RELATIVE CLAUSES IN GUMUZ
(A GB–APPROACH)

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Dedication

To Almaz Abdisa, Darara Asfaw

and Hawwi Asfaw

ADDIS ABABA UNIVERSITY
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ABSTRACT

This study analyzes the structure of relative clauses (RC's) in Gumuz. It follows the theory of Government and Binding (GB) of Chomsky (1981, 1982, 1986, 1988) and other recent developments. GB assumes that relative clauses are non-argument clausal complements of nouns. It is claimed that the internal structure of relative clauses are explained in terms of subtheories and principles which are assumed to be properties of UG.

The relativizing strategies and relativized positions are treated in chapter two. It is argued that Gumuz uses the gapping (EC) strategy. This means that relativized positions are not filled by phonetically real NP's but by an empty category (EC) which is argued to be pro. This is in declarative clauses. In interrogative relatives where wh-movement is involved the EC is a wh-trace (=variable).

There are different head movements in Gumuz relative clauses. Since preposition cannot be stranded in Gumuz P moves to V when the prepositional object position is relativized. Verbs also move to I to collect Tense and Agreement features and from I they move to C.

In Chapter three types of relative clauses are presented. First restrictive and non-restrictive relative clauses are discussed from different points of view. It is

argued that there is no syntactic difference between them. Moreover, Gumuz has also headed and headless relative clauses. The difference between these is the presence or absence of a head noun.

Finally, the element /ɨnt/ is treated as a complementizer base generated as head of comp.

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List of abbreviations

A - Argument

ACC Accusative

AGR Agreement

C(comp) complementizer

C - constituent

CP(S) complementizer phrase

D - Deep

e Empty

EC Empty category

Exc Exclusive

1P First person plural

1s First person singular

FUT Future

GB Government and Binding

I(INFL) Inflection

IP Inflectional phrase

Inc Inclusive

LF Logical Form

Lit Literally

NP's Noun phrases

Nom Nominative

NRRC Non-restrictive Relative clauses

PP prepositional phrase

PASS Passive marker

Poss Possessive marker

QR Quantifier Raising

RC Relative Clause

RC's Relative clauses

RRC Restrictive Relative clause

Rel Relative Clause marker

Spec specifier

3P Third person plural

3S Third person singular

UG Universal Grammar

Vd voiced

VI voiceless

CONTENTS

1. INTRODUCTION

1.1 Objective of the Study

As a member of the languages of the world, Gumuz shares some linguistic properties with other languages. Some properties of its Relative Clauses are part of Universal Grammar (UG), while others may be particular to it. The main objective of this study is to identify such general and particular properties.

1.2 Significance of the Study

Information about the Ethiopian Nilo-Saharan languages is still scarce compared to other Ethiopian language groups like Ethio-Semitic and Cushitic. The recording and analysis of very little known languages like Gumuz is important in serving as source material for the study of other Nilo-Saharan languages.

1.3 Methodology

The main sources of the data are native informants. Data have been elicited and recorded, and analyzed in light of the Government and Binding (GB) theory of Chomsky (1981) and recent developments. Previous studies on the language have also been consulted.

1.4 The Gumuz People and Their Language

The Gumuz people live along the Blue Nile in Gojjam, Gondar, Wollega and Eastern Sudan. As estimated in Bender (1979:38), the population is about 90,000 including those who live in The Sudan, of which about 50,000 live in Ethiopia.

The people have over hundred clans, each named after a tree under which the clan founders sat at the time of the dispersal of the Gumuz people (Bender, 1975:61). Saysay or Sese, Kokit, and Disoha are some of the clan names repeatedly mentioned by researchers like Bender (1975, 1976), Irwin (1966a, 1966b) and Unseth (1989) among others.

The people are sometimes collectively called Beni Shangul by other groups (Bender, 1976:9). But this name is not widely used by the people themselves. Shanqila is the name by which they are well-known among the neighbouring groups. The name refers to their dark skin (Aster, 1983:1). According to Unseth (n.d), the Gumuz are known by a great number of names, both self-names and names by outsiders. They lack a broadly known general self-name (Bender, 1991:1).

Gumuz is a collective name given to different varieties of the language spoken by all the clans of the region. This name is used as a 'cover name' by Bender which, according to Unseth (n.d.), is a reasonable choice.

The Gumuz language was formerly classified by Bender (1975) as one of the four (Shita, Komo, Kawa and Gumuz) most populous Koman sub-families of the Ethiopian Nilo-Saharan groups. But in his (1991) comparative work Bender classifies it as a member of the Komuz family.

Although it is a very wide-spread language, Gumuz is still among the least known languages of Ethiopia.

1.5 Previous Studies

As stated earlier the Gumuz language, like many other Ethiopian Nilo-Saharan languages, is not well known. But some efforts have been made by people like Irwin (1966a) who study the variety called Saysay spoken in Wellega. The study covers some aspects of the noun and verb morphology. Affixes marking tense, definiteness, infinitive and negative are presented. It is stated that in this dialect the direct object is shown by word order; the object NP directly follows the verb. The indirect object is indicated by the prefix /ki-/.

The other attempt is more of a comparative one done by Bender (1975). It presents independent subject pronouns, possessive suffixes, demonstrative, derived forms, copulatives and negative markers of the different Koman languages including Gumuz. Bender (1979) deals with the

grammar and lexicon of Gumuz specifically. According to him, the definite marker in the Sai variety is /-h/ or /-x/ as shown in the following examples.

(1) ingifa 'woman'

ingifa h 'the woman'

This is different from Irwin (1966a) who presents /-me/ or /-mez/ as the definite marker in example like (2).

(2) k'ewa 'dog'

k'ewame(z) 'the dog'

Behailu Abebe (1986) has identified /-wa/ as in (3)

(3)a. K'ewa 'dog'

K'ewawa 'the dog'

b. bäga 'man'

bägawa 'the man'

In the same variety of Gumuz spoken in Metekel on which this study is also based, the nominative is indicated by /we/ and the accusative by /-ya/. These affixes also serve as definite markers as shown in the following structures.

(4)a. bäga-(we) d-ä-wey

man-nom PAST-3S-come

'The man came'

b. bäga-(we) d-ä-ʂuk' gumbba-(ya)

man-nom Past-3S-kill lion-acc

'The man killed the lion'

Behailu (1986) presents the following personal pronouns.

(5)

person	singular	plural
1	ara⌒ada	ak"a (inc.)
		ala (exc.)
2	ama	ak'a⌒aǩa
3	ah	imah⌒imam

The object and subject pronouns have identical forms according to Bender (1991:3).

Unseth (1989) has made a survey of the morphology and phonology of the variety used in Wellega.

Aster Zewdie (1983) has also attempted the phonology of Gumuz spoken in Metekel Awraja of Gojjam. She has identified the phonemes along with three levels of tone. But Aster (1991) has reduced the levels to just two: high and low.

The segmental phonemes as adopted from AStef(1983) are the following.

Vowels

	Front	Central	back
High	i	ɨ(I)	u
Mid	e	ä	o
Low		a	

Consonants

		labial	labio-dental	alveolar	palatal	post-palatal	labio-velar	velar	Uvular	glottal
	VD	b		d		g^y	g^w	g		
Stops	VI	p		t		k^y	k^w	k		?
ejective		p'		t'		k'^y	k'^w	k'		
implosive		ɓ		ɗ						
Fricative	Vd			z	ʒ				ʁ	
	VI		f	s	ʃ		h^w		x	h
	Vd				ǰ					
Africate	VI			ts	ʧ	$ʧ^y$				
ejective				ts'	ʧ'	$ʧ'^y$				
Nasal		m		n	ɲ		$ŋ^w$	ŋ		
Liquid				l,r						
Semi-vowel		w			y					

Single and geminate consonants as well as long and short vowels contrast in analogous environments.

1.6 The Present Study

From the survey made above, it is clear that no work has been done on the syntax of Gumuz. The present study is an attempt to describe one aspect of this -relative clauses.

1.7 The Theoretical Framework

As stated earlier, the theoretical framework adopted in this study is the Government and Binding (GB) theory of Chomsky (1981, 1982, 1986, 1988) and recent developments. The theory is called Government - Binding (GB) because of the crucial role played by the notions of government and binding (chomsky, 1982:3). According to this theory, Universal Grammar (UG) consists of two interacting subsystems. These are the various subcomponents of the rule systems which include the lexicon, the categorial component, the

transformational component, the phonetic form (PF) components, and the logical form(LF) component and the systems of principles.

The lexicon contains a list of all the words/morphemes in a language, together with their inherent phonological, syntactic and semantic features.

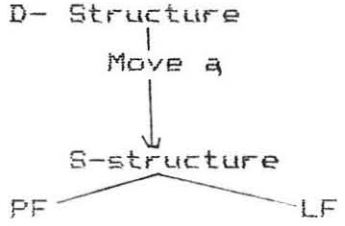
The transformational component assigns to each D-structure an associated S-structure by the application of the rule called 'Move α'.

The two interpretive components, the PF and LF, operate on S-structures to assign the associated phonetic and logical forms respectively.

In general, according to Cook (1988:31), GB requires a level of syntactic representation "where the effects of movement can still be seen as ... necessary for determining both the phonetic form of the sentence in the PF component and its logical form in the LF component".

The subsystems of principles include X-bar theory, θ-theory, Case theory, Binding theory, Control theory, Bounding theory, and Government theory (Chomsky, 1982:6). These subsystems of principles and subcomponents of the rule system operate at different levels of representations. According to Chomsky and Lasnik (1977), Borer (1984a),Mullen (1986) and Cook (1988) among others, the levels of representation are shown in (1):

(1)



The figure in (1) shows that the D-structure is related to S-structure by movement, and S-structure is interpreted by both PF and LF components in the respective ways[1].

Of the subsystems of principles, X-bar, Case, Theta, Binding and Government will be treated in some detail because they are central to this study.

The X-bar theory determines the hierarchical organization and linear ordering of phrasal categories. A lexical category projects to syntactic categories until it reaches its maximal projection with the constraint that "the head of the phrase must belong to a particular category related to the type of phrase" (Cook, 1988:94). The relation of a head to the phrase is not something arbitrary; but a general principle requires all phrases to contain a particular type of head. As stated in Chomsky (1982:9), X-bar theory is closely related to the projection principle in the sense that the complements of a head in the realization of an X-bar expansion need not be stipulated, given this principle. The principle also requires that lexical specifications must be represented at every level. This is stated in(2).

(2) Projection Principle

Each syntactic representation should be a projection of the thematic structure and the properties of subcategorization of lexical entries (Chomsky, 1981:36).

This general principle states that the θ-marking properties of each lexical item must be represented categorially at each syntactic level, at LF, S-structure and D-structure (Chomsky, 1982; 1986a:116).

As a representation of thematically relevant grammatical

functions, D-structure is best characterized as that component in which one-to-one correlations hold between referential expressions, that is, between argument NP's and thematic roles (θ-roles)[2] and also between subcategorization frames and categories that fill them (Borer, 1984a:8). This one-to-one relationship between thematic roles and the referential expressions is governed by the θ-criterion stated in(3).

(3) θ-Criterion
Each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument[3] (Chomsky, 1981:36)

This ensures that every argument is assigned a unique θ-role. The assignment is determined by grammatical functions like subject, object etc. and by lexical properties of heads. The θ-roles are assigned only to elements in argument positions under the structural relation of government defined in (4):

(4) Government
X-governs Y iff X is the minimal
Governing node C-commanding
Y and there is no S-bar or NP
intervening between X and Y
(Riemdijk and Williams, 1986:291)

Since $\bar{S}$(CP) and NP are barriers to government, the government relation in(4) does not allow such categories to occur between a θ-role assigner and its asignee, i.e. the position.

