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— PRONOMINAL EMPTY CATEGORIES IN GAMO

BY

— KASSA TILAHUN

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF
ADDIS ABABA UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
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Key to Symbols and Abbreviations

Acc	Accusative case
AGR	Agreement
AP	Adjectival phrase
arb	Arbitrary
Comp	Complementizer
CP	Complement phrase
Def	Definite marker
DET	Determiner
DP	Determiner phrase
Fem/F	Feminine (marker)
Impf	Imperfective aspect
INFL	Inflection
Infv	Inflective marker
IP	Inflectional phrase
Masc/M	Masculine (marker)
N	Noun
Nom	Nominative case
NonP	Non-past tense
NP	Noun phrase
P	Preposition

Perf	Perfective aspect
Pl	Plural marker
PM	Participial clause marker
PP	Prepositional phrase
RM	Relative clause marker
S	Sentence
Sg	Singular marker
Spec	Specifier
TV	Terminal Vowel
V	Verb
VP	Verb phrase
ä	Central mid vowel
ï	Central high vowel
s'	Voiceless glottalized alveolar fricative
k'	Voiceless glottalized velar stop
t'	voiceless glottalized alveolar stop
d	Voiced alveolar implosive
ts	Voiceless alveolar affricate
ʔ	Voiceless glottal stop
ñ	voiced palatal nasal
Ø	Zero morpheme

Abstract

In this thesis, the pronominal empty categories of Gamo are discussed. The principles of the GB Theory are relied on to identify the distribution and interpretation of pronominal empty categories in the language.

Gamo is found to be a pro-drop language as subject NPs can be covert in a tensed clause. The covert NP subjects, *pro*, can be recovered from subject NP agreement elements attached on verbs. It, on the other hand, is argued that object NPs are not allowed to be covert. The absence of object NP AGR elements is the cause for this. Moreover, nominal features are absent in Gamo subordinate clauses, which in turn restrict the presence of *pro* in a complement clause except the relative and participial clauses. It is also discussed that *pro* can be semantically interpreted as definitively or arbitrary based on the presence or absence of AGR elements. As the discussion of the analysis reveals Gamo *pro* fills in a theta or a non-theta position.

The other type of pronominal empty category, *PRO*, occurs in the subject position of infinite clauses. Its content is recovered when an antecedent NP or an implicit argument that is believed to have the status of *pro* is considered.

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CHAPTER I

INTRODUCTION

1.1 The Language

Gamo is an Omotic language spoken in Ethiopia. It is classified under the Omoto cluster that belongs to the Omotic family. The Omoto cluster is further divided into North, East, West, and South sub-grouping. The cluster contains various languages that include Gamo, Gofa, Wolaita, Dawro, Zala, Zayse, Koyra, etc. Gamo along with Wolaita, Gofa, Dawro, Malo, etc. falls under the North Omoto sub-grouping (Fleming 1976). The family tree is presented in Figure 1:

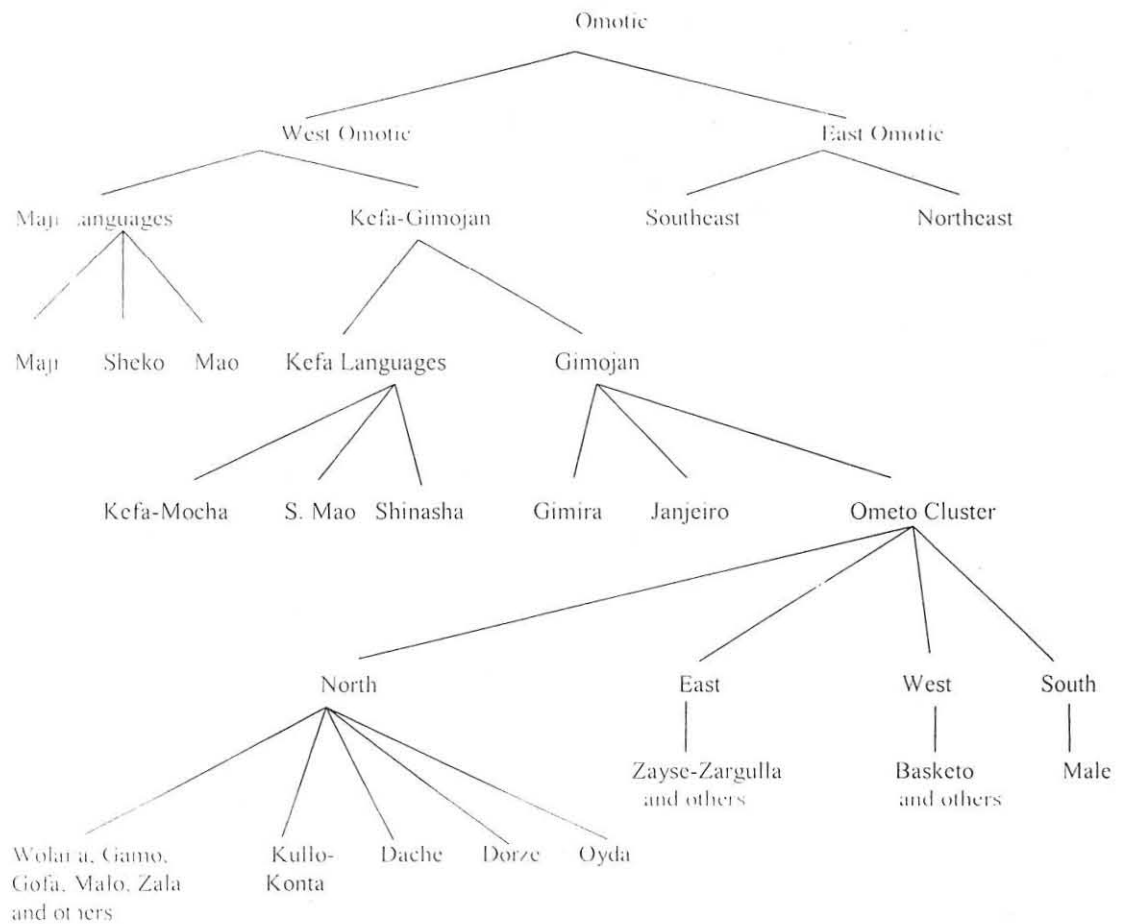


Figure 1: Omotic family tree (based on Fleming 1976).

Gamo is spoken by people that inhabit ten woredas known as Arba Minch Zuria, Bonke, Boreda, Chench, Dara Malo, Dita, Kemba, Kucha, Mirab Abaya and Zala of Gamo-Gofa Zone in the Southern Nations, Nationalities, and Peoples Regional State. According to the 1994 census, Gamo has 697,250 speakers.

It has been said that Gamo shows resemblance to the “languages/dialects” of the Omotic cluster. According to a study on degree of intelligibility on eight selected Omotic languages, Gamo is found to be mutually intelligible to Dorze and Gofa, highly intelligible to Wolaita, Kullo and Oyda, and least intelligible to Basketo (Haile Eyesus et al. 1988). This obviously needs reconsideration of claiming at least the mutually intelligible languages as distinct languages.

Gamo shows slight variation¹ in phonological, grammatical and lexical aspects in areas where it is spoken (Hirut 1999). The language has recently been introduced in administrative and educational purposes across the woredas.

1.2 Statement of the Problem

Previous linguistic works on Gamo are very few. The works generally focus on overt syntactic structures of the language. None of them discusses syntactic structures that contain gaps. Having considered this, the present study tries to analyze pronominal Empty Categories in Gamo. Among the four types of Empty Categories (NP-trace, variable, PRO, and pro) that have been identified by Chomsky (1982, 1986), the pronominal empty categories, i.e. pro and PRO, will be discussed within the principles and assumptions of

¹ Examples of such variations will be briefly reviewed in section 1.3

Government-Binding Theory (GB Theory). The project is based on the data collected from the people that live in Bonke woreda.

1.3 Previous Studies

The previous studies on Gamo discuss some aspects of the language as summarized below.

Hampo (1990) discusses the sound system of Gamo. She has identified twenty-five consonants and seven vowels in the language. The /f/ sound is included in her phonemic chart. However, Hirut (1999) has found out that /f/ is not part of the phonemes of the language.

Hayward (1994) claims that Gamo is a tone accent language. His article is about the behaviour of pitch in nominals. Nominals in Gamo consist of two components, a root and a suffixal vowel or 'terminal vowel' (TV). In such nominals, a higher pitch is heard on one syllable of the word. Consider (1) below.

- (1) démb-a 'plain'
 támm-a 'ten'
 mol-é 'fish'

(Hayward 1994: 482)

As can be observed, the pitch falls on either the root or the TV. Hayward further asserts that nominative suffixation does not bring any change in the location of the high tone. (2) shows the fact of nominative case in Gamo.

(2)	absolute	nominative	gloss
	bóóra	bóórai	'ox'
	deefé	deeféi	'goat'
	tóho	tóhoi	'foot'
			(Ibid)

Hirut (1999) presents a complete structural description of Gamo. The phonological, morphological and syntactic structures of the language are described. Dorze, one of the mutually intelligible languages², is considered as a dialect of Gamo. Moreover, she points out that in areas where Gamo is spoken, one may notice a noticeable dialectal variation. For instance, Gamo of Kucha does not have the consonant phonemes /ts/ and /s'/ which are found in Gamo of other places. On the other hand, Kucha has /t'/ which may not be found in other areas (Hirut 1999: 5). Let us look at her examples for a few phonological, grammatical and lexical variations as in (3-5) below.

(3)	Ocholo	Dorze	Boreda	Kucha	Gloss
	s'ungunts	s'ungunts	s'unguntsu	s'unguntta	'nail'
	kets	kets	ketsa	ketta	'house'

As can be observed, Kucha replaces /ts/ and /t/ with /tt/ and /t'/ respectively.

Grammatical variation is the other aspect that is identified by Hirut. To her, such variation includes markers like definiteness, tense and person. Consider (4) for the differences in definite markers.

² Refer Hatle Eyesus et al. (1988) for detailed discussion of degree of intelligibility on eight Ometo languages.

(4)	Dorze	Ocholo and Bonke	Kamba, Kucha and Dara Malo	Gloss
	bor-ce	bora-za	bora-a	'the ox'
	ʃoʃ-e	ʃoʃa-za	ʃoʃa-a	'the snake'

It may be noted that the definiteness is marked using different markers.

The examples in (5) show lexical variation.

(5)	Dorze and Ocholo	Kucha	Bonke	Others	Gloss
	huʔe	hup`e	huye	huʔe	'head'
	aypeso	sinobaga	sintta	sinsse	'face'

(Hirut 1999: 5-8)

1.4 Objectives of the Study

The study has the following main objectives:

- a. to identify Pronominal Empty Categories in Gamo,
- b. to determine their distribution in the language, and
- c. to identify the system of interpreting such categories of the language.

