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NOMINAL FUNCTIONAL CATEGORIES IN TIGRINYA

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Nominal Functional Categories in Tigrinya

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DECLARATION

I, the undersigned, declare that this thesis is my original work and all sources of materials used for the thesis have duly acknowledged.

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Abbreviations and symbols

Agr	Agreement
AgrP	Agreement Phrase
Agrs	Agreement for subject
Agro	agreement for object
AgrGen	Agreement for genitive case
AP	Adjectival phrase
Comp	complementizer
CP	complementizer phrase
Cop	copular verb
DEF	Definite
D	Determiner
DP	Determiner phrase
DEM	Demonstrative
DemP	Demonstrative Phrase
F	Feminine
GEN	Genitive case
Impf	imperfective
Imp	imperative
Infl	inflection
IP	inflectional phrase
K	case
KP	Case phrase

LF	logical form/ conceptual intentional
NOM	nominative case
NP	noun phrase
Perf	perfective
PF	Phonetic form/articulatory-perceptual/interface
Q	quantifier
QP	quantifier phrase
RC	Relative clause
V	verb
VP	verb phrase

ABSTRACT

Author Esayas Tajebe

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Title: Nominal Functional Categories in Tigrinya

Key Words: Nominal Syntactic features: Determiners, Definite, Agreement, and other related Nominal Functional Categories; their Syntactic Projections inside DPs.

The study is devoted to nominal functional categories in Tigrinya within the theory of the minimalist program. It centers on identifying the status and syntactic projections of the constituents in the internal structure of noun phrases in Tigrinya, and tries to give a unified account which links the following properties of Tigriny nominal phrases.

- Most determiner phrases of Tigrinya have two synonymous forms. These forms can be determined by an overt or covert features of the functional heads checked by head noun.

- Definiteness which is marked by a deictic or Agrs morpheme and not by a lexical article, acts like a syntactic feature on a par with the Φ-feature, whereas indefiniteness in is not marked at all.

- Certain determiners with overt Φ-features are strong and occur in different syntactic positions in the extended functional projection.

- Possessive forms are derived from an overt genitive case assigner or from head spec agreement in Tigrinya.

Under the framework of Chomsky's, (1995) Minimalist Program, and Kayne, (1994) Linear Constraint Axiom (LCA) a unifying account is given by assuming three functional head

projections. The functional heads have independent projections where different features are checked and licensed. Thus, D^o of DP for the definiteness feature of the head noun is licensed, K^o of KP is a position for the dummy genitive case assigner, and Agr^o is the position where Φ-feature of the head or of the possessor is checked.

Finally, the proposed structure of Tigrinya nominal functional categories that includes lexical and functional projections is:

$[_{DP}\ D^o\ [_{AgrsP}\ Agrs^o\ [_{KP}\ K^o\ [_{AgrGenP}\ AgrGen^o\ [_{DemP}\ Dem^o\ [_{NP}\ N^o\ ]]]]]$

CHAPTER ONE

INTRODUCTION

1.1 The Tigrinya Language

Tigrinya is one of the Northern Ethio-Semitic languages spoken in Tigray and Eritrea. It is grouped with Ge'ez and Tigre which share many linguistic features. It has about five million speakers. It is assumed to be one of the widely spoken Semitic languages next to Arabic and Amharic (Bender and Fulas, 1978; Tesfaye, 1993).

Tigrinya had mainly served as a spoken language for a long time before it became a literal language. Tesfay (1993, 2002), however, pinpoints the presence of a documented source that asserts the commencement of written Tigrinya during the 13thcentury. Besides, during the period of the Italian occupation, written Tigriyna was used for religious purposes. Since then it has become an important language in which newspapers, magazine and books are produced (Bender and Fulas, 1978; Tesfay, 1993; Weldu , 2000).

Currently, the status of Tigrinya has improved, particularly since 1991. The language is now an official regional language of Tigray and the national language of Eritrea. Albeit limited, there are linguistic works done on the language such as Tesfay (1993, 2002), Girmay (1991), Weldu (2000) etc. Moreover, there are very limited descriptive studies concerning noun phrases in Tigrinya. Tsigereda (1983), Kefyalew (2001) and Tesfay (2002) are examples. These, nevertheless, are not in line with current theories of syntax.

A lot has to be done in light of current linguistic inquiry. To this end, this study is an attempt made to show the constituents of the noun phrases following recent developments in functional categories.

0.1 The Motivation for DP Analysis

In recent years, issues related to the internal structure of the noun phrase (NP) have become central point of investigation by many linguists. Chomsky (1970) makes a natural assumption that structures of nouns are similar to that of the corresponding structures of verbs. At that time, the idea did not get enough attention and was not developed further, because the theory of syntax at that time did not match easily with his assumption (Giorgi and Longobardi, 1991). However, as the theory of syntax developed, more general principles regarding the structure of NPs within DPs have started to reemerge as concerns of theoretical investigations.

Abeny (1987) in his DP analysis states that NP and S-bar share the same distribution and are subjected to the same transformations. This means that NP and S-bar are arguments whose projection is distinguished as having two cyclic nodes, noun and verb respectively, which are the two most basic categories in language.

The consideration made in Abeny's DP analysis is that nouns show agreement (AGR) with their possessor. This idea leads to an analysis of noun phrases as headed by an inflection (Infl) like an AGR-element which came to be known as determiner (D). D or Det belongs to the non-lexical or functional category and its maximal projection is DP. NP is a complement of the head D, which is parallel to VP which occurs as complement of the Infl in the S-bar account.

Another support to the claim, discussed by Radford (1997); Szabolcsi (1989); Ritter (1988); etc, is the significant parallelism observed between the syntax of clauses and nominal arguments. They suggest that as verbs extend their projections into IPs or sometimes into CPs, nouns also have extended projections into DPs or sometimes CPs. In the DP-hypothesis, Radford (1997) explains that all nominal and pronominal arguments are projections of an overt or covert D, a functional category.

1.3 Lexical and Functional Categories

Both lexical and functional categories belong to grammatical categories. A grammatical category is defined as a class of expressions which share a common set of grammatical properties (Radford, 1997).

In the lexicon, there are classes of expressions which have distinctive features. The features have also heads with the same feature property whose legibility is checked on the maximal projections by a lexical head. The heads of the categories are classified into two: lexical/content categories and functional/factor categories. The lexical categories are heads with descriptive content. Radford (1997) discusses some features of lexical categories, according to which, heads have idiosyncratic descriptive content which vary from one item to another and that such contentive heads also have antonyms.

Abeny (1987) also describes the content words with the notions immediacy and concreteness. Such are words that survive when language is reduced to bare bones as one is attempting to communicate with non-native speakers.

On the other hand, functional heads have the following features, (Abeny 1987:65):

1. The functional elements constitute closed lexical classes.

2. Functional elements are generally phonologically and morphologically dependent. They are stressless, often clitics or affixes, and sometimes even phonologically null.

3. Functional elements permit only one complement which is a lexical head.

4. Functional elements are interpretable from their complement.

5. Functional elements lack descriptive content. Their semantic contribution is a second order regulating or contributing to the interpretation of their complements. They mark grammatical or relational feature rather than picking out a class of objects.

According to the above feature classifications, lexical categories are heads composed of Nouns, Verbs, Adjectives and Prepositions. The features of these elements consist of a description of their semantic, morphological and syntactic properties which are defined by the feature matrix [± N, ±V]. On the other hand, functional categories are heads which have features of the I(nflectional) node which includes modals, tense, agreement, negation, and determiners, cases, complementizers etc. Functional categories share many elements of the features of lexical categories, but lack the semantic selection properties, such as, θ-marking. Since they have no descriptive content, they assign no independent semantic role. Abeny (1987) distinguished them (functional) from the lexical ones by the syntactic feature (±F) where the functional heads possess the feature [+F] but the lexical heads lack it [-F].

In recent developments of syntactic theory, several linguistic works have emerged with descriptions to distinguish the status and features of the elements found within the internal structures of NPs which are dominated by DPs (Abney, 1987; Borer, 1994; Giorgi and

Longobardi, 1991; Ritter, 1988,1991; etc). They all agree on the similarity between the internal structure of VPs and NPs in that both have maximal projections dominated by functional heads known as IPs and DPs, respectively. Kayne (1994) also has proposed that functional projections can handle hierarchical and linear word order of languages which he assumes to be universally specifier- head- complement.

1.4 Proposals for nominal Structures

Since the issue of headedness in nominal phrases is subject to controversies, several proposals have appeared for nominal structures in the literature. Some assume that NP is the projection of nominal heads; whereas others assume a functional head D^o as head of a noun phrase. Moreover, there are assumptions that take DP as complement of QP in nominal structures. This leads to the idea that there is also no general agreement on the status and projection of constituents in nominal structures. A brief review is made about such proposals below.

1.4.1 Noun Heading Nominal Structure

Such proposals are commonly made for nominal structures starting from earlier times of generative syntax. They state that determiners take specifier positions of the NPs, which is assumed to be the maximal projection.

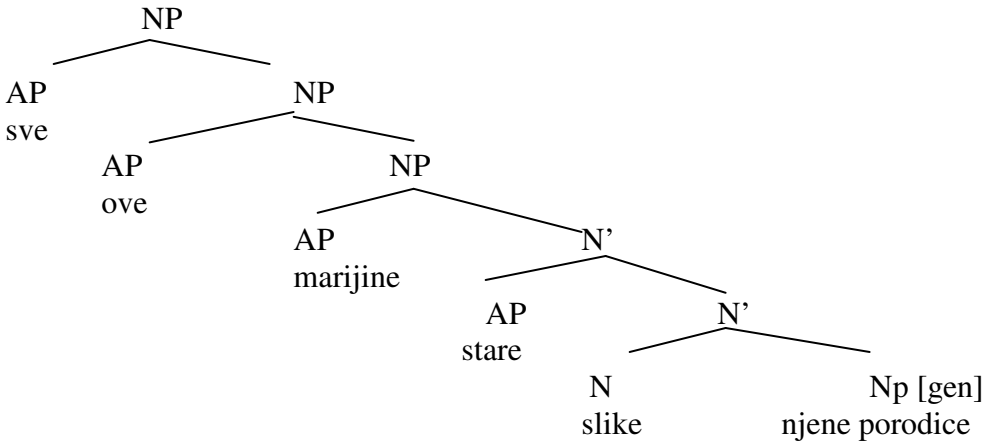
Jackendoff (1977) has raised questions on constituents that take up specifier positions of NP. He states that Spec-NP is not sufficient for accounting for all possible combinations of determiners. He suggests three bar levels in NPs where different determiners occupy different specifier positions.

Others also supported Jackendoff's proposal. Zlatić (1997) 'a lexical framework' reports that the head of Serbian noun phrases is a noun rather than a determiner. According to Zlatić, headedness in noun phrases is a language specific property correlated with the presence or absence of definite articles. The presences of articles show the occurrence of determiners as functional category. Finally, he proposes a parametric variation for determiner as a functional category which seem less acceptable to the Chomskyian Minimalist Program.

In the languages discussed by Zlatić, both determiners and universal quantifiers are NP adjuncts whereas adjectives or possessives are specifiers of NPs. Both constituents appear in the internal nominal structure classified as adjectives rather than as a functional category, a determiner. The proposal that captures the word order in Serbian nominal structure is given below.

1. a) Sve ove marijine stare slike njene porodice
All these Mary's old pictures of her family

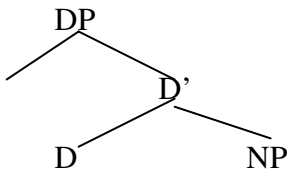
b)



1.4.2 Determiners as heads of NPs

The theoretical development in linguistic inquiry, that is the extension of the x-bar schema to sentential functional elements (Chomsky, 1986b), and better understanding on the nature of head movement (Barker, 1988) cast doubt on the traditional analyses of NP (Siloni, 1997). As a result, a more elaborated nominal syntactic representation that could fit the x-bar schemata was called for. Abney's (1987) DP hypothesis is meant to offer all possible combinations that seem more consistent with standard theoretical assumption on phrase structures. Abney's hypothesis that NPs, like clauses, are dominated by a functional element, proposes the existence of a functional projection DP headed by a determiner that selects NP as its complement. This provides a natural position for articles and, perhaps, some other "atomic" determiners (Danon, 1996).

(2)



A DP hypothesis as in (2) has received strong empirical support by Ritter (1987,1991); Ouhalla (1988); Fassi Fehri (1989); Siloni (1990); etc. These scholars have carried out a series of studies regarding how the head N^o overtly projects to a functional position D^o. Moreover, Langobardi (1994,1996) provides that movement of head could be considered as overt or covert subsequently labeled to be a language specific property giving instances that raising to D occurs overtly in Romance and covertly in English (Siloni, 1997).

However, this hypothesis could not account for all possible combinations of determiners and nouns. Abney mentions some examples of complex determiners such as numerals, measure phrases (one half, two parts etc), articles which he locates on spec-NP. He categorizes

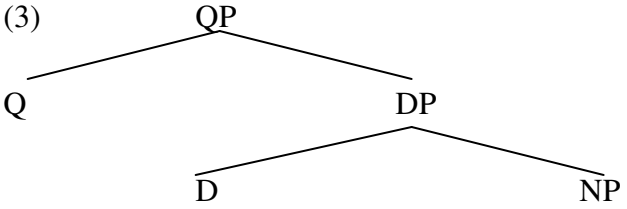
determiners into numerals, measure phrases, articles and quantifier, and assigns each to a different syntactic sub-category; numerals as heads of noun phrase; measure phrase as DPs, articles as D^o and quantifiers as head of QPs.

Danon (1996) comments on Abney's classification and distribution of the sub-categories is stipulated without any clear criteria for deciding what a determiner or an article etc. is and how one could predict the positions it occupies. Moreover, the spec-NP for complex determiners is widely assumed to be a position for possessor/agent arguments. Thus, Abney's complex determiners cannot be located here. Abney has shown that in English the possessor occupies that position prior to movement to spec DP. But this proposal casts some more doubt on the analysis of complex determiners as spec NP.