Government regulates not only the assignment of θ-roles but also the mechanism of case assignment which is also a requirement for NP's in A-positions. In order to get case,

an NP must establish a syntactic relation with a case assigning category. The relation is again one of government; the case assigning category has to govern the NP to which the case is assigned (the asignee). As stated in Riemdijk and Williams (1986:231), "every lexical NP must appear in a position in which it is governed by some case assigner". Chomsky (1986a:187) also says "if a category X has a case to assign, then it may assign it to an element that it governs".

The case requirement is stipulated as follows:

(5) Case Filter

Every phonetically realized NP must be assigned (abstract)case(Chomsky,1986:74).

The Filter rules out structures that contain caseless NP's. Only the empty categories trace and PRO* may escape this Filter (Chomsky, 981:49).

This Filter triggers NP-movement; indeed it is the reason for all movement of NP's; "movement from an A-position to an empty subject A-position follows on the need for each NP to have case" (Cook, 1988:141).

As mentioned earlier, the theory of government is related to a number of other principles. It is not only in the theories of case and θ-role assignment that it is crucially involved; it is also in the theory of Binding which is concerned with the relations of anaphors and pronominals with their antecedents. According to Chomsky (1988:52), binding "is concerned with connections among noun phrases that have to do with such semantic properties as dependence of references, including the connection between a pronoun and its antecedent". Binding principles then regulate the distribution of arguments at LF. According to the principle, there are three sets of arguments. These are anaphors, pronominals and referential expressions (R-expressions) and

there are the following Binding principles.

(6) Binding Principles

(a) An anaphor is bound in a local domain[5]

(b) A pronominal is free in a local domain

(c) An R expression is free

(Chomsky, 1986a:166)

Anaphors include reflexives (such as himself, myself,etc), reciprocals (like, each other), NP-traces and PRO. pronominals consist of pronouns and R-expression includes names and wh-traces.

The notions bound and free as used in (6) are defined in (7)below.

(7) Bound

X is bound if it is coindexed with a C-commanding category. If x is not bound, it is free (Hoekstra, 1984:40).

The notion of C-command (constitute command) is given in (8).

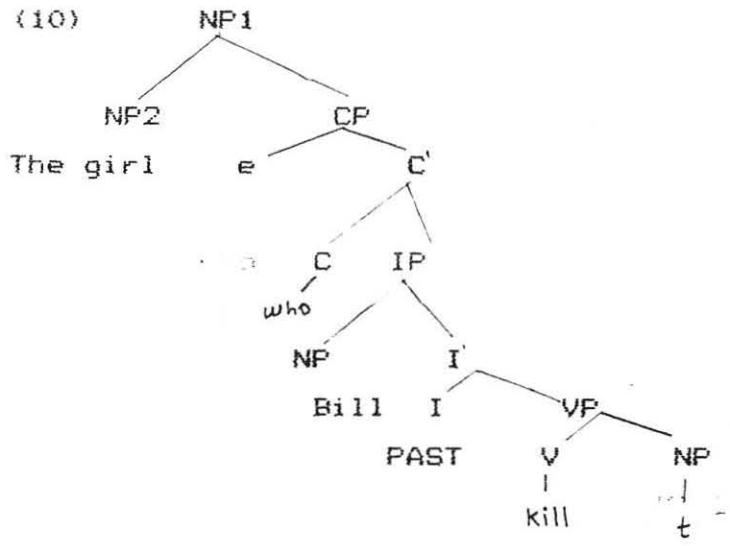
(8) C-command

X C-commands Y iff the first branching node dominating X dominates Y, and X does not dominate Y, nor Y,X(Radford, 1981:314)

Using the structure in(9), let us see the C-command relationship of constituents by means of tree configurations like (10).

(9) [$_{NP}$ The girl [$_{CP}$ who Bill killed]]

(10)



In(10), NP_2 'the girl' C-commands all other constituents. For instance, it C-commands 'who' because the first branching node dominating NP_2 'the girl', also dominates comp 'who' (i.e. NP1 dominates both NP_2 and C); and neither NP2 dominates C, nor C dominates NP_2.

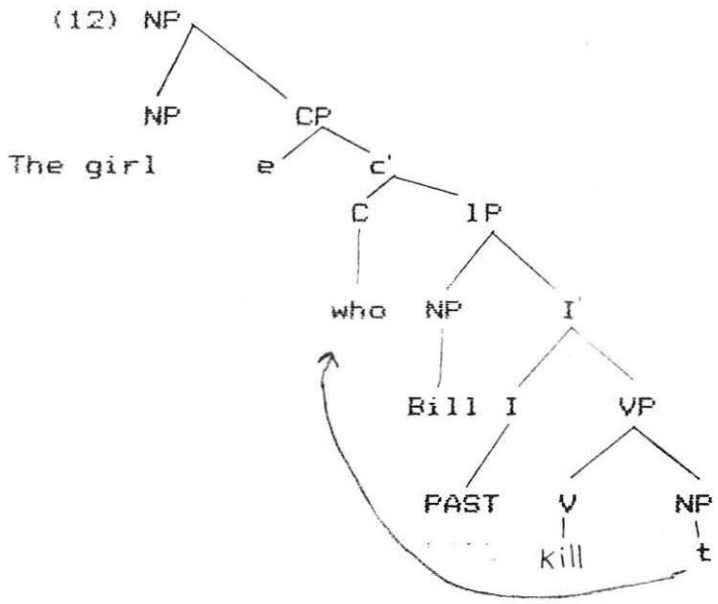
The wh-complementizer 'who', which is outside of the clause (IP), connects the relative clause with its head NP 'girl'.

The verb 'killed' is a transitive verb which needs internal argument to satisfy its inherent lexical requirement at D-structure. To satisfy this requirement, the relative pronoun 'who' must originate within IP, as in (11).

(11) [$_{NP}$ The girl [$_{CP}$ comp [John kill who]]]

The structure in (11) is the D-structure of the clause in (9). In (9) and (10) the rule 'Move α' has applied and the wh-relative pronoun has moved from its base position to its surface position as shown in (12).

(12)



As can be seen from this example, the moved wh-relative pronoun 'who' has left behind a trace[6] in its original position. The trace and the moved element form a chain[7] which gets assigned a single case and θ-role under government. The trace is in a case position and gets accusative case from the transitive verb 'kill'. It shares this case with its antecedent 'who' which is in a non-case position.

Regarding thematic role, since movement is always to a non-θ-position (Chomsky, 1986a:136), the moved element 'who' is extracted from a θ-position. Thus, 'who' shares the patient θ -role which is assigned to its trace. That means, a moved element and its coindexed trace act as a single syntactic unit for the θ-criterion. This syntactic unity is shown by the same index at the S-structure. Thus, the indexed S-structure of (12) is (13).

(13) $[_{NP}$ The girl $[_{CP}$ who$_i$ $[_{IP}$ Bill killed $t_i]]$

In what follows we shall consider types of relative clauses.

Safir (1986) deals with the distinction between restrictive and non-restrictive RC's based on the position of antecedents in the GB-model. He defines binding as follows:

(14) Binding

X binds Y if X c-commands Y
and X and Y are coindexed (1986:664)

Depending on the concept of binding given in (14), he considers two kinds of binding. A-binding, essentially binding from comp, and binding by a relative head or "R-binding'. As he points out such "distinction between binding relations will lead to a contrast between restrictive and non-restrictive relatives"(1986:663).

He suggests that since non-restrictive heads are independent of their modifying clauses the coindexing of a relative operator and a relative head takes place at LF' (a syntactic level later than LF) for non-restrictive relatives, but not for restrictive relatives whose heads R-bind something in the clause at LF in other words, R-binding cannot be vacuous for restrictive relative, (Safir, 1986:668). The distinction proposed by Safir is illustrated in (15) and (16).

(15) At LF

a. $[_{NP}$ The girl$_i$ $[_{CP}$ who$_i$ Bill killed $t_i]]$

b. $[_{NP}$ John$_j$ $[_{CP}$ who$_i$ Bill killed $t_i]]$

At LF', the relative head must be reindexed with the relative operator so that they match as in (16). Hence (15b) must be represented as (16) at LF'.

(16) At LF'

$[_{NP}$ John$_i$ $[_{CP}$ who$_i$ Bill killed $t_i]]$

The example in (16) has the same indexing as a restrictive relative clause at LF.

Notes

[1] The figure in (1) is repeated here indicating each component of the subsystems.

D-structure
i. lexicon
ii. Phrase structure component
|
'Move a'

S-structure
i. Chain formation
ii. the binding conditions

The PF component	The LF component
(deletion)	QR
Case Filter	Wh- raising
Phonological rules	Focus raising
PF	Control theory
	ECP
	LF

(See Borer 1984a)

[2] Thematic role (θ-role) is a semantic property assigned by a head.

[3] The argument specified in the definition of θ-criterion can be either a lexical NP (a name or lexical anaphor) which is not pleonastic (such as it in English) or a pronominal element including PRO.

[4] NP-trace and PRO behave in the same way in that they are found in positions where case cannot be assigned. Their difference is that PRO is a base generated EC (empty category) whereas a trace is an empty category which results from movement and hence a property of S-structure.

As Chomsky (1986a:117) points out, when its presence is required by licensing principles for predicates, the element PRO is restricted to the position of subject of infinitives. This position is ungoverned and therefore caseless.

[5] Local domain is the structure within which the Binding principles apply (see Chomsky (1986a) and Cook (1988).

[6] During NP-or wh-movement, a moved category leaves a

coindexed trace in its original position.

7 The moved element and the trace left behind form a chain indicating that movement has taken place from the position occupied by t to the position occupied by 'who' is the head of the chain. The pairs of successive elements in a chain are referred to as a link of the chains (Chomsky, 1986a:96).

2. RELATIVIZED POSITIONS IN GUMUZ

The question of relativization has been a central concern in much of recent works in generative grammar (Keenan, 1985:155). The reason for this is that relative clauses are formed in different ways in different languages. Some languages have more than one relativizing strategies. Modern Greek, for example, has three main ways of relativization with relative markers following the head nouns (Joseph, 1983:2).

In some languages relative clauses involve movement. English is an example of this as the following example shows:

(1) $[_{NP}$ The girl $[_{CP}$ who $[_{IP}$ John kissed]]]

The structure has a wh-word in the comp position. But this element cannot be base-generated in comp for reasons explained earlier. Its base position is in the IP as shown in (2):

(2) $[_{NP}$ The girl $[_{CP}$ comp $[_{IP}$ John kissed who]]]

The relative pronoun, 'who' moves from its position after the verb 'kissed' to the comp position leaving its trace behind. The moved element and the trace are coindexed to show the history of the movement. This is shown in the manner below by indexing.

(3) $[_{NP}$ The girl $[_{CP}$ who$_i$ $[_{IP}$ John kissed t_i]]]

According to the trace theory of Chomsky (1981), the indices show that the moved element and its trace form an $\bar{A}$-chain at S-structure.

