

**DIFFERENTIAL OBJECT MARKING AND
TOPICALITY IN TIGRINYA**

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Proceedings of the LFG07 Conference

Miriam Butt and Tracy Holloway King (Editors)

2007

CSLI Publications

<http://csli-publications.stanford.edu/>

Abstract

Various researchers have used coding strategies such word order, case and pronominal marking to predict asymmetries between different object functions and/or information structure roles such as topics and foci. Moreover, some studies have also suggested that there exists a correlation between different grammatical functions and information structure roles. This paper analyzes object marking in double object construction in Tigrinya. Tigrinya employs word order, case and pronominal marking for coding grammatical functions and information structure roles. Differential marking of objects depends on definiteness/specificity which simultaneously triggers case and pronominal marking. In Tigrinya this double marking strategy of definite objects implies two interdependent motivations for differential object marking. Case marking is employed to contrast definite object functions with subjects, or in other words, to create a resemblance between different object functions. Whereas pronominal marking is employed to create similarity in information structure roles between topical objects and topical subjects. Moreover, based on the pattern that applicative constructions in Tigrinya reveal, this paper argues that there is no correlation between the primary object (*OBJ*) and secondary object (*OBJ_θ*), i.e. the core object functions attested in *LFG* (Lexical Functional Grammar), and the *topic* and *focus* information structure roles. Since languages vary as to which object: the base or the applied object, reveals more primary object properties, accordingly, this variation is reflected by which object associates with which information structure role.

1 Introduction

It is a widely attested phenomenon that languages code their object functions variedly (e.g. Comrie, 1979; Khan, 1984; Bessong, 1985; Croft, 1988; Aissen, 2003a, among others). Bessong (1985) designated this phenomenon as *differential object marking (DOM)*. In some languages purely semantic factors such as *animacy* and *definiteness*, and in others information structure roles alone, i.e. *topic* and *focus*, or both trigger variation in object marking. For example, in Romanian animate-referring pronouns and proper nouns (Farkas, 1978) and

[†]I would like to thank the audience at the LFG07 conference for their useful comments and criticisms. I wish specially to acknowledge the comments and suggestions of Mary Dalrymple, Yehuda Falk and Sam Mchombo. I am also grateful to Miriam Butt who during her visits to Bergen and our ParGram (Parallel Grammar Project) meetings endowed me with valuable insights. I also wish to thank the editors of the 'Proceedings of the LFG07 Conference', whose comments and editing have influenced the quality of this paper. My special thanks also goes to my supervisor, Helge Dyvik, whose support and guidance have being crucial throughout the development and maturation of my research.

in Hebrew definite objects (Givón, 1978) are case marked. In Bantu languages animacy and definiteness/specificity determine pronominal marking of objects (Morimoto, 2002). In Semitic languages such as Amharic and Syriac definiteness as well as discourse prominence triggers case and pronominal marking in direct objects (Khan, 1984). However, in some languages verbal affixes do not always correspond with argument functions. For example, in Maithili (Indo-Aryan) the controllers of the verbal affixes can be objects with various semantic roles, obliques, possessors etc., as long as they are salient in the discourse context (Dalrymple and Nikolaeva, 2007). Aissen (2003a) investigated languages in which *DOM* depends on semantic factors to trigger dependent marking (case), and she proposed a unified generalization of the phenomena that predicts the relative markedness of objects based on the degree of prominence on the dimensions of animacy and definiteness (1). These scales indicate that the higher a direct object occurs in the hierarchy, the more likely it is to be case marked.

- (1) a. Animacy Scale (Aissen, 2003a, 442)
Human > Animate > Inanimate
- b. Definiteness Scale (Aissen, 2003a, 444)
Pronoun > Name > Definite > Indefinite Specific > NonSpecific

In a recent study, Dalrymple and Nikolaeva (2007) proposed a new theory of differential object marking which accounts for the information structure role of '*secondary topic*'. In their study the designation '*secondary topic*' refers to the object argument which assumes the highest discourse function after the '*primary topic*', a discourse function that corresponds with the subject argument. Let us first give a working definition for the terms *topic* and *focus*. According to Lambrecht (1998, 118) *topic* refers to the entity that the proposition expressed in an utterance is ABOUT, and *focus* refers to the new information or pragmatic assertion added on to the pragmatic presupposition (old information). Dalrymple and Nikolaeva (2007) assert that languages treat secondary topics distinctively by coding them morphologically, either through verbal affixes or case marking, and by assigning them to a particular grammatical function, or both. Their observation goes inline with the '*theory of agreement*' proposed by Bresnan and Mchombo (1987) and the study of '*object asymmetries*' (Bresnan and Moshi, 1993; Alsina and Mchombo, 1993; Alsina, 1996) developed within the LFG (Lexical Functional Grammar) framework. Bresnan and Mchombo (1987) analyze the subject marker as an ambiguous marker between grammatical and anaphoric agreement, and the object marker as an unambiguous anaphoric/topic agreement marker. Moreover, Bresnan and Moshi (1993) use

restrictions on word order and pronominal marking to predict syntactic properties of objects in constructions such as the dative shift and the applicative. They classify Bantu languages into *symmetric* and *asymmetric* languages with regard to the syntactic behaviors of their objects. In symmetric applicatives both the *verbal object* (VO), an object that a verb is initially subcategorized for as its basic argument, and *applied object* (AO), an object that a verb is subcategorized for by virtue of being marked with an applicative morpheme, reflect primary object properties. On the other hand, in asymmetric applicatives only the AO reflects primary object properties. The primary object properties are properties that a single object of a mono-transitive verb reveals by occupying the immediate post verbal position, controlling pronominal agreement, and assuming the subject function in passivization. These properties are represented by the feature [-r] which indicates the non-restricted nature of the object that acquires them. In LFG this object receives the designation *OBJ*. On the other hand, the object that does not possess such properties is assigned a [+r] feature, and is designated as secondary object or *OBJ_θ*. *OBJ_θ* is restricted to specific semantic roles such as theme, instrumental, locative, etc. (depending on individual languages), and the subscript 'θ' is a variable that represents the class of semantic roles that *OBJ_θ* can be associated with (Bresnan and Kanerva, 1986; Bresnan, 2001; Dalrymple, 2001). Dalrymple and Nikolaeva (2007) maintain that there exists an obligatory linkage between grammatical functions and information structure roles. Based on their observation of data from Ostyak and Chatino, they argue that secondary topics correspond to primary objects (*OBJ*) and the non-topical (focus)/unmarked objects to secondary objects (*OBJ_θ*).

