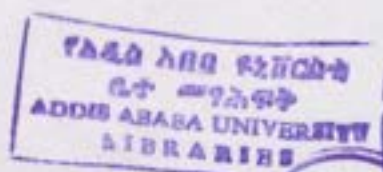


**ADDIS ABABA UNIVERSITY**  
**INSTITUTE OF LANGUAGE STUDIES**  
**SCHOOL OF GRADUATE STUDIES**

**THE STRUCTURE OF DETERMINER PHRASES IN**  
**SAHO**



**BY**

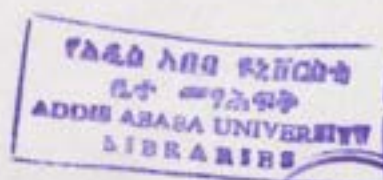
**SELAMAWIT SAFISA**



**JUNE, 2008**  
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**A THESIS SUBMITTED TO THE SCHOOL OF  
GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ARTS IN  
LINGUISTICS**



**JUNE, 2008**  
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THE STRUCTURE OF DETERMINER PHRASES IN SAHO

BY  
SELAMAWIT SAFISA  
DEPARTMENT OF LINGUISTICS

APPROVED BY:

*Beyene Tsehai*

ADVISOR

*[Signature]*

SIGNATURE

*Hondwosen Tesfaye*

EXAMINER



*[Signature]*

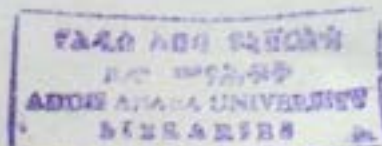
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*Aklilu Tsegaye*

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## Acknowledgements

First and for most, I would like to thank my almighty God for giving me the strength to bear all the challenges I encountered throughout my study.

My heart felt thanks are due to Professor Baye Yimam, my advisor, who has been of invaluable assistance to me from the beginning up to the end. In fact, without his insightful advice the completion of this study would not have been possible.

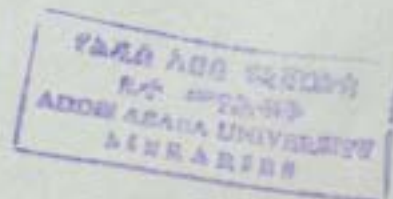
My deepest thanks also goes to Dr. Girma A. Demeke, for reading and commenting on the first draft, for devoting his precious time when ever I needed his advice and for providing me with valuable materials. I am also indebted to Professor Orin Gensler for his moral and material support.

I also owe thanks to Tesfaye Baye, for his constructive comments, discussions, moral and material supports.

My informants Tsegay Meles, Asmea Misgina and Ato Hayis Berhe deserve my best gratitude for their unreserved cooperation and great concern they showed me during data collection. Especially, Tsegay was highly devoted to help me when I repeatedly checked the linguistic data. He deserves my special thanks!

I am also indebted to my mother, W/ro Letenseba Bereket, who has been encouraging me throughout my study.

Last but not least, my thanks goes to my friends: Tesfaye Teshome, Mellese Gelaneh, Belay Tebabal, Tesfamariam G/meskel, Tewodrose Kidne and Tsegay Muhur for their friendship as well as moral and material support through out my study.



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## Abbreviations and Symbols

A	Adjective
AP	Adjective phrase
C	Complementizer
CP	Complementizer phrase
D	Determiner
DEF	Definiteness
DP	Determiner phrase
FEM	Feminine
GenP	Gender phrase
IP	Inflectional phrase
LF	Logical form
Lit	Literally
:	Long vowel
MAS	Masculine
NOM	Nominative
N	Noun
NP	Noun phrase
Num	Number
NumP	Number phrase
OM	Object agreement marker
ORD	Ordinal numeral
PERF	Perfective
PF	Phonetic form
PL	Plural
Poss	Possessive
PossP	Possessive phrase
Q	Quantifier
QP	Quantifier phrase
SG	Singular

SGL	Singulative
SM	Subject agreement marker
Spec	Specifier
V	Verb
VP	Verb phrase
1PS	First person singular
3FS	Third person feminine singular
3MS	Third person masculine singular
*	Ungrammatical/ill-formed
e	Empty
t	Trace

## Abstract

The study deals with the syntax of determiner phrases in Saho in light of the Minimalist Program. It tries to show the internal constituents and derivations of Saho determiner phrases.

It attempts to describe noun inflections such as number gender, singulative and case markers of Saho. The order of constituents within each type of DP and the morphological properties has been examined. All elements of DP precede the head noun.

The study identifies that Saho does not have visible affix to show indefiniteness. However, definiteness is expressed by the definite article /amay/ 'the'. The definite article, demonstratives and adjectives do not agree with the head noun in number, gender and case. The possessor-possessed relationship in this language is not morphologically marked.

The study identifies four types of relativizations. These are subject, direct object, indirect object and possessive relativizations. In all cases, the head noun appears in final position.

Finally, the derivations of determiner phrases with various internal constituents have been shown. The derivation involves head movement.





## CHAPTER ONE

### INTRODUCTION

#### 1.1. The People and their Location

The Saho speaking people inhabit the northern administrative region of Tigray, Irob wereda, and the South Eastern part of Eritrea. The tribes that speak this language are the Assorta, Meniferi, Hazu (Hadu), Debri Mela and Irob. Specifically, the Saho speakers in Ethiopia i.e. the Irob are politically distinct from the other Saho people, for they are found only in Ethiopia<sup>1</sup>. But other Saho tribes are found in the lowlands of Eritrea (John 1993).

According to Souba (1998), the Irob are a bi-cultural community. With their Saho speaking neighbors, they share a common language and certain social structures, such as a clan division system called 'Mela', and the title 'Ona' for their regional leaders. Many other cultural practices, including wedding ceremonies, dress, dance, and foods like 'Tihillo'<sup>2</sup>, folklore, and religion; however, they are similar to their Tigrinya-speaking neighbors.

The Irob people are Christians and their livelihood is primarily based on agriculture, including animal husbandry. However, the other Saho speaking tribes who live in the lowland areas of Eritrea are predominantly Muslim and Pastoralists (John 1993; Souba 1998).

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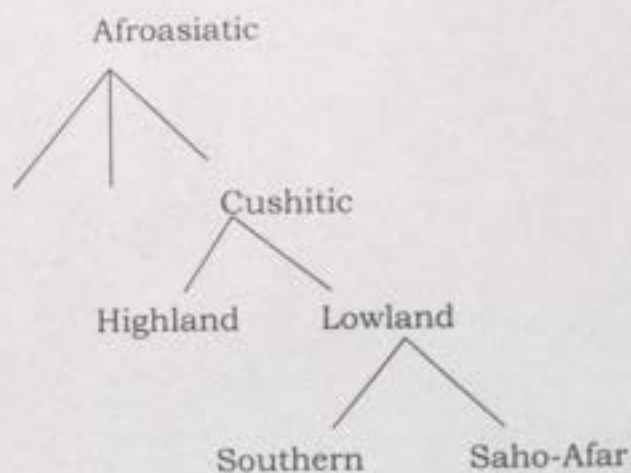
<sup>1</sup>According to John (1993) the "Irob" dialect is spoken only in Ethiopia

<sup>2</sup>Tihillo is a traditional food around Northeast Tigray

Regarding the number of the Saho people, different sources tell different figures. However, according to the recent information of "Ethnologue report on Eritrea" (John 1993, <http://www.ethnologue.com>), the Saho speaking people in Eritrea number about 144,000 and the total population in both Ethiopia and Eritrea is 166,750. Here, we can infer that the Saho speaking people in Ethiopia (Irob people) number about 22,750. On the other hand, the 1994 Population and Housing Census of Ethiopia states that the number of the Saho speaking people in Ethiopia is 22,858.

### 1.2. The Language

Saho is one of the Lowland Cushitic languages within the Cushitic family of the Afro-Asiatic Phylum, related to Afar, as the following tree diagram shows.



Hetzron (1980) in Tosco (2000:91)

According to Welmers (1952:145) Saho has five dialects: Assorta, Meniferi, Hazu (Hadu), Debri Mela and Irob. As it is indicated before, the Assorta, Meniferi, Hazu (Hadu) and Debri Mela dialects are spoken in the lowland

parts of Eritrea, whereas the Irob variant on which this study focuses is spoken in the North Eastern administrative region of Tigray, Irob wereda.

### **1.3. Statement of the Problem**

The Saho language, particularly the Irob dialect, is one of the less studied and endangered languages of Ethiopia. As Tsegay (1996) and Ewunetu (2005) state at present the majority of the Irob community are bi-lingual, speaking Irob and Tigrinya. This is because of interactions in administrative, education and business affairs with their Tigrinya speaking neighbors.

Similarly, according to my informants, the language is not used as a medium of instruction in school at present. Tigrinya is the working language in the Irob special administration unit and the medium of instruction in schools.

Only few linguistic works have been done on the language. As far as this researcher knows, the syntax of the language is poorly studied. This motivates the researcher to work on the structure of the determiner phrases of the language to fill a gap in Saho grammar.

### **1.4. Objective of the Study**

The main objective of the study is to describe the internal structure of DPs in Saho in light of the Minimalist Program. Specifically the thesis tries to answer the following basic questions:

- a) What are the various internal constituents of determiner phrases in Saho?
- b) How are the constituents ordered?





- c) What are the various types of Saho DPs and how are they derived?

### **1.5. Significance of the Study**

Saho is still a non-written language and the speakers of the Irob dialect are on the way to shifting in favor of Tigrinya. In addition, as to the knowledge of the researcher, there is no detailed study on the syntax of Saho, particularly on the structure of its determiner phrases. Therefore, the study is believed to have the following significance.

- It can contribute towards the documentation of the language.
- It will contribute to the knowledge of the syntax of determiner phrases of Saho in particular and of Cushitic in general.
- It may serve as resource material for researchers.
- It may lead towards a pedagogical grammar of the language.

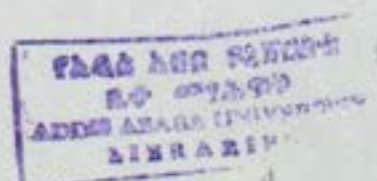
### **1.6. Delimitation of the Study**

This study is limited in two ways:

1. It is limited to syntax, particularly to the structure of the determiner phrases of Saho.
2. The description is based only on the Irob dialect which is the only dialect spoken in Ethiopia.

### **1.7. Research Methodology and Procedures**

In conducting the study there are certain procedures which have been followed. First, descriptive and theoretical works related to the study have been consulted. Following this, relevant linguistic principles have been considered. Then primary data from native speakers of the language have been collected using elicitation methods. After this, the collected data have



been analyzed in light of the DP-hypothesis within the Minimalist Program. At the end, the findings have been presented clearly.

### **1.8. Previous Works on the Language**

There are very few works available on Saho. The few linguistic works, which have been produced so far, are surveyed in this section.

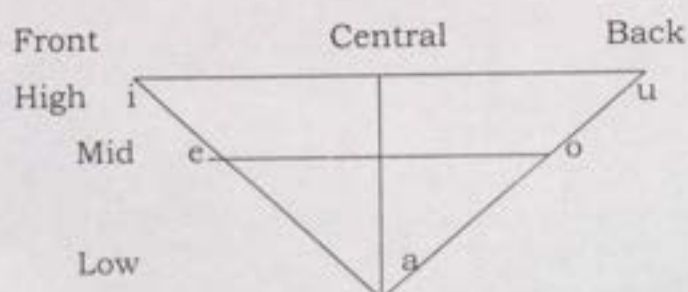
The first and most important work on Saho is a PhD dissertation by E. Welmers entitled "Notes on the structure of Saho" (1952). The study deals with the general description of the phonology and morphology of nouns and verbs of Saho spoken in Irafalo and Ghinda in Eritrea. In this study, Welmers identifies twenty five consonants and five vowels of the language. In addition, he describes the inflectional and derivational morphology of nouns and verbs including lexical stress patterns briefly.

Tadesse Beyene (1974 (E.C)) describes the phonology of the language. In this study Tadesse identifies thirty segmental phonemes in Saho, of which the twenty five are consonants and the remaining five are vowels, similar to Welmers (1952). He also discusses the suprasegmental aspects of the language.

According to Welmers (1952) and Tadesse (1974(E.C)) the Saho consonant and vowel phonemes are illustrated in the following charts. The consonant and vowel phonemes are described according to their place and manner of articulation.

		Bilabial	Labio dental	Alveolar	Palatal	Velar	Pharyngeal	Glottal
Stop	Voiced Voiceless ejective	b		d t t'		g k		
Fricative	Voiced Voiceless ejective		f	z s s'	ʃ ʃ̥	x	ʕ h	h
Affricate	Voiced Voiceless				ʃ č			
Nasal		m		n				
Lateral				l				
Flap				r				
Retroflex				ɖ				
Glide		w			y			

Consonant phonemes of Saho from Welmers (1952:146) and Tadesse (1974(E.C):3)



Vowel phonemes of Saho from Welmers (1952:146) and Tadesse (1974(E.C):3)

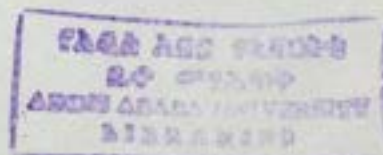


Similarly, Hayward (1983) has done a comparative study on Saho and Afar. In his article entitled "some aspects of the phonology of ultimate vowels in Afar-Saho", he attempts to describe the vowels found in Saho and Afar.

Daniel Mahari (1984) in his BA thesis tries to discuss morphophonemic processes, such as change of the vowel quality of roots, deletion of vowels, reduplication, assimilation of consonants, metatheses and epenthesis in nouns and verbs of Saho. In addition, he identifies the inflectional and derivational affixes of nouns and verbs.

Awash H/Mariam (1987) in his BA thesis entitled "Noun Morphology of Saho" describes the inflection and derivations of nouns including compounding processes. Regarding noun inflection, he points out that nouns are inflected for number, gender, and case. With regard to case, he states that nominative, dative, locative and instrumental are marked morphologically. Awash also describes that most nouns of the language are derived from nouns, adjectives and verbs with such affixes as -ion, -aye/-ina and -so. In the end, he states that in Saho compounds are formed by combining nouns with nouns, adjectives and verbs. Although Awash's work is inadequate in describing the noun inflections of the language, it is useful for the present study. With exhaustive description of nominal inflections, the present study will fill in the gap.

