

# Chapter 5

## Clitics or agreement markers: A view from Tigrinya clausal possession and modal necessity

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This paper discusses the connection between clausal possession and modal necessity in Tigrinya. One of the unique traits of the two constructions is that they involve the same verbal element *?allaw-*, which hosts an object marker that tracks what appears to be a subject. Using a number of diagnostics, I first demonstrate that the object marker is an agreement affix and that it should be amenable to the operation Agree. Then, using several pieces of morphosyntactic evidence, I argue that the mismatch (the object marker tracking what looks like a subject) arises due to the fact that the DP the object marker references is a “quirky” argument is forced to remerge higher to escape an intervention effect. Finally, I present a syntactic analysis for clausal possession and modal necessity, claiming that *?allaw-* is the spell-out of the APPL head that relates two arguments in Tigrinya.

### 1 Introduction

In Tigrinya, a Semitic language mainly spoken in Ethiopia and Eritrea, there is a verbal root  $\sqrt{h-l-w}$  that marks clausal possession (1a) and modal necessity (1b).<sup>1</sup> This verbal root, like any other transitive verbal root in the language, can be affixed with a bound morpheme, which is traditionally referred to as the *object*

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<sup>1</sup>The verb also marks locational predication, and often is referred to as “existential copula” in the literature (e.g., Hetzron 1972). In this paper, I will simply gloss it as HAVE to refer to a general clausal possession marker (see Myler 2016 for a similar usage), without judging it as ‘be’ or ‘have’.



*marker*. In both constructions, the bound morpheme, which I hereafter call the object marker (OM), tracks the same argument, i.e., *Selam* (a feminine personal name).<sup>2</sup>

- (1) a. Clausal possession  
       *Selam* sələstə k'olʃut *ʔalləw-u-wwa*  
       *Selam* three child.PL HAVE-3MPL.S-3FSG.O  
       ‘*Selam* has three children.’
- b. Modal necessity  
       *Selam* ni-gəza ki-t-məs's'iʔ *ʔalləw-wa*  
       *Selam* to-house FUT-3FSG-come HAVE-3FSG.O  
       ‘*Selam* has to come home.’

The two examples in (1) are similar in the sense that they both involve the same verbal root *ʔalləw-* (*italicized*) and two arguments – two DPs in (1a) and a DP and a proposition (TP) in (1b). The two constructions, however, are unusual in one particular respect: They both have an OM (**bold**), which controls what appears to be the “subject” in their respective clauses. That is, there is the same noun phrase, *Selam*, which acts as a possessor in (1a) and as an obligation bearer in (1b), being tracked by the same morpheme, realized as *-(ww)a* (**bold**) in both as well as in a simple transitive verb ‘kiss’ given below.

- (2) Simple transitive  
       Yared ni-*Selam* siʔim-u-wwa  
       Yared ACC-*Selam* kiss.PFV-3MSG.S-3FSG.O  
       ‘Yared kissed *Selam*.’

Two questions arise from the data in (1): (i) What is the status of the OM? and (ii) How do we account for the correlation between the clausal possession (CIP) and modal necessity (MoN)?

In the literature, the analysis of similar elements (like the Tigrinya OMs), across a number of languages has inspired a great deal of debate (see Nevins 2011 for an overview and reopening of the debate; see also Kramer 2014 based on Amharic). Conceptually, clitics and agreement markers appear different, but in practice, they can be difficult to tease apart, as both share many properties in common. For example, both can be defined as prosodically weak (unaccented) morphemes, characterized by different degrees of phonological “affinity” to their

<sup>2</sup>I am using the term OM here pre-theoretically. In Tigrinya, since the bound morpheme occurs at a position where other ordinary OMs occur, as in (2), I will continue to refer to it as such (see Kramer 2014 for similar use).

host (Stump 2001). Their phonological properties, however, can be seen as quite separate from their morphosyntactic behaviour. As Stump (2001: 16) points out, the fact that clitics exhibit an affix-like phonological dependency on a neighbouring word may make them difficult to distinguish from affixes, even though their morphosyntax, which is word-like, appears quite distinct.

From a morpho-syntactic point of view, clitics are generally assumed to be optional and freely movable (Corbett 2006), but agreement affixes are obligatory and strictly local (Preminger 2009). In addition, from a theoretical stand point, agreement affixes are realizations of  $\phi$ -features (exponed on a functional head), whereas clitics are pronominal copies of the arguments they cross-reference (Nevins 2011, Kramer 2014). While these are important distinctions, since arguments for and against such fundamental syntactic distinctions abound, it is important to consider other robust (morpho)syntactic diagnostics to determine whether the OM in (1) belong to elements that cross-reference arguments or to elements that realize the  $\phi$ -features of the arguments associated with them. One of the most widely-adopted methodologies in response to this question is to run a number of diagnostics (Zwicky & Pullum 1983) and check whether the predictions the diagnostics make are borne out in the data. In their seminal work, Zwicky & Pullum (1983), for instance, discuss a list of phonological, morphological, syntactic and semantic properties that separate clitics from (agreement) affixes. While some of their diagnostics have been deemed less relevant due to lack of current theoretically-grounded motivation (see Nevins 2011 for discussion), for this paper, I adopt the general approach in Zwicky & Pullum (1983) as well as in many others (e.g., Kramer 2014, Oxford 2014, Compton 2016, a.o) in determining the status of the OM in Tigrinya.

The remainder of the paper is organized as follows: §2 presents some theoretical context for CIP and MoN as well as for agreement markers and clitics; §3 tests some predictions to determine whether OM in Tigrinya CIP and MoN are better predicted under the clitic or the agreement approach; §4 presents some morphosyntactic evidence that comes to prove whether the syntactic argument the OM tracks is a true subject or not; §5 provides some preliminary analysis for the OM in CIP and MoN; finally, §6 presents reasons for the mismatch (the OM tracking an apparent subject), while §7 concludes with some remaining issues.

## 2 Theoretical context

This section provides a brief overview of CIP, MoN and clitics and agreement affixes. It also contains background information on theoretical assumptions relevant for these issues.

## 2.1 Possession and modal necessity

In many languages, CIP is expressed with the same mechanism as MoN (Bhatt 1997; Bjorkman & Cowper 2016). It has been reported that this correlation is not only observed with languages that express possession with ‘have’, as in (3), but also with languages that express possession with ‘be’ plus a preposition/oblique case, as in (4).

- (3) a. The students have three assignments this week.  
(Bjorkman & Cowper 2016: (1))  
b. The students have to do their homework now.

- (4) Hindi/Urdu (Bhatt 1997: 8)  
John-ko seb khaa-naa/sirdard hai  
John-DAT apple eat-GER/headache be.PRES  
‘John has a headache/has to eat the apple.’

The fact that languages allow the same morphosyntactic elements ‘have/be’ and ‘have’ + infinitive or ‘be’ + oblique + infinitive to encode possession and MoN have invited different scholars to develop a proposal that establishes a link between the two. For instance, Freeze (1992) proposes that possessives (as in, *John has a book*) and existential/locative constructions (as in, *There is a book on the table*) are derivationally related and that possessives are underlyingly ‘be’ plus incorporated P-element (see also Harley 1995, Levinson 2011, a.o, for a similar proposal). Under this proposal, possessives are a kind of existential construction, argued to have the same underlying representation as in (5).

- (5) a. BE<sub>existential</sub> [(a book) (to John)]  
b. BE<sub>existential</sub> [(a book) (on the table)]

In the same unificational spirit, Bhatt (1997) claims that MoN/obligation and CIP are structurally linked and that the former is a kind of existential construction. Bhatt particularly considers two options to syntactically analyze MoN: syntactic Control, as in (6a) and syntactic Raising, as in (6b).

- (6) a. There is an obligation [(PRO<sub>i</sub> to eat an apple) (to John<sub>i</sub>)]  
b. There is an obligation [(John to eat an apple)]  
(Bhatt 1997: (12))

According to Bhatt, while (6a) makes a direct link between the existential and MoN, he favours (6b) as an underlying structure because in it, he argues, the existence of the obligation is clearly asserted. In other words, the modality involved (whether deontic or epistemic) in this structure is clearly implicated. Intuitively,

deontic and epistemic modality are different because they operate in different worlds (Kratzer 2006): while the former describes what the world is like according to someone's desires/the law, the latter describes what the world should be like according to someone's desires/the law and who should be responsible for bringing it into this desired/law-obeying state (Bhatt 1997).

Over the years, linguists have taken a number of syntactic approaches to distinguishing homophonous root and epistemic modals (Matthewson et al. 2005; von Stechow 2006). Much of the motivation for this has been purely semantic: Epistemic modality involves expression of a relation between necessity or possibility and a proposition, while root modality involves a relation between an individual and a necessary or possible event (Butler 2003: 967–968, Matthewson et al. 2005: 166–167, von Stechow 2006: 2, a.o.). Building on Cowper (1989), Bjorkman & Cowper (2016) develop a syntactic proposal for modal 'have' and possessive 'have' arguing that the former is like a part-whole sentence (e.g., *this table has four legs*), except that the relation involves sets of worlds rather than individuals.

In Cowper (1989) (see also Ritter & Rosen 1997) it has been observed that the interpretation of 'have' with nominal complements denoting events and states is largely determined by the complement itself. Cowper argues that 'have' in English doesn't assign thematic roles and positing multiple lexical entries for possessive 'have' is neither necessary nor desirable. Instead, she develops a theory of thematic underspecification which would account for the contextually-associated multiple interpretations of the argument associated with 'have'. Similarly, in Tigrinya, we find evidence that the subject in clausal possession displays a number of thematic relations to the event or state associated with any pragmatically-available relation, as the examples in (7) illustrate.

(7) a. (Agent)

Dr. Yared zihələfə-səmun sələstə mət'bahti nəyr-u-wwo  
 Dr. Yared last-week three operation HAVE.PST-3MPL-3MSG.O  
 'Dr. Yared had three operations last week.'

b. (Patient)

?iz-i-ħimum zih ələfə-wərhi sələstə  
 D-MSG-patient last-month three operation  
 mət'baħ ti nəyr-u-wwo  
 HAVE.PST-3MPL.S-3MSG.O  
 'This patient had three operations last month.'

c. (Experiencer)

Selam mərzam ħimam-risi ?alləw-ø-wa  
 Selam nasty pain-head HAVE-3MSG.S-3FSG.O  
 'Selam has a nasty headache.'

d. (Believer)

Yared zis'ənhət dihirti ?imnət ?alləw-att-o

Yared old odd belief HAVE-3FSG.S-3MSG.O

'Yared has an old odd belief.'

In (7), we can observe that the verb *?alləw-* admits arguments with different thematic roles (from agent to patient to experiencer). The different arguments involved are cross-referenced by the different forms of the OM attached on the verb. One immediate question the above data raises concerns the role of the OM and whether the verb *?alləw-* contributes any meaning at all. Building on Ritter & Rosen 1993 and Cowper 1989, Ritter & Rosen (1997) propose that 'have' doesn't have a lexical meaning of its own, rather the meaning is structurally determined (e.g., comes to mean causative or experiencer when it forms a complex predicate with another verb). Departing from previous proposals (e.g., Freeze 1992), they argue that HAVE is the realization of two argument-structural functional heads (rather than conceived of as the incorporation of P into BE). In more recent Minimalism and Distributed Morphology work, the treatment of HAVE has been further developed to involving different flavours of functional heads (from little *v*, to varieties of *Appl* to *Voice*). Myler (2016), for example, has developed an analysis for the too-many meanings HAVE relates (e.g., experiencers, causers, etc.) in different languages (e.g., Quechua) based on the interaction of functional heads, such as *Voice* and *Appl* (embracing the view that HAVE is semantically vacuous).<sup>3</sup>

Based on the above facts, and following the proposal laid out in Cowper (1989) and in Ritter & Rosen (1997), I argue that the Tigrinya verb *?alləw-* (and its perfective suppletive form *nəyr-*) is a transitive raising predicate with two underspecified or contextually-determined arguments.

