

Asymmetrical Symmetry in Tigrinya Object Marking

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Abstract: This paper argues that, despite initial appearances, Tigrinya (Ethio-semitic, Eritrea and Northern Ethiopia; SOV) is an asymmetrical object language that employs two distinct ditransitive frames. It is argued that these frames are obscured by a surface ambiguity, but are reliably betrayed by the observed object marking pattern. This analysis provides a way of understanding some unexpected optionality of object marking in ditransitive constructions. It also correctly predicts that various interpretive and structural asymmetries correlate with the observed object marking pattern. Object marking in Tigrinya, which shows surface symmetry but deep asymmetry, therefore serves a cautionary role in the classification of languages as either symmetrical or asymmetrical.

Keywords: Tigrinya; lexical ditransitives; object symmetry; object marking; argument structure

Word count: ~9,250

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- (3) a. ʔit-a g^wal n-ət-a dəbdabe **n-ət-i** wədi hib-a-to
 that-FS girl N-that-FS letter N-that-MS boy GER.give-S.3FS-O.3MS
 ‘The girl gave the boy the letter.’
 b. ʔit-a g^wal **n-ət-a** dəbdabe n-ət-i wədi hib-a-ta
 that-FS girl N-that-FS letter N-that-MS boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to the boy.’

On the basis of similar data, along with passivization and relativization facts, Kifle (2007, 2011) reaches exactly this conclusion. Namely, lexical ditransitives in Tigrinya are symmetrical object configurations.²

What follows represents a departure from this conclusion. There are several empirical considerations that cast doubts on the claim that Tigrinya lexical ditransitives (simply ‘ditransitives’ from here on) are symmetrical object configurations. A number of these considerations are presented and accounted for below, but we can observe an initial asymmetry between goals and themes here. As shown in (4), when the necessary conditions on object marking at met by only the goal argument in a ditransitive, the goal is optionally cross-referenced by object marking on the verb. This contrasts with the behavior of theme arguments, both with typical transitive verbs and with ditransitive verbs, as in (5). Theme arguments are otherwise obligatorily cross-referenced by object marking on the verb, when only they satisfy the the necessary conditions.

- (4) ʔit-a g^wal **n-ət-i** wədi dəbdabe hib-a-(to)
 that-FS girl N-that-MS boy letter GER.give-S.3FS-O.3MS
 ‘The girl gave the boy a letter.’ (Optional Goal OM)
 (5) ʔit-i g^wal **n-ət-a** dəbdabe n-wədi hib-a-*(ta)
 that-FS girl N-that-FS letter N-boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to a boy.’ (Obligatory Theme OM)

One of the major puzzles to be accounted for, then, is why otherwise obligatory object marking becomes optional on goals in ditransitives. The other major puzzle, demonstrated by (4), concerns the source of the apparent object symmetry if Tigrinya ditransitives are indeed asymmetrical.

The remainder of this paper provides an account of these and other issues related to Tigrinya ditransitive constructions. I start in section 2 by providing some relevant background on the verbal morphosyntax of Tigrinya. In section 3 I formalize the claim that Tigrinya ditransitives are not symmetrical object constructions. I propose that Tigrinya is in fact more like English (e.g., Marantz 1993, Beck & Johnson 2004, Bruening 2010), Greek (Anagnostopoulou 2003), Spanish (Cuervo 2003), and Japanese (Kitagawa 1994, Miyagawa & Tsujioka 2004) in its employment of multiple asymmetrical ditransitive frames. Tigrinya resembles Spanish and Japanese further, following the research cited, in that these two ditransitive frames are masked by a surface ambiguity of the *N*-prefix, seen on the objects in (3)–(5), as a differential object marker on direct arguments or a preposition on indirect arguments.

Section 4 demonstrates how the two proposed asymmetric ditransitive frames allow us to accommodate the observation that object marking in Tigrinya is obligatory while still allowing for the optionality observed with the goal argument in (5). We will also see how these two ditransitive frames can conspire to create the illusion of symmetry shown in (4). In short, the presence or absence of object marking, and which argument is cross-referenced, reliably betrays one of the the two underlying ditransitive frames to be proposed. A

²We will return briefly to passivization in Tigrinya in section 6.

useful analogy can be drawn from American varieties of English. The availability of multiple ditransitive frames below artificially simulates the symmetrical object property of allowing passivization of either a goal (6a) or theme argument (6b).

- (6) a. Kim₁ was given [*x*₁ [a book]].
b. A book₁ was given [*x*₁ [to Kim]].

Section 4 also presents and argues against a pair of alternative analyses that would preserve the idea that Tigrinya ditransitives are symmetrical object configurations.

As will become apparent, the proposed analysis predicts specific structural and interpretive asymmetries that directly correlate with the observed object marking pattern. Section 5 investigates several of these predictions, showing that each is borne out. Section 6 briefly extends to the proposed analysis to available data on the passive construction in Tigrinya. It will be argued that the apparent object symmetry in this domain also betrays an underlying asymmetry between two ditransitive frames. Section 7 summarizes the paper and concludes by pointing out the cautionary role of Tigrinya in the classification of languages as either symmetrical or asymmetrical object languages.

2 Object Marking and Marking Objects in Tigrinya

Tigrinya is an Ethio-semitic language spoken primarily in Eritrea and Northern Ethiopia. It is distantly related to Arabic and Hebrew and more closely related to Tigré and Amharic. Tigrinya is an SOV word-order language with a strongly head-final verbal domain and nominative-accusative alignment. These properties are illustrated with the causative-inchoative alternation of the verb *səbir* ‘broke’ in (7).

- (7) a. Yonas **n**-ət-a t’irmuz səbir-u-wa
Yonas N-that-FS bottle GER.break-S.3MS-O.3FS
‘Yonas broke the bottle.’ (Kifle 2011:56, (55a))
b. ?ət-a t’irmuz tə-səbir-a
that-FS bottle DT-GER.break-S.3FS
‘The bottle broke.’ (Kifle 2011:56, (55b))

Internal argument DPs, including *nəta t’irmuz* ‘that bottle’ in (7a), may surface with the prefix *n(i)*- (the *N*-marker). Recent literature on Tigrinya has identified the *N*-marker as an accusative, objective, or dative case marker (Weldeyesus 2004, Kievit & Kievit 2009, Kifle 2007, 2011, Gebregziabher 2013) and as a preposition in various contexts (Kifle 2011). The same literature has also noted that the *N*-marker is descriptively a Differential Object Marking (DOM; e.g., Aissen 2003).³ The Tigrinya DOM morpheme obligatorily appears on definite objects. This includes pronouns, proper names, and nominals with a definite determiner, as in (7a).

The DOM morpheme can also appear on quantified indefinite DPs, like *nihadə təməharaj* ‘a student’ in (8). The result is a specific interpretation for that DP.

- (8) ?it-i məmhīr timali **ni**-hadə təməharaj mətə’haf hib-u-wo
that-MS teacher yesterday N-one.M student book GER.give-S.3MS-O.3MS
‘Yesterday the teacher gave a (certain) student a book.’ (Kifle 2007:9, (4b))

³See Kifle (2011:ch.9) for a more detailed discussion of differential object marking in Tigrinya and its interpretive effects.

Indefinite/non-specific bare nominals, in contrast, cannot grammaticality appear with the DOM morpheme. This is so regardless of the interpretation of the DP (or the presence of the object marking suffix on the verb). The minimal pair in (9) illustrates.

- (9) a. *ʔit-i səbaj **nɪ**-dəbdabe tsihif-u-wa
that-MS man N-letter GER.write-S.3MS-O.3FS
‘The man wrote a (certain) letter.’
b. ʔit-i səbaj dəbdabe tsihif-u
that-MS man letter GER.write-S.3MS
‘The man wrote a letter.’

