

The Alienable-Inalienable Asymmetry: Evidence from Tigrinya

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1. Introduction

Possessive constructions are classified into alienable possession (ALP) and inalienable possession (IAP) based on the semantic relationship between the possessor and the possessee (see Heine 1997, Nichols 1992 and references cited therein). An IAP is defined as a permanent semantic relationship between the possessor and the possessee; prototypical members of this class of nouns refer to kinship terms and body parts (Heine 1997). In IAPs, since the relationship between the possessor and the possessee is determined by the meaning of the possessee, such relations on nouns are often referred as analogous to the thematic relations of verbs and their arguments (Barker 1995, 2010). For example, kinship terms, such as *daughter* as in *John's daughter* (1a) are semantically dependent on a possessor, i.e., it is a requirement of a *daughter* that she be the daughter of somebody. Similarly, human body parts, such as *ears*, as in *John's ears*, (1b), are also considered as a subtype of IAPs in which they are often defined with respect to a typical individual, who consists of a nose, two eyes, two ears, a mouth and so on (see Alexiadou 2003).¹ It is therefore the requirement of *ears* to be an inherent part of some body. This semantic dependency in many languages forces inalienable nouns, such as kinship terms and body-part nouns, never to appear without a possessor.

- (1) a. John's daughter
b. John's ears

In contrast, an ALP is defined as a contextually dependent semantic relationship between the possessor and its possessee, as in ownership or preference (Nichols 1992, Heine 1997, among others). It is different from IAP in that the two elements entering the possession relationship do not show any

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Note the following Abbreviations: 1,2,3 persons, AL=alienable, D=determiner, IA=inalienable, Imprf=imperfective, m=masculine, f=feminine, pl=plural, Perf=perfective, Pssr=possessor, Pssee=possessee, O=object, sg=singular, S=subject.

¹ Part-whole relation (e.g., *leg* and *palm*) is another type of relational noun class but has properties of both IAP and ALP. Unlike the other relational nouns, they do not cause ungrammaticality when they independently occur without overt possessor. This contrast is particularly seen compared to kinship nouns, where such nouns without a possessor usually render ungrammaticality, as shown below:

- (i) a. John's leg
b. (*)There is a leg on the table.
(ii) a. John's mother
b. *There is a mother on the street

I will not discuss such an asymmetry, as I will simply focus on kinship terms in this paper. (See Ritter and Rosen (2010) for a systematic distinction between part-whole and permanent relations on the one hand, and between body-part and kinship nouns, on the other, on Blackfoot).

semantic dependency and there is no restriction on the type of possessor AL nouns take. For example *book* in *John's book*, (2), is not interpreted as being part of, or inherently related to, *John*. In other words, there is no semantic dependency between *John* and the *book*; *John's book* has a plethora of possible interpretations: it could refer to a book that *John* wrote, borrowed, bought, owns and so on. It is in this sense that it is generally assumed that alienably possessed nouns do not have an argument structure in their lexical entry (as opposed to their inalienably possessed counterparts) (see Barker 2010). Rather, a general modifier-head (or predicate-head) type of relationship allows them to acquire a possessor whose interpretation is pragmatically determined.

(2) John's book

Many languages make a distinction between the two types of possession as part of their grammar, even though the nature of the distinction varies from language to language (Heine 1997). This paper discusses the two types of possession in one of the least studied Semitic languages, Tigrinya. Tigrinya belongs to the Northern sub-groups of the Ethio-Semitic languages. It is spoken in Ethiopia and Eritrea, and is the third largest Semitic language next to Arabic and Amharic. Possessive constructions in Tigrinya generally take the form either [*nay-possessor possessee*] or [*possessee possessor*], as illustrated in (3a) and (3b), respectively.²

- (3) a. *nay* *joni* *gəza*
 NAY John house
 'John's house'
- b. *ʕarki* *joni*
 friend John
 'John's friend'

In this paper, I examine the syntactic properties of both IAP and ALP and the question of which possession types take which patterns in Tigrinya, and show that the two types of possessions must be syntactically distinguished, as has been argued for Greek (Alexiadou 2003), Dogrib and Chipewyan (Wilhelm & Saxon 2010), and Blackfoot (Ritter and Rosen 2011a). Focusing on kinship terms, I demonstrate that the two types of possession are encoded via two independent syntactic structures in Tigrinya.

The remainder of the paper is organized as follows: section 2 discusses the asymmetries between AL and IA possessors in Tigrinya. Section 3 offers an analysis of IAP and ALP, arguing that the two differ in the merge position of their respective possessors, which correlates with their status as arguments or modifiers. Finally, the conclusion and some outstanding questions are highlighted in section 4.

2. ALP and IAP Asymmetries in Tigrinya

Tigrinya uses two different grammatical structures to encode possession (cf. (3)). The two structures differ in two respects: word order of the possessor and the possessee and the presence or absence of a particle *nay*. When it comes to the word order, the possessor can either precede or follow the possessee. (Based on the position of the possessor, I will henceforth call the first structure *prenominal possession*, while the second *postnominal possession*). When it comes to the presence of

² An anonymous reviewer wonders whether Tigrinya has construct state constructions, which are quite common in well-studied Semitic languages (such as Arabic and Hebrew). Apart from superficial similarity, Tigrinya bare possessives are different from Semitic construct state constructions: the fact that they have no phonological reduction of the possessed noun and do not show definiteness spreading – which both are taken as properties of the construct state (Borer 1984, 1989, Benmamoun 2000) – suggests that Tigrinya has no construct state.

nay, which also distinguishes the two types of possession, it introduces the prenominal possessor, but not the postnominal one. The two types of possessions are schematized in (4) below:³

- (4) a. Prenominal Possession: *nay* DP_{PSSR} > N_{PSSEE}
 b. Postnominal Possession: N_{PSSEE} > DP_{PSSR}

The above schematic representation of the prenominal and postnominal possession is illustrated by the following examples (the possessee is bolded and the possessor is underlined):

- (5) a. *nay*-t-i məmhir **məs'haf** Pssr > Pssee
 NAY-D-msg teacher book
 'the teacher's book'
- b. **wəddi**-t-i məmhir Pssee > Pssr
 son-D-msg teacher
 'the teacher's son'

The examples in (5) apart from illustrating important word order restrictions of the two possessive DPs also show a distinct possessor-possessee relationship. While the possessor precedes the possessee in (5a), the possessor follows the possessee in (5b). Also, while the semantic relationship of the possessor and the possessee is fixed in (5b), this is not the case in (5a): the possessor, *the teacher*, can have a plethora of meaning depending on the pragmatic context with the possessee *book* in (5a), but it can only have a fixed meaning, or *father* and *son* relationship, with the possessee *son* in (5b). This correlation between word order and interpretation as ALP and IAP is not a coincidence. In Tigrinya, prenominal possession is primarily used for ALP, while postnominal possession is primarily used for IAP. Compare the contrastive examples in (5) with the ungrammatical examples in (6):

- (6) a. **nay*-t-i məmhir **wəddi** Pssr > Pssee
 NAY-D-msg teacher son
 'the teacher's son'
- b. ***məs'haf**-t-i məmhir Pssee > Pssr
 book-D-msg teacher
 Int. 'the teacher's book'

The ungrammaticality of the examples given in (6) clearly illustrates ALPs in Tigrinya are syntactically and semantically different from IAPs: The prenominal possessive construction only allows ALPs (but not IAPs (cf. 6b)), whereas the postnominal possessive construction only allows IAPs (but not ALPs (cf. 6a)). The examples in (6) are therefore both ruled out because they have the wrong syntactic structure for IAP and ALP.

