THE STRUCTURE OF NOUN PHRASE IN AARI

A THESIS

PRESENTED TO

THE SCHOOL OF GRADUATE STUDIES

ADDIS ABABA UNIVERSITY

IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF MASTER

OF ARTS IN LINGUISTICS

BY

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JUNE, 1992

ADDIS ABABA

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

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ACKNOWLEDGEMENT

My heart felt thanks are due to Dr. G. Despatie, my adviser, without whose valuable advice the completion of this study would not have been possible.

I am also highly indebted to the academic staff of the Linguistics Department for their unreserved effort in explaining some problems with respect to this study.

I must express my gratitude to Asmerom G/Silassie, Mulugeta Seyoum and Wossenu Gebeyehu for their assistance while I was doing fieldwork in Jinka.

I am grateful to Tesfaye Abera, Ayalew Mitiku and Getahun Amare for providing me with valuable materials.

My acknowledgement is also due to my informants Azmachew Arfes, Fissiha Terrefe, Namsi Alka, Gebre Yintiso and Yilma Demissie.

I would like to extend my gratitude to my brothers Ergete W/Semat and Mahidere W/Semayat for their comments and encouragement.

I also express my thanks to W/t Chuchu Mamo for her patience in typing this thesis.

ABSTRACT

This study examines the structure of the Noun Phrase in Aari in the light of the X-bar theory of Jackendoff (1977) and recent developments. This approach falls within the general framework of the Extended standard theory of generative grammar.

The study identifies the lexical category of nominals that serve as a head element in an NP structure. With respect to this, two types of nominals have been investigated. These are simple and derived nominals.

Complements and specifiers form phrasal constituents with the nominal heads. Concerning the complements of nominals, three types of complements have been discovered. These are functional arguments, restrictive modifiers and non-restrictive modifiers. These complements occur at the levels of N', N'', and N''', respectively.

All the complements of the level N' occur preceding their nominal heads. On the other hand, with the exception of a few complements, all the complements of the levels N'' and N''' occur following their heads.

Regarding specifiers, two types of specifiers have been identified. These are articles and quantifiers. They branch from the N''' and N'' nodes, respectively, In the projection line of nominal heads, both the class of articles and that of quantifiers occur in a peripheral position in relation to the complements.

LIST OF ABBREVIATIONS

acc	=	accusative case
Adp	=	adpositional phrase
Ap	=	adjectival phrase
Art	=	article
det	=	determiner
F	=	Feminine
Imp-f	=	imperfective
Loc	=	locative
M	=	Masculine
N	=	Noun
neg	=	negative marker
NP	=	noun phrase
P	=	Plural
Pas	=	Passive marker
Pf	=	Perfective
Poss.	=	Possessive
Purp.	=	Purposive
Q	=	Quantifier
red	=	Reduplicate
Rel	=	Relativizer
R.R.C	=	restrictive relative clause
S	=	sentence
Sb.C	=	subordinate clause
Sglt.	=	Singulative
Sour	=	Source
Spec	=	Specifier

Temp	=	Temporal
1s	=	First person, common, singular
1P	=	First person, common, plural
2s	=	second person singular
2p	=	second person plural
3sm.	=	third person singular, masculine
3sf	=	third person singular feminine
3p	=	third person plural

CHAPTER ONE

1. INTRODUCTION

1.1 THE AARI PEOPLE AND THEIR LANGUAGE

The Aari people live in the South Omo Administrative Region which is at the extreme south west of Ethiopia.

As Bender's (1989) map indicates, the Aari speech community is found in between different speech communities. To the North, it borders with the speech communities of Basketo and Gofa. To the East of it, we find the speech communities of Gamo and Male. Banna is also found to the south of it. On the other hand, the Mursi people live in the west of Aari. Moreover, it is bordering with the Dime speech community to the North West.

According to Bender (1975:235) there are ten geographical tribal divisions within the Aari area. These are Gallila, Gozza, Bargedda, Ubamer, Arggene, Sido, Bio, Shangama, Kure and Baka.

Regarding the number of the Aari people, different sources suggest variant figures. However, according to the recent article of Bender (1989:2) "There were about 32,000 speakers in about 1970: with natural increase the number should be close to 50,000 in 1989."

Unlike their pastoralist neighbours most of the Aari people are farmers. But there are also a few Aaris who run

the local mill and handicrafts. These too practise farming as their secondary job (Ford, 1985:19).

The speech community of Aari call themselves Aari, whereas their language " Aari-af" which literally means mouth of Aari. Different speech communities also refer to their language by different names. The names are Ari, Are, Aro, Bako, Bio and Shanqillinnya (Bender, 1989:2).

In this work, the name "Aari" is used to designate the people as well as their language. It is chosen for two reasons: (i) To keep consistency. In most of the previous works it has been used in the same manner. (ii) It is easily interpreted.

The Aari language, together with the languages called Hamer and Dime, forms the South Omotic or Aroid group. Furthermore, as Ford (1985:1) suggests within the language in question there are ten dialects. The ten dialects are Bako, Biyo, Galilla, Laydo, Seyki, Shangama, Sido, Wubamer, Zeddo and Kure. However, "The main dialect division is between Galilla (including Gozza and Zifti) in the North and Ubamer in the South, Separated by the Bargedda valley" (Bender, 1989:2).

Nevertheless, according to Ford's (1985:18) investigation there is a high degree of mutual understanding among the people of these dialect areas. But Sido is

the common denominator for all the dialects of Aari. In other words, Sido is the dialect which can readily be understood by the majority of the people. Fortunately, the study data base of the present study is this dialect.

The phonemic inventory of consonants and vowels is presented below adopted from Ayalew Mitiku (1991:56 & 66).

A Phonemic Chart of the Aari Consonants

		Bilabial	Alveolar	Palatal	Velar	Uvular	Glottal
Stops	vd	b	d		g		
	vl		t		k	q	ʔ
Implosive		B	D				
Fricatives	vd		z	ʒ			
	vl	ɸ	s	ʃ			
Affricates	vd		d^z				
	vl		t^s	ʧ			
Glottalized	vl		s'	ʧ'			
Nasals		m	n				
Liquids	Lat.		l				
	Trill		r				
Semi-vowels		W		Y			

Phonemic Chart of Vowles

	Front		Central			Back	
	Short	long	short	long	breathy	short	long
High	i	i:				u	u:
mid	e	e:				o	o:
low			a	a:	a̤ a̤:		

1.2. Previous Linguistic Investigations

The grammar of the Aari language, like the grammer of the other languages of the Aroid group, is not well known. However, some attempts have been made to study the language. This includes the works of Cerulli (1956), Leslau (1958), Greenberg (1966), Fleming (1973, 1976), Bender (1975, 1989), Alemayehu (1981), Bizuwork (1983), Ayalew (1984, 1991), Ford (1985), Temam (1986), Daniel (1987, 1991), Namsi (1988), Wedekind (1989), and Hayward (1990).

The works of these investigators can be classified into two groups. These are (i) the works that mention the Aari language either in comparison with other languages or make some remarks about it. (ii) The works that focus only on the language in question.

The first group comprises the works of Cerulli (1956), Leslau (1958), Greenberg (1966), Fleming (1973 & 1976), Bender (1975, 1989), Alemayehu (1981), Bizuwork (1983), Ayalew (1984), Ford (1985), Namsi (1988), and Wedekind (1989). Although these works do not concentrate mainly on the Aari language, they may contribute to our knowledge of it.

On the other hand, the second group consists of the works of Temam (1986), Daniel (1987, 1991), Hayward (1990) and Ayalew (1991). Even though these linguistic investigations attempt to study the Aari language, with the exception of some sections of Hayward's work, the rest do not try to investigate the syntax of it. Both Temam's and Ayalew's works attempt to study the phonology of Aari. On the other hand, Daniel's two works deal with the verb morphology of Aari. Since these works are not related with the present study, it is not important to review them in detail here.

Unlike these works, Hayward's work which is entitled "Notes on the Aari Language" as Hayward himself (1990:426) states, tries to study the phonetics, phonology and grammar of the language. In his first section, Hayward attempts to deal with the consonant and vowel system of the language. This is followed by the explanation of the nominal inflection of Aari. This includes the inflection of nouns for definiteness, case, number and gender.

Hayward claims that the definiteness is the most important, since nouns cannot be marked for any of these grammatical categories unless they are marked for definiteness. He also observes that the suffixes '-in (a/e)ɲ - n (a/e)' and '-m' signify definiteness and accusative case, respectively.

Regarding number, he believes that Aari does not mark nouns for plural number, rather it marks nouns for singulative or individuated category by the suffix '-S'. With respect to gender, he states that nouns which are inherently [+ Female] and singular in number can only be marked by the suffix '-ta'.

Hayward examines also the genitive construction of the language. Concerning this, he proposes that in the genitive construction the genitive NP occurs preceding the head noun. In such construction the genitive marker '-t(a/e)' appears on the final element of the genitive NP.

In the same article, he presents personal, deictic, possessive and interrogative pronouns of the language. In addition to this, he tries to observe the forms as well as the occurrence place of possessive determiners in relation to their heads. After he has identified deictic and interrogative determiners, he also examines the linear order relationship that they have with their respective heads. Moreover, Hayward shortly treats the

function and the precedence order that an adjective and a numeral each may have in relation to its head item.

He also briefly discusses the formation of relatives as well as the occurrence place that relative clauses may have in relation to their head elements. According to him, even though there seem to be various ways of forming relatives, the most frequently encountered type involves the suffixation of '-inda (a)' to the tense /aspect/ polarity formative. Regarding the occurrence place of the relative clauses, he remarks that they often occur following their heads, though they may also appear preceding them.

In addition to this, Hayward tries to investigate the types as well as the forms of subordinate clauses of the language. As far as this is concerned, he identifies a few types of subordinate clauses such as conditional and temporal clauses. He also examines the formation of infinitives or verbal nouns and their grammatical function. In respect to this, he claims that the formation of a regular infinitive involves the suffixation of an affix '-inti' to the stem. Such derived verbal nouns can function as subjects and objects in clausal structures.

In general, although Hayward's investigation with respect to the syntax of Aari is brief, the present study has benefited a lot from it.

1.3 The Present Study

As it has been noted from the discussions of the preceding section, Aari is among the least studied languages of the south Omotic or the Aroid group. The linguistic investigations that have been made in the language, in most cases, are either comparative or descriptive or else limited to the phonological and morphological aspects of the language. The syntactic component of its grammar, particularly the structure of the noun phrase, has almost not been studied.

Unlike the previous studies the present study limits its scope to the study of the structure of the noun phrase in Aari. By doing this, the study assumes to fulfil the following goals:

(i) It may serve as a base for those who study further the structure of the noun phrase in the language.

(ii) It can be used as data for the comparative study of Omotic, specifically for the Aroid languages.

(iii) It may also serve for typological classification of languages.

(iv) The study may contribute its share to the study of universal grammar.

The data for the study is elicited from the native speakers of Aari who are mainly of the Sido dialect that

is spoken in the region called Metser. The researcher has consulted the native speakers of the language by being in the area for several months.

1.4. Theoretical Framework

The theory that is adopted for this study is known as the Extended Standard Theory of generative grammar. This theory came out in the works of Chomsky (1970, 1972, 1973, 1976) and Emonds (1976). It is a modification of the Standard Theory of the Aspects model (1965).

As far as the Extended Standard Theory (E.S.T) is concerned, as in the case of the Standard Theory of Aspects, a grammar of a language consists of various sub-components of the rule system. These are:

(i) Lexicon

(ii) Syntax

  (a) categori al component

  (b) transformational component

(iii) PF (Phonetic Form)

(iv) LF (Logical Form) (Chomsky, 1986:5).

The lexicon and the categori al components together form the base component. The rules of the base component generate deep structures. On the other hand, the base component together with the transformational component form the syntactic component. The rules of the syntactic

component (i.e. rules of (i) and (ii a & b) generate surface structures. Such surface structures are assigned phonetic and semantic representations by the rules of PF and LF, respectively.

Since the focus of this study is the NP structure, attention shall be drawn to the syntactic component. As mentioned previously, the syntactic component comprises the lexicon, the transformational and the categori al components.

I. Lexicon: This component is the repository of all the words or formatives of a language. It contains a lexical entry for each individual formative. "The lexical entry for any given item should contain all and only such information as is idiosyncractic to the item concerned" (Radford, 1988:350). In other words, lexical entries give a description of each word in a language about its phonological, semantic, and syntactic idiosyncratic properties.

In addition to lexical entries, the lexicon contains a set of redundancy rules which include word formation rules, morpheme structure rules and rules of allomorphy (Jackendoff, 1977:2-3). As Williams (1986:36) states "lexical redundancy rules state general relationships among sets of words."

The lexicon also comprises lexical insertion rules with the help of which a given lexical item that belongs

to a specific lexical category such as N, V, P, etc. as opposed to a maximal phrasal categories like NP, VP, PP, etc. can be inserted into a corresponding lexical symbol in a phrase marker. For example, a verb can be inserted under V, and a noun under N and so on (Radford, 1981:41).

II. The transformational component:- The transformational component consists of a set of transformational rules whose main role is to map the deep structure, which is formed by the rules of the base component, into surface structure. By the time of the Standard Theory of Aspects, the rules of this component were not limited to the derivation of syntactic categories, they were used to derive lexical items as well. However, in the EST, the role of the transformational rules is restricted only to the syntactic categories. In the EST, it is not the role of the transformational rules which is constrained, but the rules themselves are reduced to a single rule "Move α ".

III. The Categorial Component:- The categorial component comprises a set of context-free phrase structure rules. These rules have the role of describing the hierarchical relationship of the syntactic categories of a language. They also determine the linear order of the immediate syntactic units of each phrasal category. This is to say that:

> The rules of the categorial component carry out two quite separate functions. They define the system of grammatical relations, and they determine the ordering of elements in deep structures (Chomsky, 1965:123).

The categorial rules generate a set of phrase markers which have S or $\bar{S}$ maximal syntactic category as their initial symbol. Their process of generating phrase markers continues until a terminal node is reached, that is, a point where a dummy or a terminal lexical symbol can be fixed.

However, the rules of the categorial component were too restrictive by the time of the Standard Theory of Aspects, since they did not allow intermediate categories. They rather generated only two syntactic categories: the minimal lexical categories such as V, A, N, etc. and the maximal syntactic categories like VP, AP, NP, etc. They did not allow syntactic categories between the lexical and maximal phrasal categories. Concerning this Radford (1981:91) says:

> ... there are no intermediate categories larger than the word but smaller than the phrase: eg. there is no intermediate category larger than the noun but smaller than the noun phrase, within the system of phrase structure syntax, any nominal constituent must either be an N, or an NP.[1]

The phrase structure rules of the Standard Theory were not constrained in some aspects. The format of these rules allows the formulation of many rules that could generate phrases which do not show categorial relationship with the elements from which they are derived. For instance:

a) NP ——→ A VP

b) V ——→ PP AP

c) VP ——→ NP V V AP V PP V

d) PP ——→ NP AP VP

e) NP ——→ AP (Williams, 1986:40-41).

The $\bar{X}$ - theory, which first appeared in the works of Chomsky (1970) and was later developed in Emonds (1976) and Jackendoff (1977) was meant to solve such deficiencies.

According to Jackendoff (1977:29-30) the $\bar{X}$ - theory has three main claims. The first claim concerns the use of a set of syntactic distinctive features that can define the lexical categories of human languages. Following such features, the four basic lexical categories of a language can be reduced to $[\pm N]$ and $[\pm V]$ categories.

As far as the second claim is concerned, every lexical category 'X' defines a set of phrasal categories X', X'', ... X^n. The maximal phrasal projection of 'X' is related to its head item by the rules of phrase structure schema (2.1) "$X^n \longrightarrow X^{n-1}$ ..." This rule schema is also refined as (2.2) "$X^n \longrightarrow (C_1) \ldots (C_j) -- X^{n-1} -- (C_{j+1}) \ldots (C_k)$, where $1 \leq n \leq 3$, and for all C_i, either $C_i = Y'''$ for some lexical category Y, or C_i is a specified grammatical formative" (Jackendoff, 1977:36).

The third claim of the $\bar{X}$ - theory is that the rules of grammar can be expressed by means of syntactic distinctive features and the prime notation in order to make generalizations across categories.

According to the second claim, the phrase structure rules of the $\bar{X}$ - theory are not restricted in the sense of phrasal categories that they allow in the projection line of lexical heads. They permit the occurrence of intermediate phrasal categories between the maximal phrasal category and the lexical head from which it is projected. This is because each lexical category of a language has the potential of phrasal expansion up to three bar levels.[2]

Each phrasal category is also endocentric (Hoekstra, 1984:24). The head element and the phrasal category that contains it have a categorial identity relationship. Accordingly, the head of X^n cannot be Y^{n-1}. They have also the dominance and precedence relationships. Concerning the notion of precedence and dominance relationships of constituents in a phrasal category, Radford (1981:83) says:

> If a node X dominates two nodes Y and Z, and if Y precedes Z, then any node dominated by y must precede both Z and any node dominated by Z.

According to the rule schema (2 - 1), which is designed for English phrase structure, the head of a phrasal category is a constituent which is one bar level lower than the phrasal category that immediately dominates. With respect to the rule schema (2.2) maximal phrasal categories may appear as specifiers and complements.

The specifiers can occur in peripheral positions in relation to the complements of lexical heads (Hockstra, 1984:24). The terms complement and specifier shall be treated in chapters two and three, respectively.

CHAPTER TWO

2. NOUN PHRASE

In this Chapter, the structure of noun phrase in Aari shall be discussed. Before that it seems essential to have a definition of the term 'noun phrase.' "A group of words is called a noun phrase when the head word (main word) is a noun or pronoun" (Bornstein, 1977:55). According to this statement a 'noun phrase' is a constituent that has either a noun or pronoun as its head. Stockwell (1977:55) also defines this term as follows:

> Noun phrases are clusters of words in surface strings of which the nuclei are nouns. In their cognitive functions, noun phrases can be independently referring expressions. In their tactical functions, they are subjects and objects of predicators.

