct noun-initial surface order as attested in Naandi; Noun + Det, and also meets the requirement of X'-theory on the possible phrase in natural language of type:

3.   XP
       / \
      Y   Z   (Culicover, 1997)

However, it has some problems especially with regard to the principles of X'-theory on ordering of constituents considering that NP is the complement of the head D, in that it violates the principle which stipulates that within a given language, the left-to-right ordering of constituents within categories is uniform, heads always precede complements (Culicover, 1997). Also, there is a problem when other elements within the DP are introduced. Consider an example when a numeral is introduced:

4. Laakwet agenge

ChildSGDEF one (The one child)

```
            DP
          /    \
```

```
         NP              D
        /  \             |
     Spec   N           -et
           /  \
          N    NumeP
          |    /    \
       laakwa Spec  Nume
                     |
                   agenge
```
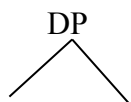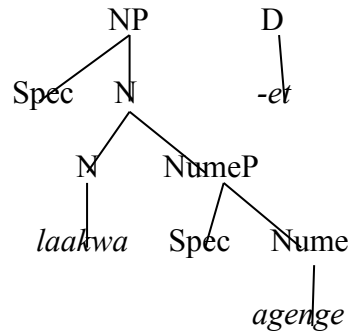
Although this structure shows the noun at the initial position as attested in Naandi, it is problematic because it depicts that a numeral can occur before a definite article affix which is morphophonologically depedent on and is usually joined to the noun. This never happens in Naandi. Consider another example where a noun co-occurs with a quantifier

5. Tipi-ik che-chang

    Girl PLDef many (Many girls)

```
              DP
           /      \
         NP         D
        /  \        |
     Spec   N'     –ik
            /  \
           N    QP
           |    /  \
         Tipi- Spec  Q
                     |
                 Che-chang
```
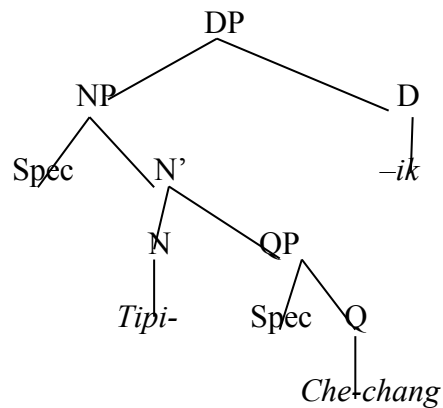
Again in the above example, when a quantifier is introduced within the DP, it gives the noun-initial surface word order as attested in Naandi. However, it depicts that a quantifier can occur before a definite article affix which is not true.

Because analyzing Naandi DPs as head-final is problematic as shown above, in this study, the researcher argues that Naandi DPs are underlyingly head-initial. Following Tamanji (2000) who proposes that the noun is base generated in a position to the right of the determiner; directly in its surface position inside NP, example (2) above, repeated as 6 would be presented as follows:

6. Laakw-et

ChildSGDEF (The child)
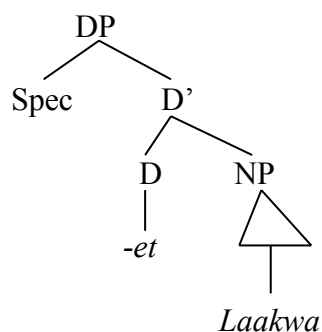
The structure above gives the underlying DP word order in Naandi where the head determiner –*et* appears at the initial position and the noun complement *laakwa* is at the final position. Also, it is in line with the principles of the x-bar syntax which requires that the head of a phrase can be merged with two phrases. The first merge giving the head a

complement (YP) which occurs to the right of the head and the second merge a specifier (ZP) which occurs to the left of the head. Consider:

7.   XP

    ZP   X'

(Specifier)

          X   YP

     (Head)   (Complement)   (Jayaseelan, 2008:88)

However, it does not give the noun-initial surface order of DP as depicted by the data from Naandi. To derive the surface DP order where the noun is at the initial position and determiner at the final position, the noun has to move overtly to Spec-DP where it will be spelled-out and hence occupies it overtly. This movement is important, because it helps to account for the different word orders within the MP framework that assumes uniform underlying structures in all human languages.
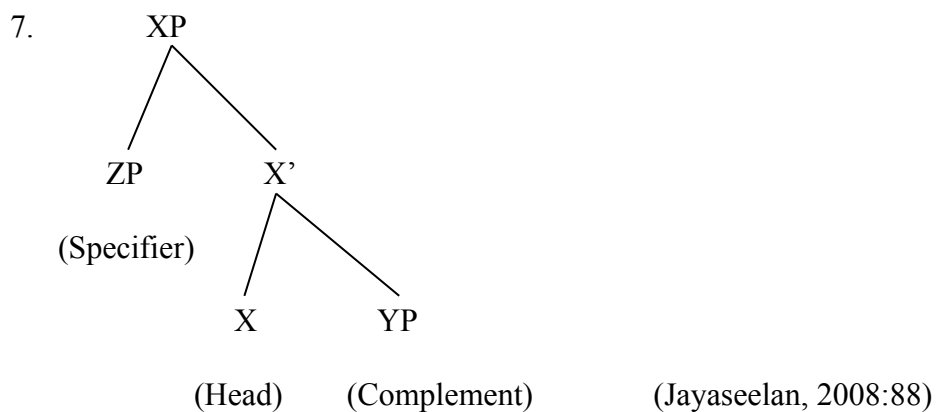
In addition, this syntactic movement is essential because of the presence of agreement /phi- features that are distributed throughout the different functional projections within the DP in Naandi and that must be checked and valued before spell-out at PF. This is in line with the MP framework and principles of X' theory which postulates that movement of elements can only be triggered by the presence of Phi-features that must be satisfied through agreement in the course of a derivation. For example, in Naandi, number morphology is present on the determiners (article affixes, demonstratives, possessives and quantifiers) and on the other modifiers such as adjectives. This points to the fact that, there is a rich agreement system of elements within the DP in Naandi. Therefore, this

movement of the noun is necessary because it enables it to check for its agreement features with the different functional projections within the DP as will be discussed in sub-section 5.3. In example (8) below, the D-head contains a valued definiteness feature whereas the noun contains an unvalued definiteness feature. Because of this strong +Def feature, the noun is forced to move overtly to Spec-DP where it occupies it overtly. The unvalued definiteness on the noun is checked and valued. The resultant surface structure therefore will be as follows

8. Laakw-et

ChildSGDEF (The child)
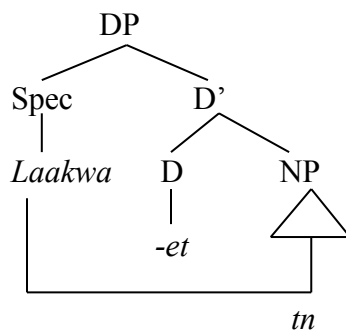
From the above illustrations from data in Naandi, the study can conclude that the DP in Naandi is underlyingly head-initial as illustrated by example (6) above and that the noun-initial surface order attested in Naandi is as a result of overt noun movement for feature checking and valuation to the Spec position of the DP where it is spelled-out and occupies it overtly. This conclusion is important in that makes possible for the study to follow the tradition that currently prevails in generative grammar, the one where the head

of a noun phrase is identified with the determiner and not the noun. Secondly, it is important because it makes it possible to analyze noun phrases in Naandi as DPs because of the presence of determiners in Naandi such as article affixes, demonstratives, possessives and quantifiers, bearing in mind that the DP surface order is noun-initial.

This analysis of noun phrases as DPs in Naandi is important in that it provides a uniform account of all the syntactic categories in language; both substantive and functional ones. In addition, this analysis helps to capture the co-occurrence restrictions of elements within a phrase without much problem since many functional projections can be introduced so long as it contains a phi-feature. This final point is very important especially in a language like Naandi that allows the co-occurrence of functional elements of the D-category largely known as determiners.

5.2 The operation Agree and the DP in Naandi

Having concluded that the DP in Naandi is underlyingly head-initial and that the noun-initial surface order is as a result of overt noun raising to occupy the Spec-of-DP, and that there is a rich agreement system within the DP in Naandi, it is important to show how these agreement features are checked. This is because as illustrated above, these features are spread throughout the different projections within the DP in Naandi.

As noted earlier, within the standard Spec-Head approach, agreement was licensed at the spec-Head configuration, where the agreeing elements within a phrase or a sentence had to be located within these positions: specifier and head. However, within MP, Chomsky eliminates this configuration and proposes an 'agree operation' where elements obtains agreement.

Features on elements may be valued or unvalued. A valued feature is one which identifiers a dimension as well as its value. For instance: (Number: Plural). An unvalued

feature on the other hand, is the one which can identify the dimension alone, like (Number). Unvalued features on elements are uninterpretable; this means that there is need to assign values to them. This therefore drives a syntactic operation.