Other languages may have other ways of relativization' not directly connected with movement (Chomsky, 1977). In languages which lack movement, there is a rule which

interpretes a base generated pronoun in the relative clause. Modern Hebrew[2] uses this strategy (Borer, 1984a). In this language, the pronoun which is base-generated in the relativized position is interpreted as a resumptive pronoun[3] (Borer, 1984b:220). The following is an illustrative example:

(4) [$_{NP}$ ha-yeld [$_{CP}$ še C$_{NP}$ rina ?ohevet ?oto]]]
the-boy that Rina loves him
'The boy whom Rina loves'

In (4), there is no movement. Instead, there is a base-generated resumptive pronoun /?oto/ 'him'. This pronoun cannot move to comp because the position is filled by the complementizer /še/ 'that' which in this language has the role of connecting the relative clause with the head. This kind of relativization is referred to as the resumptive pronoun strategy (Borer, 1986b).

In other languages, relativization involves gapping[4]. Wolayta, an Omotic language of Ethiopia, uses this strategy as the following example from Bekale (1989:9) shows.

(5) [$_{NP}$ [$_{CP}$ n' iya e$_i$ Katt-id-o$_i$] 'kuma-y$_i$]
girl-nom Cook-pf-acc food-nom
'The food which the girl has cooked'

In such clauses "neither a relative pronoun nor a complementizer appears in the comp position" (Bekale, 1989:9). This strategy is also mentioned in Keenan (1985) and Comrie (1981).

In still other languages relativization involves pronominal object clitics[5] appearing in the relative verb. Amharic is an example of this as shown in Mullen (1986:38).

(6) $[_{NP}\ [_{CP}$ lij-u e_j yä-gäddälä-$w_j]$ ibaab]
boy-DEF REL-killed-it snake
'The snake which the boy killed'

In (6), the relativized object position is e. The pronominal object clitic /-w/ in the verb, shares the same index with e. Both form a chain which counts as a single resumptive pronoun (Mullen, 1986:385).

These four ways of relativization are mentioned in Keenan (1985:146) and according to him, a relativized NP may be:

(i) an ordinary personal pronoun,
(ii) a special pronominal form peculiar to relative clauses in which case it is called relative pronoun,
(iii) a full NP or
(iv) a gap, an e.

Now, the question is which of these strategies does Gumuz use? The answer to this question is the main concern of this Chapter. However, before we go into that, it is essential to show the basic word order of the language, because a relativized position is typically correlated with the basic word order of a language (Cole, et.al. 1982:118).

The basic word order of Gumuz is SVO as the structures in (7) show:

(7)a. $[_{IP}$ dua-(we) $[_{VP}$ d-ä-šuk' gumbba (ya)$^{\delta}$]]
boy-nom PAST-3S-kill lion- acc
'The boy killed the lion'

b. $[_{IP}$ dua-(we) $[_{VP}$ d-ä-ɓič edene-(ya)]]
boy-nom PAST- 3S-hit she - acc
'The boy hit her'

c. [$_{IP}$ edene-(we) [$_{VP}$ d-ä-ɓič dua-(ya)]]
she - nom PAST-3S-hit boy - acc
'She hit the boy'

In Gumuz, there is no difference in word order between relative clauses and independent clauses. This is particularly true when subject NP's are relativized. This is different from, for example, German in which the word order is SVO in main clauses and SOV in complement Clauses[7] (Comrie. 1981). Unlike German, all Gumuz independent sentences and subject relativized clauses follow the same SVO. Consider the following examples in (8) and (9).

(8)a. [$_{IP}$ dua-(we) [$_{VP}$ d-ä-šuk' gumbba - (ya)]]
boy-nom PAST-3S-kill lion - acc
'The boy killed a lion'

b. [$_{NP}$ dua-(we) [$_{CP}$ int-ä-šuk' gumbba-(ya)]]
boy-nom comp-3S-killed[8] lion - acc
'The boy who killed a lion'

(9)a. [$_{IP}$ bäga-(we) [$_{VP}$ d-ä-kode me?a - (ya)]]
man-nom PAST-3S-buy goat - acc
'A man bought a goat'

b. [$_{NP}$ bäga-(we) [$_{CP}$ int[9] -ä-kode me?a-(ya)]]
man-nom comp-3S- bought goat - acc
'The man who bought a goat'

As stated earlier, the similarity between the word order of independent and relative clauses is observed when subjects are relativized.

2.1 Subject Relativization[10]

At this point, it is necessary to show how languages mark relativized positions, for there are differences of

meaning between clauses due to differences in relativized positions as in (10):

(10)a. The man who saw John
b. The man who John saw

In (a), the relativized position is that of the subject whereas in (b), it is that of the direct object. In both clauses, the wh—element 'who' moves to comp. Such elements identify the relativized positions in the clause.

However, there is no such pronoun in Gumuz to identify relativized NP positions. Consider the following examples.

(11)a. [$_{NP}$ dua-(we) [$_{CP}$ int-ä-wey nämägäžij]]
boy-nom comp-3S-came yesterday
'The boy who came yesterday'

b. [$_{NP}$ bäga-(we) [$_{CP}$ int-ä-kode me?a-(ya)]]
man-nom comp -3S bought goat - acc
'The man who bought the goat'

In such structures, /int/ is attached to the relative verb. In both examples, the relative clauses follow the SVO order and occurs following the head[11]. The verb of the relative clause needs an external argument in (11a), but there is no such an overt argument in the position. This is because the position is relativized. Comrie (1981) and Keenan (1985) call this strategy gapping or in the terminology of the generative literature an empty category (EC) (Chomsky, 1982).

The same is true in (11b), except that the relative verb here is transitive which needs both internal and external arguments. /Me?a/ 'goat' is the internal argument and the external argument position is empty as it is relativized.

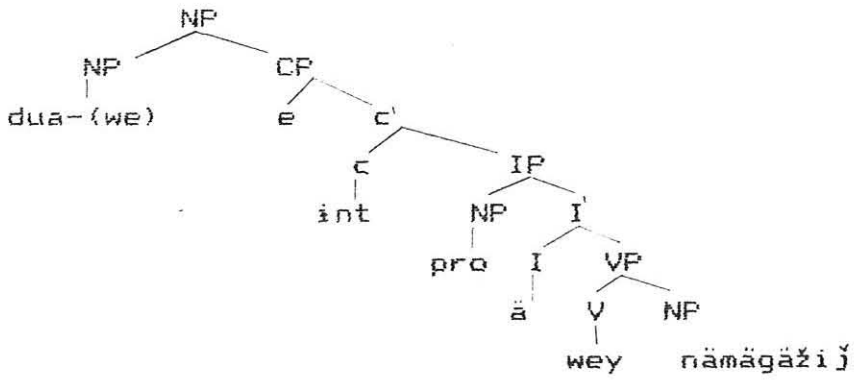
Following this discussion, the underlying representation of (11) may be shown as in (12) respectively.

(12)a. [$_{NP}$ dua-(we) [$_{CP}$int [$_{IP}$ e [$_{I}$ ä [$_{VP}$ wey nämägäž/ǰ]]]]]
boy-nom comp 3S came Yesterday
' The boy who came yesterday'

b. [$_{NP}$ bäga-(we) [$_{CP}$int [$_{IP}$ e [$_{I}$ä [$_{VP}$ kode meʔa-(ya)]]]]]
man-nom comp 3S bought goat - acc
' The man who bought the goat'

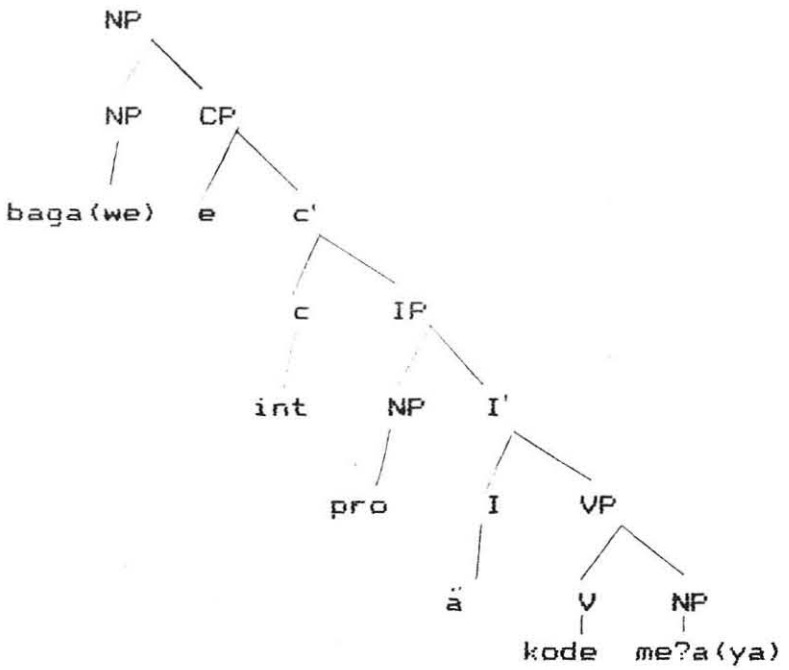
One may raise a question concerning the property of the empty category(EC) in such positions. According to Chomsky's (1982:79) classification there are four types of EC's; namely, NP-trace, wh-trace (variable), PRO and Pro[12]. To which of these do the EC's in (12) above belong? As it is mentioned in the preceding chapter, a trace is a result of movement. In the examples we have considered so far, there is no movement. This rules out the possibility that e is a trace. It cannot also be PRO because PRO is ungoverned. The EC's in (12) are all in governed positions since the clauses are finite. It is possible to assume that the EC in such positions is pro and as such, it would be in the scope of Binding principle B (Rizzi, 1986:510). Consider the following tree structures for (12a and b):

(13) a.



'The boy who came yesterday'

b.



"The man who bought the goat'

The relativized subject positions are empty. The e in such positions is [+P,-a], that means, non-anaphoric or pro since it is governed. According to the Binding Theory, pro is like pronominals such as he, she, they or them except that it lacks phonetic matrix, and hence is free in its local domain. Following this, it is possible to conclude that Gumuz, like a number of other Ethiopian languages uses the pro in situ strategy in forming relative clauses. Baye (1987), Bikale (1989), Mengistu (1989) and Alemayehu (1990, 1992), argue that Oromo, Wolayta, Khamtanga, Chaha and Kunama Marda, respectively uses this strategy. In all, a base-generated Ec's i.e. pro is used in a relativized position.

2.2 Object Relativization

The preceding section shows clauses with relativized subjects. In this section we shall observe relativized objects.

2.2.1 Direct Objects

When a direct object NP is relativized we have

structures like the following.

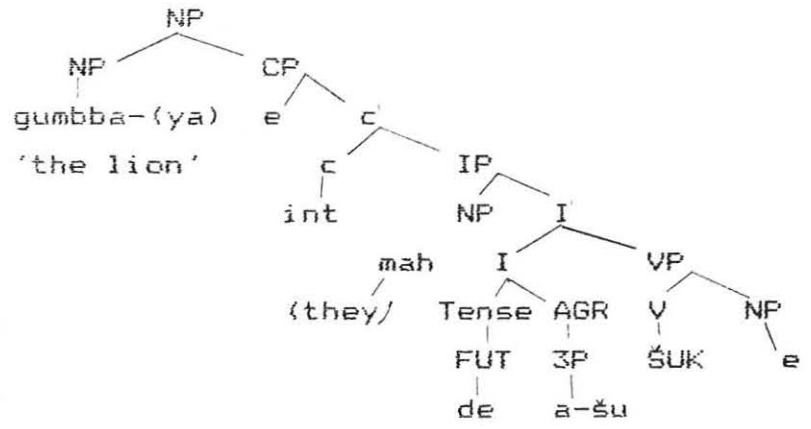
(14) a. [$_{NP}$ me?a-(ya) [$_{CP}$ int-ä-kode bäga-(we) e]]
goat-acc comp-3S-bought man-nom
'The goat which the / a man bought'

b. [$_{NP}$ gumbba-(ya) [$_{CP}$ int-ä-de-šu-šuk' mah e]]
lion-acc comp-3p-FUT-3P-kill they
'The lion which they will kill'

As can be seen from the examples, the head nouns /me?a-(ya)/ 'the goat' and /gumbba-(ya)/'the lion' appear initially. Moreover, the object suffix /-ya/ is optionally attached to the head nouns. Like in relativized subject NP's, the relativized object NP positions are also empty.