1.4.3 Quantifiers as Heads of Nominal Structure

Valois (1991); Cardinaletti & Guasti (1991); Shlonsky (1991), among others, propose an alternative approach to determiners known as QP hypothesis. According to this hypothesis, some determiners are heads of a projection quantifier phrase (QP) selecting DP as its complement. Thus, the presence of an extra projection could account for the possible co-occurrence of more than one determiner along with other syntactic phenomena. This is shown in (3)

(3)



Danon, (1996) raises several questions about the analysis of QP and the status of Q as an independent category. He shows the similarity in syntactic behavior between the two categories-

DP and QP. He also mentions that some Qs may select QP rather than DP as in 'every three men', which implies that Q may select QP or DP complement. The QP hypothesis is intended to provide independent positions for determiners, but the recursive co-occurrence of Qs within QP makes the proposed solution less acceptable since recursive DPs can handle the problem if we assume two DPs in structures like (3).

He also raises questions of distinction between QP and DP by giving evidence that QPs and DPs must receive case which usually is assumed to be a unique property of DPs. He further argues that QP is assigned a θ-role, which is again a property of DPs. In case of collective predicates with quantified noun phrases, θ-role is assigned to the entire argument phrase not to the quantified DP.

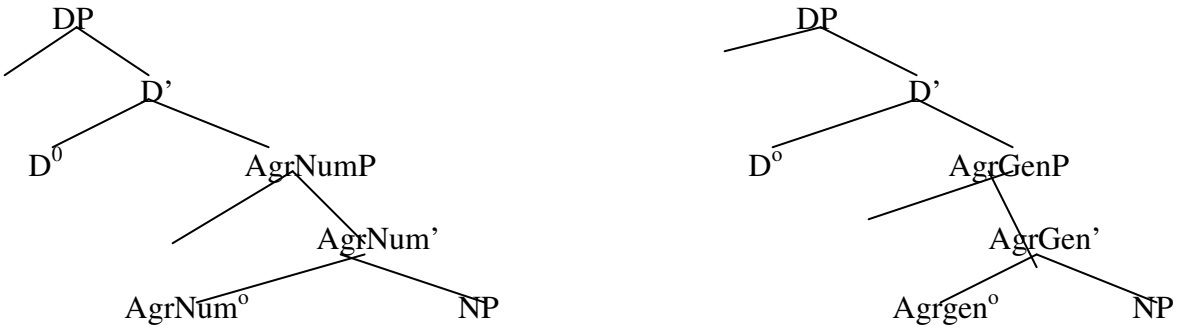
(4). Kɨlti-om tämɨharo fätäna ħalif-om
two –3MPL students exam pass Perf 3MPL
'The two students passed the exam'

In sum, quantified nominal phrases display some characteristic properties of DPs, which make the distinction between DP and QP questionable.

1.4.4 An Intermediate Positions Inside DP

Proposals about DP structure made in subsequent studies of Semitic, Romance and Germanic languages show that intermediate projections in DPs would handle complex determiners. Such studies have suggested that the structure of a noun phrase is even more articulated and should include additional inflectional structures between DPs and NPs (Ritter, 1991; Siloni, 1997; Cinque, 1993; Bernstein, 1993; Fessi Fehri, 1993; Szabolcsi, 1989, among others).

(5) Ritter (1991) Siloni(1997)



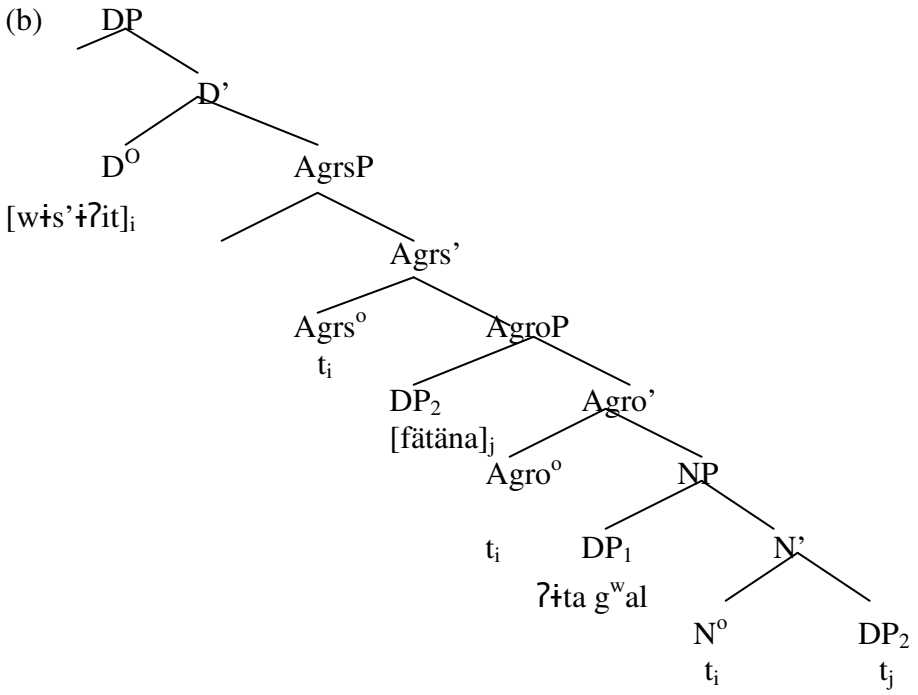
Thus, building up on the above approaches and concomitant proposals, an attempt is made to narrow the gap by considering structures of Tigrinya noun phrases. This will be considered, moreover, in line with the Minimalist Program which assumes the occurrence of visible and interpretable functional categories at the interface levels. I also assume the Linear Constraint Axiom (LCA based theory) of Kayne (1994) to determine the word order of Tigrinya NPs and syntactic movements attested in them. In this, I also employ the proposal that allows intemediate positions, such as AgrsP and AgroP between DP and NP. Hayleyesus, 1998; Baye (nd) propose similar projections for internal structure of infinitival and genitive nominals. An example of such structures is given below.

6. (a) [$_{DP}$ D^{o} [wɨs'ɨʔit]$_{i}$ [$_{AgrsP}$ Agrs^{o} t$_{i}$[$_{AgroP}$ [fätäna]$_{j}$ Agro^{o} t$_{i}$ [$_{NP}$[$_{DP1}$ ʔɨta g^{w}al N' N^{o} t$_{i}$ $_{DP2}$t$_{j}$]]]]^{1}

score exam the girl

'the girl's exam score'

(b)



1.1 Objectives

The main objective of the present study is to examine the internal structure of nominals in Tigrinya with particular emphasis on the functional heads which are the core concerns. Based on this general aim, the following specific questions are addressed.

1. What is the head of Tigrinya nominal phrase? Is it a lexical or a functional category, such as a determiner?

2. What determines the status of nominal functional categories in Tigrinya?

1. How do functional DP projections account for the surface structure of nominal functional categories in Tigrinya?

[1] The structure labeling given in the example is made in line with the literature reviewed in chapter 2, which is following LCA-base theory.

2. To what extent do projections of functional categories like DPs observe principles of syntax?

0.4 Significance of the Study

The study deals with the syntax of noun phrases. It tries to explore the categorial nature and syntactic properties of nominals in Tigrinya. It is believed that the study may shed some light on the structure of noun phrases in Ethio-Semitic in general and in Tigrinya in particular as the study is based on current theoretical developments in syntax. The study may, therefore, serve as a springboard for similar studies on the nature of functional categories in other languages. Generally speaking, the nominal functional categories that characterize Ehtio-Semitic languages in general and Tigrinya in particular are rich and intriguing. Therefore, the study may serve as a stepping-stone for other researchers who would want to show unique properties with crucial contribution universal issues such as the syntactic behavior of functional categories and /or the relationship between functional and lexical categories.

Moreover, the research is believed to give some insight to Tigrinya pedagogical grammar writers and lexicographers as it provides a wider perspective for the link between the functional and lexical categories of Tigrinya noun phrases. Teachers and students of linguistics may also benefit from such insights.

CHAPTER TWO

THEORETICAL CONSIDERATIONS

This study employs the Minimalist Program, more specifically the principles and parameters framework of Chomsky (1995), the Linear Constraint Axiom (LCA) of Kayne (1994) as a general framework for the analysis of nominal functional categories of Tigrinya. Some of the basic principles useful for the analysis are reviewed below.

2.1 Principles and parameters theory

In the principles and parameters framework, cross-linguistic variations are accounted for by means of assigning different values to a finite set of options permitted by Universal Grammar (UG) (Roberts and Roussou, 1999). The parameters are associated with a set of lexical items, namely, functional categories. Therefore, parameterization is limited to the lexicon (Chomsky, 1995; Borer, 1984; Siloni, 1997). Phonological features, affix features and categorial features are the ones that are parameterized, whereas semantic features are universal (Tang, 1999; Chomsky, 1995).

As a consequence, the acquisition process turns out to be much less simple, rapid and easy. The task of language acquirers is to set the right parametric values restricted to the functional categories on the basis of the input they are exposed to. This entails that parametric setting reduces the learning of the lexicon to a facet of lexical items. Thus, UG along with appropriate experience promotes the acquisition of a particular language. Based on such assumption, therefore, syntactic variations among languages can be viewed as changes in the parametric values specified for the languages. Generally, cross-linguistic variations and movement

properties, distinguishing two or more languages can be reduced to a single difference which is a distinct setting of a single property of the computation of human language (Siloni, 1997; Chomsky, 1995).

Tang, (1999) considers categorial, affixal, and phonological features as following a restrictive theory of parameters of Universal Grammar. Tang's "Overt Parameterization Hypothesis" (OPH) states that:

> Features that play a role only in the covert component are invariant across languages; features that may play a role in the derivation from the numeration to the PF interface are subject to cross linguistic variation (Tang, 1999: 139)

According to OPH, therefore, semantic features are universal and their existence has to be assumed in the lexicon of every language. The Phonetic features, categorial features and affixal features are the only sources determining languages-specific variations. Tang also cites possible parameters permitted by UG as follows.

. where affix features are associated with a word

. the presence or absence of features i.e. phonetic or affixal features

. the combination of features i.e. the category features

2.2 Full Interpretation

The notion of full interpretation holds that an element can appear in a representation only if it is properly licensed (Chomsky, 1995). Thus, certain features of lexical items are interpretable if they are legible for external system at the interface levels, otherwise, uninterpretable.

Under the minimalist assumption, the property of the Computational Human Language C_{HL} is strictly derivational. Its output condition determined by the interfaces is referred to as interface interpretability. The analysis takes the standard view of interface levels as PF and LF i.e the interfaces with Articulatory - Perceptual and the Conceptual-Intentional systems, respectively (Ibid). Interpretability, therefore, is the property of mapping a syntactic feature onto PF or LF expressions.

In this review, however, I am not going to discuss the details of the nature of the PF or LF representation. It suffices to state that, in principle, any syntactic symbol may or may not be mapped onto a PF or LF representation. The lexicon provides the information determining the mapping. Therefore, some features such as categorial features of nouns and verbs are always interpretable at both interfaces, but functional features are not necessarily PF interpretable. That is they do not necessarily have to be spelled-out. For example, features associated with functional elements such as complementizers, which provide information about clause types, are LF interpretable in English but PF interpretable in French (Roberts and Roussou, 1999).

Therefore, the variation in PF interpretability leads to cross-linguistic variation in which features of functional categories are overtly realized. The UG is assumed to contain a vocabulary of universal substantives, which are realized as functional features in every language and are

interpretable in either of the two interfaces. Thus, the PF interpretability property varies across languages.

2.3 Case Theory

I assume case theory including the case filter of (Chomsky, 1986b; Koopman and Sportiche, 1988). This theory assumes that case markers in a language have to assign case in the same direction. Webelhuth (1995); Sportiche (1990); and Haegeman (1994) among others, draw distinction between case assignment and case realization. They assume case is assigned to an NP either under government by case assigner or by agreement with a case assigning head. These two kinds of cases are: structural case and inherent case.

Webelhuth (1995:56) also states that both case assignments and case realization fall under government, yet inherent case assignment depends on two conditions: θ- role assignment and government. That is "*if α is inherent case marker, then α case marks NP if and only if α theta marks the chain headed by NP."*

Structural case has a configurational property and depends solely on government. It is also case assignment by agreement. Sportiche, (1990) says that if H is a case assigning head and if H is a case assigner by agreement, it may assign case to an NP in its specifier position, and reflects a general process of specifier head agreement. Moreover, he discusses that governed case assignment is provisionally defined in terms of C-command and in terms of barrierhood.

A. Government

A governs B if A C-commands B and no barrier for B intervenes between A and B.

B. C-Command

A C-commands B if the minimal constituent meeting property C containing A contains B.

The universal requirement in case theory is the case filter which states that every overt NP must be assigned abstract case for it to be visible for interface interpretability.

The realization of the two case assigning options depends on the particular category of the head phrase, the lexical content of the head and the language. There is cross-linguistic variation on the possibility of choosing one and /or the other. A language L may once and for all take either option or both options, regardless of the head and its content (Sportiche, 1990).

2.4 Economy and Checking Operations

According to the Minimalist model (Chomsky, 1995), the lexicon specifies a set of items with phonetic, syntactic and semantic properties. The computational system C_{HL}, which is constrained by the economy principle, uses these items to drive linguistic expressions. In the lexical entries, therefore, inflectional features of the lexicon as an intrinsic property are inserted with their features (case, agreement, tense, etc) and must be checked, at least, at LF by the features of the inflectional heads so a derivation containing unchecked features will crash at LF (Ibid).

An expression containing only features interpretable at interface levels converge at the interface level IL. Thus, a derivation converges at PF if its PF representation is legitimate. Similarly, a derivation converges at LF if its representation is legitimate, otherwise uninterpretaple (Ibid).

