

RELATIVE CLAUSES IN CHAHA

A GB APPROACH

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ABSTRACT

This study examines the structure of relative clauses in Chaha. As a guideline, it employs the theory of Government and Binding of Chomsky (1981, 1982, 1986) and recent developments. The theory assumes that relative clauses are Non-argument clausal complements of nouns at a maximal level. The internal structure of relative clauses are explained in terms of subtheories and principles which are assumed to be properties of universal grammar.

The study begins by analyzing the relativizing strategy in the language. It is argued that Chaha uses the Pro in situ strategy in its relative clauses. This means that an empty category Pro is base generated in a relativized argument NP position of a relative clause. The relativized argument NP may be a complement of a verbal, a prepositional or a nominal head.

The study shows that Chaha relative clauses are open syntactic predicates predicated of their head NPs. The head NPs act as formal subjects of their predicated relative clauses. The rule which interprets the relation between the head NPs and the predicated relative clauses is the rule of predicate Linking which applies at S-structure.

In Chaha, an invariable element /yǎ/ occurs in perfect relative clauses to introduce the clauses as predicated of their head NPs. This /yǎ/ is treated as a complementizer and is base generated in comp. position at D-structure. It does not phonetically occur in imperfect relative clauses.

Although relativized NP positions are always empty, subject agreement affixes and pronominal object clitics play essential roles in identifying their content. The former refers to subjects, and the latter to objects of [-N] categories.

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LIST OF ABBREVIATIONS

1s	First person singular
1p	First person plural
2ms	Second person masculine singular
2mpl	Second person masculine plural
2fs	Second person feminine singular
2fpl	Second person feminine plural
3ms	Third person masculine singular
3mpl	Third person masculine plural
3fs	Third person feminine singular
3fpl	Third person feminine plural
pf.	perfect
Impf.	Imperfect
DEF.	Definite
m.	Masculine
f.	Feminine
O.M.	Object marker
Ocl.	Object clitic
POCl.	prepositional object clitic
PPCl.	Possessive pronominal clitic
MCM.	Main clause marker
Comp.	Complementizer
Pol.	Polite
PP	Prepositional phrase
VP	Verbal phrase
V	Verb
Art.	Article
N	Noun
NP	Noun phrase
Adv.	Adverb
S.	Sentence
INFL	Inflection
IP	Inflectional phrase
NPs	Noun phrases
D-s	Deep structure
S-s	Surface Structure
VI -	Voiceless
Vd -	Voiced

CHAPTER ONE

INTRODUCTION

1.1. The Language.

From a descriptive point of view, the Semitic languages of Ethiopia are divided into two major groups: ¹North Semitic and South Semitic. The North Semitic includes Geez, Tigre and Tigrigna while the South Semitic includes Amharic, Argoba, Gafat, Harari and the Gurage languages (Hetzron, 1975 : 129; Leslau, 1966 : 593).

Gurage is a Cluster of Southern Ethiopian Semitic languages which are Classified into three mutually Unintelligible groups: Northern Gurage, Eastern Gurage and Western Gurage.² The Western Gurage group includes Mesqan, Enner, Endegagn, Ennemor, Geyto, Chaha, Ezha, Gumer and Gura. Of these, the last four belong to Central Western Gurage, and together with some other minor dialects, they form the "Säbat Bet" (Seven House) Gurage languages (Hetzron, 1977 : 44). The Present study is concerned with the syntax of one of these four Central Western Gurage languages, that is, Chaha.

According to Ford (1983 : 7), Chaha is the major dialect of Central Western Gurage spoken by about 250,000 people. The people live in the Sub-district of Chaha, which is found in Chobo and Gurage Awraja. The Capital of the sub-district is Endibir, from which the data for this study were collected.

As indicated in Leslau (1950 : 12) and Ford (1986 : 41), the grammatical structure of Chaha is closely related to that of Amharic and other Ethio-Semitic languages.

The Phonemic inventory of the Consonants and Vowels³ below is adopted from Ford (1986 : 42 - 43).

The Consonants

	Bilabial	Labiodental	Labiodental	Labiodental	Alveolar	Alveopalatal	Palatal	Velar	Velar Round	Glottal
Stops/Affr.										
vl	p	p ^w			t	t̟(C)	k ^y	k	k ^w	ʔ
vl	b	b ^w			d	ɖ	g ^y	g	g ^w	
ejective										
vl	p'				tʰ(ɾ)	t̟'(C')	k' ^y	k'	k' ^w	
Nasals										
vd	m	m ^w			n	n̟				
Fricatives										
flat										
vl			f	f ^w			x ^y	x	x ^w	
vl	β									
grooved										
vl					s	s̟(S)				
vd					z	z̟				
ejective										
vl					s'					
Lateral										
vd					l					
Flap/Trill										
vd					r					
Nonsyllabic										
Vocoids										
vd	w						y			

The Vowels

	Front Unround	Central Unround	Back Round
High Close Half Close	i	ɨ(1)	u
Mid Close Open	e	ɛ	o
Low Close Open	æ	a	ö

Since the present study does not deal with the phonology, we shall not pursue the discussion here. The purpose for the inclusion of these phonemes is transcription.

1.2. Previous Studies

As mentioned in Hetzron (1977 : 25), the most studied of the Gurage languages is Chaha. This is because of the presence of Catholic missionaries in Endibir since the early nineteenth century. They have contributed to the study of the language. The first material which is a collection of words and some grammatical notes on the language was published by G. Chiarini in 1887. A few years later, the work of Mondon Vidailhet, an outline of the grammar and some data from the dialects of Ulbarg, Gogot, Mesqan, Welene and Aymelet, came out in 1901. Then, in 1931, Cohen's comparative grammatical study on Muher, Aymelet, Chaha and Welene was published. His work revealed, for the first time, the particular location and geographical distribution of the languages of Gurage.

The other important material which treats the grammatical features of Chaha is Leslau's (1950) Ethiopic Documents : Gurage. The Grammatical descriptions are very important, though they are not without any inadequacy. Regarding relative Clauses, which is our concern, Leslau (1950 : 20) points out that the Prefix /yǎ/ is a relative pronoun and that it is always attached to perfective verbs of such Clauses. He concludes by saying "there is no relative Pronoun in the imperfective; the relativized position alone indicates the relative Clause."

Following Leslau, Polotsky (1951 : 27) also argues that /yǎ/ is a relative pronoun and that it may not occur before an imperfective verb of relative Clauses. But, contrary to Leslau, he states that "there is no direct sign to show that the imperfective forms used in such constructions are relative Clauses."

The other person to identify some syntactic features of Chaha, in the comparative grammatical survey of the "Gunnar Gurage"⁴ languages, is Robert Hetzron (1977). His work is divided into three parts: the first part discusses the classification of the Gurage languages, the second presents a comparative grammatical survey of the Gunnar Gurage languages, and the last part contains a collection of representative folklore from the different Gurage areas. Concerning relative clauses in Chaha, Hetzron (1977 : 98) states that they are formed by means of /yǎ/ plus a verb in the past (perfective) form.

Recently, Ford (1986) has also studied the properties of Chaha relative clauses with some use of the Transformational Generative model. According to Ford, the structure of Chaha relative clauses is the same as that of independent clauses except that in the former, perfective relatives are marked by the prefix /yǎ-/ and by the dropping

of the final /-m/, which can never be attached to the verb of the relative clause. To show this, she discusses mainly the properties of the relative clauses with verbs in the simple past, continuous, past continuous, pluperfect and equative aspects.

Ford also assumes that the relative clauses in Chaha function as subjects, complements and time phrases. But, she did not give examples to illustrate this point. Furthermore, she did not indicate the types of relative clauses in the language and the effects they have on their head NPs. She simply compared relative clauses with main clauses and made some observational generalizations. Of course, her main interest is the morpho-phonemic processes in the language.

1.3. The Present Study

In the preceding section, it has been shown that some linguists have tried to describe Chaha relative clauses from a descriptive and Transformational Generative point of view. For instance, the descriptive studies of Leslau (1950) and Polotsky (1951) indicate that the /ya/ in Chaha relative clause constructions is a relative pronoun and that it may not occur before imperfective verbs. Their analyses, however, may lead one to raise the following questions: (a) why is /ya/ an invariant relative pronoun in the language? and (b) how can a clause be simply considered as a relative clause in the absence of /ya/? Both Leslau and Polotsky did not seem to entertain such questions.

On the other hand, in Hetzron (1977) and Ford (1986) no attempt has been made to show the function of /yǎ/. Both mentioned it in passing by simply saying that relative clauses in the language are formed by means of /yǎ/ plus a perfective verb. In other words, no adequate description about its status has been made, nor has there been

any attempt made to identify differences between restrictive and non-restrictive relatives, and properties of the internal structure of relative clauses considered.

The present study focuses on the following: (a) the process of relativization, (b) the particular and universal properties of such clauses and (c) their internal structures.

For this, we have used data from four native speakers of the language: Tesfaye Lega, at present a fourth year student in Addis Ababa University, Fikade Minota, a worker in the Ministry of Education, Degif Petros, an employee of the Ministry of Culture, and Dendir Melka a trader in Endibir. In addition, texts collected by Leslau (1950 : 34 - 136) and Ford (1983 : 70 - 98) have been consulted.

1.4. The Theoretical Framework

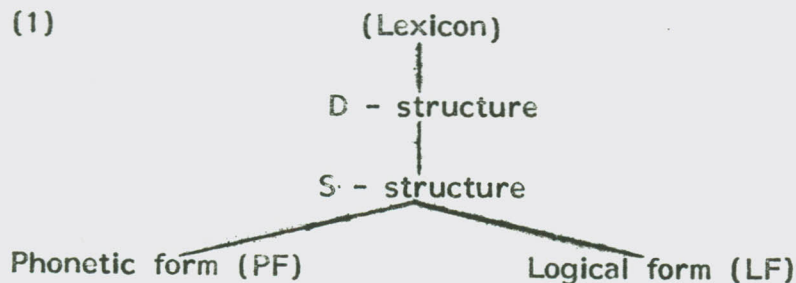
The model used in this study is the theory of Government and Binding (GB) of Chomsky (1981, 1982, 1986) and recent developments. As Chomsky (1982 : 16) pointed out, this model is concerned with the problems which the rule system model⁵ failed to account. The descriptive devices of the rule system model⁶ have helped in the search for general rules and conditions which are assumed to be properties of universal grammar.⁷ However, there are fundamental questions regarding the general rules and the conditions of their applications. Among these, are the following.

How much of the rule system must actually be specified in a particular grammar? What aspects of the rule system must actually be learned as knowledge of language is acquired? What is the actual set of parameters associated with the rule system and how freely can they be assigned values? (Chomsky 1982 : 7)

The inadequacies of the rule system model in giving answers to such questions gave way to the system of grammar which is believed to have some explanatory adequacy.

The shift from using descriptive devices to explanatory devices was first made in Chomsky and Lasnik (1977). This was further elaborated and developed in Chomsky (1981) under the Government and Binding (GB) theory, which assumes the following independent and interacting principles comprising the subsystems of core grammar: x-bar theory, theta theory, case theory, government theory, binding theory, bounding theory and control theory. Of these, x-bar, theta, case, government and binding theories are relevant to the present study. The fundamental concepts in these sub-theories will hence be explained in some detail in light of the objective of this study.⁸

But, before that, We have to show the levels of representations in which the sub-systems of Principles operate. In the GB model, the subsystems of principles provide representations at four linguistic levels: deep structure (D-structure), S-structure, Phonetic form (PF) and Logical form (LF). The organization of the Grammar is schematized as in (1).



A syntactic structure is grammatical if and only if it has a well-formed representation at each linguistic level.

In this model, a syntactic structure is basically a projection of the Lexicon. Lexical categories have theta - grids (Θ -grids) which enable them to select certain categories as complements. The selection of complements is mainly determined by the lexical properties of lexical heads and that this is specified in the Lexicon, which is considered to be the storage of lexical items and their idiosyncratic properties.

However, the Lexicon specifies only obligatory Θ -roles which can be assigned by lexical heads. It gives the lexical structure (LS) of every lexical heads. The lexical structure is then mapped onto D-structure representations where all relevant Θ -roles are assigned to arguments, that is, NP_S .

At this level, We find both obligatory and optional Θ -roles assigned to arguments. The assignment takes place under the structural relation of government, which we understand in a more general way as in (2).

- (2) Government (Chomsky, 1981 : 50)
 α governs β iff for all γ ,
 γ a maximal projection, γ
dominates α iff γ dominates β .

The government relation in (2) allows no phrase to intervene between a Θ -role assigner and an assignee. It is also believed that the Θ -roles of arguments are mostly determined by verbal heads which directly assign patient Θ -roles to their internal arguments with which they form the verb-object string (VP), which may in turn indirectly assigns the agent Θ -role to the external argument (if any)⁹.

At D-structure there must always be a one to one relation between arguments and their Θ -roles. The principle which governs this correlation is the theta criterion (Θ -criterion), formally stated as in (3).

(3) Θ - criterion (1981 : 36)

Each argument bears one and only one Θ -role and each Θ -role is assigned to one and only one arguments.

On the other hand, the projection principle, which is one of the over-riding principles of the GB model, maintains all lexical properties specified in the lexicon and all Θ -roles assigned at D-structure to be projected in all the other levels of syntactic representations. The Principle is given in (4).

(4) Projection Principle (1981 : 36)

Each syntactic representation
(D - s, S - s, LF, representation)
should be a projection of the
thematic structure and the
properties of subcategorization of
lexical entries.