As Heine (1997) points out languages differ in coding the different types of possession. Some use morphological markers, others employ prosodic cues, still very few manipulate their morpho-syntactic structures to differentiate ALP from IAP. Tigrinya uses the two possession marking strategies to

³ An anonymous reviewer asks whether the element *nay* is a preposition or a genitive Case marker. Indeed, this is a very important question, which unfortunately space does not allow me to address in detail here. Nevertheless, I should say that given *nay* has other functions (to introduce other non-possessive constructions, such as nominal compounds, as in *nay kətəma polis* 'an urban police' and non-intersective adjectives, as in *nay k'ədəm pīrəzīdānt-na nay*-former president-our 'our former president', and nominalized clauses, as in *nay joni mi-dik'as* *nay*-John NM-sleep 'John's sleeping/the fact that John slept') neither the Case-based treatment nor the prepositional status of *nay* accounts for all the data. On the other hand, the assumption that *nay* is a meaningless element (in the sense of den Dikken 2006) that signals a particular relationship between the two constituents seems to account for most of the data set but not all. As the categorial status and function of *nay* is complex and merits a separate research of its own, I will set the issue aside for future research.

distinguish between the two types of possession, and in this respect, Tigrinya is one of the few languages, which make formal distinction between ALP and IAP. More examples are given in (7) and (8) to further illustrate this formal distinction between the two types of position:

- (7) a. ḥaw joni a'. *nay ḥaw joni
 brother John
 ‘John’s brother’
 NAY brother John
- b. ḥafti ḥagos b'. *nay ḥafti ḥagos
 sister Hagos
 “Hagos’s sister”
 NAY sister Hagos
- (8) a. nay joni məkina a'. *məkina joni
 NAY John car car John
 ‘John’s car’
- b. nay ḥagos gəza b'. *gəza ḥagos
 NAY Hagos house house Hagos
 ‘Hagos’s house’

It is therefore important to observe that the alienability correlation is firmly established in the grammatical system of Tigrinya: The prenominal possessive DP, (5a) and (8a-b), is used for ALP, while the postnominal possessive DP, (5b) and (7a-b), is used for IAP. Apart from the word order alternation, AL possessors require the presence of *nay*, while IA possessors do not. This syntactic restriction is systematic: in Tigrinya generally ALP is only possible with the *nay*-marked prenominal possessors, as in (5a) and (8), and IAP is only possible with the non-*nay*-marked postnominal possessors, as in (5b) and (7). Table 1 summarizes the key formal distinction between ALP and IAP in Tigrinya.

Table 1. The realization of IAP and ALP in Tigrinya

	IAP	ALP
<i>nay</i> Pssr N	*	✓
N Pssr	✓	*

The question is how do we account for such differences between ALP and IAP in Tigrinya.

Before I proceed into presenting the analysis, however, a caveat is in order about pronominal possession where the possessor is encoded pronominally in Tigrinya.

Tigrinya possessors can be realized as a full DP (cf. (5)) or as a pronominal affix.⁴ Pronominal possessors are similar to full DP possessors in that they appear either prenominally with *nay* or postnominally without *nay*. While pronominal pronouns are affixed to *nay*, postnominal pronouns are affixed to the possessed noun, as schematized in (9).

- (9) a. Prenominal Possession: [*nay*-PRONOUN_{PSSR} N_{PSSEE}]
 b. Postnominal Possession: [N_{PSSEE} -PRONOUN_{PSSR}]

⁴ It has long been debated whether such elements in Ethio-Semitic languages are agreement morphemes or clitics (see e.g., Yimam 1994, Amberber 1996 for arguments against clitics, and Mullen 1986, Yabe 2001 in favor of the clitics analysis on Amharic object markers; see also Kramer (2011) for current reopening of the debate on Amharic verbal affixes). Although there is an important theoretical distinction between the two notions, as an anonymous reviewer correctly points out, I call these elements affixes consistent with the traditional Tigrinya grammar description (Tewelde 2002), though in fact they could equally well be called clitics (see Anderson 2005 for a detail distinction between the two notions).

As the examples in (10) and (11) illustrate pronominal possessors show the same syntactic restrictions as their full-DP counterparts. That is, while pronominal possession with *nay* hosting pronominal possessors is only used for ALP, postnominal possession with pronominal possessors is normally used for both IAP and ALP, as the following examples show.

- | | | | | |
|------|----|---|------------------------|--------------|
| (10) | a. | <i>nat-<u>u</u></i>
NAY-3msg | məs'haf
book | Pssr > Pssee |
| | b. | məs'haf-<u>u</u>
book-his
'his book' | | Pssee > Pssr |
| (11) | a. | * <i>nat-<u>u</u></i>
NAY-3msg | wəddi
son | Pssr > Pssee |
| | b. | wədd-<u>u</u> ⁵
son- 3msg
'his son' | | Pssee > Pssr |

I take this contrast as evidence that IAP and ALP must be syntactically distinguished. That is, regardless of the nature of the possessor – enclitic or full DP – accompanying the possessee, the two types of possessive DPs – *nay*-marked and non-*nay*-marked – are clearly distinct and should be syntactically accounted for. Since the pronominal marking strategy for forming Tigrinya possessed noun phrases is irrelevant for my purpose here, they are not further discussed.

In the remainder of this section, I further show that IA and AL possessive DPs in Tigrinya are syntactically distinct and thus must receive syntactic treatments. Assuming different syntactic structures for encoding the two types of possession is justified by differences in the syntactic behavior between the two constructions, the next two sub sections present the asymmetry of AI-IA possessors in Tigrinya.

2.1. Possessors as Predicates

Striking confirmation for the view that IAP must be syntactically distinguished from ALP comes from the occurrence of possessors inside copular clauses.⁶ Most copular constructions in Tigrinya have

⁵ It is important to note that while 'son' and 'daughter' are inalienable nouns, they may have an AL interpretation when they have a different meaning. While 'son' can be used as a noun meaning 'boy' or 'child', 'daughter' can be used as a general term for a 'young girl'. This suggests 'son' and 'daughter' are lexically ambiguous: 'daughter' is ambiguous between an AL interpretation 'a girl' and an IA interpretation 'a female sibling/offspring', and 'son' is ambiguous between an AL interpretation 'a boy', and an IA interpretation 'a male sibling/offspring', depending on the context. While (ia) has both IA and AL interpretations, (ib) only has the latter interpretation, referring to boys/girls.

- | | | | |
|-----|----|---|-------------------------------|
| (i) | a. | kilitə ʔawədat/ʔag ^w alat | ʔall-u/a-nni |
| | | two sons/daughters | HAVE-3m/fsgS-1sgO |
| | | 'I have two sons/daughters' | |
| | b. | kilitə ʔawədat/ʔag ^w alat | ʔab wift'i gəza ʔall-ə-ww-u/a |
| | | two boys/girls inside house | HAVE-3sgS-3m/fplO |
| | | 'There exist/are two boys/girls inside the house' | |

In this case, the agreement affixes attached on the verb can be taken as cues for disambiguation. (See Leslau 1995 for similar description on a closely related language, Amharic.)