The unvalued formal features on functional heads (probes) are licensed via agree with matching valued features on substantive elements (goal), thereby allowing the derivation to converge at the LF interface.

Chomsky (2000), in his proposal of existence of an Agree operation where agreement features are licensed through establishment of a probe-goal relation between two elements which are in a C-Command domain, points out that there is a functional projection, AgrP for checking for the agreement features. This AgrP projects whenever an agreement affix is overtly spelled out between the modifiers and the noun. This means that with the kind of DP-agreement that Naandi has, it means that multiple AgrP must be projected in order to check for agreement features in all the functional and lexical projections within the DP in Naandi. These multiple Agr projections prove untenable especially when all the eleven elements occur within the DP in Naandi.

To avoid this challenge of multiple AgrP, many linguists and researchers have pointed out that this functional projection, intermediate between D and NP is NumP (Cinque 1990, Carstens 1991, Tamanji 2000, Mateos 2002, and Lin 2008). This proposal of analyzing number as a syntactic category is significant because it provides a uniform account for number words in languages like Yapese, an Austronesian language (Dryer 1989) where grammatical number is indicated by presence of independent words and number morphology in languages like Kiswahili, English (Carstens 1991) and Naandi where words are inflected for number.

In this study, this proposal is adopted. This is because number is a syntactic category and in Naandi, almost all the elements within the DP are morphologically inflected for number. Also, this is because all the other phi-features are present as bundles and hence can be checked through this functional projection. Therefore the head NumP is the locus of number feature and selects NP as its complement. Because the noun has to overtly occupy the Spec-of-DP as shown above, the researcher follows the proposal on noun raising out of NP (Carstens 1991, Cinque 1990, Mateos 2000 and Tamanji 2000) where it is base-generated and moves to the functional projection; NumP where it incorporates number features before moving to the Spec position of the DP where it is spelled-out via Spec position of all the functional projections within the DP for feature checking and feature valuation.

Therefore the typical structure of the DP in Naandi is as follows:

9.
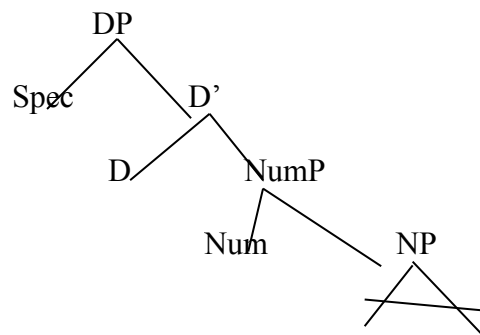
Therefore, the underlying structure of the DP in (6) above, repeated here as (10) will be presented as follows:

10. Laakw-et

ChildSGDEF (The child)

```
                DP
               /  \
           Spec    D'
                  /  \
                D      NumP
                |     /   \
               -et  Num    NP
                          / | \
                         /  |  \
                        Laakwa
```
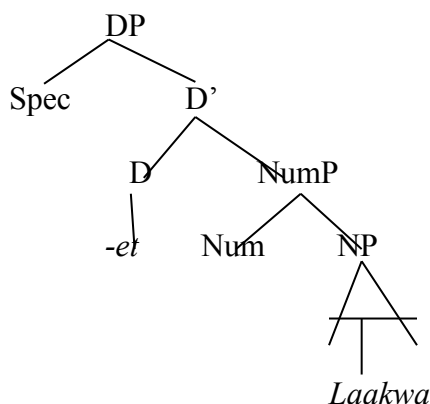
5.3 Checking for Agreement features within the DP in Naandi

So far, this study has argued that the DP in Naandi is underlyingly head-initial. In addition, it has concluded that the noun-initial surface order as attested in Naandi is as a result of overt noun raising to the Spec of DP being triggered by the need to check and value agreement features that are distributed throughout all the functional categories within the DP. Further, the study has concluded that the intermediate projection between D and NP which is responsible for checking number and other agreement features within the DP in Naandi is NumP. In this section therefore, it is important to show how this feature checking and feature valuation takes place within the DP in Naandi.

5.3.1 Agreement of Functional Categories

As mentioned earlier, there are many functional elements that can occur within the DP in Naandi. These include demonstratives which contain [+Deictic] as well as [+Def] features, possessives with [+Poss] as well as [+Def] features, quantifiers which contain [+Quant] and Numerals which contain [+Num]. Therefore, within the DP in Naandi,

these functional categories are projected as follows: DemP, PossP, QP, NumeP and NumP. Therefore the NP complement needs to check for agreement features with all these functional projections.

Having given the structure in (10) as the typical structure of the DP in Naandi, one then wonders what happens during the process of feature checking and feature valuation of these functional projections within the DP in Naandi.

Consider the following example when a demonstrative as a functional element occurs within the DP:

11. Betusie-cho-tok

DayPLDef thatPL EMP (Those days)

Demonstratives as one of the functional categories within the DP have various base-generated positions across languages (Chang, 2009). Adger (2002) for instance, notes that demonstratives are functional categories that contain D-feature and since in English all the functional categories; articles, demonstratives and quantifiers, containing D-feature are in complementary distribution, competing for the same position, demonstratives therefore are base-generated on the D head position and that is where they are spelled-out.

Other researchers note that demonstratives are base-generated in a functional category that is projected below DP (Carstens 1991, Giusti 1997, Lin 2008, Chang 2009, Bruge 2002 and Mose 2012). These researchers however, do not agree on the actual position of this functional projection from where these demonstratives are base-generated. Giusti (1997) for example, propose that demonstratives are base generated in Spec AgrP (a functional projection) which is projected below DP, and raise to Spec DP universally.

Similarly, Chang (2009) note that because demonstratives can co-occur with the possessives in Korean they are base-generated in AgrP, the intermediate projection between DP and NP, however, the generated position is head AgrP, not Spec AgrP and they move obligatorily to the head D in overt syntax.

Bruge (2002) points out that demonstratives are base-generated in Spec position of Functional Projection which is lower than all the functional projections. Carstens (1991) on the other hand notes that demonstratives in Kiswahili precede all the arguments of N and they are base-generated as adjuncts to #P and that they undergo optional raising to Spec, DP. Tasseva-Kurktchieva (2006), Lin (2008) and Mose (2012) note that demonstratives as functional elements are base-generated in their own functional projection DemP. However, for Tasseva-Kurktchieva (ibid) this DemP is not a lower functional projection, but it immediately dominates DP and shares with it the [+Ref, +Def] features.

As noted earlier, Naandi has both definite and indefinite article affixes, demonstratives, possessives and quantifiers that contain D-feature and can occupy the D-head position within the DP. Also, in Naandi, these elements of D-category can co-occur with each other. Because of this, in this study, the researcher agrees with the latter proposal that demonstratives project their own functional projection DemP where they are generated in the Head, DemP position. Because demonstratives are determiners and occur immediately after the definite article affixes, then this functional projection, DemP should be projected close to the D-head position of the DP. This therefore, means that DemP should be projected intermediate between the D and NumP. Following this proposal and Tamanji (2000) on base-generation of the noun at NP surface position and

the above conclusion that DP in Naandi is underlyingly head-initial, this study proposes the following analysis for the DP in (11) above.

12. Betusie-cho-tok

DayPL DemP2PL EMP (Those days)

```
              DP
            /    \
         Spec     D'
                 /  \
                D    DemP
                |   /    \
               -ek Spec   Dem'
                        /     \
                      Dem      NumP
                       |      /    \
                   Cho-tok  Num     NP
                                    /\
                                   /  \
                                 Betusio-
```
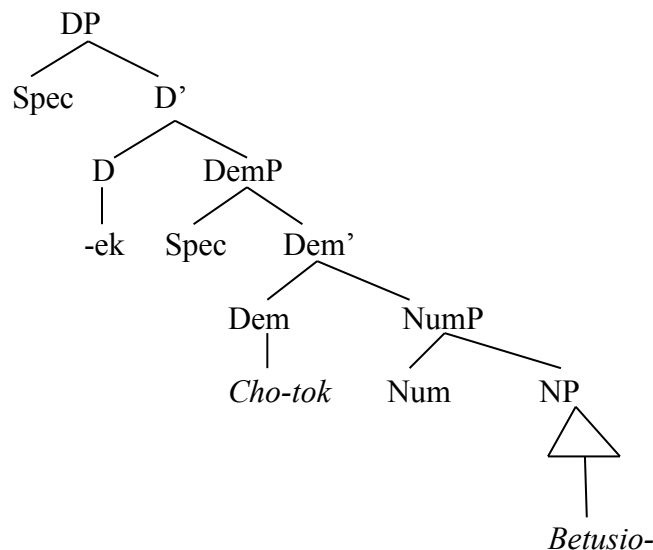
This is the underlying DP head-initial order. To derive the noun-initial surface order and to check for agreement features, the noun complement *betusio* raises out of NP to NumP that contains a strong non-intrinsic number agreement feature that forces overt movement of the noun. The noun then incorporates number syntactic feature. The demonstrative *cho,* as noted earlier, is base generated at the head position of the DemP which is below the DP. This projection DemP contains strong [+Deictic, +Def, -Num] features which forces a further overt movement of NumP containing the noun to Spec, DemP where it checks for these deictic and definiteness features with the head demonstrative. Deictic and definiteness is valued on the noun and number feature is valued on the demonstrative.