At S-structure, the base positions of arguments may be altered because of the effect of move α , a syntactic movement triggered by case, a requirement, which filters out arguments as ungrammatical, if they do not have case. The requirement is known as the Case Filter, and is defined in (5).

(5) Case Filter (1981 : 49)

Every phonetically realized NP must
be assigned (abstract) case.

The other principles which regulate the distribution of arguments at S-structure are the Binding Principles. Unlike the Case Filter, the binding principles do not distinguish between lexical arguments and non lexical arguments. Rather, they recognize three classes of arguments: anaphors, pronominals and referential expressions (R-expressions). The set of anaphors include reflexives, reciprocals, NP-trace and PRO. The set of pronominals include pronouns and the empty categories Pro and PRO, and the referential expressions include all names, definite and indefinite, and Wh - and Quantified NP traces. The binding principles are given in (6).

(6) Binding Principles (1981 : 188)

- A. An anaphor is bound in its governing category
- B. A pronominal is free in its governing category.
- C. An R-expression is free.

The definition of the notion governing category is also given in (7) below.

(7) Governing Category (1981 : 220)

β is a governing category for α
iff β is the minimal category
containing α , a governor of α , and
a SUBJECT accessible to α .

According to Chomsky (1981 : 163), the governing categories in which arguments may be bound are NP_S and Clauses (Sentences). The notion bound is defined in (8).

(8) Bound (1981 : 184)

α is x-bound by β iff α and β
are coindexed, β C-commands α
and β is in an X-position.

As can be observed in the definition in (8), the structural relation of C-command (Constituent command) is essential for an element to be bound or free. The formal definition of C-command is given in (9) below.

(9) C-command (1981 : 166)

α C-commands β iff the maximal
category dominating α dominates β
and α and β are coindexed.

The above discussion, in general, shows how arguments can be governed and assigned Θ -role at D - s and Case at S-structure and how the Θ -criterion and the case filter control the distribution of arguments. Such principles are also useful in the distribution of arguments in relative clauses, as the English example in (10) below may illustrate:

(10) [The man [who [John saw]]]
NP S S

In the noun phrase in (10), the bracketed relative clause 'who john saw' is the complement of the head noun 'man'. The relative clause is connected with its head NP 'man' by the Wh-Complementizer

which is outside the clause (S).

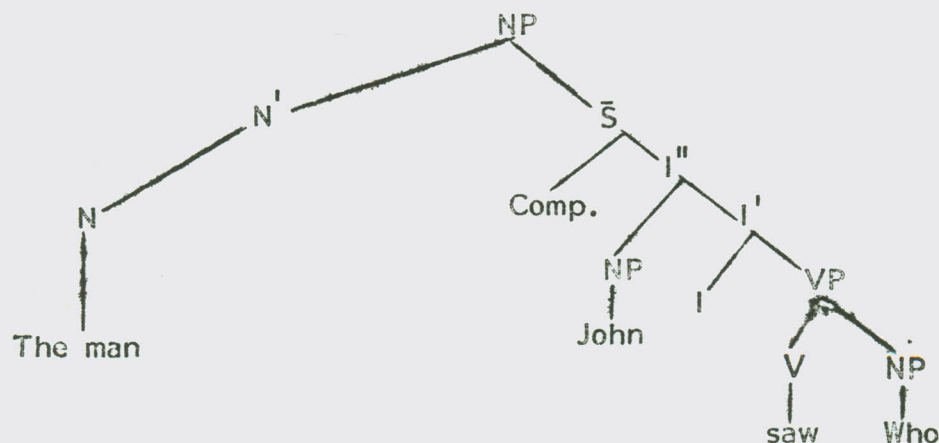
If we further examine the internal structure of the relative clause, we observe that the relative (transitive) verb 'see' needs an internal argument to satisfy its inherent lexical requirement at D-structure. The relative pronoun 'who' must therefore originate within S, as in (II) below, in order for the lexical requirement of the relative verb to be satisfied.

(II) [The man [comp. [John saw who]]]
 NP $\bar{S}$ S

The structure in (II) is the D-structure of the clause in (10). The base generation of the Wh - relative pronoun in the object position of the relative clause satisfies the lexical requirement of the relative (transitive) verb and this makes the representation well formed.

As a transitive verb, the verbal head 'see' in (II) assigns a patient Θ -role to the Wh - relative pronoun. The required government relation between the verbal head and the relative pronoun is satisfied. The verbal head together with the relative pronoun forms the verbal phrase which in turn assigns an agent Θ -role to the subject NP. This can be seen clearly in the following phrase marker.

(12)



of head nouns. Such clauses are, therefore, not structurally accessible for Θ -role assignment at D-structure. They cannot also be assigned case by their head NPs at S-structure because of the case resistance principle (CRP) of Stowell (1981) which forbids the case marking of clausal complements. Because of such properties, relative clauses are simply considered as nonargument clausal complements of nouns and that their position is at the maximal level in the projection of nominal heads.

Chomsky (1982) argues that the relationship between relative clauses and their head NPs must be interpreted by some means at S-structure and to this effect he proposes a rule of predication which considers relative clauses as open sentences predicated of their head NPs.¹⁰

By developing this proposal, Rothstein (1985) claims that nonargument maximal projections at S-structure can be understood as being syntactic predicates (Open functions) linked to appropriate syntactic arguments (Formal subjects) and that their distribution is governed by a rule of predicate linking which is formally stated as in (14).

(14) Rule of Predicate Linking

every non-theta marked xp
must be linked at S-structure to an argument which
it immediately c-commands and
which immediately c-commands it.

According to this claim, in the example in (13), the relative clause 'who John saw' is a non-argument category linked to the argument NP 'the man' by the predicate linking rule at S-structure. The head NP 'the man' acts as the formal subject¹¹ of the predicated relative clause.

Following Chomsky (1982) and Rothstein (1985), Mullen (1986) also argues that relative clauses may be interpreted in terms of predication rule which requires the clause to be coindexed with a referential expression. In (13), for instance, the referential expression is 'the man' and this has to be coindexed with the relative clause, the predicate, as in (15) below:

$$(15) \begin{array}{c} [\text{The man}] \quad [\text{who} [\text{John saw}]] \\ \text{NP}_j \quad \quad \quad \text{S}_j \quad \text{S} \end{array}$$

In (15), the referential expression "the man" and the Wh-relative pronoun refer to the same argument NP in the clause. Because of this, the index of the referential expression passes on to the relative pronoun as in (16).

$$(16) \begin{array}{c} [\text{The man}] \quad [\text{who}_j [\text{John saw}]] \\ \text{NP}_j \quad \quad \quad \text{S}_j \end{array}$$

The above discussion shows briefly how relative clause constructions are treated in the GB model.

One other question that must also be raised here is the difference between restrictive and non-restrictive relative clauses.

In the GB model, distinctions between restrictive and non-restrictive relative clauses have been made on the basis of levels of grammar.

Safir (1986) deals with such differences by recognizing two kinds of binding relations operating in relative clauses. $\bar{A}$ - binding, binding from Comp. and R - binding, binding by a relative head.

He argues that Coindexation between a relative head and a relative operator applies at the level LF' for non-restrictive relatives only. This is mainly because the reference of non-restrictive heads is independent of their modifying clauses. On the other hand, restrictive relative heads must R - bind something in the clause that modifies them; in other words, R - binding can not be vacuous for restrictive relatives (1986 : 668). This means that, R - binding is vacuous for non - restrictive relative clauses at the LF level of representation¹². This distinction can be illustrated in (17).

(17) At LF

- a. $\begin{matrix} \text{[The man}_i & \text{[who}_i & \text{[John saw } t_i & \text{]} & \text{]} \\ \text{NP} & \text{S} & \text{S} \end{matrix}$
- b. $\begin{matrix} \text{[Bill}_j & \text{[who}_i & \text{[John saw it}_i & \text{]} & \text{]} \\ \text{NP} & \text{S} & \text{S} \end{matrix}$

At LF' , (17b) has the same indexing as that of a restrictive relative, as in (18):

(18) At LF'

- $\begin{matrix} \text{[Bill}_j & \text{[who}_j & \text{[John saw } t_j & \text{]} & \text{]} \\ \text{NP} & \text{S} & \text{S} \end{matrix}$

For Safir, LF' is a level of representation in which extra arguments or constituents like parentheticals, and items marked by strong intonation breaks may be attached to independent grammatical sentences. In the same way, he assumes that non-restrictive relatives, which are similar in their distribution to parentheticals, may be attached

to independent sentences at LF'.

In the rest of this study, We shall attempt to show how relative clauses in Chaha behave in the light of the theoretical assumptions briefly introduced in this section.

Notes on Chapter One

¹For a discussion of the classification of the Ethiopian Semitic languages, See Hetzron (1977 : 3 - 29) and Leslau (1965 : 593 - 613).

²The Gurage languages have been classified by linguists in different ways. However, there is a common agreement about the three major divisions:

- | | | |
|-----------------|---|--|
| Northern Gurage | : | Soddo |
| Eastern Gurage | : | Selti, Ulbarg, Inneqor,
Welene and Zway. |
| Western Gurage | : | Chaha, Ezha, Gura, Gumer,
Ennemor and Endegagn. |

³The Symbols for consonant and vowel phonemes given in brackets are not of the IPA. They are employed here for typing purposes.

⁴According to Hetzron (1977 : 3), the name "Gunnan Gurage" includes those dialects for which the word for "head" is related to "gunnan". The dialects are Soddo, Goggot, Masqan, Ezha, Chaha, Gumer, Gura, Geyto, Ennemor, Endegagn and Enner.

⁵Chomsky (1982) suggested that two perspectives can be distinguished in the study of grammar: one which emphasizes rule systems and the other which focuses on system of principles. But, the systems of principles can never be comprehended independent of the rule systems.

As indicated in Chomsky (1977 : 72), the EST model consists of a few general rules and some general conditions governing their operations. The rules include two transformational and three interpretive rules.

- (1) Transformational rules.
 - (a) Move NP
 - (b) Move Wh.
- (2) Interpretive rules
 - (a) Reciprocal rules
 - (b) Bound Anaphora rule
 - (c) Disjoint Reference rule

Chomsky (1977) assumes that rules (1) and (2) meet the following conditions.

(3) Subjacency Condition : The condition forbidding a movement across more than one NP or S node in any single application.

(4) Tensed sentence condition (TSC) which states that an NP cannot be extracted from a tensed clause.

(5) Specified subject condition (SSC) which disallows a non-subject constituent from moving out of a clause (S) or NP with a specified subject.

For Chomsky (1982), the subsystems of principles contain the following theories which underlie the Government and Binding model

of grammar:

- | | |
|-----------------------|---------------------|
| (1) X-bar theory | (5) Binding theory |
| (2) Theta theory | (6) Bounding theory |
| (3) Case theory | (7) Control theory |
| (4) Government theory | |

⁶Chomsky (1982) groups all the Pre - GB assumptions under the title, "Rule system Model" and refers to the general rules and conditions (1 - 5) (in note 4) as "the descriptive devices" of the model.

⁷According to Chomsky (1986), Universal Grammar (UG) is the human language faculty or the biological human endowment found in the brain of human beings.

⁸The other two subtheories which do not participate in explaining Chaha relative clauses are the Bounding and Control theories. Bounding theory specifies the possible barriers to government and movement by regulating the locality conditions which dictate Move . Control theory, on the other hand, accounts for the relation of PRO (empty pronominal anaphor) with its possible antecedents. Since relativization in Chaha does not involve a Movement rule, the bounding principles are not necessary. Moreover, in Chaha, a relativized NP position is a governed and Θ -marked position and the empty category which appears in this position is Pro. The relation between Pro and its antecedents is also governed by Principle B of the Binding and not the theory of Control.

⁹It is in this sense that the notion of X-bar expansion was maintained in the model rather than in the rule system model. In the rule system model, a given lexical category (X) may have more than one phrasal expansion. Jackendoff (1977), for instance, assumes a treble bar (x) level of projection for any X. Radford (1981), on the other hand, assumes a double bar (x) level of projection for x. There are also others who assume more than three bar levels of projection (see Radford, 1981 : 101). In the GB theory, the lexical requirement of a head may be satisfied in the lexicon. The Projection Principle, in (4), then regulates the lexical requirements in all other levels of representation. Because of this, Phrase Structure rules may be dispensed with.

¹⁰According to Chomsky (1982 : 13), the rule of predication requires a relative clause to be taken as an open sentence in D-s. At S-structure, however, the clause must be closed by an argument NP of which it is predicated.

¹¹By formal subject we do not mean a subject that is [NP, S]. The term is simply used to refer to an NP which helps an open relative clause complement to be a closed syntactic predicate.

¹²Contrary to Safir, Chomsky (1982 : 92) assumes that the rule of predication maps LF representation into LF¹ level by introducing indices. Suppose that the LF representation of (1a) is 1b):

(1a) [The woman [who [John loves t]]]
 NP $\bar{S}$ S

(1b) [[The woman_i] [who_j [John loves t_j]]]
 NP $\bar{S}$ S

The rule of Predication, therefore, applies to the LF representation (1b), identifying (i) and (j), and yielding the representation (1c):

(1c) [[The Woman_i] [who_i [John loves t_i]]]
 NP $\bar{S}$ S

CHAPTER TWO

2.0. Relative clauses at D-structure.

As Chomsky (1982) pointed out, the ultimate goal of the theory of generative grammar is the study of the language faculty of the human mind. In order to attain this goal, the overall task of a linguist is to study grammars of particular languages and to abstract a set of principles that they all share. Following this approach, we shall first attempt to see the particular properties of Chaha relative clauses. Then, we shall try to identify properties of such clauses which Chaha share with other languages.