Therefore, building on the cross-linguistic idea that HAVE does not significantly contribute core meaning to possession and other related constructions (see Myler 2016; Kim 2011 for a similar proposal), in §5, I develop a syntactic analysis for Tigrinya *?alləw-* in the context of clausal possessives and MoN. But first, in what follows, I will determine the status of the OM attached to *?alləw-* in both constructions.

## 2.2 Clitics or Agreement affix

Ever since Zwicky & Pullum's (1983) seminal work, the two notions *clitics* and (*agreement*) *affixes* have been at the forefront of both typological and theoretical studies across different fields of investigation (e.g., cognition or grammar). Each

<sup>3</sup>Some languages, such as English, allow expletive subjects, as in *It had to have rained last night.* and *There have to be 1000 dollars in my account by noon (otherwise, I will be screwed).* See §2.2 for discussion.

phenomenon has gained widespread attention, especially in many well-studied individual languages and language families (see Uriagereka 1995 on Romance; Franco 2000 on Balkan; Riedel 2009 on Bantu; see also Corbett 2006 and Spencer & Luís 2012 for a typological discussion). What emerges from this vast body of work is that the phonology and morphosyntax of clitics by-and-large are different from that of agreement affixes, even though there is still controversy around what counts as a defining property of a clitic or an (agreement) affix (see Kramer 2014 for discussion).

In fact, much of the descriptive literature does not make a distinction between the two, with either agreement or clitics often used as a cover term for both phenomena (Siewierska 1999; Corbett 2006). Siewierska (1999: 225) (cited in Croft 2013: 3–4) states that “most scholars working on agreement acknowledge that there is no good basis for differentiating between person agreement markers and anaphoric pronouns”. There is also a bit of a warning from Corbett (2006: 112) which states that “a rigid classification into languages with agreement or with pronominal affixes would limit rather than enhance future research.”

However, if more robust approach with more theoretically-grounded diagnostics are adopted, many empirical differences between the two phenomena may emerge and the contrast can be accounted for accordingly. In line with this view, a more recent strand of work pursues this approach with an eye to analyzing object markers as (doubled) clitics (see Harizanov 2014; Kramer 2014 and references cited therein). In this body of work, object clitics are often analyzed as the movement of a D(P) into a verbal complex from within a “big DP” as in Figure 5.1(a). By contrast, object markers are analyzed as the realization of  $\phi$ -features on the verb (Chomsky 2001) as demonstrated in Figure 5.1(b).

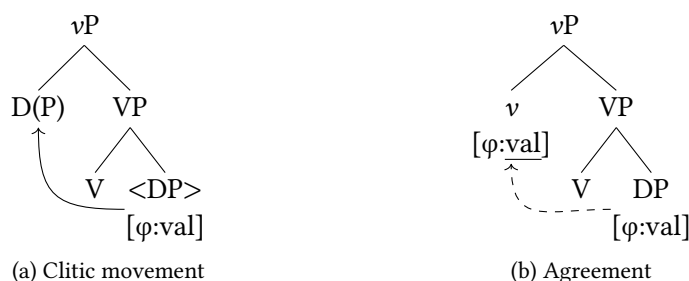


Figure 5.1: Derivations of clitics and agreement affixes

Under this structural difference, (object) agreement is viewed as the valuation of  $\phi$ -feature between a probe (e.g.,  $v$ ) and a  $\phi$ -bearing goal (e.g., object DP) via the operation Agree (Chomsky 2001).

In contrast, clitics are viewed as D(eterminers) that co-occur with their DP associate in a “big-DP” structure and dislocate to lean onto the hosting verb via the operation Move (Nevins 2011).

With this brief background, in what follows, I present a list of diagnostics that differentiate between subject markers (SMs) and (object) clitics, assuming that SMs are bona-fide agreement markers (Nevins 2011; Kramer 2014). A summary of comparison between the properties of subject agreement affixes and clitics is given in Table 5.1 (see Franco 2000, Kramer 2014, a.o. for similar and other diagnostics). The status of the OM will be revealed as a form of prediction once each diagnostic is tested in the context of Tigrinya. It will be shown that Tigrinya OM (in CLP and MoN) pattern more like agreement affixes and that the Agree-based approach straightforwardly accounts for their unique properties.

Table 5.1: Distinguishing clitics and agreement affixes

	Distinguishing properties	Clitics	Subject agreement	OM
1	Freely select	yes	no	?
2	Sensitive to meaning	yes	no	?
3	Optional	yes	no	?
4	Tense invariant	yes	no	?
5	Multiple per host	yes	no	?
6	Dislocate	yes	no	?
7	Non-referential	yes	no	?
8	Exhibit formal similarity with D	yes	no	?
9	Involve Case-alteration	yes	no	?

### 3 Testing the predictions

In the following subsections, I test the predictions each diagnostics listed above makes for Tigrinya OM in order to determine whether each prediction is borne out or not in CLP and MoN.

#### 3.1 Free selection

One of the diagnostics that has been adopted to distinguish clitics from agreement markers is free selection; according to this criterion, agreement affixes are not free to choose their host and should always attach to their host for the sake of



gaining morphological support. Clitics, by contrast, can lean onto a host or stand on their own because they have a somewhat low degree of selection with regard to their host (see Zwicky & Pullum 1983, Anderson 2005, Spencer & Luís 2012, a.o., for discussion). For instance, in English the possessive marker *'s* as a clitic can freely attach to a range of categories, as in *the queen's hat*, *the queen of England's hat*, *the queen we saw yesterday's hat*, etc. without specifically choosing its host (see Spencer & Luís 2012 for discussion).

If this diagnostic is applied to Tigrinya OMs, we would expect the OMs to choose freely and lean onto different hosts if they are deemed to be clitics; however, this prediction is not borne out. In Tigrinya both subject and object markers occur only as affixes attaching to the verbal element (e.g., *ʔalləw-*) and never freely select or independently exist within the constituents of their host (8b and 9b).

(8) Clausal possession

- a. ʔit-a məmhīr kiltə məs'ħafti ʔalləw-u-**wwa**  
 D-FSG teacher two books HAVE-3MPL.S-3FSG.O  
 'The teacher has two books.'
- b. ʔit-a məmhīr (\***wwa**) kiltə məs'ħafti (\***wwa**) ʔalləw-u  
 D-FSG teacher 3FSG.O two books 3FSG.O HAVE-3MPL.S  
 Intended: 'The teacher has two books.'

(9) Modal necessity

- a. ʔit-om təmaharo ki-məs's'-u ʔəlləw-**om**  
 D-MPL student.PL FUT-come-3MPL.S HAVE-3MPL.O  
 Intended: 'The students have to come.'
- b. ʔit-om təmaharo (\***om**) ki-məs's'-u (\***om**) ʔalləw  
 D-MPL student.PL 3MPL. FUT-come-3MPL.S 3MPL.O HAVE  
 Intended: 'The students have to come.'

The examples in (8) and (9) demonstrate that the OMs in Tigrinya MoN and CIP neither freely select nor independently lean onto the different constituents of the host in the verbal complex. They always have to remain, unlike typical clitics, attached to the main verb. Thus, by this diagnostic, Tigrinya OMs are agreement affixes.<sup>4</sup>

<sup>4</sup>An anonymous reviewer raises a question whether there are (morpho)phonological processes that apply across a verb-OM boundary but not across a verb-clitic boundary? If Zwicky & Pullum are right in pointing out that agreement affixes display allomorphy and morphological irregularities, while clitics are expected to be invariant, then Tigrinya OMs that exhibit suppletion and morphological idiosyncrasy should be treated as agreement affixes. Zwicky &

### 3.2 Semantic sensitivity

The tendency of clitics to affect meaning is often discussed in the literature. For instance, in Spanish, clitic doubling is often attributed to the semantic feature ANIMACY (Jaeggli 1986; Ormazabal & Romero 2010), in Romanian it has been argued that it is connected to humanness (Dobrovie-Sorin 1990), in Greek and other Balkan languages, to specificity, definiteness, and/or familiarity (see Kallulli & Tasmowski 2008 and references cited therein for a detailed discussion).

In Tigrinya, while SMs and OMs can co-reference their respective full DP associates, it appears that OMs are more semantically restricted than SMs. That is, an OM requires a specific or definite object associate with regular transitive verbs, but a SM does not have the same restriction. For example, while a verb obligatorily attaches a SM (e.g., *-a*) to reference any subject full DP as in (10), an OM only appears when the object noun phrase is definite or specific; compare (11a) & (11b). Note that Tigrinya uses the numeral *hadə/hanti* ‘one’ as an indefinite marker and that, with the object DP, an accusative (ACC) case marker (*n(i)-*) attaches to it (see §3.9 for more on this).

- (10) a. **ʔit-i** k’olʔa birtʔik’o səyr-**u**  
           D-FSG child glass break.PFV-3FSG.S  
           ‘The child/girl broke a glass.’  
       b. (**hant-i**) k’olʔa birtʔik’o səyr-**a**  
           ONE-F child glass break.PFV-3FSG.S  
           ‘A child/girl broke a glass.’

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Pullum’s (1983) criterion C states that affixes, unlike clitics, are characterized by idiosyncratic forms, irregularities and suppletion (1983: 505). Morphophonological idiosyncrasy happens when either (i) the host is affected by the bound morphemes attached to it, or (ii) the phonological form of the bound morpheme cannot be predicted by general rules. In Tigrinya, we have cases where the host changes its form based on the affixation of the OM (Berhane 1991, Buckley 2000, a.o). Particularly, type A imperfective paradigms, unsuffixed verbs have a geminated medial consonant (e.g., *yi-sə**bb**ir* ‘he is breaking’), whereas verbs suffixed with the OM drop the gemination (e.g., *yi-sə**br**-om* ‘he is breaking them’) (see Lowenstamm 1996, Rose 1997, a.o, for similar description on other Ethio-Semitic languages). Crucially, with CIP and MoN, while the gemination idiosyncrasy may not be fully attested, the verbal root exhibits a clear case of suppletion (e.g., *nəyr-* ‘had (to)’ vs. *ʔalləw-* ‘have (to)’) and morphological idiosyncrasy with the imperfective paradigms, as it surfaces with the radical /h-/ if the OM is involved (e.g., *yi-hall-u-wwa* ‘let her have them’ and *yi-hilliw-wa* ‘may have to ...’) that would otherwise be unavailable in the perfective paradigms (as in *ʔalləw-u-wwa* ‘she has (to)’). Thus, the gemination dropping and the recovery of the initial radical /h/ can be considered as morphophonological processes that apply across a verb-OM boundary, consistent with the agreement nature of the OMs.

- (11) a. *ʔit-a k'olʃa n-ət-i birtʃiko səyr-a-tto*  
 D-FSG child ACC-ONE-MSG glass break.PFV-3FSG.S-3MSG.O  
 'The child/girl broke the glass.'
- b. *\*ʔit-a k'olʃa n-ħadə birtʃik'o səyr-a-tto*  
 D-FSG child ACC-D-MSG glass break.PFV-3FSG.S-3MSG.O  
 Intended: 'The child/girl broke a glass.'

In (10), we have a subject marker irrespective of the definiteness or specificity of the subject noun phrase (compare (10a) with (10b), where we have a definite subject 'the girl' marked by an independent determiner (*ʔi*)*t*-, and an indefinite subject 'a girl' marked by the numeral 'one', respectively). In both cases, the SM is always required, even though there is no nominative case marker as NOM is not morphologically marked in Tigrinya. Crucially, the OM only occurs with the definite full DP associate accompanied by an accusative case marker (reminiscent of the cross-linguistic differential object marking (DOM) phenomenon, Aissen 2003; see also Danon 2011 and Kalin 2016 for a recent discussion tying DOM to  $\phi$ -features). Thus, while any subject – definite/specific (10a) or indefinite/non-specific (10b) – obligatorily triggers subject marking on the verb, it is only when the object is definite/specific (and accompanied by an accusative case marker) that the verb bears an OM. See §3.9 for more on this.