⁶ Copular clauses in Tigrinya also include equational (*nik'ədimos nik ʔiyy-u (yibhal)* 'Nicholas is Nick'), locational or existential (*məs'haf ʔab mədərđəri ʔall-o* 'a book/books is/are on the shelf or there is a book/books on the shelf'), and possessive constructions (*nay yəwhanis məs'haf ʔiyy-u* 'it is John's book'). Tigrinya usually uses the verb *ʔall-* 'be, exist, have' to encode existential and/or locational copular constructions. This same verb also is used to express clausal possession, as the following examples illustrate:

the verb *ʔiyy-* ‘be’ as their main verb in combination with a non-verbal predicate, which always occurs preceding the copula. The schematized representation illustrate the structure of the Tigrinya copular clauses in (12) is illustrated in (13):

- (12) a. [Subject [AdjP Copula]]
 b. [Subject [DP Copula]]
- (13) a. [_{DP} ʔit-i məs'haf] [ʔabyi ʔiyy-u]
 D-msg book big.m BE-3msgS
 ‘The book is big’
- b. [_{DP} ʔit-i səbay] [məmhīr ʔiyy-u]
 D-msg man teacher BE-3msgS
 ‘The man is a teacher’

When the non-verbal predicate is a possessor, there is a restriction: only an AL-possessor is allowed to appear across a copula, (14a); an IA-possessor is never allowed to appear in a copular construction (14b). The contrast between (14a) and (14b) therefore illustrates the IA and AL possessor asymmetry in Tigrinya.

- (14) a. [_{DP} ʔiz-i **məs'haf**] [_{TP} nay-t-i məmhīr ʔiyy-u]
 This-3msg book nay-D-msg teacher BE-3msgS
 ‘This book is the teacher’s’
- b. * [_{DP} ʔiz-i **wədi**] [_{TP} ʔit-i məmhīr ʔiyy-u]
 This-3msg son D-msg teacher BE-3msgS
 Int. ‘This son is the teacher’s’

Similar (but not identical) to the above diagnostic, Schüze (1995) suggests that RC paraphrase is an important diagnostics as it uniquely applies to the distinction of nominal constituents. This particular diagnostic, as Schütze (1995:103) describes it, does not apply to the clausal domain, as it requires paraphrasing of the testing constituents with a relative clause. As Quirk et al. (1985) also point out, the nature of a possessor (its argument or adjunct status) can be determined by using a RC paraphrase headed by a copular verb, *be*, *become*, *appear*, *seem*, etc. According to this particular diagnostic, a copular RC can paraphrase adjuncts, but not arguments.

- (15) a. a man from Paris a'. a man who was from Paris
 b. the people on the payroll b'. the people who were on the payroll
- (16) a. the son of the father a'. *the son that was of the father
 b. the destruction of the city b'. *the destruction that was of the city

-
- (i) a. hadə səbʔay ʔab-t-i gəza ʔall-o
 one man at-D-msg house exist-3msgS
 ‘there is a man in the house’ or ‘One man is in the house’
- b. joni kilitə k'olʔu ʔall-u-ww-o
 John two kids have-3msgS-3msgO
 Lt. ‘there are two kids for John’ or ‘John has two kids’

The glosses in (i) illustrate how existential copular constructions use the same verb and have a parallel structure with locative constructions. Crosslinguistically, it is not unusual to find languages bundling up the expression of possession and location (see e.g., Lyons 1967 for early general description of the fact, and Kayne 1993, Freeze 1992, for a detail theoretical account, among others; see also Boneh & Sichel 2010 for a recent account of clausal possession based on Palestinian Arabic). I do not treat clausal possession here, but it is an interesting question to pursue whether clausal possession and nominal possession, on the one hand, and clausal possession and locative constructions on the other show derivational relationship in Tigrinya.

With respect to this diagnostic, the property of IA possessors is parallel to that of nominal arguments, while the behavior of AL possessor is similar to that of other DP modifier or adjuncts. As the contrast in (17) and (18) shows, AL-possessors (17), like PP modifiers of DPs (15), can modify the DP across a RC (17a'-b'). By contrast, IA-possessors (18), like nominal arguments (be it contained in process nominals or kin terms) (16), cannot subcategorize the DP across a RC (18a'-b').

- | | | |
|---------|--|---|
| (17) a. | nay-joni mäs'haf
OF -J book
'John's book' | a'. nay-joni zi-nəbər-ə mäs'haf
OF-John Rel-be.pst-3msg book
'the book which was John's' |
| b. | nay-t-i səbʔay mäs'haf
OF-D-msg man book
'the man's book' | b'. nay-t-i səbʔay zi-nəbər-ə mäs'haf
OF -D-msg man Rel-be.pst-3msg book
'the book which was the man's' |
| (18) a. | wəddi joni
son John
'John's son' | a'. *joni zi-nəbər-ə wəddi
John Rel- be.pst-3msg son |
| b. | g ^w al ʔit-i məmhir
daughter D-msg teacher
'The teacher's daughter' | b'. *ʔit-i məmhir zi-nəbər-ət g ^w al
D-msg teacher Rel-be.pst-3fsg daughter |

Thus, a more precise argument in support of the view that ALP and IAP must be syntactically differentiated can be made using copular paraphrase in Tigrinya. The above examples clearly show that an IA-possessor, as opposed to an AL-possessor, does not predicate a secondary property of the noun, but it specifies the same property that is indicated by the head (Schütze 1995:103). As Schütze notes, in order to be able to use the copular RC paraphrases, there must be two properties that are being predicated of the same entity. IA-possessors simply encode the same predication that the head noun subcategorizes for; thus, they cannot be paraphrased with a RC (18a'-b'); however, the opposite is true with AL-possessors (17a'-b'). Later in the analysis section, it will be argued that such an asymmetry between an IA and AL possessor is a reflection of their syntactic position which builds on my treatment of the two kinds of possessed DPs.

2.2. Order of Possessors and Nominal modifiers

Another asymmetry that supports the view that Tigrinya ALP and IAP must be syntactically distinguished comes from the ordering restrictions of nominal modifiers and possessors. Before turning to the discussion of ordering restrictions in possessive constructions, a remark about the constituent order of syntactic categories in Tigrinya is in order. According to Greenberg (1966) and Dryer (1992), SOV languages have the following properties: the genitive and the relative precede the head noun, the auxiliary follows the verb, and adpositions are prepositions.

Typologically, Tigrinya has a mixed word order. On the one hand, Tigrinya is predominantly SOV and clauses are rigidly verb final (except in some focalized and cleft constructions). The unmarked position of complements of verbs and adjectives (including sentential complements) is always preceding the head (19). Also, auxiliaries normally follow the verb (20), indicating that VP comes before functional heads T/Asp.

- | | |
|---------|--|
| (19) a. | SOV
hagos [_{VP} [_{DP} mish-u] bəliɕ-u]
H. lunch-his eat-Perf.3msgS
'Hagos ate his lunch' |
|---------|--|

b. **Complement > V**

[_{CP} kull-om məhazut-ka kəmzi-fətt-u-ka] səmiŋ -ə
 all-mpl friend.Pl-your C-like.PF-3mgPl-2msg heard.PF-1sgS
 ‘I head that all your friends like you.’

c. **Complement > A**

wəllədi-xa [_{AP} [_{PP} bi-ʔaxa] hībunat] ʔiyy-om
 parent-yours by-you proud be.PF-3mplS
 ‘Your parents are proud of you.’