The discussion will be as follows : In section 2.1, we shall examine the ways of forming relative clauses. In section 2.2, we shall describe relativizable argument NP positions. In section 2.3, we shall show the types of relative clauses and their base positions.

2.1. Ways of Relativization

Languages vary with respect to the way they form relative clauses. Such variations may also be apparent even in a single language where there are more than one relativizing strategies employed.¹

As shown in the Preceding Chapter, relativization in English always involves a movement rule. At the risk of being repetitious, We shall give an additional example in (1) below to illustrate this point.

- (1) [The woman [who [Bill loves]]]
 NP S S

The D-structure of this relative clause is as in (2).

- (2) [The woman [Comp [Bill loves who]]]
 NP S S

The string (2) is the form on which the movement rule operates. The element that moves outside the clause is the relative pronoun, that is, 'who'. After the movement rule has applied, the S-structure of the clause looks as like (3).

(3) [The woman_{NP} [who_i [Bill loves t_i]]]
 S S

In (3), the moved wh - word has left behind its trace. According to the trace theory of Chomsky (1981, 1982, 1986), the moved wh-word and the trace form a Chain at S-structure. This is an example of relativization with a movement strategy.

In some languages, relative clauses may be formed with a resumptive pronoun base generated in a relativized NP position. According to Borer (1984 : 220), Modern Hebrew uses this strategy². Observe the following example.

(4) [ha-yeled [she [rina ?ohevet ?oto]]]
 NP S S
 the-boy that Rina loves him
 'The boy that Rina loves'

In (4), no movement has applied. The resumptive pronoun /?oto/ 'him' is in its D-s-position. The Comp. position is also filled by the complementizer /she/ 'that'. For Borer, the Complementizer plays an important role in connecting the relative clause with its head NP which is the antecedent of the resumptive pronoun in the relativized position. The head NP /yeled/ 'boy' is coreferential with this pronoun which is subject to principle B of the binding theory. Borer refers to such kind of relativizing strategy as the resumptive pronoun strategy.

In some other languages relative clauses may also be formed by leaving a clitic pronoun in relativized position. According to Mullen (1986 : 393) Amharic uses this strategy as in (5).

- (5) [[li] - u e yǎ - gǎddälǎ-w] Ibaab]
 NP S_{boy-DEF REL. -killed - it snake}
 'The Snake that the boy killed'

The relativized NP in (5) is the direct object which is phonetically empty (∅). The features of the empty relativized NP may be recovered from the 3ms object clitic /-w/ which is attached to the relative verb. The clitic also plays an essential role in relating the empty relativized direct object with the antecedent head NP /Ibaab/ 'snake'.

For Mullen, the empty relativized direct object and the object clitic in (5) form an empty category clitic chain which constitutes some kind of resumptive pronoun. Following Rothstein (1983), she also assumes that the relative clause in (5) is a predicate³ predicated of the head NP /Ibaab/ 'Snake' which is its formal subject. Mullen calls such a relative clause forming strategy a predication resumptive strategy.

A question that is likely to arise here is: which of the above relative clause strategies does Chaha use? Off hand, one can say that Chaha seems to follow the strategy that Amharic employs, without this implying that they are identical.

As mentioned in the preceding chapter, linguists like Leslau (1950), Polotsky (1951), Hetzron (1977) and Ford (1986) have tried to describe the relative clauses of Chaha. However, their analysis is more of descriptive and the conclusions they have arrived at are simple observational generalizations. Ford (1986), for instance, claims that the structure of relative clauses in Chaha is similar to that of main clauses except that the verb in a relative clause is marked by the prefix /yǎ-/⁴

and by the absence of the main clause marker /-m/⁵. A comparison of the relative clause in (6a) with its corresponding main clause in (6b) may illustrate this point.

(6)

- a. [[tlrama Yă-Căn-ăC] gărăd]
 NP $\bar{S}$ yesterday ? - come-3fs-pf girl
 'the girl (who) come yesterday'
- b. [[gărăd-x^YIt] [tlrama Căń-ăC-m]]
 S NP girl - DEF. ^{VP}Yesterday come-3fs-mcm-pf
 'The girl came Yesterday'

In the structure in (6a), the Prefix /yă-/ is attached to the verb /Căn/ 'come' of the relative clause, and the main clause marker /-m/ is missing. In (6b), on the other hand, only the main clause marker /-m/ is attached to the perfective verb. Such differences are observable from the surface structure representations of the clauses.

However, a closer examination of the structures may reveal that the subject NP position of the relative clause in (6a) is empty. This follows from the lexical property of the relative verb /Căn/ 'come'. As an intransitive verb, /Căn/ 'come' needs an external argument NP, that is, a subject. But this NP is not phonetically realized in the expected position. In other words, the position is empty.

In contrast, in the main clause in (6b), we observe that the subject position of the clause is filled by /gărăd/ 'girl' with which the verb agrees by showing the suffix /-ăC/ '3fs'. If a lexical, that is, a phonetically realized NP occurred in the empty subject position of the relative clause, the resulting structure would be ungrammatical

as in (7) below.

- (7)
- | | | | | | |
|---|----|--------------------|--------|------------|--------------------|
| * | [| [x ^y It | tlrama | Yä-Cän-äC] | gäräd] |
| | NP | S | She | Yesterday | ?-come-efs-pf girl |

In (7), an independent personal pronoun /x^yIt/ 'She' is found in the subject position of the clause. This pronoun is in concord with the verb which shows the 3fs agreement suffix /-äC/, but the structure is ungrammatical. If a Clause fails to have a subject NP, it would violate the Extended Projection Principle (EEP) of Chomsky (1982 : 10) which requires every clause to have a subject. This requirement is satisfied in the structure in (6a) by the presence of the phonetically null NP subject.

As mentioned earlier, Ford simply concludes that the structure of Chaha relative clauses is the same as that of independent or main clauses except that in the perfective form, it is marked by the Prefix /yä-/ attached to the verb and by the dropping of the final suffix /-m/ from the verb. However, her conclusion is based on surface manifestations of relative clauses. She did not examine the underlying properties of such clauses, such as the occurrence of a phonetically null argument NP_S in relativized positions.

The structure in (6a) shows a clause with a relativized empty subject NP position. In what follows, We shall discuss other positions of relativizations. Observe the following example.

- (8)
- | | | | |
|----|----------|-------------------------------------|-------------------------|
| [| [ärC-xut | Yä-sly-ä-ni] | Irsas] |
| NP | S | boy-DEF. | ?-buy-3ms-ocl-pf Pencil |
| | | 'The Pencil (which) the boy bought' | |

In the above example, the relativized NP position is the direct object position. Like the relativized subject NP position in (6a), this position is also empty. This is deducible from the lexical property of the relative verb /sly/ 'buy'. This verb is transitive and hence needs an internal argument NP as its direct object. However, this NP is not phonetically realized. In other words, there is no lexical direct object preceding the verb. Instead, there is the third person singular masculine object clitic /-ni/ attached to the relative verb to indicate that the relativized NP is the direct object of the verb.

The object suffix /-ni/ in (8) and all other object suffixes in the language, which are assumed to be pronominal object clitics are given in (9) below.⁶

(9)	Singular	Plural
1	- e/ -n	- Indá'
2m	- ⁷ (a)xä/-kä'	- (a)xu/-ku
2f	- (a)x ^y l/-k ^y l	- (a)xu / - ku
3m	- nu / - ni	- no / - yo
3f	- na / - ya	- náma / - yáma

These pronominal object clitics are different from the subject marking suffixes in (10) which show subject-verb agreement relations in the syntax, as will be discussed in detail in Chapter Three.

(10)	Singular	Plural
1	- xu	- na
2m	- xä	- xu
2f	- x ^y l	- xлма
3m	- ä	- o
3f	- äC	- ma

A digression seems inescapable at this stage since the study of pronominal clitics has attracted special attention in generative grammar and is central to the present study. The studies of Kayne (1975), Jaeggli (1982), Borer (1984), Rivero (1986) and Mullen (1986), among others, deal with pronominal clitics. It is impossible to discuss all of them here. However, since pronominal clitics play a significant role in identifying relativized NP positions in Chaha relative clauses, it is necessary to raise at least some major points about them. For this discussion, we rely on the work done by Mullen (1986) on Amharic. This Choice is made because Chaha is more related to Amharic than to any of the other languages the authors have dealt with.

In her work, Mullen summarizes the main Characteristics of pronominal clitics of Amharic as follows:

(11)

- a. Pronominal clitics are dependent pronouns with features of gender, number and person.
- b. Pronominal clitics always occur in non-argument positions in syntactic structures.
- c. Pronominal clitics appear in syntactic structures only by being associated, through coindexation, with their referential (lexical or empty) NPs.
- d. Pronominal clitics share the Θ -roles that are assigned to their referential NPs.
- e. Pronominal clitics are assigned case in the lexicon by their host verbs at the moment of cliticization.

Following Mullen, we assume that the pronominal object clitics in (9) exhibit the properties given in (11) except property (11e). Contrary to Mullen, however, We assume that the pronominal object

clitics in this language share not only the Θ -role but also the Case feature assigned to their referential (lexical or empty) NPs in the syntax.

In (8), for instance, the 3ms object clitic /-ni/ is cliticized to its host verb /sly/ 'buy' in the Lexicon, as proposed by Mullen for Amharic. The verb augmented with the object clitic is then inserted in the V-position in the relative clause. Since the clitic is in a non-argument position as it is attached to the verb, it cannot be assigned a Θ -role and Case by the host verb in the syntax, as required.

As a pronominal clitic, however, the 3ms object clitic must be assigned CAsc. If we assume following Mullen, that the verb assigns case to the clitic in the lexicon, we may be facing a problem at the syntactic level of Case assignment, for the verbal head will have no more accusative Case to assign to the relativized empty NP at that level. This may lead to a violation of the Case Filter at S-structure representation. To avoid this, we may assume that the pronominal object clitic /-ni/ in (8) shares both the Θ -role and the Case that are assigned to its referential empty NP in the syntax. The referential NP is empty because it is relativized, in other words, both Case and Θ -role are assigned to the NP in the syntax.

The examples in (6a) and (8) generally show the role the subject agreement affixes and the pronominal object clitic in the language play in identifying relativized NP positions in relative clauses. The pronominal object clitics also determine features of relativized (indirect)

objects as in the following example

- (12) [[bärga mäTaf Yä-ab-ä-na] mISt]
 NP S Berga book ? -give-3ms-ocl-pf woman
 'The woman (whom) Berga gave a book'

In (12), there is no matching between /mäTaf/ 'book' and the 3fs object clitic /-na/ because they differ in person, number and gender. In addition, the lexical subject /bärga/ does not share any feature with the clitic. The clitic rather refers to the noun /mISt/ 'woman' which is the antecedent of the relativized indirect object in the relative clause. The indirect object position is empty because the Position is relativized.

Following the discussion presented so far, the underlying representation of (6a), (8) and (12) may be shown in (13) (14) and (15), respectively.

- (13)
 [[e tIrama Yä-Cän-äC] gärad]
 NP S? Yesterday ? -Come-3fs-pf girl
 'The girl (who) came Yesterday'

- (14)
 [[ärC - xut e Yä-sly-ä-ni] Irsas]
 NP S boy-DEF ? ?-buy-3ms-ocl-pf pencil
 'The Pencil (which) the boy bought'

- (15)
 [[bärga e mäTaf Yä-ab-ä-na] mISt]
 NP S Berga ? book ?-give-3ms-ocl-pf woman
 'The woman (whom) Berga gave a book'

As shown in (2), a lexical NP does not appear in a relativized position of a relative clause. Such a position is covered by an empty

element (e) as shown in (13-15). The (e) is of the type [+p -a]. In other words, it is pronominal not anaphoric, and accordingly the D-structure of the relative clauses of (13 - 15) is as in (16 - 18), respectively.

(16)

[[Pro tlrana Yǎ - Cǎn - ǎC] gǎrǎd]
NP $\bar{S}$ Yesterday ? Come-3fs-pf girl
'The girl (who) came Yesterday'

(17)

[[ǎrC - xut Pro Yǎ - sly-ǎ-ni] Irsas]
NP $\bar{S}$ boy-DEF. ?-buy-3ms-ocl-pf Pencil
'The Pencil (which) the boy bought'

(18)

[[bǎrga Pro mǎTaf yǎ - ab-ǎ-na] mlSt]
NP $\bar{S}$ Berga book ?-give-3ms-ocl-pf woman
'The woman (whom) Berga gave a book'

In the above D-structure representations, the empty category Pro appeared in all the relativized NP positions. These positions are governed and Θ -marked. As a pronominal element, Pro is free in its governing category (i.e. in the relative clause), but bound by the antecedent in the next higher governing category (i.e. NP). Based on this, it is possible to conclude that Chaha uses the Pro in situ strategy in forming relative clauses. This strategy has also been argued for in Daye (1987) for Oromo, Bikalo (1989) for Wollayeta, and Mengistu (1989) for Khamtanga, all Ethiopian languages.

2.2. Other Relativizable Argument NP

Positions in Chaha Relative Clauses

In the preceding section, we have shown relativized subject, direct object and indirect object positions, and the affixal and clitic elements that identify the empty categories in such positions.