1.5 Significance of the Study

The main task of the study is to explain pronominal empty categories that are found in Gamo based on the assumptions of GB Theory. This theory is believed to be helpful to researchers in areas such as language development, child language disorders, and adult aphasia (Leonard and Diane 1988).

The Gamo language has recently been employed in the primary education and in various administrative purposes. It has, however, been said that the process of developing the language for such purposes is not without difficulties (Cohen 2000). Relying on linguistic researches of this type has invaluable significance in minimizing the difficulties. It is thus believed that the study provides language developers, educationalists, etc. with relevant data. It will also provide them with some insights into the nature of pronominal empty categories in the language. Moreover, this kind of study invites researchers to undertake further studies on the problem at various levels.

1.6 Theoretical Overview

The study aims at explaining pronominal empty categories in Gamo with the principles of GB Theory. GB Theory was formulated in 1979-80 and published in its comprehensive form in Chomsky (1981a) and in some of his successive works. The basic features of GB Theory have evolved from Chomsky's (1965) earlier work.

The GB Theory is essentially a theory of language faculty, which discusses how the human mind represents language. Knowledge of language, according to GB Theory, can be characterized by a formal system of rules and principles of well-formed expressions. Chomsky further writes that the theory must meet two conditions.

- (6) a. it must be compatible with the diversity of existing and possible grammars of the world.
- b. it must be sufficiently constrained to permit grammars to develop on the basis of rather limited evidence.

The formal system of rules and principles designed to meet these conditions is referred to as Universal Grammar (UG). UG has four levels of representation and a set of subtheories that serve to constrain the representations at each level. The nature of the levels of representation and the subtheories will be briefly discussed below.

1.6.1 The Levels of Representation

UG has four different but related levels, Deep Structure (D-structure), Surface Structure (S-structure), Phonetic Form (PF) and Logical Form (LF).

- A. **D-structure:** the deep structure is characterized by the categorial component and the lexicon. The categorial component provides the syntactic structures and the D-structure may be generated through insertion of lexical items into the syntactic structures provided by the categorial component.
- B. **S-structure:** S-structure is the one that is derived from D-structure through the application of the rule named move- α (Move alpha).
- C. **PF:** the PF is the third level of representation. It provides an abstract characterization of sound.
- D. **LF:** the LF is the remaining representation that provides an abstract characterization of interpretation.

1.6.2 The Subtheories

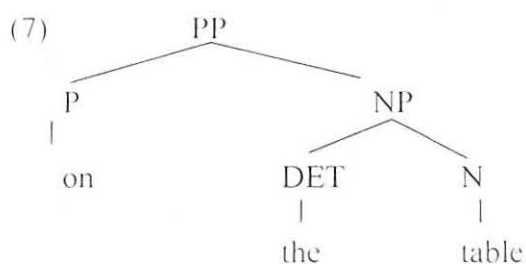
Different subtheories are assumed to constrain the aforementioned representations at each level. They are:

A. **X-theory:** It provides principles for the projection of phrasal categories from lexical ones and imposes conditions on the hierarchical organization of categories in the form of general schema.

E. **Bounding theory:** The restriction of movement operations within sentences is the concern of Bounding theory.

C. **Government theory:** Deals with the relation that exists between syntactic constituents. Moreover, the theory specifies the 'governing' nodes, and the nodes that the 'governing' ones can and cannot govern. The definition of governing node entails notions like dominance, constituent-command (c-command) and minimal-command (m-command) (Leonard and Diane 1988).

In the following PP example,



PP occurs higher than P and NP. PP thus dominates them. The NP also dominates DET and N.

The notion of c-command can be defined as:

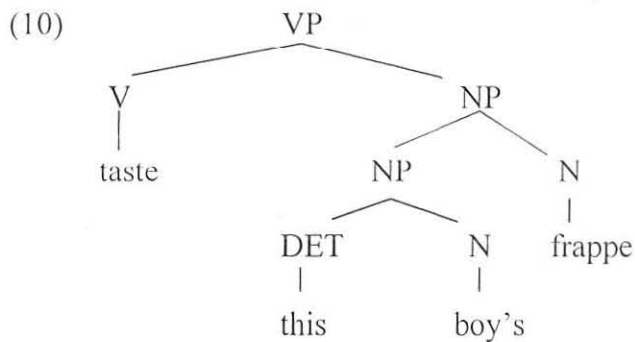
- (8) Node A c-commands node B if and only if
- (i) A does not dominate B and B does not dominate A; and
 - (ii) the first branching node dominating A also dominates B.

(Chomsky 1986)

Considering the notion of c-command, Chomsky defines Government as a relation of mutual c-command. Consider (9).

- (9) A governs B if and only if
- (i) A is a governor; and
 - (ii) A c-commands B and B c-commands A.

The notion of m-command can be seen in (10) below:



(Leonard and Diane 1988)

As can be observed, the V node c-commands the NP containing *this boy's frappe*. The V node, however, m-commands the lower NP containing *this boy's*. As the lower NP is dominated by the higher NP, *this boy's frappe* government by V is blocked. Moreover, a node cannot govern across an intervening IP, NP, VP, PP, or AP (Ibid).

Chomsky (1986), using the notion of m-command, defines government as:

(11) A governs B if and only if

- (i) A is a governor; and
- (ii) A m-commands B; and
- (iii) No barrier intervenes between A and B.

D. Case theory: This theory assigns abstract case to NPs of sentences in many natural languages. It is assumed that V, P, INFL, etc. assign accusative, oblique, and nominative cases respectively to the NPs that they govern.

E. Binding theory: It is a theory of coreference. In the theory, a certain NP may be interpreted as referring to the same entity or as another NP in the sentence. Non-argument NPs such as expletive *it* and existential *there* “... are outside the system” (Horrocks 1987: 109). Three NP types are identified: anaphors, pronominals and R(eferential) expression.

- i. **Anaphors-** Anaphors are NPs that do not have independent reference. They rather take their reference from some other expression in the sentence. Anaphors include reflexives (eg. himself), reciprocals (eg. each other), as well as NP traces (Horrocks 1987; Leonard and Diane 1988; and Radford 1981). Consider the anaphors in (12) below:

- (12) a. John cut himself.
 b. John and Mary like each other.

(Radford 1981: 364)

The reflexive *himself* in (12a) refers back to *John*. In (12b), the reciprocal *each other* takes its reference from individuals denoted by *John and Mary*.

ii. Pronominals- Pronominals are NPs that lack specific lexical content. Unlike anaphors, pronominals may refer back to individuals independently or co-refer to individuals already named in a given sentence (Horrocks 1987; and Radford 1981). In a sentence like (13) below:

- (13) John thinks he is clever.

(Radford 1981: 365)

The pronominal *he* may refer to *John* or some other individual not mentioned in the sentence.

iii. R-expression- R-expressions include NPs which are not either anaphors or pronominals. Thus, co-reference is excluded here. Let us look at the R-expression in (14) below:

- (14) Judith might burn Liz.

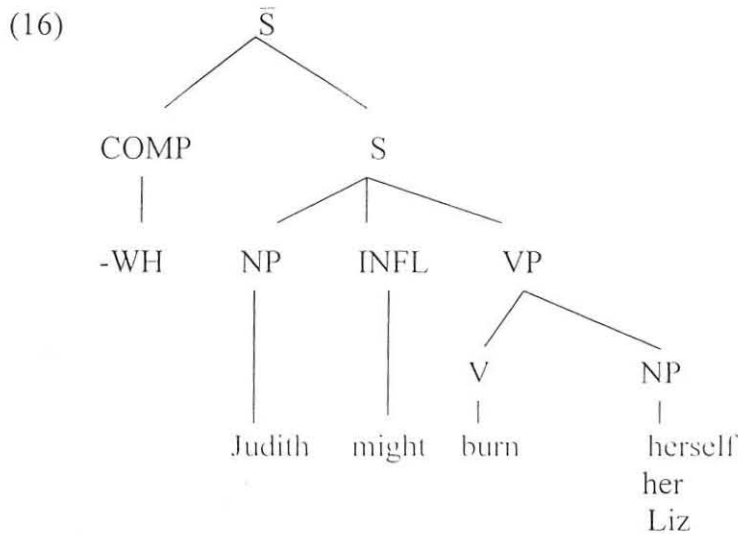
(Leonard and Diane 1988: 519)

As can be noticed, *Judith* and *Liz* denote two different individuals.

Binding theory contains the principles listed as in (15) below:

- (15) a. An anaphor is bound in its governing category
 b. A pronominal is free in its governing category
 c. An R-expression is free.

Let us consider the illustration of the principles as in (16):



(Leonard and Diane 1988: 519)

As can be seen, the final NP has an anaphor (*herself*), a pronominal (*her*), and an R-expression (*Liz*). V is the governor of this final NP, and S is the NP's governing category. The anaphor *herself* has a c-commanding antecedent NP (*Judith*) in the same S. Thus, the binding condition in (15a) is met. As was mentioned, the pronominal *her* in (15b), may not obligatorily refer to the c-commanding NP *Judith*. It must rather be free to refer to an individual not mentioned in its governing category. *Liz* obviously has no antecedent NP in the same S. Therefore, the binding conditions in (15b,c) are as well met.

F. θ -theory- it is concerned with the assignment of thematic roles like agent of action and goal of action. Theta-roles may be assigned to all argument positions in the subcategorization frame of a predicate.

G. Control theory- control theory determines the potential for the reference of PRO. PRO may refer independently or take its reference from antecedent NP. Consider the following examples.

- (17) a. The president is not sure what PRO to do.
 b. It is not clear what PRO to do.

Leonard and Diane (1988: 520).

In (17a) PRO is controlled by the president. PRO is uncontrolled and has the sense of *one* as in (17b).

In his discussion of subtheories of Universal Grammar, Chomsky (1982, 1986) distinguishes four Empty Categories in general. They are *pro*, PRO, NP-trace and variable. The first two are pronominals while the latter two are non-pronominals.

The presence of empty categories in natural languages is determined by the application of various principles of UG. The distribution of each of these types is the consequence of the interaction of the principles (Ibid).

The paper then focuses on the pronominal empty categories, i.e. *pro* and PRO, in Gamo in the light of the GB Theory.

CHAPTER II

THE AGREEMENT SYSTEM OF GAMO

2.1 Introduction

This chapter first highlights the agreement system of a few natural languages in general. It then turns to the discussion of agreement markers of Gamo in particular.

Agreement, as written by Pollard and Sag (1997) cited in Debela (2003), is a full-fledged feature sharing between selector and selected categories. Such features are said to be in agreement when only features of the selector and selected elements are compatible. Verbs may then agree in person, number, and gender with subject and object NPs.

Many natural languages have various agreement markers that are overtly realized on verbs. The markers may include nominal features of NPs in subject and object positions. Languages like Amharic, Irish, and Spanish, for instance, possess such markers (Haile Eyesus (1993, 1998); McCloskey and Hale (1984) and Jaeggli and Safir (1989)). There are still some other languages that have neither the subject nor the object NP markers to be affixed on verbs. Haile Eyesus (2002: 1748), in his *Aspects of Oyda*, claims “Oyda does not have agreement markers on a verb that identify the nominal features of a subject or an object NP...” Consider the following examples from Haile Eyesus (2002).