The definite article affix –*ek* joined to the noun is base-generated on the D-head position where it is spelled-out and occupies it overtly. This definite article affix contains [+Def] feature. This further forces overt movement of NumP containing the noun to Spec, DP where it checks for definiteness feature with the Head D and occupies it overtly. In this operation of moving the noun in the process of feature checking and feature valuation, the functional projection, Nump containing the noun stands at a Spec-Head relation with the other functional categories within the DP. The resulting surface order is as follows:

13. Betusie-cho-tok

DaySG DemSG EMP (Those Days)
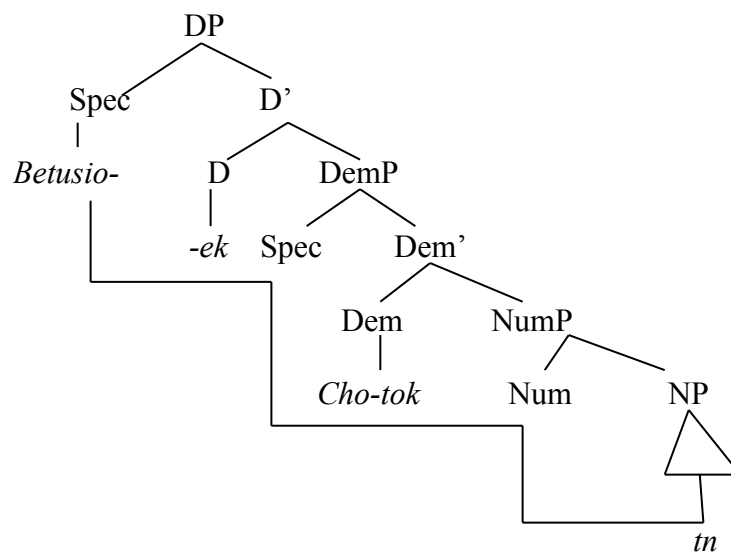
The above structures, (12) and (13) are typical structures of all the functional elements that can occur within the DP in Naandi. These functional elements include demonstratives which project their own functional projection DemP, possessives which projects PossP, quantifiers which projects QP and numerals (cardinals and ordinals) which project NumeP.

Consider the following example where the possessive occurs within the DP in Naandi.

14. Biik-chiik

Person PLDef 3rdperPoss (His/her people)

Chang (2009) notes that because of the co-occurrence of D elements (demonstratives, definite articles and quantifiers) in various languages such as Syrian, Arabic, Greek, Romanian among others, there is need to split these elements into various functional projections headed by each relevant element projecting different positions and functions between D and N. In differentiating between base-generation of demonstratives and possessives in Korean where they can co-occur, she points out that while demonstratives are base-generated in the head-AgrP which is located below the DP; possessives are base-generated in Spec-AgrP so that they do not compete for the same position. Similarly, Adger (2002) and Mose (2012) point out that possessives project their own functional projection; which Adger (ibid) calls it PossP whereas Mose (ibid) calls it PossD. According to them, possessives are base-generated at the Poss position of the PossP/PossD. Carstens (1991) on the other hand, argues that Kisawhili genitive pronouns occupy a unique structural position, located to the left of the base position of N (Spec-NP).

Since possessives in Naandi are elements that belong to D-category, and that they co-occur with the other elements of the same category (definite article affixes, possessives and quantifiers), in this study, the researcher supports the proposal by Chang (ibid) on the need to split these elements into various functional projections. Possessives in Naandi therefore project their own functional projection and in this study Adger's name PossP is adopted.

Possessives in Naandi, as noted earlier are elements of D-category; therefore PossP like DemP, functional projection must occur immediately below the D-head position, intermediate between D and NumP. The above DP (14) should appear as follows:

15. Biik-chiik

PersonPL his/her (His/her people)

```
                    DP
                  /    \
               Spec     D'
                      /    \
                    D       PossP
                    |      /    \
                   -k    Spec    Poss'
                               /    \
                            Poss     NumP
                             |      /    \
                           Chiik   Num    NP
                                          /\
                                            \
                                           Bii-
```
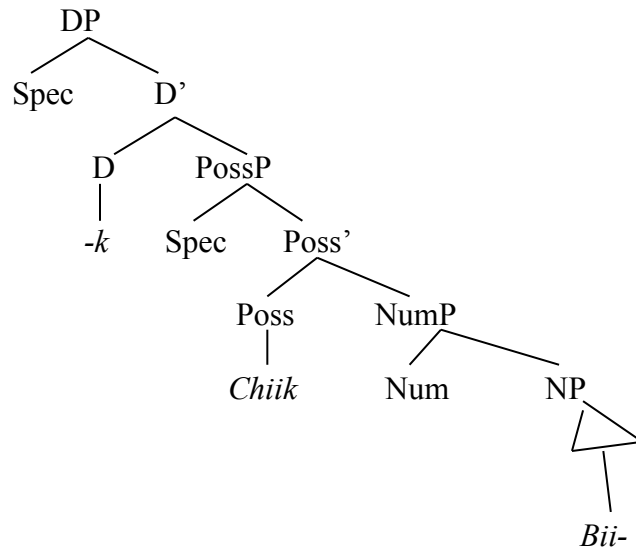
This is the underlying DP head-initial structure. To check for agreement features and to derive the noun-initial surface order, the noun *Biich* raises to Num because NumP is the locus of number feature which forces the raising of the noun. The noun then incorporates number feature contained in NumP. Possessive *chiik* on the other hand, contains an inherent [+Poss] and [−Num] features. This feature [+Poss] present on PossP forces overt movement of the NumP with (+Num, -Poss] features and containing the noun to Spec-PossP which is its checking domain with the functional category PossP. The noun then checks for this agreement feature with the possessive in a Spec-Head relation where possession is checked and number is checked and valued on the possessive. The definite article affix *–k* base-generated on the D-head position containing [+Def, -Num] forces

NumP [+Num, -Def] to move overtly to Spec-DP where it checks for definiteness

agreement feature with the definite article affix. Number is then checked and valued on

the definite article affix and definiteness is checked and valued on the noun and that is

where it is spelled out. The resulting surface order is as follows:

16. Biik-chiik

PersonPLDef 3rdPerPoss (His/her people)
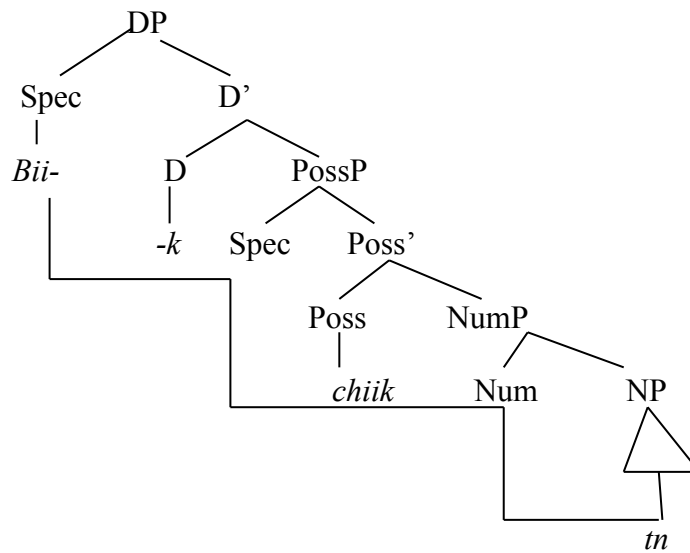
Having looked at how agreement features are checked and valued on DemP and PossP

functional projections within the DP in Naandi, it is important to show how these

agreement features are checked and valued whenever all the functional categories within

the DP co-occurs. Consider:

17. Laago-chu-chook tugul angwan

ChildDefPL thisPL myPL allPL fourPL

(*All these our four children)

From the discussion on demonstratives and possessives above, the study has concluded

that there is need to split the elements containing D-feature into various functional

projections headed by each relevant element especially in languages like Naandi which allow the co-occurrence of elements of D-category. In addition, it has concluded that demonstratives and possessives project their own functional projections DemP and PossP respectively which are located below DP. They select NumP as their complement and are the complements of DP. However, it has not explained which between the two is projected immediately below the DP whenever they co-occur within a single DP in Naandi.

In Naandi, demonstratives occur immediately after the definite article affixes that are joined to the noun. Possessives on the other hand, are not very close to the D-head unless the demonstrative is absent within the DP in Naandi. Therefore, because of these occurrence facts, DemP should be projected immediately below DP, intermediate between D and PossP, whereas PossP should be projected immediately below DemP, intermediate between DemP and NumP. Therefore, DemP selects PossP as its complement and is selected by DP. Likewise, PossP selects NumP as its complement and is selected by DemP.