Furthermore, the verb appears before the subject. This order is different from the basic SVO order of the language we have seen before. This change suggests that the verb has moved from its base position. What motivates movement of the verb? As mentioned in Radford (1988:403), verbs move to INFL to acquire Tense/ Agreement features associated with the head I. Chomsky (1988b:68) assumes such movement to be obligatory for otherwise the agreement affixes under I would lack a bearer. The following D-structure shows the unassociated Tense/AGR features under I.

(15)



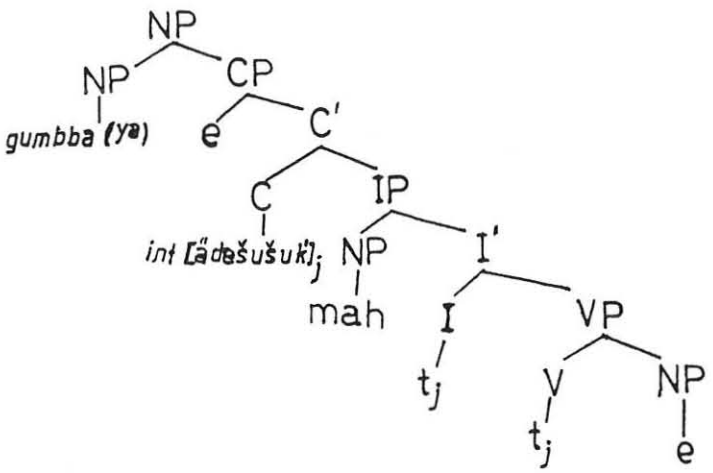
'The lion which they will kill'

The I in (15) contains both Tense and AGR affixes. These affixes need a host to get attached to. For this reason "V moves to the left rather than INFL to the right" (Cook, 1988:130) as it is a general property of movement that it cannot down grade constituents. Moreover, "a moved constituent cannot occupy a lower position than any of its traces" (Radford, 1988:564). So, the reason why V moves to INFL is to pick up affixes of Tense and AGR. This movement leads to the amalgamation of V+INFL or Vi (henceforth Vi). This gives us the inflected verb, Vi. This verb has also to move to c, the head position of CP[3] (Chomsky, 1986b:68). Consider the first movement from VP to I in (16).

(16) $[_{I}$ Vi $[_{VP}$ t...]]

The V-head of VP cannot reach the head position of CP directly because it has to form the inflected verb Vi first within IP. It is after movement to I that it moves to c. After the V to I and then to C movement, the S-structure of (15) looks like (17).

(17)



'The lion which they will kill'

The movement of Vi to C is called I-movement (Radford, 1988). This movement crosses IP which can be a barrier only by inheritance (Chomsky, 1986b:69) from VP which is a

barrier. Movement of V to I crosses VP which is a barrier to government. But as stated in (Chomsky,(1986b),the fact that this movement is legitimate shows that Vi must L-mark VP and hence void its barrier-hood. L-marking is restricted to lexical categories, and I alone does not L-mark the VP since I is not a lexical category. But affixed to the lexical category V, it forms an inflected verb governs VP.

The moved V leaves its trace in its original position. This trace must be properly governed. According to Chomsky (1986b:69), V-movement is an instance of head movement which is local. Such traces are governed by their antecedents.

In the structures observed, the V raises to I and subsequently to C in (17) forming a chain headed by the inflected verb, Vi. Then "the head of Vi of the chain governs the subject NP" (Chomsky, 1986b:72). However, this Vi is not permitted to either θ-mark or case-mark the subject NP. "Only the terminal D-structure position in the chain retains the capacity to θ-mark or case-mark" (ibid).

The AGR, which is nominal in the sense that it contains the features person, number and gender is assigned the same index as the subject NP. That is, AGR is co-indexed with the subject to express the agreement relation (Chomsky, 1986a:162). Observe the following structure.

(18) $[_{NP}$ gumbba-(ya) [CP int-ä$_{i}$-de-šu-šuk$_{j}$ $[_{IP}$ mah$_{i}$ $[_{I}$ t$_{j}$ $[_{VP}$ t$_{j}$e]]]]]
lion-acc comp -3p-FUT-3p-kill they
'The lion which they will kill'

In (18), the object position is not filled by a phonetically real NP because it is the relativized position. It is an e which is governed by the verb, /šuk'/ 'kill' and assigned the patient θ-role and accusative case, and the subject /mah/ 'they' is governed by I and assigned agent θ-

role and nominative case. Hence, the D-structures of (14) is as in (19) respectively.

(19) a. $[_{NP}$ me^{2}a(ya) $[_{CP}$int $[_{IP}$ bäga-(we) $[_{I}$ä $[_{VP}$ kode e]]]]]
goat-acc comp man - nom 3S bought
'The goat which the /a man bought'

b. $[_{NP}$ gumbba(ya) $[_{CP}$int $[_{IP}$ mah $[_{I}$ä-de-śu$[_{VP}$ śuk' e]]]]]
lion-acc comp they 3p-FUT- 3p kill
'The lion which they will kill'

Regarding the word order change exhibited in the surface, it is a result of the verb moving from its base position within VP to its IP external position.

2.2.2 Prepositional Objects

We have seen subject and direct object relativizations in the preceding sections. We now consider how objects of prepositions are relativized. The following structures are illustrative of this.

(20)a. $[_{IP}$ bäkee $[_{VP}$ d-ä-č lamana ki-bäga]]
Bakee PAST-3S-give money to - man
'Bakee gave money to a man

b. $[_{NP}$ bäga-(ya) $[_{CP}$ int-ä-ge-č bäkee lamana e]]
man-acc comp-3S- to-gave Bakee money
'The man whom Bakee gave money to'

In (a), the preposition /ki-/'to' is attached to the noun /bäga/ 'man', whereas in the relative clause in (b), /ge/ which has the same purpose as /ki-/ is prefixed to the relative verb. /ge/ adds the prepositional meaning 'to' to the verb's meaning of 'give'. e is the relativized object NP position within the PP. It is preceded by the subject of the

clause /bäkee/. The verb has moved to the head position of CP. The following D-structure shows its position before movement.

(21) [NP bäga-(ya) [CP int [IP bäkee [I ä [VP č lamana [PP ge e]]]]]]
man-acc comp Bakee 3S gave money to
' The man whom Bakee gave money to'

We may assume different head movements in the above structure. First the preposition /ge/ moves to the relative verb. It moves to V because in Gumuz we can't have a P without an overt complement. In other words, like in French (Radford, 1981:304), the preposition cannot be stranded in Gumuz. The prepositional object position is empty as it is relativized. Thus, since the prepositional head cannot be stranded it has to move to the verb to get a bearer.

V-movement is also another head-to- head movement. It first moves to I to collect the AGR/Tense affixes. After-that it moves to C of CP for a reason to be explained later. After movement takes place the S-structure is as in (22):

(22) [NP bäga-(ya) [CP int-ä-ge$_i$-č$_j$ [IP bäkee [I t$_j$ [VP t$_j$ lamana t$_i$ e]]]]]
man-acc comp-3S-to-gave Bakee money
'The man whom Bakee gave money to'

Let us also observe (23) where we have relativization with an instrumental PP.

(23) a. [NP muha-(ya) [CP int-ä-ge$_i$-šuk'$_j$ [IP-edene [I t$_j$ [VP t$_j$ gumbba
spear-acc comp-3S-with-killed she lion
[PP t$_i$ e]]]]]]
'The spear with which she killed a lion'

b. [NP kulfiya-(ya) [CP int-ä-ge$_i$-ko-kodas$_j$ [IP mah [I t$_j$ [VP t$_j$ jis misa
key-acc comp-3p-with-3p-opened they door house
[PP t_i e]]]]]]

' The key with which they opened a door'

In the above structures, /ge/ adds the meaning 'with' to the meanings of /šuk'/ 'kill' and /kodas/ 'open'. Then the meaning will be 'kill with' and 'open with' respectively. In the examples, the relativized positions are the object of prepositions. These positions are empty as they are relativized.

After the P's move to the verbs they together move to the C positions leaving coindexed traces in their original positions.

Moreover, /ge/ may also add the prepositional meaning 'for ' as in (24) below.

(24) $[_{NP}$dua-(ya) $[_{CP}$int-ä-ge-kode bäkee birtuka e]]
boy-acc comp-3S-for-bought Bakee orange
'The boy for whom Bakee bought orange'

The prepositional meaning 'for' and the meaning of the verb 'buy' together convey the meaning 'buy for the benefit of'. Without /ge/ the verb alone cannot convey this meaning. Consider the following example.

(25) *$[_{NP}$dua-(ya) $[_{CP}$int-ä-kode bäkee birtuka]]
boy-acc comp-3S bought Bakee orange

The above structure is ill-formed because the relativized position is not marked for both case and θ-role. This shows that the preposition /ge/ in such relative clauses assigns case and θ-roles to the relativized empty prepositional object (=pro). This is parallel to the argument in Mullen (1986) where she says that Amharic prepositional object clitics which have similar functions as

/ge/ plus the verb they are attached to, give a new grammatical relation. Since the relative verb and the preposition carry different meanings, we may expect a new grammatical relation when they occur together. But this does not mean that the relative verb plus the preposition assign θ-roles. For example, it is the presence of the preposition /ge/ which adds prepositional meanings to the meanings of the verbs. Thus, like in independent clauses, it is the preposition which assigns θ-roles to the relativized empty prepositional object positions. Accordingly, in(23) for instance, /ge/ assigns the instrumental θ-role to pro, and in (24) it assigns the benefactive θ-role to the empty relativized position (=pro).

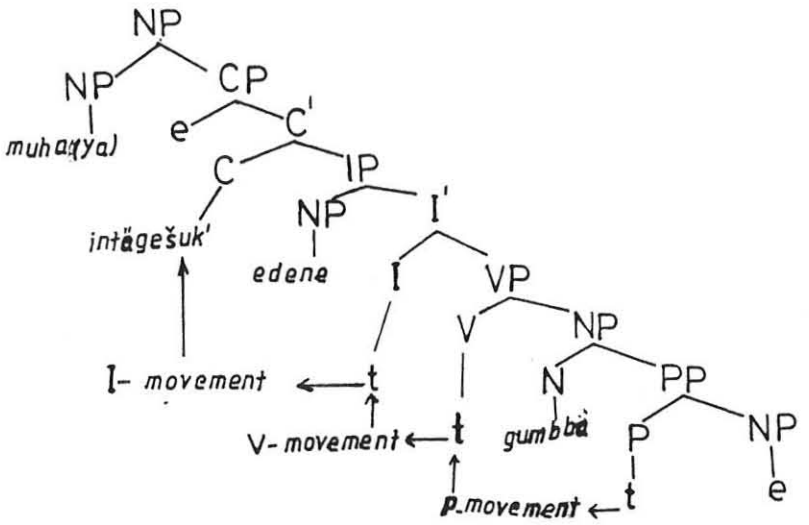
From the discussion so far, it is noticeable that the element /ge/ plays an important role in relativization and θ-role assignment. In what follows we shall consider its status.