(20) **VP > Asp/Infl (=Aux)**

a. [_{VP} s'ibah ki-ə-məs'iʔ ʔiyy-ə]
 tomorrow Fut-1sgS-come be.Imprf-1sgS
 ‘I will come tomorrow.’

b. [_{VP} himbaʃa yi-βəliŋ nəyr-u]
 bread 3msgS-eat.IMF be.PF.-3msgS
 ‘He was eating bread.’

On the other hand, Tigrinya adpositions are always prepositional (21a) (never postpositional) and determiners are always on the left edge of the noun phrase (21b) (never on the right).

(21) a. **P > NP**

[_{PP} mis joni] məs'iʔə
 with John come.PF-3msgS
 ‘I came with John.’

a'. ***NP > P**

*[_{PP} joni mis] məs'iʔ-ə
 John with come-3msgS

b. **D > Num > A > N**

[_{DP} ʔit-om kəltə ʃabyti kolʃu]
 D-m.pl two big.PL boys
 ‘The two big boys’

b'. ***Num > A > N > D**

*kəltə ʃabyti kolʃu ʔit-om
 two big boys D-m.pl

Having outlined the general structure of complements, heads and modifiers in Tigrinya, I now turn to discuss the ordering restrictions between the two types of nominal modifiers – relative clauses (RCs) and adjectives – and possessors.

2.2.1. Two types of Nominal Modifiers: RCs and Adjectives

This section looks into the order of nominal modifiers and possessors and provides further evidence for the view that ALP and IAP must be syntactically distinct in Tigrinya. It will look particularly into two types of nominal modifiers – relative clauses (RCs) and adjectives – and see whether they show any syntactic restriction with respect to possessors.

2.2.1.1. Relative Clauses

Relative clauses (RCs) in Tigrinya are prenominal and externally headed. While in many languages a special form of pronoun called a relative or resumptive pronoun is used to introduce relative clauses, in Tigrinya, the particle *zi-* is used instead. *zi-* is a prefix and always attaches to the relativized finite verb, as schematically represented in (22a). Although Tigrinya allows relativization of different complements (see footnote 10), I will use object relativization (22b) for convenience to illustrate its nature.

- (22)a. [[RC ... *zi-verb* ...] N]
- b. [Elsa zə-nbəb-ət(t)-o_i] məs'haf_i
 Elsa REL-read.PF-3fgS-3msgO book
 'a book that Elsa read'

As one can see from (22), RCs, like any other nominal modifiers in Tigrinya, are prenominal. In this example, the gap inside the RC has a grammatical function of direct object. The gap can be easily identified by co-indexation of the relative head and the agreement enclitic, which is obligatorily attached to the relativized verb.⁷ In this case, there is a gap inside the RC that is assumed to be the trace of a moved *wh*-operator to which the head noun is an antecedent. This is consistent with the typological observation that gapped RCs are the most common type in verb-final languages with prenominal RCs (Greenberg 1966, Dryer 2005). What is important for here is to note that Tigrinya RCs are prenominal.

In Tigrinya, RCs may co-occur with DP-internal possessors.⁸ When they do, they exhibit ordering restrictions that correlate with the AL and IA asymmetry. While a RC can precede or follow an AL-

⁷ Note that Tigrinya is a morphologically rich pro-drop language and arguments can be phonetically empty, as they are recoverable from the affixes attached to the verb. The verb always obligatorily bears the subject marker, while the non-subject (direct object or indirect object or oblique) marker usually depends on definiteness and information structure. As a result, the verb with its attached affixes can independently form a sentence.

⁸ An anonymous reviewer wonders whether *wh*-questions and extraction patterns give rise to asymmetries between ALP and IAP in Tigrinya. Unfortunately, we cannot test *wh*-questions and extraction patterns, as Tigrinya is a *wh*-in situ language. For e.g., Tigrinya does not relativize both AL and IA possessors directly, (ia) and (iia), but the pronominal option, attaching a pronominal copy of the possessor on the possessee, which appears common to both IAP and ALP inside the RC, is used, as a last resort strategy, as (ib) and (iib) illustrate:

- (i) a. *[joni t_i məs'haf zi-fətw-o_i] [nay-t-i məmhir_i]
 John book Rel-like-3msg nay-D-msg teacher
 b. [joni məs'haf-u_i zi-fətw-o_i] [məmhir_i]
 John book-his Rel-like-3msg teacher
 'a teacher whose book John liked'
- (ii) a. *[joni t_i g^wal zi-fətw-a_i] [məmhir_i]
 John daughter Rel-like-3fsg teacher
 Int. 'a teacher whose daughter John liked'
- b. *[joni g^wal-u_i zi-fətw-a_i] [məmhir_i]
 John daughter-his Rel-like-3fsg teacher
 'a teacher whose daughter John liked'

possessor (23), a RC can only follow an IA possessor (24), as the following schematic representations show:

(23)	a.	RC	AL-Pssr	N	
	b.	AL-Pssr	RC	N	
(24)	a. ✓	RC	N	IA-Pssr	
	b. *		N	IA-Psrr	RC
	c. *		N	RC	IA-Pssr

The minimal pairs in (25) and (26) illustrate the facts schematically represented in (23) and (24); that is, a RC can occur either before or after an AL-possessor, but only before an IA-possessor. Note that I have already established above that in Tigrinya RCs, like AL-possessors, always precede the head noun, but IA-possessors follow it.

(25)	AL-Pssr				
	a.	[_{RC} Op _i joni <Op _i > zi-fətw-o _i] [[<i>nay-t-i</i> məmhir] məs'haf _i]			
		John Rel-like-3msg NAY-D-msg teacher book			
		'the teacher's book that John liked'			
	b.	[<i>nay-t-i</i> məmhir _j [_{RC} <Op _i > Joni <Op _i > zi-fətw-o _i] [_{t_j} məs'haf _i]			
		nay-D-msg teacher John Rel-like-3msg book			
		'the teacher's book that John liked'			
(26)	IA-Pssr				
	a.	[_{RC} Op _i joni <Op _i > zi-fətw-a _i] [<i>g^wal</i> [ʔit-i məmhir] _i]			
		John Rel-like.PF-3fsg daughter D-msg teacher			
		'the teacher's daughter who John liked'			
	b.	*[<i>g^wal</i> t _i] [_{RC} Op _i joni <Op _i > zi-fətw-a] [ʔit-i məmhir] _i			
		daughter John Rel-like.PF-3fsg D-msg teacher			
	c.	*[<i>g^wal</i> [ʔit-i məmhir] _i] [_{RC} Op _i Joni <Op _i > zi-fətw-a _i] ⁹			
		daughter D-msg teacher John Rel-like.PF-3fsg			

The examples in (25) and (26) suggest that the syntactic position of an AL-possessor and a RC can be the same showing that the position of an AL-possessor with respect to a RC is free; by contrast, the syntactic position of an IA-possessor and a RC cannot be the same illustrating that the position of an IA-possessor relative to a RC is fixed. It is important to note that, though marked, RCs can follow the possessed head noun (*nay-t-i məmhir məs'haf* [*joni zi-fətw-o*] 'the teacher's book that John liked', referring to an 'afterthought'), and that crucially this is not possible with an IA-noun. The examples in (25) and (26) therefore further show the asymmetry between IA and AL possessors in Tigrinya. The analysis in the next section will highlight on the question of why AL-possessors consistently par their

The data raises the question of why (iib) is slightly marginal (as opposed to (ib)). At this point, I do not have any interesting story to tell; however, an answer along the lines of Ishizuka's (2009) treatment of Korean and Japanese ALP and IAP might be possible for Tigrinya. That is, as Korean and Japanese possessive DPs are islands for extraction of Case-marked possessors, Tigrinya IA possessive DPs might be islands for extraction of IA possessors (as opposed to AL possessors), too.