Researchers, however, hold different views with regard to the position of and the elements that make up quantifiers within the DP. For instance, Giusti (1991) and Tasseva-Kurktchieva (2006) classify quantifiers into various categories. Giusti (ibid) points out that in Romance quantifiers fall into two categories namely: Q proper which heads the QP projection projected above and selects DP as its complement and quantitative adjectives (including numerals) which are located in the specifier of a lower AgrP. In this study, this AgrP is identified as NumP where cardinals are generated in head of NumP, while existential quantifier (many) is generated in Spec-NumP.

Tasseva-Kurktchieva (ibid) notes that quantifiers are not determiners in Bulgarian and the quantifier projection is between DP and NP. This study further notes that quantifiers are divided into three categories namely: First, quantifiers proper which comprise of the universal "all" which is generated as a maximal projection in Spec-QP. This quantifier can move to Spec-DP if it is generated with the definite article and requires feature checking. Quantifier proper (many) and (none) are generated in the head of the QP projection. If the article is also generated, then it moves to D-head. These proper quantifiers thus according to this study are merged in the QP projection. Secondly, quantifiers of the numeral type which are inserted in NumP, that is, they are generated in the Num-head projection and they can move to D-head for feature checking purposes. Thirdly, modifying quantifiers which always function as modifiers and they are generated in the highest specifier position within the extended NP, Spec-nP.

Tamanji (2000) and Mose (2012) on their analysis of Bafut and Ekegusii DPs respectively, do not categorise quantifiers into different classes. However, in their studies, they use the term quantifier to comprise proper quantifiers in the English sense as well as numerals comprising of both the cardinals and the ordinals. They point that they project their own functional project QP below DP and take NP as their complement. Similarly, Adger (2002) share the same view with Tamanji (ibid) and Mose (ibid) of analyzing quantifiers as functional categories that project QP. However, according to this study, Adger (ibid), QP is projected above and takes DP as its complement rather than an NP complement.

Abney (1987), on the other hand, treats quantifiers as modifiers of NPs on par with adjectives and predicts that quantifiers never precede determiners. This study excludes

quantifiers from the class of determiners in particular and of functional categories in general.

From the above discussions, in this study, we can conclude that there is parametric variation with regard to the base-generated positions of quantifiers which is different across languages. In other languages they are treated as adjuncts (Abney, 1987), as modifiers (Tasseva-Kurktchieva, 2006) and as head of D-feature (Giusti 1991, Tamanji 2000, Adger 2002, and Mose 2012). At this point, it is important to note that in this study, the term quantifier is used in the English sense and that it comprises of words such as *tutikin (few/little)*, *chang/ ng'isyaa (much/many)* and *tugul (all)* in Naandi. Numerals; cardinals and ordinals are not part of quantifiers but they are treated separately. They project their own functional projection, NumeP. It is also important to point out that quantifiers in Naandi, in this study, are treated as containing D-feature and hence belonging to a group of elements of D-category.

As mentioned earlier, in Naandi, all the elements with the D-feature are not in complementary distribution within the DP. This means that these elements do not compete for the same position, D-head. In this study therefore, the researcher proposes that quantifiers in Naandi are functional elements of Q-category and they project their own functional projection QP. This projection of QP as a functional projection is important because it helps to capture the co-occurrence of functional elements containing D-feature in Naandi. Because quantifiers usually follow possessives in Naandi, the researcher proposes that this functional projection, QP is projected immediately below PossP and they select NumP as their complements.

Numerals in Naandi immediately follow quantifiers within the DP. In this study therefore, the researcher proposes that they are functional elements and they project their own functional projection NumeP. This NumeP is located below QP and selects NumP as its complement. With this conclusion, the DP in (15) above should be analyzed as follows:

18. Laago-chu-chook tugul angwan
    ChildDefPL thisPL myPL allPL fourPL
    (*All these our four children)

DP
- Spec
- D'
  - D
    - -k
  - DemP
    - Spec
    - Dem'
      - Dem
        - *chu*
      - PossP
        - Spec
        - Poss'
          - Poss
            - *chook*
          - QP
            - Spec
            - Q'
              - Q
                - *tugul*
              - NumeP
                - Spec
                - Nume'
                  - Nume
                    - *Angwan*
                  - NumP
                    - Num
                    - NP
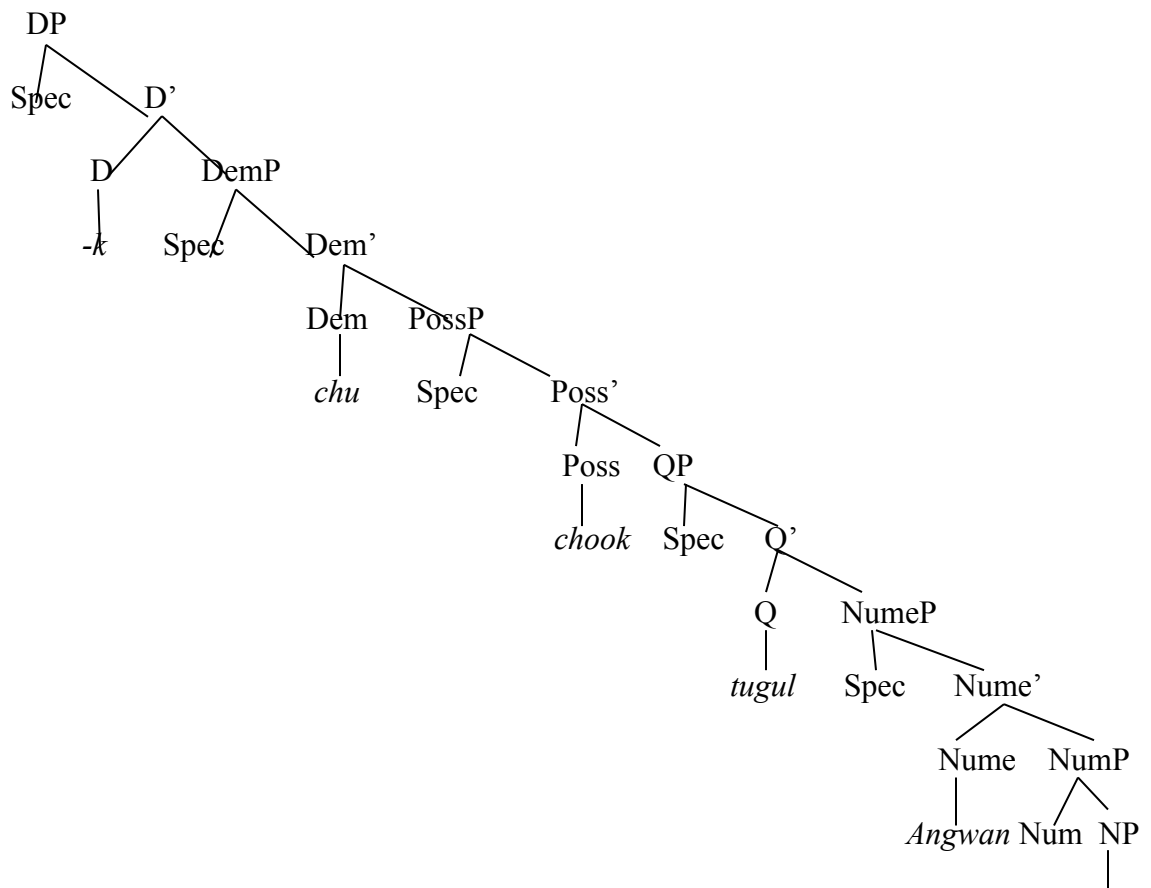
This is the underlying head-initial DP order. To derive the noun-initial surface order as attested in Naandi, the noun *laagoi* raises out of NP to Num' because of strong number feature contained in NumP which forces overt noun raising. The noun then incorporates number features. The complex NumP plus the noun then moves overtly to Spec-DP through Spec-NumeP, Spec-QP, Spec-PossP, and Spec-DemP where it checks for agreement features with the numeral, quantifier, possessive and the demonstrative in a Spec-head configuration. Because there is a definite article affix joined to the noun, it is generated and occupies the strong D-head position, whereas all the other functional elements remain in their base-generated positions. This movement of elements and checking of features within the DP in (16) above is illustrated below:

19. Laago-chu-chook tugul angwan
    ChildDefPL thisPL myPL allPL fourPL
    (*All these our four children)
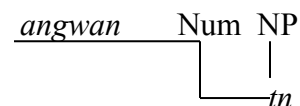
angwan   Num NP
                    |
                    tn
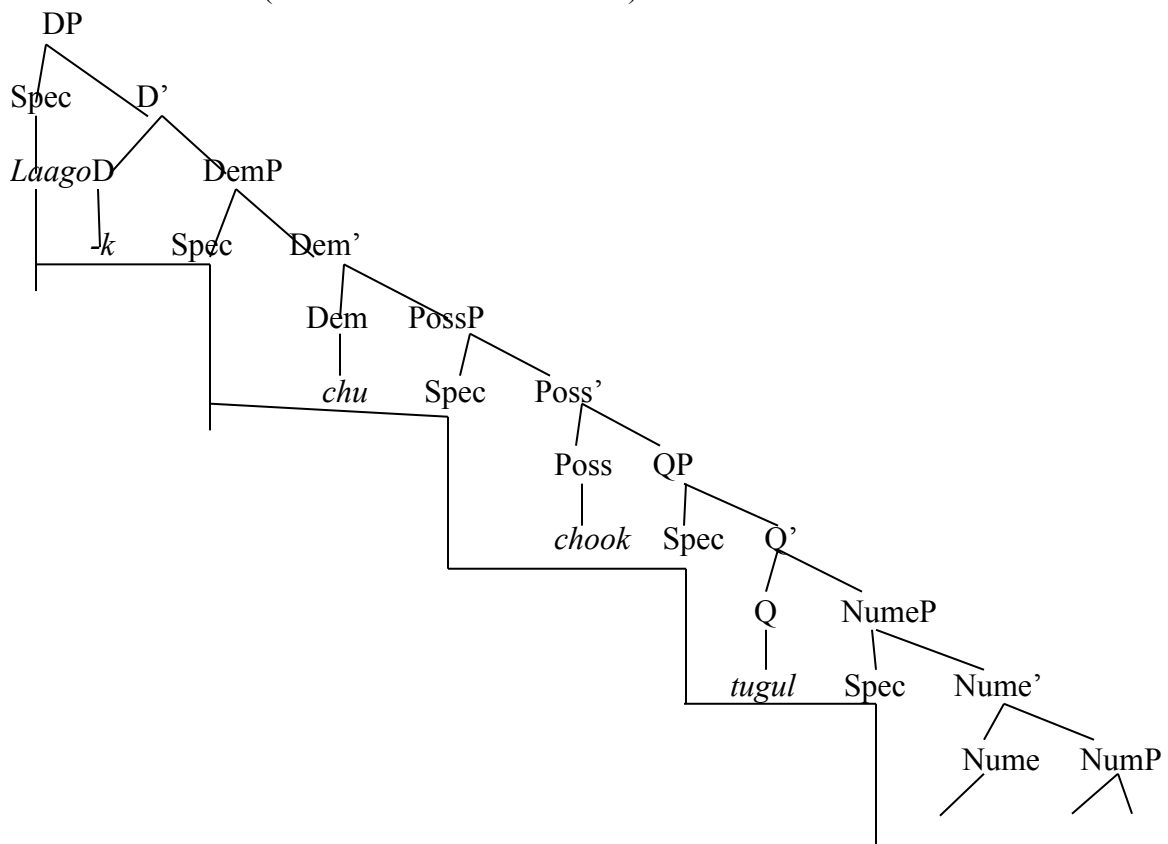
From the above illustrations of functional elements within the DP in Naandi, agreement is licensed through a Spec-Head configuration. This is because as the complex NumP+N moves overtly to Spec-DP, it checks for agreement features with these functional projections at their Spec position. For instance, when checking for agreement features with the possessive, NumP+N occupies Spec-PossP while possessive at the Poss-head position; hence they stand at Spec-Head configuration. Therefore, in this configuration, the agreeing element, the goal, for instance the possessive is a head in X position, while the element triggering agreement, the probe, in this case NP complement is an XP in Spec position

5.3.2 Agreement of Phrasal Categories

As mentioned earlier, within the DP in Naandi, all the modifiers, just like the determiners usually follow the noun. These modifiers comprise of APs, GenPs, PPs and Rel.Cs and they agree with the NP complement. But unlike, determiners and numerals, these phrasal categories within the DP in Naandi do not stand in the standard Spec-Head configuration for licensing agreement between elements in a C-command domain.

Consider the example below where a noun co-occurs with an adjective in Naandi.

    20. a) Laakw-et ne-ng'om

        ChildSGDef cleverSG (The clever child)

      b) Laago-k che-ng'om-en

        ChildPLDef clever PL (The clever children)

Researchers and linguists hold varied views with regard to the position of adjectival phrases within the DP. For example, Carstens (1991) and Adger (2000) argue that APs

behave semantically as modifiers and therefore they are generated as adjuncts that are adjoined to some projections within the DP since they occur between D and the final N. That is between NumP and N in the same way as adverbs are adjoined to the VP. In their analyses of Kiswahili and English respectively, they predict that APs are optional elements, since the operation Adjoin is not an operation which is triggered by feature checking requirement. Similarly, Tamanji (2000) and Mose (2012) in their analyses of Bafut and Ekegusii respectively, point out that adjectival phrases are adjuncts. However, for them these APs adjoined to the right of N within the NP complement. They too, argue that they are parallel to adverbs and are supposed to be attached to the various projections within the DP. Cinque (1990) and Mateos (2000) on the other hand, note that adjectival phrases are base generated to the left of N within the nominal projection. Having concluded that there is a functional projection, NumP intermediate between D and N and that the noun raises out of NP to a functional head, Num' and further overt movement of NumP to Spec-DP in Naandi, if we were to adopt the later proposal, then we would fall into trouble. Consider:

21. Laakw-et ne-ng'om

ChildSGDef cleverSG (The clever child)
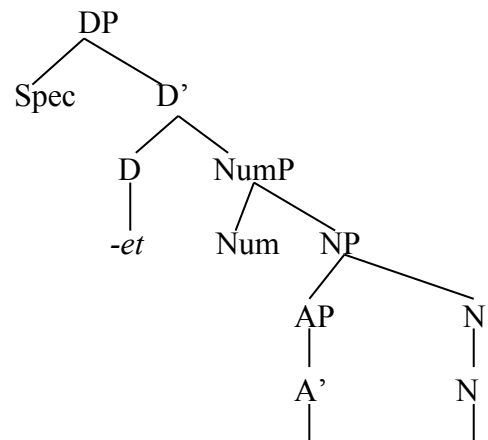
Ne-ng'om   Laakw-

If we are to stick to our conclusion that the noun raises out of NP to a higher functional projection, NumP then the derivation will crash. This is because the Head Movement Constraint within MP would block Head-to-Head movement because AP would intervene between the head N and the head Num'. Therefore, since this proposition of base position of APs to the left of N seems untenable, at least for DP in Naandi, the researcher, in this study adopts the former proposition, Tamanji (2000) and Mose (2012), where APs are base generated to the right of N within NP complement in Naandi.

In this study, therefore, the researcher proposes the following structure for the DP in (21) above.

22. Laakw-et ne-ng'om

ChildSGDef cleverSG (The clever child)
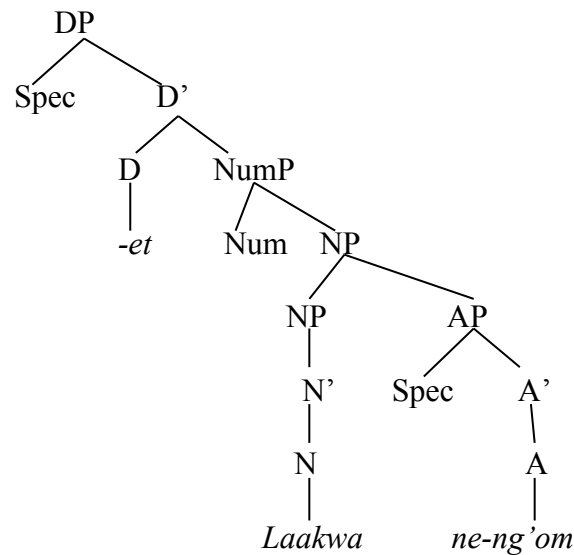
This is the underlying head-initial DP in Naandi. To derive the noun – initial surface order as attested in Naandi, the noun raises out of NP to Num and NumP moves overtly to Spec-DP. It is important to note here that, at all stages in the derivation the adjective

does not stand in Spec-Head relation with the noun complement, as such its agreement features cannot be checked through the Standard Spec-Head configuration. If it were to be in Spec-Head relation, the XP would be in Spec-AP which is not the case here. The relevant XP here is NP since it contains N which probes for agreement with a goal which is the adjective.

Many linguists and researchers point out that checking of agreement features on such phrasal categories as adjectives can be done through adjunction (Carstens 1991), just like the way verbs check for its tense features by adjoining to T. Others note that such agreement can be checked through movement of the features of N to A-Head. Since A is not higher than the N, then such proposal seems untenable.

Tamanji (2000) in extending Chomsky's proposal for checking of agreement features in clauses, proposes that there needs to be a Head-Head configuration where features on adjectives and other phrasal categories within the DP. This involves covert raising of the features of the modifiers, in a Head-Head relation to the noun complement which c-commands these modifiers from its derived position in Num. Agreement features on the relevant modifiers therefore are licensed through raising of the features of the modifier to the noun in a hierarchically higher position. In the current study, the researcher adopts this proposal in the analysis of APs within the DP in Naandi.