Objects carrying the DOM morpheme generally show evidence of undergoing an application of Object Shift (e.g., Enç 1991, Diesing 1992, López 2012; cf. Kalin & Weisser 2019). As shown in the example in (10), the default word order places the *N*-marked object to the left of the adverb *sənuj* ‘Monday.’

- (10) ʔit-i səbʔaj [**n-ət-a** dəbdabe]₁ sənuj x₁ tsihif-u-wa
that-MS man N-that-FS letter Monday GER.write-S.3MS-O.3FS
‘The man wrote the letter on Monday.’

We will see additional evidence for postulating applications of Object Shift for arguments carrying the DOM morpheme in section 4.

Objects of transitive predicates *N*-marked with the DOM morpheme are obligatorily cross-referenced by a ϕ -agreeing suffixal object marker (OM) on the verb, as in (11a). Objects of transitive predicates that cannot carry the DOM morpheme, such as indefinite/non-specific bare nominals, cannot be cross-referenced by OM; see (11b).

- (11) a. ʔit-i səbaj **n-ət-a** **dəbdabe** tsihif-u-***(wa)**
that-MS man N-that-FS letter GER.write-S.3MS-O.3FS
‘The man wrote the letter.’
b. ʔit-i səbaj **dəbdabe** tsihif-u-***(wa)**
that-MS man letter GER.write-S.3MS-O.3FS
‘The man wrote a letter.’

Thus, OM is gated by DOM on the definite/specific object and is necessary when possible.

This makes Tigrinya like Tigré according to Jake (1980), who claims that object marking is obligatory when possible. This also makes Tigrinya unlike Amharic, where object marking is optional according to Amberber (2005), Baker (2012) and Kramer (2014). Relevant examples are provided in (12) and (13).

- (12) Lilet waraqat katb-at-(*tā)
Lilet.F letter.F wrote-S.3F-O.3F
‘Lilet wrote a letter.’ (Tigré; Jake 1980:75, (5a))
(13) Almaz təmari-w-in ayy-ätftf-(iw)
Almaz.F student-DEF.M-ACC see-3FS.S-3MS.O
‘Almaz saw the male student.’ (Amharic; Kramer 2014:601, (14))

As discussed above, OM in Tigrinya can in principle cross-reference either the goal or the theme argument in ditransitive constructions. The relevant examples are repeated in (14).

- (14) a. ʔit-a g^wal n-ət-a dəbdabe n-ət-i wədi hib-a-to
 that-FS girl N-that-FS letter N-that-MS boy GER.give-S.3FS-O.3MS
 ‘The girl gave the boy the letter.’ (Goal OM)
- b. ʔit-a g^wal n-ət-a dəbdabe n-ət-i wədi hib-a-ta
 that-FS girl N-that-FS letter N-that-MS boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to the boy.’ (Theme OM)

Similar to what was observed above with transitive predicates, OM with either internal argument in ditransitives is gated by DOM on a definite/specific DP, a condition which is satisfied in each of the examples in (14). We will return to a discussion of the evidence to support this assertion in section 5.1, at which point we will have a more articulated picture of ditransitive constructions. For now, we can also observe that, when both arguments are compliant with the conditions for OM, only a single OM affix is possible. This is regardless of the linear order of two morphemes, as demonstrated by the pair of examples in (15).

- (15) a. *ʔit-a g^wal n-ət-a dəbdabe n-ət-i wədi hib-a-ta-to
 that-FS girl N-that-FS letter N-that-MS boy give-GER-S.3FS-O.3FS-O.3MS
 ‘The girl gave the boy the letter.’
- b. *ʔit-a g^wal n-ət-a dəbdabe n-ət-i wədi hib-a-to-ta
 that-FS girl N-that-FS letter N-that-MS boy give-GER-S.3FS-O.3MS-O.3FS
 ‘The girl gave the boy the letter.’

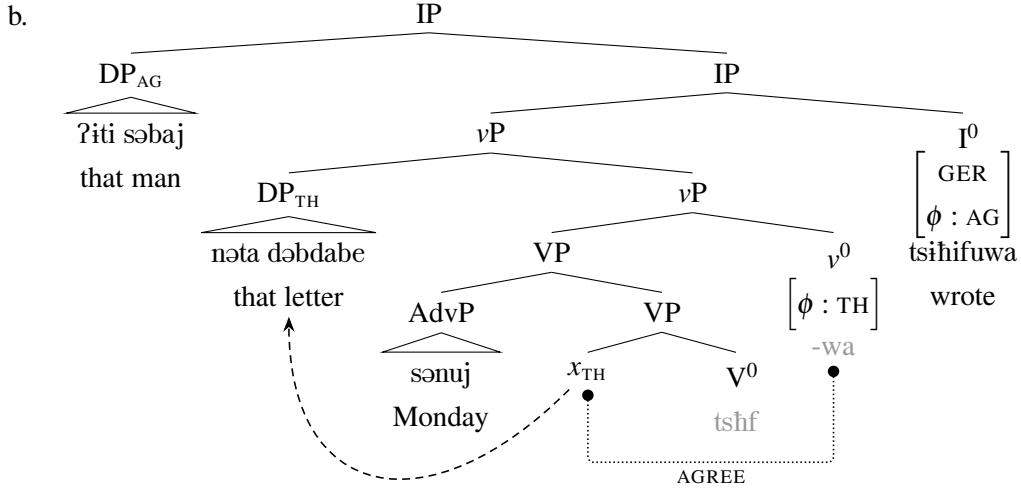
An issue about which I will remain purposefully vague in this paper concerns the exact status of the OM morpheme, which displays properties considered to be diagnostic of both agreement markers and clitics. Both of these positions are represented in the recent literature on object marking in Amharic (Baker 2012, Kramer 2014). The current consensus, however, seems to be that Amharic OM is clitic doubling (Baker & Kramer 2018). Either position would ultimately be compatible with the analysis to be presented below. The relevant ingredient is only that OM be the result, at least in part, of a syntactic AGREE relationship (Chomsky 2001). The analysis presented in the following sections will capitalize on the built-in locality constraints on this relationship. Moreover, I will assume that, with respect to object marking, this relationship is established between the cross-referenced argument and a verbal functional head, which I identify as v^0 following Baker & Kramer (2018) and van der Wal (2018).⁴ Given the evidence above, and the data to be investigated below, I will also assume that OM in Tigrinya is a correlate of DOM and Object Shift.

Together, these assumptions provide the example in (16a), which has been repeated from (10), with the basic syntactic representation in (16b).⁵

⁴See also Roberts (2010), Nevins (2011), and Preminger (2014) for more general treatments of clitic doubling as agreement-based relationships.

⁵Independent considerations regarding the distribution of morphemes suspected to be generated in the C^0 -domain lead me to suspect that Tigrinya is a verb raising language. This is illustrated in the representation in (16b), however nothing about the analysis presented in this paper hinges on this choice.

- (16) a. ʔiti-i səbʔaj [n-ət-a dəbdabe]₁ sənuj x₁ tsihif-u-wa
 that-MS man N-that-FS letter Monday GER.write-S.3MS-O.3FS
 ‘The man wrote the letter on Monday.’