The other work on Saho is Ewunetu Amara's (2005) MA thesis entitled "Inflectional morphology of Irob". In this thesis he discusses the inflectional morphology of the language with focus on inflectional affixes of nouns and verbs. According to his analysis, nouns are inflected for number, gender, case etc, and also verbs are inflected for tense, aspect, mood, person etc. Ewunetu's paper has been useful for the present study. But it is necessary



to make a few revisions. For instance, in the first chapter of the study, Ewunetu (2005) points out that his study is the only work which focuses on Irob. However, as I have reviewed different works which focus on Saho the data of almost all studies have been collected from the Irob dialect. Furthermore, with regard to inflectional morphology description of Saho nouns, he states that nominative case is not marked morphologically while accusative and genitive cases are expressed by inflectional suffixes. However, in the present study as discussed in chapter three, this does not seem to be correct.

Tsegay Muhur (2005) in his BA thesis entitled "Noun phrase in Saho", tries to describe the structure, distribution and function of noun phrases. In this work, Tsegay has identified that any NP consists of a head noun, which is obligatory and other optional constituents such as specifiers, modifiers and complements. According to him, the specifiers of the language include determiners and quantifiers, whereas modifiers include adjectival and adpositional phrases. Furthermore, he has treated different types of genitives as complement of head nouns. Tsegay has used the theory of transformational generative grammar which assumes determiners as specifiers of NPs. However, the present study tries to examine nominal structures in light of the DP hypothesis. In addition, though Tsegay has made remarkable attempt, the nominal structures of the language are not fully treated. In addition, Tsegay has said nothing about pronominals in the derivation of DPs. The present study will consider all types of specifiers.

### **1.9. The Present Study**

As it has been noted in the previous section, Saho is one of the least studied languages. The linguistic investigations that have been made on the language are very few and most of them are both descriptive and limited to

the phonological and morphological aspects of the language. The syntactic aspect of the language has almost not been studied. Therefore, in this study, the syntactic aspect, particularly the structure of the determiner phrases, including articles, demonstratives, pronouns, quantifiers, interrogatives etc, will be considered. In addition, unlike the aforementioned works, the present study is based on the Minimalist Theory, which is a more recent development in generative theories of syntax.



## **CHAPTER TWO**

### **THEORETICAL FRAMEWORK**

#### **2.1. The Minimalist Program (MP)**

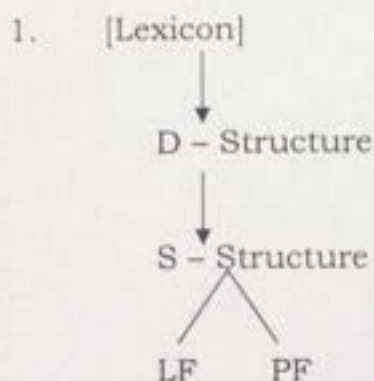
##### **2.1.1. Background**

This study is based on the Minimalist Program which is a development of Government and Binding (GB) approach to syntactic theory (Chomsky 1993 and 1995b). The central idea of this approach is that grammar must be described in terms of a minimal set of theoretical and descriptive apparatus (Radford 2004). Its overall aim is to make statements about human language that are simple and general as much as possible (Cook & Newson 1996). This section outlines some of the main aspects of the program.

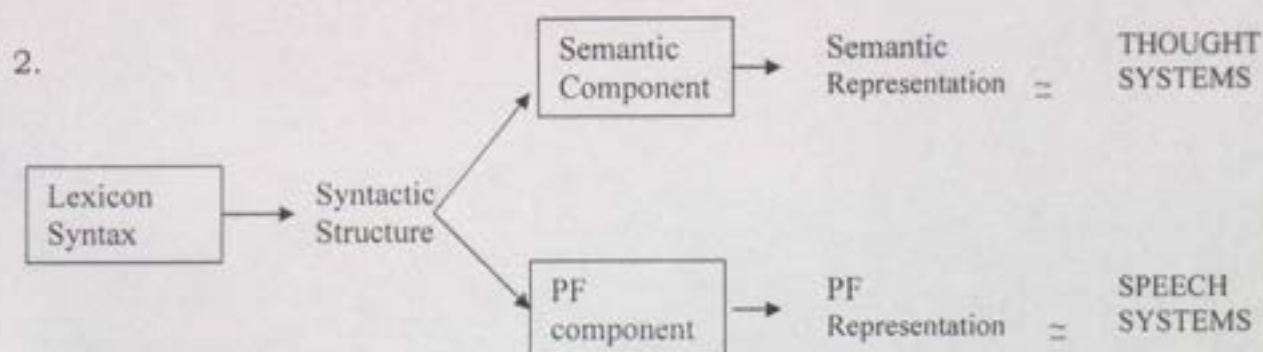
There were two motivations for the move from GB to MP, as stated in Authier and Reed (1999:51-52). Primarily the move was due to the desire to minimize a linguistic theory in terms of the fewest possible number of rules. The second is due to result in the fields of psycholinguistics, computer science and semantics, which showed that a move in this direction is highly desirable, i.e. work in these areas strongly, supports a desire to minimize.

##### **2.1.2. Levels of Representation**

In GB the linguistic system has two external interface levels. These are the levels of semantic and phonetic interpretations, LF and PF. It has an internal level that represents basic lexical information (D-structure). These three levels connected by a single level of representation (S-structure). This was assumed to take the form represented schematically in (1) (Cook and Newson 1996, Authier and Reed 1999).



MP questions whether the four levels of syntactic representations (D-S, S-S, LF and PF) are necessary. According to Chomsky (1995b) language is a mapping between sound and meaning. The only absolutely important representations are those which link with the physical world of sounds, i.e. phonetic form (PF) and the mental world of cognition i.e. logical form (LF). As a result, MP avoided making the distinction between the deep and the surface structure levels from the syntactic representations. Following Chomsky (1998, 1999, 2001, and 2002) cited in Radford (2004:10), a general picture of the model of grammar according to minimalist design is like the following:



In terms of this model, an important constraint is that the semantic and Phonetic representations which are considered as interface systems should

contain only elements which are legible by the appropriate interface system. The semantic representations handed over to the thought systems contain only elements contributing to meaning, and the Phonetic representation handed over to speech systems contain only elements which contribute to phonetic form (i.e. to the way the sentence is pronounced) (Radford 2004).

According to Authier and Reed (1999:56) in Chomsky's Minimalist Program (MP) the syntactic system (also known as the computational system) include the following:

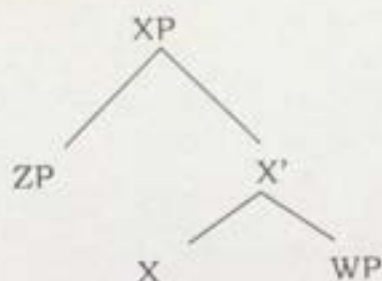
- Merge
- Move
- Economy Principle
- Feature checking

### **2.1.3. Operations Merge and Move**

The two basic grammatical operations of MP are Merge and Move. Merge is a structure building operation that combines syntactic elements into larger structures. It is a general syntactic procedure whereby two syntactic categories combine (merge) to form a new complex. The new complex category combines with a head to form a higher level complex category (Authier and Reed 1999:56 and Cook & Newson 1996:323). For example, if the operation merge takes place between a head X and a complement WP as in (3) below, the status and level of the combined element would be X-bar; if merge is between the specifier ZP and X' (X-bar), the status and level of the combined element would be the phrasal level XP. In this operation, combinations are binary and based on bottom-up fashion as shown in (3) below.



3.



As we can see from (3), the head  $X$  combines with the complement  $WP$  to form the combined unit  $X'$  ( $X$ -bar). In addition, to this the  $X'$  ( $X$ -bar) merges (combines) with specifier  $ZP$  to form the maximal projection  $XP$  (Chomsky 1995a:172, Adger 2003:72&115).

Generally, Adger (2003:90-91) summarizes the major concepts of merge in MP as follows:

1. Merge applies to two syntactic objects to form a new syntactic object.
2. The new syntactic object is said to contain the original syntactic objects, which are sisters but which are not linearized.
3. Merge only applies to the root nodes of syntactic objects. In other words, in MP, syntactic derivations must always proceed bottom-up, from the smallest syntactic units to the largest ones.

Move is the second of the structure-building processes in MP. It takes a category and moves it to a target position that is, a landing site, and merged it with the target to form a new complex category. The process leaves a silent copy of the raised element (trace) in the structural position it occupied before movement (Chomsky 1995b).

According to Chomsky (1995b) the operation move is driven by morphological requirements of certain features to be checked. Since there

are some formal features (like, case and agreement) that need to be checked, and movement provides the configuration in which the checking can take place (Lasnik 2001:75).

The operation move is either substitution or adjunction. Adjunction is a process that links two constituents, whereas substitution is a process that forms a new category. In other words, adjunction moves a category to A-bar<sup>3</sup> position whereas substitution is a movement to the specifier position of an A position (Chomsky 1995b).

#### **2.1.4. Economy Principle**

The economy principle states that syntactic representations should contain as few constituents and syntactic derivations should involve as few grammatical operations as possible (Radford 1997). Similarly, Collins (2001:47) points out that economy conditions require that representations formed in the course of derivations should be as simple as possible, consisting of a minimal number of syntactic objects each of which is interpretable at either LF or PF.

The major economy principles in MP are shortest move, procrastinate, greed and last resort. Shortest move requires that the number of steps in a derivation should be minimal. The basic idea, as Marantz (1995:355) states is that, a constituent must move to the right position of the right kind up from its source position. If any derivation could be compared to any other derivation, the zero derivation that is one which has no operations would always win (Collins 2001).

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<sup>3</sup>According to Radford (2004) A-bar position is a position which can be occupied by expressions which are not arguments i.e. subject or direct object. A-Position is a position which can be occupied by an argument

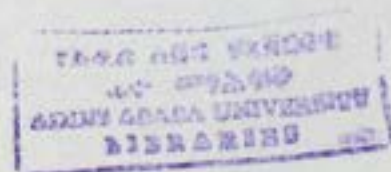


Following the basic observation in relativized minimality (Rizzi 1990), Chomsky proposes that movements are constrained by a minimal link condition which requires that movement to the nearest relevant position and must make the "shortest move" as Cook & Newson (1996:325) states quoting Chomsky (1995b:401).

The other is Last Resort, which states that a step in a derivation is legitimate only if it is necessary for convergence that is for acceptable reading of the structure (Chomsky 1993, 1995b:200, cited in Collins 2001:55). Procrastinate is a principle that prefers movements to be delayed as long as possible. According to this principle, covert movement is less costly than overt movement. Therefore, an overt operation can apply only if other wise the derivation would crash (Marantz 1995; Collins 2001). Greed, on the other hand, is a principle that allows movement of an element only if it satisfies some property of the moved element itself. This means that a constituent is allowed to move only to check off its own features, not to check off the features of some other constituents (Cook & Newson 1996 and Marantz 1995).

#### **2.1.5. Feature Checking**

According to Chomsky (1995b) feature checking is the major property that triggers movement under a last resort condition. Therefore, with the understanding that all syntactic computation is done on the basis of features, feature checking is possible only when the element that is the checkee that possesses a feature to be checked in the checking domain of an element the checker which also possesses features to be checked (Ura 2001:350).





Unlike in GB theory, in the Minimalist Program lexical elements are fully inflected in the lexicon and their assignment of the roles takes place in the thematic layer before the operation movement; whereas functional elements consist of number, gender, person, case, tense, aspect...features are projected in the functional layer, and they have to be checked by lexical elements specifier-head or head-head relations (Epistien and Hornestien 1999: xiv)

According to Epistien and Hornestien (1999: xiii) in MP, there are different types of features: Strong and weak; uninterpretable, and interpretable features. Strong features are those that must be checked in the overt syntax. Weak features are those that are checked in the covert component of the derivation. More specifically, as Ura (2001:350) states that strong features are features that must be checked and deleted before spell out, i.e. prior to the phonological representation, while weak features are those that can be checked at LF. Strong features that remain unchecked at PF cause the derivation to crash.

Uninterpretable features are features that must be checked and deleted at LF, while interpretable features are those that are interpreted at LF; hence, their presence at LF does not lead to violation at LF. On the other hand, the presence of uninterpretable features at LF causes the derivation to crash (Ura 2001:350).

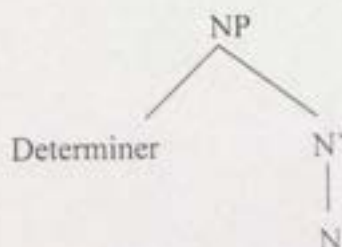
## **2.2. DP – Hypothesis**

Determiner phrase (DP) is a functional phrase which functionally heads noun phrase (Abney 1987). In works before 1980's, a structures like determiner + noun sequence, would have been analyzed as a noun phrase



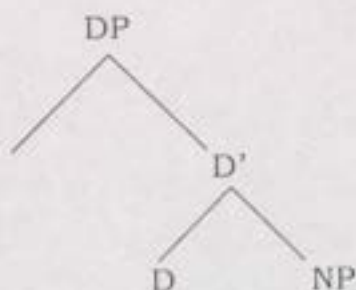
(NP) comprising the head noun and its specifier, the determiner, (Radford 2004), as shown below in (1)

(1)



However, on the basis of various empirical considerations, linguists have challenged this assumption and proposed an alternative representation. Thus, a DP-hypothesis for the analysis of nominal phrases was proposed by Abney (1987). The DP-analysis claims that all nominal phrases are Determiner Phrases/DPs. Lexical nouns are not heads DPs, instead, the determiner is taken to be the head of the DP, as stated in Progovac (1998:165):

2.



According to minimalist assumptions developed in recent years, the phrase of the old NP is now divided into two. One part is a projection of D and the other a projection of N in a way parallel to the split of a sentence between an inflection phrase (IP) and a lexical phrase VP (Gang 1999).

There have been various reasons given by different linguists for considering a DP-analysis of NPs. The reasons include the following.

According to Abney (1987) and Bernstein (2001) the primary motivation comes from advance in X'-theory which came with Chomsky's (1986b) *Barriers*. In this work, Chomsky proposed that not only lexical elements but also functional elements like complementizers and auxiliaries, project to the phrasal level. However, as Bernstein (2001:538), in *Barriers*, Chomsky never applied this extended notion of X'-theory to the nominal domain, instead continued to be represented as NP. In particular, determiner elements, such as definite articles, continued to be generated in the spec of NP. According to Bernstein (2001:538) this was inconsistent with the following two aspects of X-bar theory:

- i) The idea that lexical as well as functional elements project to phrasal levels.
- ii) The notion that specifier positions host phrasal categories.