As mentioned above, the noun raises to Num position and incorporates number features. In this derived position, the noun is in a C-command Head-Head relation with the adjective hence probes for a goal with the adjective. Considering the fact that there is no head category intervening between the noun in Num and the adjective inside NP which would block Head to Head as stipulated by the Head Movement Constraint (HMC) which

prevents the movement of lexical items and features within the structure; one would presuppose that adjective would move overtly to Num. However, Num does not bear a strong A-feature. Therefore, the adjective does not have to raise overtly; it remains in its base position and only its number feature raises to Num where they enter into a checking relation with that of a noun within the Num.

The raising of the noun out of NP and movement of number feature from the adjective to Num and a further overt movement of the complex NumP+N to Spec-DP where it is spelled out is illustrated below:

23. Laakw-et ne-ng'om

Child SGDef cleverSG (The clever child)
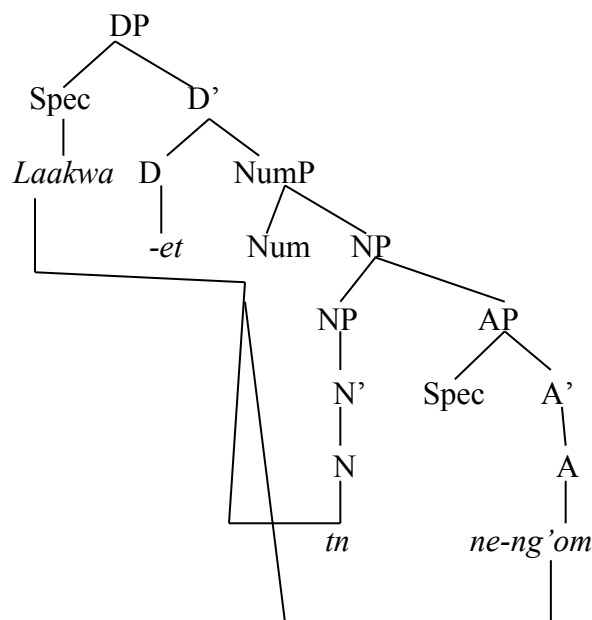
This Head-Head configuration applies to all the other phrasal categories, GenPs and PPs occurring within the DP as adjuncts. Consider an example with a genitive Phrase.

24. Ng'olyo-t-ab Jehovah

WordSGDef of God (The word of God)

Carstens, (1991) and Tamanji (2000) in their analyses of Kiswahili and Bafut respectively, note that lexical genitives are always situated lower in the tree than their pronominal counterparts. With regard to genitives, they distinguish between three thematic types of genitives and their different base-generated positions within NP. These three thematic types include: possessors, agents and theme. Possessors are base-generated in Spec-N maximal projection, agents in Spec-NP whereas theme is base-generated to the right of N within the DP. This proposal is presented schematically as follows:

25.

```
              DP
            /    \
        Spec       D
                 /    \
               D       NumP
                      /    \
                   Num      NP
                          /     \
                    Possesor     NP
                               /     \
                          Agent       NP
                                     /   \
                                    N     Theme
```
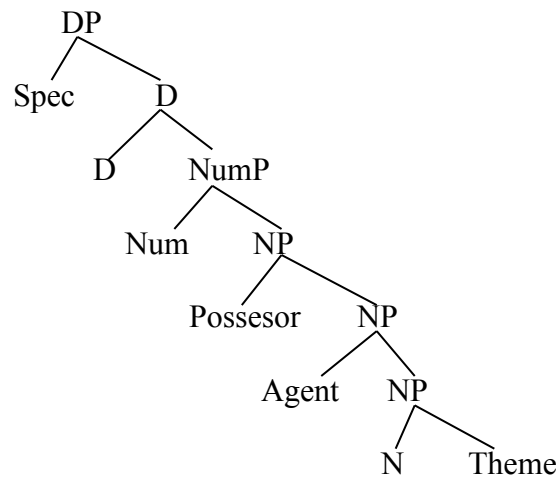
Adger (2002) in his analysis of the English DPs notes that possessors and genitives in general are specifiers of the DP with a null D. He gives the following structural configuration of the GenPs in English. Consider:

26. Evan's idea

```
          DP
        /    \
    Evans     D'
            /    \
        Ø [D]     NP
                   |
```
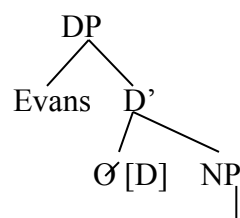
idea

Lin (2008) too points out that genitives or possessors are generated within NP whereas Mose (2012) in analyzing the DP in Ekegusii notes that whenever genitives are translated, they are realized as PPs and hence they are adjoined to the right of the N within the DP. In the current study, the different thematic types of genitives are not distinguished but they are generally treated as projecting GenP which is adjoined to the right of N within the DP in Naandi. Therefore, structurally, the DP in (24) would be presented as follows:

27. Ng'olyo-t-ab Jehovah

WordSGDef of God (The word of God)
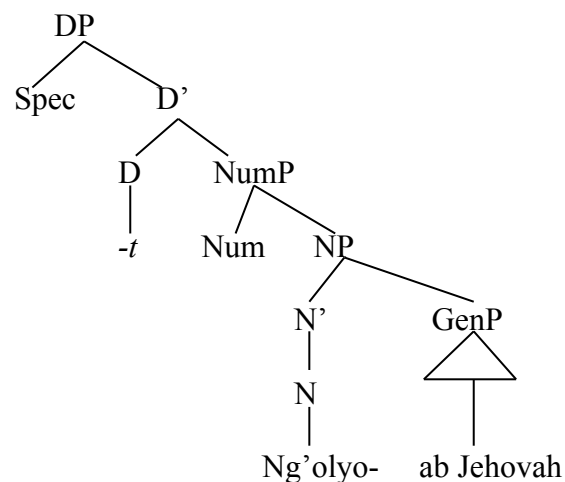
The above structure is an underlying DP where the D-head is at the initial position. To derive the noun initial surface order, the noun raises out of NP to Num. NumP then moves overtly to Spec-DP to check for definiteness feature with the head determiner. Just like adjectives, the possessive features of the genitive phrase raises to a higher Head position Num where the noun has raised to since this projection does not contain strong [+Poss] feature which would have otherwise forced the raising of GenP to this position in

overt syntax. This is because, at this position, the noun within Num is in a C-command Head-Head relation with the genitive hence probes for a goal with the genitive and establishes an agree relation. The unvalued possessive features on the noun and the unvalued number features on the genitive are valued since they are both active. Therefore, the resultant structure after the raising of possessive features of the genitive and N raising out of NP to NumP and a further overt movement of NumP to Spec-DP is as follows:

28. Ng'olyo-t-ab Jehovah

Word SGDef of GodSG (The word
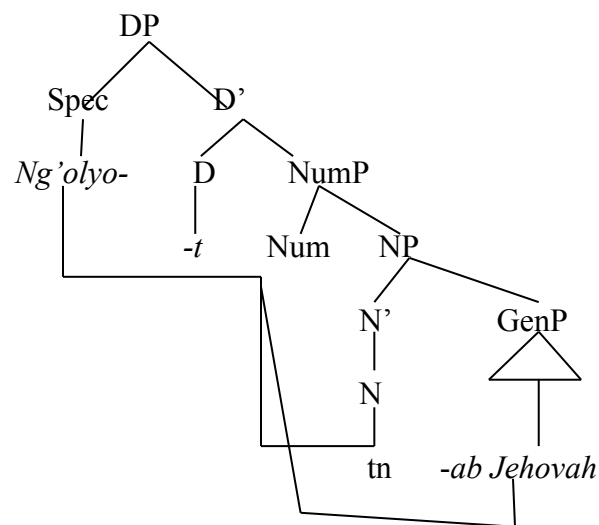
Just like APs and GenPs, PPs too are adjoined to the right of N. Relative clauses on the other hand, are adjoined to the DP. Mose (2012) points out that they are adjoined to NP within the DP. Tamanji (2000) on the other hand points out that they are adjoined to the DP. This study adopts Tamanji's proposition where Rel. Cs are adjoined to the DP. This is because in Naandi, they occur at the final position of the DP. Therefore, if Rel. Cs are adjoined to NP within the DP, they may intervene the other elements that are adjoined to

the NP. Following this proposition, the study presents the following analysis of Rel.Cs in Naandi. Consider:

29. Beek che kimi mbarenik

(Water which were on lands)

```
                    DP
                  /    \
                /        \
              /            \
            DP              Rel.C
           /  \              /\
         /      \           /  \
       Spec      D'      che kimi mbarenik
        |       /  \
       Bei-    D    NumP
        |     / \   /  \
        |   -k  Num    NP
        |    |   |     /\
        |____|___|    /  \
                     th
```
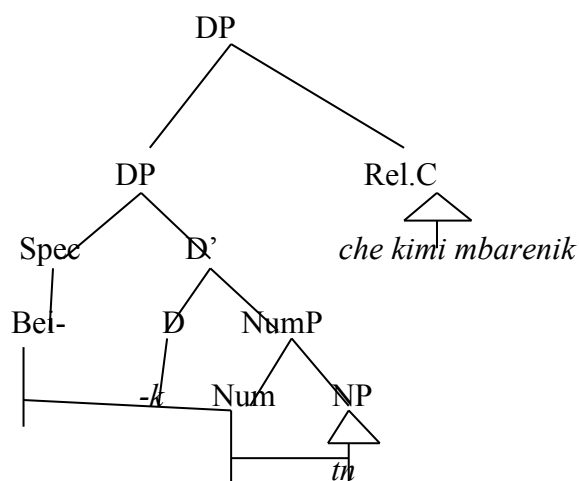
The noun *bei-* raises out of NP to Num and the complex Num + N moves overtly to Spec-DP where its checks its features with that of the D-head. The features of the relative clause raises covertly to Num, where the noun has raised to.