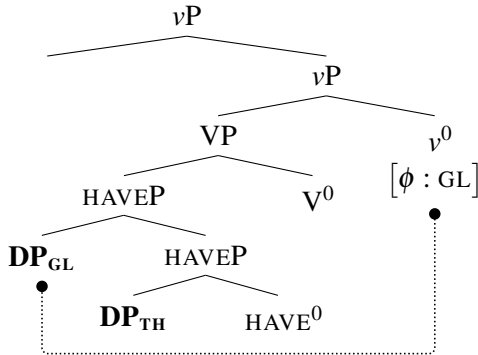


In the representation above, v^0 has probed its c-command domain and established an AGREE relation with the theme argument. As a definite/specific nominal carrying the DOM morpheme, the theme is eligible for being cross-referenced by OM. The result of AGREE, therefore, is necessarily the valuation of ϕ -features at v^0 , which are spelled out as the OM affix -wa on the verb. As a DOM carrying argument, the theme also undergoes object shift to the edge of the vP where it achieves its surface position. The following section integrates this basic picture of OM into a proposal for ditransitive configurations in Tigrinya.

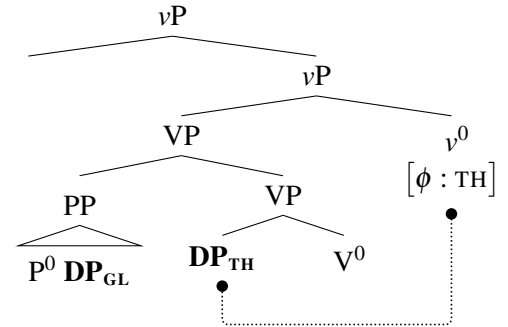
3 A Masked Asymmetry

The proposal to be made here is that, despite initial appearances, Tigrinya ditransitives are not symmetrical object object configurations. Instead, I propose that Tigrinya employs the pair of asymmetric ditransitive frames in (17) and (18). There is a Double-Object Frame responsible for cross-referencing the goal with OM and a PP-Object Frame responsible for cross-referencing the theme.

(17) *Double-Object Frame*



(18) *Prepositional-Object Frame*



The existence of these two frames is obscured in the data above by a surface ambiguity of the *N*-marker as it appears on goal arguments. As discussed in the previous section, the *N*-marker is the realization of a DOM morpheme (N_K) when it appears on both themes and goals that are direct arguments of a verbal predicate.

In the Double-Object Frame (DO Frame) in (17), the verb embeds a small clause complement with possessive semantics (e.g., Green 1974, Kayne 1984, Beck & Johnson 2004, Harley & Jung 2015). Both the goal and the theme argument in this representation are generated as DP direct arguments of the embedded predicate HAVE⁰. *N*-marking on the goal and the theme in this construction, therefore, will be the *N_K* DOM morpheme. As the structurally higher of the two arguments, the goal will be most local for AGREE, meaning it will value the ϕ -features at v^0 . Thus, this is the argument structure that results in the goal being cross-referenced by OM.

Before turning to an account of the observed OM patterns, let us examine some initial motivation for the claim that the *N*-marker is ambiguous between a DOM morpheme and a preposition. First, it has been argued in the literature that Tigrinya has a small set of polysemous prepositions.⁷ Representative examples are provided below.⁸

- Among this set of prepositions there has also been claimed to be a directional preposition *n(i)-*, which is

⁷Baker & Kramer (2014) have argued recently that supposed prepositions in Amharic are better treated as semantic case markers that are inserted at PF and licensed by null prepositions in the syntax. The issue remains to be fully settled for Tigrinya, though relevant discussion can be found in Gebregziabher 2013:ch.3. Whether or not the same is true in Tigrinya, what is relevant for the analysis is that *N*-marking can be associated with syntactic structure that is a barrier for AGREE. We will return briefly to the differences between Tigrinya and Amharic in the conclusion.

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exemplified in (22) below.

- (22) **ni-?**eritira kəjid-u ?al-o
 DIR-Eritrea GER.go-S.3MS PRES.AUX-3MS
 ‘He has gone to Eritrea.’ (Kifle 2011:165, (163c))

The directional argument *ni-?*eritira ‘to Eritrea’ of a verb of motion in (22) carries an *N*-marker but does not trigger OM on the verb. Given the otherwise obligatory cooccurrence of object marking and the DOM morpheme seen in the minimal pair in (11), such data support the claim that prefixal *n(i)-* on nominals is not always the DOM morpheme. Instead, the claim is that *N*-marking in (22) involves a homophonous preposition (see also Kifle 2011:247).

Regarding the *N*-marker in ditransitives specifically, it is telling to observe that it has a different distribution on goal arguments than what has been observed on theme arguments. The minimal pair in (9) showed that indefinite/non-specific bare nominal themes cannot be *N*-marked. The example in (23) shows that indefinite/non-specific bare nominal goals, on the other hand, can be *N*-marked and retain an indefinite/non-specific interpretation.

- (23) ?it-a g^wal **ni-**wədi dəbdabe hib-a
 that-FS girl *N_P*-boy letter GER.give-S.3FS
 ‘The girl gave a letter to a boy.’

This suggests that *N*-marking on goals in ditransitives is not always the DOM morpheme, which enforces a definiteness/specificity requirement. Again, the alternative being proposed is that *N*-marking in (23), like in (22), is an instance of the preposition *N_P*.

In sum, the observed OM pattern in a Tigrinya ditransitive construction is claimed to reliably betray one of the two argument structure presented above. The operative difference between them is the status of the goal as either a direct argument with *N_K*-marking in the DO Frame (17) or an indirect argument with *N_P*-marking in the PP Frame (18). This ultimately determines the relative visibility of the two arguments to AGREE from *v*⁰. As will be shown in detail in the following section, this allows us to preserve the idea that OM is obligatory when possible while also accounting for the observed OM patterns.

4 Predicting Object Marking Patterns

Recall the data motivating the puzzles that were presented in the introduction. If Tigrinya is to be classified as an asymmetrical object language, it is necessary to identify an alternative source of the apparent symmetry in (24). Both the goal and theme argument in these examples are descriptively “compliant” with the requirements for OM: they are definite/specific and are *N*-marked. In such cases, either argument can be cross-referenced by an OM morpheme.

- (24) a. ?it-a g^wal n-ət-a dəbdabe **n-ət-i** wədi hib-a-to
 that-FS girl *N*-that-FS letter *N*-that-MS boy GER.give-S.3FS-O.3MS
 ‘The girl gave the boy the letter.’
 b. ?it-a g^wal **n-ət-a** dəbdabe n-ət-i wədi hib-a-ta
 that-FS girl *N*-that-FS letter *N*-that-MS boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to the boy.’

This symmetry is undercut, however, by the asymmetrical behavior of goals and themes when only one of the arguments is compliant with OM requirements. When only the goal argument is definite/specific and *N*-marked, it is optionally cross-referenced by OM, as in (25). This is unexpected from the perspective of object marking elsewhere in the grammar. Object marking of compliant theme arguments is obligatory, both for the transitive predicates in section 2 and the ditransitive predicate in (26).

- (25) ?it-a g^wal **n-ət-i** **wədi** dəbdabe hib-a-(**to**)
 that-FS girl N-that-MS boy letter GER.give-S.3FS-O.3MS
 ‘The girl gave the boy a letter.’
- (26) ?it-i g^wal **n-ət-a** **dəbdabe** n-wədi hib-a-*(**ta**)
 that-FS girl N-that-FS letter N-boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to a boy.’

The following subsections show how these three sets of facts are handled by the proposal in the previous section. I then sketch and argue against two potential alternative analyses that would treat Tigrinya ditransitives as symmetrical object configurations.