- (1) a. kan-z-e gawarta ba?ene
 dog-Def.Masc-Nom. cat (Def. Fem) chase (past)
 'The dog chased the cat.'
- b. bukkulo gawarta bay?ene
 Bukulo cat (Def.Fem) chase (past)
 'Bukulo chased the cat.'

It may be noted that the clauses in (1) lack phonetically realized subject and object NP markers on verbs.

We may consider the following illustrative examples from Amharic.

- (2) a. ĩne soddäre hed-hu
 I Sodere went-1Sg.
 'I went to sodere.'
- b. lij-occ-u yï-waññ-all-u
 boy-Pl-Def. Impf-swim-NonP-3Pl.
 'The boys are swimming.'

(Haile Eyesus 1998: 7-8).

- (3) a. kasa zaf-u-n k'orät't'-ä
 Kassa tree-Def.-Acc. cut-3Sg.M
 'Kassa cut the tree.'

b. kasa zaf-u-n k'or ä t't'-ä-w

Kassa tree-Def.-Acc. cut-3Sg.M-3Sg.M

'Kassa cut the tree.'

(Haile Hiyesus 1998: 11).

As it may be noted in (2a and 3a), a clause in Amharic consists of agreement markers for the subject NPs. The -hu '1Sg' and the -u '3Pl' are such markers. (3a) and (3b) mean the same though (3b) possess the object Np marker -w '3Sg.M'.

Irish has also nominal markers that may be realized on verbs. McCloskey and Halle's (1984) example illustrates this fact. It is given in the paradigm presented in (4) below.

(4)	1Sg.	churif-inn	'I would put.'
	2Sg.	churif-ea	'You (sg.) would put.'
	3Sg.M.	churif-eadh	'He would put.'
	3Sg.F.	churif-eadh	'She would put.'
	1Pl	churif-imis	'We would put.'
	2Pl	churif-eadh	'You (pl.) would put.'
	3Pl	churif-eadh	'They would put.'

As it may be noted, agreement elements are affixed on the verb. However, one form, for instance, 'eadh' can identify three different persons: 3Sg.M, 3Sg.F, 2Pl. and 3Pl.

Inflectional richness is also the phenomenon that characterizes Spanish as well. Let us look at the following paradigm (Jaeggli and Safir 1989).



(5)	1Sg.	habl-o	'I speak.'
	2Sg.	habl-as	'You (sg.) speak.'
	3Sg.	habl-a	'He/she speak.'
	1Pl	habl-amos	'We speak.'
	2Pl	habl-ais	'You (pl.) speak.'
	3Pl	habl-an	'They speak.'

In all the above examples, the subject Nps of each clause agrees in person, number, and gender with the verbal agreement elements.

The foregoing discussion presented a general background to the fact that some natural languages may possess nominal features on verbs. Moreover, it was mentioned that there are others that their verbs do not show nominal agreement elements. In the ensuing section, we attempt to discuss the agreement system of Gamo.

2.2 Agreement in Gamo

Sentences in Gamo may have a clausal agreement for a subject Np like Amharic, Irish, and Spanish. It, however, does not possess object Np markers on verbs. It may further be claimed that one may not observe pronominal agreement markers in subordinate clauses of complement, relative and participial, and NPs of Gamo. We will then provide some illustrative examples to prove what has been claimed here true. The structures of Gamo clause and noun phrase will be dealt with for the presence of the mentioned agreement element in the language. In our attempt of studying the

agreement system in Gamo language, we will very briefly consider structures of verbs for object marker, complex clauses and NPs in general.

2.2.1 Agreement in a Clause

2.2.1.1 Subject Agreement

Gamo verbs may be inflected for subject NPs and tense. There are, however, differences when simple³ and complex⁴ clauses are considered.

In Gamo simple clauses such as past, present and future, verbs are inflected for subject NPs except future tense⁵ type one. Moreover, verbs in simple clauses are inflected for tense except present tense. In complex clauses like complement, relative and participial clauses, verbs are inflected only for tense. Nominal agreement elements are absent in them.

The pronominal markers in the Gamo language may be considered as either discontinuous or non-discontinuous (Hirut 1999). The discontinuous type is seen in the past tense, while the non-discontinuous one is seen in the present tense. Consider the following examples:

- (C) a. tan-i m-a-d-is
I-Nom. eat-past-1Sg.
'I ate.'

³ The simple clauses are discussed in (14-18) below.

⁴ The complex clauses are dealt with in (24-27) below.

⁵ The future tense in Gamo can be expressed in three different forms. The discussion of Gamo future tense will be accessed later on on pages 24-27.

- (7) zuma-i mitsi k'ans'-i-d-es
 Zuma-Nom. wood cut-past.3SgM
 'Zuma cut wood.'
- (8) nun-i gamo wod-i-d-os
 We-Nom. lion kill-past-1Pl.
 'We killed a lion.'
- (9) izet-i dorsa-za jam-i-d-a
 They-Nom. sheep-Def.Acc. buy-past-3Pl.
 'They bought the sheep.'

In (6), (7), (8) and (9), the discontinuous nominal markers *-a-is* '1Sg.', *-i-as* '3Sg.', *-i-əs* '1Pl.' and *-i-a* '3Pl.' clearly refer to the overt subject NPs of each clause. The discontinuous nominal markers are obviously observed in Gamo past tense. The past tense marker **-d-** is infixed in them. The writing up of the gloss for the segments is problematic. For instance, for (6) instead of writing *1Sg.* twice as '*I-Nom. eat-1Sg.-past-1Sg.*', 'I ate', the method, *I-Nom. eat-past-1Sg.*, 'I ate' is preferred, for simplicity purpose only. Thus, this method is used for all nominal features whenever Gamo past tense is discussed in the ensuing sections.

A different set of subject agreement markers may be noted in present tense form of Gamo verbs. We may consider the examples given below:

- (10) tan-i m-ayis
 I-Nom. eat-1Sg.
 'I eat'.

(11) zuma-i m-ees
Zuma-Nom. eat-3Sg.ʼ

‘Zuma eats.’

(12) nun-i mole m-oss
We-Nom. fish eat- 1Pl.

‘We eat fish.’

(13) izet-i mole m-eettes
They-Nom. fish eat 3Pl.

‘They eat fish.’

As can be seen, the present tense form of the verb *m-* ‘eat’ possesses the subject NP markers *-ayis* ‘1Sg.’, *-ees* ‘3Sg.M’, *-oss* ‘1Pl’, and *-ettes* ‘3Pl’.

The following data illustrate the aforementioned two sets of agreement markers in a complete fashion.

(14) a. tan-i mita ments-a-d-is
I-Nom. Wood break-past-1Sg.

‘I broke wood.’

b. nen-i mita ments-a-d-asa
You (Sg.)-Nom. wood break-past-2Sg.

‘You broke wood.’

c. iz-i mita ments-i-d-es
He-Nom. wood break-past-3Sg.M.

‘He broke wood.’

- d. iz-a mita ments-a-d-us
 She-Nom. wood break-past-3Sg.F
 ‘She broke wood.’
- e. nun-i mita ments-i-d-os
 We-Nom. wood break-past-1Pl.
 ‘We broke wood.’
- f. inten-i mita ments-i-d-eta
 You (Pl.)-Nom. wood break-past-2Pl.
 ‘You broke wood.’
- g. izet-i mita ments-i-d-a
 They-Nom. wood break-past-3Pl.
 ‘They broke wood.’
- (15) a. tan-i mita ments-ayis
 I-Nom. wood break-1Sg.
 ‘I break wood.’
- b. nen-i mita ments-aasa.
 You (Sg.)-Nom. break-2Sg.
 ‘You break wood.’
- c. iz-i mita ments-ees
 He-Nom. wood break-3Sg.M
 ‘He breaks wood.’

- d. iz-a mita ments- aysu
She-Nom. wood break-3Sg.F
'She breaks wood.'
- e. nun-i mita ments-oos
We-Nom. wood break-1Pl.
'We break wood.'
- i. inten-i mita ments-eeta
You (Pl.) Nom. wood break-2Pl.
'You break wood.'
- g. izet-i mita ments- eettes
They-Nom. wood break-3Pl.
'They break wood.'

We now summarize the agreement elements of the subject NP in Table 1.

		Past tense			Present tense		
Number \ Person	Singular		Plural	Singular		Plural	
	Masc.	Fem.	Masc./ Fem.	Masc.	Fem.	Masc./ Fem.	
I	-a-is	-a-is	-i-os	-ayis	-ayis	-oss	
II	-a-asa	-a-asa	-i-eta	-aassa	-aassa	-eeta	
III	-i-es	-a-us	-i-a	-ees	-aysu	-eettes	

Table 1. The clausal subject agreement markers of Gamo

Gamo verbs, as it may be noted in (15) and (16), are inflected for the subject NPs. The clausal subject agreement markers that are summarized in Table 1 are found the same to Hirut's (1999) work on the Gamo language. The verbs, however, are not inflected for tense in Gamo present tense. The language exhibits somewhat a different phenomenon for the future tense. The future tense is expressed in three different types: types one, two⁶ and three. Let us consider each type in (16), (17), and (18) respectively.

- | | | | | |
|------|----|-----------------------|----|----------------------|
| (16) | a. | tan-i b-ana | b. | nun-i b-ana |
| | | I-Nom. go-will | | We-Nom. Go-will |
| | | 'I will go.' | | 'We will go.' |
| | c. | nen-i b-ana | d. | inten-i b-ana |
| | | You(Sg.)-Nom. go-will | | You(Pl.)Nom. go-will |
| | | 'You(Sg.) will go.' | | 'You(Pl.) will go.' |
| | e. | iz-i b-ana | g. | izet-i b-ana |
| | | He-Nom. go-will | | They-Nom. go-will |
| | | 'He will go.' | | 'They will go' |
| | f. | iz-a b-ana | | |
| | | She-Nom. Go-will | | |
| | | 'She will go.' | | |
| (17) | a. | tan-i b-and-is | b. | nun-i b-and-os |
| | | I-Nom. go-will-1Sg. | | We-Nom. go-will-1Pl. |
| | | 'I will go.' | | 'We will go.' |

⁶ Type two future tense expresses a remote future action than others Hirut (1999).