⁹ This construction can be grammatical under the reading of an appositive 'the teacher's son, who John kissed'. Under this interpretation, the possessor usually separates from the RC with a pause.

ALP. The question that arises from the Tigrinya data is why such a restriction exists? In section 3, I will develop an analysis that attributes the difference to the nature and position of the two types of possessors.

Summarizing the discussion of section 2, I have claimed that IAP and ALP in Tigrinya are syntactically encoded by two distinct structures. I have supported my arguments by providing three syntactic distinctions between ALP and IAP in Tigrinya. As summarized in table 2 below, IAP and ALP are consistently different, and thus, merit a different syntactic treatment. In section 3, it will be developed a syntactic analysis that accounts for the asymmetries discussed in section 2. Particularly, it will be argued that the observed differences between the two types of possession in Tigrinya are syntactically determined.

Table 2. Distinguishing IAP and ALP in Tigrinya

Syntactic Diagnostics		IAP	ALP
Types of possessive DPs	Prenominal	*	✓
	Postnominal	✓	*
Pssrs as Predicates		*	✓
Pssrs and RCs order	Pssr RC N	✓	✓
	RC Pssr N	*	✓
	RC N Pssr	*	✓
Pssrs and Adjectives order	Pssr Adj N	*	✓
	Adj Pssr N	*	✓
	Adj N Pssr	✓	*

3. The Analysis

In the previous section, I have established that ALP and IAP in Tigrinya are syntactically (as well as semantically) different, based on several syntactic asymmetries (see table 2 above). In this section, it will be demonstrated that such formal asymmetries between ALP and IAP, which is a direct reflex of their semantic difference, derives from both the nature of the relationship between the possessor and the possessee and the syntactic position of the possessor in a DP structure. Particularly, I argue that such asymmetries follow from the hypothesis that IA-possessors are argument and AL-possessors are adjuncts. Evidence will be provided in support of the claim. Before I come to the discussion of my proposal, let me briefly introduce my assumptions.

A number of proposals, based on data from a variety of languages, have suggested that noun phrases involve one or more functional heads, and that these heads are parallel to Comp, Infl, or Agr in the clausal system (Abney 1987, Aboh 2004, Giusti 2002, Longobardi 1994, Szabolcsi 1994, among others). In this paper, I assume that a nominal structure in Tigrinya minimally contains projections of a single functional head D and the lexical head N as illustrated in (32). Although Tigrinya is SOV (as we have seen in section 2), I assume that DP is head-initial consistent with the data.

$$(32) \quad [_{DP} D \quad \dots [_{NP} N \text{ Argument}]]$$

Following Cinque (1994, 2005), I also assume that nominal modifiers are generated to the left of the head noun as specifiers of a functional projection FP. Cinque proposes that there exists a specific unmarked merge position of the different classes of nominal modifiers across languages and each of these different classes are universally generated in the specifier position of functional projections,

which are located between a DP and an NP. Abstracting away from the details, nominal modifiers in Tigrinya are modifiers simply adjoined to Spec, FP on left, as schematized in (33).

$$(33) \quad [_{DP} D \quad [_{FP} \text{Modifier } [_{NP} N \text{ Argument }]]]$$

This is consistent with Abney's (1987) initial proposal, based on the DP-hypothesis, on the XP-over-NP structure (where XP is a nominal modifier namely an AP) in languages with articles such as English and Spanish.

In what follows, I defend the hypothesis that the two types of possession are syntactically encoded by two distinct structures by arguing that IA-possessors are arguments whereas AL-possessors are modifiers based on additional syntactic evidence. Following these assumptions, I take the argument position to be the complement theta-position of the IA-possessor, while the modifier position to be an adjunct non-thematic position of the AL-possessor. Recall that the contrasts between IAP and ALP have been attributed to a fundamental semantic difference between the two types of possessed nouns, i.e., the fact that IA nouns are inherently relational whereas AL nouns are not (Heine 1997). It will be demonstrated that the hypothesis that IA-possessors are arguments and AL-possessors are modifiers of the possessee head permits an explanation of the fact that the semantic difference of the two types of possession brings about a difference in syntactic structure. In addition, under this hypothesis, the standard assumption that IA nouns take a possessor argument while AL nouns do not is straightforwardly captured. Finally, it will be shown that the hypothesis that IA-possessors are arguments but AL-possessors are modifiers permits an explanation of the asymmetries observed in section 2.

3.1. *IA-Possessors are arguments; AL-Possessors are modifiers*

Regardless of theoretical differences, linguists have assumed that notions such as 'argument' and 'modifier' play an essential role in describing syntactic regularities of the world languages (see Adger 2003 and references cited therein). As Larson (1988) points out most theories of grammar draw a fundamental distinction between arguments and adjuncts within any phrasal category. The essential difference between these two is that while the former are licensed by their heads, the later are not. While this distinction is conceptual, over the years different syntactic criteria have been suggested to distinguish between arguments and modifiers in a variety of languages (see Adger 2003, Larson 1988, Pollard & Sag 1994 and references cited therein). In this section, I discuss some of the syntactic properties that distinguish between arguments and adjuncts in order to explain the asymmetries we observed in section 2 and to support the argument that IA-possessors are arguments whereas AL-possessors are modifiers in Tigrinya.

It has long been observed that copular constructions distinguish modifiers from arguments (see e.g., Grimshaw 1990, Alexiadou 2003, among others). Grimshaw particularly observes that modifiers (but not arguments) are possible predicates. One of the classical examples often used to illustrate the difference between adjuncts (or modifiers) and arguments is the ambiguous *English* DP given in (34) and a related copular clause given in (35):

- (34) The English teacher
 a. teacher from England = modifier
 b. teacher of English = argument

- (35) The teacher is English
 a. teacher is from England = modifier
 b. teacher is a teacher of English ≠ argument

If Grimshaw's characterization of the restriction on copular clauses is correct, then, the facts of Tigrinya discussed in section 2 – relevant schematic representations are given in (36) – receive a straightforward explanation. That is, AL-possessors are modifiers and thus are permitted across a

copula, while IA-possessors are arguments and thus are not permitted across a copula. (Recall that only AL-possessors appear across a copula (=14)).

- (36) a. [SUBJ AL-PSSR COPULA]
 b. *[SUBJ IA-PSSR COPULA]

The hypothesis that IA-possessors are arguments and AL-possessors are modifiers also permits an explanation for the asymmetries we observed between a possessor and a nominal modifier in section 2: nominal modifiers (adjectives and RCs) show differing ordering restrictions with respect to AL-possessor and IA-possessors as the schematized representation in (37) and (38) illustrate. These restrictions on ordering suggest that an AL-possessor has a different status than an IA-possessor.