Stockwell defines the term in terms of its structure and function. According to the definition, the term "noun phrase" signifies a syntactic structure that contains a head element whose lexical category is a noun. This syntactic structure has a cognitive and a grammatical function. The first function is concerned with the noun phrase capability of designating its referent without being dependent on other syntactic units. On the other hand, its latter function is related to the role it plays either as a subject or an object of a predicate in clauses.

Andrews (1985:62) also points out that any noun

phrase has three main kinds of functions. These are semantic, pragmatic, and grammatical functions of NPs. He has further reduced the first two functions into aspects of the meaning of sentences. This function of NPs coincides with the cognitive function of Stockwell (1977:55).

In addition, Andrews regards the grammatical function of the noun phrase as aspects of sentence structure. This is related to Stockwell's tactical function of the noun phrase. According to Andrews (1985:68) the grammatical function of a noun phrase is the grammatical relationship that the noun phrase has in a given grammatical structure. In a particular grammatical structure a noun phrase may establish the grammatical relationship of subject or object.

In general, on the basis of both Stockwell's and Andrews's definitions, it is possible to state that the noun phrase in a given syntactic structure plays the role of either a subject or an object. Such noun phrases can be formed as a result of the expansion of nominal heads.

The NPs of Aari can also play the role of a subject or an object of a predicate in a clause. The structures in (1 & 2) may illustrate this issue.

((1) a) [ʔeed - in]$_{NP}$ Kay - ta^{3}

man - det. go. pf - 3S

'The man has gone.'

(b) [derti $^{V}_{C}$elmi-n]$_{NP}$ ga?$^{V}_{S}$a - ye

goat black-det. big- is

'The black goat is big.'

((2)a) noo [?eed - in - am]$_{NP}$ deys-ta

he man-det. acc. kill-pf-3S

'He has killed the man.'

b) manamal [derti $^{V}_{C}$elmi-n-am]$_{NP}$ $^{V}_{S}$en-ta

Menemal goat - black-det. acc. buy-pf-3s

'Menemal has bought the black goat.'

The NPs in (1a & b) and in (2a & b) have the grammatical function of a subject and an object respectively. In the structure of these NPs, the nominals / ?eed / 'man' and /derti/ ' goat' appear as head elements.

2.1 Nominals

Since nominals can be found as the main or head elements in NPs, it seems also important to identify the lexical category of nominals. The label, 'nominal' includes simple[4] and derived[5] nominals. Simple nominals may further be subdivided into nouns and personal pronouns.

The two types of nominals are found in Aari. All such types of nominals can occur in argument positions, such as /NPs, S/, /NP, VP/, and /NP, PP/. Consider the following structures.

(3)a) ?aksi ąą-ta
dog come-pf-3s
'(A) dog has come.'

b) noo ?aksi deys-ta
he dog kill-pf 3s
'He has killed (a) dog.'

c) Yiẑala ?aksi - kan waa-n-am ?im-se
yizalk dog- for meat-det. acc. give-pf-3s
'Yizalk gave the meat to a dog.'

In the above structures, the same underlined simple nominal / ?aksi / 'dog' occurs in the argument positions of /NP, S/,/NP, VP/ and /NP, PP/ respectively.

A Personal pronoun may also occur in the positions where the simple nominal / ?aksi / 'dog' occurs as in (4) below.

(4)a) nąą tila sen-ta
She pot buy - pf- 3s
'She has bought (a) pot.'

b) manamal ko-m gi?i - ta
Menemal her-acc beat-pf-3s
'Menemal has beaten her.'

c) manamal ko - kan qoli-n-am ?im-se
Menemal her-for sheep-det. acc. give-pf-3s
'Menemal gave the sheep to her.'

As it can be observed from the syntactic structures, the underlined personal pronoun /naa/ 'she' occurs in the argument position of /NP, S/. On the other hand, in both (4b) and (4c) structures, the same underscored pronoun /ko/ 'her' occurs in the argument positions of /NP, VP/ and /NP, PP/ respectively.

The structures in (5) below illustrate when derived nominals occur in the argument positions.

(5)a) woc$^{v\bullet}$-inti daql-ye
drink-to/drinking bad - is
'drinking is bad.'

b) noo woc$^{v\bullet}$- inti nas^{v} - nas^{v} - da
he drink-to/drinking red. like - impf - 3s
'He likes drinking.'

c) noo woc$^{v\bullet}$ inti kan aa-ta
he drink-to/drinking-for come-pf-3s
'He has come to drink.'

In (5) the underlined derived nominal /woc$^{v\bullet}$-inti/ 'to drink/drinking', like simple nominals in (3 & 4), occurs in the argument positions of /NP, S/, /NP, VP/ and /NP, PP/.

However, other categories such as adjectives and verbs cannot occur in the positions where simple and derived nominals may occur. The following illformed structures may verify this point.

(6)*(a) dees'mi daql-ye
heavy bad is

*(b) noo kay naš^{v} - naš^{v} - da
he go red - like impf-3s.

*(c) noo dees' mi kan aa - ta
he heavy-for come-pf-3s

On the basis of the occurrence place of the underscored structural units in (3), (4) and (5), it is possible to suggest that the three different forms of nominals in Aari have the same grammatical relations in the structures in which they occur.

As Radford (1981:48) states, concerning a particular category, all such nominals have the same distributions. They can therefore be classified into the same category of nominals which can be defined by the syntactic distinctive features of [+N, -V].

Nominals are one of the major lexical categories and can serve as heads of syntactic units. According to Jackendoff (1977) any lexical nominal can be expanded upto a maximal projection of three bar levels by taking either complements or specifiers. The levels are N', N'', and N'''.

The N' level is formed as a result of the expansion of the nominal head by taking a

functional argument as a complement. At this level, the functional arguments establish a sisterhood syntactic relationship with their respective nominal heads. In other words, the complements of the N' level form a close syntactic relationship with their head elements.

The N'' level expansion of nominal heads results in the formation of an intermediate phrasal categories by taking restrictive modifier complements. At this level of projection line, we may find some specifiers too. This is to be treated in the third chapter under specifiers.

The N''' level phrasal expansion is the maximal syntactic category that occurs on the projection line of nominal heads. The nominal heads can be expanded upto the N''' level by taking complements of the non-restrictive modifiers. However, we can also find specifiers at this level of projection of nominal heads. The specifiers that can appear under the N''' level will be explored in the third chapter.

2.2. The Complements of Nominals

In this section, it is attempted to examine the complements of nominals. This includes complements that can be found at the levels of N', N'', and N''' in the projection line of nominals.

However, before starting to treat the complements of nominals, it seems essential to have a definition of

the term "complement." The term "complement" is defined differently by various linguists. In Chomsky (1972:52) and Jackendoff (1977:37) the term in question is used to designate elements that occur following head items which form phrasal categories along with them.

Nevertheless, this specification of complements in terms of their linear order with respect to their head elements, has an undesirable effect. As Jackendoff (1977:37) notes, this specification is useful for languages such as English but may not be for the SOV languages such as Aari. We cannot correctly account for the complements of Aari based on this specification. As it is to be discussed in the next sections, some of the complements of nominals in Aari occur preceding their respective heads. To the opposite of this, others appear following their head elements.

Hence, if we treat the nominal complements of Aari in the light of this specification, some of the complements particularly those that appear preceding their nominal heads would not be considered as complements.

For the same reason Hoekstra (1984:24) prefers to use the term "complement" for simply designating modifiers of different kinds such as restrictive and non-restrictive elements. On the other hand, Noonan (1985:63) considers complements as predications which function as arguments of

predicates. According to him, complements will usually be given as structures that have predicates which serve them as head elements.

Radford (1988:191) also, after having made a distinction between a complement and an adjunct, states that a complement is an element which is a sister of the nominal head. Accordingly, it is more closely related to its head noun than an adjunct, that is the aunt of the head noun. Therefore, Radford regards that the complements of nominals could occur only under the N' level.

It is also believed that only maximal phrasal categories of the major lexical categories can be complements. Such complements occur between specifiers and the head of a syntactic unit at particular bar levels. According to their function complements can be either objects or modifiers.

On the basis of the preceding definitions, it seems possible to conclude that there is no uniformity among the definitions of the term "complement."

The term "complement" is employed in this study to refer to the maximal phrasal categories that occur, depending on their types, either preceding or following the nominal heads. Such complements, depending upon their semantic function, can possibly be attached to any one of the three mentioned complement places.

2.2.1 The N' level Complements

In this sub-section, we shall examine the complements of the N' level. The complements of the N' level can be divided into two main groups. They are: (i) the N' complements of simple nominals, and (ii) the N' complements of derived nominals.

2.2.1.1 The N' Complements of Simple Nominals

The complements of simple nominals at the N' level consist of genitive NPs of source and purpose. Consider the syntactic structures in (7) and (8).

(7)a) ʔas'o [[rabi - t(a)]$_{N'\ N'''}$ [goola]$_{N}$]$_{N'''}$ ʸsen-ʸse^{7}

Atso sorghum-of beer buy-pf-3s

'Atso bought beer [made] of sorghum.'

b) manamal [[waaki - t (a)]$_{N'\ N''}$ [raas'i]$_{N}$]$_{N''}$ woʸc.-ʸta

Menemal cow - of milk drink-pf-3s

'Menemal has drunk cow-milk.'

The complements of the simple nominal heads /goola/ 'beer' and /raas'i/ 'milk' in (7) are genitive NPs of sources. The genitive NP complements /rabi - t (a) /'of sorghum' and /waaki - t (a)/ 'of cow' have the semantic role of specifying the source or the material from which the referents of their respective head elements are derived.

Unlike the source genitive NP complements, the purposive genitive NP complements / waa - t (a)/ 'of meat' and /goola - t(a) / 'of beer' in (8) below, define the referents of their respective nominal heads /qoli/ 'sheep' and / rabi / 'sorgum' in terms of their purposes.

(8)a) naa [$_{N'}$ [$_{N'''}$ waa - t (a)] [$_{N}$ qoli]] šen - še
She meat - of sheep buy - pf - 3s
'She bought a sheep for meat.'

b) noo [$_{N'}$ [$_{N'''}$ goola - t (a)] [$_{N}$ rabi]] sug - ta
he beer of sorghum collect-pf-3s
'He has collected sorghum for beer.'

As it can be noticed from the examples in (7) and in (8), both the genitive NPs of source and purpose appear with a suffix / t (a) / 'of' which indicates the genitive relationship. However, such genitive NPs may define the references of their nominal heads without this suffix. The structures in (9) may illustrate this issue.

(9)a) ?as'o [$_{N'}$ [$_{N''}$ rabi] [$_{N}$ gool]] šen - še
Atso sorghum-of beer buy-pf-3s
'Atso bought beer [made] of sorghum.'

b) manamal [$_{N'}$ [$_{N'''}$ waaki] [$_{N}$ raas'] wečˑ - ta
Menemal cow-of milk drink-pf-3s
'Menemal has drunk cow-milk.'

c) noo [[goola]$_{N'''}$ [rabi]$_{N}$]$_{N'}$ sug - ta

he beer-of sorghum collect-pf-3s

'He has collected sorghum for beer.'

In (9) the nominal heads of the genitive NPs of source and purpose appear by deleting their stem final vowel sounds. If they appear with their stem final vowel sounds, the well-formed structures become illformed as in (10) below.

(10)*a) ?as'o [[rabi]$_{N'''}$ [goola]$_{N}$]$_{N'}$ šen - še

Atso sorghum-of beer buy-pf-3s

*b) manamal [[waaki]$_{N'''}$ [raas'i]$_{N}$]$_{N'}$ woc - ta

Menemal cow-of milk drink-pf-3s

*c) noo [[goola]$_{N'''}$ [rabi]$_{N}$]$_{N'}$ sug-ta

he beer-of sorghum collect-pf-3s

The wellformedness and the illformedness of structures in (9) and (10) respectively, suggest that if nominal heads are defined by genitive NPs of source and purpose that do not contain the suffix / t (a)/ 'of', they will not appear with their stem final vowel sounds.

As one can also observe from the paradigms in (7), (8) and (9) above, both the source and purpose

genitive NP complements modify their respective simple nominal heads by occurring in the immediately preceding position.

Reversing of their precedence relationship with their respective nominal heads is not possible without the structures being ungrammatical. The illformed structures in (11) below may verify this issue.

(11)*a) Manamal [[raas'i]$_{N'}$ [waaki-t(a)]$_{N'''}$]$_{N'''}$ woc^{v} - ta
Menemal milk cow-of drink-pf-3s

*b) noo [[rabi]$_{N'}$ [goola - t (a)]$_{N'''}$]$_{N'''}$ sug - ta
he sorghum beer - of collect-pf-3s

Based on the grammatical and ungrammatical structures shown in (7-8) and (11) respectively, it is possible to propose that the genitive NPs of purpose and source of Aari occur in the initial position of their nominal heads.

This situation supports Greenberg's (1963:78) Universal 2. As far as Universal 2 is concerned, in "... languages with prepositions, the genitive almost always follows the governing noun while in languages with post-positions it almost always precedes" (Ibid). Based on the preceding discussion,

the co-occurence linear order relationship of the genitive NPs of purpose and source with their nominal heads in Aari is an example of the latter type.

In Aari such genitive NP complements have a close syntactic relationship with their respective simple nominal heads that form the minimal phrasal category along with them. As a consequence of this, in their co-occurrence linear order relationship, the purposive and source genitive NP complements appear immediately preceding their nominal heads.

Hence, the appearance of some external elements between such genitive NP complements and their nominal heads, leads the structures to be ungrammatical. This can be noted from the following illformed structures.

(12)*a) ?as'o [N' [N'' rabi - t (a)] [AP s'aami] [N goola]] [V sen-se]
Atso sorghum-of white beer buy-pf-3s

*b) noo [N' [N'' gaci - t(a)] [AP laqmi] [N balsi]] [V tat-ta]
he teff - of nice injera bring-pf-3s

However, these illformed structures can be wellformed, when the genitive case marker /-t(a)/ 'of' appears with the following adjectives. This can be shown by the grammatical structures in (13) below.

(13) a) ʔas'o [N' [N''' rabi s'aami-t (a)_] [N goola_]_] ʸsen-ʸse

Atso sorghum white-of beer buy-pf-3s

'Atso bought beer (made) of white sorghum.'

b) noo [N' [N''' gaǰi laqmi - t(a)_] [N balǰi_]_] tat - ta

he teff nice-of injera bring-pf-3s

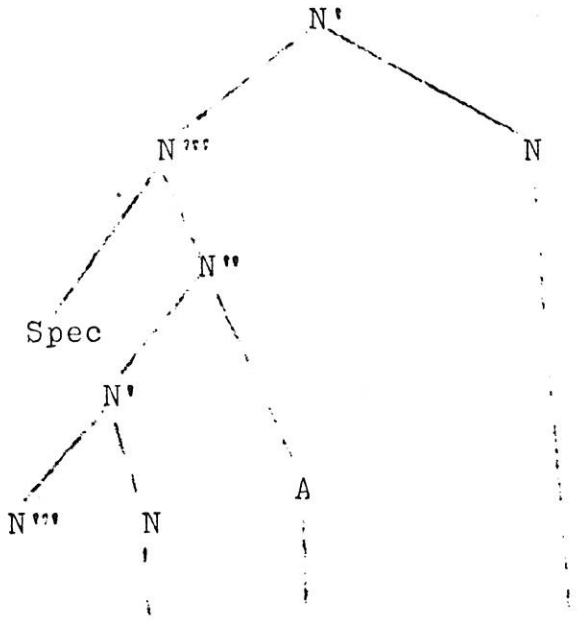
'He has brought injera [made_] of nice teff.'

The well-formedness of the structures in (13) above, cannot be taken as a falsifying evidence for the idea that the occurrence of an external element between the genitive NP complements and their nominal heads causes the structure to be illformed. This is because the adjectives in the structures cannot be regarded as external elements that intrude between the genitive NP complements and their nominal heads.

The adjectives in syntactic structures in (13) are the constituents of the genitive NPs that serve as complements of the simple nominal heads. The structure of genitive NPs may consist of nominals adjectives, determiners, etc. (Hawkins, 1980:208).

Hence, the adjectives in structures in (13) are base generated elements. Their syntactic hierarchical relationship in the given structures may be illustrated by the tree diagram in (14).

(14)



'Beer / made_/ of white sorghum.'

The tree diagram illustrates that the adjective /S'aami-t(a)/ 'of white' is found under the N'' level, in the projection line of the nominal head /rabi/'sorghum'. It forms an aunt syntactic relationship with the nominal head. In other words, the nominal head /rabi/ 'sorghum' forms an intermediate phrasal category N'' by taking this adjective as its complement. This intermediate phrasal category is dominated by the maximal phrasal category N'''. The N''' node is found in the projection line of the nominal head /rabi/.

The maximal phrasal category N''', that is the NP occurring in the immediately preceding position establishes a strict sisterhood relationship with the N node. This N node is the one on which the noun /goola/ 'beer' is fixed.

Bearing in mind the preceding explanation, the adjective /S'aami t(a)/ 'of white' in (14) tree diagram is not an independent structural unit. This can be supported by using the syntactic device of gapping. Let us compare the following structures.

(15) a) noo [[rabi S'aami - t(a)_] [goola_]_] ^{V}Sen-^{V}Se
N' N''' N

he sorghum white-of beer buy-pf-3s

'He bought beer [made_] of white sorghum.'

b) nąą [[rabi S'aami - t (a)_] [goola_]_] ^{V}Sen-ki
N' N''' N

She sorghum - white-of beer buy-neg-pf-3s

'She did not buy beer [made_] of white sorghum.'

c) noo [[rabi S'aami-t(a)_] [goola_]_] ^{V}sen-ta
N' N''' N

he sorghum-white-of beer buy-pf-3s

nąą gina [-_] ^{V}Sen - ki
N'

She but buy-neg-pf-3s

'He bought beer [made_] of white sorghum, but she did not buy any.'