- | | |
|---|--|
| <p>c. nen-i b-and-asa
You(Sg.)go-will-2Sg.
'You(Sg.) will go.'</p> | <p>d. inten-i b-and-eta
You(Pl.) go-will-2Pl.
'You(Pl.) will go.'</p> |
| <p>e. iz-i b-and-es
He-Nom. go-will-3Sg.M
'He will go.'</p> | <p>g. izeɬ-i b-and-eettes
They-Nom. go-will-3Pl.
'They will go.'</p> |
| <p>f. iz-a b-and-us
She-Nom. go-will-3Sg.F.
'She will go.'</p> | |
-
- (18)
- | | |
|--|--|
| <p>a. tan-i m-ana g-ayis
I-Nom. eat-will say-1Sg.
'I am going to eat.'</p> | <p>b. nun-i m-ana g-oss
We-Nom. eat-will say-1Pl.
'We are going to eat.'</p> |
| <p>c. nen-i m-ana g-aassa
You(Sg.)-Nom eat-will say-2Sg.
'You(Sg.) are going to eat.'</p> | <p>d. inten-i m-ana g-eeta
You(Pl.)-Nom. eat-will say-2Pl.
'You(Pl.) are going to eat.'</p> |
| <p>e. iz-i m-ana g-ees
He-Nom. eat-will say-3Sg.M
'He is going to eat.'</p> | <p>g. izet-i m-ana g-eettes
They-Nom. eat-will say-3P.
'They are going to eat.'</p> |
| <p>f. iz-a m-ana g-ees
She-Nom. eat-will say-3Sg.F.
'She is going to eat.'</p> | |

As it may be noted, the affixes *-ana* and *-and-* could be considered as future tense markers as in (16a-g) and (17a-g) respectively. When verbs are affixed with *-ana*, the subject nominal markers are left unexpressed as in (16a-g). Moreover, the future marker *-ana* allows the insertion of an auxiliary verb *g-* 'say' along with nominal agreement elements as in (18a-g) (Hirut 1999).

In general, Gamo verbs are not inflected for the subject NP agreement elements for the future tense type one as in (16). Gamo verbs, on the other hand, are inflected for subject NPs for the future tense types two and three as in (17-18) above.

In the previous section, it was mentioned that Gamo verbs are not inflected for object NPs. Let us examine whether Gamo has an object NP agreement marker in a clause like many natural languages. It is obvious that many languages have such markers in sentences. Amharic, for instance, may have an object agreement marker in a clause (Haylu 1972, Haile Eyesus 1998). The object NP marker can, however, be left out as it is optional in the language. Let's illustrate this claim considering examples from Haile Eyesus (1998) as presented below in (19-21).

(19) Kasa anbäsa-n gäddäl-ä

kassa lion-Acc. killed-3Sg.M

'Kassa killed a lion.'

(20) kasa anbäsa-wu-ç-n gäddäl-ä-(w)

kassa linon-Def.Mas.-Acc. Killed-3Sg.M-(3Sg.M)

'Kassa killed the lion.'

(21) *kasa anbässa-n gäddäl-ä-w
kassa lion-Acc. killed-3Sg.M-3Sg.M

‘Kassa killed the lion.’

(19) and (20) mean exactly the same. (20) is slightly different as it has overt agreement marker *-w* ‘3sgM’. The presence of the same overt object agreement marker in (21) because it is used in the context of the indefinite object NP *anbässa-n* ‘a lion’ (Haile Eyesus 1998:11-12). From this it follows that object NP markers may be expressed phonetically if the object is definite (Dawkins, 1969). However, in a few natural languages, object NP marker may not be expressed on the verb even in the context of definite object NPs. Gamo, for example, is one such languages in which its object markers are not phonetically realized on verb. Hirut (1999) also confirms this fact. Consider the examples given in (22) and (23) below:

(22) iz-i dors-io [ɸukk-i-d-es
He-Nom. sheep-Def.Fem.Acc. slaughter-past-3Sg.M

‘He slaughtered the sheep.’

(23) iz-a goldar-za woɸ-a-d-us
She-Nom. hyena-Def.Mas.Acc. Kill-past-3Sg.F.

‘She killed the hyena.’

As shown in the example above, verbs in Gamo do not take object NP markers in the context of definite object NPs. The verb in each clause does not have any object marker at all. We may then conclude that there are no overt object NP markers on verbs of Gamo for object NPs.

Let us now examine Gamo complex clauses and noun phrases. The absence of agreement element in such structures of Gamo was mentioned earlier. They do not have overt agreement elements. The system is expressed by zero morpheme. Consider the following examples of complement, relative and participial clauses as in (24), (26), and (27) respectively.

Look at (24) for complement clause.

- (24) a. zuma-i [tan-i mole m-id-aysa] ?er-ees
 Zuma i-Nom. fish eat-past-Comp. know-3MSg.
 'Zuma knows that I ate fish.'
- b. zuma-i [izet-i mole m-id-aysa] ?er-ees
 Zum-Nom. they-nom. fish eat-past-comp. know-3MSg.
 'Zuma knows that they ate fish.'
- c. zuma-i [tan-i mole m-iz-aysa] ?er-ees
 Zuma-Nom. fish eat-present-comp. know-3MSg.
 'Zuma knows that I eat fish.'
- d. zuma-i [izet-i mole m-iz-aysa] ?er-ees
 Zum-Nom. they-nom. fish eat-present-comp. know-3MSg.
 'Zuma knows that they eat fish.'

As can be observed from the examples above, the complement clause does not exhibit nominal agreement elements. However, the verb *m-* 'eat' in the complement clauses is inflected for tense.

Let us consider Gamo relative clause in the examples provided below. Relative clause in Gamo does not exhibit agreement elements. On the other hand, the relative clause may have tense markers. In her discussion of the same issue in Gamo, Hirut (1999: 143) shows a slightly different fact. Look at her example as in (25).

- (25) k'amma hayssan **y-i-d-a ade-z-a** bey-a-d-i-s
 yesterday here **come-pro-past-Rel man-def-Acc** see-pro-past-pro
 'I saw the man who came here yesterday.'

As seen in (25), *-i-* in *y-i-d-a* 'who came' is considered as pronominal marker. In my discussion, I consider *id-* in *y-id-a* 'who came' as past tense marker⁷.

Let us consider the examples as in (26) below.

- (26) a. tan-i m-iz-a mole-zi lo?o-kko
 I-nom. eat-present.RM. fish-Def.Acc. good-is
 'The fish that I eat is good.'
- b. izeti-i m-iz-a mole-zi lo?o-kko
 I-nom. eat-present-RM. fish-Def.Acc. good-is
 'The fish that they will eat is good.'
- c. tan-i m-id-a mole-zi lo?o-kko
 I-nom. eat-past-RM. good-is
 'The fish that I ate is good.'

⁷ Gamo relative clauses exhibit tense markers. In (26c and d), the relative clause has the past tense marker *-id-*. The subject position is filled in by *tan-i* 'I' and *izet-i* 'they'. This position can further be filled in with other NPs as in the following example.

tan-i /nen-i/iz-a/iz-i/nun-i/inten-i/izet-i/ m-id-a mole-zi lo?o-kko
 [I/you(Sg.)/she/he/we/you(Pl)/they]-Nom. eat-past-RM. fish-Def.Nom. good-is
 'The fish that I/you(Sg.)/ she/he/ we/you(Pl.)/they is good.'

The past tense marker *-id-* is the same throughout. Thus, I consider it as tense marker. Gamo relative clause shows the same fact for other tenses as well. (26a and b) shows relative clause in present tense.

- d. izeti-i m-id-a mole-zi lo?o-kko
 I-nom. eat-past-RM. good-is
 ‘The fish that they ate is good.’

It may be noted that relative clause in Gamo does not contain nominal features.

Let us examine the participial clause as in (27). The participial clause in Gamo is formed in two ways. The first type is formed by affixing the PM, *-idi*, to verbs as in (27a). The second type is formed when the PM, *-ada*, is suffixed to verbs (as in 27b).

- (27) a. izi/nuni/inteni/izeti/ mitsi k’ans’-idi
 He/we/you(Pl.)/they/ wood wood-PM
 He/we/you(Pl.)/they having cut wood
- b. tani/neni/iza/ mitsi k’ans’-ada
 I/you(Sg.)/she wood cut
 I/you(Sg.)/she having cut wood

As it may be noted from the examples above, the PM marker *-idi* is used when *izi*, ‘he’ *nuni*, ‘we’ *inteni*, ‘you (Pl.)’ and *izeti*, ‘they’ are subjects of participial clause. The PM marker *-ada* is used in the context of other personal pronouns.

In (28) and (29), we discuss the gerundive phrase and infinitival nominals of Gamo.

- | | | | |
|---------|------------|----|--------------|
| (28) a. | ta so | b. | nu so |
| | I house | | We house |
| | ‘My house’ | | ‘Our house.’ |

- | | | | |
|----|-----------------|----|-------------------|
| c. | ne so | d. | inte so |
| | You (Sg.) house | | You (Pl) house |
| | 'Your house' | | 'Your (Pl) house' |
| e. | iza so | g. | izeta so |
| | He house | | They house |
| | 'His house.' | | 'Their house' |
| f. | izi so | | |
| | She house | | |
| | 'Herhouse.' | | |

As can be seen in the constructions above, the head noun does not have agreement elements. The same phenomenon is seen in Gamo infinitival nominals as shown below.

- | | | | |
|---------|------------------------------|----|-----------------------------------|
| (19) a. | ta mentsozi | b. | nu mentsozi |
| | My breaking (of something) | | Our breaking (of something) |
| c. | ne mentsozi | d. | inte mentsozi |
| | Your breaking (of something) | | Your (Pl) breaking (of something) |
| e. | iza mentsozi | g. | izeta mentsozi |
| | His breaking (of something) | | Their breaking (of something) |
| f. | izi mentsozi | | |
| | Her breaking (of something) | | |

It may be noted that Gamo does not exhibit overt agreement elements on the head noun in the gerundive phrase as in (28), and the infinitival nominal as in (29). It is rather expressed by zero morpheme.

CHAPTER III

pro in GAMO

3.1 INTRODUCTION

Some natural languages allow any pronominal NP element left unexpressed phonetically in certain syntactic positions. The pronominal elements that are left empty are represented by *pro* or *PRO* in an NP position. In this chapter, we discuss the nature of *pro* in Gammo. The chapter is organized into six sections: section two discusses the theory of *pro*; section three examines the distribution of *pro*; section four is about the interpretation of *pro*; section five deals with the reference of *pro*; and section six highlights the thematic value of *pro*.

3.2 The Theory of *pro*

Languages that allow the subject NP to be covert in the context of a finite clause are said to be *pro*-drop languages (Chomsky 1981, 1986). The non-*pro*-drop languages, on the other hand, strictly forbid the absence of a physically realized subject NPs in [Spec, IP]. Languages such as Amharic, Oromo, and Italian etc. are *pro*-drop languages. Consider the following examples:

- (1) a. [e] taññ-acc
slept-3Sg.F Amharic
'(She) slept'
- b. [e] fiig-n-e
run IPl. perf. Oromo
'(We) ran.'

- c. [e] ha parlato
 has (3Sg) spoken Italian
 'He\she has spoken.'