However, the same observation does not carry over to CLP and MoN: OM in both construction types are not entirely conditioned by the definiteness or specificity of the object noun phrase itself – they appear insensitive to such semantic effects. Compare (12) and (13).

(12) Definite

- a. *ʔit-a səbyti sələstə ʔəħwat ʔalləw-u-wa*  
 D-FSG woman three brothers HAVE-3MPL.S-3FSG.O  
 'The woman has three brothers.'
- b. *ʔit-a səbyti ki-t-məs's'if ʔalləw-wwa*  
 D-FSG woman FUT-3FSG.S-come.IPFV HAVE-3FSG.O  
 'The woman has to come.'

(13) Indefinite

- a. *ʔħant-i səbyti sələstə ʔəħwat ʔalləw-u-wwa*  
 one-FSG woman three children HAVE-3MPL.S-3FSG.O  
 'A woman has three brothers.'

- b. ?**hant-i** səbyti ki-t-məs's'i?                      ʔalləww-wa  
           one-FSG woman FUT-3FSG.S-come.IPFV HAVE-3FSG.O  
           'A woman has to come.'

The examples in (12) and (13) show that definiteness does not have a significant role in determining the appearance of the OM in MoN and ClP (compared to the case with regular transitive clauses as in (11)). In (12), a definite DP *ʔit-a səbyti* 'the woman' and an indefinite DP 'a woman' are tracked by the same OM *-wwa*. This suggests that the full DP the OM tracks, in both MoN and ClP, can be definite or indefinite, even though the ones with indefinites are a little bit degraded for some speakers. It appears, though, with an appropriate context, particularly a partitive, the judgements substantially improve; for example, (13a) can be acceptable in the following context: suppose a statistician is collecting census data by counting individuals in a household; after the data collection, the statistician may report "(out of many) one/a woman has three brothers". Similarly, (13b) can be fully licit under the following context: in a co-ed soccer league, if at least one woman/girl is required for a team to play in each game, a head-coach may announce "(for us to play and not to forfeit the game tonight) a woman/girl has to come (to play)". Under such contexts, both constructions with partitive and specific readings become fully licit.<sup>5</sup> In other words, while the OM is not generally sensitive to definiteness in MoN and ClP, for some speakers it appears that partitive and specific meanings seem to play a role in installing OMs onto the verb. I therefore take that OMs in MoN and ClP pattern with subject agreement markers because they are semantically insensitive (at least to some speakers) to definiteness/specificity.<sup>6</sup>

Thus, if it is true that subject markers are true  $\phi$ -agreement markers because they are not conditioned by any semantic effects of their full DP associates (Preminger 2009, Nevins 2011, Kramer 2014, a.o), then OMs in Tigrinya MoN and ClP should be treated as true agreement markers that pattern like subject agreement markers in this respect.

<sup>5</sup>In some cliticizing languages, it is also natural to observe the clitic yielding a different interpretation when doubling an indirect object than a direct object (Bleam 1999), which is not the case with Tigrinya OMs. I thank an anonymous reviewer for asking to clarify this issue.

<sup>6</sup>In fact, if we use a less specific possessee, something every woman or man might possess, as in for example, *a piece of garment/scarf/a pair of pants*, the grammaticality judgement improves as well. Therefore, I take that the fact that the OMs exhibit a slight preference for having an OM with indefinite DPs is not indicative of their clitic status. Thanks to Sharon Rose for pointing out this idea to me.

### 3.3 Optionality

Optionality is widely discussed to distinguish agreement markers from clitics. It has been assumed that clitics are optional, whereas agreement affixes are obligatory (see Corbett 2006, Nevins 2011, Baker 2012, a.o). In Tigrinya, SMs are consistently obligatory (regardless of whether they are indefinite (14a) or definite (14b)), as illustrated below.

- |   |  |
|---|--|
| (14) a. <i>hanti k'olſa birtʃk'o</i><br>one-F child glass<br><i>səyr*(-a)</i><br>break.PFV-3FSG.S<br>'A child broke a glass.' | b. <i>?it-a k'olſa birtʃk'o</i><br>D-FSG child glass<br><i>səyr*(-a)</i><br>break.PFV-3FSG.S<br>'The child broke a glass.' |
|---|--|

On the other hand, OMs are obligatory as long as the associated object DPs are, as pointed out above, definite/specific. Compare (15a) with (15b).

- (15) a. Indefinite object  
*Selam ni-ħadə təmaharay s'ərrif-a\*(-tto)*  
 Selam ACC-one student insult.PFV-3FSG.S-3MSG.O  
 'Selam insulted a student.'
- b. Definite object  
*Selam ni-t-i təmaharay/niſiſu s'ərrif-a\*(-tto)*  
 Selam ACC-D-MSG student/him insult.PFV-3FSG.S-3MSG.O  
 'Selam insulted the student/him.'

With CIP and MoN, OMs are also obligatorily required, as the examples in (16a) and in (16b) illustrate.

- (16) a. Clausal possession  
*?it-a-səbyti kiltə k'olſut ?alləw-u\*(-wwa)*  
 D-FSG-woman two children HAVE-3MPL.S-3FSG.O  
 'The woman has two children.'
- b. Modal necessity  
*?it-om təmaharo kə-s'niſ-u ?alləw\*(-om)*  
 D-MPL student.PL FUT-study-3MPL.S HAVE-3MPL.O  
 'The students have to study.'

Thus, Tigrinya OMs can not be optional. They are rather obligatorily, not only with CIP and MoN, but also with simple transitive predicates as well (15).

If optionality is a reliable property to tease apart canonical agreement from clitics (see also Kramer 2014, Anagnostopoulou 2017, a.o), then Tigrinya OM (of the CIP and MoN type) should be treated as agreement markers.

### 3.4 Tense variability

Tense-variance, as a diagnostic for the agreement-clitic distinction, refers to the contextual allomorphy often observed sensitive to tense. Nevins (2011) proposes that clitics are tense-invariant because they are D-elements/pronouns. In other words, while agreement affixes can display allomorphy conditioned by tense, clitics (being pronouns) cannot.<sup>7</sup>

Nevertheless, if we generally assume that clitics neither change the internal structure of their host nor exhibit morphological variation with a different hosting head (e.g., with Tense, Aspect and Mood (TAM)), while agreement markers may, depending on the TAM markers, then, it is possible to test the prediction on Tigrinya (see, for an application of this diagnostic, Kramer 2014 on Amharic, Compton 2016 on Inuit, a.o).

In other words, we can predict that agreement affixes might show allomorphy conditioned by TMA, but pronominal clitics need not. With this amendment in place, we do observe an asymmetry between the OM and SM in Tigrinya: while SMs exhibit allomorphy across aspectual forms, OM (s) seem to be generally invariant (see Baker 2012 and Kramer 2014 for similar observation on Amharic).

In other words, we can predict that agreement affixes might show allomorphy conditioned by TMA, but clitics need not. With this amendment in place, we could test the asymmetry between the OM and the SM in Tigrinya and predict that while SMs exhibit allomorphy across aspectual forms, OM (s) should be generally invariant. In order to establish the argument, first observe that there is an aspectual opposition between perfect and imperfect aspect in Tigrinya: SMs appear as suffixes when the verb conjugates with perfect aspect, but as discontinuous morphemes (as prefixes and suffixes) when the verb conjugates with im-

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<sup>7</sup>However, since Nevins only considers canonical agreement as subject agreement on T, it is unclear whether clitics are not also expected to show allomorphy with other adjacent hosting heads. As Harizanov (2014: 1082, fn55) points out, the conclusion only seems to follow under the additional assumption that pronominal elements cannot show contextual allomorphy sensitive to the features of another adjacent head. This diagnostic, thus, predicts that if we find a  $\phi$ -cross-referencing morpheme that exhibits variance, we can conclude that it is an agreement affix and occurs on T. On the other hand, if we do not find tense variance, then we cannot conclude whether the morpheme under investigation is conclusively an agreement affix or a clitic. In fact, that's exactly what we would predict in Tigrinya, for the OM is arguably an agreement on Asp head (see Hamilton 2014 for a similar argument based on Mi'gmaq).

perfective aspect. Compare the examples given in Table 5.2 with only 3rd person paradigms presented for ease of exposition.<sup>8</sup>

Table 5.2: Aspectual distinction of Tigrinya SMs

	Perfective	Gloss	Imperfective	Gloss
3msg	səβir- <b>u</b>	He broke	yɪ-səbbir-	He breaks/is breaking
3fsg	səβir- <b>a</b>	She broke	ti-səbbir-	She breaks/is breaking
3mpl	səβir- <b>om</b>	They broke	yɪ-səbr- <b>u</b> -	They break/are breaking
3fpl	səβir- <b>ən</b>	They broke	yɪ-səbr- <b>a</b> -	They break/are breaking

OMs, on the other hand, do not exhibit significant variation based on the aspectual opposition (or other TAM markers) on the hosting verb. Table 5.3 demonstrates the contrast between perfective and imperfective aspect with OMs. For ease of exposition, again, 3rd person masculine singular subject marker is used throughout the paradigms.

Table 5.3: Aspectual distinction of Tigrinya OMs

	Perfective	Gloss	Imperfective	Gloss
3m	səβir-u- <b>wwo</b>	He broke him	yɪ-səβr- <b>o</b> -	He breaks/is breaking him
3f	səβir-u- <b>wwa</b>	He broke her	yɪ-səβr- <b>a</b> -	He breaks/is breaking her
3mpl	səβir-u- <b>wwom</b>	He broke them	yɪ-səβr- <b>om</b> -	He is breaking them
3fpl	səβir-u- <b>wwən</b>	He broke them	yɪ-səβr- <b>ən</b> -	He breaks/is breaking them

While the 3MSG SM is realized as a suffix *-u* in the perfective or as (a prefix) *yɪ-* in the imperfective aspect, the corresponding OM is realized only as a suffix *-(yy)o* or *-(ww)o*, respectively. The allomorphy of the OM being observed is largely phonologically-conditioned – to avoid vowel hiatus; for example, the selection of *y/w* in the OMs *-(y)o* and *-wo* appears partly dependent on the phonological features of the SM and the OM.<sup>9</sup>

<sup>8</sup>The hyphen at the end of the imperfectives indicates the expected ensuing auxiliary.

<sup>9</sup>While many of the formal variations appear phonologically conditioned, as in for example *-y-* or *-w-* is inserted to avoid vowel hiatus (Berhane 1991), others are not (see Gebregziabher 2013 for discussion). For instance, when a 3MPL subject marker, *-om*, is followed by a 3MSG object marker, *-o*, as in */barrix-omm-o/* ‘they blessed him’ in normal speech, it change from *[barrixəmmiwwo]* to *[barrixəmmo]*. This can be taken as an allomorphic variation of the SM conditioned by the OM. Again, since allomorphic variation is not expected with clitics (as opposed to agreement affixes), Tigrinya OMs cannot be clitics in this respect.

With ClP and MoN, the same conclusion obtains, as OMs in both constructions appear aspect-invariant as well. Consider the relevant third person paradigms given in Table 5.4.

Table 5.4: Aspectual distinction of Tigrinya OMs in clausal possession & modal necessity

	Perfective	Gloss	Imperfective	Gloss
3m	ʔallə-/nəyru- <b>wwo</b>	He has/had (to)	yi-hilliw- <b>o</b>	He will have (to)
3f	ʔallə-/nəyru- <b>wwa</b>	She has/had (to)	yi-hilliw- <b>a</b>	She will have (to)
3mpl	allə-/nəyru- <b>wwom</b>	They have/had (to)	yi-hilliw- <b>om</b>	They'll have (to)
3fpl	allə-/nəyru- <b>wwən</b>	They have/had (to)	yi-hilliw- <b>ən</b>	They'll have (to)

Based on the paradigms in Tables 5.2–5.4, one can conclude that OMs in Tigrinya are different from SMs because they are aspect-invariant. Crucially, when it comes to tense, OMs are not affected, as tense in Tigrinya is represented on the auxiliary and OMs never show up on auxiliary verbs (see §3.6 for more on this). Thus, at first look Tigrinya OMs appear to have clitic-like properties because they are aspect-invariant; on a closer look, however, the correlation – morphological invariance with respect to tense – need not strictly hold as Aspect in many clitic-doubling languages does not have any real effect (because pronouns normally do not necessarily co-vary with Aspect). In addition, tense-variance as a diagnostic becomes helpful only if the supposed OMs do exhibit variation for tense; however, strictly speaking, such correlation does not hold in Tigrinya, as Tense is normally indicated by auxiliary verbs that are immune to hosting OMs.