By comparing (15) a and b with (15c), we can see that the adjective /S'aami - t (a) / 'of white' is omitted together with the elements that are found under N' level. The elements of N' include the nominal head /goola/ 'beer' and its genitive NP complements that contains the adjective /S'aami - t(a)/'of white'.

This suggests that the adjective is not an independent unit which is separated from the genitive NP, because if it had been an independent unit, it would not have been omitted along with the elements of the N' level.

The question now would be concerning the illformedness of the structures in (12).

We can account for this in terms of the occurrence relations between the adjectives /S'aami/ 'white' and /laqmi/ 'nice' and the genitive complements of simple nominal heads. This is because the ungrammatical structures in (12) will be converted into grammatical ones as these adjectives occur following the nominal heads as in the following example.

(16)a) ʔas'o [[[rabi - t (a)_] [ɠoola_]_] [s'aami_]_]
N'' N' N''' N AP
Atso sorghum-of beer white
ʸSen-ʸSe
buy-pf-3s

'Atso bought white beer [made_] of sorghum.'

b) noo [[[gaʸči-t(a)_] [balšiʸ_]] [laqmi_] _] tat-ta
N'' N'N''' teff- of N injera AP nice bring-pf-3S

'He has brought nice injera [made_] of teff.'

Based on the grammatical and ungrammatical structures in (16) and (12) respectively, we can suggest that the adjectives /S'aami/ 'white' and /laqmi/ 'nice', which appear in structures in (12) are independent structural units.

Accordingly, their occurrence between the genitive NP complements and their nominal heads in (12) leads to ungrammaticality. This inturn suggests that the close syntactic relationship between the genitive NP complements and their nominal heads does not allow the intrusion of external units.

Hence, the adjectives in (13) and (16) do not have the same grammatical functions. The adjectives in (13) serve as complements for the genitive NP that occurrs under the N' level. On the other hand, the adjectives in (16) function as complements of the nominals rather than the genitives. (see also the tree diagram (26).

Due to these grammatical functional differences of the adjectives, the sentences in (13) and (16) do not have identical meanings.

We have said that the genitive NPs of purpose and source occur under the N' level. The proof for this is again the process of gapping. Let us compare the syntactic structures in (17)below.

(17) a) $[_{N''}\,[_{N'}\,[_{N'''}$ goosi-t(a)$]$ $[_{N}$ gool-ə$]$ $]$ $[_{AP}$ laʕmi-n$]$ maq-ar-ta

barley-of beer nice-det finish-pas-pf-3s

$[_{N''}\,[_{N'}\,[_{N'''}$ goosi-t(a)$]$ $[_{N}$ goola$]$ $]$ $[_{AP}$ daʕl-in$]$ gina maq-ar-ki

barley - of beer bad-det but-finis-pas-neg-pf-3s

'The nice beer [made] of barley has been finished, but the bad beer [made] of barley has not been finished.'

(b) $[_{N'}\,[_{\bar{N}}\,[_{N'''}$ goosi-t(a)] [$_{\bar{N}}$ goola]] [$_{AP}$ laqmi-n] maq-ar-ta [$_{N'}$]

barley-of beer nice-de finish-pas-pf-3s

[daql-in] gina maq - ar - ki

bad-det. but finish-pas-neg-pf-3s

'The nice beer [made] of barley has been finished, but the bad one has not been finished.'

As it can be observed from the structures above, the two identical genitive NP complements /goosi-t(a)/ 'of barley' which occur in (17a), the second one is omitted along with its simple nominal head in (17b). On the other hand, the adjective /daql-in/ 'the bad' remains in its place, without this causing the structure to be illformed.

This suggests that the genitive NPs are independent units separated from the adjectives and that their place is under the N'.

2.2.1.2 The N' Complements of derived nominals

In Aari, the complements of derived nominals at the N' level include NPs and clauses. The illustration shown under (18) exemplifies when NPs serve as complements of derived nominals.

(18)a) noo [[qoli] [taǩǩ - inti]] na-naš-da
N' N''' N
he sheep slaughtering/slaughter-to red-like-impf-3s
'He likes to slaughter/slaughtering (a) sheep.'

b) [[katama] [wuulm-inti]] daql - ye
N' N''' N
city destroying/destroy-to bad-is
'Destroying/to destroy (a) city is bad.'

The NP complements of Aari modify their respective derived nominal heads by being in the preceding position. Reversing their precedence order is not possible without causing the structures to be ungrammatical. The illformed structures in (19) below can verify this point.

(19)*a) noo [[taǩǩ-inti] [qoli]] na-naš-da
N N''' N'
he slaughtering/slaughter-to sheep red-like-impf-3s

*b) [[wuulm-inti] [katama]] daql - ye
N N''' N'
destroying/destroy-to city bad-is

However, these ungrammatical structures become grammatical as soon as the NP complements /qoli/ 'sheep' and /katama/ 'city' occur preceding their derived nominal head /taǩǩ - inti/ 'to slaughter/slaughtering' and /wuulm-inti/ 'to destroy/destroying, respectively.

Let us also observe *how* clauses serve as the complements at the N' level. This is observable from the following example.

(20) naa [[kot ki?i-n aynet ad-aad - da]$_{N'S}$ [?es-inti]$_{N}$]

she her-husband-det-when-red-come-impf-3s-know-to

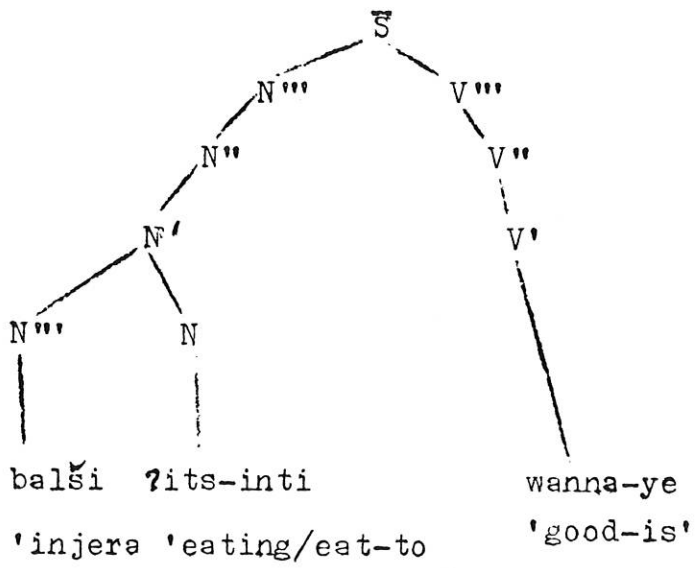
zi-zig-da

red-want-impf-3s

'She wants to know when her husband will come.'

As it can be observed from the above, the derived nominal / ?es-inti/ 'knowing/ to know' is modified by the clausal complement that occurs immediately preceding it.

In general, as it has been noted from the examples, the complements of simple as well as derived nominals at the N' level occur immediately before them. The precedence relationship of the N' complements and their nominal heads can also be illustrated by the following tree diagram.



'To eat/eating injera is good.'

The N' complements /balši/ 'injera' occurs immediately to the left of the derived nominal head /?its-inti/'eating/to eat' in the tree diagram. Consequently, it forms a strict sisterhood relationship with its nominal head.

Following the discussions made so far, the following phrase structure rules can be postulated for the N' complements of simple and derived nominals.

(22)a) $N' \rightarrow \left(\left\{ \begin{matrix} N''' \\ Sour. \\ N''' \\ Purp. \end{matrix} \right\} \right) - N$ (for the N' complements of simple nominals.)

b) $N' \rightarrow \left(\left\{ \begin{matrix} NP \\ S \end{matrix} \right\} \right) - N$ (for the N' complements of derived nominals.)

2.2.2 The N'' level Complements

The complements that can be found under the N'' level are restrictive modifiers. These complements can define the referents of their nominal heads by supplying new information concerning their quality, size, location, etc. The complements of the N'' level consist of complements of simple and derived nominals.

2.2.2.1 The N'' Complements of Simple Nominals

The complements of simple nominals at the N'' level include adjectivals, locative genitives, temporal genitives and restrictive relative clauses.

Let us first examine adjectival complements of simple nominal heads.

(23)a) Keta [[[waaki]] [Zeymi]] zi-zig - d- ek
N" N' N AP

They ox red red-want-impf-3p

'They want (a) red ox.'

b) woota [[[aa qa]] [rootmi]] teč-t-ot
N" N' N AP

We tree tall cut-pf-1p

'We have cut down (a) tall tree.'

c) ʔita [[[goola]] [laqmi]] woč- t - it
N" N' N AP

I beer nice drink-pf-1s

'I have drunk a nice beer.'

In (23) the adjectival N" complements /zeymi/ 'red', /rootmi/ 'tall' and /laqmi/ 'nice' modify the referents of their nominal heads /waaki/ 'ox', /aaqa/ 'tree' and /goola/ 'beer', respectively. Structurally these ajectival N" complements occur following their respective simple nominal heads.

Changing this linear order leads to ungrammaticality as in (24) below.

(24)*a) keta [[zeymi]] [waaki] zi-zig-d-ek
AP N N' N"

they red ox red-want-impf-3p

*b) woota [[rootmi]] [[aaqa] teč-t-ot
AP N N' N"

we tall tree cut-pf-1p

From the ungrammaticality of these structures, it seems plausible to propose that the adjectival N'' complements of simple nominal heads in Aari, cannot occur in a head initial position.

With respect to this, the adjectival N'' complements differ from the N' complements that have already been discussed.

But, how do we know that adjectives are N'' complements ? We can prove this by using gapping as a syntactic device. If the adjectives are N'' complements, they will remain intact, when the N' complements are omitted. The structures in (25) are given to verify this point.

(25)a) [[[puuta - t (a)]$_{N'''}$ [šaamiz]$_{N}$]$_{N'}$ [S'aami-n]$_{AP}$]$_{N''}$

cotton.of shirt white-det.

šen - er. še [[[puuta - t (a)]$_{N'''}$ [šaamiz]$_{N}$]$_{N'}$]$_{N''}$

sell-pas-pf-3s cotton-of shirt

[č.elmi-n]$_{AP}$ gina šen-er-ki

black-det. but-sell-pas neg-pf-3s.

'The white cotton shirt was sold, but the black cotton shirt was not sold.'

b) [[[puuta - t(a)]$_{N'''}$ [saamiz]$_{N}$]$_{N'}$ [s'aami-n]$_{AP}$]$_{N''}$

cotton-of shirt white-det.

šen-er-še [-]$_{N'}$ [č.elmi-n]$_{AP}$ gina sen-er-ki

sell-pas-pf-3s black-det. but sell-pas-neg.pf.3s

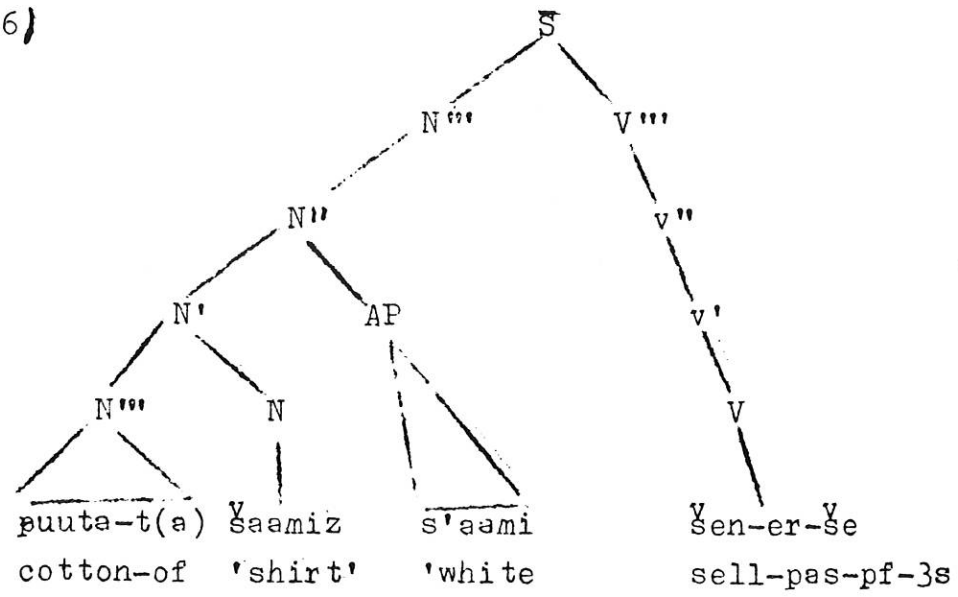
'The white cotton shirt was sold, but the black one

was not sold.'

As one can observe from the two identical N' complements of (25a), the second one is omitted together with its nominal head, without this leading the structure to be illformed. On the other hand, the adjective /č̣elmi-n/ 'the black' remains intact. This indicates that the adjectives are independent structural units whose proper place is under the N''.

The tree diagram in (26) below, illustrates the hierarchical syntactic relationship of the adjectives.

(26)



'A white cotton-shirt was sold.'

In the tree diagram, the adjective /s'aami/ 'white' occurs under the N'' node and establishes a sister-hood relationship with the N' node.

In Aari, as it has been mentioned previously, temporal genitives also serve as N'' complements. Observe the following examples.

(27)a) noo [[balši]$_{N'}$ [kina-mak-am]$_{N'''}$]$_{N''}$ na-naš-da

he injera/bread today-of-acc. red-like-impf-3s

'He likes today's injera/bread.'

b) manamal [[gupta]$_{N'}$ [ni-mak-am]$_{N'''}$]$_{N''}$ sen-ta

Menemal skin yesterday-of-acc. sell-pf-3s

'Menemal has sold yesterday's skin.'

In structure (27), the temporal genitives /kina-mak/ 'of today' and /ni-mak/ 'of yesterday' modify their nominal heads /balši/ 'injera/bread' and /gupta/'skin' respectively, by occurring following them. The reverse order is not possible without incurring illformedness as in (28) below.

(28)*a) noo [[kina-mak.am]$_{N'''}$ [balši]$_{N'}$]$_{N''}$ na-naš-da

he today-of-acc. injera/bread red-like-impf-3s

*b) manamal [ni-mak-am]$_{N'''}$ [gupta]$_{N'}$]$_{N''}$ sen-ta

Menemal yesterday-of-acc. skin sell-pf-3s

Based on the illformed structures in (28), we can propose that temporal genitives, in Aari, cannot modify their head elements by occurring initially.

Moreover, such temporal genitives cannot occur under N' without causing the structures to be ungrammatical. This can be illustrated by the structures in (29).

(29*a) noo [[gači-t(a)] [kina-mak-am] [balši]] na-naš-da
N' N'' N''' N

he teff-of today-of-acc. injera/bread red-like-impf-3s.

*b) manamal [[qoli-t(a)] [ni-mak-am] [gupta]] šen-še
N' N'' N''' N

Menemal sheep-of yesterday-of-acc. skin sell-pf-3s

The illformed structures can be wellformed when the temporal genitives occur following the elements of the N' level. The examples in (30) are instances of this.

(30)a) noo [[[gači-t(a)] [balši]] [kina-mak-am]] na-naš-da
N'' N' N''' N N'''

he teff-of injera/bread today-of-acc. red-like-impf-3s

'He likes today's teff injera/bread.'

b) manamal [[[qoli-t(a)] [gupta]] [ni-mak-am]] šen-še
N'' N' N''' N N'''

Menemal sheep-of skin yesterday-of-acc sell-pf-3s

'Menemal sold yesterday's sheep-skin.'

On the basis of the illformed structures in (29) and their corresponding wellformed structures in (30), we can suggest that the occurrence position of the temporal genitives is not under the N' level.

This is because when they are raised to the N'' level, the illformed structures become wellformed. Hence, the actual occurrence place of temporal genitives is under the N'' level.

Gapping can also be used to support the argument. Consider the following structures.

(31)a) manamal [[[zergi-t(a)] [dabba]] [kina-mak-am]]
N'' N' N''' N' N'''

Menemal wheat-of bread today-of-acc.
naš-ta
like-pf-3s

'Menemal has liked the wheat-bread of today.'

b) manamal [[[zergi-t(a)] [dabba]] [ni-mak-am]] naš-ki
N'' N' N''' N N'''

Menemal wheat-of bread yesterday-of-acc. like-neg-pf-3s

'Menemal has not liked the wheat-bread of today.'

c) manamal [[[zergi-t(a)] [dabba]] [kina-mak-am]]
N'' N N''' N N'''

Menemal wheat-of bread today-of-acc.
naš-ta [-] [ni-mak-am] gina-naš-ki
N' N'''

like-pf-3s yesterday-of-acc-but-like-neg. pf-3s.

'Menemal has liked the wheat bread of today, but he has not liked yesterday's.'

By comparing (31) (a) and (b) with (31)(c), we can see that the structural unit /zergi-t(a) dabba/'

'wheat bread' that occurs under the N' node is omitted, this showing that it is an independent constituent separated from the temporal genitive /ni-mak/ 'of yesterday.' If the place of occurrence of the temporal genitive NP had been under the N' level, it would have been omitted together with the elements of the N' level. Otherwise the structure would have been illformed.

Therefore, the proper place of occurrence of the temporal genitives is under the N'' level.

In Aari, locative genitive NPs can also be considered as the complements of N''. This can be shown by the following structures.

(32)a) aana [[Jinka-t(a)]$_{N''\ N'''}$ [goola]$_{N}$] woč^{v}-t-ay

You Jinka-of beer drink-pf-2s

'You have drunk beer from Jinka.'

b) woota [[bako-t(a)]$_{N''\ N'''}$ [dabba]$_{N}$] šen^{v}-š^{v}-ot

We Bako-of bread buy-pf-^{1}p

'We bought bread from Bako.'