It can be noted that the [spec, IP] is covert in a tensed clause in each language. The status of the null element is assumed to be pro. It can be recovered from the pronominal agreement elements affixed on the verbs. Native speakers intuitively understand the content of pro though it is covert. Thus, (1a) above has exactly the same meaning as in (2) below.

- (2) ĩswa taññ-acc
 'She slept.'

Subject pro, however, is not a universal property of all natural languages as there are non-pro-drop languages.

- (3) a. * [e] has spoken.
 b. *[e] voyons Jean French
 '(We) see Jean.'
 c. * [e] habe ein buch German
 '(I) have a book.'

The ungrammaticality of the constructions in (3) may only be saved when the null subject element is substituted with suitable overt NP element.

In pro-drop languages, pro may have definite reference and it can be read definitively. The definite reading of pro is a fact in morphologically rich languages. For example,

when predicates are inflected for subject and object NPs, one finds definite *pro* in both syntactic positions.

Gamo verbs, as was said, are inflected for a subject NP only. As a result, definite *pro* is allowed in subject position only. (4) shows this.

- (4) a. iz-i gamo-za wod-i-d-es
 He-Nom. lion-Def.Acc. kill-3Sg.M-past-3Sg.M
 ‘He killed the lion.’
- b. [e]_x gamo-za wod-i-d-es_x
 He-Nom. lion- Def.Acc. kill-3Sg.M-past-3Sg.M
 ‘(He) killed the lion.’
- c. * iz-i [e] wod-i-d-es
 He-Nom. lion- Def.Acc. kill-3Sg.M-past-3Sg.M

The ungrammaticality of (4c) implies that Gamo does not allow the occurrence of *pro* in the complement position of a predicate. The complement position of Gamo verbs may be filled in with arbitrary *pro*⁸.

The cross linguistic analysis of data reveals that languages that do not exhibit overt agreement element may allow the occurrence of *pro*. In such a phenomenon, *pro* lacks definite reading. It has rather arbitrary interpretation. Chinese (Huang, 1989) and Imbabura Quechua⁹ (Cole, 1987) do not have physically realized agreement elements

⁸ Arbitrary *pro* in Gamo will be discussed later on in section 3.5.2

⁹ Imbabura Quechua is a language spoken in northern Ecuador.

that may be affixed on their predicates. The languages, however, allow the occurrence of *pro*.

In general, the content of *pro* may be recovered in two ways. On one hand, the agreement element that governs *pro* is responsible for identifying its content. To this end, Rizzi (1986: 518) proposes two conditions as in (5) below.

- (5)
- i. the occurrence of *pro* is subject to government relation between a head and null element,
 - ii. the content of *pro* is determined from a phonetically realized environment with in the Binding theory.

As stated in (5), *pro* occurs in governed position and it is interpreted considering a fixed agreement elements.

The second type of the interpretation of *pro* is recovered by the application of Control theory (Huang 1984). He claims that Chinese is one such language, as it does not have overt agreement. Thus, *pro*, in Chinese like languages, may only be identified by coindexing it with antecedent subject NP. As a result, Huang proposes the following Generalized Control Rule (GCR).

- (6) coindex an empty element with the closest nominal element.

Huang further writes that the nominal element is assumed to be NP or AGR. He defines the idea of closeness as follows.

(7) A is closer to B than C, if A c-commands B, but C does not c-command B

Considering (6) and (7), one can interpret the covert pronominal element in the following Chinese example as *Zhangsan*.

(8) Zhangsan_x shuo [pro_x hen xihuay Lisi]

Zhangsan say very like Lisi

‘Zhangsan said that (he) liked Lisi.’

As can be seen, *pro* is conindexed with the subject NP and interpreted as *Zhangsan*.

3.3 Distribution of *pro*

The distribution of *pro* varies cross linguistically. In some natural languages, it occurs only in subject position of a clause. Italian (Rizzi 1982, 1986) and Chinese (Huang J. 1982) are such type of languages. Still other languages such as Greenlandic (Woodbury 1977) permit *pro* to occur in argument positions. Amharic (Haile Eyesus, 1994,1998) and Oromo (Debela 2003) allow the occurrence of *pro* in adjunct and argument positions.

Moreover, as was mentioned in section (3.2), *pro* occurs in governed position. In the ensuing sections, we will discuss the distribution and interpretation of *pro* in Gamo.

3.3.1 pro in a clause

Gamo allows the occurrence of *pro* in a sentence. The existence of *pro* in a sentence is, however, restricted to the subject position only. The object position of a sentence cannot be filled with *pro*. Moreover, some complex clauses and determiner phrases in Gamo may not exhibit *pro* in both subject and object positions.

Let's then first examine the simple clause of Gamo as presented in (9-11) below.

- (9) a. zuma -i tuso yer-i-d-es
Zuma-Nom. Tusu kiss-3Sg.M.-past-3Sg.M.
'Zuma kissed Tusu.'
- b. [c]_i tuso yer-i-d-es_i
Tusu kiss-3Sg.M.-past-3Sg.M.
'(He) kissed Tusu.'
- (10) a. nun-i gamo-za bey-i-d-os
We-Nom. lion-Def.Acc. see-1Pl.-past-1Pl.
'We saw the lion.'
- b. [e]_i gamo-za bey-i-d-os_i
lion- Def.Acc. see-1Pl.-past-1Pl.
'(We) saw the lion.'
- (11) a. nen-i tuke ?uy-a-d-asa
You (Sg.)-Nom. coffee drink-2Sg.-past-2Sg.
'You drank coffee.'

- b. [e]_i t_uke ?uy-a-d-asa_i
 coffee drink-2Sg.-past-2Sg.
 ‘(You (Sg.)) drank coffee.’

As can be observed, sentences in (9b-11b) have empty elements in finite clauses. The absence of physical realization of the subject NPs does not cause ill-formedness of the sentences. The gap in (9) means ‘He’, in (10) ‘We’, and in (11) ‘You (Sg.)’. It is the presence of nominal features in the verb that permits subject pros to fill the sentential subject NP positions. The markers are *-i-es* ‘3Sg.M.’, *-i-os* ‘1Pl’ and *-i-asa* ‘2Sg’.

Gamo may not allow pro to occur in some complex clauses. The complement, relative, and participial clauses are briefly discussed below. Consider the complement clause in (12)

- (12) a. [tan-i [tus-a k’uma m-id-aysa] ?er- ayis]
 IP I-Nom. CP Tusu-Nom. lunch eat-past.Comp. know-1Sg.
 ‘I know that Tusu ate lunch.’
- b. [[e]ⁱ [tus-a k’uma m-id-aysa] ?er-ayisⁱ]
 IP CP Tusu-Nom. lunch eat-past.Comp.] knew-1Sg.
 ‘(I) know that Tusu ate lunch.’
- c. * [[e]ⁱ [[e] kuma m-id-aysa] ?er- ayisⁱ]
 IP CP lunch eat-past.Comp. know-1Sg.
- d. *[[e]ⁱ [tusa [e] m-id-aysa] ?re-ayisⁱ]
 Tusu- Nom. eat-past.Comp. know-1Sg.

The ungrammaticality of sentences (Complement clauses) in (12c-d) can only be rescued when the subject and object NPs of the complement clause, *Tusu* and *k'uma 'lunch'*, are morphologically realized respectively. It then follows that a complement clause of Gamo does not allow to posit null NPs in subject and object positions.

The same phenomenon is exhibited in the relative clause of Gamo as well. We may look at the following paradigm.

- (13) a. [[[[e] tana dos-iz-a] naya] y-a-d-us]
 IP NP CP me love-present-RM girl-Def.Fem.Nom. come-past-3Sg.F.
 'The girl who loves me came.'
- b. *[[[[e] [e] dos-iz-a] naya] y-a-d-us]
 IP NP CP me love-present-RM girl-Def.Fem.Nom. come-past-3Sg.F.
- c. *[[[[e] tana dos-iz-a] [e]] y-a-d-us]
 IP NP CP me love-present-RM girl-Def.Fem.Nom. come-past-3Sg.F.
- d. [[[tani [e] dos-iz-a] na-ya] y-a-d-us]
 IP NP CP I love-pres.whom girl-Def.Fem.Nom. come-past-3Sg.F.
 'The girl whom I love came.'
- e. *[[[[e] [e] dos-iz-a] na-ya] y-a-d-us]
 IP NP CP I love-pres.whom girl-Def.Fem.Nom. come-past-3Sg.F.
- f. *[[[tani [e] dos-iz-a] [e]] y-a-d-us]
 IP NP CP I love-pres.whom girl-Def.Fem.Nom. come-past-3Sg.F.
 'The girl whom I love came.'

As can be observed from the examples presented above, there is no AGR elements in the verbs of the CP. However, in (13a) and (13d) *naya* 'the girl' can be covert. It is recovered from *naya* of the head NP. Other NPs cannot be covert as in (13b,c, e and f). Thus, *pro* of the above kind is allowed in Gamo relative clause though there is no AGR elements. It is recovered from the overt head NP element in the NP.

We now briefly examine participial clause¹⁰ in Gamo. Consider (14):

- (14) a. [[e]_xⁱ [zuma-i_x k'uma m-idi] b-i-d-esⁱ]
 IP CP Zuma-Nom. lunch eat-PM go-past-3Sg.M.
 'Having eaten lunch, Zuma went.'
- b. [zuma-i_xⁱ [[e]_x k'uma m-idi] b-i-d-esⁱ]
 IP Zuma-Nom. CP lunch eat-PM go-past-3Sg.M.
 'Having eaten lunch, Zuma went'
- c. [[e]_xⁱ [[e]_x k'uma m-idi] b-i-d-esⁱ]
 IP CP lunch eat-PM go-past-3Sg.M.
 'Having eaten lunch, he went.'
- d. * [[zuma-i]_xⁱ [zuma-i_xⁱ k'uma m-idi] b-i-d-esⁱ]
 IP Zuma-Nom. CP Zuma-Nom. lunch eat-PM go-past-3Sg.M.

As can be observed, the subject position of the participial clause can be covert as in (14b-c). Obviously, (14a) is a well-formed sentence though the spec of the IP is covert. The null subject NP can easily be recovered from the affixed agreement element *-i-es* '3Sg.M.' on the verb *b-* 'go'. This agreement element is co-referential to the covert

¹⁰ The participial clause, as was said, is formed in two ways. The examples in (14) show the first PM only. For further discussion of the second PM type, refer section 2.2.1.1.

subject. Moreover, the subject position in a participial clause may be filled in with the null element, as in (14b). The subject of the participial clause is coreferential to the subject of the IP. In (14c), the subject positions of the IP and the CP are covert. Yet, the sentence remains well-formed. The gap [e] of the [spec, IP] is recovered from the affixed agreement element, *-i-es* '3*Sg.M*'. The content of the gap in the participial clause is recovered after the content of the IP subject is recovered. In our discussion of the simple clause of Gamo, we noticed that subject NPs of an IP could be overt or covert. However, the fact that may be noted in (14d) is different from the one that was discussed in the aforementioned analysis. When the subject positions of the IP and the participial clause have the same '*Zurra*' (14d), the sentence goes wrong.