This paper aims to investigate the conditions that instigate DOM on the one hand, and to describe the functions of the different grammatical strategies involved in marking grammatical functions and discourse functions in Tigrinya double object constructions on the other hand. This paper will be organized in the following way. First, object marking strategies in mono-transitive, dis-transitive and applicative constructions will be presented. Second, syntactic object properties will be described in order to distinguish between the types of objects that occur in double object constructions. Third, the function of pronominal marking in information structure roles will be analyzed. Fourth, the correlation of information structure roles to grammatical functions will be demonstrated. Finally, concluding remarks will be forward.

2 Object marking in Tigrinya

Tigrinya employs a SOV order in its syntax (Raz, 1980; Tesfay, 2002; Girma, 2003; Weldu, 2004). However, this order is not strictly followed when nominal constituents are either head-marked or/and dependent-marked since under

these conditions the arguments can be reordered in various combinations for pragmatic reasons. Subjects are unmarked for case, but are obligatory marked with pronominal suffix. It is a cross-linguistically attested phenomenon that caselessness triggers agreement, but not the other way round (Falk, 2006, 101). Moreover, an indefinite object is neither case nor pronominally marked. Only definite and discourse prominent specific objects trigger case and pronominal marking. The subject and the object pronominal suffixes code the gender, number and person agreement values. This is illustrated in (2).¹

- (2) a. ላም ብዕራይ ርእያ ።
 lami biʿirayi riʿiy-a.
 cow.FSg bull.MSg Perf.see-SM.3FSg
 ‘a cow saw a bull.’
- b. *ብዕራይ ላም ርእያ ።
 biʿirayi lami riʿiy-a.
 bull.MSg cow.FSg Perf.see-SM.3FSg

Example (2a) shows the unmarked order where the verb carries only a subject pronominal suffix. If we switch the order of the subject and the object as in (3b), the sentence becomes ungrammatical which is evidenced by the agreement mismatch: the verb codes a feminine subject, but the nominal in the subject position shows a masculine gender value. When a definite object is marked with case and verbal suffix, the word order becomes unbounded as in (3).

- (3) a. እታ ላም ነቲ ብዕራይ
 ʾit-a lami n-ät-i biʿirayi
 Det-3FSg cow.FSg Obj-Det-3MSg bull.MSg
 ርእያቶ ።
 riʿiy-a-to.
 Perf.see-SM.3FSg-OM₁.3FSg
 ‘The cow saw the bull.’
- b. ነቲ ብዕራይ እታ ላም
 nä-t-i biʿirayi ʾita lami
 Obj-Det.3MSg bull.MSg Det.3FSg cow.FSg
 ርእያቶ ።
 riʿiy-a-to.
 Perf.see-SM.3FSg-OM₁.3FSg
 ‘The bull, the cow saw it.’

¹Glossing abbreviations: Appl: applicative, Def: definite, Det: determiner, F: feminine, Imperf: imperfective, Indef: indefinite, Infin: infinitive, M: masculine, O: object, Obj: objective case, OM₁: OBJ marker, OM₂: OBJ_θ marker, Pass: passive, Past: past tense, Perf: perfective, Pl: plural, Rel: relative, Pres: present tense, Poss: possessive, SM: subject marker, Sg: singular, Su: Subject, TOPIC1: primary topic, TOPIC2: secondary topic, TOPIC3: tertiary topic and VN: verbal noun

- c. *እታ ላም ነቲ ብዕራይ ርእያ ።
 ?it-a lami n-äti bi?irayi ri?iy-a.
 Det-3FSg cow.FSg Obj-Det.3MSg bull.MSg Perf.see-SM.3FSg

In (3a) and (3b) the verb bears a obligatory pronominal suffix for the definite object. Example (3c) shows that a clause becomes ungrammatical if the verb does not code the definite object. In addition, the definite object is obligatorily marked by a prepositional particle 'ን/ni'. This case marker non-distinctly codes definite accusative objects and dative objects regardless of their definiteness status. This marker is referred as 'objective case' in this paper.

Sometimes specificity can trigger case and pronominal marking. When a specific object argument is understood as being affected by the action/event that the verb denotes, then it can trigger pronominal marking as in (4).

- (4) a. ንሓደ ሰብአይ ኪሕግዘኒ
 ni-ḥadä säbi?ayi k-i-ḥigiz-ä-ni
 obj-one.M man.Sg Infin-Imperf.3-help-SM.MSg-OM₁.1Sg
 ሓቲተዮ ።
 ḥatit-ä-yo
 Perf.ask-SM.1Sg-OM₁.3MSg
 'I asked a (certain) man to help me.
- b. እቲ መምህር ትማሊ ንሓደ ተመሃራይ መጽሓፍ
 ?it-i mämiḥiri timali ni-ḥadä tämäharayi mäṣṣihafi
 Det-3MSg teacher.Sg yesterday Obj-one.M student.MSg book-Sg
 ሂቡዎ ።
 hib-u-wo.
 Perf.give-SM.3MSg-OM₁.3MSg
 'Yesterday the teacher gave a book a (certain) student.'