The PF realization of inflectional features can be achieved in two ways; by move or by merge (Lexical insertion). The option depends on what the lexicon makes available, but the most

economical option is the one which is always preferred. Therefore, merge is always preferred over move. If the lexicon provides a morpho-phonemic matrix for the inflectional features, then this matrix will be overtly realized, since movement is unavailable. Conversely, if the lexicon has no such matrix for the feature, a strong head from elsewhere must move to the feature.

Chomsky (1995:237) discusses that feature checking is a property of computational operation that derives movement under the last resort condition. Therefore, movement is licensed under the following three conditions as a last resort.

Any movement X can target K only if

- a feature of x is checked by the operation
- a feature of either x or k is checked by the operation
- the operation is a necessary step toward some later operations in which a feature of x will be checked

Overt movement is, therefore, derived by means of feature checking mechanisms. The feature on the inflectional head disappears once checking has taken place. Strong features must be checked prior to spell-out, as they are not legitimate objects at PF. A movement executed in order to check weak features takes place before LF, i.e. due to procrastinate, which is an economy principle stating that movement should be delayed as possible.

Case Checking Principles

Longobardi, (1996) states the following:

A case features on a category α is checked by designated δ iff:

(I) Licensing (relational notion)

( ) α is a member of the internal domain of CH headed by δ (case assignment) or

( ) α shares case and Φ-features with δ; (is a member of the checking domain of a CH-headed by δ 'case concord')

(II) Identification

( ) structural, i.e. positional, in the spec of a designated category β or

(b) formal (typically through syntactic morphology or an ad position)

2.5 Movement

Following Chomsky (1995), which assumes movement of the shortest distance in any projections of (X^o) and phrasal projections (XP), only two options, substitution and adjunction, are available. A given projection can undergo substitution only in an empty slot of the same projection, but a given projection can be adjoined to a specifier position of a projection of the same level (Sportiche, 1990). Chomsky (1995) makes distinction between adjunction and substitution as adjunction is forming two constituents, but substitution forms a new category. Thus, adjuncts are in A'-bar position but substitution is in the specifier of an A position.

In accordance with movement, a greed principle of Chomsky (1992,1995) states that *"movement of α is licensed only as a step toward satisfying one of its own properties."* Thus, movement can only benefit the moved element but might not benefit a category outside the movement chain. If we consider the case of nouns, case and agreement features (person, number and gender) should be checked in the interface level in order to be spelled-out as expression. Thus, the case filter is an interface condition, which requires that all morphological features must be checked

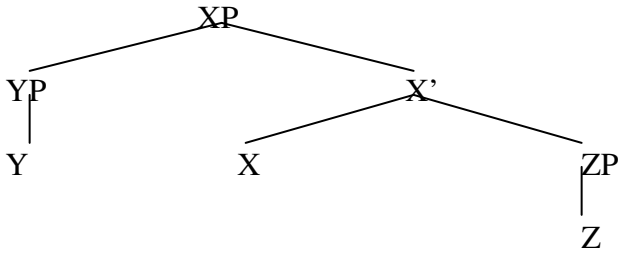
somewhere for convergence. Along the derivation, all uninterpretable features have to be checked either by merge or move where movement is either substitution or adjunction.

2.6 Linear Constraint Axiom (LCA)

LCA is a theory proposed by Kayne (1994) which imposes an antisymmetry c- command on the linear ordering of terminal elements. Any phrase marker that violates this condition (LCA) is barred. The theory assumes the Specifier- Head –Complement as the basic word order where specifiers are, in fact, adjuncts. It, moreover, excludes rightward adjunction, multiple adjunction, and the directionality parameter.

Kayne (1994) proposes that the only X-bar structure which is consistent with LCA is one level branching structure which allows adjunction of, at most, one constituent generalized in to two segment categories.

(7)



According Kayne's proposal, languages that have OVS, OSV and VOS are rare and such surface word orders are results of movement. Thus, OSV would involve movement of the O past to the specifier position of a higher head. OVS and VOS must not have S in the final specifier position, instead either OV or VO moving as a unit leftward past S or else V and O moving separately leftward past S, with the expectation that such languages show OVSX and VOSX orders. In a

similar vein, I assume nominal structures of DP to be analyzed as IP or CP in which the base word order is Subject – Head Noun – Object[2].

[2] Refer example (6) given on page 11.

CHAPTER THREE

VISIBLE NOMINAL FEATURES IN TIGRINYA

In the Minimalist Program, recent syntactic analysis of features that derive overt movement has received much attention. Thus, the role of feature checking is crucial for such operation. Among the features pertaining to the lexical entry, formal features such as categorial [+N] features and affix [Φ] features are accessible for overt syntactic movement in the derivation than are semantic features.

As stated earlier, the study deals with nominal functional categories of Tigrinya, it is important to review the formal features that are strong and hence trigger overt movement in structures of DPs[3]. Real Minimalist Principles (RMP) of Thrainsson (1996) cited in Panagotidis (2000:730) states that "*assume only those functional categories you have evidence for*" where evidence for functional category in individual grammar is present either when it is morphologically marked in some manner or when it triggers movement.

The idea entails that the notion of strength is close to the concept of grammar that possesses two mechanisms to make LF interpretable features visible at PF; morphology and movement. Thus strength is ultimately PF related (Barker, 1988; Panagotidis, 2000). Below, nominal features that play roles in the grammar and that show variation in the syntax of noun phrases are shown.

[3] This study treats functional heads such as D^o and Agr^o which are within the DP Projection. Therefore, Functional projections such as NegP and CPs are not the focus of this study.

3.1 (In)definite Articles

Definiteness in Tigrinya is expressed in two syntactic forms. These two forms are, therefore, reflection of the syntactic move/merge operations. The deictic article which is always attracted to Φ-features carrying features of the head noun designates definite noun. The head noun is in situ if the deictic article appears overtly at PF, checking is assumed to take place at LF. An article in Tigrinya, on the other hand, does not mark indefiniteness. Thus, I assume indefinite nouns to have no visible features which could take D^o as a functional projection in the DP structure. The head noun remains in its position as illustrated in 8(b) below.

8. a) $[_{DP}\ D^o$ ʔɨt[4] - $u_i\ [_{AgrsP}\ Agrs^o\ t_i$ $[_{NP}$ säbʔay]]]
'the man'

b) $[_{DP}$ e D^o e$[_{NP}\ N^o$ säbʔay]]
'a man'

3.2 Affix features

There are two distinct views available in the literature about how and in which component affixal morphemes are put together. The lexicalist's hypothesis views inflectional and derivational morphemes as concatenated elements in the lexicon and should be independently treated in the morphological component. Thus, syntactic process cannot refer to the inflectional structure of concatenated morphemes (Jackendoff, 1972; Halle, 1973) cited in Girma, (1994).

[4] [**t-u** säbʔay] and [**ʔɨtti** säbʔay] 'the man' are considered as definite marker in the Eastern and Central dialects respectively. But I consider /**ʔɨt-u** säbʔay / 'the man' as in common form that reflects definiteness in the language.

The second view assume that syntax may also create complex morphemes, in which inflectional affixes such as heads of phrases in the syntax, which are attracted to non-affixes via head movement (Lasnik, 1981; Selkirk, 1984).

However, as discussed in the theoretical framework, the present study takes affixal features which are visible for the syntax are considered as formal syntactic features heading functional projection in the extended projection of nominal structures. Girma (1994) states three types of affixation based on lexical representations. These are:

0. If a lexical representation has an extra segment which is not associated with the timing unit, it may be affixed on to a following x^o element with an empty onset in a syntactic structure (example, French liaison).

0. If a lexical representation has no timing unit, then it is affixed on adjacent head or a maximal projection so that it copies timing units from it, example, Amharic definite, case.

0. If a lexical representation has no timing units and prosodic elements, it is affixed on to an adjacent head from which it copies both timing and prosodic elements.

The French evidence is considered as a phonological feature because affixation is not obligatory and none of the two elements undergo as movement as cited in Girma, (1994). But the latter two types are syntactic features since they are obligatory and involve movement of a head or a maximal projection in violation of procrastinate, as they need to check features in order to be visible at PF convergence. Therefore, for reasons of visibility and strength I assume (2) and (3) to be visible as formal syntactic features

Thus, affix features which are uninterpretable, should be legible at the interface levels, which involves two possibilities of visibility for interpretation. These are being properly governed by strong categorial feature or copy or attract phonetic features from adjacent sources.

The assumption made here is consistent with Grimshow (1993), Speas (1994), and Koopman (1990), as cited in Tang (1999) that there is a PF rule that bans phonologically empty functional projections for PF convergence, some overt elements must be in the checking domains of the empty functional category at PF.

2.1.0 Agreement Features Φ-features[5]

3.2.1.1 Agreement Features of Definiteness

Definiteness without deictic articles, can also be expressed, when an overt head, N^o moves to $Agrs^o$ to check the Φ -features. If the Φ-features agree in number gender and person with the categorial features of N^o, both are licensed to raise to D^o where definiteness feature is checked at DP and the noun is realized as definite as in 9.

9. $[_{DP}\ D^o\ [säbʔay_i - u]_j\ [_{AgrsP}\ Agrs^o\ [N^o{}_i]\Phi]\ t_j \quad [_{NP}\ t_i]\ ]\ ]$
'the man'

In Tigrinya, **Φ**-features bear the categorial feature of the head noun as indicated above in 8 (a) which has the deictic article. Such features are assumed to be Agreement which has $Agrs^o$ position in the DP.

[5] Plural and feminine markers of nouns are not included. Though they are visible features , they are not the focus of the study. Only Φ-feature which includes merged features of person number and gender is considered.

3.2.1.2 Agreement Features of Genitives

The Φ-features that do not agree with the head nominal but agrees with the features of the genitive element in spec-head relation are visible in the syntax of nominal structures. I assume that they are distinct Φ-features different from the agreement definite markers[6]. They assume different position in the AgrGen^{o} projection. In Tigrinya, the pronominal clitic receives case either by agreement where the head noun moves to AgrGen^{o} by substitution and license the **Φ** -features of the genitive argument in order to make them visible for interpretation at LF or the head noun remains in situ if an overt preposition appears in K^{o} position which attracts the **Φ-**features from the AgrGen^{o} as in the example below.

10. (a) $[_{DP}\ D^{o}\ [_{AgrGenP}\ pro_{j}\ AgrGen^{o}\ [ʔabbo]_{i}–\ ka_{j}\ [_{NP}\ t_{i}]\ ]\ ]$
father - 2MS
'your father'

(a) $[_{DP}\ D^{o}\ [\ _{KP}\ k^{o}$ nay - $ka_{i}\ [_{AgrGenP}\ AgrGen^{o}\ t_{i}\ [_{NP}$ ʔabbo]]]]
GEN-2MS father
'your father'

Koopman (2001) discusses the status of agreement as 'sensitive' to structure, and subject to locality. She also raises issues relevant for characterizing the strength of Agr-features.

(i) Agreement is triggered in a spec head configuration.

(ii) Agreement is triggered in local domain (a cycle, or a phrase)

(iii) Agreement is triggered in a head –head configuration that is where agreement is a type of incorporation.

[6].Baye (1996) discusses different interpretations of the feature U; Hayleyesus (1998), also notes that Amharic definite marker u is homophonous to the subject marker. But in Tigrinya both seem to be independent agreement features, such that the third person Φ-feature may agree with the possessor or with the head noun.

3.3 Demonstratives in Tigrinya

Demonstratives and pronouns are inherently strong heads in Tigrinya. They bear the Φ-features of the head noun in the phonological component and take different positions in the nominal structures. The head noun also moves to license these functional heads to a higher syntactic position, namely, to D^o at LF. These can be explained in terms of movement and checking since they appear in PF. They have to be checked by the head N^o in order to be visible for interpretation at LF. Below, two examples are given where a demonstrative occupies two syntactic positions. I assume demonstratives, to be complements of N^o but due to reasons such as θ-marking as nouns do not theta-mark demonstratives, they (demonstratives) have a functional projection DemP which takes NP as complement and moves to $Agrs^o$ where an Agr **Φ-** features triggers overt raising to them. The head noun adjoins to Spec of AgrsP to license the heads.

11. (a) $[_{DP}\ D^o\ [ʔɨzi_j - om_i\ [_{AgrsP}\ Agrs^o\ t_i\ [_{Dem\ P}\ Dem^o\ t_j\ [_{NP}\ N^o$ [säbat]]]]
DEM-3MPL men
'These Men'

(b) $[_{DP}\ D^o\ [ʔɨz - om_z]\ [_{AgrsP}\ Agrs^o\ t_z\ [_{AgrsP}$[säbat]$_i$ $Agrs^o$ ʔɨzi$_j$ -om $[_{Dem\ P}\ Dem^o\ t_j\ [_{NP}\ t_i]]]]]$ [7]
Art-3MPL men DEM-3MPL
'These Men'

Panagotidis (2000:730) discusses possible configurations in which deictic features are realized in the light of Real Minimalist Program. She provides typological analysis in her conclusions:

(a) The D head bearing a deictic feature has morphologically distinct entry: **this** and **that** and the Romanian example, **acest** are cases.

(b) The D head bearing a deictic feature is either null or morphologically identical to D-heads with different feature specifications. In order for RMP to be satisfied, those heads must be strong.

[7] AgrP may occur recursively. For more details refer Girma, (nd) analysis for Amharic adjective projection.

This eventually results in chain formation with the head of the chain in the checking domain of D. Moreover, Bernstein (1997) outlines that deixis is obtained through a movement of a demonstrative to D^o.

3.4 Quantifiers

The central concern of the study is to pin point the strong features which are visible to syntactic processes. The status of quantifiers in the word order of Tigrinya and even in other languages makes the difference and reflects facts of visibility and strength of features. In this study, therefore, quantifiers are treated as strong. They move to a functional projection to check the strong features they bear. But the weak ones stay in situ and the checking is done at LF. The strong quantifiers are those which bear the Φ- features of the head. Others which do not bear Φ-features are considered as weak features and they do not trigger movement. Thus, I assume weak quantifiers have Spec-NP position and for the strong ones a functional projection at $Agrs^o$ or D^o in which the Spec-NP serves as the base position for the strong ones.