- (37) a. [AL-PSSR RC/ADJ POSSEE]
 b. [RC/ADJ AL-PSSR POSSEE]

- (38) a. [RC/ADJ POSSEE IA-PSSR]
 b. *[IA-PSSR POSSEE RC/ADJ]

Early generative syntax has already established that the order of constituents is a key for teasing apart arguments from adjunct (or modifiers) (Jackendoff 1977, Quirk et al 1985, among others). Constituents that appear to have no fixed position (relatively free order) are characterized as modifiers, while those that appear to have fixed position relative to the head are characterized as arguments. The following English examples illustrate the facts:

- (39) a. a student [of linguistics] [with gray hair]
 b. *a student [with grey hair] [of linguistics]

- (40) a. a man [from Paris] [with gray hair]
 b. a man [with gray hair] [from Paris]

If this is true, then, it explains why AL-possessors as opposed to IA-possessors have variable order with respect to DP-internal modifiers: nominal arguments such as IA-possessors cannot be freely ordered w.r.t DP-internal modifiers because their syntactic position is fixed and their adjacency is required by the selecting head, N, while nominal modifiers such as AL-possessors can be freely ordered w.r.t other nominal modifiers because their syntactic position is flexible and their adjacency is not required by the selecting head, N.

Similarly, if we consider other diagnostics such as iterativity, which is used to distinguish arguments from adjuncts, it may also consistently tease apart AL-possessors from IA-possessors. As Larson (1988:169) points out “adjuncts and arguments are typically identified according to a number of criteria, two major ones being optionality and iterability.” Here, the relevant question is: Is ALP optional and iterative (i.e., multiple possessors of the same nominal possible), like the text analysis predicts?¹⁰ As we will see momentarily, this is indeed borne out by the data.

¹⁰ I thank an anonymous reviewer who comments that recursiveness is a good diagnostic for distinguishing between adjuncts and arguments in general. The reviewer also asks whether embedding of an IA-possessor over another IA-possessor (e.g., *John's mother's cousin*), and an AL-possessor over another AL-possessor (e.g., *John's friend's book*), or the combination of AL and IA possessors (e.g., *John's mother's book*) would be possible in Tigrinya and predict the text analysis. Although research on these issues is ongoing, preliminary results seem to show that embedding of IA-possessor over another IA-possessor is perfectly fine. This is unsurprising given these two have different roles. The embedding of AL-possessor over another AL-possessor results in ungrammaticality (ia), which is self-evident again because ‘friend’ is relational. In order to embed AL-possessors over another, Tigrinya uses the combination of *nay* and the pronominal form (ic) or swap the order of the possessor with the possessee if relational, as expected, as in (ib).

Quirck et al (1985) note that modifiers are optional and iterative, but arguments are not (see, because arguments are required to receive a semantic role from the selected head and are limited in number (maximum two per syntactic nominal) as heads can only assign a given type of role once. For heads can license their arguments, but not their modifiers, arguments tend to be obligatory (not optional). Since there is no such a licensing and thematic restriction on adjuncts, they are allowed to be iterative (and in principle could have an infinite number). If this is true, then, we expect AL-possessors, which are modifiers to be optional and iterated, while AL-possessors, which are arguments, not; this prediction is borne out by the data, as illustrated in the following examples:

- (41) a. (nay-joni) mäs'haf
NAY-John book
'(John's) book'
- b. ħafti *(joni)
sister john
'John's sister'
- (42) a. nay-joni nay ħami nay-səwasiw mäs'haf
NAY-John NAY-last year NAY-grammar book
'John's last year's grammar('s) book'
- b. nay-ħami nay-joni nay-səwasiw mäs'haf
NAY-lastyear NAY-John NAY-grammar book
'John's last year's grammar book'
- c. *wəddi g^wal ħafti joni
son daughter sister john
'John's sister's daughter's son'

-
- (i) AL-possessors
- a. *nay joni nay ħarki mäs'haf
NAY John NAY friend book
- b. [[nay ħarki] joni] mäs'haf
NAY friend John book
- c. [nay joni [ħark-u]] mäs'haf
NAY John friend-his book
'John's friend's book'
- (ii) IA-possessors
- a. ?addə joni
mother John
'John's mother'
- b. ?haw ?addə joni
brother mother John
- c. ħaw ?addi-u n-joni
brother mother-his to-John
'John's mother's brother'

The text analysis predicts that co-occurrence of AL and IA possessors (AL-pssr perhaps c-commanding IA-pssr) is possible as possessors in both constructions are merged in different positions. Also, given inalienability is both a lexical and syntactic property of individual nouns; it is expected variation across languages in the way they implement it to happen. However, the above data does not seem to be conclusive. Why double marking of *n(ay)-* is used in (iic) is not completely clear, although the reason why (iib) is slightly degraded receives its explanation from the occurrence of most preferred independent compound word for most kin terms, such as 'uncle' for brother of one's mother. Similarly, Tigrinya has the word *ʔakko* for uncle; therefore Tigrinya speakers prefer to say *ʔakko joni*, instead of *haw ʔaddə joni*, hence why, the construction is degraded. I leave the issue open for future research.

Thus, the fact that (41b) is ungrammatical while (42a) is grammatical suggests that an AL-possessor such as *nay joni* ‘John’s’ or the DP that dominates this word is a modifier to the possessee ‘book’, whereas an IA-possessor such as *joni* ‘John’ is an argument to the possessee *hafti* ‘sister’. Also, AL-possessors can iterate (42a) and reorder freely (42b) because they are modifiers, but IA-possessors cannot because they are arguments (43c). Note that iteration or embedding of multiple complements is only possible if they do not have the same role (cf. **John’s Martha’s grammar book* or **today’s last year’s grammar book*). The hypothesis that AL-possessors are modifiers whereas IA-possessors are arguments thus correctly predicts that Tigrinya AL-possessors are recursive, while IA-possessors are not.

An additional syntactic argument noted by an anonymous reviewer in favor of drawing a structural distinction between arguments and adjuncts comes from ellipsis. The anonymous reviewer asks if it is ever possible to elide the possessee, as in English *I took Mary’s car, and Bill took [John’s ~~car~~]* type, in Tigrinya ALP, as the text analysis predicts. This prediction is indeed borne out, as we can see from the examples in (43) and (44) below. Tigrinya generally allows deletion of an AL-noun but not an IA-noun. The noun modified by the AL-possessor can be omitted if the context makes its identity clear, but the noun complemented by the IA-possessor cannot:

- (43) a. kab [[nay-ħagos] məkina] [[nay-joni] ____] ti-bəlis
 from NAY-Hagos car NAY-John 3fsgS-better.IMPF
 ‘John’s car is better than Hagos’s.’
- b. [[nat-ka] məkina] kab-[[nat-əy] ____] ti-nihir
 NAY-2msg car from-of-1sg 3fsgS-fast.IMPF
 ‘[your car] is faster than [mine/my ~~car~~].’
- c. [[nay-ħagos] məshaf] ʔanbib-əyy-o
 NAY-H book read.PF-1sgS-3msgO
 [[nay-joni] ____] ġinna ʔayə-nbəb-ku-wwo-n
 NAY-John but Neg-read.PF-1sgS-3msgO-Neg
 ‘I have read Hagos’s book, but I haven’t read [DP John’s [NP ~~book~~]]’
- (44) a. *kab [wəddi [ħagos]] [____ [joni]] yi-x’unju
 from son Hagos John 3msgS-handsome.IMPF
 ‘John’s son is more handsome than [Hagos’s ~~son~~].’
- b. *[wəddi [hafti-ka]] kab-[____[haft-əy]] yi-ħas’ir
 son sister-2msg from sister-1sg 3msgS-short.IMPF
 ‘[your sister’s son] is shorter than [my sister’s ~~son~~].’
- c. *[hafti [ħagos]] rəxib-ə-yya
 sister H find.PF-1sgS-3fsgO
 [____ [joni]] ġinna ʔay-rəxəb-ku-wwa-n
 John but Neg-read.PF-1sgS-3fsgO-Neg
 ‘I have met Hagos’s sister, but I haven’t met [DP John’s [NP ~~sister~~]]’

Note that the examples in (44) are all OK under the reading on which there is no elided material on the second DP. That is, (44) may be grammatical only under the following reading: ‘John’s son is more handsome than John’, ‘your sister’s son is shorter than my sister’, or/and ‘I have met Hagos’s sister, but I haven’t met John.’ Crucially, the examples in (42) do not have these readings. This is consistent with the observation that IAPs are different from ALPs in Tigrinya. The question is: does this prove that IA-possessors are arguments while AL-possessors are adjuncts?

According to the standard analysis of NP-ellipsis, the NP complement of DP is elided when the D head undergoes Spec-Head agreement (or, simply, feature checking) with its spec (see Saito and

Murasugi 1990). Jackendoff (1971) also notes that NP-ellipsis is possible only when it strands a genitive phrase. For example, it has been argued that the possessor phrase *John's* occupies DP Spec and undergoes feature checking with the D head for examples like (45a); thus, the NP complement *book* can be elided. On the other hand, the D head *a* in examples like (45b) do not have anything in their Spec, i.e., there is no feature checking in DP, therefore, NP-ellipsis is not allowed.

- (45) a. John has reviewed Bill's book, but he hasn't reviewed [DP Mary's [NP ~~book~~]]
 b. *John has edited a book, but John hasn't written [DP a [NP ~~book~~]]

Obviously this cannot be the right structure and explanation for Tigrinya ellipsis facts. The possessor in Tigrinya co-occurs with the determiner, and it is always pre-nominal. Under the assumption that in Tigrinya DPs, the position Spec, DP does not follow the D head suggests that the possessor is contained in a lower projection (never in Spec, DP).

Based on Japanese, Saito and Murasugi (1990) (see also Saito et al 2008) propose that ellipsis (NP-ellipsis, VP-ellipsis, etc.) always involves functional heads and in each case the deletion of the constituent is allowed only when the Spec position is filled. At first sight, this analysis seems to give an indirect explanation in line with the analysis developed here for Tigrinya. I.e., the fact that IA-possessors are not allowed to be stranded or elided in Tigrinya is due to the fact that (either) (a) Spec, DP is always empty and/or (b) possessors never occur in Spec, DP. However, Saito and Murasugi's analysis is problematic because they assume that NP-ellipsis with in DP is licensed only when a possessor phrase (i) occupies Spec, DP or (ii) functions as an adjunct (the latter is the case in Japanese). In Tigrinya, as we have seen, AL-possessors can be elided, can function as an adjunct or modifier and never occupy the Spec, DP position. Therefore, ellipsis as a diagnostic for separating adjuncts from complements in possessive construction may not be conclusive. The crucial point to keep in mind, though, AL-possessors allows ellipsis, while IA-possessors do not in Tigrinya.

Finally, an additional syntactic argument in favor of drawing a structural distinction between the two types of possession derives from derivation facts. In their analysis of Blackfoot possession, Ritter and Rosen (2011b) put forward the view that kinship possessors are internal arguments of the possessed noun and provide the English example in (46) in support of their claim:

- (46) a. **the child's** father/mother
 b. Leslie fathered/mothered **the child**.

In (46b), it is clearly shown that the IA-possessor *child* has the role of an internal argument and theta-marked by the verb derived from an IA noun. Although, unfortunately, we cannot replicate this observation in to Tigrinya, as IA-kinship nouns in Tigrinya do not serve as verbs, this piece of data further strengthens the view that IA-possessors are indeed arguments.

Summarizing the results of this analysis thus far, I have shown, using a number of syntactic diagnostics, that an AL-possessor is a modifier while an IA-possessor is an argument of the possessed noun. Previous analyses have attributed the observed asymmetries to a fundamental semantic difference between the two types of possession; i.e., the fact that IAPs are permanently relational whereas ALPs are not (Vergnaud & Zubizarreta 1992, Heine 1997, among others). In this analysis, all the differences noted above in Tigrinya follow from the syntactic distinction that IA-possessors are arguments of the possessee and AL-possessors are modifiers of the possessee. In what follows, I present the hypothesis that the observed asymmetries are the reflex of different syntactic representations for the two types of possessor relations.

3.2. *The two structures for the two types of possessors*

A number of proposals based on data from a variety of languages have suggested that possessors are merged and licensed in different DP-internal syntactic positions and these syntactic positions are parallel to 'subject' and 'complement' positions in the clausal system (see Alexiadou 2003, Ritter & Rosen 2011a, Wilhelm & Saxon 2010). These authors argue that AL-possessors are introduced by a light functional head *n/Poss* (the equivalent of Kratzer's 1994 *Voice* or Marantz's 1993 *v*) and licensed

as the ‘subject’ of the possessee head merged in the specifier of *nP* (PossP for Alexiadou 2003). For IA-possessors, they propose that IA-possessors are selected as the complement of the noun possessee, hence in the complement position of the lexical layer NP. Although I agree with many of these works in syntactically distinguishing between ALP and IAP and characterizing IA-possessors as complements of the possessed head, I diverge from them in determining the merge position and function of AL-possessors in Tigrinya. In Tigrinya, as we have seen above AL-possessors consistently pattern with nominal modifiers (never as ‘subjects’). I therefore propose that AL-possessors, like nominal modifiers, must be merged in a specifier position of a functional head FP on left (Cinque 1994). On the other hand, in line with the above authors, IA-possessors must be merged in the complement position of the lexical layer NP in Tigrinya because they are licensed by the possessee head N. (47a) and (47b) illustrate the proposed structures for IAP and ALP:

- (47) a. [_{DP} D [_{FP} AL-Pssr [_{NP} N]]] ALP
 b. [_{DP} D [_{NP} N IA-Pssr]] IAP

To show how the analysis is actually implemented, consider (48a) and (49a) with their illustrative examples given in (48b) and (44b), respectively:

- (48) ALP
 a. [_{DP} D [_{FP} AL-Pssr [_{NP} N]]]
 b. [_{DP} ?it-i [_{FP} nay-t-i məmhir [_{NP} məs'haf]]]
 D-msg NAY-D-mag teacher book
 ‘the teacher’s book’
- (49) IAP
 a. [_{DP} D [_{NP} N IA-Pssr]]
 b. [_{DP} ?it-a [_{NP} hafti [?it-i məmhir]]
 D-fsg daughter D-msg teacher
 ‘the teacher’s sister’

The analysis correctly derives the surface word order of ALP and IAP without resorting to any movement operations. The fact that AL-possessors precede the possessee head noun follows from the assumption that AL-possessors are base-generated as adjuncts in the specifier position of a functional head F on left inside a DP. Since IA-possessors are semantically and syntactically dependent on the possessed noun and they are lexical arguments, they form a phrase with the possessee head by remaining in the lexical layer NP. In other words, the analysis enables us to formally express the status of IA-possessors by merging them in a lower structural position where they get properly licensed than AL-possessors.