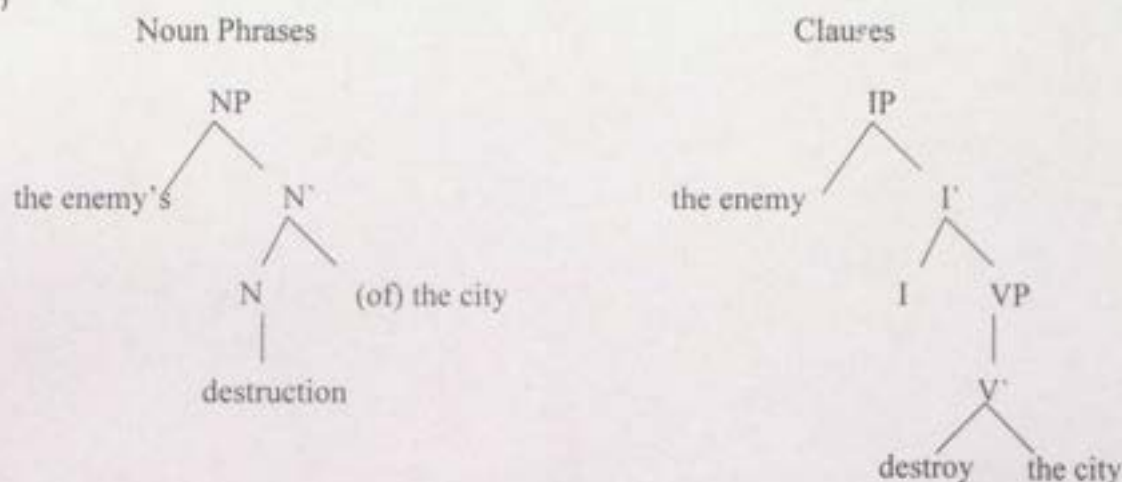
Cook and Newson (1996:184) state that to make NPs conform to X-bar theory of phrase structures, non-head constituents must be considered as maximal phrases. This means that determiners should be DPs in which NPs occur as complements. Following this hypothesis, noun phrases like sentences (IPs), have inflections which also serve as heads.

The other reason for taking D as a head of a noun phrase is the presence of systematic parallelism between sentences and NPs, which can best be captured by introducing functional categories into NPs. As Fukui (2001:388) states an obvious point in Chomsky's (1986b) version of X'-theory that calls for further improvement is this incomplete parallelism between noun phrases and sentences. This means that in a sentence



structures, there is an additional structure of the head I, on the other hand, in the noun phrases there is no such structure and all arguments are located within the projection of NP. Compare the structures in (3) from Fukui (2001:388):

(3)

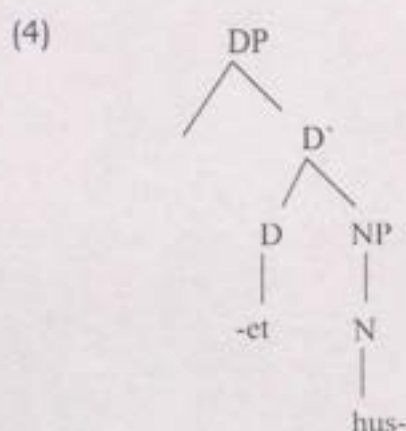


Therefore, as Bernstein (2001:537) and Radford (2004) point out the representation of the noun phrase as DP (DP-hypothesis) restores the parallelism between sentences and noun phrases. That is, according to this approach, a non-lexical category (I) in a sentence and D in noun phrase head the whole phrase, taking a complement headed by a lexical category V in a sentence, and N in noun phrases. Hence, the parallelism between sentences and noun phrases becomes much more visible and easier to capture in the DP-analysis than in the traditional analysis of noun phrases (Fukui 2001:390).

In addition to the above reasons, it is stated that the better understanding of the operation of head movement (Chomsky 1986b and Baker 1985) has put the traditional analysis of noun phrases into question. This problem,

has forced linguists to suggest a more articulated syntactic representation for noun phrases and to identify the landing site of raised head nouns as D's, (Siloni 1997:19; Bernstein 2001:555). As a result, the idea that there is evidence of head to head movement with in noun phrases, has received strong empirical support by different studies such as Ritter 1987, Delising 1988, Siloni 1991, Cinque 1993, Bernstein 1993, Longobardi 1994, (cited in Siloni 1997:19).

According to Roberts (2001:135) the idea that raising of  $N^0$  to  $D^0$  can account for two kinds of phenomenon. First, it has been used to account for postnominal articles of the type found in Scandinavian languages. Thus, a form like *hus-et* ("house-the") is derived by N-movement adjoining /hus/ 'house' to /et/ 'the' in D in a structure like the following:



Second, the Semitic construct state construction may feature N- to- D raising. Thus, in such constructions the head noun of the NP raises to the position of another head that a functional projection above it (Ibid). Therefore, Abney (1987), Ritter (1988), Siloni (1991), Longobardi (1994) among others argue that the landing site of the head noun is the head

position D. So, the assumption that noun phrases are actually DPs provides an appropriate landing site for the raised nouns.

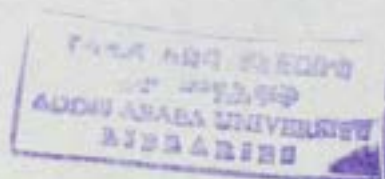
The existence of possessor–possessed agreement in the noun phrase of some languages is another support for the claim that there must be a functional head in the extended projection of noun phrases. As Abney (1987:37) indicates in some languages noun phrases have one or both of the following properties:

1. A possessed noun agrees with its subject in the same way that a verb agrees with its subject, and
2. The possessor receives the same case as the subject of the sentence, rather than a special genitive case.

Both of these properties indicate the existence of agreement (AGR) in noun phrases, whether we see it overtly or covertly (Ibid).

The following examples, from Abney (1987:18), show Hungarian nominal agreement patterns, where case is expressed on the possessor noun and the head noun agrees with the possessor by showing its person and number agreement markers (AGR).

- |        |     |            |            |
|--------|-----|------------|------------|
| (5) a. | az  | en         | kalop – om |
|        | the | I: NOM     | hat – 1SG  |
|        |     | 'My hat'   |            |
| b.     | a   | te         | kalop – od |
|        | the | you: NOM   | hat – 2SG  |
|        |     | 'Your hat' |            |





- c.           a    peter   kalop - ja  
               the   peter   hat   - 3SG  
                   'Peter's hat'

On the other hand, in yup'ik, a central Alaskan Eskimo language, a possessed noun agrees with its subject in the same way, and with the same agreement morphology, as a verb agrees with its clause subject (Bernstein 2001:538). Consider the following examples (Abney 1987:39):

- (6) a.           angute -t           kiputa -a - t  
               man - ERG(PL)   buy - OM - SM  
                   'The men bought it'
- b.           angute   - t           kuiga - t  
               the man - ERG(PL)   river - SM  
                   'The men's river'

In example (6a), as Abney (1987:37-53) discusses, both the verb and its subject are marked by the same agreement suffix /-t/, which indicates an ergative case. Similarly, in (6b) the noun /angute/ 'the man' and its possessor /kuiga/ 'river' are marked for agreement by the morpheme /-t/. Therefore, as Belletti (2001:494) indicates on the basis of evidence from some languages, linguists (like Szabolcsi 1994) have proposed that the functional structure of the noun phrase should be built upon AGR projection of the same nature as the one found in clauses.

### 2.3. Nominal Functional Category (Determiner)

Categories, like determiner, tense, agreement which head a projection, but do not assign theta roles are usually called functional categories (Adger

2003:165). Like lexical categories they are assumed to head a syntactic projection. However, unlike lexical categories, functional categories do not have substantive content and they serve primarily to carry information about the grammatical properties of expressions within a syntactic constituent, for instance, information about gender, number, person, definiteness, case etc (Radford 1997; Fukui 2001).

According to Abney (1987:64) there are a number of properties that characterize functional elements, in contradistinction to lexical elements. These are:

1. Functional elements constitute closed lexical classes.
2. Functional elements are generally phonologically and morphologically dependent. They are generally stressless, often clitics or affixes, and sometimes even phonologically null.
3. Functional elements are usually inseparable from their complement.
4. Functional elements lack descriptive content. Their semantic contribution is regulating or contributing to interpretation of their complement. They mark grammatical or relational features, rather than picking out a class of objects.

To sum up, the most important functional category in nominals is determiner which projects into DP. This was originally proposed by Abney (1987). The functional elements that fall under D are articles, demonstratives, pronouns, genitives, interrogatives and quantifiers (Radford 1997, Baye forthcoming: 14, Derib 2004:52).

## CHAPTER THREE

### BASIC DESCRIPTIONS

#### 3.1 Noun inflections in Saho

According to Vaux and Cooper (2003) a noun inflection is an affix that is attached to a noun to signal grammatical relationship. In this chapter, the inflectional categories of noun such as number, gender, case, (in) definiteness etc that will play a role in the analysis and derivation of DPs in the latter chapter will be discussed briefly.

##### 3.1.1. Number

Number denotes a contrast between singular and plural forms and it may be indicated by affixal or lexical means (Radford 1997).

Number in Saho is divided into three sub-types: singular, singulative and plural. Singular nouns are marked by zero morpheme whereas plural nouns are marked by various forms.

1.	Singular	Gloss	Plural	Gloss
	ay <sup>ʔ</sup> a	'baby'	ay <sup>ʔ</sup> -it	'babies'
	ma <sup>ʔ</sup> ade	'sickle'	ma <sup>ʔ</sup> ad-it	'sickles'
	si:le	'picture'	si:l -it	'pictures'
	na <sup>ʔ</sup> abtola	'enemy'	na <sup>ʔ</sup> abtol-it	'enemies'
	sarima	'pot'	sarim -it	'pots'
	iggiḍa	'year'	iggiḍ -it	'years'
	birta	'metal'	birt -it	'metals'

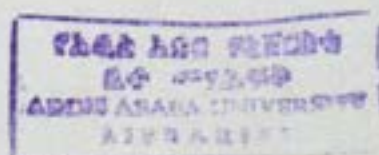


loyna	'herdsman'	loyn-it	'herdsmen'
da:	'stone'	day -it	'stones'

As the above examples demonstrate, singular nouns are not marked morphologically. In this language the suffix /-it/ is the main plural marker because it is suffixed to both animate and inanimate nouns as shown in (1). On the other hand, even though the language productively shows the plural with the suffix /-it/, there are some nouns that form their plural by suffixing morpheme /-a/. The examples in (2) are illustrative of this.

2. Singular	Gloss	Plural	Gloss
awur	'ox'	awur -a	'oxen'
dik	'house'	dik -a	'houses'
mandug	'gun'	mandug-a	'guns'
dingil	'girl'	dingil -a	'girls'
kanad	'tent'	kenad-a	'tents'
kare	'dog'	kare -wa	'dogs'
<sup>1</sup> ari	'village'	<sup>1</sup> ari -wa	'villages'
gade	'river'	gade-wa	'rivers'
same	'boat'	same-wa	'boats'
arke	'friend'	arke-wa	'friends'

As can be seen from the data in (2) plural marker /-a/ occurs with consonant ending nouns. However, when it appears with vowel ending nouns, /-w/ is inserted in between the two vowels to break the vowel sequences since the language does not allow sequences of vowels (cf. Welmers 1952). Moreover, in this language, very few nouns have irregular plural forms as in (3) below.



3.	Singular	Gloss	Plural	Gloss
	lah	'goat'	ala	'goats'
	numa	'woman'	sayyo	'women'
	awka	'boy/girl'	irri	'boys/girls'
	saga	'cow'	la:	'cows'

### 3.1.2. The Singulative

As it is indicated in examples (1) and (2), singular nouns are morphologically unmarked. But, the singulative is marked by four phonologically conditioned allomorphs: /-yta/, /-ta/, /-yto/ and /-to/. Consider the following data.

4.	Basic form	Gloss	Singulative Form	Gloss
	<sup>h</sup> iyda	'sheep'	<sup>h</sup> iyda-yta	'a (particular) sheep'
	dummu	'cat'	dummu-yta	'a (particular) cat'
	<sup>h</sup> ullul	'colt'	<sup>h</sup> ullul-ta	'a (particular) colt'
	hutuk	'star'	hutuk-ta	'a (particular) star'
	hasama	'pig'	hasama-yto	'a (particular) pig'
	furta	'ant'	furta-yto	'a (particular) ant'
	basal	'onion'	basal-to	'a (particular) onion'
	hiyaw	'man'	hiyaw-to	'a (particular) man'

The singulative allomorphs /-yta/, /-ta/, /-yto/ and /-to/ have a phonologically conditioned distribution. Nouns ending with vowel except 'a' take the suffix /-yta/, while those with final consonant except preceded by 'a' take the singulative suffix /-ta/. The suffix /-to/ is a singulative marker of the noun with a final consonant preceded by 'a', in contrast to those nouns ending with the vowel 'a' the suffix is /-yto/. Furthermore, in this

language, as in Afar (Parker and Hayward 1985), a singulative noun has a definite interpretation.

### 3.1.3. Gender

Gender is one of the features of nouns, pronouns and adjectives. Gender is divided into masculine and feminine in Saho. The masculine is unmarked.

In Saho, as in Sidama (Anbessa 2000) and in Gedeo (Tesfaye 2007), some nouns are epicene, i.e. when they occur in their basic (citation) forms, they do not show any gender distinction. However, when they occur in subject position, gender is inferred from the nominative case marker /-i/. Consider the examples below in (5).

5. a. kar-i            y-emet-e  
     dog – NOM:MAS 3MS-come-PERF  
     'A dog came'
- b. kare        t - emet -e  
     bitch 3FS-come-PERF  
     'A bitch came'
- c. usuk            kare            y-<sup>5</sup>igdif -e  
     he        dog MAS/FEM 3MS-kill-PERF  
     'He killed a dog'

As the above examples illustrate, the exact gender of the nouns /kari/ 'dog' in 5(a) and /kare/ 'bitch' in 5(b) is clear when the nouns occur in subject position, where gender is inferred from the nominative case marking. Masculine nouns are marked for nominative case whereas feminine nouns are not. However, such nouns have similar forms when they occur in object



position as shown in 5(c). In this language, gender can also be identified lexically as shown below.

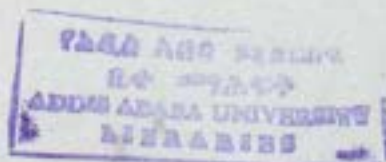
6.	Masculine	Gloss	Feminine	Gloss
	awur	'ox'	saga	'cow'
	lab	'male'	say	female
	abba	'father'	ina	'mother'
	hiyaw	'man'	numa	'woman'
	abbo	'uncle'	yanna	'aunt'

Furthermore, Saho makes distinction between masculine and feminine with the words /lab/ 'male' and /say/ 'female' which occur before nouns as in (7).