In Tigrinya the numeral 'one' is used to mark specificity. As examples (4a) and (4b) show, the specifier 'one' is marked with the objective case 'ን/ni' and the specified argument controls the pronominal suffix.

Tigrinya has two object pronominal forms. One form is associated with VOs. For example, in 'በሊዑዎ-bäli?u-wo/eat-SM.3MSg-OM₁.3MSg' the 'wo' suffix codes a theme object, and in 'ሂቡዎ-hib-u-wo/give-SM.3MSg-OM₁.3MSg' it can mark either a theme or a recipient object depending on which one is more topical. The second form is composed of the prepositional clitic 'ል/li' and pronominal suffixes. For example, the object suffix 'lu' in 'በሊዑል-bäli?u-lu/eat-SM.3MSg-OM₂.3MSg' is made up of 'l' which denotes a beneficiary, maleficiary, instrumental or locative semantic roles, and 'u' a third person masculine singular agreement values. However, 'ል/li' can never be associated with a theme/patient object argument.²

²There is no one-to-one correspondence between the two object pronominal forms and their meanings. For example, OM₁ marks definite object arguments of transitive and ditransitive

Tigrinya is not strictly a head final language. When the verb carries agreement suffixes for both the subject and the object, it can be pre-posed as in (5).

- (5) “ደው ብል” ይብሉ ኣደ
däwi bäl-i yi-bilo ḥade
still Imper.be-SM.2MSg Imperf.SM.3MSg-say-OM₁.3MSg one
ካብቶም ቆልዑ ነቲ ሰበኣይ ።
kabitomi qoliṣu n-ät-i säbiṣayi.
of-Det.3MPI child.Pl Obj-Det-3MSg man.Sg.
‘ “Stop!” says, one of the children to the man. / One of the children tells the man to stop.

(Newspaper corpus: Hadas Ertra 2007, Issue 16, no. 236)

In this example, the verb is fronted, and both the subject and object follow it. The subject and the object can also be dropped, and in this way the verb can stand alone as a complete clause.

Therefore, case and pronominal marking of objects in monotransitive clauses is determined by definiteness and specificity. In the following section we will extend this discussion to analyze double object constructions. Verbs in Tigrinya admit only one object pronominal suffix at a time. Since restrictions on pronominal marking have been used to predict object properties in double object constructions (e.g. Bresnan and Kanerva, 1986; Bresnan and Moshi, 1993; Alsina and Mchombo, 1993; Harford, 1993, for Bantu languages), we will investigate the syntactic restriction in double object constructions in order to characterize syntactic properties of object functions.

2.1 Objects in ditransitive clauses

In Tigrinya double object constructions that involve ditransitive verbs employ different syntactic restrictions than applicative constructions. Ditransitive verbs such as 'ወሃብ/wähabä-give', 'ዓደለ/ʿadälä-distribute', 'ነገረ/nägärä-tell' and 'መሃረ/mäharä-teach, etc.' initially subcategorize for two object arguments. These objects are coded with the same form of pronominal affix. Let us first consider a clause with two indefinite objects (6).

verbs, and it also codes affected AO of intransitive verbs, as in መጸኢታ-mäṣi-u-wa/come-SM.3MSg-OM₁.3FSg which means 'He/it came/arrived to her'. Therefore, we adopt the glosses OM₁ and OM₂ as identifiers of the two morphological forms rather than as designators of meanings.

- (6) a. እቲ መምህር ትማሊ ንተመሃሮ መጽሓፍቲ
 ?it-i mämihiri timali ni-tämäharo mäsihafi-ti
 Det-3MSg teacher.Sg yesterday Obj-student.Pl book-Pl
 ዓዲሉ ።
 ?adil-u.
 Perf.distribute-SM.3MSg
 ‘Yesterday the teacher distributed books to students.’
- b. እቲ መምህር ትማሊ ንተመሃሮ መጽሓፍቲ
 ?it-i mämihiri timali ni-tämäharo mäsihafi-ti
 Det-3MSg teacher.Sg yesterday Obj-student.Pl book-Pl
 ዓዲሉ ።
 ?adil-u.
 Perf.distribute-SM.3MSg
 ‘Yesterday the teacher distributed books to students.’

As the examples in (6) show there is no fixed position to code these objects. They can only be distinguished by their case marking; indefinite theme objects are unmarked, while recipient objects are marked with the objective case “ን/ni”. When both objects are indefinite, neither of them can control verbal suffix. However, the two clauses express different emphasis, in (6a) emphasis is neutral, but in (6b) the pre-posed theme object is more emphasized. An analogous pattern is attested in ትግረ /Tigirä (Raz, 1980), an Abyssinian Semitic language closely related to Tigrinya.

Similarly, in a ditransitive clause that involves a definite recipient object and an indefinite theme object the word order is unbound as in (7).

- (7) a. እቲ መምህር ነቶም ተመሃሮ መጽሓፍቲ
 ?it-i mämihiri n-ät-omi tämäharo mäsihafi-ti
 Det-3MSg teacher.Sg Obj-Det-3MPI student.Pl book-Pl
 ዓዲሉ-ዎም ።
 ?adil-u-wom.
 Perf.distribute-SM.3MSg-OM₁.3MPI
 ‘The teacher distributed books to the students.’
- b. እቲ መምህር መጽሓፍቲ ነቶም ተመሃሮ
 ?it-i mämihiri mäsihafi-ti n-ät-omi tämäharo
 Det-3MSg teacher.Sg book-Pl Obj-Det-3MPI student.Pl
 ዓዲሉ-ዎም ።
 ?adil-u-wom.
 Perf.distribute-SM.3MSg-OM₁.3MPI
 ‘The teacher distributed books to the students.’