In Mullen (1986) and Alemayehu (1990) there are similar elements in Amharic and Chaha respectively which are treated as independent pronouns with the features of number, person and gender. However, /ge/ lacks these features. Thus, it is not possible to classify it as a prepositional object clitic.

According to Marantz (1981) quoted in Mullen (1986:278) for similar phenomena in other languages, such elements can be classified under "applied affix", a morpheme bearing its own argument structure, which is affixed to a verb. This assumption does not indicate the base position of such elements.

/ge/ is a prepositional head of a pp which moves to V for the same reason of stranding. The following tree structures shows the movement.

(26)



'The spear with which she killed a lion'

2.3 Questioned Relatives

There are relative clauses which behave like Wh-NP's in languages like English. Observe the following.

(27) a. [$_{CP}$intse [$_{C}$kode [$_{IP}$yakee e]]]
what bought Yakee
'What did Yakee buy?'

b. [$_{CP}$intse [$_{C}$int-ä-kode [$_{IP}$yakee e]]]
what comp-3S-bought Yakee
lit.'What is that/which Yakee bought?'

In both (a) and (b), the questioned NP is the object NP which is empty. According to the basic word order of the language, this NP should occur after the verb in D.structure.

Are these Wh-NP's in CP in D-structure? The answer to this question may give light to the nature of e in (27). Consider the following structure from which such questions may be derived.

(28) [$_{IP}$Yakee [$_{CP}$d-ä-kode me?a-(ya)]]
Yakee PAST-3S-buy goat-acc

'Yakee bought the goat'

When one forms an echo question, we have (29) with a rising intonation.

(29) $[_{IP}$ yakee $[_{VP}$ d-á́-kode ɨntse]]
Yakee PAST-3S buy what
Lit. 'Yakee bought what?'

(29) may show the base position of /ɨntse/'what' which is e in (27). From this we may assume that the e position is the base position of the questioned NP, /ɨntse/ 'what' in(27). This means that (27) has undergone Wh-movement. As stated in Radford (1988), if the Wh-word originates within IP and moves to CP, it is clear that Wh-movement must have applied to the clause. Thus, the D-structures of (27) are as in (30).

(30)a. $[_{CP}$ $[_{C}$ $[_{IP}$ yakee kode ɨntse]]]
Yakee bought what
'What did Yakee buy?'

b. $[_{CP}$ $[_{C}$ɨnt $[_{IP}$ yakee $[_{I}$ a $[_{VP}$ kode ɨntse]]]]]
comp Yakee 3S bought what
Lit. 'What is that/which Yakee bought?'

/ɨntse/ 'what' has moved out of IP. But to what non-A-position does it move? It needs an empty position in D-structure. CP has a specifier position which is empty in the D-structure to which /ɨntse/ can move. Thus the S-structures after movement are like the following.

(31)a. $[_{CP}$ ɨntse$_{i}$ $[_{C}$kode$_{j}$ $[_{IP}$yakee $[_{I}$ t$_{j}$ $[_{VP}$t$_{j}$ t$_{i}$]]]]]
what bought Yakee
' What did Yakee buy?'

b. $[_{CP}$ ɨntse$_{i}$ $[_{C}$ɨnt-[á-kode]$_{j}$ $[_{IP}$yakee $[_{I}$t$_{j}$ $[_{VP}$t$_{j}$ t$_{i}$]]]]]
What comp-3S-bought Yakee
Lit 'What is that/which Yakee bought?'

/ɨntse/ has moved from the object position to the spec of CP leaving a trace behind. "This type of trace is consequently a Wh-trace, also known as variable" (Cook, 1988:126). The moved elements and their traces form chains and "Chain formation can only be initiated from IP internal position" (Epstein, 1992:239). Similarly, in the above examples, the verbs move from VP internal to C of CP and /ɨntse/ moves from VP internal to spec of CP. There are two chains formed shown in (32).

(32) a. [kode$_j$.....t$_j$.....t$_j$]

b. [ɨntse$_i$....t$_i$]

Since movement is from θ-position (Chomsky, 1986b), in (32b) t shares the patient θ-role with the head of the chain /ɨntse/ 'what'.

According to the EC classification made in Chomsky (1986a), a Wh-trace is a variable which is neither anaphoric nor pronominal, thus [-a,-p]. It is subject to principle C of Binding. Thus, as Safir (1984:604) noted for English structures like (Who$_i$ did Mary see e$_i$), it is enough to note that in (31), /ɨntse/ in CP locally $\bar{A}$-binds the direct object position (i.e.the trace of the moved Wh-NP).

The structures in (27) (a) and (b) behave in the same way. The difference is that the prefix /ɨnt/ is attached to the relative verb /kode/ 'buy' in (b). This element appears in the relative constructions as shown in the preceding sections. Although the movements and the properties are the same in both examples, (b) is similar to the other relative constructions we have already considered except that it involves Wh-movement. Thus, the relativized position is empty because of movement and not because of a base-generated pro.

Questioned subject NP's behave in the same manner. Observe (33) below.

(33) $[_{CP}$wäree$_i$ $[_C$int-ä-šuk'$_j$ $[_{IP}$t$_i$ $[_I$t$_j$ $[_{VP}$t$_j$ gumbba-(ya)]]]]]

who comp-3S-killed lion - acc

'Who is he that killed a lion'

/wäree/ 'who' is extracted from the subject position where the trace t$_i$ is shown. The verb also moves from the VP internal position to I and then to C. From this we may conclude that questioned relatives involve Wh-movement in Gumuz.

2.4 Passive Relatives

A substitution rule called NP-movement (Radford, 1981:180) applies in a number of constructions including passives. Observe the following structure.

(34) $[_{IP}$ gumbba $[_{VP}$ d-i-šuk' t]]

lion PAST-PASS-killed

' The lion was killed'

/gummba/ 'lion' has moved from the object position filled by t to the external argument position which is empty as passive verbs do not have overt external arguments (Chomsky, 1981:118). The movement is triggered by case since [NP, VP] does not receive a verbal case (i.e. accusative case) within the VP (Jaeggli, 1986:587). Thus, a lexical direct object is not allowed in (34) above. /gumbba/ has thus moved to the subject position where it can get nominative case. This is what we find in independent clauses. However, there is no such NP-movement in passivized Gumuz relative clauses as illustrated in (35) below:

(35) $[_{NP}$ me?a $[_{CP}$ int - i -ko-kodok'a $[_{IP}$ e$_1$ e$_2$]]]

goat comp - PASS - 3P - sold

'The goats which were sold'

There are two EC's in this clause. Since relativized positions are empty in Gumuz, e$_2$ is the result of a

relativized object. Furthermore, since the passive verb has no overt subject, e_1 is the subject of the passive verb assuming that the verb has moved to C. Thus, (36) is the structure we get before V-movement has taken place.

(36) $[_{NP}$ me?a $[_{CP}$ int $[_{IP}$ e_1 $[_{I}$i,ko] $[_{VP}$ kodok'a e_2]]]]
goat comp PASS,3P sold
'The goats which were sold'

According to Jaeggli (1986:588), the surface subject of a passive sentence corresponds to the logical object of the verb. The relation of /ko/ with e_1 is due to this correspondence.

Thus far, we have considered only the so called "agentless passive "(Radford, 1981:182), i.e. passives which lack any agent phrase introduced by prepositions as in the following English structure.

(37) The city was destroyed by the enemy.

In this structure, the NP, <u>the enemy</u> has been introduced by the preposition <u>by</u> and is called by-phrase (Jaeggli, 1986:599). Although the NP introduced by the preposition <u>by</u> is commonly known as an Agent (Radford, 1981; Riemsdijk and Williams, 1986), it is interpreted as an Agent only when the external θ-role of the passive verb is Agent (Jaeggli, 1986:599). It can be interpreted as Goal, Source or Experiencer depending on the θ-role assigned to the by-phrase.[15]

In Gumuz, such NP's are introduced by the preposition /ki-/ 'by' and correspondingly we may call such phrases 'ki-phrases'. Observe the passivized relative clauses with the ki-phrase in (38).

(38)a. [$_{NP}$ gumbba [$_{CP}$int-i-ɕuk$_j$ [$_{IP}$ e [$_I$t$_j$ [$_{VP}$t$_j$e][$_{PP}$ki-muha]]]
lion comp-PASS-killed by-spear
'A lion which was killed with spear'

b. [$_{NP}$ me?a [$_{CP}$ int-i-kode$_j$[$_{IP}$ e[$_I$t$_j$[$_{VP}$t$_j$ e][$_{PP}$ki-ɓaɣa]]]]
goat comp-PASS-bought by-man
'A goat which was bought by a man'

In(38), we find empty subjects as passive verbs do not have external arguments and an empty direct object. The NP in the ki-phrase, according to Jaeggli (1986:599) is interpreted as bearing the external θ-role of the passivized predicate. This is true regardless of the particular nature of the θ-role assigned to the NP in the ki-phrase. Thus, the ki-phrase in (38a) is assigned the instrumental θ-role and in (38b) it is assigned the Goal θ-role. These θ-roles are the external θ-roles transferred on to the NP in the PP in a passive sentence by the crucial involvement of the passive suffix (Jaeggli, 1986:600). This suffix is /i/ in Gumuz.

2.5 Conclusion

Different relativized NP positions have been considered in this chapter. All such positions are empty. However, in the case of questioned (interrogative) relatives we have an e which is a variable since here there is Wh-movement. In other positions we have base-generated pro's.

In all structures we have head movements of P to V and V to C. In interrogative relatives the V moves to C and the Wh-element moves to the Spec of CP. The movement of the V leads to word order changes.

Since the cause for V-movement is the same in all cases, there is no reason why verbs in subject relativized relative clauses do not move to C. Thus, we assume that relative verbs in Gumuz move from VP to I and then to C.

Notes

[1] Relativization and relative clauses formation are used interchangeably.

[2] Modern Hebrew has two relativizing strategies, movement and the resumptive pronoun (See Borer; 1984b).

[3] In linguistic theory, a lexical pronoun in this relativized position has been referred to as 'resumptive' (see Mullen, 1986)

[4] According to Chomsky (1982:17) gapping is called empty category (EC) in the generative literature.

[5] The term clitic is defined as a morpheme that is phonologically bound (never occur alone) and is syntactically free (see Daly and Rhodes (1981) for the definition). Clitics are syntactically not part of the word to which they are tied phonologically. For example, in(6) repeated below,

[[lij-u [e]; yä-gäddälä-w;] ibaab]

boy-DEF REL - Killed - it snake

'The snake that the boy killed'

the pronominal object clitic /-w/ is phonologically tied to the verb /gäddäl/ but syntactically it is related to the subject e, with which it is coindexed.

[6] The subject and object affixes are optional in Gumuz.

[7] The German examples as given in Comrie 91981:83) are as follows:

a. Dar Mann sah den fungen

the man(nom) saw the boy (acc)

'The man saw the boy'

b. Ich weiß, daß der Mann den Jungen sah

I know that the man the boy saw

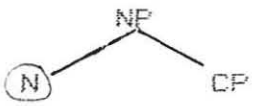
' I know that the man saw the boy'

[8] In Gumuz, the past tense of the relative verb is indicated by zero morpheme.