5.4 Chapter Summary

In this chapter, the study has argued and concluded that, the DP in Naandi is underlyingly head-initial and that the noun-initial surface DP-order as attested in Naandi, is as a result of overt N-raising out of NP to a higher functional head Num and a further overt movement of the complex [NumP + N] to Spec-DP where it is spelled out and hence occupies it overtly. This is occasioned by the existence of strong features on the functional head –D that needs to be checked before spell-out in overt syntax based on the principle of Full Interpretation in order to avoid the derivation from crashing.

In addition, in this chapter the study has pointed out that since number morphology is present in almost all the elements within the DP in Naandi, the AgrP responsible for

checking of agreement features and which acts as a landing site for the noun that has raised out of NP is NumP. This NumP is projected intermediate between the D-head and NP complement.

Further, because elements containing D feature are not in complementary distribution in Naandi, they all project their own functional projections. These projections are projected below the DP; intermediate between the D-head and the NumP. They include: DemP-headed by Dem, PossP-headed by Poss, QP-headed by Q and NumeP-headed by Nume.

Moreover, in this chapter, the study has shown that agreement features of functional categories are checked and valued at a Spec-Head probe in overt syntax at PF whereas agreement features of phrasal categories are checked and valued at Head-Head probe in covert syntax at LF.

CHAPTER SIX
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS
6.0 Introduction
This chapter presents the summary of the findings, the conclusions drawn from the study's findings and the recommendations for further research.

6.1 Summary of Findings
This study was guided by four objectives. First, the study sought to identify and describe the elements that make up the DP in Naandi. From the one hundred and twenty DPs that were collected, the study observed that there are up to eleven elements that can occur within the DP in Naandi. These include: nouns; substantive and derivatives, article affixes; definite and indefinite, demonstratives, possessives, quantifiers, numerals

comprising of the cardinals and the ordinals, adjectival phrases, genitive phrases, prepositional phrases and relative clauses.

Secondly, the study sought to identify the linear ordering of elements within the DP in Naandi. The study noted that the DP in Naandi has three slots that are readily available for elements to occupy. The first slot is occupied by the pronoun or the noun complement, the second slot by determiners comprising of article affixes, Dems, Poss' and Qs, the third and last slot is occupied by the modifiers comprising of the NumePs, APs, GenPs, PPs and Rel.Cs.

With regard to the linear ordering of elements within the DP therefore, the study made the following general observations:

1. The noun in Naandi generally occurs at the initial position whereas all the other elements; the head determiner and the modifiers all occupy the post nominal position.

2. The DP in Naandi has article affixes, demonstratives, Possessives and quantifiers as functional elements of D category occupying the head position.

3. The DP in Naandi can have adjoined APs, GenPs, PPs and Rel.Cs

4. Simple DPs comprising of N + Dem; N + Poss; N + Q; N + Nume; N + A are very frequent.

5. It is possible for all the functional elements of D category and modifiers to occur within a single DP. When this happens, the dominant attested order is: N + [art affix] + [DemP] + [PossP] + [QP] + [NumeP] + [AP] + [GenP] + [PP] + [RelC].

In the third objective, the study sought to investigate the DP-internal agreement. The study found out that in Naandi, nouns, article affixes, demonstratives, possessives,

quantifiers, numerals, adjectives, genitive particle and the complementizer that joins the noun to the relative clauses all exhibit number morphology. Therefore, they all agree in number phi-feature. Gender is an inherent feature of nouns and is only explicit in proper nouns. Article affixes exhibit definiteness/indefiniteness feature in their morphology. Deictic feature is an inherent feature of the demonstratives whereas possession is an inherent feature of the possessive which are checked during the process of feature checking and feature valuation. Therefore, in Naandi, the agreement features are distributed throughout all the functional projections within the DP.

In the fourth and the last objective, the study sought to apply MP's Agree, Merge and Move operations in the analysis of the DP in Naandi. The following observations were made:

1. The DP in Naandi is underlyingly head-initial and that the noun-initial surface order as attested is as a result of overt noun raising out of NP to Num and a further overt movement of NumP to Spec-DP where it is spelled out and occupies it overtly. This movement is triggered by the presence of strong agreement features on the D-head functional projection which must be checked and valued before spell-out at PF.

2. Since number morphology is present in almost all the elements within the DP in Naandi, the AgrP responsible for checking of agreement features and which acts as a landing site for the noun that has raised out of NP is taken as NumP. It is projected intermediate between the D-head and NP complement.

3. Because elements containing D feature are not in complementary distribution in Naandi, they all project their own functional projections. These projections are

projected below the DP; intermediate between the D-head and the NumP. They include: DemP, PossP, QP and NumeP.

4. Agreement features of functional categories are checked and valued at a Spec-Head probe in overt syntax at PF whereas agreement features of phrasal categories are checked and valued at Head-Head probe in covert syntax at LF.

In conclusion therefore, the study observed that the MP's Agree, Merge and Move operations are universal syntactic operations and hence can be applied in the analysis of the DP in Naandi. In addition, the universal DP hypothesis and the MP's assumption of the universality of phrase structures in all natural human languages are confirmed in this study. Movement of elements and the strong/weak feature parameter are enough in accounting for word order variation across different languages.

6.2 Conclusion

In conclusion, the study noted that all the research questions were answered, the set-out objectives were achieved and the study was able to validate three of the research assumptions; that determiners precede modifiers within the DP; that determiners and the other elements within the DP show internal agreement; and that MP's Agree, Merge and Move operations are universal syntactic operations that can be applied to all natural human languages in general and Naandi in particular. However, the study invalidated one research assumption; that all the functional elements containing D-feature and belonging to the same category are in complementary distribution. This is because from the findings discussed in chapter four, the study observed that in Naandi, it is possible for all these functional elements to occur within a single DP.

6.3 Recommendations

Having identified, described and analyzed the elements within the DP in Naandi, a Nilotic language, the researcher recommends that a similar study be carried out on other African indigenous languages.

In addition, to other researchers and linguists interested in the morpho-syntax of Nilotic languages in general and Naandi in particular, the findings of this study could be useful.

Lastly but more importantly, to curriculum developers and teachers of lower primary schools who use Naandi as a MOI up to grade three, the findings of this study could be vital in enriching the syllabus that is taught.

6.4 Suggestions for Further Research

From this study, the following suggestions for further research are made:

1. The morpho-syntax of the marked DP where elements of the D category are used predicatively and occurs pre-nominally could be analyzed.

2. In addition, a study on the morpho-syntax of the DP of other language families could be done, other than Nilotic in general and Naandi in particular

3. Further, a study on the DP-external agreement could be done in Naandi

4. Moreover, a study on other phrases such as CPs, and TPs could be done in Naandi using the MP

5. Finally, a study on the morphophonemics surrounding indefinites and definite in the nouns could be done

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APPENDIX 1: DATA   Gloss

APPENDIX 1: DATA	Gloss
1. Tipiik taman ak eng	The twelve girls
2. Werik tisap	The seven sons
3. Banda-nyi	His/Her way

4. Tuga che chang   Many cows

5. Chi cho-tok   That (very) person

6. Werik-chiik   His/Her sons

7. Chi ake ne kitinye tuga   Another person who had cows

8. Mureni-cho-tok tugul angw'an   All those (very) four men

9. Chi ake tugul   Every person/ Any person

10. Olda-nyi   His/Her place

11. Biik chiik   His/Her people

12. Em-et-ab Aldai   The land of Aldai

13. Kiplogotio-t ne kimi luget   The hunter who was hunting

14. Tiong-ik tugul eng ngw'ony   All the animals on earth

15. Ketik che nyalilen sokek   Trees with green leaves

16. Beek che kimi mbarenik   Water that was on land

17. Tiong-ik alak che chang   Many other animals

18. Betusie-cho-tok   Those (very) days

19. Nerekek-ab cheptalel   The Wrath of God

20. Kebeber-ta-nyi ne-bo mbar-et   His/her portion of land

21. Kesut-ik-wook   Your harvests

22. Betu-no-tok   That (very) day

23. Maket-ab tiong'ik tugul che atondochini

     (The wish of all the animals who I govern)