In sentences (32), the locative genitives /Jinka-t(a) / 'of Jinka' and /bako-t(a)/ 'of Bako' occur preceding the nominal heads /goola/ 'beer' and /dabba/'bread'respectively. Reversing this ordering leads to illformedness. This can be exemplified by the structures in (33) below.

(33)*a) aana [[goola]$_{N}$ [Jinka-t(a)]$_{N'''}$ N' Woc^{v}-t-ay

you beer Jinka-of drink-pf-2s

*b) woota [[dabba]$_{N}$ [bako-t(a)]$_{N'''}$ N'' ^{v}sen-^{v}s-ot

we bread Bako-of buy-pf-1p

On the basis of the illformed structures in (33), we conclude that the locative genitives, unlike the temporal genitives, can qualify their heads by occurring in the position preceding them.

However, like the temporal genitives, they cannot occur under N' level as (34) shows.

(34)*a) aana [[patri - t(a)]$_{N'''}$ [Jinka-t(a)]$_{N'''}$ [goola]$_{N}$ N'

you maize-of Jinka-of beer

woc^{v}-t-ay

drink-pf-2s

*b) woota [[zergi-t(a)]$_{N'''}$ [bako-t(a)]$_{N'''}$ [dabba]$_{N}$ N' ^{v}sen-^{v}s-ot

we wheat-of Bako-of bread buy-pf-1p

The ungrammaticality of the structures in (34) indicates that the proper place of occurrence of the locative genitives is under N''. This is because, when they are raised to the N'' level, as in (35), the illformed structures in (34) become grammatical.

(35)a) aana [Jinka - t (a)] [[patri-t(a)] [goola]]
N''' N''' N N'N''

you jinka-of maize-of beer

woc̆·-t-ay
drink-pf-2s

'You have drunk the beer [made] of Maize from Jinka'.

b) woota [[bako-t(a)] [[zergi-t(a)] [dabba]]]
N''' N''' N N'N''

we Bako-of wheat-of bread

šen-s̆-ot
buy-pf-1p.

'We bought the wheat-bread from Bako.'

Based on the grammatical structures in (35), we can propose that the source genitives and the locative genitives belong to two different levels in the hierarchical relations of NPs.

We can prove this by the syntactic device of coordination. If the locative and source genitive NPs belong to separate levels, they cannot be coordinated. Let us observe the examples in (36) below.

(36)a) ?as'o [[Jinka-t(a)] [[waaki-t(a)] [raas'i]]]
N''' N''' N N' N''

Atso Jinka-of cow-of milk

woc̆·-ta
drink-pf-3s

'Atso has drunk cow-milk from Jinka'.

b) ?as'o [[bako-t(a)] [waaki-t(a)] [raas'i] woc̆·-ta]
N''' N''' N N'N''

Atso Bako-of Cow-of milk drink-pf-3s

'Atso has drunk cow-milk from Bako'.

(c) ʔas'o [[Jinka-t(a)]$_{N'''}$ ke [bako-t(a)]$_{N'''}$ [waaki-t(a)]$_{N'''}$

Atso Jinka-of and Bako-of cow-of

[raas'i]$_{N}$ [ ]$_{N'}$ [ ]$_{N''}$ woc^{y}'-ta

milk drink-pf-3s

'Atso has drunk cow-milk from Jinka and Bako.'

*(d) ʔas'o [[Jinka-t(a)]$_{N'''}$ ke [[waaki-t(a)][raasi]$_{N}$ [ ]$_{N'}$ [ ]$_{N''}$

Atso Jinka-of and cow-of milk

woc^{y}'- ta

drink-pf-3s

As it can be noted, the message of sentences (36a) and (36b) can be expressed equivalently in the long sentence (36c) by coordinating the two locative genitive NPs. The coordination of the locative genitives /Jinka-t(a)/ 'of Jinka' and /bako-t(a)/ 'of Bako' does not cause the structure to be ungrammatical.

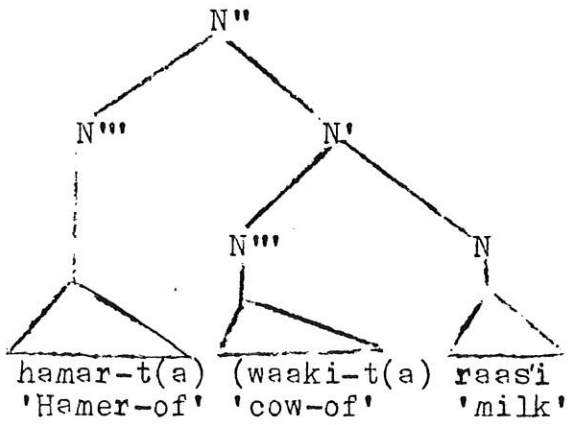
Hence, these locative genitive NPs are constituents of the same level. If they were not constituents of the same level, they could not be coordinated without leading to illformedness.

For example, the coordination of the same locative genitive / Jinka - t (a) / with the N' source genitive / waaki-t(a) / 'of cow' in (36d) causes the structure to be ungrammatical. This implies that the locative and source genitive NPs are not elements of the same level.

Therefore, locative genitives are not structural units of the N' level, they are rather constituents of the N''.

The tree diagram of (37) can illustrate the hierarchical relationship of the locative genitive NPs.

37)



'Cow-milk from Hamer.'

In (37), the locative genitive /hamar-t(a) / 'of Hamer' branches from the N'' node as a daughter of it. Besides, it establishes an aunt syntactic relationship with the nominal head /raas'i/ 'milk'.

Contrary to this, the source genitive /waaki-t(a)/ 'of cow' which branches from the node N', establishes a sister-hood relationship with the same nominal head.

Restrictive relative clauses can also serve as N'' complements. The examples in (38) are instances of this.

(38)a) manamal [[goola]$_{N'}$ [ʔas'o kuz̄-z̄e-qa^{g}-k]$_{S}$]$_{N''}$ wo^{v}č'-č^{v}'e

Menemal beer Atso prepare-pf-3s-Rel.F drink-pf-3s

'Menemal drank the beer that Atso prepared.'

(b) ʔita [[ʸšaamiz]N'' N']N'' [noo ʸšen-ta-qa-b]S]N'' naʸš-naʸš-d-it

I shirt he buy-pf-3s-Rel.m red-like-impf-1s

'I like the shirt that he has bought.'

In sentences (39a&b), the relative clauses occur following their heads. Although this is the basic order, they can also occur preceding the heads without causing the structures to be illformed. Observe the following examples.

(39)a) manamal [[ʔas'o kuž-že-qa-k]S]N' [goola]N' N'' woʸč-ʸč-e

Menemal Atso prepare-pf-3s-Rel-F beer drink-pf-3S

'Menemal drank the beer that Atso prepared.'

b) ʔita [[noo ʸšen-ta-qa-b]S [ʸšaamiz]N' N'' naʸš-naʸš-d-it

I he-buy-pf-3s-Rel-M. shirt red like-impf-1s

'I like the shirt that he has bought.'

However, such relative clauses cannot occur between the N' complements and their respective heads without incurring illformedness. Consider the structures in (40) below.

(40)*a) manamal [[rabi-t(a)]N''' [ʔas'o kuʸž-ʸže-qa-k]S

Menemal sorghum-of Atso prepare-pf-3s-Rel.F

[goola]N N' woʸč-ʸč-e

beer drink-pf-3s.

*(b) ʔita ⌈⌈puuta - t(a)_⌋ ⌈noo šen-ta-qa-b_⌋
N'''
S
I cotton-of he-buy-pf-3s-Rel-m.
⌈šaamiz _⌋⌋
N N'
shirt red-like-impf-1s

These structures can be grammatical, if the relative clauses occur following the simple nominal heads, like in (41) below.

(41)a) Manamal ⌈⌈rabi - t(a)_⌋ ⌈goola _⌋
N'' N' N''' N
Menemal sorghum-of beer
S⌈ʔas'o kuž-že-ga-k_⌋⌋ woč. č'e
Atso-prepare-pf-3s-Rel.-F. drink-pf-3s
'Menemal drank the beer ⌈made⌋ of sorghum that Atso prepared.'

b) ʔita ⌈⌈puuta-t(a)_⌋ ⌈šaamiz _⌋⌋
N' 'N' N''' N
I cotton-of shirt
S⌈noo šen-ta-qa-b_⌋ naš-naš-d-it
he-buy-pf-3s-Rel-m. red-like-impf.1s
'I like the cotton shirt that he has bought.'

The wellformedness of the structures in (41) suggests that the illformedness of the structures in (40) is due to the hierarchical relationship of the relative clauses. The structures in (40) are illformed, since the relative clauses are lowered to the N' level whereas their proper position is under the N'' node, as in the wellformed counter part in (41).

A question may arise here. How can we be certain that the proper position of the relative clauses is under N" ? The structures in (40) above, might have been illformed due to the precedence order rather than the relative clauses hierarchical relationship.

Nevertheless, we can support our argument by using gapping as a device. If the position of the relative clauses is under the N", they will remain intact, when the constituents of the N' level are omitted. Compare the following structures in (42).

(42)a) [[[zergi-t(a)] [dabba]] [[? as'o ?uš-še-qa-k]
N" N'N''' N S̄

wheat-of bread Atso-bake-pf-3s-Rel.F.

waana-ye [[[zergi - t(a)] [dabba]]
N" N' N''' N

good-is wheat-of bread

[bareso ?uš-še-qa-k]] gina daql-ye
S
Bareso bake-pf-3s-Rel-F but bad-is

'The wheat-bread that Atso baked is good, but the wheat bread that Bareso baked is bad.

b) [[[zergi-t (a)] [dabba]] [[?as'o ? uš-še-qa-k]]
N" N' N''' N S

wheat-of bread Atso bake-pf-3s-Rel.F

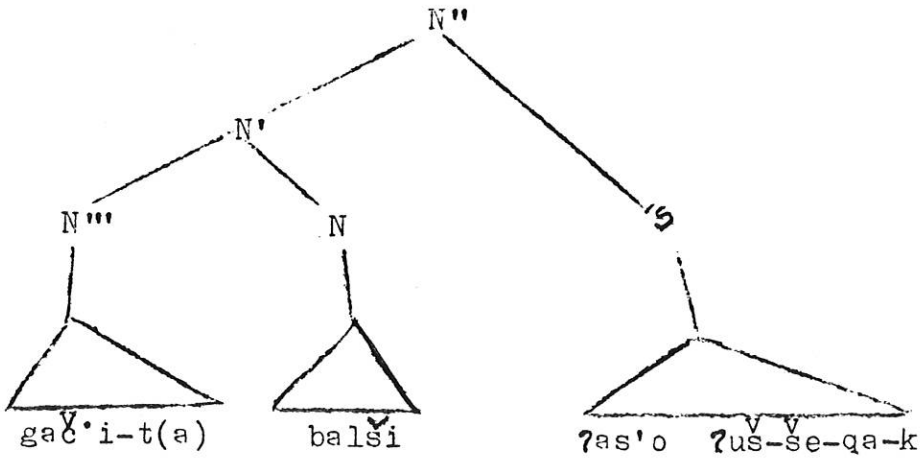
waana-ye [-] [bareso ?us-se-qa-k]] gina daql-ye
N' S̄

good-is Bareso bake-pf-3s-Rel.F but bad-is

'The wheat-bread that Atso baked is good, but the one that Bareso baked is bad.'

In (42b) the structural unit of the N' level is omitted without causing the structure to be illformed. On the other hand, the relative clause /bareso ʔuš-še-qak/ 'that Bareso prepared', remains in its place without being deleted along with the elements of the N'. This shows that the relative clause is an independent syntactic unit whose place is under N". The following tree diagram shows its position.

(43)



'The teff-injera/bread which Atso baked.'

As one can observe from the tree diagram (43), the relative clause is immediately dominated by the N" node, and has a sisterhood relationship with the N'.

So far we have examined the different types of complements that can occur under N" with respect to simple nominal heads. Let us also see the precedence relationship of these N'' complements.

The structures in (44) below show the situation when genitive of source, location and an adjective phrase appear as complements of a nominal head.

(44) ?ita [[[Jinka-t(a)]$_{N'''}$ [[gači-t(a)]$_{N'''}$ [balši]$_{N}$]$_{N'}$]$_{N''}$

I Jinka-of teff-of injera/bread

[s'aami]$_{AP}$ šen-t-it$_{N''}$

White buy-pf-1s

'I have bought white injera/bread [made] of teff from Jinka.'

In structure (44) the locative genitive NP /Jinka-t(a)/' of Jinka' occurs preceding the source genitive N' complements. On the contrary, the adjectival /s'aami/ 'white' occurs following the simple nominal head.

The adjectival and the locative genitive N'' complements cannot exchange their position of occurrence without this causing the structure to be ungrammatical. The illformed structure in (45) may verify this.

(45)*?ita [[[s'aami]$_{AP}$ [[gači-t (a)]$_{N'''}$ [balši]$_{N}$]$_{N'}$]$_{N''}$

I white teff-of injera/bread

[Jinka-t(a)]$_{N'''}$ šen-t-it$_{N''}$

Jinka-of buy-pf-1s.

On the basis of the illformed structure in (45) we can conclude that the locative genitives and the adjectival N'' complements cannot exchange their positions within their domain. They cannot exchange with the N' complements too, as the following ungrammatical structures illustrate.

(46)*a) ʔita [[[Jinka-t(a)]$_{N'''}$ [[s'aami]$_{AP}$ [balš^{v}i]]]$_{N\ N'\ N''}$
I Jinka-of White injera/bread
[gač^{v}i-t(a)]$_{N'''}$]$_{N''}$ š^{v}en-t-it
teff-of buy-pf-1s

*b) ʔita [[[gač^{v}i-t(a)]$_{N'''}$ [[Jinka-t(a)]$_{N'''}$ [balš^{v}i]]]$_{N\ N'\ N''}$
I teff-of Jinka-of injera/bread
[s'aami]$_{AP}$ š^{v}en-t-it
white buy-pf-1s

The ungrammaticality of the structures in (46) indicates that it is not allowed to mix the complements of the N' with that of N''.

Let us also examine the situation when adjectival phrases, genitive NPs of purpose and time occur together.

(47) [[[raasi-t(a)]$_{N''\ N'N'''}$ [waaki]$_{N}$ [zeymi]$_{AP}$ [ni-mak]$_{N'''}$] de?i-ta
milk-of cow red yesterday-of die-pf-3s
'The red milk-cow of yesterday has died'.

In structure (47), the temporal genitive /ni-mak/ 'of yesterday' occurs following the adjectival /zemi/ 'red' which is preceded by the nominal head / waaki / 'cow.'

But the temporal genitives cannot occur preceding the adjectival N" complement without leading to illformedness. This is observable from the following examples.

*(48) [[[raas'i-t(a)] [waaki]] [ni-mak] [zeymi]]
N" N' N"' N N"' AP
milk-of cow yesterday-of red
de?i - ta
die-pf-3s

The illformedness of the structure in (48) suggests that the temporal genitives, like the locative genitives, cannot exchange their place of occurrence with the adjectivals within their own domain. Their linear ordering is strongly restricted.

Let us also see the situation when the genitives of time and location occur in a single structure.

(49) [[[bako-t(a)] [[raas'i-t(a)] [waaki]]]
N"' N"' N N'N"
Bako-of milk-of cow
[ni-mak] de?i - ta
N"' N"
yesterday-of die-pf-3s
'Yesterday's Bako milk-cow has died.'

Reversing the position of the genitive NPs of time and location also leads to illformedness. This can be exemplified by the structure in (50)

*(50) [[[ni-mak]_7 [[raas'i-t(a)]_7 [waaki]_7]_7]
N''' N''' N N'N''

yesterday-of milk-of cow

[bako-t(a)]_7_7 de?i - ta
N'' N''

Bako-of die-pf-3s

The ungrammaticality of the structure in (50) suggests that the genitive NPs of time and location cannot exchange their place of occurrence within the domain.

The structure in (51) below shows when a restrictive relative clause and an adjectival phrase appear in the same NP.

(51) ?ita [[[gaᵛči-t(a)]_7 [balᵛši]_7]_7 [s'aami]_7
N'' N'N''' N AP

I teff-of injera/bread white

[naa ?uᵛš-ᵛše-qa-k]_7 naᵛš-naᵛš-d-it
S

she bake-pf-3s-Rel.F-Red like-impf1s

'I like the white injera/bread [made]of teff that she baked.'

In (51) the restrictive relative clause /naa ?uᵛš - ᵛše-qa-k/ 'that she baked' occurs following the

adjective /s'aami/ 'white'. However, exchanging their linear ordering leads to ungrammaticality as in (52) below.

*(52) [[[gaci-t(a)]$_{N''\ N'N'''}$ [balsi]$_{N}$] [naa ?usše-qa-k]
teff-of injera/bread- she-bake-pf-3s-Rel-F
[s'aami]$_{AP}$ nasnasd-it
white-red-like Impf-1s

The illformed structure in (52) shows that the precedence relationship of the relative clauses and adjectives is not free. In general, bearing in mind the preceding discussions, the adjective phrasal complements have a strongly restricted linear order relationship with the complements of the N''. They always modify their heads by occurring in the immediate following position.

Let us also observe, when the restrictive relative clause occurs with a temporal genitive NP.

(53) ?ita [[[goosi-t(a)]$_{N''\ N'N'''}$ [goola]$_{N}$] [naa kužže-qa-k]$_{\bar{S}}$
I barley-of beer she-prepare-pf-3s.
[ni-mak] wo- - it
Rel-F.yesterday-of-drink pf-1s
'I drank yesterday's barley-beer which she prepared.'

In (53) the restrictive relative clause occurs preceding the temporal genitive. But it can also be preceded by the temporal genitive without incurring illformedness as in (54) below.

(54) ʔita [[[goosi-t(a)]N'' N'N''' [goola]N [ni-mak]N'''
I barley-of beer yesterday-of
[naa kuž-že-qa-k]S [woč· - č· - it
she-prepare-pf-3s-Rel.F. drink-pf-1s

'I drank yesterday's barley-beer which she prepared.'