10

- (22)
- | | | | | | |
|------|---------|---|---------|---------------------|---------|
| [| [bä́rta | e | k'ä́mis | Yä-sly-ä́-ra] | gä́räd] |
| NP S | Berta | | Skirt | ? - buy-3ms-pocl-pf | girl |
- 'The girl for whom Berta bought a Skirt'

In (21), the 3ms B-clitic /-wä/ adds the prepositional meaning 'with' to the verb's meaning of 'kill', to produce the augmented meaning 'kill with'. The verbal head does not imply a prepositional meaning unless the clitic is present. Similarly, in the relative clause in (22), the prepositional meaning 'for' of the N-clitic /-ra/ and the verb's meaning 'buy' together convey the meaning "buy for the benefit of". Without the clitic, again the verbal head alone cannot express this meaning which makes the presence of the prepositional clitics /-wä/ and /-ra/ obligatory. Their presence is also necessary in order for the relative clauses to be well-formed, for otherwise, they would be Ungrammatical as in the corresponding (23) and (24):

- (23)
- | | | | | | | |
|---|------|--------|---|----------|-----------------|----------------------|
| * | [| [axä | e | äre-xlno | Yä-k'äTär-xä-?] | C'äx ^{wä}] |
| | NP S | You(m) | | Cows-DEF | ? - kill-2ms-? | spear |

- (24)
- | | | | | | | |
|---|------|---------|---|---------|---------------|---------|
| * | [| [bä́rta | e | K'ä́mis | Yä-sly-ä́-?] | gä́räd] |
| | NP S | Berta | | skirt | ? - buy-3ms-? | girl |

In Chaha, where both a direct object and object of a preposition are present in a clause the direct object may not be expressed by a clitic. This is noticeable from the corresponding main clauses of the relative clauses in (25) and (26).

- (25)
- | | | | | | | |
|------|--------|--|-------|--------------------------|-----------|--------------------------------|
| [| [axä] | | [| [ä́-C'äx ^{wä}] | [äre-xlno | k'äTär-xä-wä-m]]] |
| S NP | you(m) | | V" PF | with-spear | V' | Cows-DEF. kill-2ms-pocl-mcm-pf |
- 'You killed the Cows with a Spear'

- (26)
- | | | | | | |
|---|---------------------|----|--------------------------------|---------------------|---------------------------|
| [| [bārtā] | [| [Yä - gārād-x ^y It] | [k'āmis sly-ā-ra-m] |] |
| S | NP _{Berta} | V" | PP _{for-girl-DEF.} | V' | Skirt buy-3ms-pocl-mcm-pf |
- 'Berta bought a Skirt for the girl'

In such examples, the lexical NP_S with which the prepositional clitics agree are contained in the Prepositional Phrases (PP_S). However, when such NP-positions are relativized, as in (21) and (22), the prepositional clitics are found attached to the relative verbs of the clauses.

A question that is likely to arise here is: can the empty category Pro also appear in these relativized prepositional object positions? The answer is Yes. Since the positions are governed and hence Θ -marked, there is no reason why Pro cannot occur in such positions. Hence, the D-structure of the relative clauses in (21) and (22) are as in (27) and (28), respectively.

- (27)
- | | | | | | |
|----|---------------------|-----|-----------|--------------------|--------------------|
| [| [axä | Pro | äre-xIno | Yä-K'āTār-xä-wä] | C'äX ^{wä} |
| NP | S _{you(m)} | | cows-DEF. | ?-kill-2ms-pocl-pf | spear |
- 'The Spear with which You killed the Cows'

- (28)
- | | | | | | |
|----|--------------------|-----|--------|-------------------|--------|
| [| [bārtā | Fro | K'āmis | Yä-sly-ā-ra] | gārād] |
| NP | S _{Berta} | | skirt | ?-buy-3ms-pocl-pf | girl |
- 'The girl for whom Berta bought a Skirt'

Another question concerning these representations relates to the way Pro gets a Θ -role. It is possible to assume that the verb and the prepositional clitic in (27) and (28) have Θ -roles to assign to the lexical direct object NP_S, and to Pro in the relativized NP positions. As can be observed in the examples, the prepositional clitics /-wä/ and /-ra/ supply additional adverbial meaning to the lexical meanings of the verbal heads in the relative clauses. Because of this, it is

possible to assume that the verbal heads and the prepositional clitics have not only the Θ -roles that can be assigned to the lexical direct object positions. In (27), for instance, the verb and the prepositional clitic /-k'äTärxäwä/ 'killed with' assign an instrumental Θ -role to the Pro in the relativized NP position. In the same way, the verb and the prepositional clitic /-siyära/ 'bought for' in (28) assign the benefactive Θ -role to the Pro in the relative clause. This is always true in relative clause constructions like (27) and (28). In independent clauses like (25) and (26), however, the objects of the prepositions which are contained in PPs get Θ -roles from their prepositional heads and not the verbs. Mullen (1986 : 279) argues that such kinds of Θ -role assignment also applies in Amharic relative clauses.

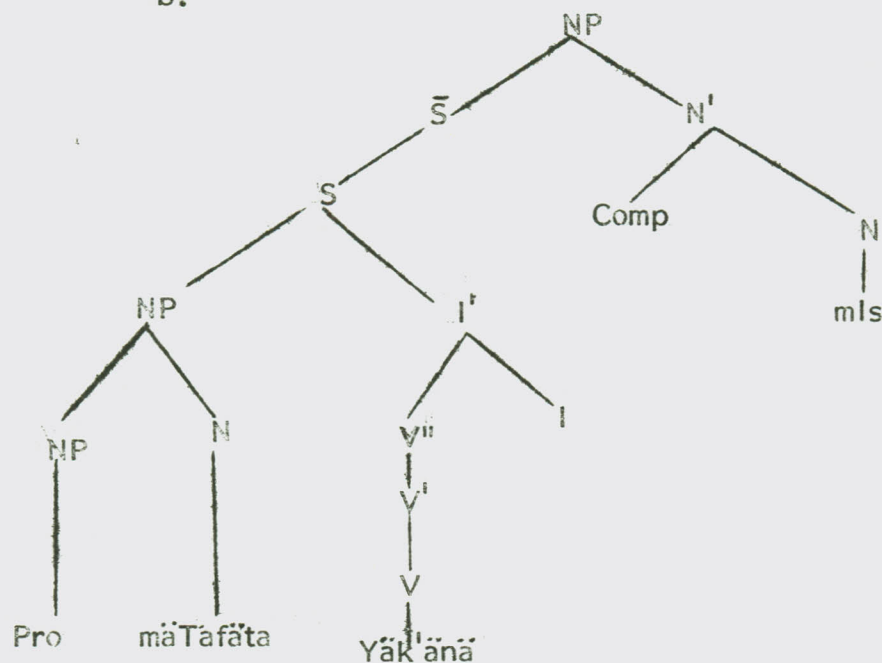
The preceding discussion shows relativized positions of object of prepositions in Chaha relative clauses. In what follows, we shall consider how complements of head nouns can be relativized in the language. Observe the structure in (29) as an example.

- (29)
- | | | | | | | | | | |
|----|---|---|-----|----|------------|-------------|---------------|---|------|
| | [| [| [| [e | mäTaf-äta] | [Yä-k'än-ä] |] |] | mis] |
| NP | S | S | NP? | | book-ppcl | VP? | -loose-3ms-pf | | man |
- 'The man whose book is lost'

The morpheme /-äta/ in (29) is not merely a suffix but a possessive pronomial clitic with the features 3ms. It identifies the features of the relativized NP, which is empty. The noun is empty because it is in a relativized position. Since the empty position is a governed and Θ -marked position, We may assume that the empty category is Pro. This is shown in (30) below.

- (30) a. [[[[Pro mǎTaf-ǎta] [yǎ-k'ǎn-ǎ]]] mls]
 NP S S NP book-ppcl VP?-loose-3ms-pf man
 'The man, whose book is lost'

b.



Following the uniformity condition of Chomsky (1986 : 194)¹¹, we assume that Pro in (30) may be assigned both a Θ -role and Case by its head noun. The head noun /mǎTaf/ 'book' assigns a possessive Θ -role and a genitive case to it.

As mentioned above, the morpheme /-ata/ in (30) is a 3ms possessive pronominal clitic. Other such possessive pronominal clitics include those in (31) below (for person, number and gender).

(31)		
	Singular	Plural
1	-ǎna	-ǎndǎ
2m	-axǎ	-axu
2f	-ax ^y I	-axIma
3m	-ǎta	-ǎxuna
3f	-ǎx ^y Ita	-axInāma

In the relative clause in (30), the relativized NP is the complement of the head noun /máTaf/ 'book' which is in the possessive of genitive phrase. Like wise, complements of nouns of source genitives may also be relativized as in (32).

- (32)
- | | | | | | | | | |
|----|---|---|------|-------------|-----------------|----------------|---|-------|
| [|] | [| [Pro | furno-xuta] | [Yă-băna-xu-nu] |] |] | sine] |
| NP | S | S | NP | bread-DEF. | VP? | -eat-1s-ocl-pf | | |
- 'The Wheat, the bread of which I ate'

The relativized noun in (32) have the source role of showing the material which the /furno/ 'bread' is made of. Since it is in an argument Position, it gets a source Θ -role and a genitive case from the head noun /furno/ 'bread' as in (30)¹².

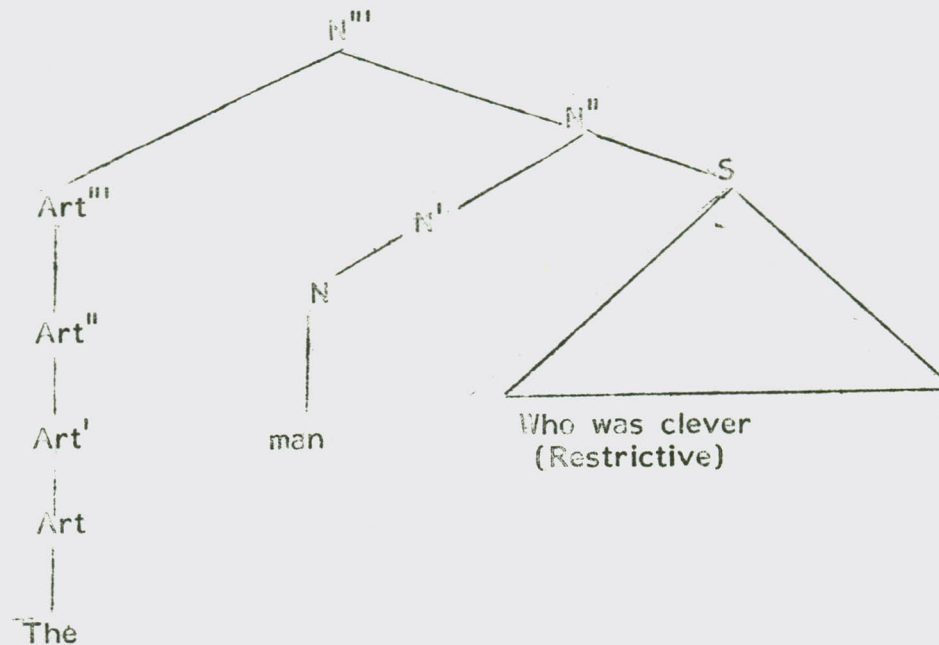
From the above discussion, We may conclude that object of prepositions and complements of head nouns may be relativized by employing the Pro in situ strategy in much the same way objects of verbs are relativized.

2.3. Kinds of Relative Clauses and their Base positions.

In the preceding two sections, we have seen the relativizing strategy and the relativizable NP positions in Chaha relative clauses. In this section, We shall deal with the types and functions of relative clauses in general.

According to Jackendoff (1977), relative clauses can be restrictive or nonrestrictive, and they are complements of NPs in his "Uniform Three Level Hypothesis".¹³ In this theory, restrictive relative clauses are treated as complements of N" and nonrestrictives as complements of N"". Accordingly, an NP like "the man who was clever has the following representation.

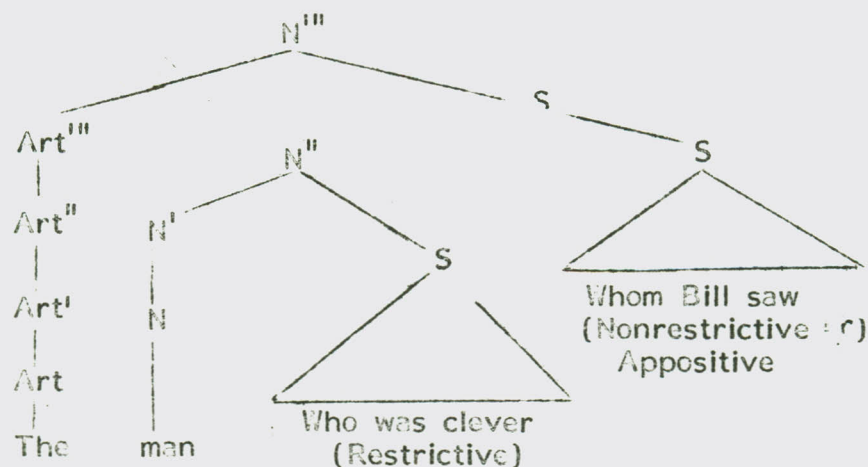
(33)



And if the restrictive relative clause is to be followed by a further relative clause, as in,

(34) the man who was clever, whom Bill saw, the latter functioning as an appositive, the representation would be as in (35).