24. Chep- kericho-ndo-no-tok koikochin cheptalel

     (That (very) medicine woman whom God gave)

25. Kit ake tugul ne mi ngw'ony   Anything on earth

26. Tuku-cho-tok tugul   All those (very) things

27. Kuting'uung   Your mouth

28. Betut-ab aeng   The second day

29. Sai-no-tok   That (very) time

30. Borta-nyi   His/her body

31. Tiong'ichuun   Those animals (over there)

32. Kenyisiek che chang   Many years

33. Chepto perkeiyat   The Virgin girl

34. Laakwa-ni   This child

35. Sande-nyi   Her husband

36. Ng'ale-chu   These words

37. Sand-et-ab laakw-et   The husband of the girl

38. Ibind-ab baba   Father's generation

39. Tiond-ab barak   Lightning

40. Biik tugul che-bo emo-no-tok   All the people of that (very) land

41. Osoti-chu   These wives

42. Manong'otai-kwook   Your husbands

43. Jeso kiptayande-nyo   Jesus our Lord

44. Kikombet nebo kaberuret ne kiberuri Israel

    The cup of blessing which was used to bless Israel

45. Kayamiset-ab baba kotebi eng okwek   The promise of God to be with you

46. Ng'alek-chuuk che kigamwaiwok   My words that I told you

47. Betut nebo tai nebo wigit — The first day of the week

48. Betut agenge nebo werit-ab chi — One day of the son of man

49. Kenyisie-chu chang — These many years

50. Ngatutie-ng'uung — Your commandment

51. Ngoriet ne kararan ne siirei tugul — The best cloth of all

52. Chogi-nyu — My yoke

53. Inendet ne ming'in missing eng bounatet-ab kipsengwet — He who is very young in the   Kingdom of heaven

54. Kipkoratinik aeng — The two blind men

55. Osotiat-ab mining'ate-nyi — The wife of his young age

56. Tamirmiri-kwook — Your spirits

57. Betut ne lalei kou maat — The day burning like fire

58. Biik tugul eng tait-ab Jehovah — All the people in presence of God

59. Ngolyo-ndo-ni — This word

60. Got-ab Jakobo — The house of Jacob

61. Jehovah kamuktainde-nguung — The Lord you God

62. Biik-chuuk — My people

63. Chep-to ne ming'in ne kitupche — My younger sister

64. Ng'olyot-ab Jehovah — The word of God

65. Logoek-chuuk che biriren — My ripen fruits

66. Werit-ab moenyu — The son of my womb

67. Sigiriet-ab timin eng ong'atet — The wild donkey in the wilderness

68. Boisie-nywa — Their work

69. Betusie-choo-tok   Those (very) days

70.   Tiong'i-chuun   Those animals (over there)

71.   Laakwet netai   The first child

72.   Tuga chechang   Many cattle

73.   Laakwa-nin nyu   That my child

74.   Tuku-choo-tok tugul   All those (very) things

75.   Logoiywech-choo-tok miach   Those (very) good news

76.   Kerichondo-notok koikochin Cheptalel That (very) medicine that was given to

   him by God

77.   Tany-i nyi tui   *This his black cow

78.   Tipii-chu-chiik kororon *These his beautiful girls

79.   Mureni-choo-tok tugul angw'an All those (very) four men

80.   Kong'-i nyi agenge   *This his one eye

81.   Tipii-chu chiik aeng kororon   *These his/her two beautiful girls

82.   Laago-chuun chwaak tugul mut che-kaib rapinik

    *All those their five children (over there) who took money

83.   Chepyoso-chu tugul angw'an che kobwa gaa   All these four women who

   came home

84.   Tuch-u chiik aeng tuen che-kakikei   These his two black cows that were

   milked

85.   Laago-chu chiik tugul chetai mut kororon che kakikochi konunoik   All these

   his first five good children who were given gifts

86.   Kwanisiek-chook tugul   All our fathers

87.	Laagok-chiik somok	His/her three children
88.	Kebeberta-nyi nebo mbaret	His/her portion of land
89.	Tuguk-kwook chebo borto	Your bodily things
90.	Ng'alek-chuuk che kigamwaiwok	My words that I told you
91.	Kwanda-nyoo ne mi kipsengwet	Our father who is in heaven
92.	Laakwe-nyu agenge ne-kararan	My one beautiful child
93.	Laago-kwaak tugul somok che kosiir tiemutik who passed the tests	All their three children
94.	Tiong'ik tugul che atonondochini	All the animals who I govern
95.	Murenik ang'wan che mi gaa home	The four men who are at
96.	Tiong'ik tugul eng ng'ony	All the animals on earth
97.	Biik tugul chebo emo-no-tok	All the people of that land
98.	Kalamook ang'wan che-tuen	The four black pens
99.	Tipiik tugul taman che-bwonei gaa coming home	All the ten girls who are
100.	Tiong'ik tugul somok	All the three animals
101.	Murenik tugul chetai ang'wan che-kimen	All the first four strong men
102.	Biik chebo emonotok	The people of that land
103.	Nerekek-ab Cheptalel	The wrath of God
104.	Beek che kimi mbaret	The water that was on land
105.	Kayamiset-ab baba eng okwek	The promise of God in you

106. Maket-ab tiong'ik tugul che atonondochini   The wish of all the animals who I govern

107. Mbaret-ab logoek che u njuguk   The land of fruits like groundnuts

108. Logoiywek che miach chebo kristo   The good news of christ

109. Chepto ne ming'in ne koi   The young tall girl

110. Ngoriet nekararan nebo laakwet ne kaale Mary   The good cloth of the child which Mary bought

111. *Ane* ne a-nyonei   I am the one coming

112. *Ne u ne* laakwa ne kanyo gaa   which sort of a child came home

113. Laakwa **ngiro** ne kanyo gaa   Which child came home

114. Ket-it *ne* ka-ki-til   The tree that was cut

115. Chi ne igiileg-ei   A person who works hard

116. Laakw-et ne-tai agenge ne-ng'om   The first one clever child

117. Ng'olyot –ab Jehovah eng ichek che isuubi inendet   The word of God to those who follow him

118. Ng'ale-chu tugul tai mut kororon bo Jehovah eng okwek che igiilegei eng imanda (All these first five good words of God to those who are working hard in truth)

119. Laago-chu aeng kororon *missing*   These two very good children

120. Mary ne-ming'in kosiir Ann   Mary is younger than Ann

APPENDIX 2: THE BUDGET FOR THE STUDY

NO.	ITEM	DESCRIPTION	ESTIMATED AMOUNT
1.	Stationery	30 reams of photocopy papers@500	15,000
			3,000
		Ink	2,000
		2 Flashdisks @1000	1,500
		Writing materials	
2.	Travel expenses	Public means	10,000
3.	Subsistence	Meals	5,000
4.	Miscellaneous	Expenses not budgeted for	5,000
		TOTAL	41,500

APPENDIX 3: THE STUDY'S TIME-SCHEDULE

ACTIVITY	TIME (MONTHS)	DATES
Developing a proposal	6	JAN-JULY, 2013
Preparation and defence of the proposal	1	AUG. 2013
Data collection	3	OCT., 2013- JAN, 2014
Data organization, analysis, interpretation and presentation	3	JAN-APRIL, 2014
Summary writing, and submission of the final thesis	2	APRIL-JUNE, 2014

APPENDIX 4: RESEARCH PERMIT

THIS IS TO CERTIFY THAT:
MISS. PRISCILLAH JEPTOO
of MOI UNIVERSITY, O-50100
KAKAMEGA, has been permitted to
conduct research in *Nandi County*

on the topic: *THE MORPHO-SYNTAX OF*
THE NAANDI DETERMINER PHRASE: A
MINIMALIST APPROACH

for the period ending:
21st July, 2014

Permit No : NACOSTI/P/14/5088/1124
Date Of Issue : 9th April, 2014
Fee Recieved :ksh 1,000.00

....
Applicant's
Signature

....
For : **Secretary**
National Commission for Science,
Technology & Innovation

CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit
2. Government Officers will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.

REPUBLIC OF KENYA

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No. A 1366

CONDITIONS: see back page

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9ᵗʰ April, 2014

Priscillah Jeptoo
Moi University
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ELDORET.

<u>RE: RESEARCH AUTHORIZATION</u>

Following your application for authority to carry out research on *"The Morpho-Syntax of the Naandi Determiner Phrase: A Minimalist Approach,"* I am pleased to inform you that you have been authorized to undertake research in **Nandi County** for a period ending **21ˢᵗ July, 2014.**

You are advised to report to **the County Commissioner and the County Director of Education, Nandi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

SAID HUSSEIN
FOR: SECRETARY/CEO

Copy to:

The County Commissioner
The County Director of Education
Nandi County.