The grammaticality of the structure in (54) indicates that the relative clauses and temporal genitives in Aari, can freely exchange their precedence relationship. Therefore their linear order relationship is not restricted within the domain.

The structure in (55) below, shows when the restrictive relative clause and a locative genitive NP appear as complements of the same nominal head.

(55) keta [[[Jinka-t(a)]N''[[derti-t(a)]N''' [waa]N N' N''
they Jinka-of goat.of meat
[noo šen-ta-qa-b]S N'' naš-naš-d-ek
he-buy-pf-3s-Rel.m. red-like-impf-3p.
'They like the goat-meat that he has bought from Jinka.'

In sentence (55) the locative genitive NP /Jinka-t(a)/ 'of Jinka' occurs preceding the N' complement / derti - t(a) / 'of goat'. To the opposite of this, the relative clause / noo $\overset{v}{\text{s}}$en-ta-qa-b/ 'which he bought' appears following the nominal head /waa / 'meat'.

Exchanging the occurrence place of the restrictive relative clause with that of the locative genitive causes the structure to be illformed. This is illustrated in (56) below.

*56) Keta [[[noo $\overset{v}{\text{s}}$en-ta-qa-b]$_{S}$ [[derti - t (a)]$_{N'''}$

they he-buy-pf-3s-Rel-m goat-of

[waa]$_{N\ N'N''}$ [Jinka-t(a)]$_{N'''\ N''}$ na$\overset{v}{\text{s}}$-nas-d-ek

meat Jinka-of red-like-impf-3p.

The ungrammaticality of the structure in (56), suggests that the locative genitive NPs, unlike the temporal NPs, cannot exchange their place of occurrence with the relative clauses.

To conclude, in Aari, the complements of N'' with a few exceptions, cannot exchange their place of occurrence. Moreover, neither can they exchange their occurrence position with the complements of the N' level.

2.2.2.2. The N''' Complements of Derived Nominals

So far, we have seen the complements of simple nominal at the level N''. Now we will examine the complements of derived nominals at the level N''. The complements of the derived nominals at the level N'' include adpositional phrases and dependent clauses.

The structures in (57), illustrate that adpositional phrases serve as N'' complements of derived nominals.

(57)a) [[noo kikin]$_{Adp}$ [[goola]$_{N'''}$ [woč^{v}- inti]$_{N\ N'\ N''}$]] laqmi-ye

he-with beer drinking/drink-to. nice-is

'Drinking/to drink beer with him is nice.'

b) [[manamal - rank]$_{Adp}$ [[ganzab]$_{N'''}$ [tay-inti]$_{N\ N'N''}$]] daql-ye

Menemal-from money taking/take-to bad-is

'Taking/to take money from Menemal is bad.'

c) [[ʕaqa goyr]$_{Adp}$ [[misa]$_{N'''}$ [ʔit^{s} - inti]$_{N\ N'\ N''}$]] laqmi-ye

tree under lunch eating/eat-to nice-is

'Eating/to eat lunch under a tree is nice.'

In syntactic structures (57) the adpositional phrases / noo kikin / 'with him', /manamal - rank / 'from Menemal', and /ʕaqa goyr / 'under tree' occur before the N' complements which inturn appear preceding their respective nominal heads.

Here, a question may be raised in connection with the level of the adpositional phrases. How do we know that the adpositional phrases are under N" ? We can prove this by using the device of intrusion, like in (52) below.

(58)*a) [[goola]$_{N'''}$ [noo kikin]$_{Adp}$ [woc - inti]$_{N\ N'\ N''}$ laqmi-ye
beer he-with drinking/drink-to nice-is

*b) [[ganzab]$_{N'''}$ [manamal - rank]$_{Adp}$ [tay-inti]$_{N\ N'N''}$ daql-ye
money Menemal-from taking/take-to bad-is

*c) [[misa]$_{N'''}$ [aaqa goyr]$_{Adp}$ [?its-inti]$_{N\ N'\ N''}$ laqmi-ye
lunch tree under eating/eat-to nice-is

The illformedness of the structures in (58) can be attributed to the occurrence of the adpositional phrases between the N' complements and the heads. The occurrence of the adpositional phrases under N' leads the structures to ungrammaticality. This suggests that their proper place is under N" as observed in (57).

This can also be supported by the syntactic device of gapping. Let us observe the following.

(59)a) [[noo kikin]$_{Adp}$ [[goola]$_{N'''}$ [woc - inti]$_{N\ N'N''}$
he-with beer drinking/drink-to

laqmi-ye gina [[noo kikin]$_{Adp}$ [[dabba]$_{N'''}$

nice-is but he with bread

[?its - inti]$_{N\ N'N''}$ laqmi-dak-ye

eating/eat-to nice. neg-is

'Drinking/to drink beer with him is nice, but eating/to eat bread with him is not nice.'

(b) [[noo kikin]$_{Adp}$ [[goola]$_{N'''}$ [woč- inti]$_{N\ N'\ N''}$

he-with beer drinking/drink-to

laqmi - ye gina [[=]][[dabba]$_{Adp\ N'''}$ [?its - inti]$_{N\ N'}$

nice-is but bread eating/eat-to

laqmi-dak-ye

nice-neg. is

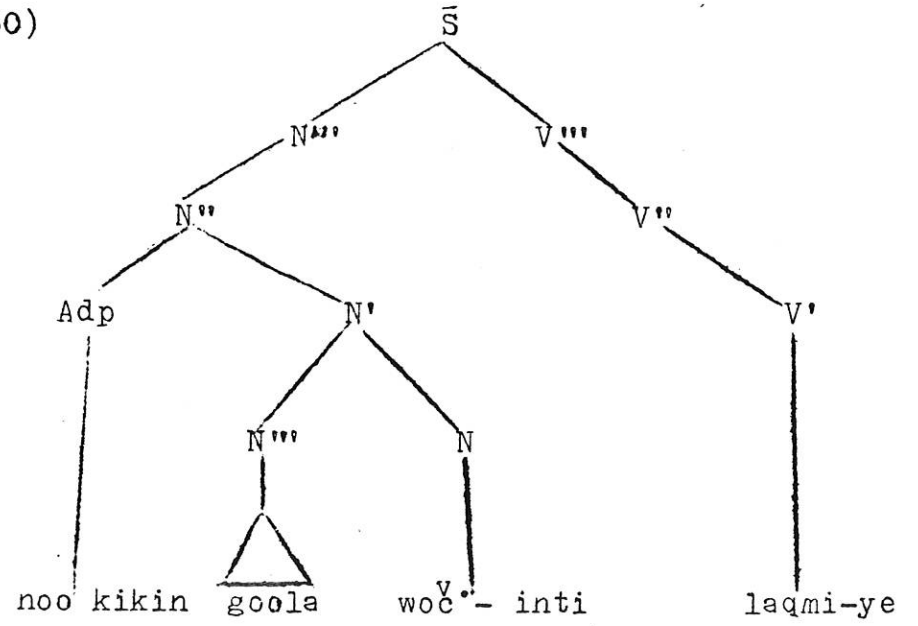
'Drinking/to drink beer with him is nice, but eating/to eat bread is not nice.'

When we compare the above two sentences, the adpositional phrase /noo kikin / 'with him' is omitted in (59b) without affecting the elements of the N'. The omission of this adpositional phrase does not lead the structure into ungrammaticality. This shows the fact that the adpositional phrases are independent structural units which are separated from the elements of the N' level. If not, the omission of the adpositional phrase alone would have

caused the sentence to be ungrammatical. Hence, the proper place of the adpositional phrases is under N''.

The following tree diagram illustrates the position of the adpositional phrases more clearly.

(60)



'Drinking/to drink beer with him is nice.'

As we can observe from the tree diagram, the adpositional phrase /noo kikin/ 'with him' is under the N'' node. Moreover, by occurring in the preceding position, it establishes a sister-hood relationship with the N' node.

In Aari, subordinate clauses can also serve as N'' complements of derived nominals. This is shown in (61).

(61)a) [[noo leeq-d-ink]$_{\bar{S}}$ [[misa]$_{N'''}$ [?it^{s}-inti]$_{N\ N'\ N''}$]]

he-sing-impf-while-lunch eating/eat-to

daql-ye

bad-is

'Eating/to eat lunch, while he is singing is bad.'

b) [[naa kay-d.ink] [[mas'ap] [nabab - inti]$_{N'N''}$]]

$_{N'''}$

she-go-impf-while book reading/read-to

wanna-ye

good-is

'Reading/to read (a) book, while she is going out is good.'

In structures (61), the subordinate clauses, like the adpositional phrases, restrict the reference of the heads by occurring preceding the N' complements.

Reversing the linear order relationship of the N' complement with the dependent clause is not possible. The ungrammatical structure in (62) can show this.

(62)*a) [[misa]$_{N'''}$[[noo leeq-d-ink]$_{\bar{S}}$ [?it^{s}inti]$_{N\ N'N''}$]daql-ye

lunch he-sing-impf-while-eating/eat-to-bad-is

*b) [[mas'ap]$_{N'''}$[[naa kay-d-ink]$_{\bar{S}}$ [nabab-inti]$_{N\ N'N''}$]wanna-ye

book she-go-impf-while-reading/read-to-good-is

The illformedness of the above structures can be attributed to the precedence relationship of the

N' complements and the subordinate clauses. It can also be accounted for in terms of the hierarchical relationship that the dependent clauses and the N' complements have in the structures.

In structure (62), the N' complements /misa/ 'lunch' and /mas'ap/ 'book' are raised from the level of N' to N''. On the other hand, the subordinate clauses /noo leeq-d-ink/ 'while he is singing' and /naa kay-d-ink/ 'while she is going' are lowered into the level N'.

This implies that the dependent clauses and the N' complements can only occur under the level of N'' and N', respectively. Therefore, the proper place of the subordinate clauses is under the N'' node.

This can be substantiated by using gapping. Let us compare the following syntactic structures.

(63)a) [[[naa kay-d-ink]$_{S}$ [[[mas'ap]$_{N'''}$ [nababa -inti]$_{N\ N'N''}$]]]

she-go-impf-while book reading/read-to wanna-ye good-is

'Reading/to read (a) book, while she is going out is good.'

b) [[naa doqn-d-ink]$_{\bar{S}}$ [[mas'ap]$_{N'''}$ [nabab-inti]$_{N\ N'N''}$]]

she present-impf-when book reading/read-to
daql-ye
bad-is

'Reading/to read (a) book, when she is present is bad.'

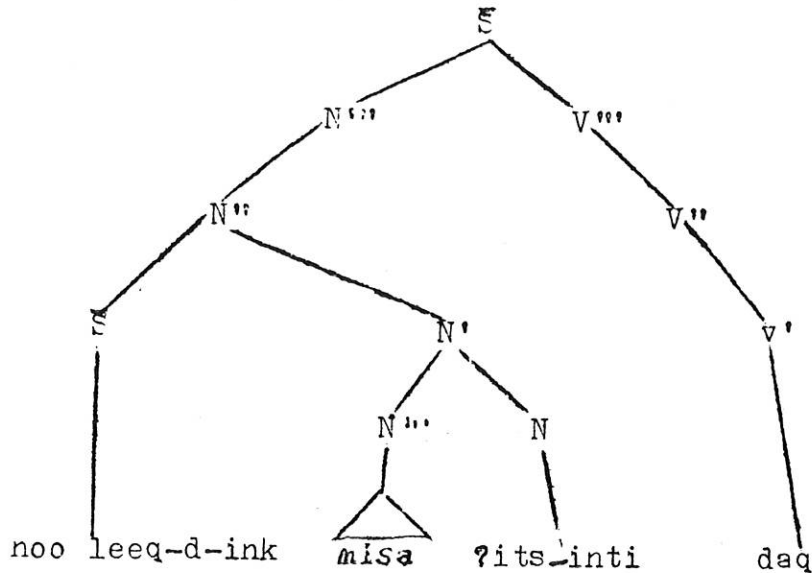
c) [[naa kay-d-ink]$_{\bar{S}}$ [masap]$_{N'''}$ [nabab-inti]$_{N\ N'\ N''}$]]

she go-impf-while book reading/read-to
wanna-ye gina [[naa doqn-d-ink]$_{\bar{S}}$ [-]$_{\bar{N}'}$] daql-ye
good-is but she-present-impf-when bad-is

'Reading/to read /a) book while she is going out is nice, but when she is present is bad.'

By comparing (63)(a) and (b) with (63)(c), we can see that the N' complement along with its head item is omitted in (63)(c), without incurring ungrammaticality. The omission of the constituent /mas'ap nabab-inti / 'reading/to read (a) book', which occurs under N', without including the subordinate clause suggests that the subordinate clauses are independent units. Since the dependent clauses are separated from the elements of the level N', they cannot occur under the N' node. Their place is under the N'' node. This can be shown by the tree diagram of (64).

(64)



he sing-impf-while 'lunch' eating/eat-to -bad-is'

'Eating/to eat lunch while he is singing is bad.'

As can be observed from the tree, the dependent clause /noo leeq-d-ink/ 'while he is singing' branches from the N''' node and establishes a sister relationship with the N' node.

Based on the discussions so far, the elements which serve as N''' complements include adjectival phrases, restrictive relative clauses, adpositional phrases, subordinate clauses, genitive NPs of time and location.

For these complements we can formulate two different types of phrase structure rules. Because, as it has been noted, the complements of the simple nominals do not occur in the same position as the complements of the derived nominals in relation to their heads.

(65)a) $N'' \longrightarrow (N'''_{Loc}) - N' - (\{AP, \bar{S}, R.R.C, N'''_{Temp}\})$ (for the N" complements of simple nominals.)

b) $N'' \longrightarrow (\{Adp, \bar{S}, Sb.C.\}) - N'$ (for the N" complements of derived nominals)

2.2.3. The N''' complements

The N''' node is the maximal level in the projection of nominals. The N''' complements do not have the effect of restricting the reference of the head. Such complements are commonly called 'non-restrictive modifiers.'

In Aari, they include non-restrictive relative clauses and some noun phrases.

The structure in (66) shows when the non-restrictive clauses serve as N''' complements.

(66)a) [[yižalq]$_{N'''N''}$, [ni waaki Jinka - ank šen - še - yizalk yesterday-ox Jinka-from buy - pf - qa - b - in]$_{\bar{S}}$ seqer-se
3s-Rel-m-det. sick-pf-3s

'Yizalk, who bought an ox from Jinka yesterady, was sick.'

b) [[manamal]$_{N'''N''}$, [kina baka-ank aata-qa-b-in]$_{\bar{S}}$
Menemal today-Bako-from-come pf-3s-Rel-m-det
golta-ye
old-is

'Menemal, who came from Bako today, is old.'

As can be observed, the heads are the proper nouns /yiʒalq/ 'yizalk' and /manamal/ 'Menemal' which donot require any restriction. Accordingly, the appositives donot participate in defining their respective heads. However, they involve in providing additional information regarding the referents of their heads.

Reversing the precedence relationship of the appositives and their proper noun heads is not possible as in (67) below.

(67)*a) [S [S ni waaki Jinka-ank-ʃen-ʃe-qa-b-in_7, [N'N''' yiʒalq_7_7
yesterday-ox-Jinka-from-buy-pf-3s-Rel-m-det-yizalk
seqer-se
sick-pf-3s

*b) [S [S kina-baka-ank aa-ta-qa-b-in_7, [N'' N''' manamal_7_7
today-Bako-from-come-pf-3s-Rel-m-det-Menemal-
galta-ye
old-is.

On the basis of the illformed structures in (67), it is possible to suggest that the non-restrictive relative clauses in Aari, cannot occur preceding their heads. However, they can under-go a movement of extraposition without incurring illformedness. This is noticeable from the following grammatical structures.

(68)a) [[[yižalq]$_{N'''}$ [ti]$_{N''}$ seqer-se], [ni waaki]$_{S}$ i

yizalk sick-pf-3s yesterday-ox-

Jinka-ank šen-še-qa-b-in

Jinka-from-buy-pf-3s-Rel.m.det.

'Yizalk, who bought an ox from Jinka yesterday, was sick.'

b) [[[manamal]$_{N'''}$ [t$_i$]$_{N''}$ galta-ye], [kina baka-ank]$_{S}$ i

Menemal old-is today-Bako-from

aa- ta - qa - b - in

come-pf-3s-Rel-m-det.

'Menemal, who came from Bako today, is old.'

The non-restrictive relative clauses' possibility to have an extra-position movement, without this causing the structures to be illformed, indicates that they are independent units which are separated from their heads.

Here a question may arise concerning the precedence relationship of the appositives and restrictive relative clauses when both appear in the same structure. This is shown in (69) below.

(69)a) [[[?eed]$_{N'''}$ [kina de?i-sa-qa-b]$_{S}$],

man today-die-pf-3s-Rel-m

[?i (kim) ? es -d-it- qa - b - in] galta-ye

i - (him)-know-impf-1S-Rel-m-det. old-is

'The man who died today, whom I know, is old.'

(b) [[[ʔanza]S [fatana-n waC:V·e - qa-k]]] ,
N'''N''N'

girl exam. det fail-pf-3s-Rel.F

[ni mes'er-ank-aa-ta-qa-k-an]] lamm-ye

yesterday-Metser.from-come-pf-3s-Rel-F-det lazy-is

'The girl who failed the examination, and who came from Metser today, is lazy.'