3.4 Interpretation of *pro*

In the previous sections, we argued that *pro* occurs in the subject position of Gamo simple clause. Such null elements have definitely certain semantic interpretations. Three aspects may be considered in an attempt to semantically interpret *pro*. These aspects may include:

- the relation of *pro* with overt agreement elements;
- the reference of *pro*; and
- the thematic value of *pro* (Haile Eyesus 1998).

The ensuing sections then analyze aspects of interpretation of *pro* in Gamo.

3.4.1 Agreement Elements and pro

The semantic interpretation of *pro* is determined by considering the physically realized agreement elements (phi-features). The phi- feature is usually dealt with in terms of person, number, and gender. The null element, i.e. *pro*, is understood when such features are associated with it. The convention, formulated by Rizzi (1986) as cited in Haile Eyesus (1998), plays invaluable role in the task of association formation. Consider the convention in (15):

- (15) If x be the licensing head of an occurrence of *pro*, then *pro* has the grammatical specification of the features on X coindexed with it.

Let us consider the case in Amharic and Italian. Both languages are *pro*-drops, as they allow *pro* to occur in the subject position of finite clause. Moreover, INFL is supposed to be a licensing head of subject *pro*. The licensing head has overt agreement elements that may be coindexed with the missing subject, *pro*. (16) has Rizzi's rule.

- (16) pro_i INFL
AGR _{i}

Haile Eyesus' (1998) discussion of this fact in Amharic data proves Rizzi's claim to be true. Consider (17).

- (17) a. pro^i hed -huⁱ
went-1Sg.
'(I) went.'
- b. pro^i hed -äⁱ
went-3Sg.M.
'(He) went.'

As can be observed from (17) above, the subject *pro* is co-indexed with the agreement elements. INFL (AGR) is supposed to be the licensing head of *pro*. Let's now turn our discussion to Gamo.

3.4.2 The Subject Agreement Element and *pro*

The presence of *pro* in the subject position of a finite clause in Gamo is proved in our discussion in section (3.4.1). The examples presented below illustrate *pro*, the null subject NP, in Gamo.

- (18) a. pro^i y-a-d-isⁱ
 come-past-1Sg.
 ‘(I) came.’
- b. pro^i y-i-d-osⁱ
 come-past-1Sg.
 ‘(We) came.’
- c. pro^i y-a-d-asaⁱ
 come-past-2Sg
 ‘(You (Sg.)) came.’
- d. pro^i y-i-d-etaⁱ
 come-past-2Pl
 ‘(You (Pl.)) came.’
- e. pro^i y-a-d-usⁱ
 come-past-3Sg.F.
 ‘(She) came.’

- f. $\text{pro}^i \text{ y-i-d-es}^i$
 come-past-3Sg.M
 ‘(He) came.’
- g. $\text{pro}^i \text{ y-i-d-a}^i$
 come-past-3Pl.
 ‘(They) came.’

As can be observed from (18), *pro* occurs in the subject position of a finite clause. The *pro* and the phi features mean the same, as *pro* can surely be coindexed with such features. The INFL (AGR) is thus the licensing head of *pro*.

3.5 The Reference of *pro*

In natural languages that allow the occurrence *pro*, *pro* can be interpreted either definitely or arbitrarily. *pro* is read as definitely when overt agreement elements are co-indexed with it where as *pro* may have an arbitrary interpretation in the absence of overt NP markers.

3.5.1 Definite *pro*

In the previous discussion, we studied that Gamo verbs are inflected for subject NPs. This implies that *pro* occurs only in the spec position of an IP headed by INFL. The subject *pro* then has a definite reading because the content of *pro* is recovered from the overt AGR features of INFL. Consider the following illustrative example.

- (19) a. pro^i kulfo b-i-d-osⁱ
 Kulfo go-past-1Pl.
 ‘(We) went to Kulfo.’
- b. pro^i ta nayo yer-a-d-usⁱ
 my daugghter kiss-past.3Sg.F.
 ‘(She) kissed my daughter.’
- c. pro^i ta nayo yer-i-d-esⁱ
 my daughter kiss-past.3Sg.M.
 ‘(He) kissed my daughter.’
- d. pro^i ta nayo yer-i-d-aⁱ
 my daughter kiss-past-3Pl.
 ‘(They) kissed my daughter.’

It may be noted that the semantic content of the subject *pro* in the paradigms presented above is recovered from the phi-features of INFL, which is the head of each IP. In (19a), for instance, *pro* is coindexed with the agreement element *-i-os* ‘1Pl.’. *pro* is then read as ‘We’. Moreover, the *pro* in (19a) cannot be semantically interpreted as either ‘she’ or ‘he’. Both ‘she’ and ‘he’ are the contents of the null subject elements, i.e. *pro*, in (19b) and (19c) respectively.

3.5.2 Arbitrary *pro*

The definite semantic interpretation of *pro* presupposes the existence of arbitrary interpretation. ‘Arbitrary *pro*’ is a name given to *pro* that may not be read definitely. Such type of *pro* in Gamo is studied in the examples presented below.

- (20) a. hombe-zi pro k'oh-ees
 weather-Def.Nom. hurt-3Sg.M.
 'The weather hurts (every one).'
- b. izi ?aype-ti pro lo?ott-ees
 Her eye-Pl.Def.Nom. win-3Sg.M.
 'Her eyes win (everyone).'
- c. iza gobatetsay pro malalis-ees
 his intelligence amaze-3Sg.M.
 'His intelligence amazes (every one).'

As it may be noted from (20), *pro* occurs in the object position. The arbitrary *pro* of this kind may not be interpreted considering agreement elements. Object agreement elements as we studied in section (2.2.1.1), are not found attached on Gamo verbs. Rather, one may be very dependent on the thematic relation that *pro* has with the verb (Rizzi 1986).

The interpretation of an arbitrary *pro* may vary cross linguistically. The semantic specification [+human, +generic, +plural], for instance, is the interpretation that is given to arbitrary *pro* in Italian (Rizzi 1986). Consider the following example.

- (21) Questa decisione rende *pro*_{arb} felice.

'The decision makes (people) happy.'

The Italian example in (21) has *pro*_{arb}. It is marked for [+plural] feature. Arbitrary *pro* has the semantic specification [+human, +generic, -plural] in Amharic (Haile Eyesus 1998) and Oromo (Debela 2003). In Gamo, arbitrary *pro* has the same semantic

specification [+human, +generic, -plural]. Let us once reconsider (20a) above in (22) below.

- (22) a. hombe-zi ?asa k'oh-ees
weather-Def.Nom. man hurt-3Sg.M.
'The weather hurts man.'
- b. hombe-zi ?asa-ta k'oh-ees
weather-Def.Nom. man-Pl.Def.Acc. hurt-3Sg.M.
'The weather hurts men.'

The once arbitrary pro in (20a) is substituted on for a singular ?asa 'man' and a plural ?asata 'the men' as in (22a and b) respectively. The construction remains well-formed. It then follows that arbitrary pro in Gamo is marked for [-plural]. In general, arbitrary pro in Gamo has a [+human, +generic, -plural] feature composition.

3.6 Thematic Value of pro

The thematic value of pro is the assignment of semantic roles to the null element pro. A theta and non-theta positions are thus syntactic positions to be filled with by NPs in general. The nature of the thematic values of pro in Gamo will then be dealt with in the ensuing sections.

3.6.1 Thematic pro

The semantic property of a predicate determines the number of arguments that it requires for assigning thematic roles to them. This means that the number and types of theta roles may vary according to the property of the predicate. The predicate has also

some semantic relationships to its arguments. Consider (23) for the argument structure of the predicate kill.

(23) a. Maigret killed Poirot.

b. kill: verb; 1 2

NP NP

Haegeman (1994: 49)

As can be noted, the verb kill has two NP arguments, Maigret and Poirot. The subject NP is theta-marked for the role agent while the object NP is assigned the role theme. Moreover, arguments may have some other roles such as experiencer, goal, recipient, etc.

Let us now examine Gamo examples to identify how theta role is assigned to pro. In so doing, we will illustrate the thematic relations of pro with a predicate.

(24) a. proⁱ kana-za wod-a-d-usⁱ

dog-Def.Acc. kill-past-3Sg.F.

‘(She) killed the dog.’

b. proⁱ k’an?inje dos-aysuⁱ

riddle like-3Sg.F.

‘(She) likes riddle.’

In (24), the agent and experiencer thematic roles are respectively assigned to the pros in (24a) and (24b). Predicates in Gamo may not assign a theme role as pro cannot occur in the object NP position of IP.

3.6.2 Non-Thematic pro

In this section, we look at the non-thematic *pro* in Gamo. A non-thematic *pro* occurs in the spec position of some exceptional predicates. The subjects of such verbs, for instance, do not seem to have semantic content. Its spec position is not theta marked. Moreover, this position is not an argument position and lacks a theta role. The object position of verbs like *seem*, on the other hand, is a theta position but not a case position (Chomsky 1981). Let us look at the example given in (25) below.

(25) a. He seems to understand her.

The D- structure of this sentence is

b. Seems he to understand her.

(Radford 1997: 175)

Having received the theta role from the verb *understand*, the theta-marked *he* moved through the application of Move- α to the spec position in order to acquire nominative case.

In his discussion of this same issue in Amharic, Haile Eyesus (1998: 98) points out that the subject position of the three radical verb *msl* 'seem' is filled by non-thematic *pro*. Oromo has also the verb *fakkat* 'seem' (Baye 1986; Debela 2003) that does the same.

The non-thematic *pro* occurs in the subject position of the same verb *masat-* 'seem' in Gamo. Consider (26).

- (26) a. pro [zuma-i tuso dos-iza] masat-ees
 Zuma-Nom. Tusu-Acc. love- Comp.present seem-3Sg.M.
 ‘It seems that Zuma loves Tusu.’
- b. pro [iz-a zuma dos-iza] masat-ees
 She-Nom. Zuma-Acc love- Comp.present seem-3Sg.M.
 ‘It seems that she loves Zuma.’
- c. pro [nen-i tana dos-iza] masat-ees
 You (Sg.)-Nom. me love- Comp.present seem-3Sg.M.
 ‘It seems that you love me.’
- d. *wondimu-i [zuma-i tuso dos-iza] masat-ees
 Wondimu-Nom. Zuma-Nom. Tusu-Acc. love- Comp.present seem-
 3Sg.M.

The ungrammaticality of (26d) is saved when the subject Np wondimu-i ‘Wondimu’ is substituted by the expletive pro. The compelling reason behind this is that the external argument position of such a predicate is a non-theta position. It only allows a non-thematic pro (26a-c).

CHAPTER IV

PRO in Gamo

4.1 Introduction

In this chapter, we discuss PRO in Gamo in the light of the assumptions of the subtheories mentioned in the first chapter. In so doing, we may consider the distribution and interpretation of PRO in Gamo.