12. (a) $[_{DP}\ D^o\ [_{AgrsP}\ Agrs^o\ [_{NP}\ [_{QP}$ kɨlɨtä] N^o mäs'aħɨfti]]]
two books
'two books' (Partitive)

(b) $[_{DP}\ D^o\ [$ʔɨt– $om_z\ [_{AgrsP}\ Agrs^o\ t_z\ [_{AgrsP}$ [mäs'aħɨft]$_i$ $Agrs^o$ [kɨlɨti]$_j$ –om $[_{NP}[_{QP}\ t_j\ ]N^o\ t_i]]]]$
Art-3MPL books two-3MS
'the two books' (specific)

(c) $[_{DP}\ D^o$ [kɨlɨti –om]$_j$ $[_{AgrsP}\ Agrs^o\ t_j\ [_{AgrsP}\ Agrs^o\ t_j\ [_{NP}[_{QP}\ t_j\ ]N^o$mäs'aħɨfti]]]]
two–3MPL books
'the two books' (specific)

Example12 (a-c) show that the Φ-feature which is at $Agrs^o$ triggers heads movements in the case above the quantifiers are strong and move to the operator position like other strong heads, such as head nouns. Therefore, quantifiers can be weak or strong. They are strong if they have the affix

features and/or move to other positions otherwise weak. Horstein and Uriagereka (nd); Danon (1996); among others claim that strong quantifiers exhibit a definiteness effect.

Finally in this chapter a discussion of strong and weak functional heads are made. Thus, in Tigrinya, the above mentioned examples show that Strong features are the basic motivation for an overt syntactic movement that violets procrastinate.

Chapter Four

Description and Projections of the Nominal Functional Categories

This chapter deals with two syntactic issues. First, it tries to explore the status of nominal modifiers which have categorially ambiguous behavior in the syntactic structure of nominal phrases. In exploring their status, distribution, morphosyntactic behavior of affixes and syntactic functions of nominal categories are considered. Secondly, it suggests that the syntactic structures that handle both lexical and extended functional projections are compatible with Tigrinya word order and universal principles.

The discussion assumes that linear word order reflects structural hierarchy which is universal. In this, it considers Kayne's (1994) proposal for a Linear Correspondence Axiom (LCA) in light of Tigrinya facts.

The analysis capitalizes on nominal features purported to have vivid functional categories in the grammar of the language. Furthermore, strong nominal features that trigger overt movement in the word order of Tigrinya are assumed in line with the body of literature reviewed. Thus, constituents that bear nominal categorial features and affixal features that show varied syntactic positions without changing the semantics of the nominal phrase are considered.

4.1 Determiner Phrases in Tigrinya

The term determiner phrase is currently labeled and used for extended nominal projection which are headed by a determiner[8]. Determiner as a functional category includes elements which have features of definiteness and indefiniteness. Thus, in several languages, the (in)definite articles, demonstratives, pronouns and other elements are put together for they have the same distribution and function as the (in)definite articles. Lyons (1968), Radford (1997), among others, grouped the English functional elements a/an, the, this/that, my/his/her... he/she/they... and some/all/much…quantifiers under the category of determiner.

The typological classification stated above, however, is not universally applicable to all languages. Several languages exhibit differences in their classification of functional words. For example, Lyons (1986) and Giorgi and Longobardi (1991) discuss the status of possessives as subject to be parameterized across languages. In Modern Greek, the (in)definite articles are grouped under the category of determiners whereas demonstratives and quantifiers have adjectival status (Panagiotidis, 2000). Moreover, in Hebrew, the indefinite article, as a syntactic feature, is not in the category of determiner (Danon, 1996,2001).

The status of grammatical words that could be labeled under the category of determiner is highly dependent more on a language's specific features than on universal claims. Moreover, the criteria used for mapping a constituent, whether on formal syntactic features or on semantic /pragmatic grounds has led to dubious classifications in describing the boundaries between definiteness and indefiniteness or determiners and adjectives in several languages. Therefore, in the discussion, I

[8] This paper uses the term determiner in its broader sense, which includes words that are often refered to as articles, demonstratives, pronouns, quantifiers and numerals. Since the paper aims at giving a unified account of the distribution of these categories, any apriori classification should be avoided.

take determiners as formal syntactic features which are marked in lexical entries in which they play a role in syntactic processes.

In a similar vein, determiner phrases are maximal projections in which definiteness and indefiniteness features are checked and licensed. Therefore, the determiner head as a functional category should include constituents with features that restrict or make precise the reference of a nominal head in which they occur. Any element whose function is to determine a referent to be known or inferable is definite and is labeled with [+DEF] feature. An element without such a feature designating only indefiniteness is labeled with [-DEF] feature in the nominal structure.

4.1.1 Indefiniteness Markers

The two possibilities mentioned above about definiteness as a formal feature seem useful for many languages, but for Tigrinya, indefiniteness does not have any formal syntactic feature that marks a nominal structure, and, hence it can be labeled as a [-DEF] feature.

13. (a) [ħadä säb?ay] ri? - e
one man see-perf. 1Sg
'I saw a man'

(b) [säb?ay] ri? - e
man see-perf. 1.Sg
'I saw a man'

As it can be seen from the examples in 13 (a) the head noun with **ħadä** 'one', has a non-quantificational reading and is interpreted the same as the English indefinite article. 13 (b), which has no indefinite marker, has the same reading as 13 (a). Thus, whether an element is used as an indefinite marker or as a null element, the semantic interpretation of the phrase remains the same in both structures. Assuming **ħadä** 'one' or the empty indefinite head with a [-DEF] feature seems to be less acceptable because there is no formal syntactic feature that could be checked at

D in Tigrinya. Moreover, there is no syntactic operation that is triggered by the feature [-DEF]. Thus, I assume that there is no syntactically visible feature that would be labeled with the feature metrics [-DEF] in D^o in Tigrinya. Danon (2001) also claims non-syntactic [–DEF] feature for indefiniteness in Hebrew.

4.1.2 Definite Markers in Tigrinya

4.1.2.1 Agreement as Definite Markers

Tigrinya does not have an independent definite article, like 'the' in English, and 'ha' in Hebrew etc. Definiteness is, therefore, expressed by agreement suffixes (Agr. NOM) which bears merged Φ – features of person, number and gender of the head noun cliticized to the noun or attracted by deictic element which occurs at D^o as in (14).

14 (a) $[_{DP}\ D^o\ [[säbɨʔay]_i$ - u $_j]\ [_{AgrsP}\ Agrs^o\ t_j\ [_{NP}\ N^o\ t_i\ ]\ ]\ ]$ habɨtam ʔɨyy - u
man - 3MS rich be – 3MS
'The man is rich'

(b) $[_{DP}\ D^o\ [[Säbäyti\ ]_i$ - a $_j]\ [_{AgrsP}\ Agrs^o\ t_j [_{NP}\ N^o\ t_i\ ]\ ]\ ]$ s'ɨlɨl-ti ʔɨyy –a
woman - 3FS insane-agr be–3FS
'The woman is insane'

(c) $[_{DP}\ D^o[\ [q^walɨʂut]_i$ – om$_j]\ [_{AgrsP}\ Agrs^o\ t_j\ [_{NP}\ N^o\ t_i\ ]\ ]\ ]$ bɨrux – at ʔɨyy – om
children -3MPL obedient-agr be-3MPL
'The children are obedient'

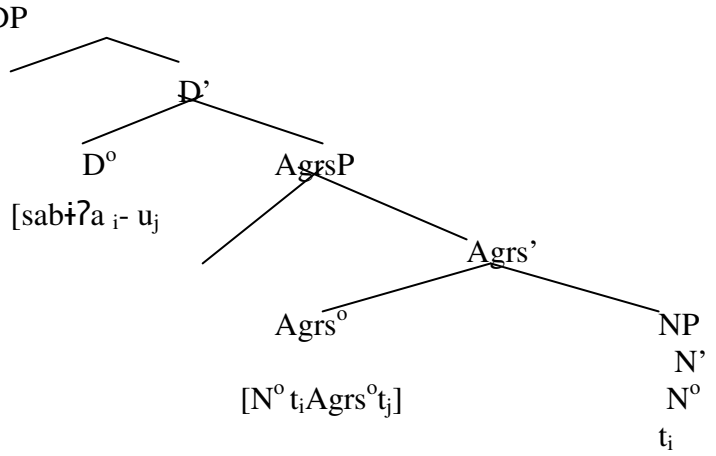
(d) $[_{DP}\ [\ [q^walɨʂut]_i$ – än$_j]\ [_{AgrsP}\ Agrs^o\ t_j [_{NP}\ N^o\ t_i\ ]\ ]\ ]$ nɨfuʂ - at?ɨyy – än
children – 3FPL clever-agr be - 3FPL
'The children are clever'

Person	Gender	Number	
		Singular	Plural
3rd	masculine	-u	-om
	feminine	-a	- än

Table 1: Agreement features

The Φ -feature is a bound morpheme; hence, it is weak and cannot appear in the position without a strong head. This triggers N^o-raising to the Agr^o- position and checking the Φ features. If the Φ-feature agrees with the features of the raised noun, it indicates a definite referent. Thus, the head noun N^o is licensed to raises to the D^o-position in which the [+DEF] feature is checked at the PF interface before spell-out. Thus, Longobardi (1994,1996) suggests three major types of N^o to D^o movement. The movement shown above is an example of "raising of common nouns via adjunction to an enclitic article licensed by the morphological properties of the latter item." He claims that such movement applies to all nouns overt or covert at LF and in all languages.[9] The following shows the schemata for example 14 (a).

14(a)



[9] In Tigrinya, I assume there to be no enclitic article so the Φ-feature serves like an enclitic article.

Tigrinya native speakers usually use such expressions in restricted contexts where the referent is physically identifiable, specific and unique in a pragmatic set of shared entities. As a result, nominals in such structures do not allow modifiers such as adjectives to occur with them.

15. (a) ?[$_{DP}$ D^{o}[$_{NP}$ ʂabɬyi q^{w}älɬʂa]$_{i}$ - u]$_{j}$ [$_{AgrsP}$[$_{NP}$ Agrs^{o}] t$_{j}$ [$_{NP}$ t$_{i}$]]]
big boy - 3MS
'the big boy'

( ) ?[$_{DP}$ D^{o} [$_{AP}$[ʂabɬyi]$_{i}$ - u]$_{j}$ [$_{AgrsP}$[APAgrs^{o}] tj [$_{NP}$AP t$_{i}$ q^{w}älɬʂa]]]
big - 3MS boy
'the big boy'

(c)?*[$_{DP}$ D^{o} [N^{o} [q^{w}älɬʂa]$_{i}$ - u]$_{j}$ [$_{AgrsP}$ [N^{o}Agrs^{o}] t$_{j}$ [$_{NP}$ʂabɬyi N^{o} t$_{i}$]]]
boy - 3MS big
'the big boy'

(d) [$_{DP}$ D^{o} [$_{AP}$ tɬlɬq] $_{i}$– u [$_{NP}$ t$_{i}$ lɬǰ]] Amharic
'The big boy'

(e) [$_{DP}$ D^{o} ʔɬt - u$_{i}$ [$_{Agrsp}$ Agrs^{o} t$_{i}$ [$_{NP}$ ʂabɬyi q^{w}älɬʂa]]]
Art - 3MS big boy
'the big boy'

As in 15 (b) adjectives in Tigrinya are weak in the sense that they do not bear the Φ-feature with them so they cannot move to the Agr^{o} position in order to support the weak bound agreement feature. They always occur preceding the head noun. The head noun as in 15(c) also cannot move alone to Agr^{o} because the adjective in the NP position cannot be licensed by the trace of N^{o}. Traces are also weak and cannot license heads. Tang (1998) proposes that modifiers, adjectives and adverbs, are semantically 'defective', hence, they have to be licensed at LF, and traces do not have enough content to license them. Moreover, adjectives are XPs so the head cannot cross the XP projections due to the Head Movement Constraint (HMC) (Sportiche, 1990; chomsky 1986a). Girma (nd) cites Norwegian and Swedish, in which violation of HMC is attested as in the following examples,

* hos-et store (Norwegean)
house the big

* hus-et stora (Swedish)
house the big

The adjectives **store/stora** which are maximal XPs taking NP complement block the movement N **hus** to D that is **et**. Similarly adjectives in Tigrinya do not bear [+DEF] feature. They are weak and are always included inside the NP projection so they cannot independently move to the Agr^o position. But they block the head movement to a higher functional projection at PF. The only option that seems plausible is to adjoin the whole NP as a constituent to the spec of Agr^o position, as in 15 (a), but the result is not acceptable by informants. In Amharic, however, adjectives are strong and are able to move to functional projections like D^o because the bound morpheme {-u} in (15 d) can be suffixed to an adjective (Girma, np). That is why (15 d) is grammatical. Thus, in Tigrinya, a definite nominal modified by an adjective always occurs with deictic elements that enhibit agreement features.

3.0.1.1 Deictic Articles as Definite Marker

In Tigrinya, like the definite article in other languages, deictic elements which are unaccented demonstratives, serve as definite markers in nominal structures. These are /ʔɨt – Φ/ and /ʔɨz- Φ /, I assume these to be deictic because they indicate a referent that is remote or near to a speaker, respectively.

Haspelmath (1999), Panagotidis (2000) among others, claim that diachronically the definite article usually arises from demonstratives[10] through a process of 'grammaticalization'.

[10] Tesfaye (2002) claims that in Tigrinya **ʔɨti** is derived from **ha** or x of the archaic Semitic definite marker.