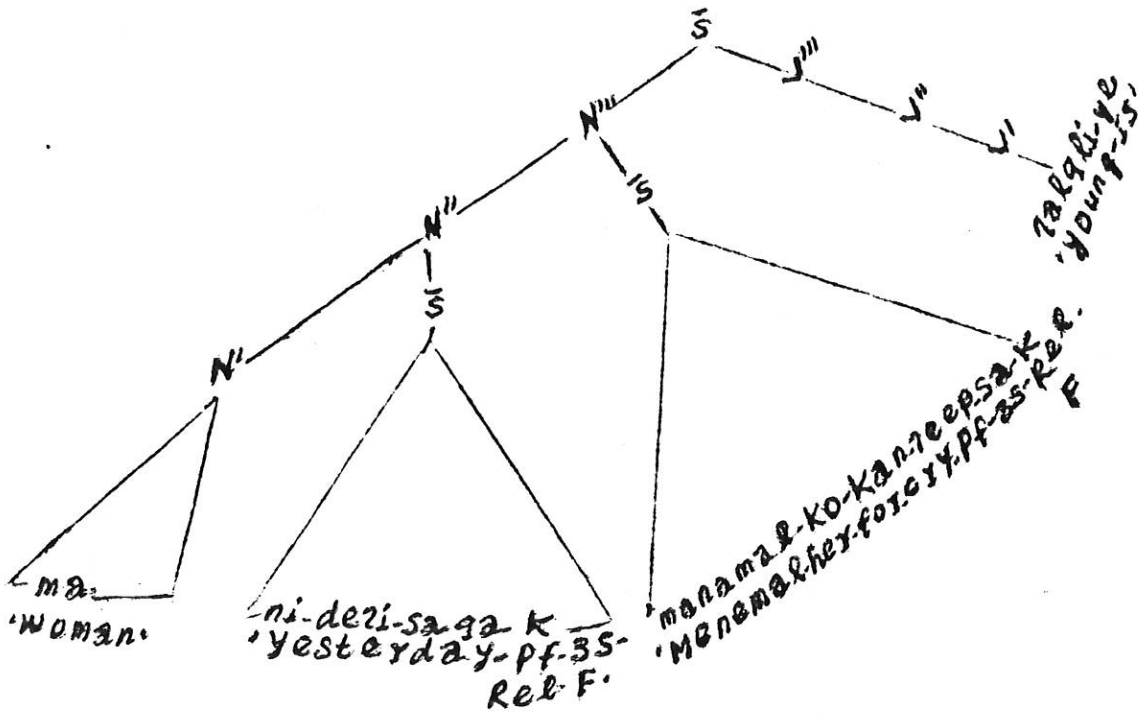
Each structure in (69) contains two relative clauses. Those which occur immediately following the nominal heads under N' are the restrictive relative clauses. As it can be observed from the two structures, the restrictive relative clauses appear in the level N''.

The relative clauses which occur in the position following the restrictive relative clauses can be regarded as the appositive clauses and their position is outside the level N''.

Such clauses do not define the referents of the nominal heads, since they are defined by the clauses at the level N''. The appositives and the restrictive relative clauses are separated by the intonational break. The restrictive relative clauses along with their heads form a single pause. To the opposite of this, the appositive clauses do not make a single pause with their heads. Rather, they form a separate pause of their own separated from the restrictive clause. This also suggests that they are independent structural units.

The tree diagram in (70) below, demonstrates the precedence-dominance relationship of the appositives and restrictive relative clauses.

(70)



'The woman who died yesterday, for whom Menemal cried, is young.' As the tree diagram illustrates, the restrictive relative clause that branches from the N'' node, modifies the head that is N'. On the other hand, the appositive branches from the N''' and its sister relation is with N'' .

Besides the appositives, some noun phrases (NPs) can serve as the N''' complements, particularly in structures where proper nouns are the heads. Such NP complements can occur either preceding or following the proper noun heads. This is observable from the following examples.

(71)a) [[manamal]$_{N'''N''}$, [ʔas'o - t(a) kiʔi]$_{N'''}$] deʔi - ta

Menemal Atso-of husband die-pf-3s

'Menemal, the husband of Atso, has died.'

b) [[yiž̌alq]$_{N'''N''}$, [manamal - t (a) babane]$_{N'''}$] kay-ta

yizalk Menemal - of father go-pf-3s

'Yizalk, the father of Menemal, has gone.'

c) [[ʔas'o - t (a) kiʔi]$_{N'''}$, [manamal]$_{N''}$ deʔi]$_{N'''}$ - ta

Atso-of-husband Menemal die-pf-3s

'Menemal, the husband of Atso, has died.'

d) [[manamal - t (a) babane]$_{N'''}$, [yiž̌alq]$_{N''}$] kay-ta

Menemal-of father yizalk go-pf-3s

'Yizalk, the father of Menemal, has gone.'

In (71 a & b) the NPs / ʔ as'o-t(a) kiʔi / 'husband of Atso' and /manamal-t(a) babane/ 'father of Menemal' occur following the proper noun heads /manamal / 'Menemal' and /yiž̌alq / 'yizalk', respectively. On the other hand, in (71 c & d), these NPs occur preceding the same proper noun heads. Functionally, these NPs are similar with the appositive clauses. Because, they do not define the heads. The head items are proper nouns and hence need not be defined.

In some instances NP_S can occur as N''' complements along with appositive relative clauses. The following are some such examples.

(72)a) [[manamal]$_{N'''N''}$, [[?eed]$_{N'''N''}$, [ni kur ąą-ta-qa-b-]$_{\bar{S}}$]

Menemal man yesterday-here-come-pf-3s-Rel-m.

in šeqr-še

det. happy-pf-3s.

'Menemal, the man who came here yesterday, was happy.'

b) [[?as'o]$_{N'''N''}$, [[?anza]$_{N'''N''}$, [kina baača šen-še-qa-k-an]$_{\bar{S}}$]]

Atso girl today-hen-buy-pf-3s-Rel-F.det.

rurmi-ye

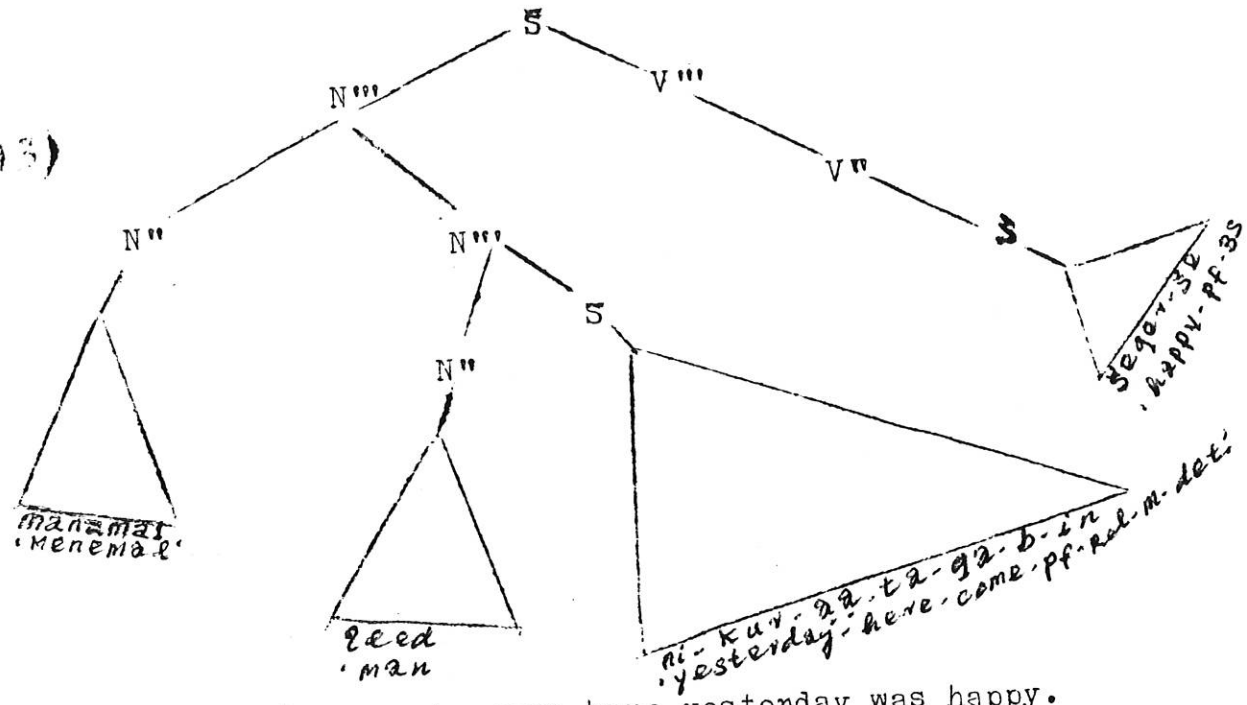
clever-is

'Atso, the girl who bought (a) hen today, is clever.'

In (72) the proper noun heads /manamal/ 'Menemal' and / ? as'o / 'Atso' are followed by NP complements which inturn are modified by the non-restrictive relative clauses.

The tree diagram in (73) below, demonstrates the precedence-dominance relationship of the proper noun heads and their NP complements.

(73)



'Menemal, the man who came here yesterday was happy.

As it can be observed from the tree diagram, the proper noun head /manamal / 'Menemal' which branches from the N''' node occurs preceding its NP complement. This NP complement which serves as a non-restrictive modifier consists of the nominal head /ʔeed-in/ 'the man' and the appositive complement /ni-kur-aa-ta-qa-b-in/ 'who came here yesterday'. The appositive complement that branches from the N''' node also occurs following its head which is an NP.

From the discussions so far we can formulate the rule schema for the non-restrictive modifier complements as follows:

(74) $N''' \longrightarrow (N''') - N'' - (\{ \begin{matrix} S \\ N''' \end{matrix} \})$

CHAPTER THREE

3 . SPECIFIERS

This chapter tries to examine the specifiers of nominals. Before going into the analysis of the specifiers of nominals in Aari, it is important to have a working definition of the term "Specifier".

According to Chomsky (1986:3) the notion "specifier" is relational or functional but not categorial. There is no category with the label 'specifier' as with the noun, verb, adjectives, etc. Specifiers, like the major lexical categories, cannot expand into phrasal categories by taking syntactic units as complements. They are functional elements that can be optionally selected by lexical heads in order to form phrasal categories.

Specifiers can also be identified in terms of their occurrence position in the phrase structures in which they may appear. Their occurrence place is outside the syntactic structure that is formed by the head items and their complements. This is why it is said that specifiers usually occur in peripheral position with respect to complements of heads.

However, as it has been mentioned in chapter two, there are two positions of specifiers in the projection line of

nominal heads. The two positions are the N''' level and the N'' level. These two levels are the occurrence places of articles and quantifiers, respectively.

Nevertheless, specifiers may also appear in specific structures, when they are semantically required (Andrews, 1985:89). The semantic function of nominal specifiers is to restrict or determine the referential or quantitative range of nominal heads that form phrasal structures along with them (Baye, 1986:599).

The nominal specifiers consist of articles and quantifiers.[10]

3.1. Articles

The term 'article' designates elements that limit or restrict the referential range of nominal heads in which they occur. In Aari, such elements may be suffixes or independent formatives. They can be divided into definite and indefinite articles.

3.1.1. Definite articles

The label 'definite article' includes determiners, demonstratives and genitive NPs.

3.1.1.1. Determiners

The term 'determiner' is used to refer to the definite article that refers to entities which have already been introduced into discourse or have been already established. Aari employs the suffix /-n~- in[11]) 'det' to accomplish this semantic function. Observe the following examples.

(75)a) [toyla-n]$_{NP}$ ga?ʸša-ye

fish-det big-is

'The fish is big.'

b) [?ans'i - n]$_{NP}$ woc'ʸ- inti laqmi - ye

mead-det drink-to/drinking - nice-is

'Drinking the mead is nice.'

c) [gudri - s[12] - in]$_{NP}$ zeemi - ye

hyena - sglt-det. strong-is

'The hyena is strong.'

In (75) the determiner /-n~- in / restricts the references of the nominal heads by occurring as a suffix. Without the determiner the nouns may have generic reference as shown below.

(76)a) [toyla] loqa - gir doq - da

fish water-inside live-impf.

literally. 'Fish lives inside water.'

b) [ʔ ans'i] woč'- inti laqmi - ye

mead drink-to/drinking- nice-is

'Drinking mead is nice.'

c) [gudri] zeemi - ye

hyena strong - is

literally 'Hyena is strong.' or 'A hyena is strong.'

The occurrence of the determiner / - n ɾ - in / on the nominal head that also contains a modifier, may cause the structure to be illformed. Consider the following structures.

(77) * a) [ʔ aapti-s-in zeymi] NP deʔi - ta

bird - sglt - det red die-pf-3s

* b) [waaki- s - in č' elmi] NP aa - ta

ox - sglt - det-black come-pf-3s

Structures like (77) become wellformed, if the determiner appears on the modifiers as in (78) below.

(78) a) [ʔaapti - zeymi - s - in] NP deʔi - ta

bird red-sglt - det die-pf-3s

'The red bird has died.'

b) [waaki č' elmi - s - in] NP aa - ta

ox black-sglt-det come-pf-3s

'The black ox has come.'

The wellformedness of (78) suggests that the determiner / - n~- in / may restrict the references of the nominal heads by appearing on the modifiers if there is one. If the structure contains more than one modifier, the determiner appears on the rightmost modifier. The following are examples.

(79) a) [yins'i zeymi ga?ša - s[13] - in]NP kay - ta

boy red big-sglt - det go-pf-3s

'The big red boy has gone'.

b) [?aapti č' elmi tokmi - s - in]NP de?i-ta

bird black small-sglt-det die-pf-3s

'The small black bird has died'.

3.1.1.2. Demonstratives

Demonstratives are deictic elements that "... specify which of several possible referents the speaker means" (Lester, 1971:36-37). As far as demonstratives are concerned, referents of nominal heads can be specified interms of their location in relation to the speaker and the hearer. In Aari, / koona / 'this' and /keena / 'these' refer to the referents that are relatively closer to the speaker. On the other hand, /koona-?o/ 'that and /keena?o/[14] 'those' indicate referents of nouns that are relatively farther away from the speaker or relatively closer to the hearer.[15] The following examples are structures with these demonstratives.

(80) a) [derti - s - in koona?o]$_{NP}$ ga?ʸsa - ye

goat - sglt-det that big - is

'That goat is big'.

b) [yins'i - n koona]$_{NP}$ gada - ye

boy - det this foolish - is

'This boy is foolish'.

c) [?eed - in keena?o]$_{NP}$?abla-na[16]-m ʸsen-t-ek

man-det- those cloth-det-acc- buy-pf-3p.

'Those men have bought the cloth.'

d) [?eeya - n keena]$_{NP}$ galt - ek

house-det these old-3p

'These houses are old.'

As it can be noticed from the above examples, in Aari, demonstratives are marked for number.[17] Furthermore, the demonstratives restrict the references of their respective nominal heads by occurring in the position following them. Though the basic or unmarked order is this one, reversing this order is rarely possible as in structures (81).

(81) a) [koona?o derti-s-in]$_{NP}$ ga?ʸsa - ye

that goat-sglt-det big - is

'That goat is big'.

b) [koona yins'i - n]$_{NP}$ gada - ye

This boy--det. foolish - is

'This boy is foolish'.

As it can be observed from the preceding structures, the nominal heads /derti/ 'goat', /yins'i/ 'boy' and /ʔeeya/ 'house' appear with the determiner / - n~-in/, which is a definite article, when they are specified by the demonstratives. Following Bender (1989:6), in Aari "A noun used with a demonstrative must also be marked definite."

In Aari, besides demonstratives, interrogative pronouns / ạmina / 'which', / ạro / 'what' and / ạy / 'whose' can specify the referents of heads as in the following examples.

(82) a) [ʔaksi - n ạmina]$_{NP}$ kay - ta

dog - det. which go-pf-3s

'Which dog has gone away ?'

b) [ʔabla ạra ʔayinat]$_{NP}$ šen - er - ta

cloth what kind sell - pas-pf-3s

'What kind of cloth has been sold ?'

c) [ʔeeya ạy]$_{NP}$ ʔi p - se

house whose destroy - pf

'Whose house was destroyed?'

3.1.1.3. Genitive NPs

Genitive NPs consist of possessive nouns and possessive pronouns. Such elements limit the referents of noun phrases in which they occur by identifying the possessor (Lester, 1971:36-37).

3.1.1.3.1. Possessive nouns

In Aari, possessive nouns can restrict the references of nominal heads by occurring in the preceding position. Consider the following examples.

(83) a) [manamal - t (a) derti]$_{NP}$ de?i - ta

Menemal - poss goat die-pf-3s

'Menemal's goat has died.'

b) [yiž̌alq - t (a) baač̌a]$_{NP}$ č̌'elmi - ye

yizalk - poss hen black - is

'Yizalk's hen is black'.

c) [? eed - s - in - t(a) aaqa]$_{NP}$ rootmi - ye

man - sglt - det - poss. tree tall-is

'The man's tree is tall'.

As it can be observed from the examples, the possessive nouns, like the genitive NPs of source & purpose, appear with an affix / t(a) / 'of' that marks the genitive relationship. Such possessive nouns may specify the references of their nominal heads without this affix. However, if the possessive nouns are used to limit the references of their heads without the affix / t(a) / 'of', their nominal heads must appear by deleting their stem final vowels as in the case of the heads of genitive NPs of source & purpose. The following examples illustrate this issue.

(84) a) [manamal dert]$_{NP}$ de?i - ta

Menemal - poss goat die-pf-3s

'Menemal's goat has died.'

b) [yiž̌alq baač̌]$_{NP}$ č̌'elmi - ye

Yizalk-poss hen black-is

'Yizalk's hen is black.'

3.1.3.2. Possessive Pronouns

Each possessive pronoun of Aari can specify the reference of its nominal head by appearing either in a shorter or in a longer form.[18] The two forms of each

possessive pronominal are the following:

1s	ʔi,	ʔist	1p	wo,	wont
2s	aa,	aant	2p	ye,	yent
3s-m	ki,	kit	3p	ke,	kett
3s-f	ko,	kot			

The structures in (85) illustrate when such possessive pronominals are used to restrict the references of their heads by occurring in their shorter forms.

(85) a) [ʔi - ʔeeya - n]$_{NP}$ laqmi dak - ye

my - house - det. nice - not - is

'My house is not nice.'

b) [aa - koti - n]$_{NP}$ laqmi - ye

your - coat-det nice - is

'Your coat is nice.'

c) [ke - ʔabla]$_{NP}$ zeymi - ye

their cloth red - is

'Their cloth is red.'