(35)



A question that may arise from the above representation relates to the reason why the two kinds of relative clauses differ in levels? According to Jackendoff (1977 : 172), the reasons relate to the differences in intonation, complementizers selection and distributions.

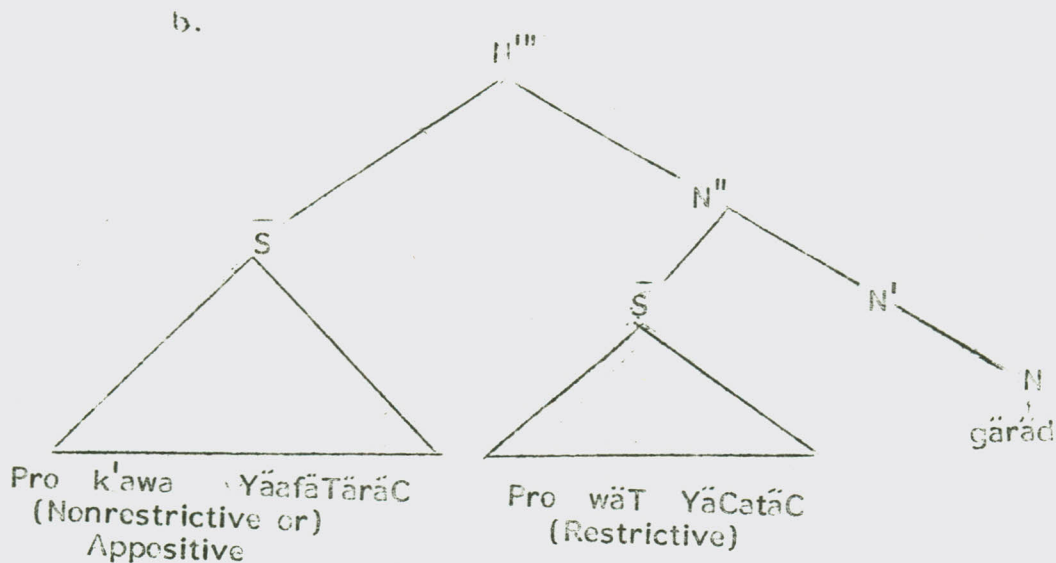
Non-restrictives, but not restrictives are, for instance, preceded by a noticeable intonation break. Restrictives can be introduced by the "that" or "zero" complementizer whereas appositives have to be introduced by a wh - word. Furthermore, appositives always occur following restrictives. Because of such differences Jackendoff concludes that the two kinds of relative clauses branch from different syntactic levels¹⁴ as shown in (35).

If we follow Jackendoff's assumption, a Chaha relative clause construction like (36 a) might be represented as in (36 b).

- (36) a. [N''' S [Pro k'awa Yä-afäTär-äC] [N'' S [Pro wät Yä-Cot-äC]]]
 Cofee ?-boil-3fs-pf Sauce ?-make-3fs-pf

[gäräd]]]
 N_{girl}

'The girl (who) made Sauce, (who) boiled Coffee'



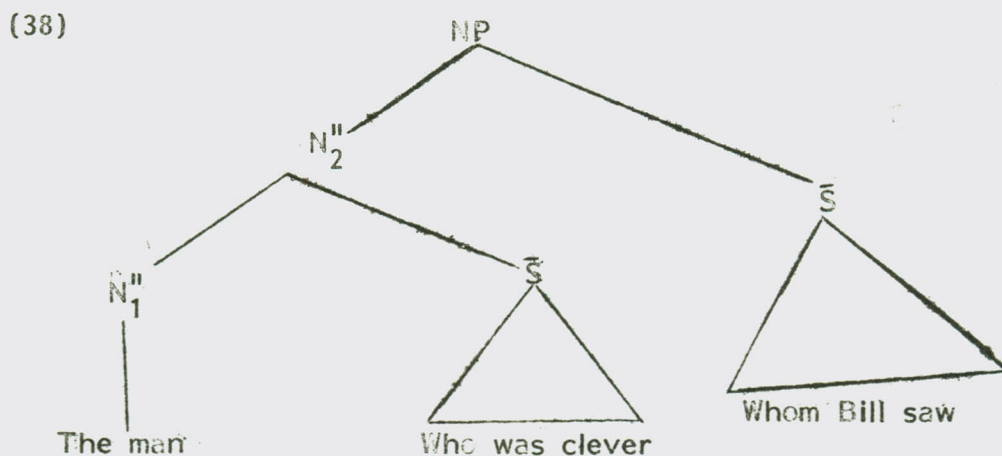
But, Jackendoff's account of appositive as N''' complements, has been seriously questioned by, among others, Emonds (1979), for example, who argues that appositive relative clauses are not distinctly different in their properties from restrictives and that the

comma intonation break which is claimed to be a distinguishing factor cannot be studied from a purely syntactic point of view. As an alternative, he proposes a hypothesis which he calls the Main Clause Hypothesis (MCH). This Hypothesis states that appositives can be derived by a rule of parenthetical formation which operates on main clauses coordinated with the clause containing the antecedent¹⁵.

He (1979 : 220) also proposes a rule of Wh - interpretation shown in (37) which operates on both restrictive and appositive relative clauses.

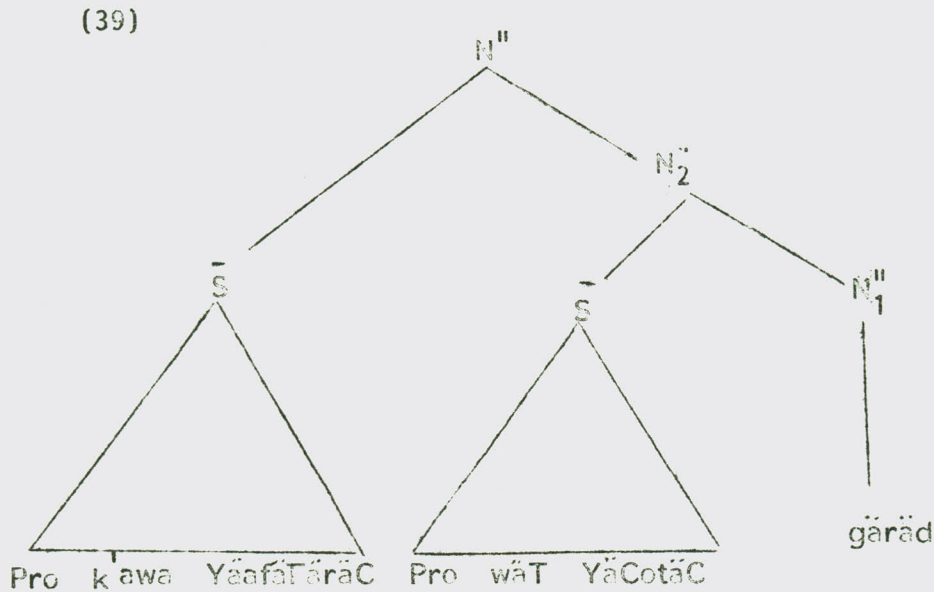
- (37)
- [PRO, Wh] is anaphoric to H"
- In H" [Comp [w ... Z]] where
- $\bar{S}$ is not a sister to a head
- H = N, V, A, P.

According to this rule, the structure in (35) may be represented as in (38) below.



From the D-structure representation in (38), observe that Emonds's analysis allows a recursive projection. It also makes it possible for contiguous antecedents to be available for both "who" and "whom" that are, N''_1 and N''_2 , respectively. In Jackendoff's system it is not possible for N'' to dominate itself. Because of this, the structure in (35) cannot be interpreted by the rule in (37) as it stands.

Even Emonds's proposal is not without a flaw. As can be observed in (38), there are contiguous antecedents for the $Wh-NP_S$ in the relative clauses. This may be true in languages like English where we find Wh - relative pronouns. In Chaha, we don't find $Wh-NP_S$ as antecedents of relativized NP_S . Consider again the relative clause in (36 b) represented in (39) below, following Emonds's analysis.



In (39), there are no $Wh - NP_S$ within the relative clauses as in the English example in (38). The antecedent NP /gärad/ 'girl' is far from the relativized subject NP_S in the relative clauses. Because of this, it is not possible to say that the N_1'' and N_2'' in (39) are contiguous antecedents of the relativized NP_S . The representation has also another problem : from the structural configuration, it seems that it allows multiple relative clauses to be stacked in N'' , in which case it is impossible to separate the restrictives from the nonrestrictives. Therefore, the need for a different alternative is indispensable. One thing undeniable, however, is that Emonds's analysis is descriptively superior to that of Jackendoff, because it avoids assigning similar clausal complements to different levels of projection, and

concomitantly eliminates the X''' level of projection. As can be seen in (39), the internal structures of restrictive and nonrestrictive relative clauses have no difference. The comma intonation before the appositive relative can not be taken as a distinguishing criterion since it is not syntactic.

In both Jackendoff (1977) and Emonds (1979) system, Relative clauses are treated in terms of phrase structure rules. In GB, they are simply considered as non-argument clausal complements of head nouns at a maximal level. Regarding this, Stowell (1981 : 70) says that all modifiers (including relative clauses) must project from a maximal level (X'' level).

Concerning the difference between restrictive and non-restrictive relatives, it is assumed that they can be interpreted at two different levels of representations. Safir (1986), for instance, argues that the referential relation between head NP_S and their restrictive relative clause complements can be determined at the LF level of representation, while the referential relation between head NP_S and their non-restrictive relative clause complements can be determined at LF' (a level after LF). For him, such referential relations may be indicated by Coindexation at both levels. The reason for the distinction in the levels of coindexation is that the reference of the heads of non-restrictives is always independent of their modifying clauses. Nonrestrictives generally serve as "parenthetical comments" or "after thoughts" set off from their head NP_S by intonation.

If We consider again the Chaha relative clauses in (39) in the light of GB, We find a prolonged pause following the nonrestrictive relative. Except this, there is no formal difference between the two relative clauses in the structure. Even the complementizer /yá/ occurs in

in both kinds of relative clauses.

However, the two kinds of relative clauses differ in their function in the structure. The nonrestrictive relative, for instance, has no restrictive effect on the head noun /gäräd/ 'girl'. This is mainly because the head noun is already restricted by the relative clause which immediately precedes it. The nonrestrictive relative simply gives supplementary information about the head noun. Because of this, and following Safir (1986), We may assume that the referential relation between the head NP /gäräd/ 'girl' and its nonrestrictive relative in (39) may be determined at the level of LF' whereas the relation between the head and its restrictive relative clause is determined at LF. These are shown in (40) and (41), respectively.

(40)

At LF

[[Pro k'awa Yä-afäTär-äC] [Pro_i wäT Yä-Cot-äC]
NP S Coffee ?-boil-3fs-pf S_i Sauce ?-make-3fs-pf
[gäräd_i]]
N girl

'The girl (who) made Sauce, (who) boiled Coffee'

(41)

At LF'

[[Pro_j k'awa Yä-afäTär-äC] [Pro_i wäT yä-Cot-äC]
NP S_j coffee ?-boil-3fs-pf S_i Sauce ?-make-3fs-pf
[gäräd_{ij}]]
N girl

'The girl (who) made Sauce, (who) boild Coffee'

In Chaha, nonrestrictives, but not restrictives, can be used to qualify proper nouns as in (42).

(42)

[[Pro Yä-amätu yI - rämd-na] kábädä]
NP S O.M.- Ametu 3ms-love-ocl-impf kebede

'kebede, (who) loves Ametu'

As in (41), the referential relation between the head NP and the nonrestrictive relative clause complement in (42) can be determined by coindexing at LF¹ as in (43).

- (43)
- | | | | | |
|-------------------|-------------------|--------------|-------------------|-----------------------|
| [| [Pro _j | Yä-amätu | yl - ränd-na] | käbädä _j] |
| NP S _j | | O.M. - Ametu | 3ms-love-ocl-Impf | kebede |
- 'kebede, who loves ametu'

In (43), the clausal complement does not restrict the proper noun head, because the noun does not need any restrictive modifier, as it is inherently defined or restricted.

Another difference between the two kinds of relative clauses is that restrictive relatives may be headed or headless. If we consider again the nonrestrictive relative in (43), for instance, it cannot occur without its head noun. If so, the structure would be come Ungrammatical and Uninterpretable as in (44)

- (44)
- | | | | | | |
|---|------|------|------------|-----------------|----|
| * | [| [Pro | Yä-amätu | yl-ränd-na] | e] |
| | NP S | | O.M.-Ametu | 3ms-love-ocl-pf | |

However, unlike nonrestrictives, restrictive relatives may occur without a head NP as in the following example.

- (45)
- | | | | | |
|------|----|--------------------------|-------------------|----|
| [| [| [ätäm ^W - äna | Pro Yä-Cot-äC-nu] | e] |
| S NP | S | sister - ppcl | ?-cook-3fs-ocl-pf | |
| | | [bäna - xu - m] | | |
| | VP | eat-1s-mcm-pf | | |

'I ate the one which my sister cooked'

In the above D-structure representation, the relative clause occurs preceding the empty NP head. The referential relation between the empty NP head and the relativized object NP is marked by the object clitic /-nu/. The clitic /-nu/ identifies the features of the empty head and the relativized position, which is also empty.

Before concluding this section, one important point must be noted. In Chaha, both restrictive and nonrestrictive relative clauses occur preceding their head NP_s which indirectly shows in the head final property of the language.

Notes On Chapter Two

¹Linguists like Keenan (1985), Comrie (1981), Maxwell (1979), Lehmann (1986), Downing (1978), etc. discuss the relativizing strategies of quite a number of languages from a typological point of view. In this study, no attempt will be made to deal with such strategies as that has little or no relevance to the purpose of the study.