When objects are different in terms of case marking, they are not ordered in relation to each other. Moreover, only a definite object can control pronominal suffixes, thus in examples (7a and 7b) the recipient object is pronominally marked. However, when the theme object is definite, then word order becomes constrained, and the theme object is pronominally marked as in (8).

- (8) a. እቲ መምህር ነቲ መጽሓፍቲ ንተመሃሮ
 ?it-i mämihiri nä-t-i mäšihafi-ti tämäharo
 Det-3MSg teacher.Sg Obj-Det-3MSg book-Pl Obj-student.Pl
 ዓዲሉዎ ።
 ?adil-u-wo.
 Perf.distribute-SM.3MSg-OM₁.3MSg.
 ‘The teacher distributed the books to students.’³
- b. *እቲ መምህር ንተመሃሮ ነቲ መጽሓፍቲ
 ?iti mämihiri ni-tämäharo n-ät-i mäšihafi-ti
 Det.3MSg teacher.Sg Obj-student.Pl OBJ-Det-3MSg book.Pl
 ዓዲሉዎ ።
 ?adil-u-wo.
 Perf.distribute-SM.3MSg-OM₁.3MSg

When the theme object is definite, it obligatorily precedes the recipient object, as in (8a). Since both objects appear similar in terms of their case marking, thus they are coded by their position. As a result, if their order is switched, the sentence becomes ungrammatical, as in (8b). Similarly, when both objects are definite, word order becomes bound, but the verb can bear a pronominal suffix for either object depending on discourse prominence, as in (9).

- (9) a. እቲ መምህር ነቲ መጽሓፍቲ ነቶም
 ?it-i mämihiri n-ät-i mäšihafi-ti n-ät-omi
 Det-3MSg teacher.Sg Obj-Det-3MSg book-Pl Obj-Det-3MPI
 ተመሃሮ ዓዲሉዎም ።
 tämäharo ?adil-u-wom.
 student.Pl Perf.distribute-SM.3MSg-OM₁.3MPI
 ‘The teacher distributed the books to the students.’
- b. እቲ መምህር ነቲ መጽሓፍቲ ነቶም
 ?it-i mämihiri n-ät-i mäšihafi-ti n-ät-omi
 Det-3MSg teacher.Sg Obj-Det-3MSg book-Pl Obj-Det-3MPI
 ተመሃሮ ዓዲሉዎ ።
 tämäharo ?adil-u-wo.
 student.Pl Perf.distribute-SM.3MSg-OM₁.3MSg
 ‘The teacher distributed the books to the students.’

Example (9) shows that a definite theme object must precede a recipient object. Another interesting observation is that in this context either the definite theme object, as in (9b) or the definite recipient object, as in (9a) can be marked with a pronominal suffix depending on the speaker's choice of which referent to highlight. Therefore, definiteness constrains both objects equally. As implied in these examples, conditions on animacy do not have a bearing on object marking in Tigrinya. Had it been relevant, the recipient object would be prioritized over the theme object for pronominal marking.

³In Tigrinya a plural form of an inanimate noun (e.g. ‘books’ in (8)) has a collective reading. It is determined by a masculine singular article, and the verb agrees with the determiner.

2.2 Objects in double object applicative constructions

A double object applicative construction codes a *VO* and an *AO*. These objects are coded by distinct pronominal forms: OM_1 and OM_2 respectively. In Tigrinya various semantic roles such as a *beneficiary*, *maleficiary*, *instrumental*, *locative* and *goal* can be expressed applicatively. Applicative constructions involve different syntactic restrictions than ditransitive constructions. Lets first consider an applicative construction that involves a theme vs. beneficiary objects as in (10).

- (10) a. ንስኻ ንዮናስ ዓጋዜን ሃዲን-ካ-ሉ ።
 nisi-ka ni-yonasi ḥagazeni hadini-ka-lu
 Pro-2MSg Obj-Yonas.M deer.Sg Perf.hunt-SM.2MSg- OM_2 .3MSg.
 ‘You hunted (for) Yonas a deer.’
- b. ንስኻ ዓጋዜን ንዮናስ ሃዲን-ካ-ሉ ።
 nisi-ka ḥagazeni ni-yonasi hadini-ka-lu
 Pro-2MSg deer.Sg Obj-Yonas.M Perf.hunt-SM.2MSg- OM_2 .3MSg.
 ‘You hunted (for) Yonas a dear.’
- c. ንስኻ ነታ ዓጋዜን ንዮናስ
 nisi-ka n-ä-ta ḥagazeni ni-yonasi
 Pro-2MSg Obj-Det-3FSg deer.Sg Obj-Yonas.M
 ሃዲን-ካ-ሉ ።
 hadini-ka-lu
 Perf.hunt-SM.2MSg- OM_2 .3MSg.
 ‘You hunted (for) Yonas the dear’

An applicative construction with a theme vs. beneficiary AO is not bound in terms of its word order. As examples (10a) and (10b) show either object can occur in either position. Moreover, the verb always codes the AO regardless of whether the VO is definite or not, as in (10c). This implies that an AO is the most topical object; in fact AOs are always individuated or definite objects. As Donohue states (in Peterson, 2007, 83) “*the essential function of applicative constructions is to indicate that the entity the construction refers to has a greater discourse salience or topic continuity than would otherwise be expected of it*”. Moreover, since an AO acquires its core object status by virtue of the applicative morpheme, if the verb does not bear this morpheme, the construction ceases to be an applicative clause. Since the beneficiary and recipient roles lack distinct prepositions for their oblique expression, they can only be expressed in double object constructions.