Therefore, I take it that tense-invariance does not offer any additional evidence for differentiating whether OMs in Tigrinya are agreement affixes or clitics, and thus, may not be directly relevant as a viable differentiating diagnostic for the status of clitic-/agreement distinction in Tigrinya.

### 3.5 Multiple object marking

In a typical language with clitics, doubling more than one internal argument simultaneously is the norm rather than the exception. An illustrative example from Greek, where both the accusative Theme ‘the book’ and the genitive Goal ‘John’ are doubled, is given below:

- (17) Greek (Anagnostopoulou 2006: 548)
- tu to edhosa to vivlio tu jani  
 3MSG.GEN 3MSG.ACC gave.1SG the book.ACC the John.GEN  
 ‘I gave the book to John.’



In Tigrinya, however, only a single OM per clause is allowed, as the following ditransitive clauses demonstrate (see Baker (2012: 8) for similar observation in Amharic).<sup>10</sup>

- (18) a. Yared ?it-i mäs'haf *ni-Selam* hiß-u-**wwa**\*-**wwo**  
 Yared D-MSG book DAT-Selam give.PFV-3MSG.S-3FSG.O-3MSG.O
- b. Yared *ni-t-i* mäs'haf *ni-Selam*  
 Yared ACC-D-MSG book DAT-Selam  
 hiß-u-**\*wwo**/-**wwa**  
 give.PFV-3MSG.S-3MSG.O/-3FSG.O  
 Intended: 'Yared gave the book to Selam.'

In (18), we observe that multiple OMs are prohibited in the context of ditransitive clauses. For example, in (18a), we see that more than one OM results in ungrammaticality. In addition, in (18b) tracking the theme (as opposed to the goal) generally renders ungrammaticality. Nevertheless, even though the OM can track different thematic arguments, there is always a single OM per clause permitted in the language.

The same restriction is observed with MoN and CIP: the verb does not host more than a single OM (although testing multiple objects in the domain of CIP and MoN does not always appear to be viable).

- (19) a. CIP  
 S. *ni-wædd-a* *bizuhat* mäs'hafti ?alləw-u-**wwa**\*-**wwo**  
 S. ACC-son-her many books HAVE.3MPL.S-3FSG.O -3MSG.O  
 'Selam has a lot of books for her son.'

<sup>10</sup>Baker uses a similar observation to claim that in Amharic the OM is a canonical agreement marker. Baker argues that for the clitics view to pass, it requires resorting to some kind of clitic cluster simplification process, in which one OM is deleted after/before another one at PF – an added stipulation. In contrast, the agreement analysis has a very simple account of why an OM is unique: there is only one functional head F/AgrO in the functional architecture of the clause (just as there is only one T head), and it agrees only once. However, (Kramer 2014: 624–625) contends that the restriction on multiple OMs in Amharic is neutral between an agreement and a clitic doubling analysis. For example, if multiple probe or multiple Agree is invoked (Hiraiwa 2005), then “all that needs to be said is that Amharic does not have multiple Agree”. In this respect, it appears that clitics and agreement affixes are essentially the same phenomenon under the operation Agree, and their difference ultimately, as Kramer 2014 clearly points out, boils down to the presence/absence of multiple probes: multiple probes in languages with multiple OMs and a single probe in languages with a single OM. However, this naturally raises the question of why, as (Kramer 2014: 626) cogently puts it, “all clitic doubling languages seem to have multiple Agree/multiple probes”.

b. MoN

S. ni-wədd-a mäs'hafti ki-t-gəz? ʔalləw-wa\*-wwo  
 S. ACC-son-her books FUT-3FSG.S-buy.IPFV HAVE-3FSG.O/-3MSG.O  
 'Selam has to buy books for her son.'

Thus, while it is the norm in cliticizing languages to have more than one clitic pronoun, more than a single appearance of the OM renders ungrammaticality in Tigrinya. If this line of argument is on the right track, then OMs in Tigrinya are agreement markers (not clitics).

### 3.6 Dislocation/movement

One of the defining properties of clitics is movement/dislocation (see Sportiche 1996; Poletto & Pollock 2004); and often depending on their position relative to the host or the site of their attachment, they are referred to as *proclitics*, *enclitics*, or *endo-clitics* (see also Spencer & Luís 2012 for a detailed discussion). When other material is involved with the host of the clitic, namely auxiliaries and adverbs, the clitic normally attaches to the auxiliary verb or gets intervened from the host by an adverb. For instance, in Romanian, the clitic *l-* leans onto the auxiliary 'have' and not the main verb 'see', as shown below (Anagnostopoulou 2006).<sup>11</sup>

(20) Romanian (Anagnostopoulou 2006: 532)

**l-am**                      **văzut** pe Popescu  
 him.ACC-have.1SG seen pe Popescu  
 'I have seen Popescu.'

In addition, in some Romance and Slavic languages, clitics can be separated from the main verb when adverbs and negation markers are involved (Giusti & Stavrou 2008), suggesting that movement/displacement is still the core feature of clitics. The following examples from Greek and Serbo-Croatian illustrate the point.

<sup>11</sup> A reviewer mentions that Kramer (2014) argues that low-positioned OMs are clitics in Amharic and that there is nothing inherent to clitic-hood that forces them to attach to auxiliaries. This, however, raises the question of why only the Amharic/Tigrinya OMs do not dislocate but (Romance) clitics do? Cross-linguistically, clitics are un-selective and inherently freely movable (Spencer & Luís 2012); for example, when auxiliaries enter to the picture, the clitic normally attaches to them as opposed to the main verb (quite distinct from the OM in Tigrinya and Amharic). Uriagereka (1995: 108) points out that in Romance "clitics need not be associated to a given verb and can thus climb", obtaining different orderings. While clitic-climbing and doubling may have a different treatment, still it is not clear why Tigrinya does not exhibit any empirical evidence for either phenomena if OMs are truly clitics in the data under investigation.

- (21) a. Greek (Giusti & Stavrou 2008: 532)  
 To vivlio mu                **emena den** pulithike katholu  
 the book me.GEN.STR not     sold at.all  
 ‘My book was not sold at all.’
- b. Serbo-Croatian (Bošković 2004: 75)  
 Jovan **mi**        **ga**        juče        dade  
 Jovan me.DAT it.ACC yesterday gave  
 ‘Jovan gave it to me yesterday.’

However, OM<sub>s</sub> in Tigrinya are different. Recall that Tigrinya has auxiliary verbs, such as *?iyy-* ‘be (pres(ent))’ and its suppletive forms *nəbər-/nəyr-* ‘be (past)’. When the auxiliaries appear on the clause, neither can host the OM (only the lexical verb can) in a simple transitive clause.

- (22) Yared nə-t-om    k’olŋu    ki-mihr-om  
 Yared ACC-D-MPL children FUT-teach.IPFV-3MPL.S  
 ?iyy-/nəyr-u(\*-wwom)  
 AUX.PRES-/AUX.PST-3MSG.S(-3MPL.O)  
 ‘Yared will teach/would have taught the children.’

Crucially, observe that the verb *?alləw-* (with its root future form *hilliw-*) can occur with either of the auxiliaries (*?iyy-* or *nəyr-*), and unsurprisingly, the OM does not “lean on” the accompanying auxiliary, regardless of whether the verb has different mood/aspectual forms. It must appear on the lexical verb. Compare the following examples:

- (23) Selam hadə-məŋalti k’olŋu    ki-hilliw-u-wwa  
 Selam one-day        children FUT-HAVE-3MPL.S-3FSG.O  
 ?iyy-om-/nəyr-om(\*-wwa)  
 AUX.IPFV-/AUX.PF-3MPL.S(-3FSG.O)  
 ‘Selam will/would have children one day.’
- (24) Selam loməŋanti ki-t-məs’s’i?                ?alləw-wa  
 Selam today        FUT-3FSG.S-come.IPFV HAVE-3FSG.O  
 ?iyy-a-/nəyr-a(\*-wa)  
 AUX.IPFV-/AUX.PFV-3FSG.S-3FSG.O  
 ‘Selam will/would have to come today.’

If Tigrinya OM<sub>s</sub> were clitics, they would have shown signs of displacement/dislocation when auxiliaries (and adverbs) accompany the hosting verb as in

(23) and (24). As we can observe from the above examples, OM<sub>s</sub> remain solely attached as suffixes to the main verb, a property fully consistent with the agreement approach.

### 3.7 Referential-binding

Referential-binding as a diagnostic is concerned with the question of whether OM<sub>s</sub> have a referential index or not. In many languages, an OM is associated with specificity, definiteness and animacy/humanness (see Aissen 2003, Danon 2006, Kalin 2016, a.o for discussion).

For example, in Romance languages, where object marking is associated with specificity and/or animacy, it has been argued that clitics are not individual denoting pronouns, because they do not bear referential index (Sportiche 1996 & later work). On the other hand, Baker & Kramer (2018) argue that OM<sub>s</sub> in Amharic are clitic pronouns because (unlike true agreement markers) they are not possible with (non-referentially) quantified objects and/or with anaphoric objects.<sup>12</sup>

- (25) Ləmma hullu-n-imm səw/ ras-u-n ayyə-(\*w)  
Lemma every-ACC-FOC person/ self-his-ACC see.PFV-3MSG.S-(3MSG.O)  
'Lemma saw everyone/himself.'

However, in Tigrinya OM<sub>s</sub> are allowed with quantified and anaphoric objects in CIP and MoN, as the following examples illustrate.

- (26) CIP  
Selam kullu faynət/nay-baʕla məs'hafti ʔalləw-u-\*(wwa)  
Selam all kind/POSS-herself books HAVE.PFV-3MPL.S-(3MSG.O)  
'Selam has every kind of/her own books.'

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<sup>12</sup>Baker & Kramer (2018) argue that quantified and anaphoric objects in Amharic can be doubled by OM<sub>s</sub> when the object itself is higher than the attachment site of the OM, preventing a Weak Crossover (WCO) violation. They attributed this distribution to the fact that the OM in Amharic is a clitic pronoun – a referentially active element, which is dependent on the object – and the ungrammaticality is ruled out by WCO effect and principle B of the binding theory. While variable order of a direct object and an indirect object is possible in Tigrinya (see Mason 1996; Kifle 2007; for discussion), a careful comparison between Tigrinya OM<sub>s</sub> and Amharic OM<sub>s</sub> should, unfortunately, remain open for a different paper.

(27) MoN

Selam (ni)-kullu səb/ni-baʃla ki-tə-xibbir  
 Selaam (ACC-)every person/ACC-herself FUT-3FSG.S-respect.IPFV  
 ʔalləw\*(-wa)  
 HAVE-(3MSG.O)  
 ‘Selam has to respect everyone/herself.’

If referential-binding is a true diagnostic for separating clitics from agreement markers, then OMs in Tigrinya (ClP and MoN) should not be treated as clitics.

### 3.8 Formal similarity with D

Formal similarity between clitics and determiners in cliticizing languages, such as Romance suggests that they belong to one and the same category, namely the category D (Bleam 1999, Uriagereka 1995; see also Preminger 2014). In fact, it appears that the main proposal for clitics, namely “big DP” (e.g., Nevins 2011), largely rests on this view (Bleam 1999). In Tigrinya, the definite marker is an independent pre-nominal determiner (*ʔit-*) and is formally distinct from not only the third person singular masculine (*-(ww)o*) and feminine (*-(ww)a*) but also from the third person plural masculine (*-om*) and feminine (*-ən*) markers.