7. a.       lab    faras  
              male horse
- b.       say   faras  
              female horse

### 3.1.4. Case

According to Van Valin (2001) case is a feature of nouns which indicates their functions in a sentence. As Roberts (1997: 55) states that in many languages case marking is morphological in DPs. Case is also marked syntactically in terms of the position in which subject, object, etc are formed. In Saho, case is expressed morphologically and syntactically.



### 3.1.4.1. Nominative Case

The function of nominative case is to identify the subject of a sentence (Lyons 1968: 290). Nominative case is indicated by the /-i/ as discussed in Awash (1987) and Tsegay (2005). However, Ewnetu (2005) does not agree with this analysis. According to him, in Saho, there is no overt nominative case marker. However, my data show that nominative case is indicated by the suffix /-i/ for masculine nouns which end with vowels. Other nominative nouns are identified by their position in sentences.

8. a. amay awk -i y - emet - e  
the boy -NOM 3MS-come-PERF  
'The boy came'
- b. dingil t - eq - e  
girl 3FS-go-PERF  
'A girl went'
- c. amay hiyaw - t-i harestay k-ini  
the man-SGL-NOM farmer 3MS-BE  
'The man is a farmer'
- d. yi - sa<sup>1</sup>al lubak y - <sup>1</sup>igdif - e  
my - brother lion 3MS-kill-PERF  
'My brother killed a lion'

As indicated in (8), the nominative case marker /-i/ does not occur with the masculine subject /yisa<sup>1</sup>al/ 'my brother' in 8(d) and with the feminine subject /dingil/ 'girl' in 8(b). As a result, the relation of the masculine subject /yisa<sup>1</sup>al/ 'my brother' in 8(d) and the feminine subject /dingil/ 'girl' in 8(b) is determined syntactically. In 8(d) for instance, the subject of the

sentence /yisa<sup>1</sup>al/ 'my brother' appears preceding the direct object /lubak/ 'lion'.

### 3.1.4.2. Accusative Case

In Saho, accusative case is unmarked. As Awash (1987:22) states the base form of nouns is the same as the accusative case form. The direct object of any sentence is distinguished by the position it occupies. Consider the following examples.

9. a. amay hiyaw - t-i lubak y - <sup>1</sup>igdif - e  
       the man-SGL-NOM lion 3MS-kill-PERF  
       'The man killed a lion'
- b. sifar - i haqa y - igri<sup>1</sup> - e  
       sifare-NOM tree 3MS-cut-PERF  
       'Sifare cut a tree'
- c. amay numa dummu t- <sup>1</sup>igdif - e  
       the woman cat 3FS-kill-PERF  
       'The woman killed a cat'

As can be seen from the data in (9), the nouns /lubak/ 'lion' in 9(a), /haqa/ 'tree' in 9(b), and /dummu/ 'cat' in 9(c) are in accusative case identified by their position in the sentence. They occur immediately before the verb.

### 3.1.4.5 Genitive case

Genitive case is used primarily to mark possession within DP (Van Valin 2001:37). The relation between a possessor and possessed noun in Saho is not marked overtly, (for detail discussion see section 3.2.4.1)



### 3.2. Description of Determiners in Saho

In chapter two, we have seen that all nominal projections are assumed to be DPs headed by determiner (D). Determiners have features of definiteness and indefiniteness. The English function words *a*, *an*, *the*, *this*, *that*, *he*, *she*, *they*, *my*, *his*, *her*, *some*, *all* and *much* have been grouped as determiners (Lyons 1986, Radford 1997, 2004). According to Abney (1987:76) and Adger (2003: 248) the most important thing for a semantic analysis of determiners is that they do not assign theta roles to arguments. Rather, their semantics has to do with restricting the range of referents picked out by the nominal with which they occur. In this section, I present the determiners of Saho.

#### 3.2.1. Articles

Based on the information they denote about their host, articles may be classified as definite or indefinite (Van Valin 2001). Definiteness is something which helps to integrate an utterance into discourse. It does this by giving clues to the hearer about what the speaker thinks he/she already knows. An indefinite article signifies that the referent of its phrase is to be considered something new in the discourse, (Adger 2003). In Saho, the category includes indefinite and definite articles.

##### 3.2.1.1. Indefinite Article

In Saho, there is no affix or independent article which marks indefiniteness. Thus, the following nouns are considered as indefinite, for they are not overtly marked.

10.	Indefinite noun	Gloss
	dummu	'cat/ a cat'
	lubak	'lion/ a lion'



dik	'house/ a house'
numa	'woman/ a woman'
saga	'cow/ a cow'

As we can see from these examples, the nouns in (10) can be assumed as having generic reference. However, sometimes the language uses the quantifier /inki/ 'one' to indicate indefiniteness as shown below.

11. a. inki awur y - eq - e  
           one ox 3MS-go-PERF  
           Lit. 'one ox went'  
           'An ox went'
- b. inki dingil t- emet- e  
       one girl 3FS-come-PERF  
       Lit. 'one girl came'  
       'A girl came'

As it can be observed from the above examples, the numeral /inki/ 'one' is used to specify indefinite references of the nouns /awur/ 'ox' in 11(a) and /dingil/ 'girl' in 11(b). And the nouns /awur/ 'ox' and /dingil/ 'girl' are in their base forms which mean that they can refer to any ox or girl respectively.

### 3.2.1.2. Definite Article

Definiteness is related to pre-establish shared knowledge about an object or set of objects in a discourse between a speaker and his hearer (Baye forthcoming). In Saho, definiteness is expressed by the article /amay/ 'the' which occurs before a noun as in the following examples.

12. a. amay awk -i han y -o<sup>1</sup>ob - e  
       the boy - NOM milk 3MS-drink-PERF  
       'The boy drank milk'
- b. amay saga t - eq -e  
       the cow 3FS-go-PERF  
       'The cow went'
- c. amay numa <sup>1</sup>adaga t - eq - e  
       the woman market 3FS -go-PERF  
       'The woman went to the market'
- d. amay hiyaw - t - i y - emet - e  
       the man- SGL - NOM 3MS - come- PERF  
       'The man came'

As can be seen from the above examples, the definite article /amay/ 'the' is an independent element like 'the' in English but not as /-u/ in Amharic. And it is not inflected for number or gender. For instance, in 12(a) and 12(b) the definite article /amay/ 'the' occurs before the masculine subject /awk-i/ 'boy-NOM' as in (12a), and the feminine subject /saga/ 'cow' as in 12(b). But it has not changed its form. In other words, the definite article /amay/ 'the' does not show any formal agreement with the nouns in number, gender and case. As shown in 12(a-c) the definite article /amay/ 'the' occurs immediately before the noun which it specifies. However, in this language adjectives can appear after the definite article and before the noun as in the following examples.

13. a. amay <sup>1</sup>inda dingil t -emet - e  
       the small girl 3FS -come - PERF  
       'The small girl came'



- b.    amay udud    awk -i       y - eq - e  
       the    short boy - NOM 3MS - go - PERF  
       'The short boy went'

The adjectives /<sup>f</sup>inda/ 'small' in 13(a) and /udud/ 'short' in 13(b) occur after the definite article /amay/ 'the' and before the noun /dingil/ 'girl' in 13(a) and /awki/ 'boy' in 13(b) respectively. This suggests that the definite article /amay/ 'the' occurs in initial position.

### 3.2.2. Demonstratives

There are three types of demonstratives for spatial reference of objects in Saho. These are /tay/ 'this/these' which refer to objects (referents) that are closer to a speaker. /toy/ or /otoy/ 'that/those' refer to referents which are relatively far away from the speaker. These are shown in the following examples.

14.	Proximal	Distal	Extra distal
a	tay <sup>f</sup> iyda - yto this sheep-SGL 'This sheep'	toy <sup>f</sup> iyda - yto that sheep-SGL 'That sheep'	otoy <sup>f</sup> iyda - yto that sheep-SGL 'That sheep further away'
b.	tay <sup>f</sup> iydo these sheep 'These sheep'	toy <sup>f</sup> iydo those sheep 'Those sheep'	otoy <sup>f</sup> iydo those sheep 'Those sheep further away'
c.	tay numa this woman 'This woman'	toy numa that woman 'That woman'	otoy numa that woman 'That woman further away'

d.	tay	sayyo	toy	sayyo	otoy	sayyo
	these	women	those	women	those	women
	'These women'		'Those women'		'Those women further away'	

As is illustrated above, /tay/, /toy/ and /otoy/ are not inflected for number and gender. They refer to singular or plural masculine or feminine proximal, distal, and extra distal referents. /tay/ is the equivalent of the English plural 'these' or the singular 'this'. /toy/ and /otoy/ are the equivalent of 'that' or 'those'. As mentioned earlier, /otoy/ usually refers to objects which are further than 'that' which /toy/ shows.

### 3.2.3. Pronominal in Saho

As stated in Abney (1987), Longobardi (1994) and Radford (1997, 2004) among others pronouns have the categorial status of determiner. In this subsection, I present the different types of pronouns in Saho.

#### 3.2.3.1. Personal Pronouns

According to Radford (1997:48) pronouns like I/me, we/us, you, he/him, she/her, it, they/them, are called personal pronouns not because they denote people, but because they encode the grammatical property of person.

Like many other languages, Saho has three different kinds of personal pronouns, and each type inflects for number. Except for the third person singular, all the rest do not show gender distinctions. Consider the following:

16.		Nominative	Accusative	Possessive
SG.	1	anu	yo	yi
	2MAS/FEM	atu	ko	ku
	3MAS	usuk	ka	ka
	FEM	isi	te	te
PL.	1	nanu	no	ni
	2MAS/FEM	atin	sin	sin
	3MAS/FEM	isin	ten	ten

As can be observed in (16), nominative personal pronouns and accusative personal pronouns are different in form. However, the accusative personal pronouns are distinguished from their possessive counterpart in terms of their final vowel. In general, the accusative and possessive personal pronouns are not derived from their nominative counterparts.

### 3.2.3.2. Interrogative Pronouns

Interrogative pronouns refer to persons or things about which questions are asked. The most common interrogative pronouns of Saho are the following.

17.	Interrogative Pronouns	Gloss
	iyyi	'who'
	ati	'which'
	ayim	'what'
	anda	'when'
	alle	'where'
	ayinda	'how many/ how much'

In Saho, as in Afar (Parker and Hayward 1985), there are interrogative items, such as /ayimih/ 'why' which are formed by combinations of the



interrogative item /ayim/ 'what' and the postposition /-ih/ 'for'. As we can see from the example (18), the interrogative pronouns are used as subjects and they inflect for gender.

18.           a.    iyy- i - tiya                   t - emet- e  
                      who-NOM FEM       3FS - come - PERF  
                      'Who Came?'
- b.    ati                   k-ini               ku-sa<sup>1</sup>al  
                      which-MAS 3MS-be       your brother  
                      'Which one is your brother?'

In Saho, interrogative pronouns can also inflect for case as the following examples in (19) show.

19.    iyy-i           'who'           Nominative  
      iyy-a           'whom'          Accusative  
      iyy-ah          'to whom'       Dative  
      iyy-in          'whose'          Genitive

As can be seen in 18(a), 18(b) and (19), interrogative pronouns inflect for gender and case. For instance, in 18(a) feminine gender is marked by the suffix /- tiya/ and in (19) nominative case is morphologically marked by the suffix / - i/.

### 3.2.3.3. Indefinite Pronouns

The Saho indefinite pronouns are the following.

20.	Indefinite Pronoun	Gloss
	uli	'some/ any'
	uli neger	'something/ anything'

qiboh	'alone/ only'
inkim	'no one/ none/ nothing'
inki inki	'every/each'

### 3.2.4. Genitives in Saho

Genitives include many types, among which, Awash (1987) and Tsegay (2005) have identified the following: genitive of possession, genitive of source, genitive of location, temporal genitive, and genitive of purpose. Before looking at the details of each, observe the list of the genitive pronouns in the language in (22).

22.	Person	Singular	Gloss	Plural	Gloss
	1	yi	'my'	ni	'our'
	2MAS/FEM	ku	'your'	sin	'your'
	3MAS	ka	'his'	ten	'their'
	FEM	te	'her'	ten	'their'

As we can observe from the above data, genitive pronouns differ according to person, number and gender. They occur before the possessed noun and do not show any overt agreement with the head noun. The data in (23) are illustrative of this.

23. a. yi ay<sup>f</sup>a  
           my child  
           'My child'
- b. yi ay<sup>f</sup>-it  
           my child-PL  
           'My children'

- c. ku dik  
your house  
'Your house'
- d. ku dik-a  
your house-PL  
'Your houses'
- e. ka kar-i  
his dog-NOM:MAS  
'His dog'

#### 3.2.4.1. Possessive Genitives

Possessive nouns do not show any marker for possession. According to Awash (1987) and Tsegay (2005) the language does not have any affix to show possession. The relation between a possessor and a possessed noun is expressed syntactically by their position. The possessor noun always precedes the possessed noun as in the following examples.

- 24. a. hayis kare  
hayis dog  
'Hayis's dog'
- b. yanna saga  
aunt cow  
'Aunt's cow'
- c. dummu felo  
cat food  
'Cat's food'
- d. daniel mes'haf  
daniel book  
'Daniel's book'



As the examples in (24) demonstrate, in this language, there is no morphological marker for possessive relations; rather the relation is identified syntactically, in terms of word order. Thus, in the structures in question, the order of constituents is always that the possessor noun precedes the possessed noun. If the order is changed, the structure will be ungrammatical.

#### 3.2.4.2. Source Genitives

Source genitives are marked by the suffix /-it/ as illustrated in (25) below.

25. a     ʔanaq - it   sant'a  
          skin - of   bag  
          'A bag made up of skin'
- b.     ʔays - it   dik  
          grass- of   house  
          'House made of grass'
- b.     ʔilb - it   malab  
          maize- of local beer  
          'Local beer made of maize'

As the data above show the source genitive marker /-it/ is suffixed to the modifier. The position of the modifier is always preceding the head noun.

#### 3.2.4.3. Locative Genitives

Locative genitives are expressed by the suffixes /-ko/ 'from', /-d/ 'in', and /-ih/ 'to' as illustrated in (26) below.

26. a. dawahan- ko baska  
 dewhan - from honey  
 Lit. Honey of Dewhan  
 'Honey from Dewhan'
- b. dik-d hiyaw-to  
 house-in man-SGL  
 'A man in the house'
- c. yi dik-ih amo  
 my house-to came  
 'Came to my house'

It is observed in 26(a), 26(b) and 26(c) that locative genitives indicate the location of an object. This is expressed by /-ko/ 'from', '/-d/ 'in' and /-ih/ 'to' which is suffixed to the modifier of the noun.