Moreover, the analysis straightforwardly accounts for the ordering restriction between nominal modifiers and possessors observed in Tigrinya. Consider (50) and (51). As the examples in (50b-c) and (51b-c) illustrate (see also section 2.2), AL-possessors are licit when they appear before or after the possessee, while IA-possessors are only licit when they precede the possessee. To account for these facts, I assume that nominal modifiers (adjectives and RCs) are base-generated as modifiers in Spec of FP (see Cinque 1994) and that they always remain in that position throughout the derivation, as illustrated in (50a) and (51a).

- (50) ALP
 a. [_{DP} D [_{FP} AP [_{FP} AL-Pssr [_{NP} N]]]

- b. $[_{DP} \text{?it-i} \quad [_{FP} \text{?abayi} \quad [_{FP} \text{nay-t-i} \quad \text{məmħir} \quad [_{NP} \quad \text{məs'haf}]]]]$
 D-fsg big.m NAY-D-mag teacher book
 ‘the teacher’s big book’
- c. $[_{DP} \text{?it-i} \quad [_{FP} \text{nay-t-i} \quad \text{məmħir} \quad [_{FP} \text{?abayi} \quad [_{NP} \quad \text{məs'haf}]]]]$
 D-fsg NAY-D-mag teacher big.m book
 ‘the teacher’s big book’

(51) IAP

- a. $[_{DP} \text{D} \quad [_{FP} \text{AP} \quad [_{NP} \text{N} \quad \text{IA-Pssr}]]]$
- b. $[_{DP} \text{?it-a} \quad [_{FP} \quad \text{nəwəħ} \quad [_{NP} \quad \text{ħafti} \quad [_{?it-i} \quad \text{məmħir}]]]]]$
 D-fsg tall.f daughter D-msg teacher
 ‘the teacher’s tall sister’
- c. $*[_{DP} \text{?it-a} \quad [_{FP} \quad [_{NP} \quad \text{ħafti} \quad [_{?it-i} \quad \text{məmħir}]]] \quad \text{nəwəħ}]]$
 D-fsg daughter D-msg teacher tall.f
 ‘the teacher’s tall sister’

The questions that need to be answered here though: Is the order of nominal modifiers and AL-possessors free? Is one more basic than the other? From the examples, I argue that the order is free and assume that both nominal modifiers and AL-possessors are adjuncts that merge in either order. Since the order with IA-possessors is fixed (not free), this suggests that both IA-possessors and nominal modifiers do not compete for the same position and thus merge in fixed order.

As the analysis in (50) and (51) show, the fact that the order of nominal modifiers wrt AL-possessors is free, but fixed wrt IA-possessors is straightforwardly captured. When an AL-possessor co-occurs with an adjective (or a RC), the analysis predicts that both adjoin to FP without any precedence restriction (cf. (40)); this follows from the assumption that AL-possessors and nominal modifiers are both freely ordered adjuncts and should be merged to a specifier of the same functional head in either order. On the other hand, the hypothesis that IA-possessors are arguments of the possessee that merge in the complement position allows to straightforwardly capture the standard assumption that IA-nouns are inherently transitive; i.e., they require an inherent argument semantically and syntactically and the possessor satisfies that (see Barker 2010). That is, the analysis in (51b) allows an IA-noun to license its possessor argument in a head-complement structure by enabling the possessor and the possessee to be included under the same maximal projection as a unit. In this way, the standard assumption that IA-possessors are semantically and syntactically dependent on the possessed noun can be straightforwardly captured. On the other hand, the analysis in (50b) permits an AL-possessor to predicate a separate property to its head possessee like any nominal modifier does.

Moreover the analysis straightforwardly ensures the semantic dependency or closeness between the possessor and its head to translate into their syntactic dependency or closeness; if we assume that arguments are required to be locally adjacent to the head but adjuncts are not, then we expect IA-possessors to show a closer syntactic (and semantic) relationship with their head than AL-possessors (see Alexiadou 2003). This is indeed what we find in the syntactic analysis developed here: IA-possessors are arguments and should be Merged adjacent to the head noun, while AL-possessors are modifiers and should be adjoined far from the head noun.

Finally, if the hypothesis I defended here is right, we expect arguments of other relational nouns (including deverbal nouns) to pattern with the IA-nouns (but not with the AL-nouns). This prediction is borne out as we can see from the examples below:

- (52)a. $\text{?arki} \quad \text{joni}$
 friend John
 ‘John’s friend’

- b. **nay* *joni* *ʕarki*
 nay John friend
- (53)a. *ʕinwət* *ʔit-a* *kətəma*
 destruction D-fsg city
 ‘destruction of the city’
- b. **nay* *ʔit-a* *kətəma* *ʕinwət*
 nay D-fsg city destruction

As Barker (2010) correctly points out relational nouns are characteristically transitive (a two-place relational noun) and license complements such as possessors. In (52a), *friend* is a relational noun because a person counts as a friend only in virtue of standing in a particular relationship with another individual. Similarly, the deverbal noun like ‘destruction’ in (53a) inherits its argument-taking property from its verbal counterpart ‘destroy’ and thus it licenses ‘the city’ as its complement. What is relevant here is the fact that these nouns are not allowed to pattern with the AL-nouns and that these patterns are predicted by the hypothesis that IA-possessors are arguments that take only the [*possessee possessor*] structure, while AL-possessors are modifiers that take the [*nay possessor possessee*] structure.

4. Conclusion

In this paper, I have shown that IAP and ALP are encoded through two distinct syntactic structures in Tigrinya. Based on several syntactic diagnostics, I argued that the syntactic and semantic distinction is due both to the nature of the possessee and the position of the possessor with respect to its possessee. I have demonstrated, based on several pieces of syntactic evidence, that IA-possessors are arguments & must be merged in an argument position, while AL-possessors are modifiers & must be adjoined in a modifier position.

Many questions remained open regarding the Tigrinya noun-phrase structure. A theoretical issue left open concerns the syntactic position of AL and IA possessors, if we assume functional projections. In Minimalism (Chomsky 2001), it has been argued that a nominal structure contains projections of functional categories D, Num, and *n*, much as the clausal structure contains projections of functional categories T/Infl, Asp, and *v* (see Alexiadou et al. 2007 for an overview of different proposals along these lines). However, it is not clear whether Tigrinya needs to have the same functional projections in its nominal structure. In order to fully account for the exact position of an IA and AL possessor, it is very important to address the question of what is the internal structure of a Tigrinya DP? Also, if we assume that there exist more functional projections (than assumed here), it is very central to figure out the merge position of nominal arguments and modifiers in order to specify the syntactic position of AL and IA possessors.

Another question that remains open in the overall discussion of the paper is the role and nature of *nay* in Tigrinya. We have seen that *nay* is one of the distinguishing elements of the two types of possession (ALP and IAP); but throughout the paper I haven’t said anything about it. These issues and other related outstanding questions will be addressed in my upcoming projects.

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