Applicative constructions with applied roles such as the instrumental and locative reveal slightly different syntactic restrictions. For example, unlike the objects with beneficiary vs. theme roles, the instrumental/locative vs. theme objects are required to stay in a fixed position, as in (11).

- (11) a. እቲ ሰብኣይ ነቲ ፋስ ዕንጨይቲ
 ?it-i säbi?ayi n-ät-i fasi ?iniçäyiti
 Det-3MSg man.MSg Obl-Det-3MSg ax.Sg wood.Sg
ፈለጹሉ።
 fäliṣ-u-lu
 Perf-chop-SM.3MSg-OM₂-3MSg
'The man chopped wood with an ax.'
- b. እቲ ሰብኣይ ነቲ ፋስ ነቲ ዕንጨይቲ
 ?it-i säbi?ayi n-ät-i fasi n-ät-i ?iniçäyiti
 Det-3MSg man.Sg Obl-Det-3MSg ax.Sg Obj-Det-3MSg wood.Sg
ፈለጹሉ።
 fäliṣ-u-lu
 Perf-chop-SM.3MSg-OM₂-3MSg
'The man chopped the wood with the ax.'
- c. *እቲ ሰብኣይ ዕንጨይቲ ነቲ ፋስ
 ?it-i säbi?ayi ?iniçäyiti n-ät-i fasi
 Det-3MSg man.MSg wood.Sg Obl-Det-3MSg ax.Sg
ፈለጹሉ።
 fäliṣ-u-lu
 Perf-chop-SM.3MSg-OM₂-3MSg

In applicative constructions that involve a theme vs. instrumental/locative object, the AO must precede the VO regardless of whether the VO is definite or not, as in (11a, 11b). If we reverse the order, the construction becomes ungrammatical as in (11c). Moreover, like in a beneficiary vs. theme applicative construction, the verb always codes the applied roles. However, if the VO is topicalized instead of the AO, the instrumental/locative roles are expressed obliquely since they possess distinct prepositions ('ብ/bi-' instrumental and 'ኣብ/?abi' locative) as in (12).

- (12) እቲ ሰብኣይ ነቲ ዕንጨይቲ ብፋስ
 ?it-i säbi?ayi n-ät-i ?iniçäyiti bi-fasi
 Det-3MSg man.Sg Obl-Det-3MSg wood.Sg with-ax.Sg
ፈለጹዎ።
 fäliṣ-u-wo
 Perf-chop-SM.3MSg-OM₁-3MSg
'The man chopped the wood with an ax.'

In example (12) the verb codes a definite VO, thus the instrumental role is expressed in an oblique phrase. In terms of word order, the definite theme object must precede the oblique phrase.

To sum up, Tigrinya employs a complex interaction of word order, case and pronominal marking in coding objects. Since unmarked objects are not ordered in relation to each other, verb adjacency cannot be taken as an argument for determining primary object properties. However, restrictions on pronominal marking display asymmetry between the two object. In the following section

we will investigate if the restrictions on pronominal marking correlate with the passive typology that characterizes Tigrinya.

3 Primary object properties

A vast body of research in object asymmetries uses the correlation of properties such as pronominal marking and passive typology as a proof for primary objecthood (Bresnan and Moshi, 1993; Alsina and Mchombo, 1993; Alsina, 1996). These studies claim that the underlying properties of a language manifested in passive typology are one and the same as those manifested by the descriptive properties of a language, i.e., restrictions on word order and pronominal marking. In Tigrinya a ditransitive verb can bear a pronominal suffix for either of the two objects. Thus, in this regard both objects may display primary object properties. However, in an applicative construction only the AO controls the pronominal suffix; thus only AOs may display primary object properties with respect to pronominal marking. Bellow we will compare these properties with those reflected in passivization. Let us first consider example (13).

- (13) a. እቶም ተመሃሮ መጽሐፍቲ ተዋሂቦም ።
 ?it-omi tāmāharo māšihafiti tä-wahib-omi
 Det-3MPI student.PI book.PI Pass-Perf.give-SM.3MPI
 ‘The students are given books.’
- b. እቲ መጽሐፍቲ ንተመሃሮ ተዋሂቡ ።
 ?it-i māšihafiti ni-tāmāharo tä-wahib-ui
 Det-3MSg teacher Obl-Det-3MPI student.PI book.PI
 ‘The books are given to students’

Since the recipient (13a) and the theme (13b) arguments can function as subjects in passivization, both display primary object properties. Another strong piece of evidence for primary objecthood is the ability of the passive verb to admit object suffixes, as in (14). Asymmetric type languages like Chichewa lack this property (Bresnan and Moshi, 1993; Alsina and Mchombo, 1993).

- (14) a. እቶም ተመሃሮ ነቲ መጽሐፍቲ
 ?it-omi tāmāharo n-ät-i māšihafi-ti
 Det-3MPI student.PI Obj-Det-3MSg book-PI
 ተዋሂቦም ።
 tä-wahib-om-wo.
 Pass-Perf.give-SM.3MPI-OM₁.3MSg
 ‘The students are given books.’⁴

⁴This sentence can also have a reflexive reading ‘The students gave themselves to the books.’ since the passive and the reflexive verb forms are marked with the same morphological form.

- b. እቲ መጽሐፍቲ ንተመሃሮ
 ?it-i mäšihafi-ti ni-tämähäro
 Det-3MSg book-Pl Obl.students.Pl
 ተዋሂቡዎም ።
 tä-wahib-u-womi.
 Pass-Perf.distribute-SM.3MSg-OM₁.3MPI
 ‘The books are given to students.’

The passive verb in (14a) bears a subject and an object pronominal suffixes for the recipient and the theme arguments respectively, but example (14b) shows the reverse, here the theme role is expressed as a subject and the recipient as an object. As these examples show Tigrinya displays an alternating passive type in ditransitive constructions. Therefore, both objects exhibit primary object properties with respect to passivization as well. However, in applicative constructions only the theme role can function as a subject in passivization, as in (15).