[9] Let us assume for the moment that /int/ is a complementizer. The discussion concerning this issue will be presented in chapter three.

[10] Subject relativization is when the head noun of a relative clause is an understood subject of the clause and the object relativization is an understood object of the clause (see Bunte, 1986).

[11] The head noun in the relative clause is the noun that is the sister of the relative clause, i.e.) the head noun and the relative are dominated by the same node. The N circled below is the head of the relative clause as indicated in Culicover (1976:195).



The head NP is the material to the right or to the left of CP which the typologists call pre-or post-nominal relative clauses.

[12] The four types of expressions (EC's) namely, NP-trace, Wh-trace, PRO and pro are the realization of the two basic features [a] 'anaphoric' and [p] 'pronominal'. In this

case, NP-trace is a pure anaphor [+a,-p]; whereas pro is a pure pronominal [-a,+p]. Variables (wh-trace) are neither anaphoric nor pronominal, thus [-a,-p]. We then take PRO to be a pronominal anaphor [+a,+p], sharing properties of pronouns and anaphors.

[13] I of IP carrying the relevant Tense/AGR features can be empty (see Radford, 1988).

[14] The movement of Vi to the head of CP is called I-movement (Radford, 1988). This movement may be motivated by /int/ which is generated in CP.

[15] When the external θ-role is source, the NP in the by-phrase is interpreted as source. When it is goal, the NP can be interpreted as Goal. Observe the following examples from Jaeggli (1986:599).

a. Bill was killed by Mary . (Agent)

b. The package was sent by John (Source)

c. The letter was received by Bill (Goal)

d. The teacher is feared by all students (experiencer).

3. TYPES OF RC'S AND THE ELEMENT /INT/ IN GUMUZ

In this chapter we shall discuss two important issues. First, types of relative clauses will be discussed. Second, the categorial status and position of /int/ will be determined.

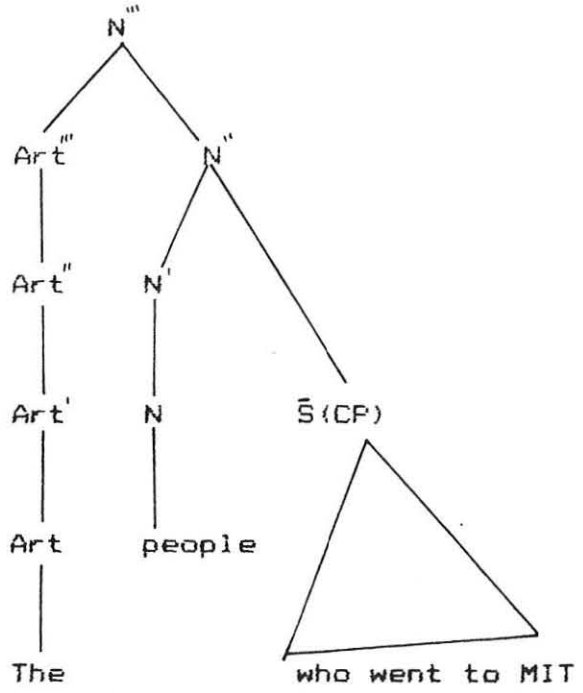
3.1 Types of Relative Clauses

Types of RC's can be seen in two different ways. One is between restrictive (RRC) and non-restrictive (NRRC) relatives and the other is between headed and headless relatives. In this section we shall consider each.

3.1.1 Restrictive and Non-Restrictive RC's

In relation to relative clauses, linguists tend to make distinctions between restrictive and non-restrictive relatives Jackendoff (1977) for example, assigns them to different bar levels in his "Uniform Three-level Hypothesis".[1] Restrictive relative clauses are complements of N" and non-restrictive relative clauses are complements of N'". In this case, an NP like "The people who went to MIT" can be represented as in (1):

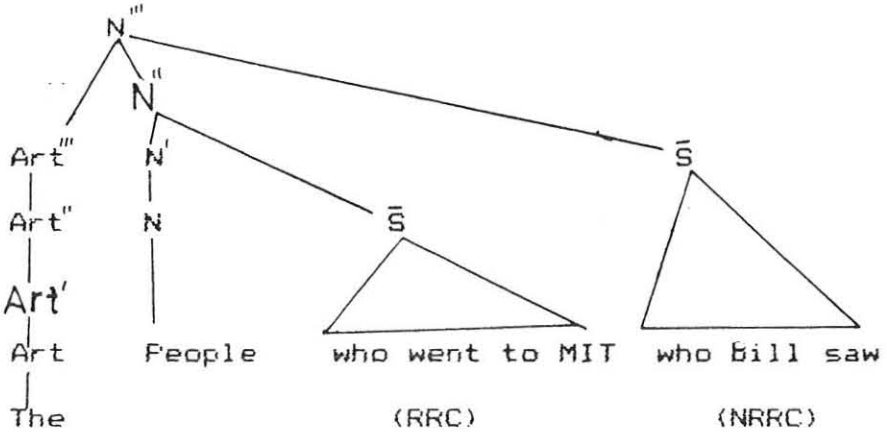
(1)



(RRC)

Jackendoff does not show the rules for expanding each Art^n other than simply writing it as Art^{n-1} (Stuurman, 1982:415). According to Jackendoff's claim, if the restrictive relative clause in (1) is to be followed by a further relative clause, the later functions as a non-restrictive (sometimes called appositive) relative clause and is represented as in(2).

(2)



The reasons why the two relative clauses branch from different bar levels are intonation break, complementizer selections and distributions. At the phonological level, for example, non-restrictive relatives are characterized by a fresh intonation contour and a change in the degree of loudness. In contrast, restrictive relatives are not preceded by a noticeable intonation break and are characterized by continuity of the degree of loudness (Jackendoff, 1977:172). Cornilescu (1981) and Bache and Jacobson (1980) also use these points as characteristics.

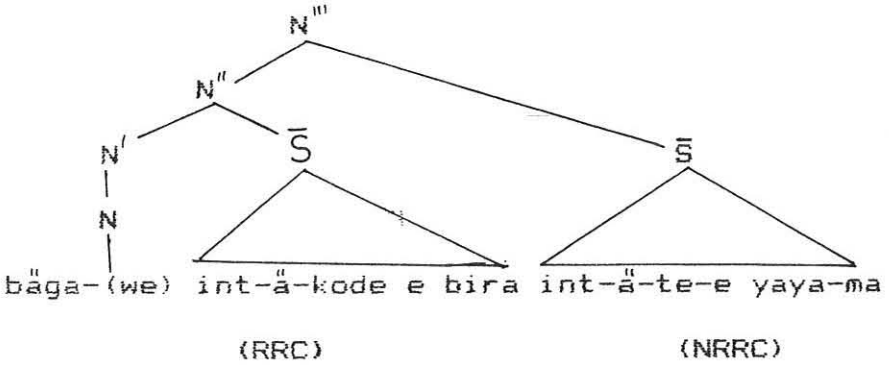
Regarding complementizer selection, restrictives can be introduced by the 'that' or 'zero' complementizer whereas non-restrictives are introduced by Wh-words in English. In terms of distribution, Jackendoff says that non-restrictives occur following restrictive relatives. If we follow this assumption, Gumuz relative clauses in (3a) might be represented as in (3b) below:

(3)a. [$_N$ bäga-(we) [$_N$[$_S$int-ä-kode e bira][$_S$int-a-te e yaya-ma]]

man -nom comp-3S bought ox comp-3S-lost sheep-poss

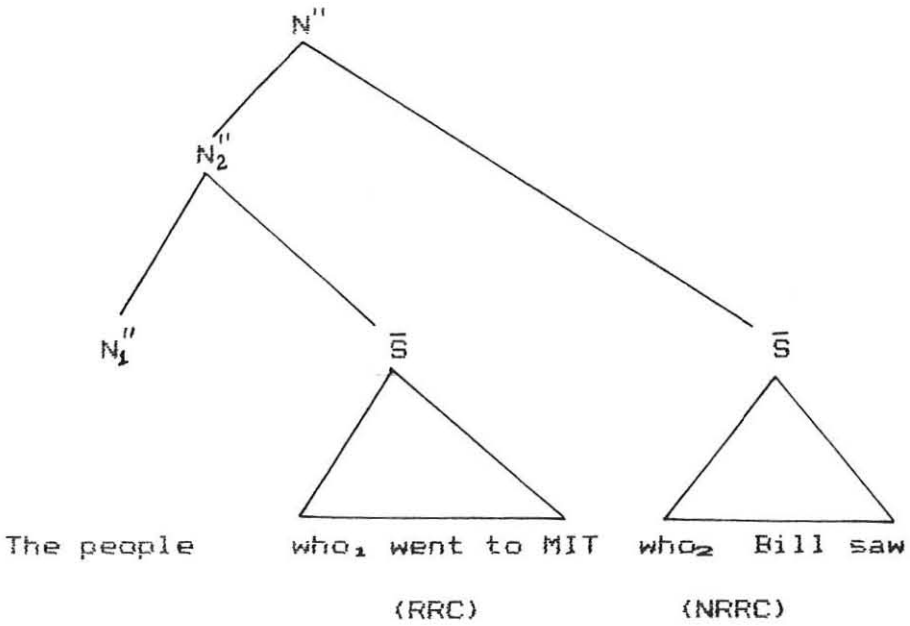
'The man who bought ox, whose sheep is lost'

b.



However, Jackendoff's account of non-restrictive as N''' complements has been seriously questioned. Emonds (1979) for instance, develops the main clause hypothesis (MCH), by which NRRC's are derived by parenthetical formation from main clauses coordinated to the clause containing the antecedent. He argues that under the MCH "appositive (NRRC) have no properties" hence the third level of the bar notation proposed by Jackendoff is unnecessary (1979:242). For Emonds, non-restrictive relatives are not distinctly different in their properties from restrictives. The comma intonation break which is claimed to be one criterion may suggest that the two types of relative clauses cannot be studied from a purely syntactic point of view. Accordingly, the two kinds of relative clauses are treated as branching from the same level by adjunction. Hence the structure in (2) is represented as in (4).

(4)



As represented in (4), Emonds's analysis allows recursive projections. This is a deviation from Jackendoff's system in which X^n cannot immediately dominate itself (Stuurman, 1983:737). Because of this the structure in (4) cannot be interpreted by Emonds's (1979:220) Hypothesis of appositive Wh-Interpretation rule stated in (5):

(5) [PRO,WH] is anaphoric to H" in

H" [$_{\bar{S}}$comp [w...z]]

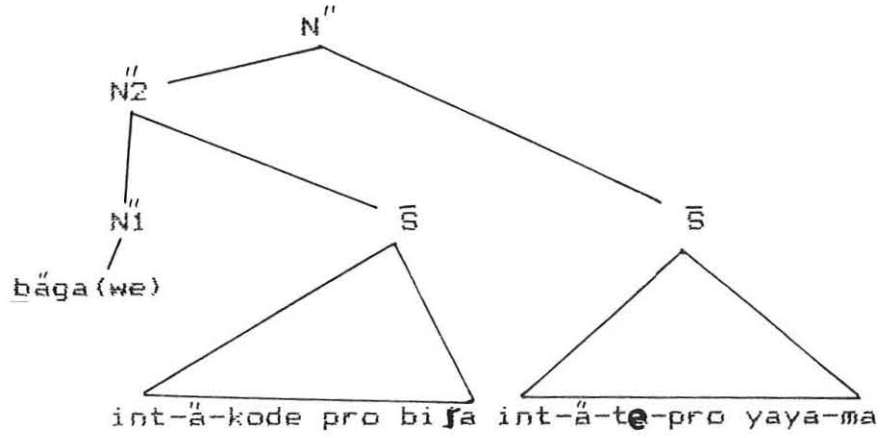
Where $\bar{S}$ is not a sister to a head

(H=N,V,P,A)

This rule may work in languages where there are Wh-relative pronouns. But Gumuz relative clauses have no such pronouns. So it is not possible to fully apply it here.