4.1 *Hidden Ditransitive Argument Structure Alternations*

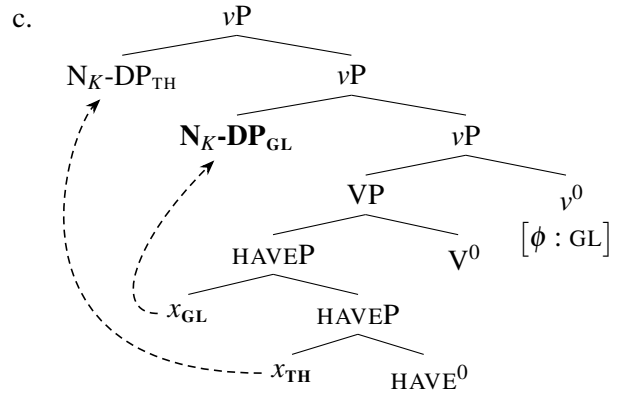
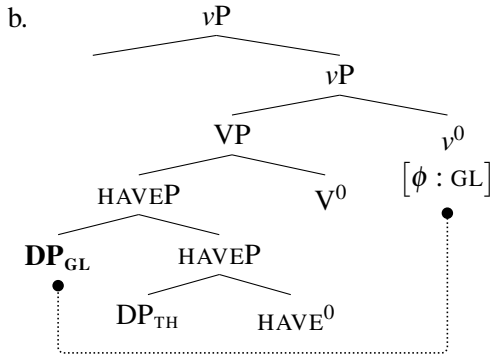
As discussed in section 3, the proposal is that Tigrinya object marking is obligatorily when possible and cross-reference the highest direct argument. Whether the goal or theme is the highest direct argument in a Tigrinya ditransitive is a function of which of the two proposed asymmetrical argument structures is employed.

4.1.1 *Apparent Symmetry of the Goal and Theme*

Recall that, when both arguments of a Tigrinya ditransitive are OM compliant, either can be cross-referenced by OM. This apparent symmetry can be reduced to a choice between a pair of asymmetrical ditransitive frames obscured by a surface ambiguity of the morphological marking on goals.

Cross-referencing the goal in (27) under the proposed analysis is the result of a syntax that employs the DO Frame. In this frame, the goal is the highest direct argument and, due to the usual locality constraints on AGREE, will be probed by v^0 first. The goal consequently values the ϕ -features at v^0 and determines the realization of the OM morpheme.

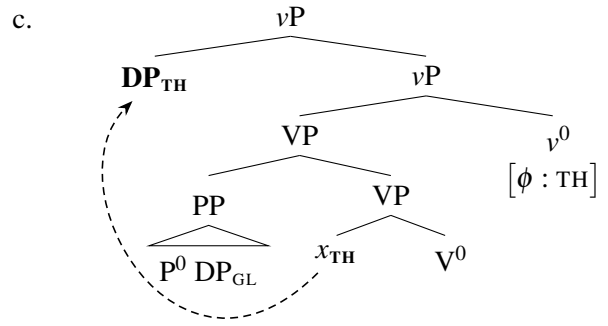
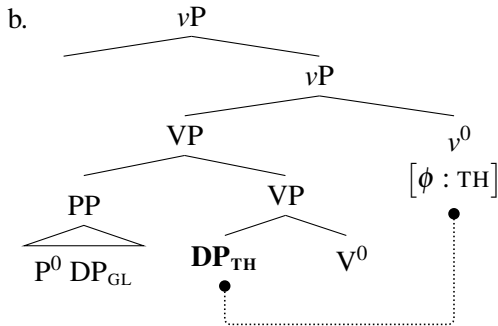
- (27) a. ʔit-a g^wal n-ət-a dəbdabe n-ət-i wədi hib-a-to
 that-FS girl N_K-that-FS letter N_K-that-MS boy GER.give-S.3FS-O.3MS
 ‘The girl gave the boy the letter.’



A close look at (27a) shows that the representation in (27b) does not automatically deliver the observed order of the theme preceding the goal. However, knowing from (16) that objects marked with the DOM morpheme N_K undergo Object Shift, the set of local displacements illustrated in (27c) will provide the correct result.

When both arguments are OM compliant but it is the theme that is cross-referenced by OM, as in the minimally differing string in (28), the proposed underlying argument structure is the PP Frame. The goal here is introduced as part of a PP and, therefore, marked with the prepositional N_P . As proposed above, this means that the theme values the ϕ -features at v^0 and determines the realization of the OM morpheme.

- (28) a. ʔit-a g^wal n-ət-a dəbdabe n-ət-i wədi hib-a-ta
 that-FS girl N_K-that-FS letter N_P-that-MS boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to the boy.’



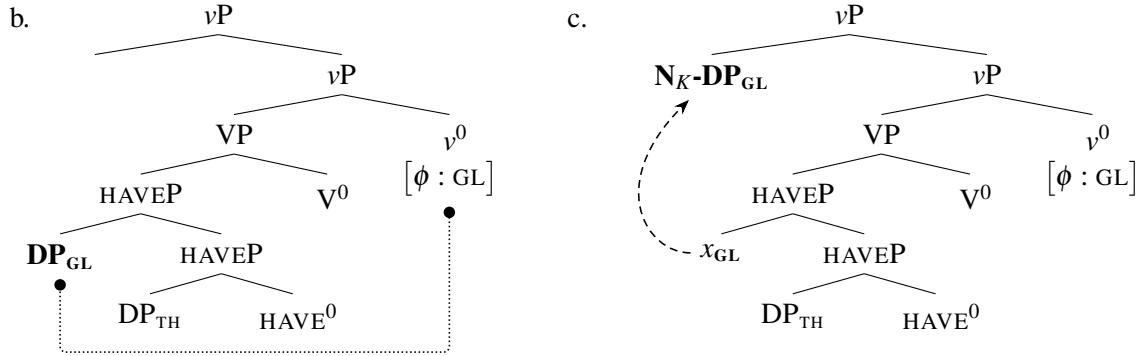
Again, the underlying argument structure does not generate the intended word order. The expected instance of Object Shift of the N_K marked theme, shown in (28c), again provides the correct word order of the theme preceding the goal.

4.1.2 Apparent Optionality of the Goal

We turn now to the asymmetries between goals and themes. When only the goal is compliant with the requirements for OM, cross-referencing the goal with OM is optional. This is puzzling given that compliant theme arguments are otherwise obligatorily cross-referenced by OM. Given the availability of two asymmetrical ditransitive frames, however, this apparent optionality becomes an expected property of goals, even while maintaining that object marking is obligatory when possible.

In a way similar to what was presented in (27), the DO Frame in (29) provides the underlying argument structure for cross-referenced the goal argument with OM.

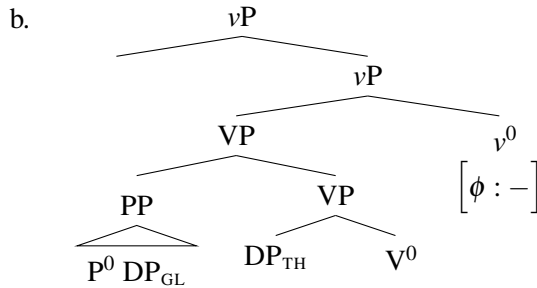
- (29) a. ?it-a g^wal n-ət-i wədi dəbdabe hib-a-to
 that-FS girl N_K-that-MS boy letter GER.give-S.3FS-O.3MS
 ‘The girl gave the boy a letter.’



The goal in (29) is the highest direct argument and, again, determines the realization of OM. In line with established expectations, the N_K marked goal undergoes string vacuous Object Shift as the unmarked bare nominal theme remains in-situ.

When only the goal is OM compliant, but is not cross-referenced by OM, it is because the PP Frame provides the underlying syntax. The expected result, now, is that OM is not realized in (30).

- (30) a. ?it-a g^wal n-ət-i wədi dəbdabe hib-a
 that-FS girl N_P-that-MS boy letter GER.give-S.3FS-O.3MS
 ‘The girl gave the boy a letter.’