- (15) a. እቲ መጽሐፍ ንሳባ ተገዚኡላ ።
 ?it-i mäšihafi n-saba tä-gäzi-u-la
 Det-3MSg book.Sg Obl-Saba.F Pass-perf.buy-SM.3MSg-OM₂.3FSg
 ‘The book was bought (for) Saba.’
 b. *ሳባ መጽሐፍ ተገዚኦ
 saba mäšihafi tä-gäzi-?a
 Saba.F book.Sg Pass-perf.buy-SM.3FSg

In (15a) the theme role is expressed as a subject, and the beneficiary role as an object. However, applied roles such as beneficiary/locative/instrumental can never be expressed as subject functions, as in (15b).

The type of asymmetry displayed by Tigrinya applicative constructions is different in a crucial way than the asymmetry type found in Bantu languages. In Bantu languages the AO displays primary object properties. While in Tigrinya, with respect to pronominal marking, the AO shows primary object properties, but with respect to passivization only the theme object reflects primary object properties. And thus, passivization and pronominal marking reflect uncorrelated properties. In addition, the passive verb can admit a pronominal suffix for the AO as in (15a). Therefore, Tigrinya has symmetric objects both with the [-r] features classified as OBJs in its ditransitive clauses. In contrast, in its applicative construction it has asymmetric objects, with the AO getting the [+r] feature and thus classified as OBJ_θ and the VO getting the [-r] feature and classified as OBJ.

4 Object marking and information structure roles

A vast body of research predicts a correlation between grammatical agreement and discourse functions. Among these, Givón's (1976) typological study has been very influential. Givón systematically explained various diachronic data and demonstrated that agreement markers had historically evolved from topic pronouns to clitic pronouns then to redundant agreement markers. Givón claims that agreement and anaphoric marking are the same processes and that they cannot be distinguished either diachronically or synchronically. His proposal regarding the puzzling differences between the pronominal and nominal structure found in the *imperfective* and *perfective* verb conjugation systems in Semitic languages is specially commended in Semitic studies. Tigrinya, like its Semitic peers, has two types of verb conjugation systems, the *imperfective* and the *perfective*. The imperfective verb conjugation is a prefix one which displays partial agreement specification as a prefix and partial specification as a suffix which shows a 'person-stem-(gender, number)' ordering (e.g. Amharic in Baye, 2006, 196). However, in the perfective verb form the subject pronominal marker is a suffix. It is beyond the scope of this paper to outline the historical development in word order and agreement marking in Tigrinya; however, it would suffice to say that the differences between the imperfective (e.g. **ይጻሕፍ**/yi-ṣihif-i/SM.3-write-SM.MSg) and the perfective (e.g. **ጻሕፈ**/ṣihaf-ä/write-SM.3MSg) subject pronominal forms on the one hand, and the perfective and gerundive (e.g. **ጻሕፍ**/ṣihif-u/write-SM.3MSg) subject pronominal forms on the other hand, reflect different grammaticalization processes. Nevertheless, the different forms function as pronominal subject affixes.

The morphological similarity between independent pronouns, and the subject and object pronominal affixes seem to support the basic claim that the pronominal affixes evolved from topic pronouns to agreement markers. The prefix pronominal system shows little resemblance to the independent pronouns in Tigrinya. However, the gerundive form is quite similar to the endings of independent pronouns as in table (1).⁵

Table 1: *Pronoun and pronominal affixes*

Values	Subjective	Objective	Perf.eat-SM-OM
Pro.3MSg	ንሱ -nis-u	ንጻኡ -niṣaʔ-u	በሊ.ዐ.ጾ -bäliṣ-u-(w)o
Pro.3FSg	ንሷ -nis-a	ንጻ኷ -niṣaʔ-a	በሊ.ጻ.ታ -bäliṣ-a-(t)a
Pro.3MPI	ንሳቶም -nisat-omi	ንጻኦም -niṣaʔ-omi	በሊ.ጾጾጾ -bäliṣ-omi-(w)omi
Pro.3FPI	ንሳተን -nisat-eni	ንጻኡን -niṣaʔ-eni	በሊ.ዐጻኡን -bäliṣ-eni-(ʔ)äni

⁵Vowel sequence is not permitted in Tigrinya syllabic structure. Therefore, epenthetic segments such as 'w' and 't' are inserted between the subject and the object pronominal suffixes for

This table shows that the subject and object suffixal conjugation of the gerundive verb are etymologically related to the personal pronouns in Tigrinya.

The theory of agreement proposed by Bresnan and Mchombo (1987) has influenced a wide body of research in LFG. Bresnan and Mchombo convincingly demonstrated that subject pronominal affixes are ambiguous markers of grammatical and anaphoric agreement; whereas, object pronominal suffixes are only a topic-anaphoric markers. First, the fact that the anaphorically linked arguments and pronominal affixes in a discourse are required to show gender, number and person agreement reflects the anaphoric function of pronominal affixes. Second, in languages like Tigrinya the object pronominal marker is induced by definiteness. Therefore, it can only mark referential, salient and individuated object arguments; and thus it is a topic marker rather than a grammatical agreement marker. On the other hand, the subject marker is obligatory, and it can correspond with non-referential and non-topical subject. For example, Lambrecht (1998, 137) argues that in a context where the whole predicate is focused, the subject is not a topic since the whole proposition is covered by the focus discourse function. The subject marker functions as an anaphoric marker when it corresponds with topical subject NPs in a discourse. We will illustrate this by way of examples from a real discourse context as in (16).⁶

- (16) ኣብ ማዕድ፡ ሓደ ምትሃት ዚመስል
 ?abi maʕido: hədə mitihati z-i-mäsili
 at distance: one.MSg ghost Rel-Imperf.SM.3-resemble.SM.MSg
 ጻዕዳ ነገር ረኣኹ። ናባይ ምስ ቀረበ ግን፡
 şaʕida nəgäri räʔa-ku # nab-ayi misä qaräbä gini:
 white thing Perf.see.SM.1Sg:: to-1Sg when Perf.near-SM.3MSg but:
 ጅለብያ ዝለበሰ ቁልዓ ምኻኑ
 ĵäläbiya zi-läbäs-ä qolifä mi-kan-u
 jelabia Rel-Perf.wear-SM.3MSg child.Sg VN-be-Poss.3MSg
 ተገንዘብኩ።
 tä-gänizäbi-ku #
 Perf.realize-SM.2Sg.