In (85) the possessive pronominals appear as prefixes of the nominal heads. However, they cannot occur as suffixes of the nominal heads without this causing the

structures to be ungrammatical. Consider the following examples.

(85) * a) [ʔeeya - n - ʔi]$_{NP}$ laqmi - dak - ye

house-det- my nice-not - is

* b) [ʔabla - ke]$_{NP}$ zeymi - ye

cloth - their red - is

On the basis of the preceding discussions we can conclude that the possessive pronominals can specify the references of their heads by occurring as prefixes, if they appear in their shorter forms.

The structures in (87) indicate when the possessive pronominals serve as specifiers by appearing in their longer forms.

(87) a) [ʔeeya ʔist]$_{NP}$ laqmi - dak - ye

house my nice - not - is

'My house is not nice'.

b) [koti ąąnt]$_{NP}$ laqmi - ye

coat your nice- is

'Your coat is nice'.

c) [ʔaksi - kit]$_{NP}$ č'elmi - ye

dog his black - is

'His dog is black'.

In (87) the possessive pronominals, unlike in their shorter forms, specify the references of their heads by occurring in the position following them. Although the basic order is this one, they may occur preceding their heads as in (88).

(88) a) [?ist saba - n]$_{NP}$ s'eedi - ye

My belt - det. short - is

'My belt is hort'.

b) [aant koti - n]$_{NP}$ laqmi - ye

your coat-det. nice- is

'your coat is nice'.

c) [kit ?aksi - n]$_{NP}$ č'elmi - ye

his dog - det. the black-is

'His dog is black'.

As it can be seen from the examples in (88) the nominal heads /saba / 'belt', /koti / 'coat' and /?aksi/ 'dog' appear with the determiner / - n ~ - in /. If they appear without this suffix, the structures become ungrammatical as in (89).

(89) * a) [?ist saba]$_{NP}$ s'eedi - ye

My belt short - is

* b) [aant koti]$_{NP}$ laqmi - ye

your coat nice - is

The grammaticality and the ungrammaticality of the structures in (88) and in (89) respectively, suggest that if the longer forms of the possessive pronominals occur in the preceding position, their respective nominal heads must be marked definite.

Hence, in Aari, two definite articles seem to appear in an NP. However, as the structures in (90) illustrate, three definite articles appear in a single NP.

(90) a) [?ist saba - n koona]$_{NP}$ s'eedi - ye

My belt - det this short-is

'My belt is short'.

b) [aant koti - n koona?o] laqmi - ye

your coat - det. that nice - is

'Your coat is nice'.

The definite articles that appear in structures (90) are determiner, possessive pronouns and demonstratives.

On the basis of this, we can forward the following constraint concerning the number of articles that may appear in an NP.

(91) Article constraint

An NP may have at most three articles as specifiers.

3.1.2. Indefinite Articles

The class of indefinite article includes the numeral /wollaq/ 'one' and indefinite pronouns. In Aari, such indefinite articles occur following their nominal heads. Consider the following examples.

(92) a) [ʔukli wollaq]$_{NP}$ šen - er - še

mule one sell-pas-pf-3s

'A mule was sold'.

b) [ʔeed wollaq]$_{NP}$ aa - ta

man one come-pf-3s

'A man has come'.

c) [yins'i ayere]$_{NP}$ kur aad - inti zi-zig-da

boy any here come-to red-want-impf.

'Any boy wants to come here'.

d) noo [ʔeeya ayere]$_{NP}$ naš - ay

he house any like - neg-impf.

'He doesn't like any house'.

As it can be noticed the numeral /wollaq / 'one' and the indefinite pronoun /ayere / 'any' are used to specify the references of nominal heads in (92 a & b) and in (92 c & d), respectively. Each of these indefinite article, as Bornstein (1977:236) states concerning the indefinite article of English, indicates that the reference of nominal head with which it appears is any one member of a general class.

3.2. Quantifiers

"... quantifiers are modifiers which combine with nouns to produce expressions whose reference is thereby determined in terms of the size of the set of individuals or in terms of the amount of substance that is being referred to" (Lyons, 1977:455). In other words, quantifiers are grammatical formatives which restrict the referent of a head noun in terms of its quantity or size. Quantifiers may also be divided into definite and indefinite.

3.2.1. Definite quantifiers

Definite quantifiers are elements that can be involved in specifying the referents of nouns to some amounts. The amount or size may be quantified directly by counting it or by using units of measurements. For this, numerals, measure phrases and classifier phrases can be used.

3.2.1.1. Numerals

The label 'numerals' signifies cardinal numbers which can indicate the amount of entities that may be figured out by direct counting. Observe the following examples.

(93) a) [ma[19] makkan]NP kay - t - ek

woman three go - pf - 3p

'Three women have gone'.

b) [qoli qastan]NP ja - t - ek

sheep two come-pf-3p

'Two sheep have come'.

c) [ʔaapti donq]NP ąąqa - zan doqn - t - ek

bird five tree - on sit - pf - 3p

'Five birds have sat on a tree '.

In the structures in (93), the cardinal numerals / makkan / 'three', /qastan/ 'two' and /donq/ 'five' determine the amount of the respective head nouns by occurring following them, Reversing this order leads to ungrammaticality. This is observable from the following examples.

(94) * a) [makkan ma]NP kay - t - ek

three woman go-pf-3p

* b) ⌈qastan qoli⌋$_{NP}$ aa-t-ek

two sheep come-pf-3p

Based on the ungrammatical structures in (94), we can conclude that the cardinal numerals can only follow the head.

In Aari, if the cardinal numerals are used to determine the amount of definite plural head nouns, the determiner plural marker / - na~ - ina/ may be fixed to them as a suffix rather than to the heads. This is shown in the following examples.

(95) a) ⌈yins'i qastan - in - a⌋$_{NP}$ aa - t - ek

boy two - det - p come - pf - 3p

'The two boys have come'.

b) ⌈ʔanza makkan - in - a⌋$_{NP}$ ʔeeb - t - ek

girl three-det-p weep-pf-3p

'The three girls have wept'.

c) ⌈ʔaapti donq-in-a⌋$_{NP}$ pee-t-ek

bird five-det.p fly-pf-3p

'The five birds have flown away'.

The determiner plural marker / - na~ - ina / cannot be suffixed to the head nouns with the presence of the cardinal numbers. The following illformed structures may verify this.

(96) * a) [yins'i - n - a qastan]$_{NP}$ aa - t - ek

boy-det-p. two come-pf-3p

* b) [? anza - n - a makkan]$_{NP}$?eep - t - ek

girl - det - p three weep-pf-3p

Suffixing the article to both numerals and their heads is not possible without causing the structures to be illformed. Consider the following examples.

(97) * a) [yins'i - n - a qastan - in - a]$_{NP}$ aa - t - ek

boy - det - p two - det - p come-pf-3p

* b) [?anza-n-a makkan - in - a]$_{NP}$?eep - t - ek

girl-det-p. three-det-p weep-pf-3p

* c) [?aapti-n-a donq-in-a]$_{NP}$ pee - t - ek

bird-det-p. five-det-p fly-pf-3p

Based on such examples, we can propose that the determiner plural marker / - naa- in a /cannot be suffixed simultaneously to both the numerals and their heads.

The cardinal numerals behave like nominals, since they too are inflected for definiteness. They may also share some features with the nominals. They can,

for example, function either as subjects or objects of predicates. Consider the structures in (98) below.

(98) a) [qastan - in - a]$_{NP}$?eep - t - ek

two - det-p weep-pf-3p

'The two have wept'.

b) naa [donq - in - a - m]$_{NP}$ deys - ta

she five-det-p-acc. kill-pf-3s

'She has killed the five'.

In (98) the cardinal numerals /qastan-in-a/ 'the two' and /donq-in-a-m/ 'the five' function as a subject and as an object, respectively.

3.2.1.2. Measure phrases

Measure phrases are noun phrases with nominal heads that signify things which can be employed as units of measurement. The measure phrases, unlike the cardinal numerals, are used to restrict the amount of the referents of both [+ count] and [- count] nouns.

This is noticeable from the following examples:

(99) a) [goola]$_{NP}$ [gusi qastan]$_{NP}$ woč^{v} - t - it

beer calabash - two drink-pf-1s

'I have drunk two calabashes of beer'.

b) [raas'i [burč uqa donq]] šen - t - ot
NP NP

milk glass five buy-pf-1P

'We have bought five glasses of milk'.

c) noo [qolma [barat makkan]] kit doqe
NP NP

he cattle pen three his has

'He has three pens full of cattle'.

d) [Patir [reqa ?ooyidi]] šen - t - ay
NP NP

maize barn four buy-pf-2s.

'You have sold the maize of the four barns'.

e) [ʕaqa [kindi tamma]] ?ab - t - ot
NP NP

tree cubit ten get-pf-1p

'We have got ten cubits of wood.'

In (99), the measure phrases, which are in the innermost brakets, consist of units of measurement that are quantified by numerals.

In Aari, a means of transportation can also serve as a unit of measurement in the case of measure phrases. This is observable in (100) below.

(100) a) keta [zergi [makina makkan]] kaš - t-ek
NP NP

they wheat lorry three distribute-pf-3p

'They have distributed three lorry-loads of wheat'.

b) naa [patir [haya qastan_7_7 sen - ta
NP NP

she maize donkey two buy-pf-3s.

'She has bought two donkey-loads of maize'.

As it can be noticed from the structures in (99 & 100), the measure phrases occur in the position following the heads. However, the reverse order is also possible as in (101) below.

(101) a) [[gusi qastan_7 qoola_7 woč^{v}- t - it
NP NP

calabash - two beer drink-pf-1s

'I have drunk two calabashes of beer'.

b) [[barat makkan_7 qolma_7 kit doqe
NP NP

pen three cattle his has

'He has three pens full of cattle'.

c) keta [[makina makkan_7 zergi_7 kaš^{v} -t-ek
NP NP

they lorry three wheat distribute-pf-3p

'They have distributed three lorry-loads of wheat.'

On the basis of the structures in (99 - 101), we can conclude that the measure phrases, in Aari, can exchange their positions with their heads.

On the other hand, the numerals that occur in the innermost brackets donot exchange their positions with their heads that serve as units of measurement. As it can be observed from the above examples, the numerals are consistently preceded by their heads.

3.2.1.3. Classifier Phrases

Classifier phrases, like measure phrases, are noun phrases. Besides, as the measure phrases, they consist of a head noun and a numeral that quantifies the head. However, the heads of the classifier phrases are not the same as those of the measure phrases. As Lyons (1977:462) remarks, they are nouns that serve the function of individuation and enumeration.

In Aari, the classifier phrases are used to specify the referents of [- count] nouns. The following are representative examples.

(102) a) noo [[ʔatir]$_{NP}$ [mata ʔooyidi]$_{NP}$] teč^{y} - ta
he maize head four cut-pf-3s

'He has cut four heads /cobs / of maize'. or
'He has cut four ears of maize'.

b) naa [[buna]$_{NP}$ [ʔapi donq]$_{NP}$] zi-zig-da
she coffee bean five red-want-impf-3s

'She wants five beans of coffee.'

c) woota [rabi [mata qastan_/_/ šen - t - ot
NP NP

we sorghum head two buy-pf-1p

'We have bought two heads of sorghum.'

In the structures in (102) the classifier phrases /mata ʔooyidi / 'four heads' / ʔapi donq / 'five beans' and /mata qastan / 'two heads' restrict their respective heads by occurring following them. But they can also occur preceding them. Consider the structures in (103) below.

(103) a) noo [[mata ʔooyidi_/ patir_/ teč - ta
NP NP

he head four maize cut-pf-3s

'He has cut four heads (cobs) of maize'. or'

'He has cut four ears of maize.'

b) naa [[ʔapi donq_/ buna_/ zi-zig - da
NP NP

she bean five coffe red-want-impf-3s

'She wants five beans of coffee.'

However, the omission of the numerals from the classifier phrases causes the structures to be ungrammatical as in (104) below.

(104) * a) noo [patir [mata]] teč - ta
NP NP

he maize head cut-pf-3s

* b) naa [buna [ʔapi]] zi-zig-da
NP NP

she coffee bean red-want-impf-3s

The ungrammaticality of the structures in (104) suggests that classifier phrases cannot modify their heads without the numerals.

On the other hand, the cardinal numerals cannot alone specify the amount of the items designated by the nouns. Observe the illformed structures in (105).

(105) * a) noo [patir [ʔooyidi]] teč - ta
NP NP

he maize four cut-pf-3s

* b) naa [buna [donq]] zi - zig - da
NP NP

she coffee five red-want-impf-3s

The illformedness of the structures in (105), suggests that the nominal heads of the numerals must appear in all the structures of such types.

3.2.2. Indefinite Quantifiers

Indefinite quantifiers refer to elements that show the quantity of nominals in non-specific terms. These include forms like / mers / 'some', / bedmi / ' a lot of or many', / muda / 'all', / tokmi[20]/ ' few', etc. Some of such indefinite quantifiers may occur with both [+ count] and [- count] nouns. Consider the examples in structures (106) and (107).

(106) a) [ʔaapti muda] pec-t-ek
NP
bird all fly-pf-3p
'All the birds have flown away'.

b) [mas'ap bedmi] tay-t-it
NP
book many receive-pf-1s
'I have received many books'.

c) [yins'i tokmi] gaba kay-t-ek
NP
boy few market go-pf-3p
'Few boys have gone to the market'.

d) [gudri mers] deys - t - ot
NP
hyena some kill-pf-1p
'We have killed some hyenas.'

In the structures (106), the indefinite quantifiers /muda/ 'all', /bedmi/ 'many', /tokmi/ 'few' and /mers/ 'some' occur with / + count / nouns.

The opposite is shown in structures (107) below.

(107) a) keta [goola *bedmi*] wo[:]k-ek
NP

they beer *much* drink-neg-pf-3p

'They did not drink *much* beer'.

b) woota [šay mers] sen - t - ot
NP

we sugar some buy-pf-1p

'We have bought some sugar.'

c) ʔita [kuri bedmi] ʔit^{s} - t - it
NP

I honey - a lot of/much eat - pf - 1s

'I have eaten a lot of/much/ honey.'

d) [gini mers] ^{y}šen - er - ta
NP

butter some sell-pas-pf-3s

'Some butter was sold.'

As it is shown, the indefinite quantifiers/mers/ 'some' and /bedmi/ 'a lot of/much' are used to show the amount of / + count / nouns as well as / - count / nouns.

In all these structures, the indefinite quantifiers occur following their respective heads. Reversing this order leads to ungrammaticality. This is observable from the following examples.

(108) * a) [muda ʔaapti]$_{NP}$ pee-t-ek
all bird fly-pf-3p

* b) [tokmi yins'i]$_{NP}$ gaba kay - t - ek
few boy marketgo - pf - 3p

* c) ʔita [bedmi kuri]$_{NP}$ ʔit^{s}-t-it
I a lot of/much-honey eat-pf-1s

The illformedness of these structures suggests that the indefinite quantifiers cannot occur preceding the head.

In Aari, more than one quantifier cannot appear simultaneously in an NP. The following ungrammatical structures may verify this.

(109) * a) [waaki tamma bedmi]$_{NP}$ deʔi - t - ek
ox ten many die - pf - 3p

* b) [yins'i gastan tokmi]$_{NP}$ gaba kay - t - ek
boy two few market - go-pf-3p

On the basis of the illformed structures in (109), we can propose the following constraint regarding the number of quantifiers that may appear in an NP:

(110) Quantifier Constraint

The number of quantifiers that can appear in a single NP is one.

The structures in (111) indicate the precedence relationship between quantifiers and articles as they appear in an NP.

(111) a) [[keena-m]NP Art [[ʔalpa]NP NP [makkan-in-a]Q]NP

these-acc. knife three-det-p

ʔab-t-it.

get-pf-1s

'I have got these three knives.'

b) [[keena ʔo]NP Art [[derti]NP NP [bedmi-n-a]Q]NP

those goat many-det-p

ʸsen-er-t-ek

sell-pas-pf-3p

'Those many goats were sold.'

c) [[kit]NP Art [[koti]NP NP [qastan-in-a]Q]NP

his coat two-det-p

laqm-ek-e

nice-3p-are

'His three coats are nice.'

d) [[keena manamal - t(a)] [[baača] [donq -
NP Art NP NP Q
these menemal-poss. hen five -

in-a]]] čelm-ek-e
det-p black-3p are

'These five hens of Menemal's are black.'

As shown in structures (111), unlike in languages such as English and Amharic, with the exception of the determiner, the class of articles and quantifiers do not appear on the same side with respect to the nominal heads. They occur in the positions preceding and following the head. The articles, excluding the determiner, occur preceding the head whereas the quantifiers occur following it.

Though this is the basic order, both of them may occur following the head as in the structures (112) below.

(112) a) [?alpa keena-m makkan - in - a] ?ab-t-it
NP
knife these-acc. three-det-p get-pf-1s
'I have got these three knives.'

b) [koti kit qastan - in - a] laqm-ek-e
NP
coat his two-det-p nice-3p-are
'His two coats are nice.'

Except the determiner the articles occur following the head in the structures in (112) and preceding the quantifiers.

The class of quantifiers cannot occur following the class of articles and preceding the nominal heads without causing illformedness. The ungrammatical structures in (113) may verify this issue.

(113) * a) [[keena-m] [[makkan - in - a]
NP Art Q
these-acc three-det-p
[[?alpa]]] ?ab-t-it.
NP knife get-pf-1s

* b) [[keena?o] [[bedmi - n - a]
NP Art Q
those many-det-p
[derti]]] sen - er - t - ek
NP
goat sell-pas-pf-3p.

* c) [[keena manamal -t (a)] [[donq-in-a]
NP Art Q
these menemal-poss five-det-p
[baaka]]] V elm-ek-e
NP hen black-3p-are

The illformedness of the structures in (113) indicates that the articles and the quantifiers cannot occur together preceding the head.