#### 3.2.4.4. Temporal Genitives

In Saho, the temporal genitive is marked by the suffix /-it/ which indicates the time of an event or the time at which something existed or happened. The following are examples of such structures.

27. a. komal - it burkuta  
 yesterday - of bread  
 'Yesterday's bread'
- b. kaf - it kifli  
 today - of class  
 'Today's class'
- c. boqif - it qiba  
 last year - of war  
 'Last year's war'

As it is observed in 27(a-c) temporal genitives which determine the noun in terms of specific time can serve as determiners.

### 3.2.4.5. Purposive Genitives

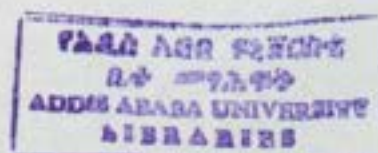
The examples below are purposive genitives in Saho.

28. a maharas - it awur  
plough - for ox  
Lit. 'Plough's ox'  
'(An) ox for ploughing'
- b. lay - it sarima  
water -for pot  
'A pot for water'
- c. han - it saga  
milk - for cow  
'(A) cow for milk'

As the examples in 28(a-c) demonstrate, the purposive genitives, like source and temporal genitives are shown by the suffix /-it/ attached to a modifier.

### 3.2.5. Quantifiers in Saho

Quantifiers are special type of determiners that denote quantity. (Radford1997). Similarly, Baye (1986:283) explains that quantifiers are related to the questions "how much/many" rather than 'what' and 'which'. He also states that quantifiers are specifiers of the type which denote quantity rather than entity.





Quantifiers can be classified into indefinite and definite Baye (forthcoming) states that definite quantifiers are related to objects of reference that are of countable and/ or measurable size whereas the latter relate to objects of mass or abstract reference that cannot be classified or counted.

### 3.2.5.1. Definite Quantifiers

Definite quantifiers specify the exact amount designated by a noun. They includes numerals, measure and classifier phrases (Lyons 1977: 46, Baye 1989: 604)

#### 3.2.5.1.1. Numeral Quantifiers

Based on their function numerals can be classified into cardinal and ordinal. Pie and Gynor (1954: 149) States:

*. . . numerals can be categorized into cardinal and ordinal. Cardinal numbers refer to class of numbers like (one, two . . . n) whereas ordinal numerals refer to class numbers like (first, second . . . n<sup>rd</sup>).*

### I. Cardinal numerals

The basic cardinal numerals in Saho are the following:

29.	Cardinal	Gloss
	inki	'one'
	lama	'two'
	aqoh	'three'
	afar	'four'
	kon	'five'
	lih	'six'
	malhin	'seven'

bahar	'eight'
sagal	'nine'
taman	'ten'

The use of cardinal numerals in Saho is illustrated by the following examples.

30. a      adoh - a      dingil      t - ed - e  
              three - linker girl      3FS - come - PERF  
              'Three girls went'
- b.      kon - a      lah      y - emet - e  
              five - linker goat 3MS-come- PERF  
              'Five goats came'
- c.      malhin - a - ke taman - a      numa      t - emet - e  
              seven- linker - and -ten - linker woman 3FS-come-PERF  
              'Seventeen women came'

As the examples in (30) illustrate, the distribution of the cardinal numerals within the DP always occur before the noun they quantify. Besides, the nouns do not take a plural marker when they are preceded by a cardinal numeral. In addition, as we can see from the example (30) above, the morpheme /-a/ as in /adoh-a / in 30(a), /kon-a/ in 30(b) and /malhin-a/ in 30(c), is used to link the numeral with noun. On the other hand this morpheme is also used to relate the numerals to each other as in 30(c) /malhin - a - ke - taman -a/ 'seventeen'.

The numerals from 11to19 are formed from the basic forms with the ending /-a/ and /-ke/ 'and' followed by the numeral /taman/ 'ten' as in (31).

31.           ink - a - ke - taman                           'eleven'  
                   one - linker - and - ten  
                   kon - a - ke - taman                       'fifteen'  
                   five - linker - and - ten  
                   sagal - a - ke - taman                   'nineteen'  
                   nine - linker - and - ten

On the other hand, the numerals from 20 to 90 are derived from the basic numerals but with a lot of changes, as in (32).

32. a       lamatana   dingil       t - etem - e  
               twenty    girl         3FS -come - PERF  
                           'Twenty girls came'
- b.       lamatana - ke - kon - a    temharay       y - ed - e  
               twenty - and - five - linker   student       3MS - go - PERF  
                           'Twenty five students went'
- c.       lahtam       numa       biyakit -e  
               sixty        woman     injure - PERF  
                           'Sixty women injured'
- d.       bolsaga     awur   y - emet - e  
               ninety       ox    3MS - come - PERF  
                           'Ninety oxen came'

In Saho, when a definite article or demonstratives or adjectives occur with a numeral quantifier, the latter usually come before the adjectives but after the definite article or demonstrative. Consider the following examples in (33) below.



33. a. lama winaya      awk - i      y - eq - e  
       two handsome    boy-NOM    3MS - go - PERF  
       'Two handsome boys went'
- b. amay afara aqam<sup>5</sup>e dingil    t - emet - e  
       the    four    pretty    girl    3FS - come - PERF  
       'The four pretty girls came'
- c. toy aqoha udud numa kare      t - igdif - e  
       those three    short woman dog      3FS - kill - PERF  
       'Those three short women killed a dog'
- d. \*kona toy winaya      awk-i      y - eq - e  
       five    those handsome    boy -NOM    3MS - go - PERF
- e. \*amay aqam<sup>5</sup>e      afara dingil      t - emet - e  
       the    pretty      four    girl      3FS - come - PERF

In (33) it can be easily understood that a quantifier, a definite article, a demonstrative and an adjective can co-occur in a DP to modify the head noun. In 33(a-c) the quantifier elements occur preceding the adjective and the head noun, but following the definite article or demonstrative. In 33(d) the quantifier item occurs before the demonstrative, and in 33(e) it appears following the definite article and the adjective and the structures are ungrammatical. Therefore, reversing the order of the elements leads to ungrammaticality.

## II. Ordinal Numerals

In Saho, except a few, ordinal numerals are derived from their cardinal counterparts by using the prefix /ma -/. Consider (34) below.

34. a. amay ma - lama      ay<sup>5</sup> - i      y - obok - e  
          the   ORD. second   child -NOM   3MS - born - PERF  
          'The second child is born'
- b. amay ma - sagala git'miya      aqed - e  
          the   ORD.-nine   match      start -PERF  
          'The ninth match is started'

As the above examples show the ordinal numerals have the prefix /ma -/ which is an ordinal marker. In addition, the ordinal numerals occur preceding the head noun in the DP. In other words, the ordinal numerals have similar distribution as the cardinal numerals.

### 3.2.5.1.2. Measure Phrases

Unlike numeral quantifiers which specify the amount of a noun by counting as individual units, measure phrases quantify the amount by measuring it with units of measurements. Such nouns which are specified by measure phrases may be countable or uncountable. Measure phrases, in this language, are usually used with [-count] nouns or [+count] nouns. Consider the following examples.

35. a. niyat lama bikkeri      han      t - o<sup>5</sup>ob - e  
          niyat two   glass   milk      3FS - drink - PERF  
          'Niyat drank two glasses of milk'
- b. isi kona abosinti      subahi      t - <sup>5</sup>idig - e  
          she five   can      butter      3FS-buy-PERF  
          'She bought five cans of butter'
- c. gaysola kona mera      dafo      y-iqhin-e  
          gaysola five   load   teff      3MS-grind-PERF

- 'Gaysola ground five load donkeys of telf'
- d     anu   aqoha   wans'a   malab   o'ob-e  
          I     three   cup     local beer   drink-PERF  
          'I drank three cups of local beer.'
- e.     isin   liha   na'ra   buhy   y-e'idig-e-in  
          they   six   bundle   firewood   3M-buy-PERF- 3MPL  
          'They have bought six bundle of fire wood (sticks).'

As we can observe from the data, the measure phrases comprise a cardinal numeral, a unit of measurement and a head noun respectively. Reversing the order or dropping a constituent will lead to ungrammaticality.

### 3.2.5.1.3 Classifier phrases

Like numerals and measure phrases, classifier phrases show the quantity of nouns. They consist of a numeral and a noun. The noun is used to individuate or enumerate items in a collection or mass (Lyons 1977, Baye 1989). The examples below illustrate the use of classifier phrase in Saho.

36. a     afara   haqa   lemunya  
          four   leg     orange  
          'Four individual orange plant'
- b.     kona   haqa   'ilbo  
          five   leg     corn  
          'Five individual corn plant'
- c.     usuk   aqoha   duboy   'ilbo   y-'idig-e  
          he   three   corn-cop   corn   3MS-buy-PERF  
          'He bought three cobs of corn'



- d.    isi      lama      fare-yta      <sup>ʔ</sup>ilbo   bet-e  
          she      two      piece-SGL      corn eat-PERF  
                  'She ate two pieces of corn'

As we can see from the examples in (36), classifier phrases in this language follow the same pattern as measure phrases. Such structures consist of a head noun and a numeral. However, reversing the order of numerals or omission of heads of classifier phrases makes the structure ungrammatical. Consider the data below:

37.    a   \* haɖa kona <sup>ʔ</sup>ilb-it  
              leg   five   corn - of  
        b   \* haɖa <sup>ʔ</sup>ilb -it  
              leg   corn - of  
        c   \* isi lama <sup>ʔ</sup>ilb - it   fare-yta   bet -e  
              she   two corn -of   piece -SGL   eat -PERF.

### 3.2.5.1. Indefinite quantifiers

Indefinite quantifiers specify the quantity of a noun in non specified manner. In other words, the exact amount is not known but expressed roughly. The following are the indefinite quantifiers of Saho.

38.	Indefinite quantifier	Gloss
	mango	'many / a lot / several / much'
	dagu	'a few / a little / some'
	inkoh	'all'
	inkim	'none / nothing'

The use of indefinite quantifiers is illustrated by the data in (39).

39. a. mango            temharo    tilayit -e  
       many/several students    pass -PERF  
       'Many/ several students passed'
- b. dagu            mal  
       little/some money  
       'Little /some money'
- c. mango            sukar  
       much/a lot of sugar  
       'A lot of /much sugar'
- d. dagu    han  
       a little milk  
       'A little milk'

As observed in (39), the indefinite quantifiers /mango/ 'many /several/ a lot/ much' and /dagu/ 'a few/a little/ some' are used for both countable and uncountable nouns. They occur preceding the noun. The reverse order results in ungrammaticality. Consider the following in (40).

40. a. \* mal    dagu  
       money a few/some
- b. \* han    dagu  
       milk a little

### 3.3. Adjectives inside DP

In this section, attributive adjectives which describe some properties of a noun are presented. According to Van Valin (2001:7), adjectives which behave semantically as modifiers typically express properties of entities,

and they are not assigned roles. In Saho, when adjectives are used in attributive positions, they always precede the noun they modify and always remain invariant, since they do not agree with the head noun either in gender or in number or in case. Some illustrative examples are provided below.

41. a.    udud    awk-i            y-ed-e  
          short boy -NOM    3MS-go - PERF  
          'A short boy went.'
- b.    amay    udud    awka    t-emet -e  
          the    short    girl    3FS - come - PERF  
          'The short girl came'
- c.    amay    dat    hayis    kare    baq -e  
          the    black    Hayes dog die - PERF  
          'The black dog of Hayes died'
- d.    amay    'asa    sarima -it  
          the    red            Pot    - PL  
          'The red pots'

As we can see in (41), adjectives in this language precede the noun they modify and do not inflect for number, gender and case. That means, as we can see in 41(a-d), in all cases, the adjectives do not change their shape. In addition, in this language, no element occurs between a head noun and an adjective. Consider the following examples in (42).

42. a.    amay    winaya    dingil -a  
          the    beautiful    girl -PL  
          'The beautiful girls'



- b,    toy   kona   winaya   dingil -a  
       those   five   beautiful   girl -PL  
       'Those five beautiful   girls'
- c,    toy   kona   yi   winaya   dingil -a  
       those five   my   beautiful   girl -PL  
       'Those my five beautiful girls'

As can be seen from example (42) the definite article /amay/ 'the', the demonstrative /toy/ 'those', the numeral /kona/ 'five', the pronoun /yi-/ 'my' and the adjective /winaya/ 'beautiful' occur preceding the head noun /dingila/ 'girls' respectively. But the adjective /winaya/ 'beautiful' occurs close to the head noun /dingila/ 'girls'.

### 3.4. Relative Clauses inside DP

According to Roberts (1997) relative clause is a DP which contains a noun and a sentential complement. As Baye (2005:2) states in languages in general, the nominal head of a relative clause may occur overt or covert, initial or final, internal or external to the clause. Such a head serves as an expression of one of a universal set of syntactic roles associated with verbal predicates. In Saho, it is possible to relativize nouns that occur in subject, object and in other structural positions. For an illustration of this, consider the examples below. However, in this language, there is no pronoun or affix which marks relative clauses. Rather, relativization is made by changing the word order of the sentence. Consider the following examples.

43. a.    hiyaw -t-i    faras    y-ebhe-e  
       man -SGL-NOM horse    3MS-sell- PERF  
       'The man sold a horse'

- b. faras y - e beh -e hiyaw - t -i  
horse 3MS - sell - PERF man - SGL - NOM  
'The man who sold a horse'
44. a. s'egay han y - o<sup>o</sup>ob -e  
tsegay milk 3MS-drink-PERF  
'Tsegay drank milk'
- b. s'egay y - o<sup>o</sup>ob -e han  
tsegay 3MS-drink-PERF milk  
'The milk that Tsegay drank'
- 45 a. hayis dingil-h mes'haf y -ohoy -e  
hayes girl -to book 3MS-give-PERF  
'Hayes gave a book to the girl.'
- b. hayis mes'haf y -ohoy -e dingil  
hayes book 3MS-give-PERF girl  
'The girl whom Hayes gave the book (to).'
46. a. amay numa gabal t - igidl - e  
the woman hand 3FS-break-PERF  
'The woman's hand is broken'
- b. amay gabal t - igidl - e numa  
the hand 3FS-break-PERF woman  
'The woman whose hand is broken'

As can be observed in the above examples, the subject-object-verb pattern of simple declarative sentence as in 43(a), 44(a), 45(a) and 46(a) have changed their order when the subject is relativized as in (43 b), the direct object as in 44(b), the indirect object as in 45(b) and the possessive as in 46(b). In all cases the relativized nouns occur in clause final positions

without changing their shape and the verbs appear before them. However, this order is different from the basic SOV order of the language (cf. Tsegay 2005). Furthermore, as stated earlier, in Saho, there is no relative pronoun or affix that indicates relative clause.