²Modern Hebrew can also be taken as an example of a language employing both a movement and a resumptive pronoun strategy. See Borer (1984) for details.

³A predicate is an open syntactic unit which needs another constituent in order to be closed. A relative clause, for instance, can be taken as a predicate because without its head NP it remains open. When it is linked with its head NP by some means, it is called a closed syntactic unit. See Rothstein (1985) for details.

⁴Ford (1986) treats the /Yä/ in Chaha relative clauses as a relative prefix. She did not, however, determine its syntactic status or its position in such constructions. In this chapter, we shall follow her assumption in considering /yä/ as a relative prefix but argue differently in the next chapter.

⁵In Ford (1986), the suffix /-m/ which is always attached to a verbal head (perfect) is also treated as a "final suffix". But this suffix is never attached to verbs of dependent clauses such as relative clauses. It may be preferable to consider it as a main clause marker (mcm).

⁶There are two sets of object suffixes in the language which are considered in this study as pronominal object clitics. At this stage, we do not have phonological clues for their alternations. Hetzron (1969 : 1977) and Polotsky (1951), however, refer to these sets as heavy and light suffixes. (The light ones are the first in the list). The light set of suffixes occurs with all singular forms except the second person feminine. The heavy ones occur with the second person feminine singular and with all other plural forms. Ford (1986) also argues in the same ways.

⁷The (a) occurs if the verb form preceding the object suffix ends in consonant.

⁸The letters "B" and "N" in the two sets are readily understandable. For convenience, we shall refer to them as B - and N - clitics.

⁹We shall assume that the underlying form is /bäu/. In Chaha, there is a labialization rule that changes the form to /wä/. First, the vowel /u/ changes /b/ into /β/, then the /β/, after the vowel /ä/ may be changed into /w/.

¹⁰ $r \rightarrow r / v - v$ example: namad- x^y lm (you (f) loved)
 $\rightarrow$ tl-ramj (you (f) love).

¹¹ The uniformity condition of Chomsky (1986) states that a head noun assigns case to its complement if and only if it assigns θ -role to it at D-structure.

¹² The Genitive expresses different kinds of relations in structures. This is not particular to Chaha but is rather a typical property of genitive NPs in general. See Williams (1984) for details.

¹³ According to Jackendoff (1977 : 53), for every lexical category x , there are syntactic categories x' , x'' and x''' and the major phrase structure rule that elaborates these syntactic categories is of the type (1).

(1) $x^n \rightarrow (c_1) \dots (c_j) \rightarrow x^{n-1} \rightarrow (c_{j+1}) \dots (c_k)$,
 where $1 \leq n \leq 3$, and for all c_i , either $c_i = y'''$ for some lexical category y , or c_i is a specified grammatical formative.

Jackendoff refers to the rule schema in (1) as the "Uniform Three Level Hypothesis". He also assumes that complements can be divided into three types : functional arguments, restrictive modifiers and nonrestrictive modifiers and these can be classified as x' , x'' and x''' complements, respectively.

¹⁴ Jackendoff (1977) did not only indicate the base positions of the two kinds of relative clauses but also tried to compare the NP-complement theory with other widely accepted theories like the "determiner" theory and the "Chomsky - adjoined" theory. These two major theories were in contention with the NP - complement theory in their methods of analysis. According to Jackendoff (1977 : 170), the "determiner" and the "Chomsky adjoined" theories were first advocated by Smith (1964) and Ross (1967), respectively.

¹⁵ Emonds (1979) argues that appositives can be derived by applying the rule of parenthetical formation (1).

(1) Parenthetical formation

$x - c^{\max} \rightarrow s \quad - y \rightarrow 1 - \emptyset - 3 + 2 - 4$

pp

where 1-2 is a root s , and $c^{\max}$ is a phrasal constituent that is a maximal projection of a lexical category in the bar (prime) notation.

According to him (1979 : 211), the rule of parenthetical formation is used to form a sentence oriented parentheticals like relative clauses. It moves a constituent from one clause to another around a constituent external to that clause.

CHAPTER THREE

3.0. Relative Clauses at S-structure

In the preceding chapter, we dealt with the D-structure properties of relative clauses. We have argued that all relativized NP positions are filled by an empty category which is Pro at this level. In this chapter, we shall be concerned with the S-structure properties of such clauses.

The analysis is organized as follows : In section 3.1, we shall show the relation between head NPs and their relative clause complements at S-structure, in 3.2., we shall consider the element /Ya/ and, finally, in section 3.3, we shall deal with the similarities and differences between subject agreement affixes and pronominal object clitics.

3.1. Chaha Relative Clauses as Syntactic Predicates

Chomsky (1982) assumes that relative clauses might simply be interpreted at S-structure by a rule of predication which relates such clauses as open sentences predicated of their head NPs. Following this assumption, Rothstien (1985) also suggests that relative clauses are truly open predicates which become closed syntactic units only when linked to their head NPs. This linking takes place at S-structure by a rule called predicate linking defined in (1) below.

(1) Rule of Predicate Linking

Every non-theta marked XP
must be linked at S-structure
to an argument which it
immediately c-commands and
which immediately c-commands
it. (1985 : 7)

According to Rothstein, the rule in (1) does not account for only the relation between relative clauses and their heads but also for relations between all other maximal projections and their lexical heads.

In this connection, Rothstein argues that all complements can be divided into two types: arguments and non-arguments. The distribution of arguments is governed by the Θ -criterion and the Case Filter at D- and S- structures, respectively. The Θ -criterion requires all arguments to appear in Θ -positions while the Case Filter requires all phonetically realized arguments to bear the feature case. Both of them govern the distribution of only arguments.

The distribution of non-arguments may be governed by the rule of predicate linking in (1) which operates at S-structure after all arguments have been assigned Θ -roles at D-structure.

As mentioned above, the rule of predicate linking treats all maximal projections as open predicates predicated of arguments at S-structure. The arguments act as formal subjects¹ of the predicated maximal projections². This formal relationship is indicated in Rothstein (1985 : 9) as in (2) and (3), respectively.

(2) X is the subject of Y
if and only if Y is
linked to X under (1).

OR

(3) Y is a Predicate of X
if and only if Y is
linked to X under (1).

As stated in (1), a subject must be in c-command relationship with its predicate in order for the predication relation to hold. The definition of c-command is given in (4) below.

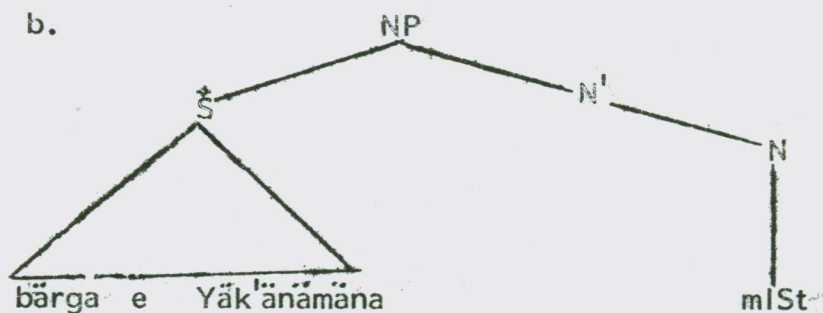
(4) α c-commands β if and only if
every maximal projection dominating α also dominates β .

From such assumptions, it is possible to state that a predicate is a non-argument maximal projection the distribution of which is governed by the rule of predicate linking. A question that may arise here concerns the reason why arguments cannot be governed by the rule of predicate linking. According to Rothstein, arguments are not open predicates which means that they need other constituents to be closed. They are rather independent syntactic units with the potential of being subject for predicated maximal projections, i.e., non-arguments. Their distribution is also governed by the Case Filter at S-structure and by the Θ -criterion at D-s.

Relative clauses, which are maximal projections of head nouns, are subject to the predicate linking rule. In what follows, we shall adopt Rothstein's suggestion, as outlined above, and consider Chaha relative clauses as open predicates predicated of their head NPs.

Consider the relative clause in (5a) whose tree representation is shown in (5b).

- (5)
- a. [[bārga e Yā - k'ānām-ā-na] mISt]
 NP S Berga ?-insult-3ms-ocl-pf woman
 'The woman (whom) Berga insulted'

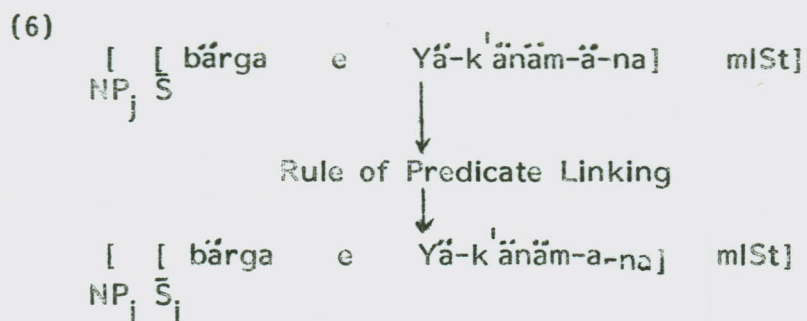


In (5), the relative clause (S) is base generated from a maximal level, i.e., NP, as a clausal complement. As it is in a non-argument position, it does not get any Θ -role from the head noun. In addition,

the clause is not subject to the Case Filter as clauses are resistant to Case (See Stowell 1981). The relationship it has with the head is determined by the rule of predicate linking, stated above.³

Accordingly, the relative clause in (5) can be linked to the head NP /mISt/ 'woman'. The head NP can also be taken as the formal subject of the predicated relative clause. The required c-command relationship is satisfied since the first branching node dominating the NP also dominates the clause.

According to Rothstein, predication relations can be indicated by coindexing. The rule of predicate linking assigns the index of a formal subject to a predicated maximal projection. In (5), for instance, the index of the head NP (the formal subject) can be assigned to the relative clause (the predicate) in the manner in (6).



The empty position in the relative clause in (6) is not as such a gap created by the relativization process. It is a base generated empty category which is Pro. This empty category is connected with its antecedent (the head NP) by the 3fs object clitic /-na/ which is found attached to the relative verb. Since there is a referential relation between the empty category and the antecedent NP, the index of the antecedent passes on to the empty category via the predicate as shown in (7) below.

(7.)

[[bārga Pro_j Ya-k'änäm-ä-na] mISt]
NP_j $\bar{S}_j$

From the above discussion, we may conclude by saying that Chaha relative clauses meet the conditions for interpretation by the rule of predicate linking and that they may, hence, be considered as open predicates predicated of their head NP_s.

3.2. The Element /yǎ/ in Chaha Relative Clauses

In all the examples given in the preceding sections, we put a question mark under /yǎ/ to indicate that its function, categorial status and position were yet to be determined. In this section, we shall argue that it is an element with the role of connecting relative clauses with their head NPs. Its base position is, in comp., the right most constituent of $\bar{S}$.

In previous works, particularly in Leslau (1950) and Polotsky (1951), /yǎ/ was simply considered as a relative pronoun. Hetzron (1977) also stated that it was a morpheme attached to a perfective relative verb to indicate that the clause in which the verb occurs is a relative clause. But, he did not consider its underlying properties. Ford (1986), on the other hand, argues that the presence of /yǎ/ in relative clauses distinguishes such clauses from other independent or main clauses. Other than this, she did not say much about it. These all show that the syntactic status of /yǎ/ is still questionable. In this section, we shall propose an alternative analysis.

As stated in Ford (1986 : 54), the presence of /yǎ/ attached to a perfect relative verb serves to distinguish relative clauses from independent or main clauses. Compare the following examples.

- (8)
- | | | | | |
|----|---|-----------|-------------|--------|
| | [| [tɪrama | Yä-wär-äC] | gäräd] |
| NP | S | Yesterday | ?-go-3fs-pf | girl |
- 'The girl (who) went Yesterday'
- (9)
- | | | | | | |
|---|----|---------------------------|---------|-----------|---------------|
| | [| [gäräd-x ^y It] | [tɪrama | wär-äC-m] |] |
| S | NP | girl-DEF. | VP | Yesterday | go-3fs-mcm-pf |
- 'The girl went Yesterday'

In (8), the morpheme /yä/ is attached to the verb /wär/ 'go'. The morpheme must obligatorily be present attached to the verb for the clause to be a relative clause; otherwise, the structure would become ungrammatical as in (10).

- (10)
- | | | | | |
|----|---|-----------|-----------|--------|
| | [| [tɪrama | wär-äC] | gäräd] |
| NP | S | Yesterday | go-3fs-pf | girl |

(10) is ill - formed because the /yä/, which relates the clause to the head NP is missing. But, in (9), the absence of /yä/ did not make the clause ill-formed showing that its distribution is limited to dependent clauses, and in this particular case, to relative clauses.

As can be observed in (8), /yä/ must be attached to main verbs of relative clauses. If the verb has an auxiliary verb, the element is attached to it, rather than to the main verb as (11) below shows.

- (11)
- | | | | | |
|----|---|-----------------|---------------|------|
| | [| [Cän-ä-m | Yä-räpärä] | ärC] |
| NP | S | come-3ms-mcm-pf | ? - auxiliary | boy |
- 'The boy who had come'

The relative verb in the relative clause in (11) is in what is known as the pluperfect form and that /ya/ is attached to the auxiliary from /naparam/ rather than to it.