Thus, the morphological overlap between determiners and OMs is unavailable, suggesting that OMs in Tigrinya are not clitics (provided that clitics are determiners).

### 3.9 Case-marking alternation

In many cliticizing languages, clitics co-vary with the case features of the associate (see Ormazabal & Romero 2010 on Spanish, Anagnostopoulou 2017 on Greek, Kallulli & Tasmowski 2008 on some Slavic languages, a.o). The following examples are from Greek and Spanish:

(28) a. Greek (Anagnostopoulou 2017)

tu to edhosa to vivlio tu jani  
 3MSG.GEN 3MSG.ACC gave.1SG the book.ACC the John.GEN  
 ‘I gave the book to John.’

b. Spanish (Ormazabal &amp; Romero 2010)

se lo dio a Juan Maria, el libro  
 3MSG-DAT 3MSG-ACC gave to Juan Maria-NOM, the book  
 ‘Maria gave to Juan the book.’

As we can see from the above examples, each clitic has a designated case feature – ACC and DAT/GEN in both languages.

In Tigrinya, however, the OM does not inflect for case altogether, even though the arguments the OM tracks alternate with case. Recall that Tigrinya is a NOM-ACC language with only the accusative or dative morphologically coded by the prefix *ni/ə-* (phonologically-conditioned allomorphy). While the object that bears accusative/dative case normally triggers OM, that's not always the case. For example, while a Goal and a Theme argument can take the same accusative case marker, the verb only tracks the Goal argument with the OM attached to it. Consider the following examples:

- (29) a. Yared (ni-t-i) mægbi nə-t-a-kəlbi  
 Yared(NOM) ACC-D-MSG food DAT-D-FSG-dog  
 hib-u-wwa  
 give.PFV-3MPL.S-3MSG.O  
 'Yared gave (the) food to the dog.'
- b. (??ni-)Selam (\*ni-)bizuhāt məhazut ?alləw-wwa  
 (ACC-)Selam (ACC-)many friends HAVE-3MPL.S-3FSG.O  
 Intended: 'Selam has many friends.'
- c. (\*ni-)Selam (ni-)kullu səb ki-tə-xibbir  
 (ACC-)Selam (ACC-)every person FUT-3FSG.S-respect.IPFV  
 ?alləw-wa  
 HAVE-3MSG.O  
 Intended: 'Selam has to respect everyone.'

In (29a), observe that in a typical ditransitive predicate 'give', the only argument morphologically required to be case-marked and cross-referenced by the OM -*wwa* is the Goal 'the dog', indicative of the facts that there is a disconnect between case and agreement (contra Chomsky 2000) and reminiscent of the fact that there is only a single argument per clause. With the CIP (29b) and MoN (29c), however, neither the bearer of the obligation nor the possessee takes the ACC/DAT marker (*ni/ə-*). It seems that the possessor permits it more so when it appears closer to the verb (although the construction is generally degraded) (see §4 for more on this). Crucially, the OM, whether it tracks an accusative/dative marked argument or not, does not change its form for Case. Thus, the fact that the case feature of the OM does not alternate with the case features of the arguments associated with it is indicative of the view that the OMs in Tigrinya are different from typical clitics.

### 3.10 Interim summary

So far we have diagnosed the properties of object markers (OMs) in Tigrinya CIP and MoN and observed that OMs pattern like canonical subject markers in some morph-syntactic respects (see Table 5.5): (i) they do not freely select their host, (ii) they are obligatory, (iii) they are insensitive to definiteness, (iv) they are not tense-invariant (rather aspect-invariant), (v) they only admit a single OM per clause, (vi) they are solely hosted by the main predicate, (vii) they do not involve case-alternation, and (viii) they are not formally the same with the D category.

Table 5.5: Distinguishing pronominal clitics & agreement markers

	Distinguishing properties	Pronominal clitic	Subject agreement	OM (on <i>?allaw-</i> )
1	Freely select	yes	no	no
2	Sensitive to meaning	yes	no	?not always
3	Optional	yes	no	no
4	Tense invariant	yes	no	?not strictly
5	Multiple per host	yes	no	no
6	Dislocate	yes	no	no
7	Non-referential	yes	no	?no
8	Exhibit formal similarity with D	yes	no	no
9	Involve Case-alteration	yes	no	no

However, some of these diagnostics may not be as reliable to differentiate between agreement affixes and clitics, as has been pointed out in the literature (e.g., Anagnostopoulou 2017). For example, tense-invariance does not seem to be helpful because while some cliticizing languages exhibit tense-invariance – T-based distinction accompanied by allomorphy – others do not (Harizanov 2014). In Tigrinya, while there is no tense (in)variance per se, the aspect opposition seems to exhibit subject-object asymmetry. Similarly, referentiality does not give a clear cut distinction between the two (see Anagnostopoulou 2017 & Angelopoulos & Sportiche 2018 for discussion).

Therefore, if the force of the diagnostics lies in the numbers (the more agreement-like properties an OM satisfies, the more difficult it is to treat like a clitic), Tigrinya OMs in these particular constructions, which satisfy more than half of the diagnostics listed above (excluding the controversial ones), should be treated like true agreement markers (amenable to the operation Agree). In §5, I develop an analysis which accounts for the  $\phi$ -agreement status of the OMs in Tigrinya

CLP and MoN. Before I present the analysis, however, in what follows, I will determine the status of the object argument itself that the OM tracks.

## 4 The status of the argument the OM tracks

In this section, I address the question of whether the possessor/MoN argument is a true subject or object. Recall that the OM tracks what appears to be a subject on the surface. While the notion “subject” has long been debated (at least since Keenan 1976) and a comprehensive definition, which captures the whole intuition of the term, so far has not been proposed (see for discussion McCloskey 1997, Jayaseelan 2004, a.o), I assume that subject is a placeholder for some prominent syntactic position with a typical formal marking (e.g., NOM for NOM-ACC language) and an EPP feature (McCloskey 1997; Chomsky 2000). Thus, by comparing objects with subjects in Tigrinya, an attempt will be made to provide some evidence in support of the view that the argument the OM tracks is a “quirky” subject, not a true object (or internal argument) in Tigrinya. Three pieces of evidence will be presented in support of this claim.

### 4.1 Evidence 1: Word order and case

Recall Tigrinya is an SOV and a NOM-ACC language, and subjects, morphologically unmarked, normally occur at sentence-initial position, whereas objects, often morphologically marked for ACC case, normally appear right before the verbal predicate. If the possessor of the CLP and the sole argument of the MoN are true objects, they are expected not only to appear right before the verb but also to take an accusative case marker. These predictions are not borne out. Such arguments, unlike true objects (but consistent with typical subjects) in the language, (i) appear at sentence-initial position (30 vs. 31), and (ii) do not take the ACC case marker, as the examples in (32) and (33) illustrate.

- (30) a. *Yared bizuhāt mähazut ?alləw-u-wwo*  
Yared many friends HAVE-3MPL.S-3MSG.O  
b. *\*?? bizuhāt mähazut Yared ?alləw-u-wwo*  
many friends Yared HAVE-3MPL.S-3MSG.O  
Intended: ‘Yared has many friends.’
- (31) a. *Selam lomaʕanti ki-t-məs’s’i?* ?alləw-wa  
Selam today FUT-3FSG.S-come HAVE-3FSG.O



- b. \*lomaʕanti ki-t-məs's'i?      Selam ʔalləw-wa  
 today      FUT-3FSG.S-come Selam HAVE-3FSG.O  
 Intended: 'Selam has to come today.'
- (32) a. (?ni-)Yared bizuhat məhazut ʔalləw-u-wwə  
 ACC-Yared many friends HAVE-3MPL.S-3MSG.O  
 Intended: 'Yared has many friends.'
- b. (\*ni-)Selam ki-t-məs's'i?      ʔalləw-wa  
 ACC-Selam FUT-3FSG.S-come HAVE-3FSG.O  
 Intended: 'Selam has to come.'

In addition, the possessee or the propositional complement do not take the ACC case marker.

- (33) a. Yared (\*ni-)bizuhat məhazut ʔalləw-u-wwə  
 Yared ACC-many friends HAVE-3MPL.S-3MSG.O  
 Intended: 'Yared has many friends.'
- b. Selam (\*ni-)ki-t-məs's'i?      ʔalləw-wa  
 Selam ACC-FUT-3FSG.S-come HAVE-3FSG.O  
 Intended: 'Selam has to come.'

While the word order facts consistently show that the appearance of such arguments in the standard pre-verbal object position is illicit in both constructions, the Case-marking facts appear to show a mixed result (compare 32 and 33). Two things deserve an explanation here. The first one concerns the presence of the accusative case marker with the possessor (which may at first sight suggest that the possessor is a true object). First notice that the construction is marginal for the speakers I have consulted, and it does not improve even when the accusative-marked possessor appears closer to the verb (34a,b) (see also §3.9 for discussion). Second, the grammatical judgement becomes even worse with independent pronouns (34c), which may again suggest that the possessor is not a true object (rather some kind of subject). Finally, accusative marking of the possessee always gives rise to ungrammaticality (33) (again suggesting that such arguments are not true objects, rather some kind of subjects).

- (34) a. ?? məs'hafti niYared      ʔalləw-u-wwə  
 books      ACC-Yared/him HAVE-3MSG.S-3FSG.O  
 Intended: 'Yared/he has books.'

- b. ?? məs'hafti **nifufu/nissu** ʔalləw-u-wwo  
 books him/he HAVE-3MSG.S-3FSG.O  
 Intended: 'He has books.'
- c. \* lomaʔanti ki-t-məs's'iʔ **nifafa** ʔalləw-wa  
 today FUT-3FSG.S-come her HAVE-3FSG.O  
 Intended: 'She has to come today.'

The second point that deserves an explanation concerns accusative-case-marking with the obligation bearer of the modal necessity argument. In order to determine the case of the matrix subject of the MoN, it has been suggested that reference needs to be made to the underlying position of the argument that undergoes raising via the chain being created (Bhatt 1997). In Tigrinya, recall that non-pronominative subjects (or external arguments) get nominative case, which is always realized by the default empty ( $\emptyset$ ), and objects (or internal arguments) get accusative case (when marked definite). Thus, the fact that the obligation bearer in (35) (someone implicitly implicated here), which serves as the subject of the embedded clause 'to clean', cannot take an accusative pronoun (35) strongly suggests that the bearer of the obligation cannot be a true object in Tigrinya. In fact, the fact that the construction is licit with a bona-fide nominative pronoun strongly suggests that the obligation bearer is some kind of subject.

- (35) nə-t-i ʔax'uħut (\***nifafa/nissa**) ki-t-ħas'bo ʔalləw-wa  
 ACC-D-MSG utensils her/she FUT-3FSG.S-wash HAVE-3FSG.O  
 Intended: 'She has to do the dishes.'

Based on the above evidence, I conclude that such arguments are not true objects/internal arguments (rather some kind of 'quirky' subjects) in Tigrinya.

## 4.2 Evidence 2: Passivization

The second piece of evidence comes from passivization. If such arguments are true objects in Tigrinya, they should be able to undergo passivization. This prediction is not borne out. Note that Tigrinya marks passivization by prefixing *tə-* on the verb and by introducing an optional by-phrase associated with the demoted subject (36).

- (36) ʔit-i məs'ħaf (bi-Yared) **tə-sərix'**-u  
 D-MSG book by-Yared PASS-steal.PFV-3MSG.S  
 'The book was stolen (by Yared).'

With CIP and MoN, passivization of the argument being tracked by the OM is not allowed as illustrated in (37).<sup>13</sup>

- (37) a. \* mäs'hafti (bi-Yared) tə-nəyr-u(-wwo)  
           books    by-Yared   PASS-HAVE.PST-3MSG.S-3MSG.O  
           Intended: ' \*Books were had by Yared.'
- b. \* nissa k'əlt'ifa   ki-t-məs's'i?   (bi-Selam)  
      she   hurriedly   FUT-3FSG.S-come by-Selam  
      tə-nəyr-u(-wa)  
      PASS-HAVE.PST-3MSG.S-3MSG.O  
      Intended: 'She was had/made to come hurriedly by Selam.'