## CHAPTER FOUR

### THE DERIVATION OF DETERMINER PHRASES IN SAHO

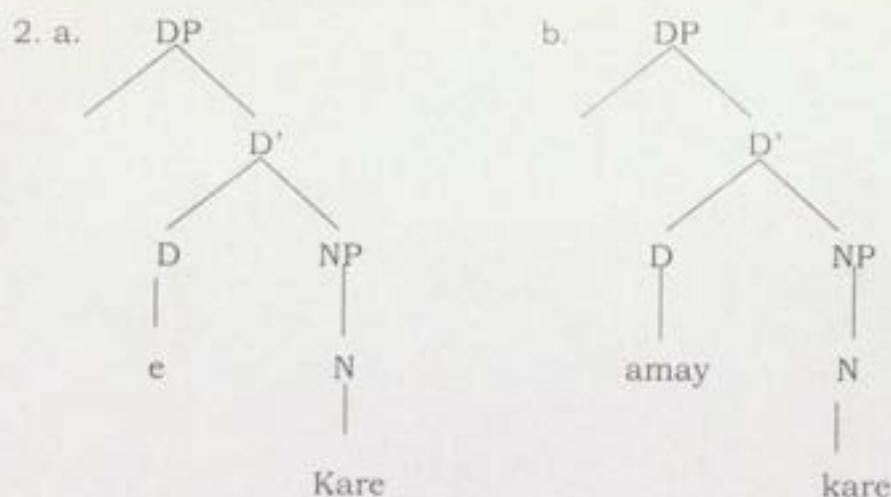
In the previous chapter, I have tried to identify and describe the nominal functional categories of Saho. In this chapter, I attempt to show the derivations of some determiner phrases in Saho. In doing so, I use the Minimalist assumption on the projections of determiners introduced in chapter two.

#### 4.1. The Derivation of (In) definite DP

As it has been discussed in chapter three, in Saho, there is no independent article or affix which marks indefiniteness. However, it has an independent definite article. Compare the following examples.

1.   a.   kare  
          dog  
          'Dog /a dog'
- b.   amay kare  
          def dog  
          'The dog'

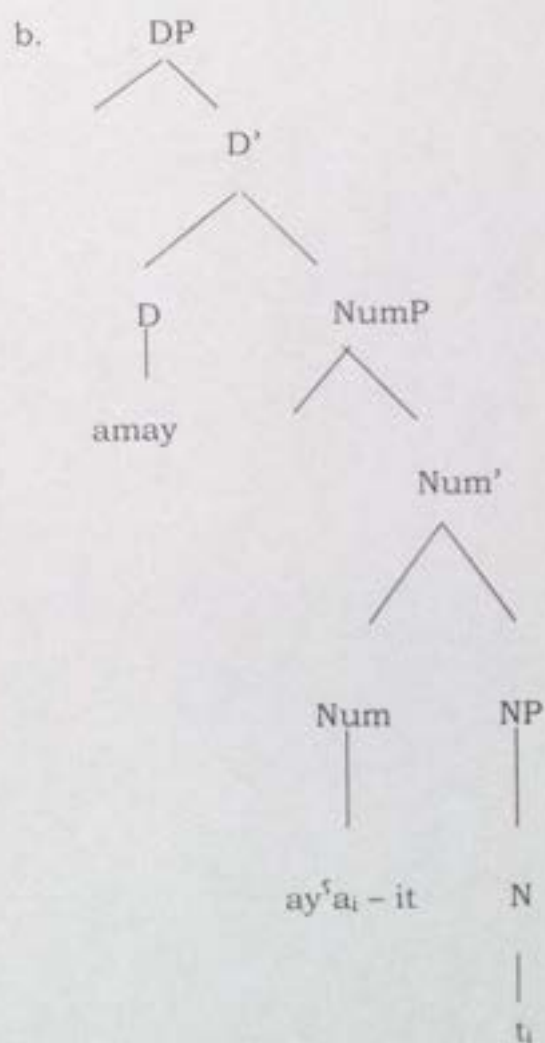
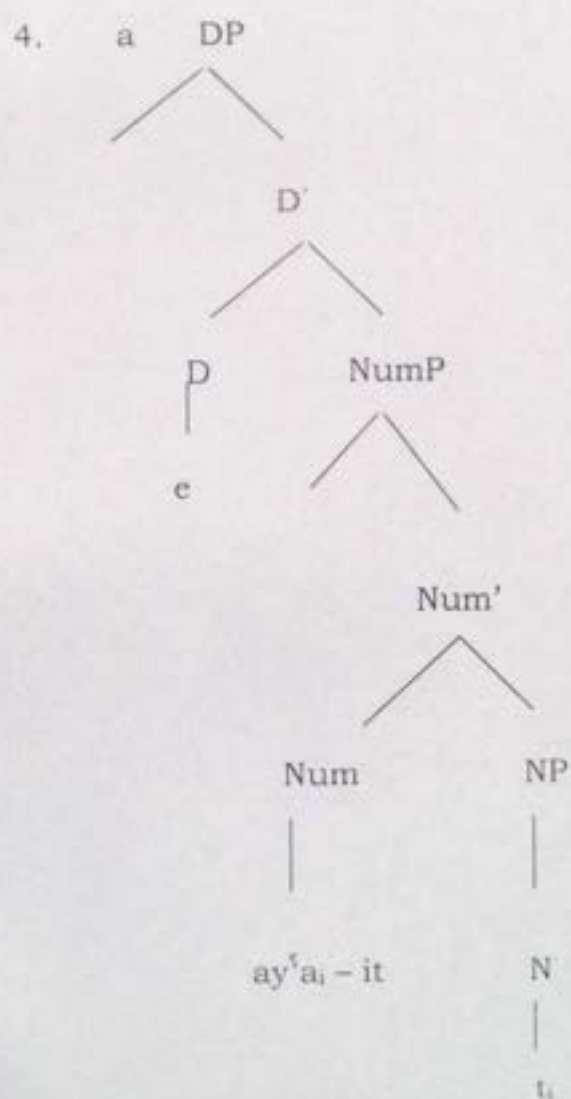
As it can be seen from 1(a), the noun kare 'dog' is not marked for indefiniteness whereas in 1(b) the noun is marked for definiteness with the article /amay/ 'the'. Therefore, the derivation of structures like 1(a) and 1(b) would be as in 2 (a) and 2(b), respectively.



As we can see from 2(a), the indefinite noun /kare/ 'dog/a dog' is a complement of a null indefinite article. Thus, it can be assumed that in Saho indefinite constructions, the head noun always remains in situ, i.e. the head noun moves to D<sup>0</sup> covertly to check its indefiniteness feature. On the other hand, in 2(b), though the structure has overtly realized definite marker, no overt movement takes place to the head position by the head noun, because the definite article already occupies the position. And the derivation becomes convergent without the operation.

On the other hand, some linguists have proposed that there are additional functional projections which are located between the DP and the NP layers. These projections could be headed by agreement features, such as number, gender and so on. In particular, Ritter (1991) cited in Bernstein (2001:554) proposed a functional phrase (number phrase) which is the complement of D in Modern Hebrew. According to her, in a language like Hebrew, the noun (N) must raise to the functional head, NumP, intervening between N and D and check its number feature. Following Ritter's (1991) argument let's see how a number phrase is derived in Saho. Consider the structures in 3(a) and 3(b) and their representations in 4(a) and 4(b).

3. a. ay<sup>5</sup> -it  
child-PL  
'Children'
- b. amay ay<sup>5</sup>-it  
Def child-PL  
'The children'



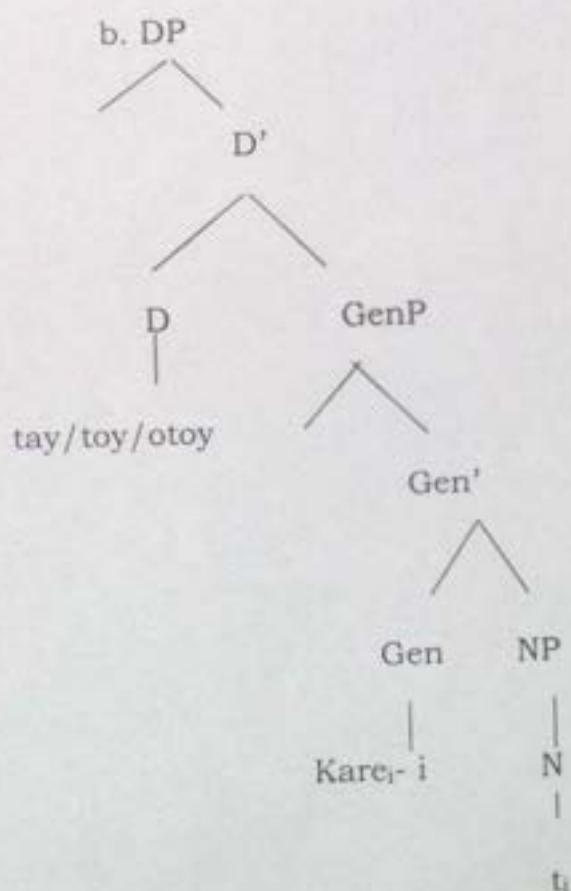
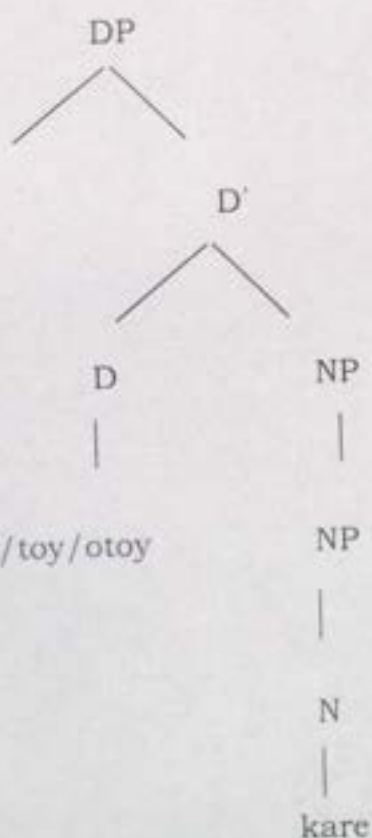


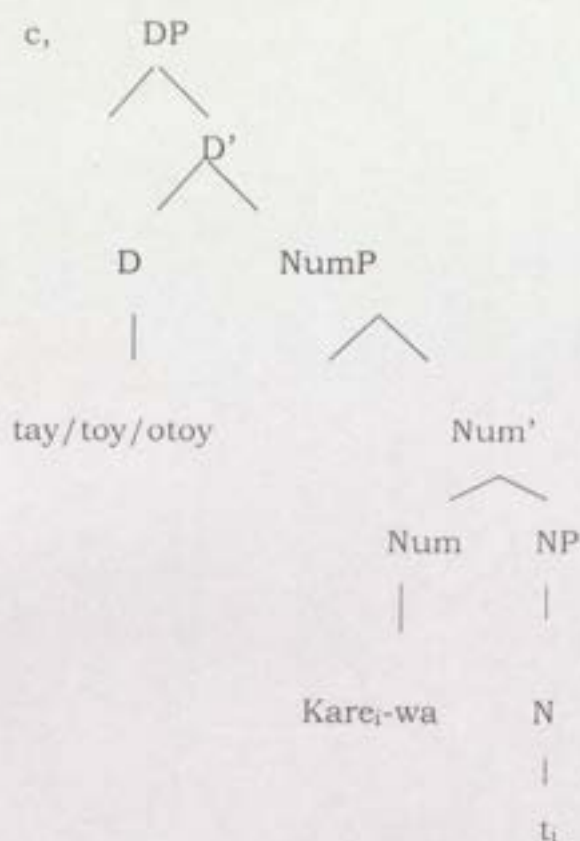


kare

Def this/that/that (further away) dog

As we can see from the examples in (5), the demonstratives do not agree with the head noun in number and gender. In addition, they appear in prenominal positions. That means demonstratives occur in the same position as the definite article. Giusti (1994, 1995) cited in Girma (2002), argues that demonstratives project at a functional position which is immediately dominated by D. On the other hand, Bernstein (2001) says that demonstrative raise to D, as in Germanic and Romance languages. The Saho facts show that demonstratives project at the same position as D. The derivations of 5(a), 5(b), and 5(c) are shown below in 6(a), 6(b), and 6(c) respectively.





In the derivation of 6(a) the nominal head remains in situ. This is due to the fact that the derivation converges without any overt movement. In 6(b) and 6(c) however, the nominal heads, /kari/ 'dog' and /karewa/ 'dogs' move and adjoin to the left of the functional heads, Gen<sup>0</sup> and Num<sup>0</sup> in order to check their gender and number features in a head to head configuration, respectively. In addition, in 6(b), as stated in the previous chapter, the suffix /-i/ is also a nominative case marker which is found with masculine noun.