16. (a) $[_{DP}\ D^{o}$ ʔɨt - $u_i\ [_{Agrsp}\ Agrs^{o}\ t_i$ $[_{NP}$ haläqa]]] nɨfuç ʔɨyy – u
Art - 3ms chief clever be - 3ms
'The chief is clever'

(b) $[_{DP}\ D^{o}$ ʔɨt - a_i $[_{Agrsp}\ Agrs^{o}\ t_i\ [_{NP}$ haläqa]]] nɨftç−ti ʔɨyy – a
Art - 3FS chief clever-agr be - 3FS
'The chief is clever'

(c) $[_{DP}\ D^{o}$ ʔɨt- om_i $[_{Agrsp}\ Agrs^{o}\ t_i\ [_{NP}$ sab?ut]]] hɨkuy-at ʔɨyy - om
Art - 3MPL men lazy-Agr be - 3MPL
'The men are lazy'

(d) $[_{DP}\ D^{o}$ ʔɨt- $än_i$ $[_{Agrsp}\ Agrs^{o}\ t_i\ [_{NP}$?anɨsti]]] hakay-at ʔɨyy - än
Art - 3FPL women lazy-Agr be - 3MPL
'The women are lazy'

(e) $[_{DP}\ D^{o}$ ʔɨz- u_i $[_{Agrsp}\ Agrs^{o}\ t_i$ $[_{NP}$ sab]]] lägas ʔɨyy - u
Art 3ms person generous be - 3MS
'The person is generous'

(f) $[_{DP}\ D^{o}$ ʔɨz - $a_i\ [_{Agrsp}\ Agrs^{o}\ t_i$ $[_{NP}\ g^{w}$al]]] läbam ʔɨyy - a
Art - 3FS girl wise be - 3FS
'The girl is wise'

(g) $[_{DP}\ D^{o}$ ʔɨz- $om_i\ [_{Agrsp}\ Agrs^{o}\ t_i$ $[_{NP}\ q^{w}$älɨʃut]]] bɨrux-at ʔɨyy − om
Art - 3MPL children obedient-Agr be - 3MPL
'The children are obedient'

(h) $[_{DP}\ D^{o}$ ʔɨt- $än_i$ $[_{Agrsp}\ Agrs^{o}\ t_i$ $[_{NP}$?anɨsti]]] bälah-ti ʔɨyy− än
Art - 3FPL women sharp-Agr be - 3FPL
'The women are sharp'

In Tigrinya, definite nouns that refer to things which are remote to a speaker, are indicated by the deictic article /ʔɨt – Φ / as shown in example 16 (a-d). Those which have referents relatively near to the speaker are designated by /ʔɨz – Φ / as in 16 (e-g). In the examples above, the deictic articles do not refer to objects which are within view as demonstratives whose referents are always locative. Thus, the referent indicated by a deictic article is an identifiable subject/noun which is remotely or closely shared by speaker and hearer. Therefore, I assume that /ʔɨt– Φ /

and /ʔɨz– Φ / are semantic and syntactic determiner heads which occupy the D^o position in the extended projection.

The Φ -feature which is at the Agr^o position always occur adjacent to D^o. No intervening constituent can occur between D^o and Agr^o. The head noun checks the [+DEF] feature of the deictic article and the agreement features at LF in Tigrinya. I assume that the deictic at D^o and the Φ−features at Agr^o are bound. Thus, the deictic at D^o which has more prosodic features and timing units attracts the Φ-feature of Agr^o bearing the feature of the head noun because it has relatively weak prosodic features and timing units. Here attraction would seem reasonable for both heads in order to be interpretable at LF.

In such nominal structures, the head noun does not move to a higher position overtly because the deictic article already occupies the position. According to Kayne's LCA Base Theory double adjunction is prohibited. Therefore, there is only Φ feature attraction to the deictic element in $D^{o.}$ In other words, there is no feature that triggers N-raising at PF, and the head noun remains in situ as in (17):

17. (a) $[_{DP}\ D^o$ ʔɨt- a_i $[_{Agrsp}\ Agrs^o\ t_i\ [_{NP}$ säbäyti]]]
Art - 3FS woman
'the women'

(b) *$[_{DP}\ D^o$ ʔɨt $[_{AgrsP}$ [säbäyt]$_i$ - a $[_{NP}\ t_i]$]]
Art woman - 3FS
'the women'

(c) *$[_{DP}\ D^o$ ʔɨt -a $[_{AgrsP}$ [säbäyt]$_i$ $[_{NP}$ $[_{AP}$ sʼɨbɨqɨti] $N^o\ t_i]$]]
Art -3FS woman beautiful
'the beautiful woman'

The examples in (17 b & c) are ungrammatical. In (17,b) /ʔɨt-/ could not be checked and licensed for LF interpretation because the Φ -features which would carry this function are checked by the raised-N and spell-out at the PF interface. Consequently, definiteness is checked at PF. In other words, /ʔɨt-/ will not be visible at LF and cannot be interpreted at this interface.

The structure in (17 c) is also ungrammatical. The reasons for this as stated in section (4.1.2.1) are violation of Head Movement Constraint (HMC), which disallows movement of heads, across a maximal projection. I assume adjectives in Tigrinya to be adjuncts and have an XP extended projection in Spec NP. The head noun of (17c) cannot cross the XP projection headed by the adjective because the adjective blocks it from moving to a higher projection. Therefore, the head noun remains in its position N^o.

Another possible explanation noted in (4.1.2.1) is that adjective cannot be licensed by a trace, and hence cannot be visible for LF interpritation. Thus, definite nominal structures in Tigrinya with a deictic article allow modifiers such as adjectives to occur preceding head nouns, but following deictic articles. Therefore, the only option for the Φ− feature at $Agrs^o$ is to be attracted to the deictic article in which the Φ -feature in Agr^o percolates to Spec D^o.

In conclusion, in Tigrinya, definiteness is expressed in two syntactic forms. These two forms are reflections of the syntactic operations of move/ merge taking place at PF and LF. Thus, the first is illustrated (in 4.1.2.1) where an overt N^o raises to $Agrs^o$ and is licensed to move to D^o. Here, overt N- raising is allowed if there is no adjective occurring in the Spec-NP position and if a deictic article does not occupy the D^o position. The second is where overt deictic articles occupy the D^o position and overt raising of the head noun is not possible. In such contexts, N^o-raising is delayed until LF.

3.0.1 Demonstratives and Pronouns

In Tigrinya, demonstratives and personal pronouns (mostly third person) are inherently definite and enter the numeration selecting the Φ –feature from $Agrs^o$ by moving to it. Tang, (1998) states that affix feature could be associated with a word either when they enter the numeration or during derivation. During the derivation, they could be either in the overt component or in the phonological component. Thus, I assume affixes that bear the features of the head are, associated with demonstratives/or pronouns in the overt component of the derivation. They occur in two positions in nominal structures which seem to result from the syntactic operations of move or merge. They occur in prenominal positions when there is no overt deictic article with referent to definite entities within view. They can also occur in post-nominal positions with deictic articles. Their usage depends on the distance of the referent from the speaker and/or hearer.

18 (a) $[_{DP}\ D^o\ [$ʔɨzi– u$]_j\ [_{AgrsP}\ Agrs^o t_j\ [_{AgrsP}\ t_j\ [_{DemP} t_j\ [_{NP}$ wädi$]]]]$ hassawi ʔɨyy - u
DEM -3MS boy liar be – 3MS
‘ This boy is a liar’

(b) $[_{DP}\ D^o\ [$ʔɨzi – a$]_j\ [_{AgrsP}\ Agrs^o\ t_j\ [_{AgrsP}\ t_j\ [_{DemP} t_j\ [_{NP}\ g^wal]]]\ ]$ kab wäs’aʔi mäs’i -a
DEM -3FS girl from abroad .came-3FS
‘This girl (has) come from abroad’

(c) $[_{DP}\ D^o\ [$ʔɨzi – u$]_j\ [_{AgrsP}\ Agrs^o\ t_j\ [_{AgrsP}\ t_j\ [_{DemP}\ t_j\ [_{NP}$ mämhɨr$]]\ ]]]$nɨfuç ʔɨyy – u
DEM -3MS teacher clever be 3MS
‘This teacher is clever’ (pointing to him)

(d) $[_{DP}\ D^o\ [$nɨss-a$]_j\ [_{AgrsP}\ Agrs^o\ t_j\ [_{AgrsP}\ t_j [_{DemP} t_j\ [_{NP}$ bägiç $]]\ ]]]$ kɨ–ʔɨwäsɨd - a
DEM-3MS sheep comp. take impf- 3FS
‘Let me take that sheep’ (pointing to it, near to the hearer)

(e) $[_{DP}\ D^o\ [$nɨss-u $]_j [_{AgrsP}\ Agrs^o\ e [_{AgrsP}\ t_j\ [_{DemP}\ t_j\ [_{NP}$ e$]]\ ]]]$ kɨfäl-ni
DEM-3MS imp. pay-1S
‘Pay it to me’ (that you have)

(f) [$_{DP}$ D^o [ʔɨzi – a]$_j$[$_{AgrsP}$ $Agrs^o$ t_j [$_{AgrsP}$ t_j [$_{DemP}$$t_j$ [$_{NP}$ e]]]]] wɨsäd-a
DEM(3FS) imp. take-3FS
'take it' (pointing to it)

(g) [$_{DP}$ D^o [ʔɨzi – u]$_j$ [$_{AgrsP}$ $Agrs^o$$t_j$ [$_{AgroP}$ t_j [$_{DemP}$ t_j [$_{NP}$ [ʔɨntay]]]] ʔɨyy – u ?
DEM -3MS what be-3MS
'what is this?'

In the examples above, the references of the nominal heads are made specific in three different ways. In 18 (a, b & g) ʔɨzi-Φ 'this' shows a referent which is near to the speaker and/or hearer. In (18 c) ʔɨti-Φ 'that' shows a referent which is away from both the speaker and hearer. In (18 d) nɨss-Φ 'a pronoun' shows a referent which is near the speaker but far from the speaker.[11]When the demonstratives occur in prenominal positions, they usually substitute the deictic article in D^o and make the referent more definite.

In 18 (e and f), the demonstratives and pronouns do not have overt nominal heads that could be referred to or shown. But they have references to nominal phrases which are covert. Thus, they are pronominals. Therefore, the demonstratives that show a definite referent in prenominal positions have to be considered as prenominal determiners, because they have occupied the position of the deictic article and function in its stead. And those having a referential substitute for the whole nominal structure are considered as pronominal determiners because their referent is always linked with the nominals that they specifically identify. Radford (1997) claims that pronominals are factors without descriptive content of their own and have referent which is determined from linguistic or nonlinguistic context.

[11] Unlike the deictic articles, the demonstratives are accented, so an epenthetic consonant /-y-/-ʔ-/ occur between the demonstratives and Φ -features in order to break the vowel sequence.

4.1.4 Deictic Articles and Demonstrative

In the pervious sections, the status of demonstratives and deictic articles as prenominal determiners has been considered. In order to give adequate explanation, therefore, I make further distinction between deictic articles and demonstratives on the bases their positions, distributions and syntactic roles they play in such positions.

19(a) $[_{DP}\ D^o$ʔɨt– $u_z\ [_{AgrsP}$ Agrs^o $t_z\ [_{AgrsP}$ [wädi]$_i$ Agrs^o ʔɨti_j-u $[_{DemP}\ t_j\ [_{NP}\ t_i]\ ]]]]$[12] nɨfuç ʔɨyy - u
Art-3MS boy DEM-3MS clever be– 3MS
'this boy is clever'

(b)$[_{DP}$ D^o ʔɨt – om$_z[_{AgrsP}$Agrs$^o t_z\ [_{AgrsP}$ [Säbat]$_i$Agrs^{o}nɨss$_j$-om$[_{DemP} t_j\ [_{NP}\ t_i]\ ]]]$ habɨtam-atʔɨyy –om
Art - 3MPL persons DEM-3MPL rich - Agr be– 3MP
'those persons are rich'

(c) ?$[_{DP}\ D^o$ ʔɨt – om$_i[_{AgrsP}$ Agrs$^o t_i\ [_{AgrsP}$ nɨss$_j$-om$[_{DemP}\ t_j\ [_{NP}$ Säbat]]]]][13]
Art-3MPL DEM-3MPL persons
'those persons'

(d) ?/*$[_{DP}$D^o ʔɨt – u$_i[_{AgrsP}$Agrs$^o t_i[_{AgrsP}$Agrs^{o}ʔɨti $_j$ -u $[_{DemP} t_j[_{NP}$ wädi]]]]]nɨfuç ʔɨyy - u
Art-3MS DEM-3MS boy clever be-3MS
'this boy is clever'

(e) * $[_{DP}$ D^o ʔɨt - om$_i$ $[\ _{AgrsP}\ t_i\ [_{NP}$ e]]] habɨtam-at ʔɨyy-om
Art - 3MPL rich Agr be – 3MPL
'they are rich'

(f)*$[_{DP}$D^{o}ʔɨti – om$_z[_{AgrsP}$ Agrs$^o t_z\ [_{AgrsP}[$?awädat $]_i$ Agrs^o ?ɨt$_j$ – om[DemP t_j $[_{NP}\ t_i]\ ]]]]$
DEM-3MPL boys Art – 3MPL
'those boys'

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[12] The subscribed indexing show only movement relations rather than referential relations

[13] $[_{DP}$ [nɨss-om]$_j$ D^{o}ʔɨt – om$_z\ [_{AgrsP}\ t_j$ Agrs$^o\ t_z[_{AgrsP}$ Agrs$^o\ t_j$ [DemP $t_j\ [_{NP}$ säbat]]]]
they (MPL) Art-3MPL persons
'they, the men'

Structure like the above can be considered grammatical, when /nɨss-om/ 'they' occur in scope position or Ā – position. But such construction is not the focus of the present paper.

Now let as look at the distribution of the deictic article and the demonstrative in (19). In (a) and (b) both of them occur in one DP. Thus, the deictic article occurs preceding the head and the demonstrative following it. When this is the case they are acceptable.