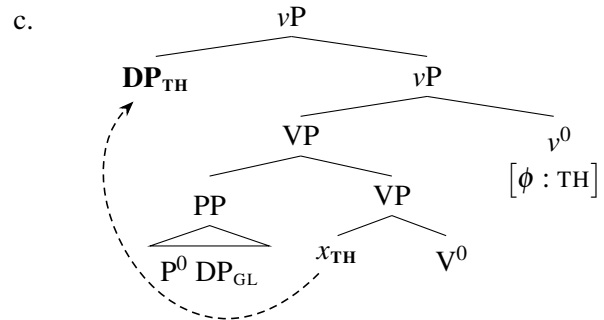
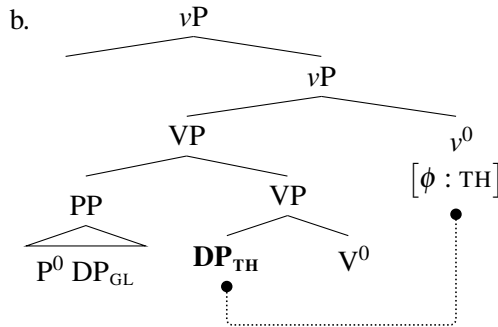
As shown in (30b), the goal is an indirect argument inside a PP and, by hypothesis, is not accessible to the AGREE relation from v^0 , regardless of being OM compliant. This makes the theme the highest direct argument. Unlike in (28) above, however, the theme argument here is an indefinite/non-specific bare nominal that is not N_K marked, making it non-compliant with the requirements for OM. Therefore it, too, fails to trigger object marking. Moreover, by identifying Object Shift as a correlate of DOM, we correctly predict that the theme does not shift and we observe the goal preceding the theme in this instance.

4.1.3 Obligation of the Theme

Finally, we consider those cases where only the theme is compliant with OM and is obligatorily cross-referenced by OM. This is now a reflection of the obligatoriness of object marking.

As we saw in the discussion surrounding (28), cross-referencing the theme requires the PP Frame. This ensures that the goal in (31) appears as an indirect argument inside a PP. This has the effect of making the theme the highest direct argument, which consequently determines the realization of OM.

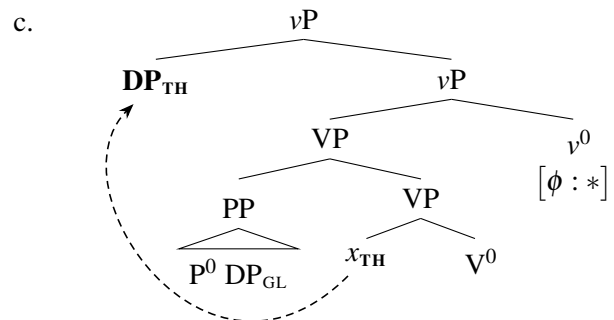
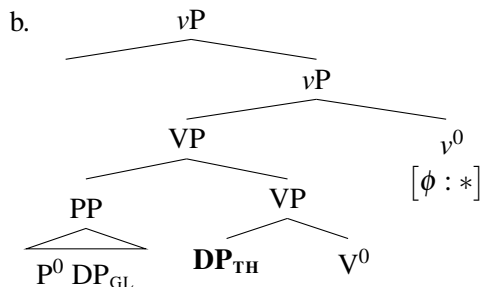
- (31) a. ʔit-i g^wal n-ət-a dəbdabe n-wədi hib-a-ta
that-FS girl N_K-that-FS letter N_P-boy GER.give-S.3FS-O.3FS
‘The girl gave the letter to a boy.’



The N_K -marked theme is expected to undergo the instance of object shift shown in (31c). The goal, however, is expected to remain in-situ. While it is N -marked, the analysis has it marked with the preposition N_P . This is supported by the fact that the goal in (31) is an indefinite/non-specific bare nominal, which we have seen makes it incompatible with DOM.

While the goal varies between being a direct and indirect argument, the theme is always a direct argument. In these instances where the theme is the only OM compliant argument, not cross-referencing it with OM violates the now established requirement to realize OM when possible. The examples in (32) below show how violating this requirement results in ungrammaticality.

- (32) a. *ʔit-i g^wal n-ət-a dəbdabe n-wədi hib-a
that-FS girl N_K-that-FS letter N_P-boy GER.give-S.3FS
‘The girl gave the letter to a boy.’



The ungrammaticality of (32) is the result of a failure to realize the OM morpheme that would obligatorily result from the AGREE relations established between v^0 and the OM compliant theme.

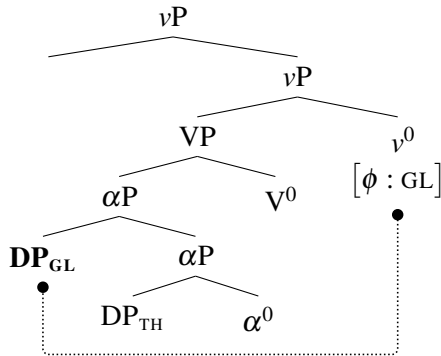
4.2 Two Potential Alternatives

The analysis being proposed effectively claims that apparent symmetry in Tigrinya is simulated by a pair of asymmetrical ditransitive frames. This approach provided the benefit of also accounting for the asymmetri-

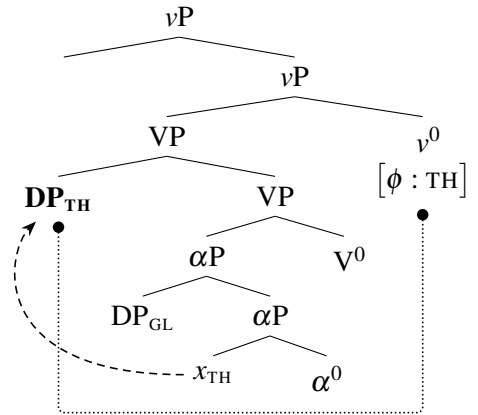
cal behavior of goals and themes, each independent of the other. Let us consider, then, how two common treatments of symmetry fair with respect to Tigrinya object marking.

A treatment of object symmetry, which can be traced back to McGinnis (2001) and Anagnostopoulou (2003), and which has recently been applied to Zulu object marking by Zeller (2015), has movement determine the most local argument visible to AGREE from v^0 . One way to execute this type of movement-based approach is sketched in (33) and (34), where the highest argument is determined by whether the theme moves to a position that is higher than the goal.

(33) *In-situ Theme*



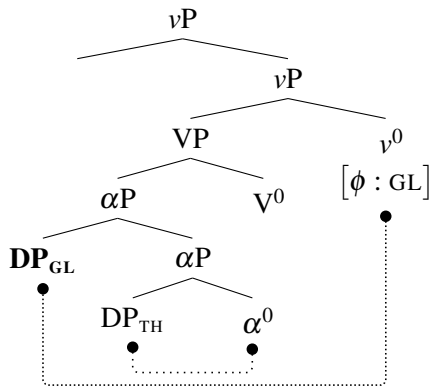
(34) *Ex-situ Theme*



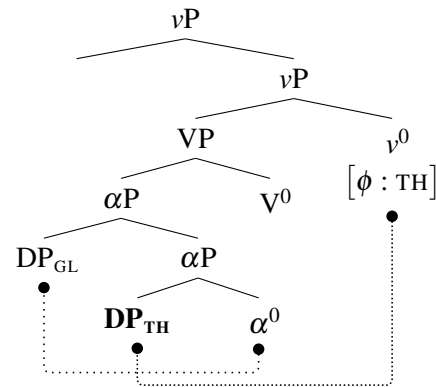
On this analysis, it is when the theme does not shift higher than the goal in (33) that v^0 probes and agrees with the goal. When the theme is shifted to a position that places it structurally higher than the goal, as in (34), the theme will be probed by v^0 and will trigger object agreement.