PRO is a syntactically active NP that has no overt morphological manifestation. It is claimed that PRO may fill the subject position of an infinitival clause. The infinitival clause is, in turn, either the subject or complement of a predicate. Moreover, the infinitival clause may take adjunct position (Chomsky 1982, 1986).

Chomsky further claims that the feature composition [+anaphoric, +pronominal] characterizes the null element PRO. It is thus subject to principle¹¹ A and principle B of the Binding theory.

Considering the feature composition of PRO, one may argue that PRO can be an anaphor or a pronominal. Consider the following examples (quoted from Haegeman 1994: 263 -264).

¹¹ For further discussion of the principles look at section 1.6.

- (1) a. Poirot_x is considering [_{CP} whether [_{IP} PRO_x to abandon the investigation]]
 b. Poirot_x was glad [_{CP} [_{IP} PRO_x to abandon the investigation]]
- (2) [_{CP} [_{IP} PRO to abandon the investigation]] would be regrettable.

It may be noted that PRO, in (1a, b), is understood as Poirot. PRO is thus an anaphor because its interpretation is determined by another preceding NP. PRO, on the other hand, can also be pronominal as in (2). We normally interpret it like the pronoun one. PRO in the above examples occupies the subject position of the infinitivals. It is obvious that infinitivals lack INFL that can assign nominative case to subject NPs. Thus, infinitivals cannot assign case to their subject NPs. As a result, such subjects may sometimes be left unexpressed. Consider (3) below:

- (3) a. Richard seems to like seafood.
 b. *It seems Richard to like seafood.

(Leonard and Diane 1988: 519)

The ungrammaticality of (3b) follows from Case theory. Richard is not case marked because infinitivals cannot case mark their subjects. However, in sentences like (4), for example,

- (4) a. For Poirot to abandon the investigation would be regrettable.
 b. For him to abandon the investigation would be regrettable.

The subjects of the infinitivals receive case assignment from the *P for*.

There are verbs like *want* that can allow a following infinitive to have overt NP subject. Consider the construction in (5) below:

- (5) a. John wants Mary to cheer.
b. John wants very much for Mary to cheer.
c. John wants her to cheer.

It may be noted that the predicate *want* is followed by overt NP *Mary*. The predicate takes an obligatory *for* when an adverb follows it. The source of the case for all NPs is the complementizer *for* (Leonard and Diane 1988).

In the GB Theory, as written by Chomsky (1981a), the subject NPs of the infinitives is designated as PRO in D-structure. PRO may not carry case but features such as person, number and gender. Thus, the sentence in (6a) has the D-structure in (6b).

- (6) a. John wants to go home.
b. John_x wants PRO_x to go home.

As can be observed, PRO is said to be controlled by an antecedent NP for its interpretation.

In general, although PRO may behave like anaphors and pronominals, it does not have a governing category. Its distribution is also restricted to ungoverned positions (Chomsky 1981a). Thus, because syntactic positions such as complement of a verb, object of a preposition and subject of a finite clause are governed positions, PRO is excluded from being posited in them (Chomsky 1981, 1982 and 1986; and Lasnik and Uriagereka 1988).

4.2. Distribution of PRO in Gamo

In this section, we examine the distribution of PRO in Gamo. It was discussed, that PRO occurs in the subject positions of an English non-finite clause as in (1-2) above. PRO may not be found in the subject NP positions of a tensed clause in English. Amharic, for instance, as Haile Eyesus (1998) points out, definitely lacks PRO in a tensed or a tenseless clause, as a transparent subject marker is found in such a clause. Consider his examples.

(7) [IP kasa [_{CP} lij-u wädä-bet ind-i-hed] yi-fällig-all \emptyset]
kass CP son-his son his to-home comp-3sgM-go Impf-want-Nonp-3sgM
'Kassa wants his son to home.'

(8) [IP kasa [_{CP} lij-u wädä-bet indä-hed-ä] y-awk'-all- \emptyset]
Kassa Cp son-his to home comp-go-3sgM Impf-know-Nonp-3sgM
'Kassa Knows that his son has gone home.'

Haile Eyesus (1998: 129-130)

The CP in (7) is tenseless whereas in (8) is tensed. Yet, the verbs in (7) and (8) are inflected for the subject NP by the agreement element, *i* '3Sg.M', and *ä* '3Sg.M' respectively. Thus, the occurrence of PRO in such Amharic clause is impossible, as the clauses contain transparent subject agreement element. PRO rather takes the spec position of Amharic infinitival nominals when an Np structure does not contain subject AGR as in (9) below.

(9) [_{NP} [PRO] lijt-u-wa-n mä-wädäd]
gril-Def-Fem-Acc. Infv.-love
'Loving the girl'



In Gamo, PRO may fill a subject position of an infinitival clause. The infinitival clause in Gamo is found in adjunct and argument positions. The latter one is a syntactic position to which theta role can be assigned. The [Spec, IP] and the NP dominated by V' [NP, V'] are examples of such positions (Haegeman 1994). In this section, we will study PRO in argument and adjunct infinitivals.

4.2.1 PRO in Argument Infinitivals

Gamo allows the occurrence of PRO in the subject position of argument infinitival clauses. Before dealing with the presence of PRO in infinitival clauses, it would be appropriate to look into how infinitival clauses are made in Gamo.

In Gamo, affixes such as *-uusu*, *-o* or *-ana* are suffixed to verb root in order to form infinitival clauses.

Consider the following examples of infinitivals.

- (10) a. so b-uusu/ana/ *o
 home go-Infv.
 'To go home'
- b. k'uma m-uusu/ana/ *o
 lunch eat-Infv.
 'To eat lunch'

c. k'ans'-o/ana/ *uusuu

cut-Infv.

'To cut'

d. yer-o/ana/ *uusuu

kiss-Infv.

'To kiss'

As seen in the examples above, the Infv. marker *-uusuu* is suffixed only to mono-radical verbs like *b-* 'go' and *m-* 'eat'. The other Infv. marker *-o* is suffixed to other verbs, poly-radical verbs. The third Infv. marker *-ana* is free as it is affixed to all verb roots.

Let us now turn to our discussion of PRO in Gamo infinitival clauses.

(11) a. Zuma_x-i [PRO_x so b-uusuu] koy-ces

Zuma-Nom. [PRO home go-Infv.] want-3Sg.M.

'Zuma wants to go home.'

b. Tusa_x [PRO_x so b-uusuu] koy-aus.

Tusa-Nom. [PRO go-Infv.] want-3Sg.F.

'Tusu wants to go home.'

(12) a. [PRO] mole m-uusuu lo'o-kko

PRO fish eat-Infv. Good-is

'(For someone) eating fish is good.'

b. [PRO] moliso u]-i itta-kko

PRO alcohol drink-Infv. bad-is.

'(for someone) drinking alcohol is bad.'

As can be observed from the example above, PRO is the subject of the object and subject infinitival clauses as in (11) and (12). The occurrence of PRO in the subject position of an infinite clause seems plausible because such a clause in Gamo does not exhibit agreement elements at all. The absence of agreement elements then allows PRO to be in the subject position of the infinitival clause.

The “infinitival inflections,” (*-uusu*, *-ana* or *-o*) “are not governors and case-markers” (Chomsky 1981, 1982; Rizzi 1982). It follows that PRO is caseless and is protected from government. A different fact, however, may be observed as in (133) below.

- (13) [ta-s mole m-uusu] lo?okko
 me-for fish eat-Infv. good-is
 ‘It is good for me to eat fish.’

The overt subject NP has accusative case. It is clear that the inflection of the infinitival clause does not assign case in general. We may then possibly suspect the complementizer *-s* ‘for’ that might be responsible for case-marking the NP *ta-s* ‘for me’. The same holds true in English as well. Consider the following example:

- (14) a. [PRO] to attack him would be surprising.
 b. For him to attack him would be surprising.
 c. * Him to attack him would be surprising.

The ungrammaticality of (14c) is rescued when we have subject PRO as in (14a) or by the insertion of ‘for’ as a complementizer (Ibid).

4.2.2 PRO in Adjunct Infinitivals

The subject position of an infinitival adjunct is the other position that may be filled in with PRO. Gamo allows PRO to occur in this syntactic position. Consider the following example.

(15) izet-i [PRO k'uma m-ana] b-i-d-a

They-Nom. lunch eat-Infv. go-past-3Pl.

'They went to eat lunch.'

(16) iz-a tana [PRO [enc' -ana] was-a-d-us

She-Nom. me annoy-Infv. yell-past-3SgF.

'She yelled to annoy me.'

In (15) and (16), the infinitivals are in adjunct position. PRO fills the subject position of the infinitival clauses headed by the inflectional element -ana. As studied in the previous section, the [-Tense, -AGR] inflectional element does not case-mark PRO. In (15), PRO is controlled by the finite [Spec, IP] and it is interpreted as izeti 'they'. In (16), PRO may possibly be controlled by the subject or object of the tensed IP.

4.3 Interpretation of PRO

The interpretation of the null element PRO is determined by the Control theory. Control theory is the theory that enables us to give the referential value of PRO. The issue of control, as Bresnan (1982) cited in Haegeman (1994: 263) writes, is seen as:

... a relation of referential dependency between an unexpressed subject (the controlled element) and an expressed or unexpressed constituent (the controller). The referential properties of the controlled element ... are determined by those of the controller.

PRO in (1a) and (1b)¹² above is controlled by the subject NP Poirot. It is an arbitrary PRO in (2) above. PRO then may have either specific or arbitrary interpretation. It is specific when PRO has antecedent NP or controller; thus it is called an overtly-controlled PRO. Its interpretation, on the other hand, becomes arbitrary in the absence of antecedent NP; thus, it is called a covertly-controlled PRO. The overtly and covertly controlled PROs in Gamo are the concern of the discussion in the ensuing sections.

4.3.1 Overtly Controlled PRO

In Gamo, PRO may be controlled by the subject NPs of main clause.

(17) zuma-i_x [PRO_x otsza ?ong-o] koy-ces.

Zuma-Nom. work finish-Infv. want-3Sg.M.

‘Zuma wants to finish the work.’

(18) tusa_x [PRO_x garo¹³ sim-o] koy-aus

Tusu-Nom. Garo return-Infv. want-3Sg.F.

‘Tusu wants to return to Garo.’

(19) izeti_x [PRO_x k’uma m-ana] so b-i-d-a

They-Nom. [PRO lunch eat-Infv.] home-past-3Sg.M.

‘They went home to eat lunch.’