In 19 (c & d), both the deictic articles and demonstratives/pronouns occur successively in the pre head position in DP. The structures are unacceptable. Thus, I propose that in Tigrinya, successive co-occurrence of deictics and demonstratives is prohibited. The reason seems that the head noun is blocked by the demonstrative so it cannot license the deictic article which occurs at D^o. We can also see from the position of demonstratives in the ungrammatical 19 (c & d) that they do not occur between the article and the head noun in DPs, unlike adjectives which do occur preceding the head noun. This implies that the pre head position is possible for adjectives to occur which are adjuncts hence demonstratives are excluded for they are not adjuncts. This suggests that, adjectives and demonstratives project at different positions.

In 19 (e)the deictic article in the nominal structure is used without a following nominal head. The structure is ungrammatical because deictic articles cannot substitute the whole DP like demonstratives or pronouns which can function as pronominals.

In 19 (f) the deictic article occurs following head noun and the structure is ungrammatical. This shows that deictic articles cannot occur in positions that are typical of demonstratives or pronouns. But demonstratives can occur in the position of the articles.

Demonstratives can also occur in prenominal positions if there is no overt deictic article in that position. Therefore, in prenominal positions, deictic articles and demonstratives occur in complementation. But demonstratives can co-occur in post nominal position in DPs with a deictic article in prenominal position. It seems only prenominal ones, but not post nominal

demonstratives, are incompatible with deictic articles. From this, we can suggest that the head should move to a higher projection in order to license the features of demonstrative and deictic article in order to be visible for LF interpretation.

Here, we should concentrate on the function and syntactic status of the demonstratives which co-occur post nominally in definite DPs. Giorgi and Longobardi (1991), Radford (1997) among others, discuss a constraint that blocks the co-occurrence of [+DEF] feature in a nominal structure. According to their view, there is only one overtly realized determiner for each nominal head. Thus, if we consider both to be determiners, we face difficulty in explaining the structure in terms of the economy principle because the structural position of determiner should not be filled in twice in the same DP structure.

One possible account for this is to propose that the prenominal and the post-nominal positions for demonstratives have different syntactic interpretations. Danon (2001) claims that definiteness in pairs of noun phrases that are semantically identical may differ in terms of syntactic definiteness. He says, "Hebrew demonstratives can be either syntactically [+DEF] or syntactically indefinite."

20. (a) $[_{DP}$ D^{o} [ʔɨzi – a]$_{j}$ $[_{AgrsP}$ Agrs^{o} t$_{j}$ $[_{AgrsP}$ t$_{j}$ $[_{DemP}$ t$_{j}$ $[_{NP}$ mämhɨr]]]]] nɨfɨç-ti ʔɨyy a
DEM –3FS teacher clever-Agr be-3FS
'That teacher is clever' (pointing to her)

(b) $[_{DP}$ D^{o} ʔɨz – a$_{z}$ $[_{AgrsP}$Agrs^{o}t$_{z}$$[_{AgrsP}$[mämhɨr]$_{i}$Agrs^{o}ʔɨzi$_{j}$–a$[_{DemP}$ t$_{j}$Agrs $[_{NP}$t$_{i}$]]]]]nɨfɨç-ti ʔɨyy-a
Art-3FS teacher DEM-3FS clever-Agr be - 3FS
'That teacher is clever' (pointing to her)

If we compare the reading of the two DPs in 20 (a & b), semantically they have almost similar readings with regard to definiteness. The head noun in both DPs has identifiable specific and unique referent. But when we consider syntactic definiteness, the demonstratives give a different reading of definiteness in the two positions. In (20 a) the demonstrative has the same syntactic

interpretation as the semantic one. But in (20 b), the demonstrative does not have the role of definiteness. It rather restricts the already definite nominal to a specified location or to a specific individual. Therefore, the demonstrative in (20 b) has only restricting more than defining the head nominal in which, we claim, it has syntactically indefinite reading. Kayne (1994:160) claims an abstract THERE for the English 'that'. He suggests three possibilities for the structure 'that Paris' as

i . that $[THERE]_j$ C/D $[_{IP}$ Paris I^o $[e]_j$

i. that there book

i. that $[paris_i$ [C/D $[_{IP}$ [e] I^o THERE

Therefore, demonstratives and pronouns in post nominal positions have the same function as relative clauses of the type in (21):

21. (a) $[_{DP}$?ɨt - a $[_{CP}$ [tɨ mäs'ɨ? zɨ − äll - a]$_i$ $[_{NP}$N' N^o mämɨhɨar t_i]]]
Art 3F 3FS come impf. comp. cop - 3FS teacher
'The teacher who is coming'

(b) $[_{DP}$?ɨt – u $[_{CP}$ [s'açɨda gabi zɨ−täxädän - ä]$_i$ $[_{NP}$ N' N^o säbɨ?ay t_i]]]
Art 3MS white shema Comp. Impf. wear- 3MS man
'The man who wears a white shema'

If we substitute the relative clauses in 21 (a) and (b) by demonstrative and pronoun respectively, we find DPs with the same reference to the RC as in 22 (a and b):

22. (a)$[_{DP}$ D^o ?ɨz – a$_z$ $[_{AgrsP}$Agrs^{o}t$_z$$[_{AgrsP}$[mämhɨr]$_i$Agrs^o?ɨzi$_j$–a$[_{DemP}$ t$_j$Agrs $[_{NP}$t$_i$]]]]]
Art-3FS teacher DEM-3FS

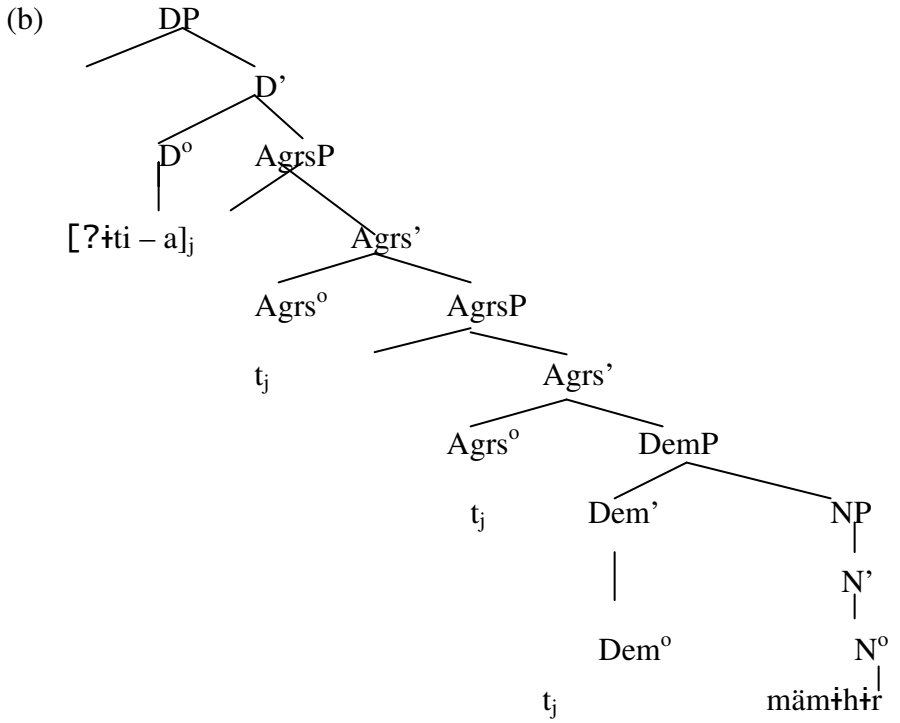
( ) $[_{DP}$ D^o?ɨt–u$_z$$[_{AgrsP}$Agrs^{o}t$_z$ $[_{AgrsP}$ [Säbɨ?ay]$_i$Agrs^{o}nɨss$_j$-u$[_{DemP}$t$_j$ $[_{NP}$ t$_i$]]]]habɨtam ?ɨyy-u
Art - 3MS persons DEM-3MS rich be– 3MS

Thus several scholars such as Compbell (1996), Brugè (1996) Guisti (1997) reviewed in Panagotidis, (2000) propose for a functional projection of demonstratives. Most claim that demonstratives are complements of a head noun, but due to conditions like theta role assignment, their projection is at the lowest specifier DemP dominating NP from which it moves to an operator position and substitute the deictic to make the noun more specific.

In Tigrinya, therefore, I assume demonstratives and pronouns to have the functional projection as RC which is DemP and take NP complement. The structure for 23 (a and b) are given below.

23) (a) $[_{DP}$ D^o [ʔɨti – a]$_j$ $[_{AgrsP}$ Agrs^o t$_j$ $[_{AgrsP}$ t$_j$ $[_{DemP}$ t$_j$ $[_{NP}$ mämhɨr]]]]] nɨfɨç-ti ʔɨyy a
DEM –3FS teacher clever-Agr be-3FS
'That teacher is clever' (pointing to her)

(b)

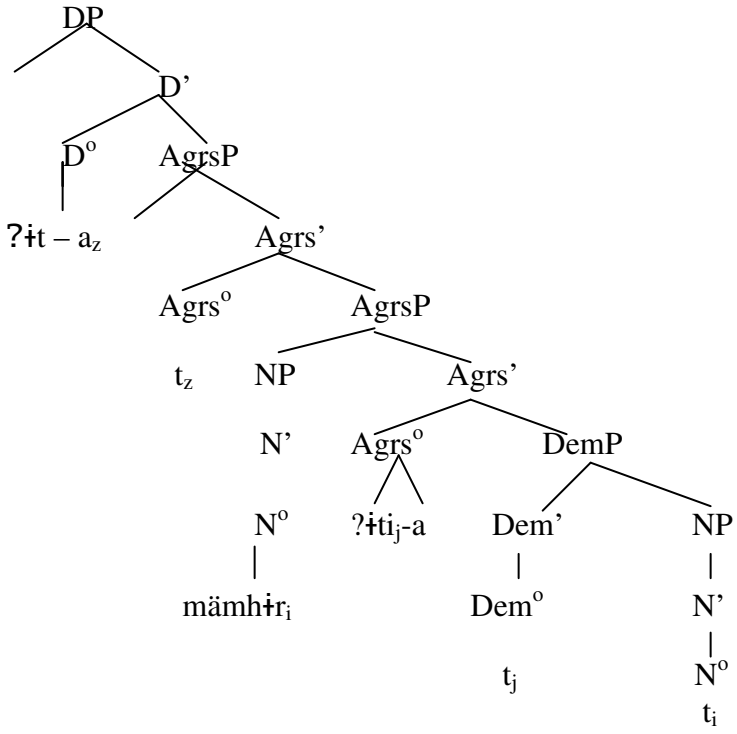


(c) [$_{DP}$ D^{o} ʔɨt – a$_{z}$ [$_{AgrsP}$Agrs^{o}t$_{z}$[$_{AgrsP}$[mämhɨr]$_{i}$Agrs^{o}ʔɨtɨ$_{j}$–a[$_{DemP}$ t$_{j}$Agrs [$_{NP}$]]]]]nɨfɨç-ti ʔɨyy–a

Art-3FS teacher DEM-3FS clever-Agr be 3FS

'That teacher is clever' (pointing to her)

(d)



4.1.5 Simple Possessive Forms in Tigrinya

There are no independent lexical possessive pronominal forms in Tigrinya. The forms are bound which bear the Φ -features of the possessor. They are realized as possessive forms if they are assigned genitive case by a lexical head in the derivation process. The derivation of possessive structures in Tigrinya is syntactic which involves overt/covert movement of heads for the checking of features. The forms are, therefore, determined by the constituent that licenses and checks the genitive case feature of the possessor. Moreover, I assume that pronominal clitics receive genitive case at Spec of AgrGenP because they are bound with Φ -features which have functional projections.

There are two possessive forms in Tigrinya. They are distinguished by the nature of the case assigned to them. Chomsky (1986); Haegeman (1994); among others, make distinction on different types of case as between inherent and structural, or governed and agreement. I propose that the two possessive forms in Tigrinya are distinguished on grounds of such notions that are structural, inherent and governed case. Possessives are assigned genitive case by a semantically null preposition. The pronominal features with the overt preposition are realized as pronominal possessives. Thus, the heads of pronominal clitics are visible for interpretation at LF. In Tigrinya **nay**[14] 'of' similar to Hebrew šel is a semantically null genitive case assigner. Thus, **nay** + **Φ** > **nay Φ** which is a possessive pronoun.

Person gender		**Singular**	**Plural**
1st	.	nay-äy	Nay – na
2nd	Masculine	nay-ka	nay – kum
	Feminine	nay-ki	nay – kɨn
3rd	Masculine	nay-u	nay – om
	Feminine	nay-a	nay – än

Table 2: Possessive Pronominals in Tigrinya

24. (a.) $[_{DP}\, D^{o}\, [_{KP}\, k^{o}$ nay – $na_{i}\, [_{AgrGenP}$ AgrGen^{o} $t_{i}\, [_{NP}$ mäs'ɨhaf]]]
GEN – 1PL book
'Our book'

(b) $[_{DP}\, D^{o}[_{KP}\, K^{o}$ [nay – ka $[_{AgrGenP}$ AgrsGen^{o} $t_{i}\, [_{NP}$ mäs'ɨhaf]]]
GEN – 2MS book
'your (MS) book'

(c) $[_{DP}\, D^{o}[_{KP}\, K^{o}$ [nay – ki $[_{AgrGenP}$ AgrsGen^{o} $t_{i}\, [_{NP}$ mäs'ɨhaf]]]
GEN – 2FS book

[14] In the standard dialect, /nat- / is used instead of /nay- /. In this study, I assume both to have the same interpretation. The surface difference is due to change of * y>t in the standard variety. Moreover, in the language, the genitive case marker is /nay/, therefore, I consider possessive pronouns with /nay-Φ /in the study.

'your (FS) book'

In 24 (a,b&c), the Φ -feature is case assigned by the overt preposition **nay** 'of'. These possessive forms are licensed by a nominal head, therefore, they are visible for interpretation at LF. The head noun cannot move to any operational position at PF, since there is no motivating feature that triggers overt movement. Therefore, feature checking is covert with prepositional genitives at LF.

The second possessive forms are bound morphemes which bear the Φ –features of the possessor. They receive genitive case by govenment from a lexical head noun which is raised to license its agreement features. The Φ –features of **pro** which receives case by the raised N is licensed as a possessor In a Spec head chain. $N - \Phi_i > GEN\ pro_i$.