If passivization is a true property of objects, then the arguments being tracked by the OM in CIP and MoN are not true objects. To make the argument complete (and for what it is worth), the other arguments, such as the possessee, even though they are not tracked by the OM, they do not undergo passivization as well, which is indicative of their non-object status.

- (38) a. \* Yared (bi-)məhazut tə-nəyr-u(-wwo)  
           Yared by-friends   PASS-HAVE.PST-3MSG.S-3MSG.O  
           Intended: ' \*Yared was had by friends.'
- b. \* Selam (bi)-ʔax'uħut ki-t-ħas'ib   tə-nəyr-u(-wa)  
      Selam by-utensils   FUT-3FSG.S-wash PASS-HAVE.PST-3MSG.S-3FSG.O  
      Intended: 'Selam was had/made to do the dishes.'

#### 4.3 Evidence 3: Subject-to-object raising predicates

The final piece of evidence for the fact that the possessor/sole argument of the MoN is not a true object argument comes from exceptional Case-marking predicates (typically subject control, different from what I have discussed in §4.2 above). Let us start with the observation that there are certain verbs, namely *try*, *know*, *convince*, *seem*, etc., that select infinitival complements, whose subject is

<sup>13</sup>Of course, I am largely glossing over the fact that some verbs including 'have' in some languages (e.g., English: *\*A book/a sister was had by John*) may not undergo passivization, but in some others they do (e.g., Icelandic and Quechua, see Myler 2016 for discussion). Even in English, passivization of 'have' is widely attested than many assume (e.g., *A terrible fight was had at the station* and *A fierce discussion/debate was had/needs to be had to resolve the possession issue*). Nevertheless, it could very well be the case that the Tigrinya *ʔallaw-* is one of those verbs that resist passivization as well. I leave further exploration of this issue open. Thanks to anonymous reviewer for asking to elaborate on this issue.

selected both by the main verb and the infinitival clause. Compare the following examples:

- (39) a. *Selam<sub>i</sub> ki-t-dik'k'is* [PRO<sub>i</sub> fəttin-a]  
*Selam* FUT-3FSG.S-sleep.IPFV try.PFV-3FSG.S  
 'Selam tried to sleep.'
- b. *Selam<sub>i</sub> ki-t-dik'k'is* [PRO<sub>i</sub> ʔəʔmin-a-tta]  
*Selam* FUT-3FSG.S-sleep.IPFV persuade.PFV-3FSG.S-3FSG.O  
 'Selam persuaded her(self) to sleep.'

In (39a), there are two predicates, 'try' and 'sleep', both sharing the same argument *Selam*, which serves as the subject in both (doing the 'sleeping' and the 'trying'). In (39b), by contrast, there are two predicates, 'persuade' and 'sleep', sharing the same argument *Selam*, which serves as the subject of the matrix verb 'persuade' and the object of the embedded verb 'to sleep' (doing the persuasion or being persuaded and the sleeping).

The above systematic patterns make one particular prediction: If the possessor/obligation bearer being tracked by the OM in both CLP and MoN is a true object argument, then it should be banned from undergoing subject-to-object raising under both the *try*- and the *convince*-type predicates (see for similar arguments Landau (1999) based on Hebrew and Kim (2011) based on Korean). However, this prediction is not observed in Tigrinya as such constructions are perfectly grammatical. Compare the examples below:

- (40) a. *Selam bizuḥ gənzəb ki-hilli-wa* fəttin-a  
*Selam* many money FUT-HAVE-3FSG.O try.PFV-3FSG.S  
 'Selam tried to have a lot of money.'
- b. *Selam nabzi ki-t-məs's'if* kəm-zə-ʔalləw-wa fəllit'-a  
*Selam* here FUT-3FSG.S-come COMP-REL-HAVE-3FSG.O try.PFV-3FSG.S  
 'Selam has to try to come here.'
- (41) a. *Selam bizuḥ gənzəb ki-hilli-wa* ʔəʔmin-a-tta  
*Selam* many money FUT-HAVE-3FSG.O persuade.PFV-3FSG-3FSG.O  
 'Selam persuaded her(self) to have a lot of money.'
- b. *Selam nabzi ki-t-məs's'if* kəm-zə-ʔalləw-wa  
*Selam* here FUT-3FSG.S-come COMP-REL-HAVE-3FSG.O  
 ʔəʔmin-att-a  
 persuade.PFV-3FSG-3FSG.O  
 'Selam persuaded her(self) that she has to come here.'

The examples in (40) and (41) demonstrate that the possessor and sole obligation bearer argument of the MoN are not true objects. Given the verbs are “raising predicates”, which have the property of connecting true subjects with objects via some form of a pronoun (e.g., *PRO*) and that they occur at sentence-initial position, it is reasonable to conclude that these arguments in both constructions are indeed not true objects.

Based on this evidence, I conclude that both the possessor and the sole obligation bearer argument of the MoN are not true objects, but some kind of “quirky” subjects. In fact, if we look at the evidence from word order and case, passivization and subject-to-object raising, they are all used as diagnostics for determining subjects in many languages (see Jayaseelan 2004 on Malayalam, Holmberg 2005 on Finnish and Icelandic, a.o). Thus, I claim that the reason why such a mismatch occurs, i.e., the OM is tracking some kind of subject, has something to do with the nature of such arguments (as being “quirky”) and with intervention effects, which is further discussed in §6.

Now that I have established the nature of the OM and its associate in CIP and MoN, let’s develop an analysis that fully supports the view that the OM and its “quirky” subject associate are subject to the operation Agree.

## 5 Towards an analysis

Assuming the standard Minimalist Program (Chomsky 1995 et seq.) along with some elements of Distributed Morphology (Halle & Marantz 1993 & later work), I propose that the OM in Tigrinya is a true instance of  $\varphi$ -agreement realized on *v* through the operation Agree and that *?allaw-* is the spell out of the APPL head, which introduces an argument with possession and obligation semantic features. The structure I am proposing is in Figure 5.3.

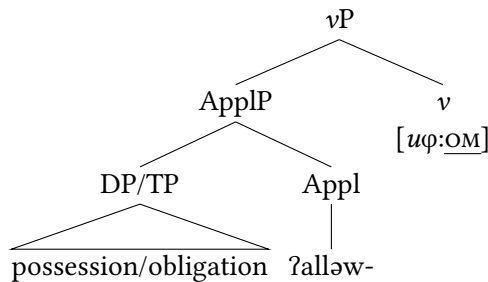


Figure 5.3: Proposed structure

I assume that agreement happens between a probe and a goal (Chomsky 2001; see also Pesetsky & Torrego 2007, a.o. for a recent reformulation of the operation Agree), and the direction of feature valuation can be parametrized (Baker 2008; see also Bjorkman & Zeijlstra 2014, for a recent discussion).

In Tigrinya, because the OM (along with the subject marker) is always attached to the main verb, object agreement involves a probe (e.g.,  $v$ ) with unvalued and/or uninterpretable  $\phi$ -features, and a goal (e.g., object DP) with corresponding valued and interpretable  $\phi$ -features. In this case,  $v$  (and also Asp/T) may have unvalued and/or uninterpretable  $\phi$ -features indicated by *unval* and *u $\phi$* , and the DP direct object (also the DP subject) may have valued and interpretable  $\phi$ -features indicated by *val* and *i $\phi$* . After  $v$  establishes an Agree relation with the object noun phrase, its unvalued  $\phi$ -features become valued and the case feature on the object realizes as Accusative/Dative (and the same process happens with Asp/T and the subject noun phrase).<sup>14</sup>

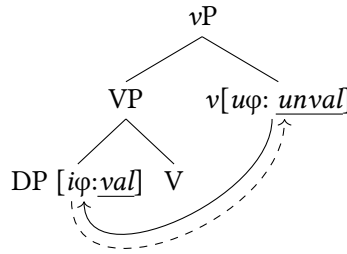


Figure 5.4:  $v$ 's downward probing and upward  $\phi$ -feature valuation

With this background assumption, in what follows I demonstrate how both CIP and MoN are predicted by the structure given in Figure 5.3.

## 5.1 Clausal possession

With the above assumptions, I propose that a simple CIP like *He has three oxen* as in (42) has the structure in Figure 5.5.<sup>15</sup>

- (42) nissa ʔəbʕur ʔalləw-u-wwa  
 she oxen HAVE-3MPL.S-3FSG.O  
 'She has oxen.'

The tree in Figure 5.5 has to pass the following derivational steps:

<sup>14</sup>I also assume (although nothing hinges on this) that roots combine with root-defining functional heads to form lexical items (Marantz 1997)

<sup>15</sup>The same analysis extends to the other suppletive forms that express other TAMs.

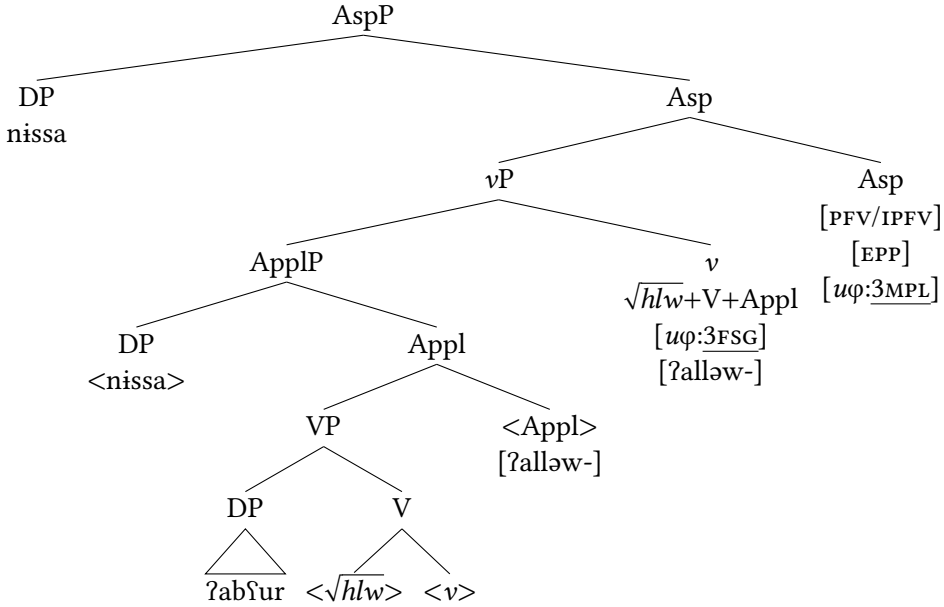


Figure 5.5: Structure of (42)

1. First,  $v$  probes downwards to its c-commanding domain to satisfy its  $[u\phi]$ -features, and finds the possessor merged in Spec, ApplP with matching features.
2. Then, the possessor raises to Spec, TP/AspP to satisfy the  $[EPP]$  feature.
3. Next, T/Asp probes down to its c-commanding domain to fulfil its  $[u\phi]$ -features and finds the possessee with matching features (once the intervener possessor gets out of its way).
4. Finally, Appl remerges with  $v$  (and possibly further with T/Asp) (via M-Merger (Matushansky 2006)), realizing *?alləw-u-wwo* or one of its suppletive forms, namely *nəyr-om-wwo*.

Under this analysis, the possessor is a potential intervener that needs to be vacated in order to feed the next cycle of Agree with T/Asp (Béjar & Rezac 2009). Once the intervener is cleared out of the way, T can probe downwards to its c-commanding domain and finds the possessee ‘three oxen’ and agrees with it, realizing a subject agreement marker. It is this particular mechanism that explains the “quirky” nature of the possessor subject (see §6 for more on this).

## 5.2 Modal necessity

The same mechanism works in MoN, except that the second argument of the APPL head is a proposition or an infinitival TP (as opposed to an individual DP) and the “quirky” subject first raises to the specifier of Appl before it remerges in Spec, ApsP.