'At a distance, I saw a white thing which resembled a ghost. But when it neared me, I realized its being (it was) a child that wore a Jellabia (robe).'

(Source: Hadas Ertra 2007, Issue 17, no.13)

the 3MSg 'u' and 3FSg 'a' as it is shown in the first and the second rows in this table.

⁶This excerpt is taken from a Tigrinya newspaper 'Hadas Ertra' column series called 'One World'. The columnist, Amanuel Sahle, is a famous journalist and a linguist. His book 'A Comprehensive Tigrinya Grammar' is one of the most referred to work in Tigrinya studies. He is a member of the 'Medial Language Standardization Committee' in the Eritrean Ministry of Information. Amanuel is believed to be a good writer and a model to other journalists on how to write good/appropriate Tigrinya. Thus, I believe the quality of the text is guaranteed and that the examples employ a standard use of the issue at hand.

In the above discourse, the antecedent of the incorporated subject pronoun (SM.1Sg) that the verbs 'see' and 'realize' bear is not realized either as an independent pronoun or as a full NP. The referent can only be recovered from the discourse context. Since the text is a narrative discourse and employs the 'first person narrative' technique, the speaker/writer refers to himself through the incorporated pronoun 'I'. Bresnan and Mchombo (1987) state that in order 'to satisfy the completeness and coherence conditions [such] argument functions (SUBJ, OBJ, etc.) must be expressed syntactically within the phrase structures headed by the predicator, or expressed morphologically on the head itself, or else remain unexpressed'. They also stress that only the anaphoric agreement relations can be non-local to the agreeing predicator. Under these conditions then, the subject pronominal suffix functions as an anaphoric or a topic marker in this sentence since it agrees with an argument which is not locally present in the same clause. In this sentence, the object argument is new information in this discourse context. The numeral 'ሓደ-ḥadä/one.M' can function as a marker of specificity or indefiniteness depending on the basic meaning of the verb. In this sentence it introduces an indefinite object, since this object does not control any verbal suffix. Thus the object is required to stay in the same clause as the predicator, and it assumes a focus discourse function. The second sentence consists of a dependent and an independent clause which are demarcated by the sentence adverbial 'but/however'. The dependent and independent clauses denote old and new information respectively. The verb 'near-SM.3MSO' in the dependent clause contains a subject incorporated pronoun which corresponds to the object antecedent 'ḥadä mitihati z-i-mäsili şafida nägäri- a white thing which resembles a ghost'. Whereas, the verb in the independent clause 'Perf.realize-SM.2Sg' contains a subject incorporated pronoun which agrees with the subject incorporated pronoun in the previous sentence. Thus, this examples illustrate that the subject and the object pronominal affixes are incorporated pronouns which anaphorically link to topic NPs or even to another incorporated pronoun in a discourse.

Moreover, the subject pronominal affixes can also function as grammatical agreement markers. Constructions which involve psyche verbs in Tigrinya code non-referential subjects, and thus they are non-topical. These constructions are characterized by OSV word order where the topic object is preposed and the non-referential subject is postposed as in (17).

- (17) ሓደ፣ (ኣነ/ኅዓይ) ደኹሙኒ ሓሎ ።
 ḥiǰi: (?anä/niʕay) däkim-u-ni ʔal-o.
 now: (I/me) Perf.tire-SM.3MSg-OM₁.1Sg Pres.exist-SM.3MSg.
 'Now, I am tired./ Lit. Now, it has tired me.'

Example (17) shows that the main verb 'däkim-u-ni/tired-it-me' codes a non-referential 3MSg subject and a 1sg experiencer object, and the auxiliary 'ʔal-

o/exist.it' codes a non-referential 3MSg subject. In such constructions either the nominative or the objective personal pronouns can be used as referents of the object markers. It is a widely observed property in Tigrinya that topical objects get a nominative case, and that makes them comparable to subjects.

5 Information structure roles and grammatical function alignment

One of the key points that Aissen (2003a) makes in her theory of *DOM* is the correlation between grammatical functions and the semantic conditions that induce grammatical marking. Subjects are assumed to be high in prominence and objects are low. She characterizes this type of relationship as '*markedness reversal*' which denotes that the semantic features that are marked for subjects are unmarked for objects and vice versa. The relative markedness of grammatical functions is expressed through the HARMONIC ALIGNMENT of the relational hierarchy (given in example 1) either on the animacy or the definiteness dimension. For example, the harmonic alignment for the definiteness features is schematized in (18).