It may be noted that the sentences (17-19) above contain infinitival clauses that are assumed to be the objects of the verbs *koy-* ‘want’ in (18) and (19), and *b-* ‘go’ in (18). PRO, as can be seen, is the subject of the infinitival nominals. In all the

¹² Look at the issue in section 4.1

¹³ Garo is a name of a village around Arba Minch University

sentences, PRO gets its reference from the subject NP of the main clause. PRO may be interpreted as *Zuma*, *Tusu*, and *izeti* ‘they’ in (17), (18), and (19), respectively. It then follows that PRO can be controlled by infinitival nominal that is posited in the object position of a main clause. Moreover, Gamo allows PRO to occur in the spec position of a DP of complement clause. Consider (20):

(20) [_{IP} izet-i [_{CP} tan-i_x [_{IP} PRO_x b-ana] key-idaysa] ?er-eettes]

They-nom. I-Nom. go-Infv. want-past.Comp. know-3Pl.

‘They know that I wanted to go.’

We may notice that PRO occurs as the subject of the object DP of the complement clause. PRO gets its reference from the subject NP *tani* ‘I’. We may then argue that NPs in [spec, IP] can control the null element PRO of Gamo DP as in (20).

Let us now briefly mention the case when PRO may be controlled by adjuncts as in (21) and (22) below.

(21) [PRO kaysot-oy] iita-kko.

Steal-infv bad-is

‘It is bad (for someone) to steal.’

(22) Zuma-s [PRO kaysot-oy] iitakko

Zuma-for steale-Infv. bad-is

‘It is bad for Zuma to steal.’

As it may be noted from (21) and (22), PRO is the subject for infinitival nominals. PRO has an arbitrary reference in (21). In (22), PRO gets its controller by the adjunct *Zuma-s* ‘for Zuma’. As a result, PRO may not have an arbitrary reference.

4.3.2 Covertly Controlled PRO

In the discussion we made in the previous section, we examined that PRO could be overtly controlled which in turn enables us understand the reference of PRO. Here, we will look at the case of covertly controlled PRO.

The covertly controlled PRO is the one that is controlled by an implicit argument that may not be morphologically realized (Chomsky 1986). Different linguists suggest the presence of arbitrary implicit argument that covertly control PRO. For instance, PRO in Italian (Rizzi 1986), French (Authier 1989), and Amharic (Haile Eyesus 1993, 1998) may be controlled by a phonetically unrealized argument. Consider the following examples.

(23) *il bel temp invglia-a [pro restare]*

‘The nice whether induces to stay.’

Rizzi (1986)

(24) [*cambition amene [e] a [PRO committer des errors]*]

‘ambition leads (people) to make mistakes.’

Aurthier (1989)

(25) [*PRO^x mä lämmän] pro^x y-as-afr-all*

Impf. cause-shame-Nonp-3Sg.M.

‘It is shameful (for every one) to beg.’

As can be seen from the Italian, French, and Amharic examples as in (23), (24), and (25) respectively, PRO is controlled by implicit argument. The fact studied here holds true in Gamo as well. In Gamo, as we have seen in the previous sections, PRO

can be posited in the subject position of infinitival clauses. PRO in such a position can be controlled by an implicit NP argument in adjective and passive predicates.

4.3.2.1 PRO in Adjectival Predicates

In this section, we examine the covertly controlled PRO in adjective and passive predicates. The arbitrary interpretation of PRO is a wider phenomenon in adjectival predicates of Gamo. In Gamo, the subject positions of adjectival predicates can be filled in with infinitival clause with the null element PRO. Consider the following illustrative examples:

- (26) [PRO č'amo sel-oy] [e] lo?o-kko
Chamo visit-Infv.Nom. good-is
'To visit Chamo is good.'

- (27) [PRO [o] wod-oy] [e] meto-kko
snake kill-Infv.Nom. difficult-is
'To kill snake is difficult.'

As can be observed from the examples above, the infinitival clauses take the subject positions of the adjectival predicates and PRO is posited in the spec of the infinitivals. We may interpret (26) and (27) as the ones presented below.

- (28) [PRO č'amo s'el-oy] ?onaska lo?o-kko
Chamo visit-Invf. everyone good-is
'It is good to for everyone to visit Chamo.'

(29) [PRO [o] wod-oy] ?onaska meto-kko

snake kill-Inv. difficult-is

‘It is difficult for everyone to kill snake.’

The once [e] positions are replaced by ?onaska ‘everyone’ in (28) and (29). PRO is controlled by the replaced NP. The [e] elements in (26) and (27) are implicit arguments that control PRO (Epstein 1984; Rizzi 1986). The position that the morphologically realized NP fills with is governed by postpositions. As a result, we may argue that the status of [e] is pro. It is this arbitrary pro that controls PRO of the infinitival clause.

One may interpret the arbitrary pro by “... the application of structural environment” (Rizzi 1986). The semantic interpretation of arbitrary pro in Gamo has the semantic specification [+human, +generic, -plural].

4.3.2.2 PRO in Passive Predicates

The structure of a clause that contains passive predicates is our concern in this section. Passivization of predicates is normally possible when the object of the active sentence becomes the subject of the passivised one. This process affects the morphology and the argument structures of verbs in general (Baye 1991). As a result, it is assumed that the agent of an activity in passive constructions may not be expressed by an NP in argument positions (Haegeman 1994). The adjunct position headed by PP is used when the expression of the agent is obligatory. Look at (30) below:

- (30) a. Belgium was beaten in the semi-finals.
 b. Belgium was beaten by Italian in the semi-finals.

(Ibid).

As can be seen, the agent of the action is left unexpressed in (30a). In (30b), however, the agent role is assigned to the NP Italy.

in Gamo, the passive is constructed when the passive morpheme /-ett-/ immediately follows the root. Consider (31).

- (31) a. zuma-i gamo-za wod-i-d-es
 Zuma-Nom. lion-Def.Acc. kill-past-3Sg.M.
 'Zuma killed the lion.'
- b. gamo-zi wod-ett-i-d-es
 Lion-Def.Nom kill- pasv.-past-3Sg.M.
 'The lion was killed.'
- c. gamo-zizuma-n wod-ett-i-d-es
 Lion-Def.Nom. (Zuma-by) kill- pasv.-past-3Sg.M.
 'The lion was killed by Zuma.'

It may be noted that the passive morpheme /-ett-/ follows the root *wod-* 'kill'. Furthermore, the argument structure is reduced by one as is seen in (31b). (31c) shows the agent activity positioned in the adjunct place and headed by *-n* 'by'.

Let us further consider the following Gamo passive construction for identifying the syntactic position where PRO may fill in.

- (32) a. [PRO ?abaya giddon lime] [e] dig-ett-i-d-es
 Abaya in swim-Infv. Prohibit-pasv.-passt-3Sg.M.
 'To swim in Abaya was prohibited.'
- b. [PRO gamo-i wod -o] [e] dig-ett-i-d-es
 Lion-Nom. kill-Infv prohibit- pasv-past-3Sg.M.
 'To kill a lion was prohibited.'
- c. [PRO č`amo-y pin-os][e] dom-ett-i-d-es
 Chamo-Nom. cross-Infv start-pasv.-past-3Sg.M.
 'To cross Chamo was started.'
- d. [PRO gosacceca-ta mad-o] [e] dom-ett-i-d-es
 farmer-Plu.Def.Nom. help-Infv start-pasv-past-3Sg M.
 'To help farmers was started.'

It can be observed from the examples presented above that PRO occurs in the spec positions of the moved patient NP in each construction. Moreover, all the infinitival nominals fill the subject positions of the passive predicates. Being in the spec positions, each nominal, however, lacks the agent role. We may assume the presence of an implied agent, for example, 'someone prohibited swimming in Abaya'. This seems the result of agent role absorption by the passive morphology (Aeggli 1986a; Roberts 1987). It is then plausible to claim that PRO has no overt controller as in (32). The implied agent is rather the controller in each case.

Let us look at the active counterpart of (32d) below.

- (33) ?asa-y [PRO goanccanta mad-o] dom-i-d-es
 Man-Nom. farmer-Pl.Def.Acc. help-Infv start-past-3Sg.M.
 ‘Man started to help the farmers.’

In (33), the once [e], agentive, position is filled by ?asa ‘man’. The status of [e] cannot be PRO, as it is governed by the PP. This null element is thus *pro*. *pro* in the adjunct position is recovered when only arbitrary assignment rule is used. Thus, *pro* in Gamo has a feature composition [+human, +generic, -plural]. Consider (34).

- (34) *[o]-i [PRO gosanca-ta mad-o]dom-i-d-es
 Snake-Nom. farmer-Pl.Def.Acc. help-Infv. start-past-3Sg.M.
 ‘Snake started to help the farmers.’

The ungrammaticality of (34) is rescued as long as the [-human] feature is changed with [+human] feature.

CHAPTER V

SUMMARY

In this study, an attempt has been made to discuss the nature of pronominal empty categories in Gamo. The first chapter presents the introduction part of the thesis. A brief review of the language, previous works on Gamo and theoretical framework of GB Theory are dealt with.

The second chapter has discussed the agreement system of Gamo. The nature of agreement elements in a few natural languages has been addressed first. Then, the presence of agreement elements in Gamo constructions has been examined. In Gamo, verb are inflected for subject NPs that take the [spec IP] of simple clause except in a sentence with future tense type one. Overt agreement elements have not been observed in complex clauses such as complement, relative and participial clauses, and NPs of the language.

In the third chapter, the nature of *pro* in Gamo has been analyzed. To this end, we have discussed the distribution and interpretation of Gamo *pro*. It has been found out that *pro* occurs in the subject position of simple clauses. The semantic content of *pro* can be identified taking the agreement elements that are overtly affixed on verbs. In such circumstances, *pro* is read as definitely. Apart from providing the definite semantic reading of *pro*, we have further discussed that Gamo *pro* may be interpreted arbitrarily. The arbitrary interpretation of *pro* is a fact that has been noticed in our application

arbitrary assignment rule. We have pointed out that arbitrary pro in Gamo has [+human, +generic, -plural] feature composition.

Gamo verb is permitted to occur in a theta or a non-theta position. Being in a theta position, pro may be assigned different theta roles like agent, experiencer etc. pro, however, may not be assigned theme role as no overt agreement element is considered to recover its content. The non-thematic pro occurs in the subject position of the verb mast- 'seem'. We have also seen that the external argument position of this verb allows the occurrence of expletive pro.

The fourth chapter has discussed the second type of pronominal empty category, PRO. Its distribution and interpretation has the concern of our discussion. It has been said that Gamo allows the occurrence of PRO in subject position of an infinitival clause that is found in argument and adjunct positions. All these positions are headed by [-Tense, -AGR] inflectional element that may not govern and case mark PRO (Chomsky 1981).

In our attempt of semantically interpreting PRO, we have argued that the null element PRO may have either specific or arbitrary interpretation. The presence of antecedent NP controls it and thus PRO is said to be an overtly controlled one. We have seen a covertly controlled PRO, too, in the absence of preceding controller. Moreover, it has been discussed that PRO is controlled by an implicit NP argument in adjective and

passive predicates. We have pointed out that the status of this implicit argument is pro and it in turn controls the infinitival clause PRO (Epstein 1984; Rizzi 1986).

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