A more recent alternative, which is presented in Haddican & Holmberg 2019 and applied to Bantu object marking in van der Wal 2018, has the most local argument visible to AGREE from v^0 determined by an additional AGREE relationship with an applicative head α^0 . An agreement-based approach of this type is sketched below in (35) and (36).

(35) *Applicative-Theme Agreement*



(36) *Applicative-Goal Agreement*



In the "normal" case, α^0 agrees with its complement, the theme, and the goal is left as the highest active argument, in the sense of Chomsky 2001. The result, illustrated by (35), is that the goal is probed by v^0 and OM cross-references the goal argument. The "exceptional" case arises when α^0 agrees with its specifier, the goal. In this case, the goal becomes inactive for AGREE and the theme argument is left as the highest active argument. As shown in (36), v^0 will probe the theme, which is cross-referenced by OM.

Each of the movement-based and agreement-based alternatives can provide an account for the apparent symmetry of object marking in Tigrinya that is based on an option between the respective derivations above. However, they do not obviously help us understand the observed asymmetry between the goal and the theme when only one of these arguments is compliant with the requirements on OM. The relevant examples are repeated below.

- (37) ?it-a g^wal **n-ət-i** wədi dəbdabe hib-a-(to)
that-FS girl N-that-MS boy letter GER.give-S.3FS-O.3MS
‘The girl gave the boy a letter.’
- (38) ?it-i g^wal **n-ət-a** dəbdabe n-wədi hib-a-*(ta)
that-FS girl N-that-FS letter N-boy GER.give-S.3FS-O.3FS
‘The girl gave the letter to a boy.’

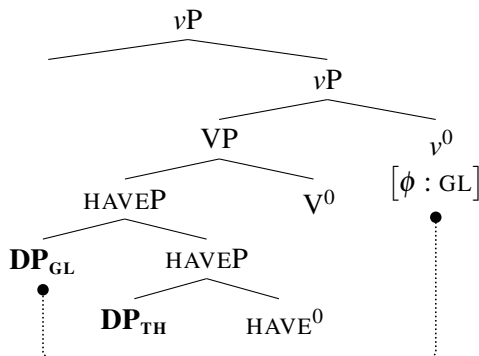
The optionality of cross-referencing the OM compliant goal in (37) proves troublesome for the movement-based approach of (33) and (34). When only the goal is definite/specific and is *N*-marked, it should be treated as the highest argument, as in (33). This accounts for the observation that it can control OM. However, it is left unexplained why only an OM compliant goal argument only optionally triggers OM while this is obligatory for OM compliant themes. The agreement-based approach of (35) and (36), on the other hand, finds trouble in the obligation of the theme to trigger OM in (38). When only the theme is compliant with OM requirements and controls OM, this is to be attributed to the syntax in (36). However, it is unclear what precludes the derivation in (35), where the goal would determine OM, instead of the theme.

As proposed in section 4.1, these asymmetries, in addition the apparent symmetry of goals and themes, can be understood as optionality at the level of which of two asymmetric ditransitive frames is employed.

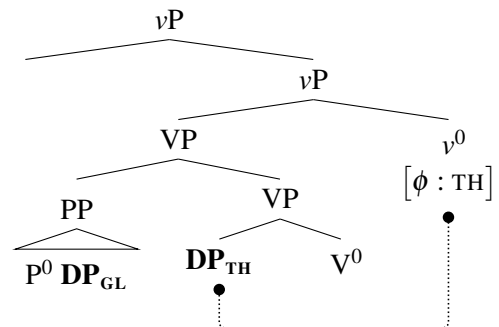
5 Structure Sensitive Predictions

Recall the pair of asymmetric ditransitive structures provided again in (39) and (40) that have been proposed for Tigrinya. It was argued that the observed object marking pattern can reliably be attributed to which of these argument structures underlies any given ditransitive construction.

(39) *Double-Object Frame*



(40) *Prepositional-Object Frame*



This analysis makes a very strong, broad prediction. If the observed object marking pattern indeed corresponds to each of these argument structures, then various structural and interpretive asymmetries related to these argument structures should correspond directly to the presence or absence of object marking and which argument it cross-references. As the following subsections show, this is precisely the case.

5.1 Goal-Marking Gates Theme-Marking

Looking at the structures above, part of the proposal is that cross-referencing the theme argument relies on the underlying presence of the PP Frame. Recall that, in this frame, the goal argument is introduced as an indirect object inside a PP. If this is correct, cross-referencing the theme should be possible only if the goal argument is *N*-marked.

The examples in (41) show that this prediction is borne out. When OM cross-references the theme, the goal necessarily carries *N*-marking. Moreover, this is the case regardless of the definiteness/specificity of the goal.

- (41) a. ?it-i g^wal n-ət-a dəbdabe ***(n)-ət-i wədi** hib-a-ta
 that-FS girl N-that-FS letter N-that-MS boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to the boy.’ (Theme OM; PP Frame)
- b. ?it-i g^wal n-ət-a dəbdabe ***(ni)-wədi** hib-a-ta
 that-FS girl N-that-FS letter N-boy GER.give-S.3FS-O.3FS
 ‘The girl gave the letter to a boy.’ (Theme OM; PP Frame)

As per the syntax in (40), it is the PP Frame that ensures the goal is demoted to an indirect PP argument. This is what permits v^0 to probe past the goal and agree with the theme. The requirement of *N*-marking here, then, is a reflection of the fact that the goal must be introduced by the prepositional *N_P* when the theme is cross-referenced by OM.⁹

5.2 The Specificity of the Goal

This takes us directly into a set of two additional predictions. First, whenever the goal is not cross-referenced by OM, we expect that it can be either definite/specific or indefinite/non-specific. It is when the goal is not cross-referenced by OM that the proposed analysis asserts that it is an indirect argument marked with the preposition *N_P*. Unlike the DOM morpheme, this preposition does not enforce definiteness/specificity constraints. This prediction is realized above in (41). When the theme is cross-referenced by OM, the *N*-marked goal is not subject to any definiteness/specificity constraints.

The data in (42) provide additional confirmation of this prediction.

⁹For full disclosure, there is a general remaining puzzle in the fact that (i) is ungrammatical.

- (i) *?ita g^wal wədi dəbdabe hib-a
 that-fs girl boy letter give=GER-S3fs
 ‘The girl gave a boy a letter.’

When neither argument is compliant with the requirements for OM, the goal must still be *N*-marked; compare (42b). This suggests that, in the DO Frame, at least one of the arguments must be eligible for *N_K* marking. This might be related to the generalization formulated in [Alexiadou & Anagnostopoulou \(2001\)](#) that only a single argument can remain in-situ in the VP. Similar ideas have also been formalized as a requirement for symmetry breaking in the syntax (e.g., [Moro 2000](#), [Richards 2010](#)). If this is not possible to mark either argument with *N_K*, then it seems that the PP Frame becomes obligatory, in which case the goal will also be *N*-marked. Further exploring these issues must be left for another occasion.

- (42) a. ʔit-a g^wal **n-ət-i** wədi dəbdabe hib-a
 that-FS girl N_P-that-MS boy letter GER.give-S.3FS
 ‘The girl gave the boy a letter.’ (No OM; PP Frame)
- b. ʔit-a g^wal **ni-wədi** dəbdabe hib-a
 that-FS girl N_P-boy letter GER.give-S.3FS
 ‘The girl gave a letter to a boy.’ (No OM; PP Frame)

The absence of OM in such examples was argued to indicate the PP Frame as the underlying argument structure (see section 4.1.2). Thus, the goal is expected to carry the *N_P* morpheme and should not have any definiteness/specificity requirements placed on it. These example above show that, in fact, the goal can be either definite/specific (42a) or indefinite/non-specific (42b) in the absence of OM.