- (18) *Su/Pron >> *Su/Name >> *Su/Def-Spec >> *Su/Non-spec
 *Obj/Non-spec >> *Obj/Def-Spec >> *Obj/Name >> *Obj/Pron

This diagram shows that subjects positioned on the left-most adge of the hierarchy are more marked than those at the right-most adge, and the opposite holds for objects. The main point behind such a representation of *DOM* is to underline the function of grammatical marking. According to Aissen (2003a) grammatical marking is employed in order to differentiate subjects from objects. For example, since definite objects are functionally similar to subjects in terms of prominence, they carry grammatical marking that contrasts them with subjects. However, Dalrymple and Nikolaeva (2007) argue that *DOM* "arises from the need to give an overt expression to properties that is **common** to objects and subjects". In their view case and agreement marking have a '*coding*' function rather than a discriminatory function. They claim that their approach accounts for languages such as Persian and Maithili which assign grammatical marking to secondary topics independently of their syntactic roles.

Tigrinya which involves case and pronominal marking seems to divide the two functions- 'discriminatory' and 'coding' suggested by Aissen and Dalrymple and Nikolaeva (2007) respectively, between these two coding strategies. For example, in monotransitive clauses subjects and indefinite objects are comparable in terms of their case marking: both are unmarked. However, a definite theme object contrast with a subject since the former is marked whereas the latter is unmarked. On the other hand, in double object clauses an indefinite

theme object and an object bearing other semantic roles contrast with each other since the former is unmarked and the latter is marked, but they appear comparable when the theme is definite. The discriminatory function is even more pronounced when word order is considered. Whenever the two categories are comparable, word order becomes bound, and when they contrast it becomes unbound. In terms of pronominal marking, subjects are obligatorily marked with pronominal suffixes. But, subject pronominal affixes do not always code topical subjects. Thus, only the anaphoric function of the subject pronominal affixes and object pronominal suffixes underline the similarities between a topical subject and topical object.

Various researchers have indicated that there exists a tendency for a certain grammatical function to link to a certain information structure role. For example, in their comparative study of Hindu/Urdu and Turkish, Butt and King (2000) analyze the weak/nonspecific object which assumes a focus discourse function as a primary object *OBJ*, and the strong/specific objects which are non-focused as a *OBJ_θ*. In contrast, Dalrymple and Nikolaeva (2007), based on the pattern revealed in Ostyak and Chatino, argue that in these languages the secondary topics link to *OBJS* while the non-topic object to *OBJ_θ*. They maintain that " *it is the marked, topical object rather than the unmarked, non-topical object that displays more properties characteristics of core grammatical functions.*" They schematized the alignment of information structure roles to grammatical function as in (19):

(19) Dalrymple and Nikolaeva (2007)

TOPIC	TOPIC2	FOCUS
SUBJ	OBJ	OBJ _θ / OBL _θ

However, this correlation cannot predict the relative prominence displayed by objects in Tigrinya. In applicative constructions as discussed in section 3, even though applied objects control pronominal marking, and thus are topical, they do not acquire primary object properties. Therefore, there is no correlation between primary object functions and secondary topics. Tigrinya applicative constructions reveal the pattern schematized in (20).

(20) Alignment in Tigrinya applicative constructions

TOPIC1	TOPIC2	TOPIC3	FOCUS
SUBJ	OBJ _θ	OBJdef	OBJindef/OBL _θ

The double marking possibility allows two grammatically marked topic objects in Tigrinya. In double object constructions the object that is prioritized for pronominal marking is high in prominence, while a case marked definite object is less prominent when both occur in the same clause. Thus the former is assigned a secondary ranking and the latter a tertiary ranking in topicality. As we can see, this pattern differs from the pattern proposed by Dalrymple and Nikolaeva (2007) in (19). Therefore, this suggests that the correlations between grammatical functions and information structure roles vary from language to language: thus it is language specific.

6 Conclusion

Tigrinya employs word order, case and pronominal affixes in marking grammatical functions and discourse functions. *DOM* is triggered by definiteness and specificity. Definite and discourse prominent specific objects are both head and dependent marked. This double marking strategy implies that there are two motivations for *DOM*. Case marking is employed to contrast definite objects with subjects, or in other words, to create a resemblance between different object functions. Whereas pronominal marking is employed to create similarity in information structure roles between topical objects and topical subjects.

Moreover, Tigrinya makes a formal distinction between ditransitive constructions and applicative constructions. Verbs in ditransitive clauses subcategorize for two VOs and applied verbs subcategorize for a VO and an AO. Tigrinya reveals symmetric properties of objects in its ditransitive constructions, and asymmetric properties in its applicative constructions. However, the type of asymmetry that Tigrinya shows is the reverse version of the asymmetry that languages like Chichewa (Bantu) have. In Tigrinya an AO does not acquire all the syntactic properties of a single object in monotransitive constructions. Even though objects with applied roles control pronominal marking, they cannot assume a subject function in passivization. This challenges the correlation claimed between the passive typology and the restrictions on pronominal marking. The double object data from Tigrinya suggests that the two morphosyntactic operations belong to different grammatical processes.

Therefore, this paper argues that the applicative processes is a topicalization operation in which the AO assumes a more prominent discourse function than the VO, and the applicative morpheme functions as a topic/anaphoric marker in accordance with what is asserted by Bresnan and Mchombo (1987). However, languages vary in the assignment of grammatical function to AO. In some language, for example in Bantu, it assumes the primary object function, and in others, for example in Tigrinya, it assumes the secondary object function. In Tigrinya, the property of being a subject function in passivization

is reserved for the VO. The VO assumes a less prominent discourse function *tertiary topic*, i.e. less prominent than the secondary topic in its definite status when both occur in the same clause. A definite VO, even though it does not have precedence for pronominal marking over the AO, is case marked, a property which is also acquired by a definite object of a monotransitive verb. However, an indefinite/unspecific VO cannot control a pronominal and cannot be case marked; thus it assumes a non-topic/focus discourse function. Therefore, since the primary object property displayed by passivization may not correlate with those properties displayed by restrictions on word order and pronominal marking, further research must demonstrate which properties must be taken as basic in order to determine primary objecthood.

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