(17)

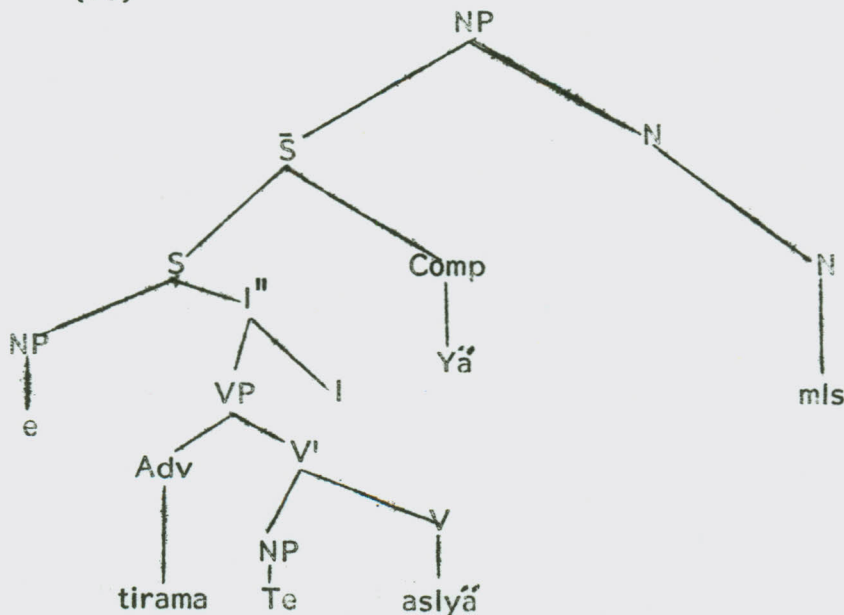
[[bet-ata Yä-färäs-ä'] mis]
 NP $\bar{S}$ house-ppcl ?-fell down-3ms-pf man
 'The man (whose) house fell down'

Although, /yä/ is attached to the verbs as a prefix, it does not have any nominal feature like person, number, etc. This would have not been the case, if it were a pronominal affix. This indirectly shows that /yä/ is not a part of the inflectional features of the verb. We, therefore, assume that it is an element which introduces the clause as being predicated of the head NP. It is a kind of complementizer.

As a complementizer, /Yä/ is semantically null which is what one would expect, given that according to Radford (1988 : 491) such elements carry not semantic but syntactic information. The syntactic function is that it connects the relative clauses with the head NP_S.

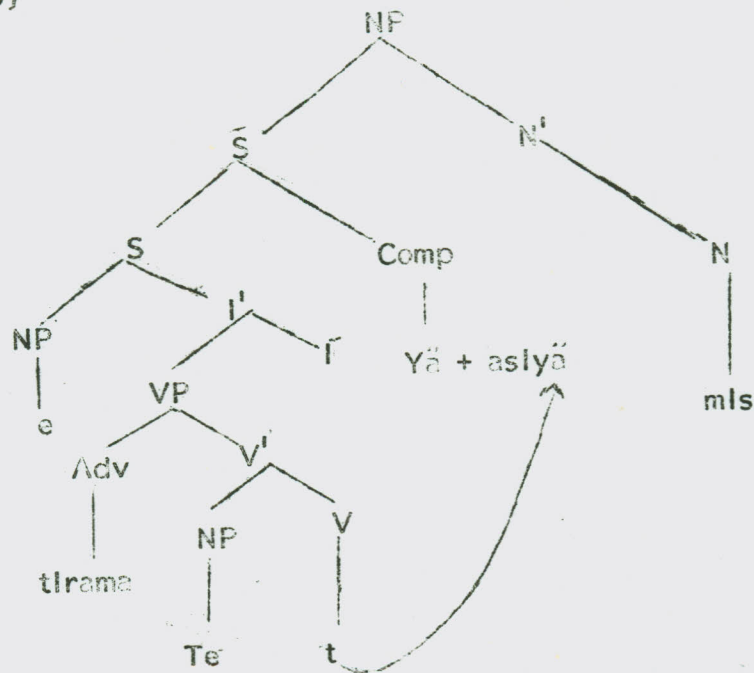
Furthermore, /Yä/ cannot be used as an argument in relative clauses. The argument of the verb is the subject or the object NP. Since /Yä/ is neither of these, its treatment as complementizer is plausible, and accordingly, (15) can be represented as (18).

(18)



In (18), the position of /Yä/ is clause final. This is because all head categories in the language occur following their complements. On the other hand, from the facts in (18), one may ask how /Yä/ gets attached to the verb, if its base position is in Comp? One may say that either /Yä/ has to move down to the verb or the verb has to go up to the right of Comp. The former account is excluded because downward movement is not allowed in the GB model. Thus, We assume that the verb moves up to Comp and /Yä/ is prefixed to it. This can be seen in (19) below.

(19)



Verb movement like in (19) is not particular to Chaha. Koopman (1983) argues that in Vata verbs move to Comp at S-structure and that the process is universal. The moved verb in (19) leaves behind its trace in its base position. As a verbal head, the trace has the potential to assign case to the object NP /Te/ 'Sheep'.

The other piece of evidence supporting the Complementizer analysis of /Yä/ is that its distribution is restricted to perfect relative clauses. Radford (1988 : 493) states that a typical comp-

lementizer is mostly restricted to occur in a particular type of clause. According to him, English complementizers, for instance, appear in specific type of clauses as in the following examples.

- (20) a. The man $\begin{matrix} \text{[for} \\ \text{S} \end{matrix}$ $\begin{matrix} \text{[you to see]} \\ \text{S} \end{matrix}$] is Mr-John
- * b. The man $\begin{matrix} \text{[that} \\ \text{S} \end{matrix}$ $\begin{matrix} \text{[you to see]} \\ \text{S} \end{matrix}$] is Mr. John
- (21) a. She is not a person $\begin{matrix} \text{[that} \\ \text{S} \end{matrix}$ $\begin{matrix} \text{[you can} \\ \text{S} \end{matrix}$ rely on]]
- * b. She is not a person $\begin{matrix} \text{[for} \\ \text{S} \end{matrix}$ $\begin{matrix} \text{[you can} \\ \text{S} \end{matrix}$ rely on]]
- (22) a. I don't know $\begin{matrix} \text{[if} \\ \text{S} \end{matrix}$ $\begin{matrix} \text{[I should agree]} \\ \text{S} \end{matrix}$]
- * b. I don't know $\begin{matrix} \text{[if} \\ \text{S} \end{matrix}$ $\begin{matrix} \text{[I to agree]} \\ \text{S} \end{matrix}$]

The examples above clearly indicate that "for" is an infinitival clause complementizer while "that" and "if" are finite clause complementizers. In Chaha, the morpheme /Ya/ cannot occur in imperfective relative clauses as the example in (23b) and (24b) show.

- (23) a. [$\begin{matrix} \text{[bá-x}^w\text{et sat} \\ \text{NP S} \end{matrix}$ $\begin{matrix} \text{tl-Cán} \\ \text{3fs-come-Impf} \end{matrix}$] $\begin{matrix} \text{gárád} \\ \text{girl} \end{matrix}$
- 'The girl (who) come at 8:00'
- * b. [$\begin{matrix} \text{[bá-x}^w\text{et sat} \\ \text{NP S} \end{matrix}$ $\begin{matrix} \text{yá-tl-Ca n} \\ \text{?-3fs-come-Impf} \end{matrix}$] $\begin{matrix} \text{gárád} \\ \text{girl} \end{matrix}$
- (24) a. [$\begin{matrix} \text{[támari} \\ \text{NP S} \end{matrix}$ $\begin{matrix} \text{yl-xáro} \\ \text{3mpl-become-Impf} \end{matrix}$] $\begin{matrix} \text{daeng}^Y\text{a} \\ \text{children} \end{matrix}$
- 'The Children (who) will beome students'

- * b. [[tämarɪ yä-yl-xäro] daeng^Ya]
 NP S students ?-3mpl-become-Impf children

The verbs in (23a) and (24a) are imperfective and the morpheme /ya/ is missing. We assume that the Comp in the imperfective relative clauses in (23a) and (24a) is empty.

Before concluding this section, it is important to note that the absence of the relational morpheme /Yä/ in the imperfective clauses does not mean that the relative clauses are not subject to the rule of predicate linking at S-structure. Since the relative clauses are open syntactic predicates, they have to be linked to their head NPs in order to be closed. The required c-command relation between the relative clauses and their head NPs to which they are linked is satisfied.

3.3. The Similarities and Differences between Subject Agreement Affixes and Pronominal Object Clitics.

In section 2.1 of Chapter two, it was shown that both Subject agreement affixes and pronominal object clitics in the language play the role of identifying relativized NPs in relative clauses. It was also suggested that such morphemes relate relativized NPs to their antecedents outside the clauses. Any discussion on their similarities and differences was deferred until now. In this section, we shall consider their syntactic properties.

As stated above, there are two kinds of suffixes which participate in identifying relativized NPs in Chaha relative clauses. These are subject and object suffixes. In this study, the subject suffixes are considered as agreement affixes while the object suffixes as object clitics. The subject agreement affixes are given

in (25) below.

(25)		Singular	Plural
		- xu	- na
2m		- xǎ	- xu
2		- x ^y l	- xlam
3m		- a ^l	- O
3f		- a ^l C	- ma

These affixes identify subject NPs in clauses in general.

The Pronominal object Clitics which identify object NPs in clauses are given in (26) below.

(26)		Singular	Plural
1		- e / - n	- Indǎ
2m		- (a)xǎ/-kǎ	- (a)xu/-ku
2f		- (a)x ^y l/-k ^y l	- (a)xu/-ku
3m		- nu / - ni	- no / - yo
3f		- na / - ya	- nǎma / - yǎma

A_S can be observed in (25) and 26), both the Subject Agreement Affixes and the Pronominal Object Clitics have the nominal features of person, number and gender. This is one of their similarities. The other similarity is that both are attached to verbal heads in clauses. Observe the following examples.

- (27) [[Pro tirama Yǎ-m^wat - a^lC] mlSt]
 NP S Yesterday Comp.-die-3fs-pf woman
 'The woman (who) died Yesterday'

- (28) [[ǎtadǎr-xut Pro Yǎ-k'ǎTǎr-ǎ-no] daeng^ya]
 NP S soldier-DEF. Comp.-kill-3ms-ocl-pf children
 'The Children (whom) the Soldier killed'

In the examples, the 3fs Subject Agreement Affix /-ǎC/ and the 3mpl Pronominal Object Clitic /-no/ are part of the verbal heads.

However, as the structures in (27) and (28) show, a Subject Agreement Affix always refers to a subject while a Pronominal Object Clitic may refer to a subcategorized complement NP of a verbal head. This is true even in independent clauses as the following examples illustrate.

- (29) [[mISt-x^YIt] [tirama m^Wǎt-ǎC-m]]
 S NP_{woman-DEF.} VP_{Yesterday die-3fs-mcm-pf}
 'The woman died Yesterday'
- (30) [[wǎtadǎr-xut] [Yǎ-daeng^Ya-xIno k'ǎTǎr-ǎ-no-m]]
 S NP_{soldier-DEF.} VP_{children-DEF. kill-3ms-ocl-mcm-pf}
 'The Soldier killed the Children'

The examples above correspond to the relative clauses in (27) and (28). In (29), the 3fs Subject Agreement Affix /-ǎC/ refers to the subject NP /mISt/ 'woman'. In (30), on the other hand, the 3mpl Object Clitic, /-no/ refers to the object NP /daeng^Ya/ 'children' which is a subcategorized complement of the verb /k'ǎTar/ 'kill'. This is one of the differences between them in Chaha.

Other differences between the two are:

- (31)⁶
- a. Subject Agreement Affixes are obligatory where as Pronominal object Clitics are optional.
 - b. Subject Agreement Affixes vary in form according to the aspect of their host verbs while Pronominal Clitics have invariably the same form.

As stated in (31a) above, in Chaha, subject agreement affixes are obligatory. In (29), for example, the 3fs subject agreement affix /-äC/ must be present in order for the structure to be well-formed. See (32) below.

- (32)
- | | | | | | |
|---|----|----------------------------|---------|------------------------|---------------|
| * | [| [mlSt - x ^y l+] | [tlrama | m ^w ät-?-m] |] |
| | NP | S _{woman-DEF} | VP | yesterday | die-? -mcm-pf |

Similarly, in relative clause like (27), the subject agreement affix must be present attached to the relative verb. Otherwise, the structure would be like the ill-formed (33).

- (33)
- | | | | | | |
|---|----|------|-----------|-----------------------------|-------|
| * | [| [Pro | tlrama | Yä - m ^w ät - ?] | mlSt] |
| | NP | S | Yesterday | comp. - die ? | woman |

On the other hand, the 3mpl object clitic /-no/ in (30) is optional. This shown in (34) below.⁷

- (34)
- | | | | | |
|----|---|-----------------------------------|-----------------------------------|---------------------|
| a. | [| [wätadär-xut] | [yä-daeng ^y a-xlno | k'äTär-ä-no-m]] |
| | S | NP _{Soldier-DEF.} | VP _{o.m.-Children-DEF.} | kill-3ms-ocl-mcm-pf |
| | | 'The Soldier killed the Children' | | |
| b. | [| [wätadär-xut] | [yä-daeng ^y a-xlno | k'äTär-ä-m] |
| | S | NP _{Soldier-DEF.} | VP _{o.m. -children-DEF.} | koll-ems-mem-pf |
| | | 'The Soldier killed the children' | | |

As stated in (31b), subject agreement affixes vary in form in accordance with the aspect of their host verbs. Consider again the structure in (29), where the verbal head is in the perfective form. Its imperfective form is as shown in (35).