The contrapositive holds as well. When the goal is cross-referenced by OM, we should expect that it can be only definite/specific. This is shown in the examples immediately below.

- (43) a. ʔit-a g^wal **n-ət-i** wədi dəbdabe hib-a-to
 that-FS girl N_P-that-MS boy letter GER.give-S.3FS-O.3MS
 ‘The girl gave the boy a letter.’ (Goal OM; DO Frame)
- b. *ʔit-a g^wal **ni-wədi** dəbdabe hib-a-to
 that-FS girl N_P-boy letter GER.give-S.3FS-O.3MS
 ‘The girl gave a letter to a boy.’ (Goal OM; DO Frame)

According to the syntax and analysis laid out in the previous section, cross-referencing the goal with OM is achieved only in the DO Frame in (39). As a direct argument in this frame, the *N*-marking on the goal is expected to be the *N_K* DOM morpheme. Thus, we observe the requirement for the goal to be specific/definite in (43a) and we observe ungrammaticality otherwise, as in (43b).

5.3 The CAUSE-HAVE Interpretation

It has been known at least since work by Green (1974) that the English DO Frame and PP Frame are not interpretively parallel. There is an additional animacy constraint on the goal in the DO Frame in (44) that is not observed in the PP Frame in (45).

- | | |
|--|--|
| (44) <i>English DO Frame</i> | (45) <i>English PP Frame</i> |
| a. Sam sent Kim the letters. | a. Sam sent the letters to Kim . |
| b. #Sam sent Detroit the letters. | b. Sam sent the letter to Detroit . |

Following Harley (2002), Beck & Johnson (2004), and others, we can suppose that this is an effect of the semantic contribution of a silent predicate HAVE⁰ heading the small clause employed in the DO Frame. The infelicity in (44), therefore, can be attributed to the infelicity of asserting that Detroit posses letters. The absence of this animacy restriction, and its resultant infelicity, from the PP Frame in (45) can be taken to indicate the absence of the relevant predicate.

This difference in the syntax and semantics of the two ditransitive frames that have been proposed for Tigrinya is reflected in (39) and (40). To the extent that these reflect the correct representations and, moreover, that the observed OM pattern betrays the underlying argument structure, it is possible to formulate a prediction regarding goal animacy. Specifically, we should expect to see animacy constraints on the goal only when the goal is cross-referenced by OM. This is precisely what we observe in the pairs of examples below.

- (46) a. ʔit-a g^wal ni-ʔasməra dəbdabe sədid-a
 that-FS girl N_P-Asmera letter GER.send-S.3FS
 ‘The girl sent a letter to Asmera.’ (No OM; PP Frame)
- b. #ʔit-a g^wal **ni-ʔasməra** dəbdabe sədid-a-ta
 that-FS girl N_K-Asmera letter GER.send-S.3FS-O.3FS
 #‘The girl sent Asmera a letter.’ (Goal OM; DO Frame)
- (47) a. ʔit-a g^wal **n-ət-ən** dəbdabe ni-ʔasməra sədid-a-tən
 that-FS girl N_K-that-FP letter N_P-Asmera GER.send-S.3FS-O.3FP
 ‘The girl sent the letters to Asmera.’ (Theme OM; PP Frame)
- b. #ʔit-a g^wal n-ət-ən dəbdabe **ni-ʔasməra** sədid-a-ta
 that-FS girl N_K-that-FP letter N_K-Asmera GER.send-S.3FS-O.3FS
 #‘The girl sent Asmera the letters.’ (Goal OM; DO Frame)

When OM cross-references the inanimate goal argument *Asmera*, the capital of Eritrea, the result seen in the (b.) variants above is infelicity. The language consultant even provided the additional comment that these examples do not make sense because, as a city, Asmera is unable to receive letters. As in English, these examples can be improved in as far as Asmera can be conceived of as a collection of individuals capable of possession. The (a.) variants, on the other hand, in which the goal is not cross-referenced by OM, are entirely acceptable.

The proposed analysis predicts exactly this paradigm. Cross-referencing the goal with OM requires the DO Frame in (39), which has been claimed to embed a small clause complement headed by a predicate HAVE⁰. The observed animacy constraint can be understood as a reflex of the possessive semantics of this head. When the goal is not cross-referenced by OM, the proposal is that the PP Frame in (40) provides the underlying argument structure. As the object of a preposition in this frame, the goal is expected to not be subject to any animacy conditions.

5.4 Condition A Effects

Barss & Lasnik (1986) observed a number of structural asymmetries between the goal and theme arguments in the English DO Frame and PP Frame. Among these is the observation that the goal licenses reflexives in the DO Frame, but not in the PP Frame. A pair of examples to illustrate this are provided in (48).

- (48) a. Tim gave [Pam₁ [the pictures of herself₁]]
 b. *Tim gave [the pictures of herself₁ [to Pam₁]]

Given the proposed shapes of the DO Frame and the PP Frame for Tigrinya in (39) and (40), we should expect to see similar binding effects in Tigrinya ditransitives as well. Importantly, it should be expected that these effects will vary as a function of the observed object marking pattern. The goal should license reflexives in the theme position only when the goal is cross-referenced by OM since this requires the DO Frame, which provides the required structural configuration of the arguments. The predictions of the analysis are realized again, as shown in the minimal pair of examples below:

- (49) a. ʔit-a g^wal **ni-kefi**₁ n-ət-ən naj [gəzaʔ riʔisu]₁ siʔilt-at
 that-FS girl N_K-Keffy.M N_K-that-FP of own self-3MS picture-P
 hib-a-to
 GER.give-S.3FS-O.3MS
 ‘The girl gave Keffy₁ the pictures of himself₁.’ (Goal OM; DO Frame)
- b. *ʔit-a g^wal ni-kefi₁ **n-ət-ən naj** [gəzaʔ riʔisu]₁ **siʔilt-at**
 that-FS girl N_P-Keffy.M N_K-that-FP of own self-3MS picture-P
 hib-a-tən
 GER.give-S.3FS-O.3FP
 *‘The girl gave the pictures of himself₁ to Keffy₁.’ (Theme OM; PP Frame)

The fact that reflexive licensing is dependent on the observed OM pattern is expected by the proposed analysis. As noted above, the DO Frame that provides the appropriate structural configuration for the goal to bind the theme is also responsible for producing goal OM in (49a). When the theme argument is cross-referenced by OM, this involves introducing the goal as an indirect argument inside of a PP. As per the structure in (40), this means the goal should not bind the theme. The inability to license the reflexive in (49b) supports this proposal.¹⁰

5.5 Section Summary

This section has identified and investigated a general prediction made by the proposed analysis of Tigrinya ditransitives. Namely, if the observed OM pattern betrays one of the two asymmetric ditransitive frames in (39) and (40), there should be structural and interpretive asymmetries between the goal and theme that are correlated with the observed OM pattern. We have seen several instances above in which this prediction is borne out. Moreover, the asymmetries investigated uniformly converge on the existence of the pair of asymmetric ditransitive frames presented in (39) and (40).

6 A Note on Apparent Symmetry in the Passive

It was noted in the introduction that object marking is not the only primary object property on the basis of which Kifle (2007, 2011) reaches the conclusion that lexical ditransitives in Tigrinya are symmetrical object configurations. This section provides a brief, preliminary investigation of one other source of evidence, namely passivization.¹¹

The Tigrinya passive is formed with the prefixation of the detransitivizing morpheme *tə-*.¹² As shown in (50), the theme argument of a transitive predicate loses its other primary object properties, such as carrying the DOM morpheme and being cross-referenced by OM. That the theme controls subject marking in the passive suggests that it is promoted to the status of grammatical subject.