If we apply Emonds' (1979) analysis of appositive, we may have the representation in (6).

(6)



'The man who bought ox, whose sheep is lost'

There are no Wh-NP's in the relative clauses in(6). The head NP /bäga/ 'man' is far away from the relativized NP positions. This makes it difficult to accept that the N''_1, and N''_2 in (6) are contiguous antecedents of the relativized NP's.

Relative clauses are treated in terms of phrase structure rules in the systems developed by Jackendoff (1977) and Emonds (1979). In GB, they are treated as non-argument clausal complements of nouns at maximal level. Stowell (1981) quoted in Alemayehu (1992:25) says "all modifiers (including relatives) must project from a maximal level (x"level)". Moreover, according to Safir (1986), there is a level derived from LF called LF'. He argues that the reference of restrictive depends on the modifying clause and this can be determined at LF; while the referential relation between head NP's and their non-restrictive relative clause complements can be determined at LF'. A non-restrictive head has independent modifiers and the referential relations may be indicated by coindexation at both levels, i.e. LF and LF'.

Following Safir (1986), we see one formal difference between restrictive and non-restrictive relative clauses in Gumuz. There is, for example, intonation break following restrictive relative clauses. Another difference concerns the relations they have with the relative head NP's. Since the head is already restricted by the first relative clause,

the second one has no restrictive effect on the head noun /bäga/ 'man' in (3) repeated here in (7) for convenience.

(7) [$_{NP}$bäga-(we)[$_{CP}$int-ä-kode e bira] [$_{CP}$int-ä-te e yaya-ma]]
man-nom comp-3S-bought ox comp-3S-lost sheep-poss
'The man who bought ox, whose sheep is lost'

The head noun is restricted by the relative clause which immediately follows it. Because of this, the non-restrictive relative clause simply gives extra information about the head noun. This may force us to assume that the relational reference between the head noun /bäga/ 'man' and the non-restrictive relative in (7) may be determined at LF', whereas the relation between the head noun and its restrictive relative clause is determined at LF as proposed in Safir. (8) and (9) show the representation at both levels.

(8) At LF
[$_{NP}$me?a$_i$[$_{CP}$int-ä-kode ingifa e$_i$][$_{CP}$int-i-šip'i e nämägäži]]
goat comp-3S-bought woman comp-PASS slaughtered yesterday
'A goat which a woman bought, which was slaughtered yesterday'

At LF', the head noun /me?a/ 'goat' is coindexed with both relative clauses but with different indices as in the following examples.

(9) At LF'

[$_{NP}$me?a$_{i}$/$_{j}$[$_{CP_{i}}$int-ä-kode:ngifa e$_{i}$][$_{CP_{j}}$int-i-šiṕ e$_{j}$nämägëži j]]

goat comp-3S-bought woman comp-PASS-slaughtered yesterday

A question may be raised here in connection with the presence of LF'. As it is argued in Safir (1986), LF' is a level in which "extra" arguments or constituents may be attached to grammatical sentences. The indices at this level have to be introduced into the θ-structure of the sentence in a way that captures the perception that such elements are "extra". This explains the fact that "non-restrictives tend to be similar in their distribution to parenthetical phrases" (Safir, 1986:672), a notion introduced by Emonds (1979).

If the head noun /me?a/ 'goat' and e in (9) do not share an index at LF, then the relative clause will be excluded by both the θ-criterion and the Full Interpretation (FI) (Chomsky,1986a) for otherwise the clause will be neither predicated nor selected by anything in the sentence (Safir, 1986:677).

In Gumuz, only non-restrictives can be used to qualify proper nouns. Observe the following structure in (10):

(10) [$_{NP}$bäkee [$_{CP}$int-ä-wey[$_{IP}$e nämägáži j]] daš]

Bakee comp-3S-came yesterday died

'Bakee, who came yesterday died'

The referential relation between the non-restrictive relative clause and the head NP in (10) can be determined by indicies at LF' as in (11).

(11) [$_{NP}$bäkee$_j$ [$_{CP}$int-ä-wey [$_{IP}$e$_j$ nämägäži j]] daš]

Since the proper noun does not need any restrictive complement, the clausal complement in (11) is not restrictive.

3.1.2 Headless Relatives

In the relative clauses we have seen above, both restrictive and non-restrictive relatives are headed. Gumuz, like in some cases of English, has also headless relative clauses. Observe the following relative clauses in (12).

(12)a. [$_{NP}$ [$_{CP}$int-i-s-äl] [ah d-ä-gim]]

comp-1p-ate-1p he PAST-3S-know

'He knew what we ate'

b. [$_{NP}$ [$_{CP}$int-i-hits-äl] [ah d-ä-sin]]

comp-1p-hate-1p he PAST-3S-love

'He loved whom we hate'

In the above examples, the head positions are empty. Like in headed relatives, we expect V-movement. (13) is illustrative of this.

(13)a. [NPe[CPint[IPe[Ii..äi²][VPS e]]] [IPah [Id-ä-[VPgim]]]

comp 1P ate he PAST-3S know

'He knew what we ate'

b. [NPe [CPint[IPe[i..äi][VPhits e]]] [IPah [Id-ä[VPšin]]]

comp 1P hate he PAST-3S love

'He loved whom we hate'

In the above D-structure representations, the e in the IP is the subject of the relative clause which is not phonetically real. The position is empty because Gumuz can drop its subject. The e in the object position is a result of relativization. In both examples, the object is relativized and as a result the position is empty (=pro).

Like in headed relative clauses the subject of the headless relatives may appear phonetically as in the examples below:

(14)a. [NP e[CPint-ä-s [IPah e][IPd-ä-rä gim]]

comp-3S-ate he PAST-3S-1S know

'I know what he ate'

b. [NP e [CPint-ä-ši-šina[IPmah e] [IPah d-ä-šin]]

Comp-3P-loved they he PAST-3S-love

'He loved whom they loved'

Such examples show headless relative clauses in which objects are relativized. Such clauses are also possible with relativized subjects as in (15):

(15)a. [$_{NP}$e [$_{CP}$int-ä-šuk'e gumbba] d-ä̈-wey]]
comp-3S-kill lion PAST-3S-come
'One who killed a lion has come'

b. [$_{NP}$ e [$_{CP}$int-ä-wey e nämägäžij] baab-e]
comp-3S came yesterday father-poss
' One who came yesterday is my father'

These examples are the same as those we have seen in (12) and (13) above except that the object of the relative clauses here are phonetically real.

To conclude, we get only one basic difference between headed and non-headed (headless) relative clauses in Gumuz, that is, the absence or presence of a head noun.

3.2 The Element /int/ in Gumuz RC's

In the relative clauses presented in the preceding sections, the element /int/ is found prefixed to relative verbs. But its status and base position has not been discussed.

We have seen the movement of verbs from within the VP to

the head of IP and then to C of CP. In all cases the morpheme /int/ is attached to verb. Consider the examples in (16):

(16)a. [$_{IP}$dua-(we) [$_{VP}$d-ä-toko ki^{3}-ya]]

boy-nom PAST-3S-climb to -tree

'The boy climb up a tree'

b. [$_{NP}$dua-(we) [$_{CP}$int-ä-toko ki-ya]]

Boy-nom comp-3S-climb to-tree

'The boy who climbed up a tree'

In (a), there is no /int/; instead, we find /d-ä/ which are tense and AGR morphemes. In(b), the morpheme /int/ is prefixed to the relative verb. Its absence leads to ill-formedness as (17) demonstrates.

(17) *[$_{NP}$dua-(we) [$_{CP}$ä-toko ki-ya]]

boy-nom 3S-climb to -tree

When we return to the status of /int/, it does not show any nominal feature, like gender, person, number or case. Thus, we cannot treat it as a pronoun. In English, for instance, the Wh-relative pronouns show formal differences between nominative accusative and genitive cases. But in Gumuz, /int/ has no such variations.

According to Radford (1988), typical NP's have genitive case forms and the same is true of pronominal NP's. The Wh-NP's 'who' and 'which' for instance, have the genitive form 'whose', whereas like the complementizer 'that' in English, /int/ does not have a genitive form.

Furthermore, relative pronouns tend to carry specific syntactic properties marked for gender or animacy. 'who', for instance, indicates [+Human] whereas 'what' indicates [-Human]. Again like 'that' in English, /int/ does not carry any such features. It is semantically neutral and has no lexical meaning. Thus, as indicated in the labelling in the examples, /int/ is treated as a complementizer.

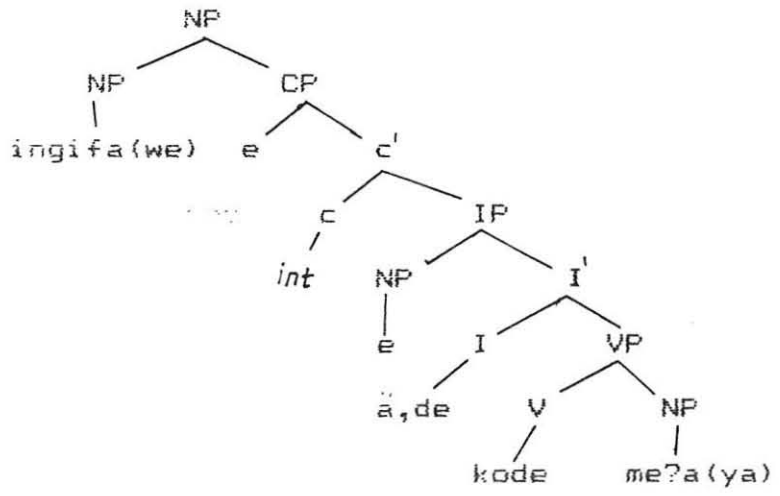
As a complementizer, its base position is within the CP as shown in the representations in (18).

(18)a. [$_{NP}$ ingifa-(we [$_{CP}$ int-ä-de-kode e me?a-(ya)]]

woman -acc comp-3S-FUT-buy goat - acc

'The woman who will buy the goat'

b.

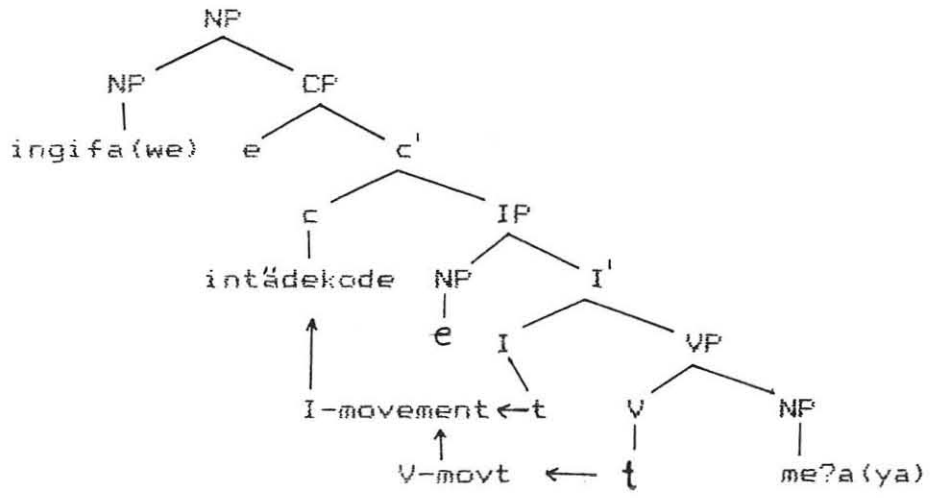


The woman who will buy the goat

As we have seen in the preceding sections, relative clauses follow their heads. Similarly, in (18), the position of /int/ is clause initial in comp. Following Radford (1988), since the embedded clause with overt or null complementizer constitute a CP, the relative clause in (18) has the status of a CP with an overt head C, /int/.