25. (a) $[_{DP}$ e D^o e $[_{AgrGenP}\ pro_j\ AgrGen^o$ [mäs'ɬhaf $]_i$– $na_j\ [_{NP}\ t_i]\ ]\ ]$
book – 1PL
'our book'

(b) $[_{DP}\ D^o\ [_{AgrGenP}\ pro_j\ AgrGen^o$ [mäs'ɬhaf $]_i$– $ka_j\ [_{NP}\ t_i]\ ]\ ]$
book - 2MS
'your (MS) book'

(c) $[_{DP}\ D^o\ [_{AgrGenP}\ pro_j\ AgrGen^o$ [mäs'ɬhaf $]_i$– $ki_j\ [_{NP}\ t_i]\ ]\ ]$
book - 2FS
'your(FS) book'

In 25 (a, b&c), the weak features of agreement trigger overt movement and the head is raised to adjoin to $AgrGen^o$. As a result, the head noun assigns genitive case to the Φ -features and the pro in the spec AgrGenP is licensed as possessor in the Spec - head chain.

In sum, both possessive forms convey the same meaning. The surface realizations seem to differ due to the nature of the case assigner and can be explained as PF and LF representation. Where there is no preposition, there is an overt movement of N^o – to – Agr^o whereas in prepositional genitives, the checking is delayed until LF since there is no overt N^o-raising.

26. (a.) $[_{DP}\ D^{o}\ [_{AgrGenP}\ pro_{j}\ AgrGen^{o}\ [?abbo]_{i}–\ ka_{j}\ [_{NP}\ t_{i}]\ ]\ ]$
father - 2ms
'your (MS) father'

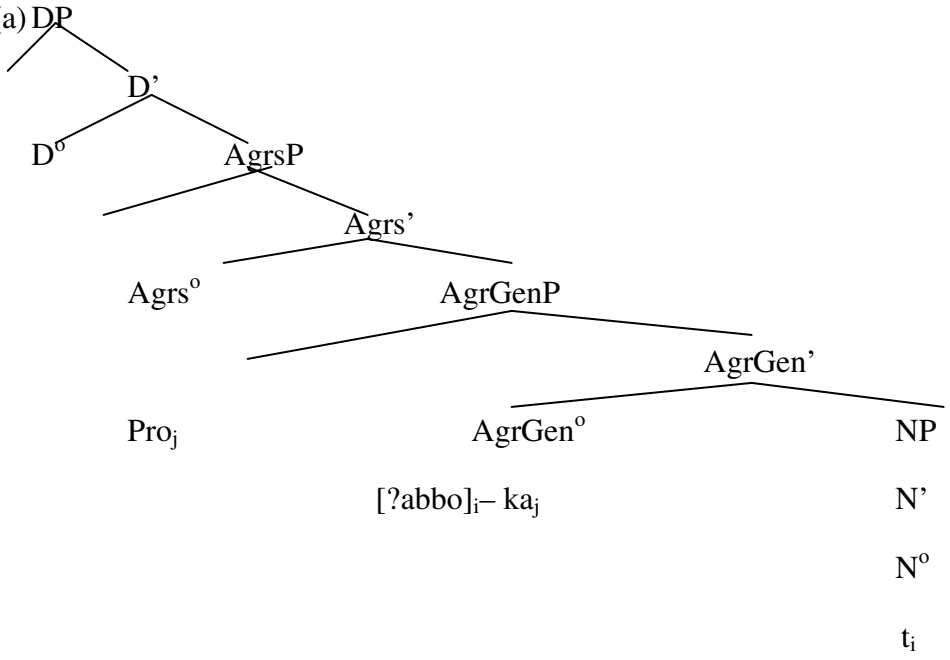
(b). $[_{DP}\ D^{o}\ [_{KP}\ k^{o}$ nay - $ka_{i}\ [_{AgrGenP}\ AgrGen^{o}\ t_{i}\ [_{NP}$?abbo]]]]
GEN - 2MS father
'your (MS) father'

(c.) * $[_{DP}\ D^{o}\ [\ _{KP}\ k^{o}$ nay $[_{AgrGenP}\ AgrGen^{o}\ [?abbo]_{i}–$ ka $[_{NP}\ t_{i}]\ ]\ ]\ ]$
GEN 2MS father - 2MS
'your (MS) father'

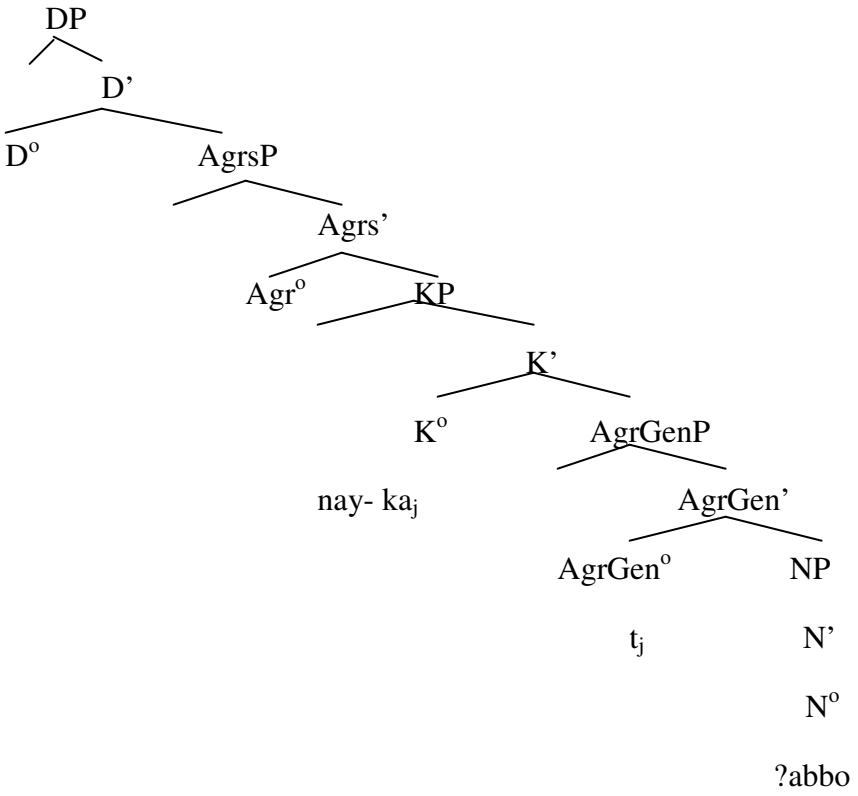
In 26 (a & b), the **Φ** –feature **/–ka/** '2MS' receives genitive case either from the raised head noun as in (a) which is known as case by agreement or from the preposition **nay** 'of' as in (b). In both structures, there is only one overt possessive form, and case is assigned to the pronominal clitic either by **nay** or by the raised head noun. Therefore, they are acceptable and grammatical.

In 26 (c), the structure is not acceptable and ungrammatical as an argument nominal structure. The reason is that there are two heads that can assign genitive case to the same **Φ** -feature. These are the genitive case assigner **nay** 'of' and the structural case assigner N-head. But in the argument position k^{o} does not have any NP that it could assign, thus, there has to be only one case assigning head for the **Φ** –feature, that is, either it receives its case from the raised head so it can be realized in Spec of AgrGenP as **pro** in a chain or a null genitive case assigner should govern it. In other words, this case should be realized either by **Pro** or by an overt pronoun, but not by both. Thus, if there is an overt case assigner in the K^{o} position, the head does not need to move to $AgrGen^{o}$ because of greed. The schemata for 26 (a) and (b) is given as 27.

27. (a)



(b)



4.1.6 The Status of Possessive Forms in DPs

In this section, I try to examine the status of possessive forms whether they have definite features and occur at the same structural position as the Agr NOM of deictic articles in the extended projection of DPs or the possibility of their being non-definite and co-occur with deictic articles in different structural positions in Tigrinya.

The issue has been controversial for many scholars. For example, Georgi and Longobardi (1991), Lyons (1986) argue that the status of genitive NPs is determined by language specific features and has to be parameterized across languages. According to them, claim, in languages like English and French, possessives have a determiner status. But in languages such as Italian and Russian they have adjectival status. Other scholars such as Haspelmath, (1999) claim that any conclusion drawn for the status of possessive forms seem premature at a universal basis and they cite languages such as Paduan, Romanian and Singlish whose possessive forms could not fit either of the parameterized option of adjective or determiner.

In Tigrinya, however, the status of possessive forms seems more dependent on the nature and pragmatic use of the possessed noun. If the possessed NP has one referent, it is realized as definite, otherwise, it is non-definite.

28. (a) $[_{DP}\, D^{o}\, [_{AgrGenP}\, pro_{j}\, Agrgen^{o}\, [?addä]_{i} - ka_{j}\ [_{NP}\, t_{i}\ ]\ ]\ ]$ s'äwɨʕ
mother - 2FS Call imp.
'call your mother'

(b) $[_{DP}\, D^{o}\, [_{AgrGenP}\, pro_{j}\, AgrGen^{o}\, [säbäyɨt]_{i}\text{-}u_{j}\ [_{NP}\, t_{i}]\ ]\ ]$ hafɨtam ?ɨyy- a
wife –3FS rich be -3FS
'his wife is rich'

(c) $[_{DP}D^{o}$?ɨt-$a_{z}[_{AgrsP}Agrs^{o}t_{z}[_{AgrGenP}pro_{j}\ AgrGen^{o}\ [?a\ dä]_{i}\text{-}ka_{j}\ [_{NP}\ t_{i}\ ]\ ]\ ]$s'äwɨʕ
Art – 3FS mother – 2MS call imp.
'call (the) your mother'

(d) $[_{DP}\ D^{o}$?ɨt-$a_z\ [_{AgrsP}\ Agrs^{o}\ t_z\ [_{AgrGenP}\ pro_j\ _{AgrGeno}$[säbäyɨt]$_i$ - $u_j\ [_{NP}\ t_i\ ]\ ]\ ]$
Art – 3FS wife - 3MS
'(the) his wife'

In 28 (a & b) the expressions seem definite with the possessive pronoun. If we use deictic articles with the possessed nouns, they are more likely to be null. Because the possessed NPs have only one definite referent, the role of the definite marker seems to be vacuous as indicated in 28 (c & d). However, there are many possessed nouns which have more than one referents as in (29):

29. (a) $[_{DP}\ D^{o}$?ɨt-$u_z\ [_{AgrsP}\ Agrs^{o}\ t_z\ [_{AgrGenP}\ pro_j\ AgrGen^{o}$[?id]$_i$ - $u_j\ [_{NP}\ t_i\ ]]]$ täsäbir - u
Art-3MS hand – 3MS break perf – 3MS
'the hand of his' is broken'

(b) $[_{DP}\ D^{o}$?ɨt - $a_z\ [_{AgrsP}\ Agrs^{o}\ t_z\ [_{AgrGenP}\ pro_j\ AgrGen^{o}$ [ʕabay g^{w}al]$_i$ - $u_j\ [_{NP}\ t_i\ ]]]$
Art – 3FS big girl - 3FS
'the elder daughter of his'

(c) $[_{DP}\ D^{o}$?ɨt - $u_z\ [_{AgrsP}\ Agrs^{o}\ t_z\ [_{AgrGenP}\ [pro_j\ AgrGen^{o}$[ʕarki]$_i$ - $ka_j\ [_{NP}\ t_i\ ]]]$
Art – 3MS friend - 3MS
'the friend of yours'

Even with referential nouns such as kinship terms and inalienable possessives like body parts, if their referent is not unique, they ought to be used with definite markers in order to give definite and unique references. Thus, in 29 (a – c) the possessed nouns alone do not give an explicit reference because there are more than one entities that are referred to by the possessed noun. In such cases, a deictic article is more useful in making the referent definite than a possessive pronoun. Moreover, the Φ features on $Agrs^{o}$ and $AgrGen^{o}$ do not refer to the same head. The Φ feature at $Agrs^{o}$ has the same feature as the possessed noun. But the Φ – feature at $AgrGen^{o}$ has features of the possessor. The possessive pronouns are compatible with the deictic articles in such nouns. Therefore, I assume that two AgrP projections, one Agrs for the Φ- feature that bears the features of the head noun and another AgrGen for the Φ- feature of the possessor, where AgrGenP occurs as a complement of $Agrs^{o.}$

3.1.7 Qualifiers in Tigrinya

The term quantifier refers to modifiers combined with nouns whose function is to determine the referent in terms of the size of the set of individuals or amount of the substance (Lyons, 1968). Quantifiers in Tigrinya have similar function and distribution as lexical adjectives in their base forms. They only indicate how much /many is being referred to by a noun.

30. (a). gälä - Säbat
some people (Partitive)

(b) bɨzuhat mäs'ahɨfti
many books (Partitive)

(c) kɨlɨtä tämɨharo
two students (existential)

(d). hɨdhɨd tämɨhari
every/each student (existential)

(e) kɨlu säb
all people (universal)

The Quantifiers indicate partitive, existential and universal references. They can also occur with deictic articles and have only quantificational functions in 31 below.

31. a) $[_{DP}\,[D^{o}$?ɨt.om$_{i}$ $[_{AgrsP}$ Agrs^{o} t$_{i}$ $[_{NP}\,[_{QP}$ kɨlɨtä] tämɨharo]]]
Art – 3MS two students
'the two students' (definite non specific)

b) $[_{DP}$ D^{o} ? ɨt-om$_{i}$ $[_{AgrsP}$ Agrs^{o} t$_{i}$ $[_{NP}\,[_{Qp}$ bɨzuhat] mäs'ahɨfti]]]
Art-3MS many book
'There many books' (definite non-specific)

The quantifiers with the deictic article in 31 (a) and (b) show only the number or quantity of the entities referred to by the deictic article. They occur in the Spec NP, which I assume, is the base position for quantifiers and adjectives. Quantifiers, however, can undergo independent syntactic movement to operator positions to make their reference specific to the noun they modify.