- (43) *nissa ki-t-məs's'i?*      *?alləw-wa*  
 she    FUT-3FSG.S-come HAVE-3FSG.O  
 ‘She has to come.’

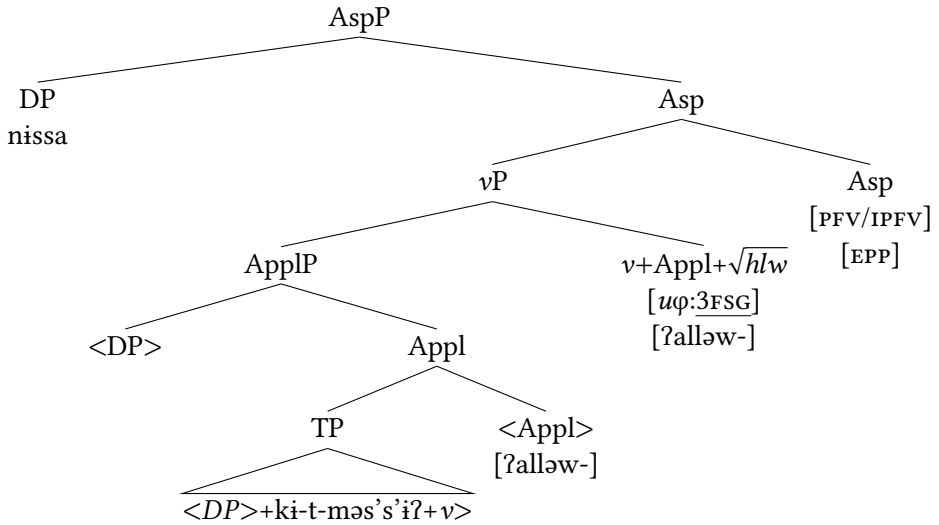


Figure 5.6: Structure of (43)

Similar to CIP, the above tree has to pass the following derivational steps:

1. First, *v* probes down to its c-commanding domain to satisfy its  $\varphi$ -features, finds the subject of the infinitival clause TP (‘she’) and establishes agreement.
2. Next the subject, which is affected by the obligation, raises to Spec, TP (same as the possessor) to satisfy the [EPP] feature.
3. Finally, APPL remerges with *v* (and possibly with T/Asp) via M-Merger, realizing *?alləw-* (or its suppletive forms depending on different aspectual and tense forms) with the object marker.



## 6 Why does the OM track a “quirky” subject?

Now recall the mismatch between the OM and the nature of the argument it tracks (i.e., the “quirky” subject). Normally, the OM tracks true objects, but with ClP and MoN, it tracks what appears to be the subject (i.e., the possessor and the bearer of the obligation). In an attempt to explain why would this happen, I consider two possibilities: (i) the argument is underlyingly a PP with empty P (see Landau 2010; Baker 2012), or (ii) the argument is an intervener with a special feature (see Rezac 2008; Béjar 2008; Anagnostopoulou 2017). While both options may have the same effect, I tentatively argue that the latter fares better than the former.

The assumption that the argument the OM tracks is underlyingly a PP is reminiscent of the “quirky” subject phenomenon in Indo-European languages, such as Icelandic (Zaenen et al. 1985) and in South East Asian Languages, such as Malayalam (Jayaseelan 2004). A striking similarity between “quirky” subjects in general and “quirky” subjects in Tigrinya ClP and MoN is that both are not significantly different from other argument markers; i.e., they exhibit the same argument marking, word-order, and/or agreement properties. However, while “quirky” subjects in languages like Icelandic take a special non-nominative/dative case, which separates them from other subjects, that is not true in Tigrinya. In Tigrinya, the “quirky” subject is not case-marked (at least not in MoN) and tracked by an OM like other non-subject arguments are (e.g., benefactive). Instead, it is signalled by nominative case, which is morphologically unmarked (with non-pronominal DPs) in Tigrinya.

If the assumption with the first option is correct, that the OM-associate is a PP with an empty P, the language should also permit OMs with other true PP objects and instances of predicate inversion (den Dikken 2006). However, such predictions are not borne out in Tigrinya. First, recall that in Tigrinya, the OM (bolded) tracks an accusative case-marked definite noun phrase (italicized), as the examples in (44) illustrate.

- (44) a. **nissu** *niʃaʃa* siʃim-u-**wwa**  
           he   her   kiss.PFV-3MSG.S-3FSG.O  
           ‘He kissed her.’  
       b. **Yared** *ni-Selam*   s’ərif-u-**wwa**  
           Yared ACC-Selam insult.PFV-3MSG.S-3FSG.O  
           ‘Yared insulted Selam.’

Second, while Tigrinya bans an OM with associated non-referential PP/CP objects (45), with PP/CP subjects, the language employs a default 3sg.s marking (46).<sup>16</sup> In other words, PP/CP subjects never get tracked with the OM.

- (45) a. *wədd-u kulifaŋ nab-bet-timhirti kəm-zi-xəyyid*  
 son-his always to-house-education COMP-3MSG.S-go.IPFV  
*səmiŋ-u-(\*wwo)*  
 hear.PFV-3MSG.S(-3MSG.O)  
 ‘He heard that his son always goes to school.’  
 b. (nissu) *nab-t-i-bet-timhirti kəyd-u-(\*wwo)*  
 he to-D-MSG-house-education go.PFV-3MSG.S(-3MSG.O)  
 ‘He went to the school.’
- (46) a. *g<sup>w</sup>al-u nab-bet-timhirti zəy-mi-xad-a*  
 daughter-his to-house-education NEG-NML-go-3FSG.POSS  
*?annaddid-u-(\*wwo)*  
 annoy.PFV-3MSG.S(-3MSG.O)  
 ‘That his daughter didn’t go to school annoyed him.’  
 b. *tihiti-firaŋ t’irə gənzəb yi-hibə?əll-u-(\*wwo)*  
 under-mattress raw money 3MSG-hide.IPFV-3MSG.S(-3MSG.O)  
 ‘Under the mattress is where you stash the cash.’

I therefore maintain that, if Tigrinya does not allow PP object arguments to be tracked by the OM, then it would be surprising for the subject to be a PP with an empty P. In fact, in Tigrinya PPs generally function as adjuncts, and, unsurprisingly, OMs do not track them.

The second alternative, that the “quirky” subject is an intervener with a special feature, may explain why the mismatch arises. In a number of languages, it has been observed that the nature of “quirky” arguments is that they are “in between” cases, where certain arguments behave as if they concurrently have structural and inherent Case properties when they are compared to other arguments (Marantz 1991, McGinnis 1998, Baker 2008, Pesetsky & Torrego 2011, Alexiadou

<sup>16</sup>An anonymous reviewer wonders about the different forms of /g-w-y/ ‘go’ in Tigrinya and whether the geminate /yy/ stem is different from the un-geminated stem as in Amharic. Indeed, while some verbal conjugations are different (e.g., the imperfective has radical gemination in Tigrinya but not in Amharic type A verbs), generally gemination in Tigrinya, like in Amharic or other (Ethio-)Semitic languages, is morphemic and gives rise to a different type of verb paradigms (see Berhane 1991 for discussion). The fact that the verb ‘go’ geminates in, for example, *kəm-zi-xəyyid* but not in *kəyd-a* ‘she has left’ and exhibits different conjugations are reflections of the properties of (Ethio-)Semitic verb types in general (Hetzron 1972).

et al. 2014, a.o). In Sigurðsson & Holmberg (2008) and others, for instance, it has been argued that in Icelandic, the DAT-NOM pattern is altered due to intervention effects. In particular, intervention of the dative argument blocks agreement between the verb and the nominative argument (see also Boeckx 2000, Sigurðsson & Holmberg 2008, a.o). That is, the dative argument blocks agreement between T and the nominative argument if it remains low as in (47a), but T may agree with the lower nominative argument when the dative argument vacates out of the way of the verb-probing domain as in (47b) (see Sigurðsson & Holmberg 2008 for a detailed discussion).<sup>17</sup>

(47) (Sigurðsson & Holmberg 2008: 252)

- a. það virðst/\*virðast einhverri konu myndirnar vera  
 EXPL seem.3SG/3PL some woman.DAT paintings.the.NOM be  
 ljótar  
 ugly  
 ‘It seems to some woman that the paintings are ugly.’
- b. Henni virðst myndirnar vera ljótar  
 her.DAT seem.3PL paintings.the.NOM be ugly  
 ‘It seems to her that the paintings are ugly.’

If we assume following the above discussion that “quirky” subjects are some kinds of experiencers or affected arguments (McGinnis 1998) and that they involve features like INCLUSION (Bjorkman & Cowper 2016) in Tigrinya, the explanation may naturally fall in place. Since interveners disrupt Agree relations (Rezac 2008), “quirky” subjects being merged in Spec, ApplP can be considered as potential interveners for T (just as in Icelandic), which block T from establishing an Agree relationship with its potential GOAL (Figure 5.7). In many languages, the intervention is of course more visible with dative “quirky” arguments (see Sigurðsson & Holmberg 2008 on Icelandic; McGinnis 1998 on Georgian; Rezac 2008 on Basque; Anagnostopoulou & Sevdali 2015 on Greek), where “quirky” datives are assumed to have “lexically governed” case (Marantz 1991) despite exhibiting partial agreement (see Rezac 2008 and Béjar & Rezac 2009 for proposals to derive partial vs. complete  $\phi$ -features agreement from differences in the feature structures of the relevant probes).

<sup>17</sup>This follows if  $\phi$ -features, namely, person and number are independent probes (Béjar & Rezac 2009): Number agreement for example, (in the variety of Icelandic that permits it) is possible when the dative argument moves out of the intervening position between NumP and nominative object before number probes (Holmberg & Hróarsdóttir 2003; Sigurðsson & Holmberg 2008).

Nevertheless, the mismatch in Tigrinya arises simply because the “quirky” subject is being tracked by an OM and as a potential intervener it is forced to re-merge in Spec, AspP/TP to salvage the construction from being crashed. The fact that the “quirky” subject involves a special feature, i.e., INCLUSION, forces it to divorce EPP from typical  $\phi$ -agreement. In other words, EPP feature checking normally happens along with standard subject-verb agreement (Chomsky 2001), but under this context, the “quirky” subject comes to rescue the construction from crashing by moving something without matching phi-features into Spec, AspP/TP, to satisfy the EPP (essentially obviating the intervention); otherwise, Spec,Asp/TP would remain empty, leaving the EPP unchecked, as the structure in Figure 5.7 demonstrates.

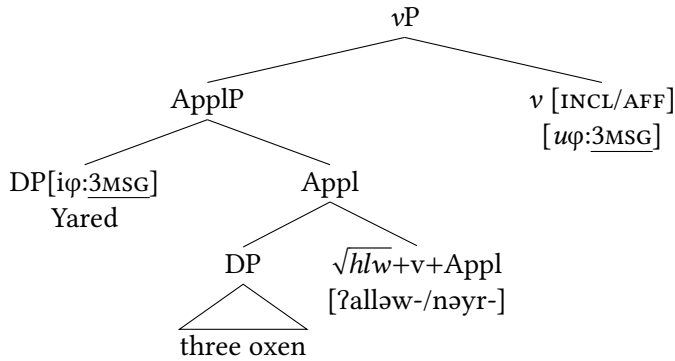


Figure 5.7: Structure for CIP with intervention

In Figure 5.7, when  $v$  searches down to its c-commanding domain for a goal with a matching feature, it finds the “quirky” subject merged in Spec, ApplP. Since the “quirky” subject in Spec, ApplP has matching features (e.g., PL),  $v$  agrees with it. In addition, Appl – the head that introduces the argument being tracked by the OM – has a feature called [INCL] that requires checking by  $v$ , before the DP argument that has matching features (e.g., goal, dative, etc.) evacuates to Spec, T/AspP, creating a workable domain for Asp/T to establish an Agree relation with the lower argument. It is through this mechanism of removing the intervention (parallel to movement of the DAT out of the verb-probing domain we observed in Icelandic in (47)) that the mismatch in agreement in Tigrinya could be explained.