### 4.3. The Derivation of Adjectives inside DP.

According to Girma (2004) various proposals are made about the structural representation of attributive adjectives within DP. Adjectives are, treated as adjunct of NP, as heads taking NP as specifier, or taking NP as

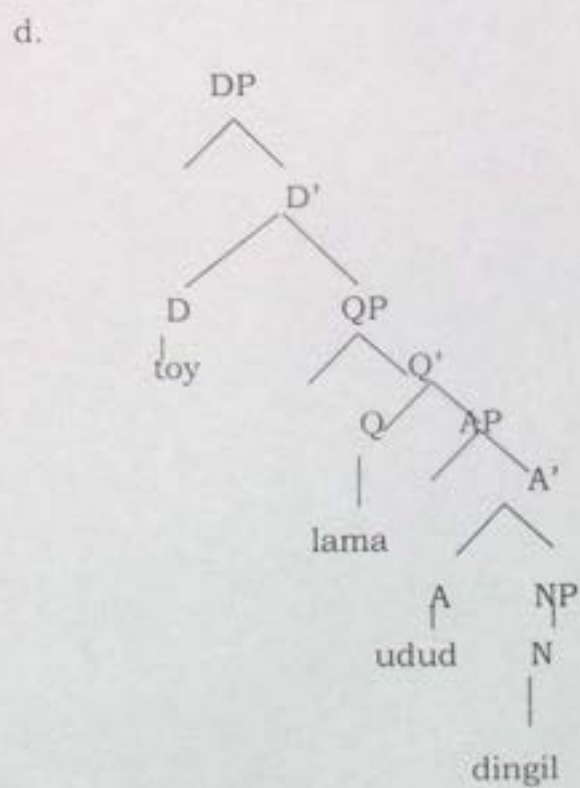
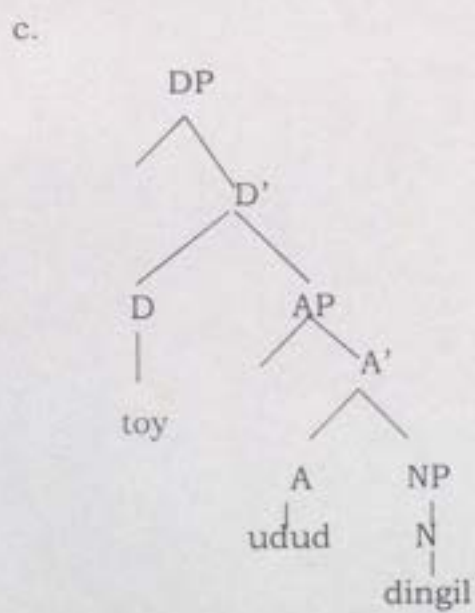
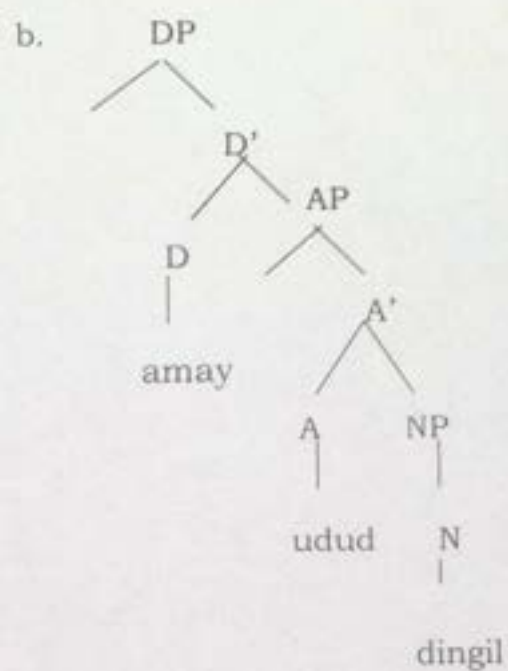
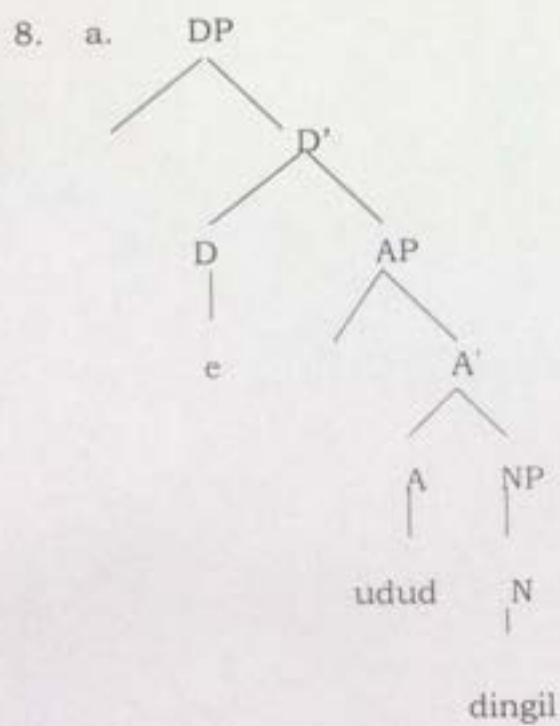


complement, and that they project at a specifier position of a functional category.

Delsing (1988, 1993), Scantelmann (1993) cited in Bernstein (2001: 550) proposed that attributive adjectives occupy a head position between N and D. Abney (1987) also considers adjectives to be heads that take NP complement.

In Saho, as discussed earlier, attributive adjectives are always prenominal and do not inflect for number or gender like demonstratives. Consider the structures in 7(a), 7(b) 7(c) and 7(d) and their derivations in 8(a), 8(b) 8(c) and 8(d) respectively.

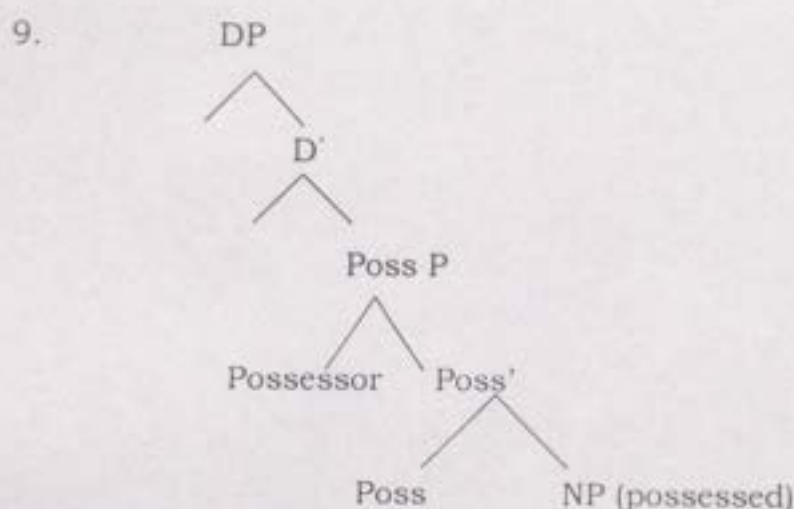
7. a. udud dingil  
short girl  
'A short girl'
- b. amay udud dingil  
Def short girl  
'The short girl'
- c. toy udud dingil  
that short girl  
'That short girl'
- d. toy lama udud dingil  
those two short girl  
'Those two short girls'



In 8 (a), 8(b), 8(c) and 8(d) the derivations converge without any movement of the head noun /dingil/ 'girl' to D<sup>0</sup> overtly; rather it remains in situ and checks its definiteness feature covertly. We can also infer that the order of constituents is that DP dominates QP, which dominates AP, and AP in turn dominates NP.

#### 4.4 The Derivation of DP with Possessive Constructions

In this section, I show the derivation of possessive constructions in Saho. As stated in Girma (2002:78), following Kayne (1994), the only possessive construction allowed by UG is the following.

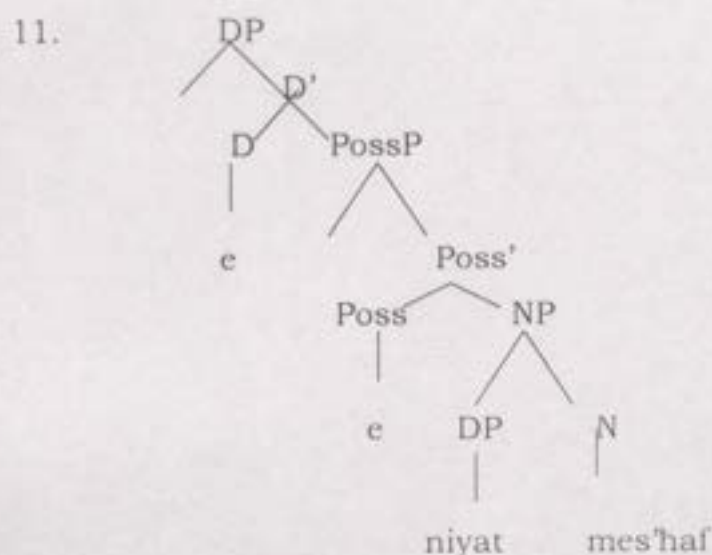


According to Abney (1987) in English the possessed head noun remains in situ and the possessor projects at the specifier of NP and moves to spec of PossP. Along line this, Siloni (1997) and Ouhalla (1998) cited in Girma (2002:81) argued that in Semitic structural genitive case is licensed not by DP, but by a functional category PossP. Following this argument, Girma (2002) proposes that all possessors are projected at the spec of NP and move to the spec of PossP to check genitive case. Therefore, following this assumption, let's see how possessive constructions are derived in Saho. Consider the following example.



10.       niyat     mes'haf  
           niyat     book  
           'Niyat's book'

As we can see in (10), in genitive possessive constructions, the possessor always occurs before the possessed noun and it does not have any possessive marker. In other words, the relation between the possessor and the possessed noun is expressed syntactically by their position. Therefore, the derivation of structures like (10) would be represented as in (11).

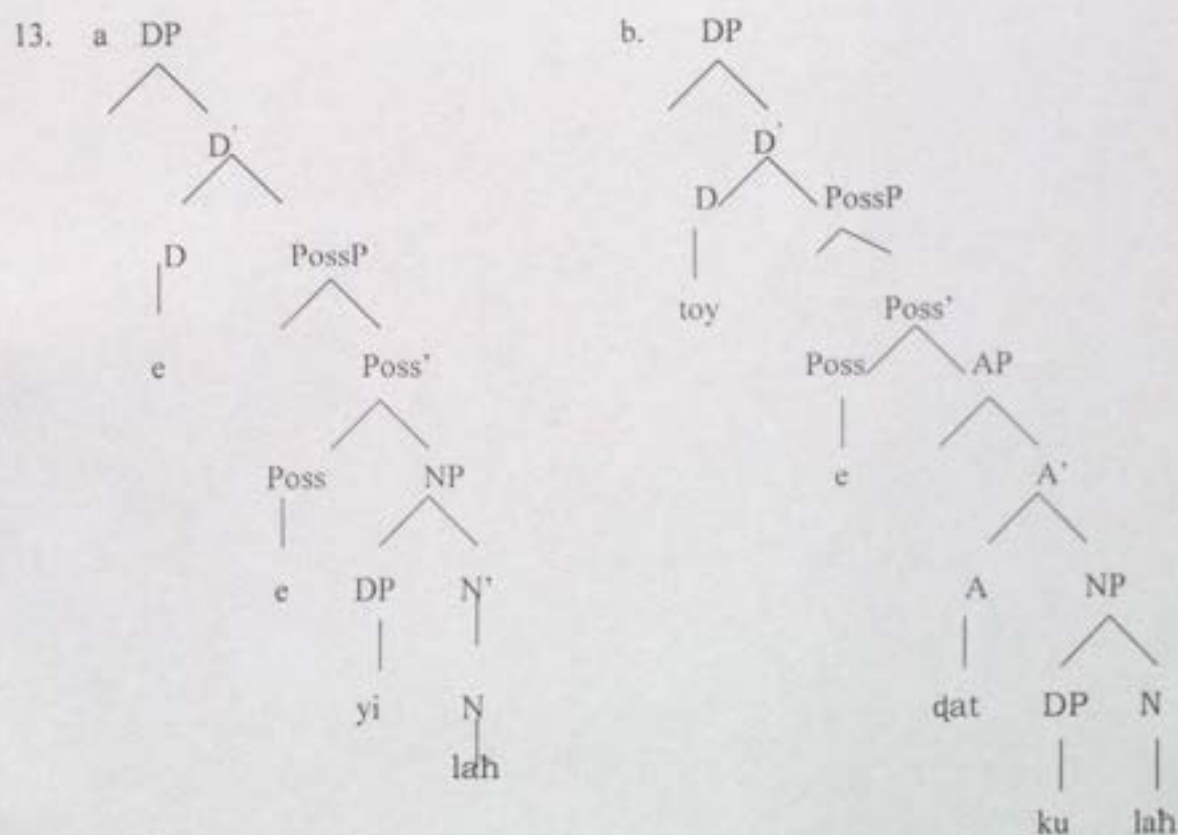


In (11) the possessor /niyat/ is assumed to project at the spec of NP. Since in this language, the head of PossP is null, the possessor need not move to spec of PossP overtly to check its genitive case.

On the other hand, as in many other languages of the world, there are different possessive pronouns which show possession in Saho. Consider (12) below.

12. a     yi     lah  
          my   goat  
          'My goat'
- b.   toy   ku   qat   lah  
          that your black goat  
          'That your black goat'

As it can be seen from (12), in Saho, possessive pronouns have the same form as possessor nouns and can occur with or without demonstratives and adjectives within DP. The derivation of the expressions above takes the form in (13) below.



In Saho, as we can see from 13(a) and 13(b), similar to possessive nouns, in possessive pronoun constructions, the head noun of possp is null. Therefore, the possessors need not move to spec of possp overtly to check their genitive case.

#### 4.5. The Derivation of Quantifiers

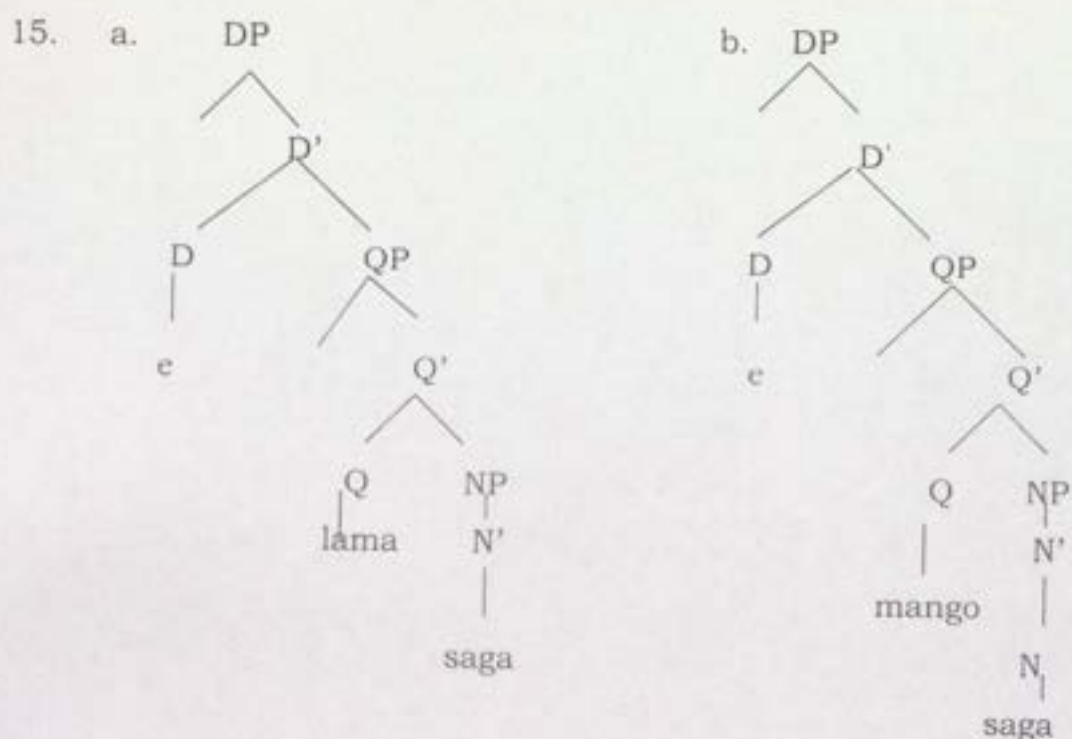
Valois (1991), Cardinaletti and Giusti (1991), Shlonsky (1991), and Szabolcsi (1994) cited in Danon (1996) proposed a "QP Hypothesis". According to this hypothesis, some quantifiers are heads that project to quantifier phrases (QPs) by selecting DP as their complements. However, according to Danon (1996) this hypothesis does not explain facts about some quantifiers which select QP rather than DP as complement.