The ungrammaticality of the structures may be attributed to the hierarchical relationship of quantifiers rather than their precedence relation. In Aari, quantifiers may not appear at the same level where articles occur. Consequently, the raising of

quantifiers to the level where articles occur leads to illformedness. In other words, quantifiers and articles donot fall in the same level of projection. We may assume that quantifiers and articles can be found in the levels of N" and N"', respectively, This assumption can be supported by using gapping as a syntactic test. Compare the structures in (114) below.

(114) a) keena derti makkan-in-a aant-ek-e keena?o derti
these goat three-det-p yours-3p-are those goat
makkan-in-a gina ?ist-ek e
three-det-p but mine-3p-are
'These three goats are yours, but those three goats are mine'.

b) keena derti makkan-in-a aant-ek-e keena?o
these goat three-det-p yours-3p-are those
[-] gina ?ist - ek - e
but mine-3p-are
'These three goats are yours, but those are mine'.

By comparing (114a) with (114 b) we can see that the message of (114a) is paraphrased by (114b), where the common element is deleted. The ommission of the units /derti makkan-in-a/ 'three goats' without incurring illformedness, suggests the following two points. The first one is that the quantifier /makkan - in - a / 'three' is deleted together with the nominal head

/derti / 'goats' which forms the intermediate category /derti makkan - in - a / 'three goats'. This means that the position of the quantifiers is under the N".

The second point is that the article /keena?o / 'those' is not deleted along with the units of the N". This implies that the position of the articles is not under N", rather it is under the next higher level, which is N"'.

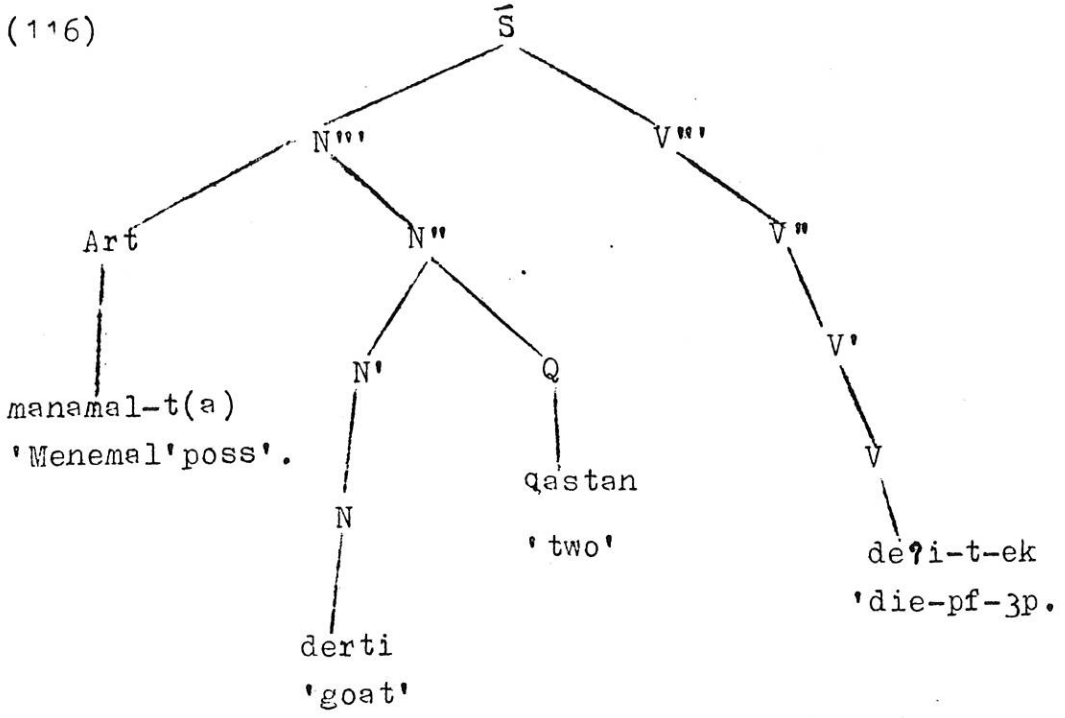
Based on this, the precedence - dominance relationship of the articles and the quantifiers in (115) may be illustrated by the tree diagram in (116).

(115) [[manamal - t(a)]] [[derti] [qastan]]]
NP Art NP NP Q
menemal-poss. goat two

de?i - t - ek
die - pf - 3p

'Menemal's two goats have died.'

(116)



'Menemal's two goats have died.'

As it can be observed from the tree diagram, the article / manamal- t(a)/ 'menemal's' establishes a sister relationship with the N''. On the other hand, the quantifier /qastan / 'two' that branches from the N'' forms a sisterhood relationship with the NP /derti/ 'goat' by occurring following the head.

Finally, it seems essential to state the number of specifiers that may appear in an NP. As can be recalled, constraints in (91) and in (110) discuss the number of articles and quantifiers that may appear in an NP, respectively. Based on these two constraints, we can formulate a general specifier constraint.

(117) Specifier constraint.

The number of specifiers that can appear in an NP is at most three articles and one quantifier.

CHAPTER FOUR

4. CONCLUSION

In this study an attempt is made to examine the structure of the noun phrase in Aari.

As it has been mentioned in chapter one, the study is based on the X-bar theory of Jackendoff (1977) and recent developments. According to this theory every lexical category has the potential to expand uniformly upto a maximal of three bar levels by taking complements and specifiers.

In chapter two we have seen that lexical nominals, which consist of simple and derived nominals, can serve as heads of NPs. The nominals of Aari can be projected up to three bar levels by taking either complements or specifiers.

Regarding complements, it was found that complements which are syntactically bound to their heads, occur immediately preceding them and form the minimal phrasal category.

We have also observed that the complements of the level N' are of two types. These are the complements of simple and derived nominals. The complements of simple nominals at the level N' include source and purposive

genitives. On the other hand, the complements of derived nominals at N', consist of NP's and clauses.

The complements of the level N' are referred to as functional arguments, since they are closely tied to their heads and establish a sister relationship with them in tree structures.

We have also seen the complements that occur at the level N". The complements of this level are restrictive modifiers. These complements can restrict the references of their heads by providing new information. They form the intermediate phrasal category N" with the head N'.

The complements of the level N" are of two types. They are: (i) the N" complements of simple nominals and (II) the N" complements of derived nominals. The N" complements of simple nominals comprise adjectivals, locative genitives, temporal genitives and restrictive relative clauses. With the exception of the locative genitives all these complements occur in the position following their respective heads.

The N" complements of derived nominals consist of adpositional phrases and dependent clauses. Both complements occur preceding their heads.

The complements that occur in the maximal projection line of nominal heads are non-restrictive (appositive)

modifiers. Such complements donot provide new information concerning the referents of their heads. The non-restrictive modifiers of Aari include non-restrictive relative clauses and some NPs. Excluding some NPs, all the non-restrictive modifiers occur following their heads. Certain NPs, however, occur either preceding or following their heads.

Regarding specifiers, we have observed that there are two types of specifiers. These are articles and quantifiers. The class of articles and quantifiers are used to limit the referential and quantitative range of nominals with which they appear, respectively.

Concerning the articles, two types of articles are recognized. Those are definite and indefinite articles. The class of definite articles comprises determiners, demonstratives and genitive NPs of possession. On the other hand, the indefinite article includes the numeral /wollaq/ 'one' and indefinite pronoun /ayere/ 'any'.

The quantifiers of Aari are considered as they consist of definite and indefinite quantifiers. The former class of quantifiers comprises numerals, measure and classifier phrases. On the other hand, the latter class of quantifiers includes forms like /mers/ 'some', /bedmi/ 'a lot of or many', /muda/ 'all', /tokmi/ 'few' etc.

In chapter three it was shown that the class of articles and quantifiers belong to two different levels in the projection line of nominal heads. The class of articles and quantifiers occurs at the levels of N''' and N'', respectively.

Regarding the occurrence position of specifiers in relation to complements, they usually occur in a peripheral place.

The general precedence relationship of specifiers with complements in an NP may be illustrated as follows:

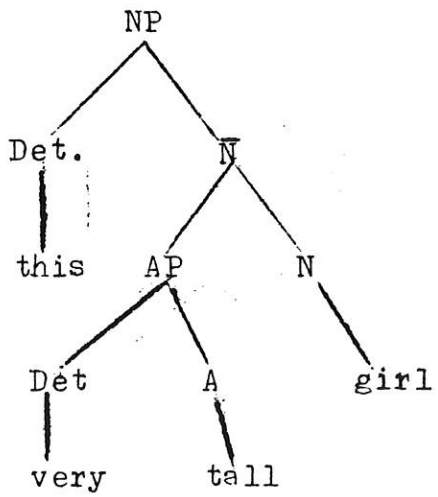
N''' ⟶ (spec) (comp) N'' (comp) (spec)

N'' ⟶ (spec) (comp) N' (comp) (spec)

N' ⟶ (comp) N.

NOTES

1. According to Radford (1981:93) the element under the node N (i.e. girl) in the following tree structure is the *minimal* lexical category. On the other hand, the constituents under $\bar{N}$ and NP are the intermediate and *maximal* phrasal categories, respectively. As can be observed, the intermediate phrasal category, which is represented by the node $\bar{N}$, appears between the *minimal* lexical category N and the *maximal* phrasal category NP.



2. Concerning the *maximum* value of 'n' in the phrasal category X^n, various linguists propose different numbers. Jackendoff's (1977:35) statement regarding the value of 'n' may illustrate this point.

> In Chomsky's original formulation, n equals 2 for nouns and 3 for verbs (assuming the verb is the head of the sentence). Vergnaud (1974) and Siegal (1974) have n equal to 4, at least for nouns; Dougherty (1968) has n equal to 3 for nouns and 6 for verb;

> Jackendoff (1971;1974a) has n equal to 2 for all categories ... It now appears to me that n must equal 3 for verbs and nouns.

Though various numbers are proposed for the value of n, now there is no problem with respect to the existence of intermediate phrasal categories.

3. According to Hayward (1990:471-472), the formative of the perfective in the case of the affirmative can be either /-se(qe)/ or /-ta/.

4. Simple nominals are nominals that are not derived from other categories.

5. Derived nominals are nominals that are derived from other categories.

6. Although imperfective in the case of affirmative, is marked by an affix /-da/, reduplication of either the root or part of the root is also its common feature (Hayward, 1990:471).

7. The underlying representation of the perfect marker /-$\overset{y}{s}$e/ is /-se/ as usual. The phoneme /-s/ is changed to / $\overset{y}{s}$ / due to a phonological process of consonant harmony. The presence of the consonant / $\overset{y}{s}$ / in the stem of /$\overset{y}{s}$en/ 'buy' causes the suffix /-se/ to become /-$\overset{y}{s}$e/. With respect to such a phonological process Hayward (1990:469) states as follows:

There is an interesting consonant harmony process in Aari, whereby the presence of a palato-alveolar sibilant /s̠, z̠, c̠, c̠', j/ anywhere in the root will bring about "palatalization" of any sibilant in a suffix. This process will operate across intervening non-sibilant segments.

8. In the case of the *temporal* genitives, unlike in other genitives, genitive relationship is marked by the suffix/-mak/ 'of'.

9. Hayward (1990:485) points out that the most frequently encountered type of relative formation involves the suffixation of '-inda(a)' to the tense /aspect/ polarity formative.

As far as the present study is concerned, with respect to the formation of relatives an affix /-qa/ appears most often. My informants also do not accept the suffixation of '-inda(a)' in the case of relative formation.

10. Regarding the types of nominal specifiers, linguists have different views. For example, Bornstein (1977), Ritter (1988) and Rothstein (1988) classify all nominal specifiers into the group called determiner. As a result, they consider quantifiers as subgroups of the "determiner".

On the contrary Lyons (1977), Jackendoff (1977) and Akmajian and Heny (1975) classify the nominal specifiers into two main groups rather than one.

However, these linguists donot use the same terms that signify the two groups. Lyons (1977) and Akmajian and Heny (1975) use the terms "determiner" and "quantifier". On the other hand, Jackendoff (1977) uses the terms "Article" and "quantifier" for the two groups of nominal specifiers.

11. According to Hayward (1990:443) the variant suffix with initial "i" appears with a noun that ends in a consonant phoneme.

12. In Aari, with respect to / + countable / nouns an affix / -s / marks the singulative or individuated category which stands opposed to an unmarked generic or class denoting category (Hayward, 1990:444).

13. As it can be noticed from the structures in (78) and in (79), the singulative marker /-s/ appears also in the rightmost modifier, along with the definite marker, rather than in the nominal head.

14. According to my informants, Aari employs also /koonasa/ 'that' and /keenasa/ 'those' to indicate referents of nouns that are very far away from the speaker or in a distant location with respect to the speaker.

15. As far as Hayward (1990:459) is concerned, the same structural unit /koone~koona/ with the plural form of /keene~ keena/ refers to the referents of

nouns that are relatively closer to as well as farther away from the speaker. However, for such referents my informants render demonstratives with two forms. This can be noticed from the structures in (80).

16. The determiner marker /-n∼-in/ 'det ' is followed by a vowel 'a', if the accusative suffix /-m/ is marked (Hayward, 1990:443).

The determiner / -n∼-in/ also appears along with the vowel 'a', if it restricts the references of plural nouns as in the following structures.

a) [yins'i-na]$_{NP}$ aa-t-ek
boy-det-p. come-p -3p
'The boys have come'.

b) [waaki - na]$_{NP}$ de?i-t-ek
ox det.p. die-pf-3p
'The oxen have died'.

But the determiner / -n ∼ -in/ cannot appear along with the vowel 'a', when it limits the references of singular nouns, without causing the structures to be illformed. The following ungrammatical structure may verify this.

* c) [toyla-na koona?o]$_{NP}$ laqmi-ye
fish - det-p that nice-is

This ungrammatical structure becomes grammatical if the NP appears with the suffix / -n ~ -in/ which occurs without the vowel 'a' as in (d) below.

d) [toyla-n koona?o]NP laqmi-ye

fish-det that nice-is

'That fish is nice'.

Based on the ungrammatical and grammatical structures in c and d respectively, it seems that the determiner / -n ~ -in/ must appear along with the vowel 'a' if it restricts the referents of plural nouns too.

17. Although the demonstratives are marked for number, they cannot be marked for gender. The following structures are given as illustrative examples.

a) [yins'i-n koona]NP gada-ye

boy-det. this foolish-is

'This boy is foolish'.

b) [?anza-n koona]NP ?uzmi-ye

girl-det this beautiful-is

'This girl is beautiful'.

c) [yins'i-n koona?o]NP gada-ye

boy-det that foolish-is

'That boy is foolish'.

d) [?anza-n koona?o]NP ?uzmi-ye

girl-det that beautiful-is

'That girl is beautiful'.

In the examples, both the demonstratives /koona/ 'this' and /koona?o/ 'that' occur with the nominal heads /yins'i-n/ 'the boy' and /?anza-n/ 'the girl' which have the references of masculine and feminine gender, respectively.

18. Hayward (1990:456) renders the shorter and longer form of each possessive pronominal as follows.

"1s	?iste, ?ist	1p	wo(o)nte, wo(o)nt
2s	aante, aant	2p	yente , yent
3sm	kitte, kit	ep	kitte, kit."
3s-f	kotte,kot		

As far as the present study is concerned, the shorter and the longer forms of each possessive pronominal, as it can be noticed, differ from those of Hayward .

According to my informants, Hayward's longer forms of the possessive pronominals cannot be used as specifiers without causing structures to be illformed. Consider the following illformed structures.

((1) * a) [?eeya ?iste]NP ?uzmi - ye

house- my beautiful-is

* b) [yins'i kotte]NP aa - ta

boy hers come-pf-3s

* c) [?aksi kitte]NP de?i - ta

dog his die-pf-3s

However, the possessive pronominals may appear in their longer forms, if they are not used as specifiers as in (2) below.

((2) a) yente ʸsen - er - ʸse

yours sell-pas-pf

'Yours was sold'.

b) kotte wanna - ye

hers good-is

'Hers is good.'

c) kette ga?ʸsa - ʸe

theirs big is

'Theirs is big'.

Based on the ungrammatical and grammatical structures in (1) and in (2) respectively, we can propose that the possessive pronominals of Aari cannot be used as specifiers by appearing in the above cited longer forms.

19. The word /ma/ 'woman' cannot be marked for plurality, since Aari does not mark nouns for plural number (Hayward, 1990:444). In this language the idea of plurality can be indicated by the use of quantifiers. For example, if the numeral /makkan/ 'three' is omitted from the structure /ma makkan kay-t-ek/

woman. three go-pf-3p

'three women have gone', the sentence becomes ungrammatical as in (a). * a) ma kay-t-ek

woman, go-pf-3p

The structure in (a) is illformed, since there is no agreement on number between the subject /ma/ 'woman', which is singular in number, and the verb /kay-t-ek/ which is plural in number. However, if the morpheme /ek/, which is a third person plural subject agreement marker, is deleted from the verb /kay-t-ek/ 'go-pf-3p', the structure becomes wellformed as in (b) below.

(b) ma kay-ta

woman-go-pf-3s

'A woman has gone'.

As it can be observed from the example in (b), the word /ma/ 'woman/ expresses the notion of singularity without the quantifier /makkan/ 'three'.

In Aari, besides quantifiers demonstratives which are plural in number may express the idea of plurality as in (80c & d).

On the other hand, in the case of definite plural nouns neither a quantifier nor a plural demonstrative is required to indicate the notion of plurality. This seems to be indicated by an affix / - na ~ -ina/ 'det-p.' as in (c) below.

(c) yins'i -na kay-t-ek
boy. det.p. go-pf-3p
'The boys have gone'.

20. The term 'tokmi' can mean also small as in the following example.

ʔaapti tokmi - n ɸee - ta
bird small-det. fly-pf-3s
'The small bird has flown away'.

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