32. (a) $[_{DP}\, D^{o}$ ʔɨt-om$_{z}$ $[_{AgrsP}$ Agrs^{o}t$_{z}$ $[_{\ AgrsP}$ [täm**ɨ**haro]$_{i}$ Agrs^{o} [k**ɨ**l**ɨ**ti]$_{j}$ -om $[_{NP}[_{\ QP}\ t_{j}\ ]N^{o}\ t_{i}]]]]$
Art 3MPL students two – 3MPL
'Those two students' (specific)

(b) $[_{DP}\, D^{o}$ ʔɨt-om$_{z}$ $[_{AgrsP}$ Agrs^{o} t$_{z}$ $[_{\ AgrsP}$ [q^{w}äl**ɨ**ʕut]$_{i}$ Agrs^{o}[kull**ɨ**]$_{j}$-om $[_{NP}[_{\ QP}\ t_{j}\ ]N^{o}\ t_{i}]]]]$
Art - 3MS boys all– 3MS
'all the boys' (specific)

(c) $[_{DP}\, D^{o}$ ʔɨt- än $_{z}$ $[_{AgrsP}$ Agrs^{o} t$_{z}$ $[_{\ AgrsP}[$ʔän**ɨ**sti]$_{i}$ Agrs^{o} [h**ɨ**dh**ɨ**d]$_{j}$ - än $[_{NP}[_{\ QP}\ t_{j}\ ]N^{o}\ t_{i}]]]]$
Art - 3FPL women each – 3FPL
'each woman' (specific)

(d) $[_{DP}\, D^{o}$ ʔɨt-om$_{z}$ $[_{AgrsP}$ Agrs^{o}t$_{z}$ $[_{\ AgrsP}$ [säbat]$_{i}$ Agrs^{o} [mäb**ɨ**zah**ɨ**]$_{j}$ -om $[_{NP}[_{\ QP}\ t_{j}\ ]N^{o}\ t_{i}]]]]$
Art –3MS people majority – 3MPL
'The majority people' (specific)

In the examples 32 (a-d) the quantifiers are extracted from their base position to a higher Agrs^{o} in order to bear the **Φ** -feature of the head noun. As a result, the head Noun also moves to the AgrsP position. The raised noun checks and licenses the function of the quantifiers which are also raised for the purpose of giving specifying/restricting reference to the head noun. The movement is to the left and to a higher functional position as in all such other movements of demonstratives, pronouns and possessives.

Moreover, the quantifiers which are licensed for specific reference at AgrsP can also be raised to the next higher positions, that is, Agrs^{o} and then to D^{o}. Because the Φ feature they bear make them strong, they cansubstitute the deictic articles. Their quantified specific reference is checked and licensed at LF.

33. (a) $[_{DP}\, D^{o}$ [k**ɨ**l**ɨ**ti –om]$_{j}$ $[_{AgrsP}$ Agrs^{o} t$_{j}$ $[_{\ AgrsP}$ Agrs^{o} t$_{j}$ $[_{NP}[_{\ QP}\ t_{j}\ ]N^{o}$ täm**ɨ**haro]]]]

two - 3MPL students
'the two students' (specific)

(b) [$_{DP}$ D^o [k^{w}ɨli-om]$_j$ [$_{AgrsP}$ Agrs^o t$_j$ [$_{AgrsP}$ Agrs^o t$_j$ [$_{NP}$[$_{QP}$ t$_j$]N^o q^{w}älɨʕut]]]]
all - 3MPL boys
'these all boys' (specific)

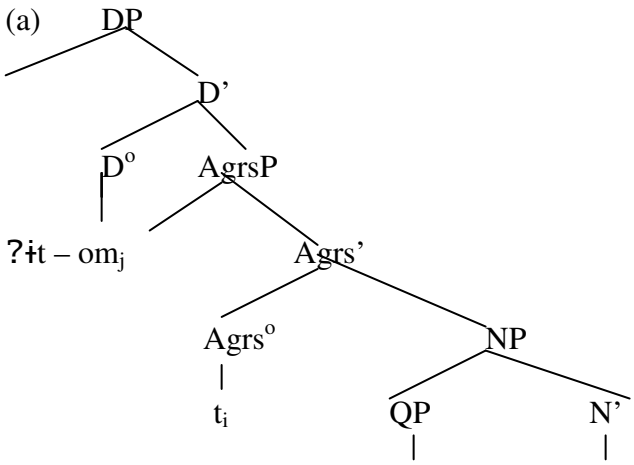
(c). [$_{DP}$ D^o [hɨdhɨd – än]$_j$ [$_{AgrsP}$ Agrs^o t$_j$ [$_{AgroP}$ Agrs^o t$_j$ [$_{NP}$[$_{QP}$ t$_j$]N^o?anɨst]]]]
each - 3FPL women
'each of these women' (specific)

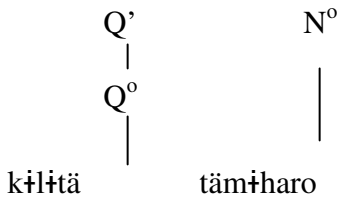
In 33 (a -c) quantifiers are licensed and raised to D^o, they serve as pre head determiners. In this position they have the same reading as quantifiers in post head position of deictics. Therefore, pre-head quantifiers are incompatible with deictic articles which leads to the same conclusion made about demonstratives

Therefore, quantifiers in Tigrinya can occur at pre-head position by substituting deictic article. Hence, I propose that quantifiers can move to higher functional projections when they have strong referential features as in the examples cited in (32 &33). If they are weak, they occur in situ like lexical adjectives in the Spec of NP, as in the examples cited in (31). The three positions of the QPs are shown by taking 31 (a); 32 (a) and 33 (a) as follows:

31. [$_{DP}$ [D^o ?ɨt.om$_i$ [$_{AgrsP}$ Agrs^o t$_i$ [$_{NP}$ [$_{QP}$ kɨlɨtä] tämɨharo]]

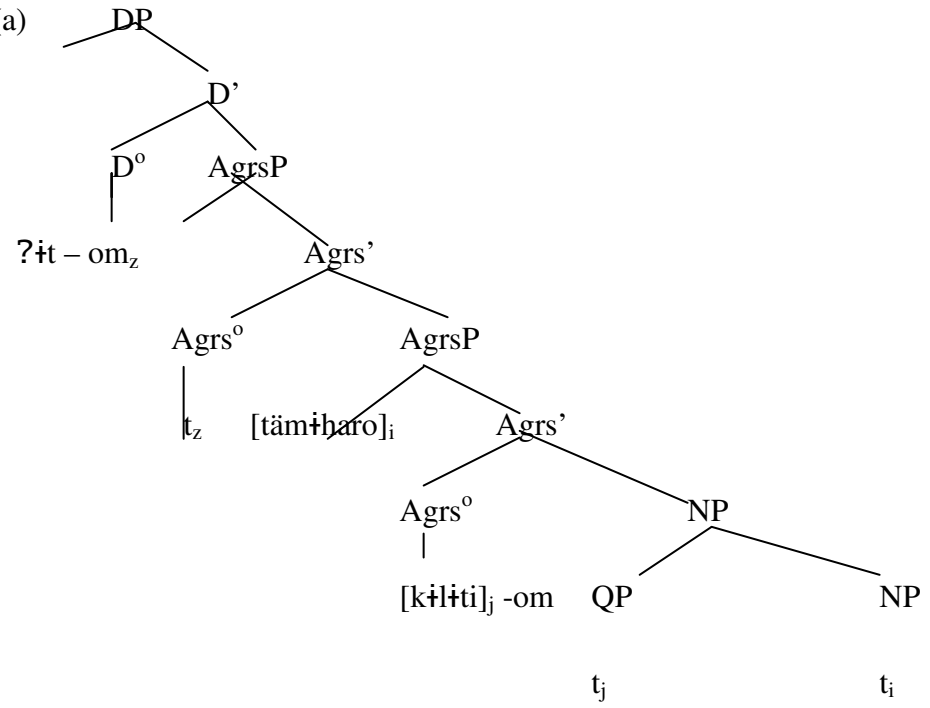
(a)



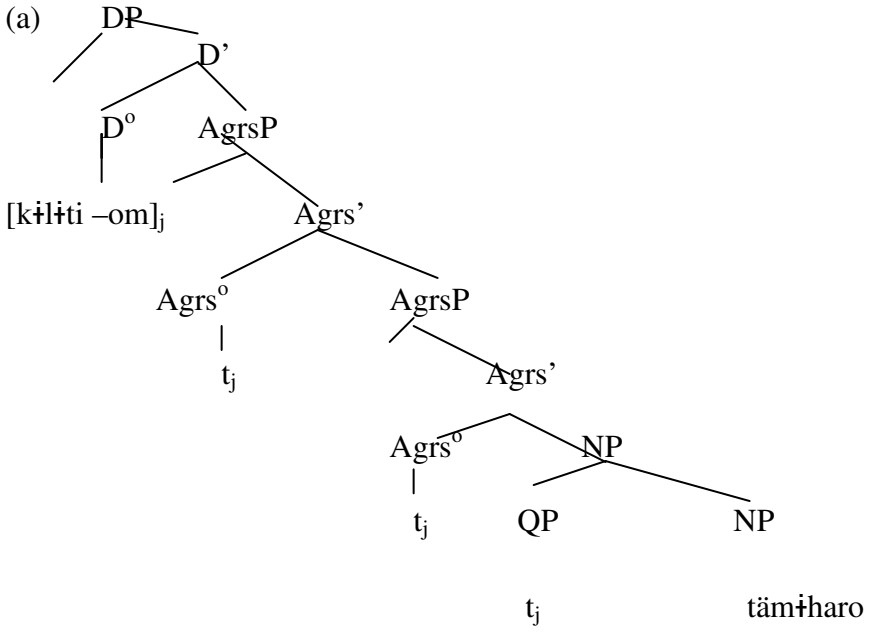


32. [$_{DP}$ D^{o} ?ɨt-om$_{z}$ [$_{AgrsP}$ Agrs^{o}t$_{z}$ [$_{AgrsP}$ [tämɨharo]$_{i}$ Agrs^{o} [kɨlɨti] $_{j}$ -om [$_{NP}$[$_{QP}$ t$_{j}$]N^{o} t$_{i}$]]]]

(a)



33. $[_{DP}\ D^{o}\ [k\text{-}l\text{-}ti\ –om]_{j}\ [_{AgrsP}\ \ Agrs^{o}\ t_{j}\ \ \ [\ _{AgrsP}\ \ Agrs^{o}\ t_{j}\ \ [_{NP}[\ _{QP}\ t_{j}\ ]N^{o}\ täm\text{-}haro]]]]$



CHAPTER FIVE

CONCLUSION

This study concerns the nominal functional categories in Tigrinya. Two related syntactic issues are addressed: determining the functional heads and giving a unified account for their syntactic positions and the various distributional restrictions they show. The analysis focuses on nominal constituents with vivid functional features in the grammar of the language. In addition, the strong nominal features that trigger movement on the representation of nominal structures is considered in line with recent developments in the literature on functional categories. Nominal features and their occurrence in various syntactic positions and meanings have been examined. In light of the analysis made, the following conclusions are drawn.

First, the status of constituents of nominal categories is determined on the basis of formal features that are legible for PF and LF interpretation. Categorial features and affixal features are treated as defining properties for the functional categories. Constituents that share features of lexical category, and play independent roles in the syntax of the language are assumed to be strong functional heads. A constituent that lacks specification for such features is assumed to be weak.

Therefore, constituents that occur in the derivation with affixal features such as deictic articles, demonstratives, pronouns, possessives, and quantifiers are strong heads in Tigrinya. They are assumed to be functional heads which occur in the extended functional projection.

Secondly, definiteness feature is checked in D^o in two ways by a nominal head. The first at the PF interface where the overt head raised to the D^o through Agr^o if there is no overt deictic article.

The second, is when the noun remains in situ and definiteness is licensed at LF. When the deictic article occurs overtly at D^o, the Φ- feature of the head noun is attracted by the deictic element and percolates to it.

In similar vein, the D^o position can also be occupied by demonstratives and pronouns which have undergone raising as they are inherently strong heads. In line with Bernstein (1997), which outlines that deixis is obtained through movement of a demonstrative to D^o, the demonstratives in Tigrinya raise from DemP to $Agrs^o$ and then to D^o to make the reference of the head noun identifiable, specific and unique. Checking the definite feature and the deictic feature takes place at LF since the head noun cannot move overtly to the D^o position. The deictic elements can occur in the $Agrs^o$ position desplaying only the deictic feature if there is an overt deictic article occupying the D^o. In such nominal structures, the head noun move Spec of $Agrs^o$ and licenses the deictic feature at PF. Moreover, quantifiers which carry the head nominal features are also licensed to undergo similar syntactic movements as the demonstratives.

The other important conclusion drawn relates to the co-occurrence of the two Agreement features in the nominal structure of Tigrinya. They are affix features bearing the features of the head noun, namely Agrs, and the features of the possessor, namely, AgrGen. They have two distinct syntactic positions; $Agrs^o$ and $AgrGen^{o.}$. This means that the Φ-features of the possessor are manifested in two forms in Tigrinya. The first is realized by agreement when the head noun overtly moves to check its case feature at the Spec of AgrGenP which is assumed to be a case position. Here it adjoins to $AgrGen^o$ and assigns structural case which is realized in the form agreement. The second is assigned by an overt case assigning head **nay** 'of' which occurs at the K position and the Φ-features are assigned case by K are also attracted by it and percolates to K^o.

Finally, I believe a unifying syntactic account has been proposed in this study to handle all processes derivation in the DP structure of Tigrinya whose representation is shown below:

$[_{DP}\ D^{o}\ [_{AgrsP}\ Agrs^{o}\ [_{KP}\ k^{o}\ [_{AgrGenP}\ AgrGen^{o}\ [_{DemP}\ Dem^{o}\ [\ _{NP}\ N^{o}]]]]]]$

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