On the other hand, as Benmamoun (1999) has shown, quantifiers occur as heads of QPs taking NPs as their complement. Following Benmamoun (1999) argument, I show that all quantifiers in Saho project as QP with NP complement. For the purpose of their syntactic representations, only numerals and indefinite quantifiers are shown here.

14. a. lama saga  
two cow  
'Two cows'
- b. mango saga  
many cow  
'Many cows'

The derivation of the expressions in 14 (a) and 14(b) above is shown in 15(a) and 15 (b) below respectively.





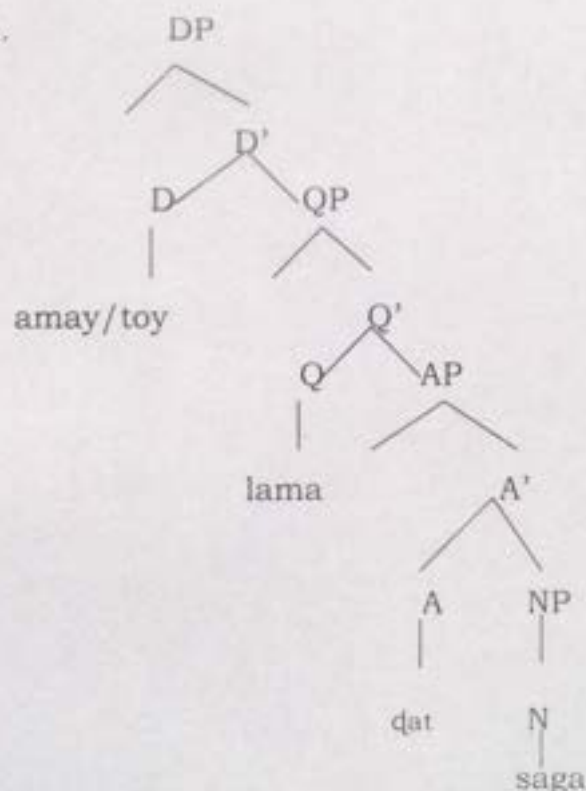
According to 15(a) and 15(b), the quantifier phrase (QP) is immediately dominated by D projection. And the quantifier selects NP as its complement. On the other hand, in this language quantifiers appear following the definite article or demonstratives and preceding possessives and/or adjectives, as in (16) below.

16. a. toy lama dat saga  
those two black cow  
'These two black cows'
- b. amay lama dat saga  
the two black cow  
'The two black cows'
- c. toy lama s'egay saga  
those two tsegay cow  
'Those two cows of Tsegay'

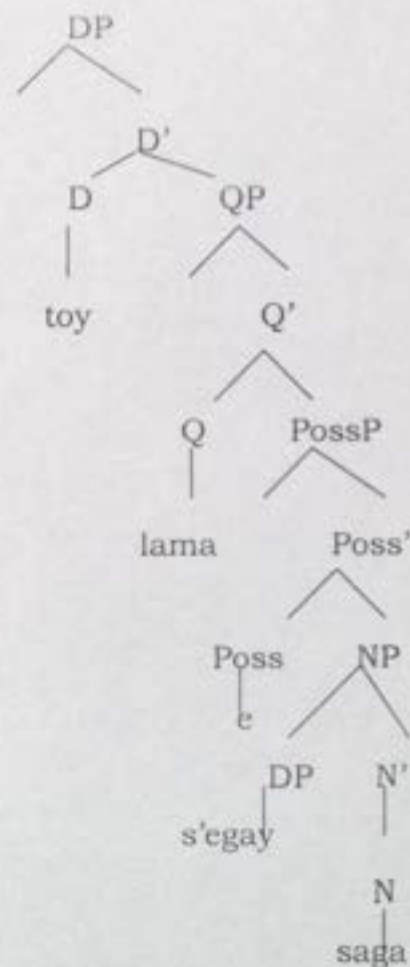
- d. toy lama dat s'egay saga  
 those tow black tsegay cow  
 'Those two black cows of Tsegay'

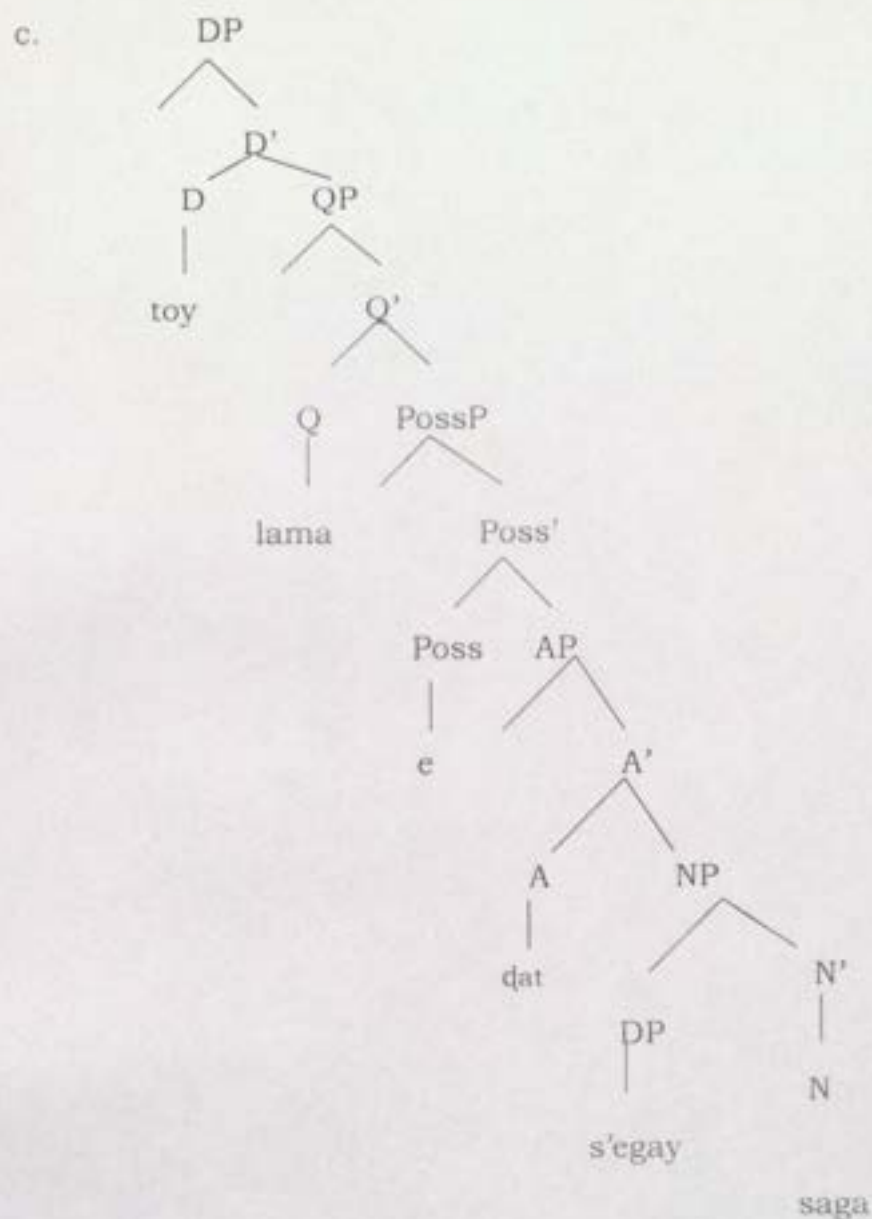
As can be seen from the examples, the numeral quantifier /lama/ 'two' occurs following the definite article, or the demonstrative and preceding the possessive and/or the adjective. The derivations of such expressions are given in (17) below.

17 a.



b.





As we can see from the derivations in (17), no movement operation takes place, every head remains in situ. This is because the derivation converges without any constituent moving. We can also infer that the order of the constituents is that DP dominates QP, which dominates PossP, PossP dominates AP and AP in turn dominates NP.



#### 4.6. The Derivation of Relative Clauses inside DP

In this section I show the structural representation of relative clauses in Saho DP. According to Kayne (1994:154) cited in Girma (2001:194), the only possible analysis allowed by the Linear Correspondence Axiom (LCA) for relative clause, is treating it as complement of determiner as in (18).

18.

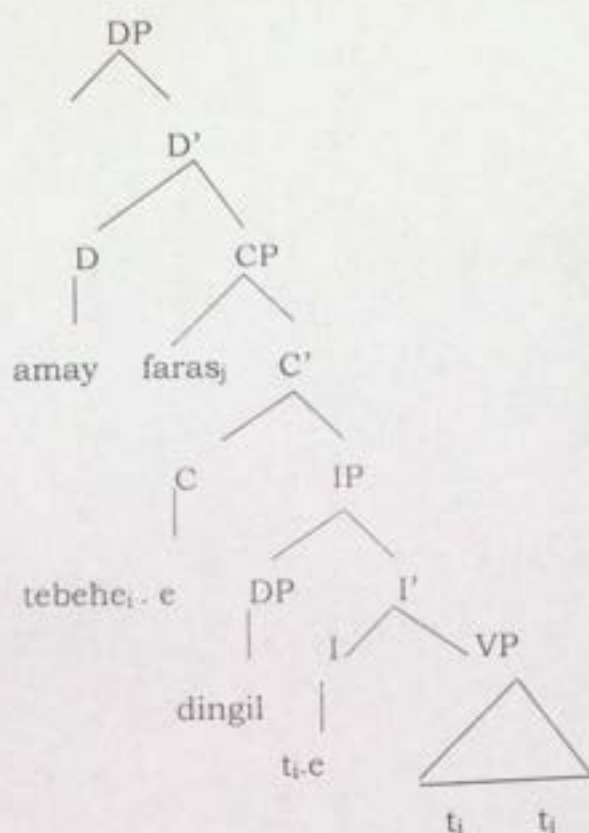


Following Kayne's (1994) analysis, the CP is the direct complement of the determiner,  $D^0$ . In Saho, expressions like (19) have the respective structure indicated below i.e. (20).

19.

amay	faras	t - e beh -e	dingil
the	horse	3FS - sell - PERF	girl
'The girl who sold a horse'			

20.



According to (20), the complement of D is CP. As it is stated before in Saho complementizer is phonetically null. Therefore, the lexical head of the clause i.e. the verb /tebehe/ 'sell' moves to C<sup>0</sup> after checking its inflectional feature at I<sup>0</sup> in head-to-head fashion. However, before this movement, the complement of V, i.e. /faras/ 'horse' moves to the spec of CP to achieve the correct linear order. In the representation in (20), the functional head of the whole clause i.e. /amay/ 'the' and the relativized noun i.e. /dingil/ remains in situ.

## CHAPTER FIVE

### CONCLUSION

In this chapter, the main issues that have been dealt with throughout the thesis are summarized. This study concerns the structure of determiner phrases in Saho. In this work, mainly two issues have been addressed: identifying the internal constituents of determiner phrases and indicating their distribution and syntactic derivations following the DP- hypothesis within the Minimalist Program.

In the first chapter, general introductory remarks about the people, the language, the objective of the study, the statement of the problem, the research methodology, and the significance of the study have been treated.

In the second chapter, a brief introduction of the Minimalist Program in general and the DP-Hypothesis in particular have been made.

In chapter three, Saho DPs have been described. It has been identified that in Saho nouns are inflected for number, gender and case. Saho makes a two way number distinction: singular and plural. Singular nouns in this language are not overtly marked whereas plural nouns are mostly marked by the morpheme /-it/ for both masculine and feminine nouns. Some nouns can also inflect for the singulative. The singulative markers are /-yta/, /-ta/, /-yto/ and /-to/.

Saho makes a two-way gender distinction: masculine and feminine. Apart from inherently gender marked nouns, the words /lab/ 'male' and /say/ 'female' are used to indicate masculine and feminine genders respectively. In this language, case is expressed morphologically and syntactically.



Especially nominative case is indicated by the inflectional suffix /-i/ whereas accusative case is unmarked morphologically.

In the second section of chapter three, the basic description of DPs has been made. It has been shown that Saho does not have visible affix to show indefiniteness whereas it uses the article /amay/ 'the' for definiteness.

The different types of Saho pronouns have been presented. They include: personal pronouns, interrogative pronouns and indefinite pronouns. In this language six different kinds of basic wh-items and five indefinite pronouns have been identified.

With regard to demonstratives, it has been pointed out that, three types of demonstratives exist in the language, which serves to specify referents.

In the third chapter, two kinds of quantifiers, i.e. definite and indefinite have been presented. The definite quantifiers serve to specify the number or quantity of head nouns and they include numeral, measure and classifier phrases. Indefinite quantifiers which modify head nouns in terms of quantity have also been discussed.

Attributive adjectives always precede the noun they modify and do not agree with the head noun in number or gender. Thus, their relation can be treated as modifiers in which they dominate the head noun.

Genitives in Saho are classified into source, purposive, locative, temporal and possessive. Possessives are expressed by a zero morpheme.

Subject, direct object, indirect object and possessive relativizations have been considered. The head noun always occurs in final position. In this language, there is no relative pronoun or affix that shows a structure is a relation clause.

In chapter four, attempt is made to show the derivations of DPs. Here, it has been shown that there is no overt movement of head nouns in the derivation of (in) definite DP. This is due to the fact that indefiniteness is not marked overtly whereas definiteness is expressed by an article. On the other hand, if head nouns show suffixes, such as for number, gender, the features are checked by head nouns under head to head movement.

In Saho, adjectives and possessives have also been considered as heads that take noun phrase as their complements.

In general, in this thesis the general descriptions and derivations of DPs with demonstratives, possessives, quantifiers, etc. have been shown. The majority of the DPs show that constituents occur in prenominal positions.

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## DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for degree in any university and that all sources of materials used for this thesis have been duly acknowledged.

Name Selmaoui Safia  
Signature Saf  
Place \_\_\_\_\_  
Date of Submission \_\_\_\_\_

This thesis has been submitted with my approval as a thesis advisor.

Name Baye Tamin  
Signature BT