One may wonder at this point whether the same intervention effect could carry over to the analysis of MoN. While the extension does not seem immediately direct as there are still some relevant morphosyntactic differences between possession and necessity, it would be a desirable consequence if the analysis

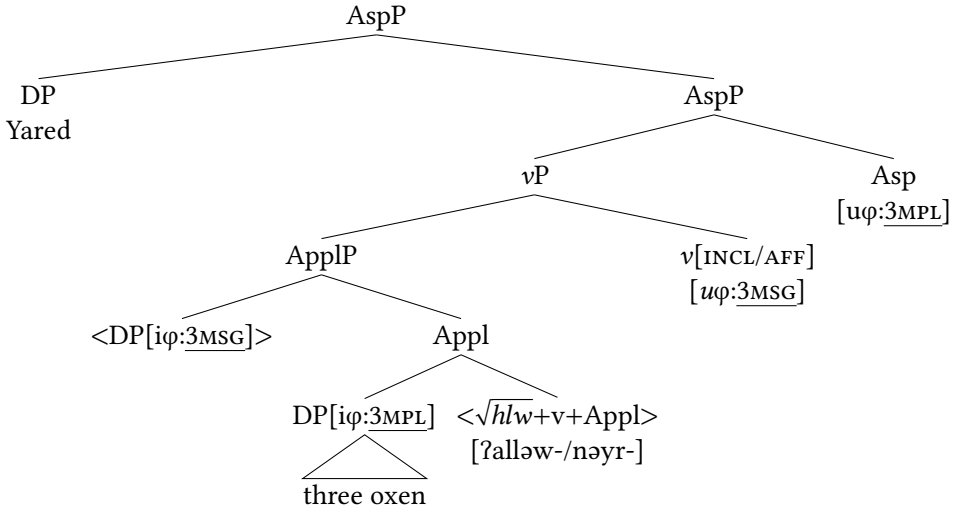


Figure 5.8: Structure of CIP with intervention resolved

could extend to MoN. Recall that in MoN the predicate may have different arguments (depending on c-selectional properties), but crucially, the surface argument involved may not be the source of the modal obligation (Bhatt 1997). Bhatt (1997) points out that the source of the obligation (whether asserted or not) is context-dependent, and argues that even in cases where the bearer of the obligation is present in the sentence, it does not have to be the subject of ‘have’ as in *Bill has to be consulted by John on every decision* (*John* being the bearer of the obligation).

Bjorkman & Cowper (2016), on the other hand, propose that possession and necessity establish a relation of containment or inclusion between two arguments. Building on the typological division within modal systems (e.g., Matthewson et al. 2005) and morphosyntactic featural decomposition (e.g., Harley & Ritter 2002), they argue that the functional head that introduces possession ( $v_{\text{have}}$ ) carries the feature  $\text{INCL}(\text{USION})$ , whereas the same head that introduces MoN carries the features  $[\text{INCL}, \text{EPIST}(\text{EMIC})]$ ; the feature  $[\text{INCL}]$  relates two individual arguments, while the features  $[\text{INCL}, \text{EPIST}]$  relate an individual with a proposition/clause. Assuming interpretable features on a head compose with each other before the result composes with the syntactic complement, they claim that  $v_{\text{have}}$  comes up with  $[\text{INCL}, \text{EPIST}]$  with the two features composing first. While  $[\text{EPIST}]$  provides  $v$  with the set of best epistemically accessible worlds in the modal base,  $[\text{INCL}]$  saturates the internal argument position the clausal complement of  $v$  supplies.

With the assumption that there is an implicit argument (whether overt or covert) in MoN, the above treatment for ClP indeed can straightforwardly be extended to the MoN domain. Assuming that *Appl* relates individuals as well as sets of worlds (in the sense of Bjorkman & Cowper 2016), the features [INCL, EPIST] may compose first to saturate the first argument of the predicate before *Appl* reemerges with *v* in the derivation.

The underlying structure for MoN would therefore be as in Figure 5.9, with [INCL, EPIST] features on *Appl*, and an infinitive/gerundive proposition as its syntactic complement, as illustrated in Figure 5.9.

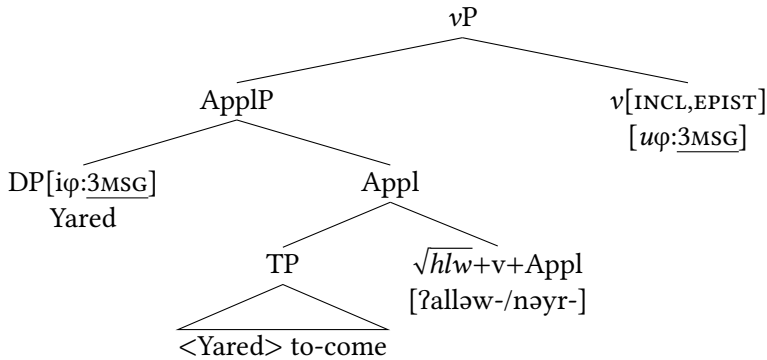


Figure 5.9: Structure for MoN

The only difference is that the subject of the infinitive/gerund (*Yared*) in Tigrinya is attracted to the specifier of ApplP through raising (as opposed to external-Merge) before it raises further to the specifier of AspP/TP to satisfy EPP. Consistent with the analysis given for ClP, it is important to note that the DP in ClP and in MoN is not a regular DP; rather, a DP with an INCL/EPIST feature which satisfies the EPP by further raising to Spec, Asp/TP as illustrated in Figure 5.10.

Therefore, under this analysis, the mismatch arises due to the disconnect between agreement and EPP: T/Asp needs to overcome the mismatch by attracting an argument that does not agree with it to its specifier position; since the DP that satisfies T/Asp's  $\phi$ -features is not attracted to satisfy its EPP requirement in these structures, something unusual needs to happen – a non-agreeing DP (T/Asp typically does not agree with the object) needs to re-merge to Spec,T/AspP, clearing the intervention, so that T/Asp would agree with the sole argument (see Rezac 2008; Anagnostopoulou 2006 for similar observation based on intervention effects).

Under this analysis, modal necessity clauses in Tigrinya (perhaps similar to Hindi/Urdu; Bhatt 1997) are raising predicates. Bhatt (1997) offers both semantic and syntactic arguments in support of the claim that MoN constructions are

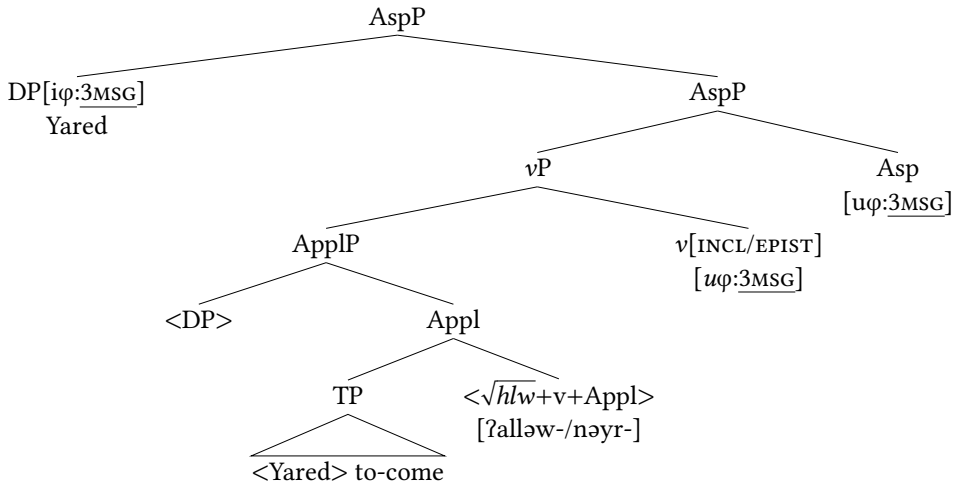


Figure 5.10: Structure of MoN with intervention resolved

indeed derived via raising (like other raising predicates; see also Landau 2010). The first argument is concerned with the fact that the subject need not be the source of the direct bearer of the obligation, as illustrated in (48), where clearly it is not the obligation of ‘the door’ to be fixed itself. In this case, the subject is more thematically related only to the embedded clause.

- (48) ʔit-i maʕs'o ki-s'iggən ʔalləw-wo  
 D-MSG door FUT-fix.IPFV HAVE-(3MSG.S)-3MSG.O  
 ‘The door has to be fixed.’

The second argument is syntactic and has to do with the agreement morpheme mismatch that surfaces on the verb. In Tigrinya, the OM tracks the subject, and of course the direct bearer of the obligation when implicated on the clause. Consider the following:

- (49) ni-ʔit-i maʕs'o ki-s'iggin-o ʔalləw-wo  
 D-MSG door FUT-fix.IPFV-3MSG.O HAVE-(3MSG.S)-3MSG.O  
 ‘He has to fix the door.’

The OM -(w)o co-references to a 3rd person masculine singular object different from ‘the door’ that didn’t appear on the surface. Again, even if the subject of the clause need not be present on the surface (optionally dropped), as a bearer of the obligation, it is implicated on the dyadic verb ‘fix’ and the ‘door’ has not

become the theme argument as the ACC-marker *ni-* on it and the OM tracking it attaches on the verb demonstrate.

Thus, the above Agree-based account of CIP and MoN not only accounts for the similarity between the two but also their important differences in Tigrinya.

## 7 Conclusion

In this paper, I investigated the nature of object markers (OMs) in Tigrinya CIP and MoN and claimed that they exhibit the same characteristics as canonical agreement/subject markers. Consistent with subject markers but unlike clitics, Tigrinya OMs are: (i) not freely movable, (ii) not optional, (iii) formally different from D elements, (v) inadmissible more than one per clause, (vi) insensitive to case alternations, (vii) morphologically idiosyncratic, and (viii) non-referential. Based on these properties, I concluded that Tigrinya OMs are agreement markers that co-vary with the  $\phi$ -features of their associate DPs. However, it is observed that the OM in Tigrinya is not a 100% agreement affix type. It exhibits a few properties that appear to be properties of clitics: semantic sensitivity and aspect invariance. These properties, however, are not always helpful to clearly separate clitics from agreement affixes (see Harizanov 2014 for discussion).<sup>18</sup>

Using a number of morphosyntactic properties, I also argued that the noun phrase the OM tracks is a “quirky” subject that re-merges higher to avoid intervention effects, and that *?allaw-* is a spell-out of the APPL head, which mediates the semantic and syntactic relationship between the two arguments involved in both CIP and MoN. If this analysis is on the right track, then it lends support to Agree-based accounts of the object marker (e.g., Baker & Kramer 2013, Compton 2014, a.o) and to alternative accounts to the operation Agree (e.g., Preminger 2009, Béjar & Rezac 2009). It also provides empirical support for possessive accounts (e.g., Ritter & Rosen (1997), a.o) that posit functional heads as underspecified argument-introducers for CIP, as well as for possessive and MoN accounts, such as Bjorkman & Cowper (2016) that syntactically the connection between the two.

One of the issues that still remains open is whether all the other OMs in Tigrinya (with ditransitive and unaccusatives) would also receive the same treatment or not. For instance, experiencer and dative arguments (unlike theme or source ones) often require an obligatory OM in Tigrinya. In other Ethio-Semitic lan-

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<sup>18</sup>Perhaps, these properties hold in Tigrinya due to OMs have not fully finalized their grammaticalization journey from clitics to canonical agreement affix (in the sense of Fuß 2005).



guages, such as Amharic, the requirement appears to be optional (Leslau 1995). Future research with a comparative eye will address these issues.

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## Abbreviations

1/2/3	persons	F	feminine	OM	object marker
ACC	accusative	IPFV	imperfective	PFV	perfective
APPL	applicative	M	masculine	O	object
CIP	clausal possession	MoN	modal necessity	s	subject
D	determiner	NOM	nominative	SM	subject marker
DAT	dative	PL	plural		

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