- (35)
- | | | | |
|---|--------------------------|----------------------------|---|
| [| [mlst-x ^y lt] | [tl-m ^w ät] |] |
| S | NP _{woman-DEF} | VP _{3fs-die-impf} | |
| | 'The woman dies' | | |

In (35), the agreement affix that refers to the subject NP is /ti-/. This imperfect affix is completely different in form from its perfective counterpart /-äC/ in (29)⁸. This distinction is shown in (36) below.

(36)

	Singular		Plural	
	Imperfect	Perfect	Imperfect	Perfect
1	ä -	- xu	nl -	- na
2m	tl -	- xä	tl -	- xu
2f	tl -	- x ^y l	tl -	- xIma
3m	yl -	- ä	yl -	- O
3f	tl -	- äC	yl -	- ma

The object clitics do not show any such variations. In the example in (30), for instance, the 3mpl object clitic /-no/ is attached to a perfective verb. The form is the same in the imperfective counterpart in (37).

(37)

[	[wätadär-xut]	[yä-daeng ^y a-xIno	yl-k'aTI-no]	]
S NP	soldier-DEF.	VP	o.m.-children-DEF.	3ms-kill-ocl-Impf
	'The soldier kills the Children'			

From the above discussion, we may observe that subject agreement affixes in Chaha are highly dependent on their host verbs. In other words, they are real affixes, as they vary in form according to the aspectual form of the host verb. Zwicky and Pullum (1983) argue that such morphological idiosyncracies are characteristic of affixes more than of clitics. According to them, affixes exhibit a high degree of dependence on their stems and they may be affected when their stems are affected by some changes. The subject agreement affixes in Chaha do conform this.

Unlike subject agreement affixes, the pronominal object clitics in Chaha reveal a low degree of dependence on their host verbs. They may or may not be attached to their host verbs in clauses and that they do not vary in form in accordance with the aspectual forms of their hosts. Such differences may induce us to treat them as being different from subject agreement affixes.¹⁰

In this study, we assume that the object suffixes which identify object NPs in clauses are pronominal clitics. As pronominals, they are arguments and must receive Case and Θ -role.

As a pronominal, an object clitic is subject to Θ -role assignment in order to appear in a syntactic structure. However, since it is in a non-argument position, attached to its verbal host, it cannot get a Θ -role from a lexical head. Consider again the structure in (37) repeated below as (38).

- (38)
- | | | | | |
|---|-----------------------------------|-------------------------------|---------------------|---|
| [| [wátadár - xut] | [yá-daeng ^Y a-xlno | k'ǎTǎr-ǎ-no-m] |] |
| S | NP | VP | | |
| | Soldier-DEF. | O.M.-Children-DEF | kill-3ms-ocl-mcm-pf | |
| | 'The soldier killed the Children' | | | |

In (38), the object clitic /-no/ is part of the verb /k'ǎTǎr/ 'kill'. The verb cannot assign a Θ -role to it because it is not in argument position. According to Mullen (1986), a pronominal object clitic shares the Θ -role that is assigned to its referential NP in the syntax. This means that the object clitic /-no/ in (38) shares the patient Θ -role assigned to the NP /daeng^Ya/ 'children' by the verbal head /k'ǎTǎr/ 'kill' at D-structure. Since the pronominal clitic and the object are coreferential, the argument that they share a single Θ -role is plausible. The referential relation between the NP and the clitic is also indicated by coindexing in the manner in (39).

- (39)
- | | | | | |
|---|---------------|---|-----------------------------|---|
| [| [wátádár-xut] | [yá-daeng ^Y _a -xIno | k'áTár-á-no _i m] |] |
| S | NP | VP | | |
| | soldier-DEF. | o.m.-children-DEF. | kill-3ms-ocl-mcm-pf | |
- 'The soldier killed the children'

The argument that is coindexed with the object clitic is the relativized phonetically null NP. This is shown in the following example.

- (40)
- | | | | | |
|----|--------------|-----------------------|-------------------------------|---------------------------------|
| [| [wátádár-xut | Pro _i | Yá-k'áTár-á-no _i] | daeng ^Y _a |
| NP | S | | | |
| | soldier-DEF. | Comp.-kill-ems-ocl-pf | children | |
- 'The children (whom) the soldier killed'

In this example, the object clitic /-no/ identifies the empty category, Pro, as 3mpl. In other words, the clitic supplies the nominal features of person, number and gender to the empty category and the empty category in turn shares its patient Θ -role with the clitic.

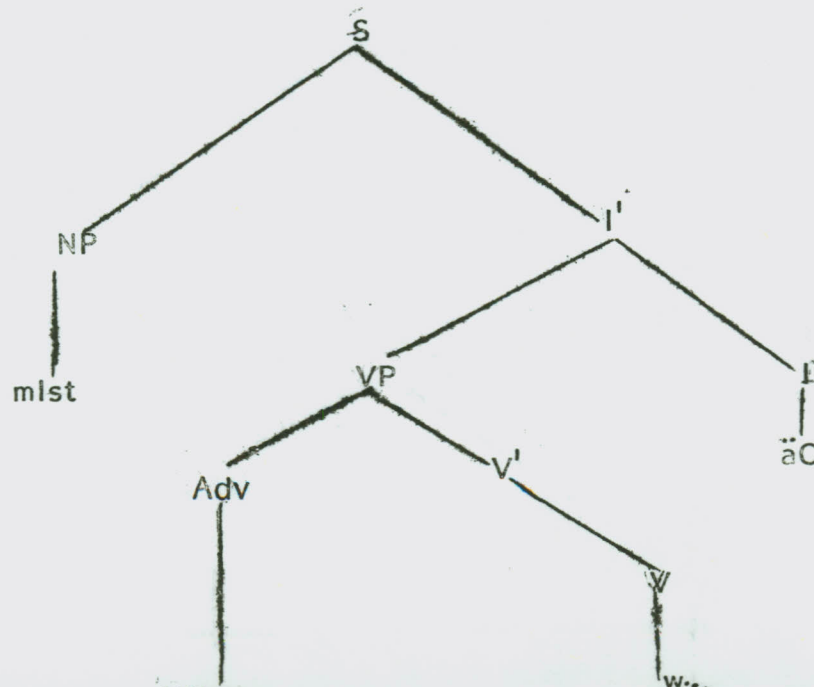
As a pronominal, an object clitic also needs to be assigned Case in the syntax. However, as observed in (40), the clitic does not occur in a governed argument position. It simply is attached to the verb, and hence does not satisfy the structural requirement for Case assignment. In relation to this, Mullen (1986) assumes that a Pronominal Object Clitic is assigned Case by its host verb in the lexicon. But, this assumption may lead to a problem in structures in which both an object clitic and a referential NP are found as in (40).

In (40), the object clitic /-no/ and its referential NP, the empty category Pro, are found in the same relative clause. If we follow Mullen's assumption, the object clitic /-no/ may get accusative case from the verb stem in the lexicon. The empty category, Pro, also needs to be assigned the same case by the same verbal head at S-structure since it is an argument and also satisfies the government

requirement for case assignment. But, since the verb has the potential to assign only one accusative, and since that case is already assigned to the clitic in the lexicon, there is no way for the empty NP to get case in the syntax. Contrary to Mullen, therefore, we assume that the verb assigns accusative case to the empty NP in the syntax and that the clitic shares this case in much the same way as it shares the Θ -role. In other words, there is only one level of case assignment and that is syntactic. In short, then, a pronominal object clitic is always dependent on its coreferential (lexical or empty) NP for both Θ -role and case.

Unlike pronominal object clitics, subject agreement affixes need no Case and Θ -role at all. In fact, according to Chomsky (1981 : 176) such affixes are themselves nominative case assigners. They are also considered as realizations of a category called INFL, which is believed to be the head of S. The perfect subject agreement affix /-äC/ in (29), for instance, is base generated under this category, i.e., INFL, and assigns nominative case to the subject. This shown in (41) below.

(41)



In general, from the preceding discussion, it may be concluded that the subject agreement affixes and pronominal object clitics in Chaha differ in a number of ways and that they need to be treated as such.

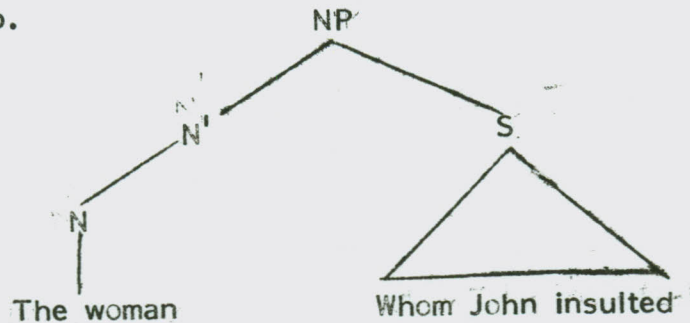
Notes on Chapter Three

¹ Subject is defined in relation to a particular XP, not necessarily to an S.

² The term maximal projection refers to complements which project from a higher level.

³ In Amharic, linking is from left to right i.e., a subject follows its predicate. If we take the English example in (1) below the situation is quite different.

- (a) a. [The woman_{NP} [whom_S [John insulted]_S]]
b.



The representation in (1b) shows that linking is from right to left in the language.

⁴ The examples given in (13-15) show only surface representations.

⁵ In English, the accusative Wh-relative pronoun also stands for [-human] objects. "whom" always stands for [+ human] objects.

⁶ Mullen (1986 : 327 - 332) argues that the subject agreement affixes and the pronominal object clitics in Amharic exhibit the syntactic differences stated in (36).

⁷ The examples given in (35 - 38) are all independent clauses. This is done purposely because it is not possible to give relative clauses, as examples, without subject agreement affixes or pronominal object clitics. If we give such examples, they may not illustrate the points since the clauses do not appear as well-formed structures.

⁸ If there is an auxiliary verb in an imperfective relative clause, the imperfective agreement affix is found attached to the main verb of the clause. The example below illustrates this point.

- [[yl-Cot-äma Yä-räpärä] ISta]
NP S_{3fpl-work-pol.} Comp. - auxiliary women
'The women (who) were working'

⁹ Zwicky and Pullum (1983 : 502 - 13) also discuss other properties of affixes and clitics though the main purpose of their work is to indicate the differences between English contracted auxiliaries (eg. she's gone) and negative (eg. she hasn't gone).

¹⁰There is also one other piece of evidence which distinguishes subject agreement affixes from pronominal object clitics. The pronominal object clitics mostly occur at the periphery of their host verbs specifically after a subject agreement affix. Subject Agreement Affixes, however, have no such property. We did not include this point in the text because the issue is one which involves a detailed study of the lexicon in Chaha, which is beyond the scope of this study.

CHAPTER FOUR

CONCLUSION

In this Chapter, We shall recapitulate what has been discussed in the preceding chapters. As argued in Chapter two, a relativized NP position in a Chaha relative clause is always empty. Since the position is governed and both Θ -and case marked, the only possible empty category that can be said to appear is Pro. The referential relation between this Pro and its antecedent is shown by the suffixes which are attached to the relative verb.

The suffixes which are attached to relative verbs are of two types : affixes and pronominal clitics. The suffixes which refer to subject NPs in relative clauses are considered as affixes and are heavily dependent on the form of their verbal hosts. The other types of suffixes are treated as pronominals and they corefer with NPs in object positions in relative clauses. Unlike subject agreement affixes, such pronominal clitics are optional and their forms do not vary in accordance with the aspectual forms of their verbal hosts. Because of this, they are treated independently from the subject agreement affixes.

In Chaha, there are also other kinds of pronominal clitics which participate in identifying relativized NPs of positions. Such clitics are treated as possessive pronominal clitics.

All pronominal clitics share both the Θ -role and the case that are assigned to their referential (lexical or empty) NPs in the syntax.

As in other languages, the relative clauses in Chaha are optional clausal complements of their head nouns, and are as such base generated from a maximal level. Such clauses are non-argument complements and are not subject to Θ -role assignment. The relation between such clauses and their head NPs is determined by the rule of

linking. The rule requires that all relative clauses and their head NPs to be in a c-command relation in order for the predication relation to apply. The relative clauses in Chaha satisfy this condition and they may, hence, be interpreted as open predicates predicated of their head NPs.

In perfective relative clauses, there is the element /ya/ which, we have argued to be a Complementizer, and which introduces the clauses as being predicated of their head NPs. This complementizer does not occur phonetically in imperfective relative clauses. But this does not exclude the relative clauses from being interpreted by the rule of predicate linking as far as the other conditions for predication relation are satisfied.

Chaha has two kinds of relative clauses : restrictive and non-restrictive relative. As their name implies, the former has restrictive effects on its head NPs and the latter plays an appositive role. Both are, however, modifying clausal complements of their head nouns. As Emonds (1979) pointed out, there is no syntactic difference between the two kinds of relative clauses. Their difference lies on the restrictive and nonrestrictive effects they have on their head NPs. Following Safir (1986), therefore, the difference between the two kinds of relatives is treated at two different levels of representation. First, the referential relation between restrictive relative clauses and their head NPs is indicated by coindexation at LF. Then, the relation between the non-restrictive relatives and their head nouns is indicated at later level, LF'. The reason for this is that non-restrictive have no semantic effects on their referential NPs. They have, therefore, to be treated outside of LF which is the level of representation for semantically relevant categories only.

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DECLARATION

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