Although the verb and the complementizer occur together as a single word at the surface, it is known that they originate in different positions. The question is how /int/ gets attached to the verb. One may say that either /int/ has moved down to the verb or the verb has moved up to its left to comp. Since downward movement is not acceptable in GB, the later seems plausable. Thus, we assume that the verb[4] moves up to comp after collecting inflectional features from I of IP and is prefixed to C in CP at S-structure. This movement is as in (19):

(19)



The woman who will buy the goat

The movement of the verb is not particular to Gumuz relative clauses[5]. It is obligatory and must be an instance of Move Alpha, in the mapping of D-structure onto S-structure (Mullen, 1986:372).

Notes

[1] Uniform Three-Level Hypothesis is the theory which requires any category to have three levels of X for i.e. X', X", X"'.

[2] /i...'äl/ is a discontinuous morpheme indicating first person plural. It also indicates the subject of the relative clause.

[3] The preposition /ki-/ gives different prepositional meanings. For example, it conveys the meanings 'to', 'for', 'by', 'with', 'on', and 'up'. The equivalent preposition /ge/ also gives these meanings. The difference is that /ge/ occurs when the object of preposition is relativized while /ki-/ occurs elsewhere.

[4] If there is a preposition /ge/ in relative clauses, it moves to V and together (V+P) move to I and then to C.

[5] The movement of the verb to C is also shown in Amharic, Chaha and Kunama Marda as observed by Mullen (1986) and Alemayehu (1990, 1992) respectively.

4. CONCLUSION

The study set out to accomplish one major task, i.e. to analyze relative clauses in Gumuz in the light of the Government and Binding Theory. This model is adopted and presented in the first chapter of the study. It was shown that the concept of government plays a central unifying role throughout the systems of principles which interact in a variety of ways.

In light of this, the relativized positions and strategies of relativization were examined. It was found out that Gumuz relative clauses use the strategy called gapping. According to this strategy, relativized NP positions are not filled by phonetically real NP's. A relativized position is simply empty. Since it is governed and θ-marked the EC in this position is pro. On the other hand, Gumuz interrogative relatives employ the movement strategy. The Wh-NP's move from their base positions to the spec of CP. In this case, the relativized position is also empty because of movement and the e is not a base generated pro, it is a Wh-trace (=variable) which is coindexed with the moved Wh-NP.

In Gumuz relative clauses, there are head-to-head movements. First, there is V-movement in all relative clauses. The relative verb moves to I to collect agreement

and tense features. After collecting these features from I, it moves to C in CP. The second movement, i.e, the movement of the inflected verb (Vi), known as I-movement, is attracted by the complementizer /int/ which cannot stand alone. Since it does not satisfy any of the characteristics of relative pronoun, /int/ is argued to be a complementizer base generated in C of CP. Another head movement is the movement of P to V. This happens when the object of a preposition is relativized. A relativized object of a preposition is also empty (=pro). Thus, the prepositional head which cannot stand alone moves to V in search of a bearer. In other words, prepositions cannot be stranded in Gumuz. These movements lead to change in the basic word order of the language.

Wh-movement is not common in other Ethiopian languages, such as:- Amharic, Oromo Chaha etc. Unlike these languages, Gumuz interrogative relative clauses employ Wh-movement.

Passive relative clauses have also been described. As passive verbs have no external argument and the relativized positions in Gumuz are empty, we may find passive verbs without external and internal arguments. When a direct object is relativized, for example, the object position is left empty because of relativization and the subject position is also empty as passives do not have overt subject.

In relation to types of relative clauses, Gumuz has both restrictive and non-restrictive and headed and headless. A restrictive relative clause has restrictive effect on the head NP and a non-restrictive one plays an appositive role. However, both are modifying clausal complements of their heads. There is no syntactic difference between the two types of relative clauses. Their differences lies on the restrictive and non-restrictive effects they have on the head NP's. Safir (1986) treats such difference at two levels of representation. First, the reference of restrictive depends on the modifying clause and this can be determined at LF; while the referential relation between head NP's and their non-restrictive relative clause are complements determined at LF' a level later than LF. Because non-restrictive relative clauses have no semantic effect on their referential NP's and hence have to be treated outside of LF, the level of representation for semantically relevant elements.

Moreover, relative clauses could be headed or headless. In Gumuz such clauses have no internal structural difference. The head is in initial position, characterizing Gumuz as a head initial language.

Finally, in Gumuz independent clauses /d/ is a past marker. In relative clauses it is missing and there is no overt past tense marker. This needs phonological or morphological investigation.

Bibliography

Alemayehu Abebe (1990). "Relative Clauses in Chaha: A GB Approach". Addis Ababa University (MA.Thesis).

_____(1992). "Appositive and Restrictive Relative clauses in Kunama Marda". Nice. A paper presented at the 5th Nilo Saharan Linguistics Colloquium.

Aster... Zewdie (1983). "Gumuz phonology". Addis Ababa Academy of Ethiopian Languages.

_____ (1991). "Gumuz Verb Morphology". Addis Ababa University (M.A.Thesis).

Bache, carl and Leif K.Jakobson (1980). "On the Distraction Between Restrictive and Non-restrictive Relative Clauses in Modern English", Lingua, 52,3/4: 243-267

Baye Yiman (1987). "Relative Clauses in Oromo", Journal of Ethiopian Studies. 20:60-74.

Behayilu Abebe (1986). "A Brief Morphological Study of Nouns, Verbs and the Structure of Simple Sentences in Gumuz", Addis Ababa University (B.A.Thesis).

Bekale Seyum (1989). "Relative Clauses in Wolayta". Paper presented at the Third Annual Seminar of The Institute of Language Studies. Addis Ababa University.

Bender, M.Lionel (1975). The Ethiopian Nilo —Saharan. Addis Ababa : Artistic printing.

_____ (1976). "Nilo-Saharan Overview" in Bender, M.L. ...ed. The Non-Semitic Language of Ethiopia. Michigan: Michigan State University. 439-485.

_____ (1979). "Gumuz: A sketch of Grammar and Lexicon", Africa Und Ubersee. 62, 1:38-69.

_____ (1991). "Comparative Komuz Grammar". Nairobi: 22nd African Linguistics conference.

Borer, Hagit (1984a). Parametric Syntax :Case Studies in Semitic and Romance Language. Dordrecht : Foris.

_____ (1984b). "Restrictive Relatives in Modern Hebrew", Natural Language and Linguistic Theory. - 2, 2: 219-60.

Bunte, Pamela A. (1986). "Subordinate Clauses in Southern Paiute", International Journal of American Linguistics . 52,3:275-300.

Chomsky, Noam (1977). "On Wh-Movement" in Culicover, P.W., T.Wasow, and Akmajian, eds. Formal Syntax. New York: Academic Press 71-132.

_____ (1981). Lectures on Government and Binding. Dordrecht : Foris.

_____ (1982). Some Concepts and Consequences of the Theory of Government and Binding. Cambridge MIT. press.

_____ (1986a). Knowledge of Language : Its Nature Origin and Use. New York. Praeger.

_____ (1986b). Barriers. Cambridge: MIT Press

_____ (1988). Language and Problems of knowledge . Cambridge. MIT Press.

_____ , and H.Lasnik (1977). "Filters and Control", Linguistic inquiry: 8, 3:425-504.

Cole, Peter, Wayne Harbert, and G.Hermon (1982). "Headless Relative Clauses in Quechua", International Journal of American Linguistics. 42,2:113-124.

Comrie, B.(1981). Language Universals and Linguistic Typology. Oxford: Basil Blackwell

Cook, V.J. (1988) Chomsky's Universal Grammar An Introduction : Oxford; Basil Blackwell.

Cornilescu' A.(1981). "Non-Restrictive Relative clauses. An Essay in Semantic Description". Revue Romaine De Linguistique. xxvi, 1:41-67

Culicover, Petter W. (1975). Syntax. New York : Academic press.

Daly, John, Lorry Lyman, and M.Rhodes (1981). A course in Basic Grammatical Analysis. Summer Institute of Linguistics. University of North Dakota.

Emonds, J.(1979). "Appositive Relatives Have No properties", Linguistic Inquiry,10, 2:211-243.

Epstein, Samuel David (1982). "Derivational Constraints On Ā-Chain Formation", Linguistic Inquiry. 23, 2:235-59.

Hoekstra, Teun (1984). Transitivity Grammatical Relations in Government-Binding Theory. Dordrecht: Foris.

Irwin, Lee (1966a). "Some Saysay Sentence Patterns". Mimeo

_____(1966b). "A Saysay Word List' Mimeo

Jackendoff, R. (1977). X̄-Syntax : A Study of Phrase Structure. Cambridge: MIT Press.

Jaeggli, Osvaldo A. (1986). "Passive", Linguistic Inquiry. 17, 4:587-622

Joseph, Brain D.(1983). "Relativization in Modern Greek: Another Look at the Accessibility Hierarchy constraints", Lingua. 60 1:1-24.

Keenan, Edward L. (1985). "Relative clause" in Shopen, Timothy ed. Language Typology and Syntactic Description. Complex construction. Vol.II, Cambridge: Cambridge University-press 141-170.

Mengistu Ambberber (1989). "The Structure of Noun Phrase Complements in Khamtanga", Addis Ababa University, (MA.Thesis).

Mullen, Dana S.(1986). "Issues in the Morphology and Phonology of Amharic: The Lexical Generation of Pronominal Clitics", Ottawa Canada (Ph.D Dissertation).

Radford, Andrew (1981). Transformational Syntax : A Student Guide to Chomsky's Extended Standard Theory. Cambridge: Cambridge University press.

_____ (1988). Transformational Grammar. London, Cambridge University press.

Riemsdijk, H.van and Edwin Williams (1986). Introduction to the Theory of Grammar. Cambridge: MIT Press.

Rizzi, Luigi (1986). "Null objects in Italian and the Theory of pro", Linguistic Inquiry. 17, 3:501-557.

Safir, Ken (1984). "Multiple Variable Binding", Linguistic Inquiry. 15, 4:603-638.

_____ (1986). "Relative Clauses in a Theory of Binding and Levels", Linguistic Inquiry. 17, 4:663-689.

Stuurman, F. (1982). Review of Jackendoff (1977), Journal of

Linguistics. 18:409-419.

_____ (1983). "Appositive and X-bar Theory", Linguistic Inquiry. 14,4:736-744.

Unseth, Peter (1989). "Selected Aspects of Gumuz Ponology", Proceedings of the Eighth International conference of Ethiopian Studies. Vol.2, Addis Ababa.

_____(n.d). "Gumuz Dialect Survey and Morphological Notes".