¹⁰It is worth pointing out that the example in (49b) has a default word order where the *N*-marked goal precedes the *N*-marked theme, contrary to the theme-goal ordering observed in (27). It is unclear at this point whether the theme in (49b) has failed to undergo Object Shift or if the goal has undergone additional Scrambling. Either of these is in principle compatible with the facts in (49) given the proposal that the goal, as a constituent of a PP, cannot c-command the theme.

¹¹For a discussion of relative clauses in Tigrinya, see Palmer 1962 and Overfelt 2009 and especially Kifle 2011:ch.8 for the relativization of the arguments of ditransitives.

¹²The prefix *tə-* may best be analyzed as a type of anticausative morpheme, as it also derives inchoative, reflexive, and reciprocal predicates (Kifle 2011:ch.2.4.4).

- (50) a. ʔit-a dəbdabe tə-ts'ihif-a
that-FS letter DT-GER.write-S.3FS
'The letter was written.'
- b. *n-ət-a dəbdabe tə-ts'ihif-u-wa
N_K-that-FS letter DT-GER.write-S.3MS-O.3FS
'The letter was written.'

Kifle (2011) observes that either internal argument of a ditransitive can be promoted to subject in the passive. The examples provided in (51) show promotion to subject of the goal argument and the theme argument, respectively.

- (51) a. ʔit-om təməhar-o məts'haf-ti tə-wahib-om
that-MP student-P book-P DT-GER.give-S.3MP
'The students are given books.' (Kifle 2011:261, (265a))
- b. ʔit-i məts'haf-ti ni-təməhar-o tə-wahib-u
that-MS book-P N-student-P DT-GER.give-S.3MS
'The books are given to students.' (Kifle 2011:261, (265b))

Despite these initial appearances it is again possible to identify an initial breakdown in the apparent symmetry between goals and themes in ditransitives. When the remaining internal argument in the passive is not OM compliant—because it is indefinite/non-specific—we see a familiar requirement for obligatory *N*-marking only on the goal in (51b). This contrast is expected by the present analysis. Marking the goal with the preposition *N_P* ensures that the theme is the highest direct argument, as per the syntax of the PP Frame in (40), and would be promoted to subject. As indefinite/non-specific themes otherwise do in the DO Frame of (39), the theme in (51a) goes without the DOM morpheme *N_K* or the *N_P* preposition.

That said, Kifle (2011) points out that the remaining internal argument in the passive, whether that be the theme in (52a) or the goal in (52b), can be cross-referenced by OM, given that it is compliant with the requirements.

- (52) a. ʔit-om təməhar-o n-ət-i məts'haf-ti tə-wahib-om-wo
that-MP student-P N-that-MS book-P DT-GER.give-S.3MP-O.3MS
'The students are given the books.' (Kifle 2011:262, (266a))
- b. ʔit-i məts'haf-ti n-ət-om təməhar-o tə-wahib-u-wom
that-MS book-P N-that-MP student-P DT-GER.give-S.3MS-O.3MP
'The books are given to the students.' (Kifle 2011:262, (266b))

Kifle (2011) also notes of these examples that they provide strong evidence for the symmetry of Tigrinya ditransitives. The ability to cross-reference the remaining internal argument in the passive of ditransitives is a well-known property of relatively uncontroversial symmetrical languages (e.g., Bresnan & Moshi 1990).

Unlike the data in (51), these observations are not both straightforwardly consistent with the present analysis. The DO Frame syntax from (39) makes it possible to understand the grammaticality of (52b). If the AGREE relationship with v^0 , which results in OM, renders the goal inactive (e.g., Chomsky 2001), the theme becomes the highest direct argument relative to I^0 in the absence of an external argument. Thus, the theme is probed by I^0 and promoted to subject. It is (52a) that is problematic. Cross-referencing the theme with OM has been argued to be the result of the underlying syntax of the PP Frame in (40). If the goal is indeed contained inside a PP in this configuration (recall the arguments from sections 3 and 5), something

must be said for why that preposition is not observed on the goal in (52a). Alternatively, some other ancillary assumption must be made about the DO Frame syntax in the passive.

Fully understanding and accounting for the interaction of object marking and passivization presents a clear opportunity for a productive line of future research. Another challenge to be addressed in this venture will be the possibility of some amount of speaker or dialectal variation around the problematic example in (52a). In my own data collection, examples like (52a) were consistently judged to be ungrammatical. The alternatives that were provided, which are shown in (53), involve no *N*-marking on the theme and the marginally possible, although dispreferred, inclusion of an object marker that, along with subject marking, cross-references the promoted goal.

- (53) **ʔit-i wədi** ʔit-a dəbdabe tə-wahib-u-(ʔwo)
 that-MS boy that-FS letter DT-GER.give-S.3MS-O.3MS
 ‘The boy was given the letter.’

To the extent that these prove to be robust facts, they are arguably compatible with the basics of the proposed analysis. Promoting the goal to subject position will require it to be the highest direct argument at the time of asking from I^0 . This is only made possible by the syntax of the DO Frame in (39). The preference for not including an object marker suggests a need for the goal to remain active for AGREE beyond the derivation of the vP . The lack of *N*-marking on the theme can be seen as a reflection of the fact that it does not undergo Object Shift in the derivation of (53). This would ensure that the goal remains the highest direct argument for AGREE with I^0 .

7 Conclusion

The primary purpose of this paper has been to account for the apparent optionality of object marking in Tigrinya ditransitive constructions. It was suggested that Tigrinya employs two separate ditransitive frames that are masked by a surface ambiguity of the *N*-marker. The analysis rested on the claim that the goal in a ditransitive structure can be introduced as either a direct argument or as an indirect argument. When the goal is a direct argument it is probed by v^0 and triggers object marking. However, when the goal is an indirect argument it is inside of a PP that is opaque for an AGREE relationship with v^0 , which allows probing of the theme. This results in a situation where the presence or absence of object marking and which argument it cross-references corresponds directly to either the DO Frame or the PP Frame. This analysis preserved the otherwise obligatory nature of object marking in Tigrinya observed with transitive verbs. This analysis also correctly predicted that the observed object marking pattern corresponds to specific interpretive and structural asymmetries. The nature of these asymmetries was found to the claim that Tigrinya employs the two proposed asymmetric ditransitive argument structures.

Among the remaining issues for this analysis includes the need to integrate the syntax proposed for ditransitives in the active voice with the passive data in the previous section. As noted, this will also necessarily include establishing the facts regarding object marking in the passive and sorting out any potential variation. To this we can add the need to investigate the relativization of Tigrinya ditransitives, which is discussed by Kifle (2011:ch.8). As noted by Bresnan & Moshi (1990), the ability to relativize goal and theme arguments serves as another diagnostic of object symmetry.

Future research will also involve a comparative investigation of the relatively closely related language Amharic. Baker (2012:261) notes that, in the usual cases, when the optional object marking that appears on ditransitive verbs is present, it necessarily cross-references the goal argument, as in (54).

- (54) ləmma l-almaz tarik-u-n nəggər-Ø-at (*nəggər-ə-w)
 Lemma DAT-Almaz story-DEF-ACC tell-S.3M-O.3F tell-S.3M-O.3F
 ‘Lemma told Almaz the story/his story.’ (Baker 2012:261, (16))

One avenue to explore in this regard would attribute the difference between Tigrinya and Amharic to the general absence of the PP Frame from Amharic (though see Baker 2012:261, fn.6). This, in turn, could be made to follow from a specific execution of the idea presented by Baker & Kramer (2014), and noted in footnote 7, that prepositions in Amharic are better treated as post-syntactically inserted case markers. Thus, it could be the availability and differing nature of prepositions in Tigrinya and Amharic that make the proposed PP Frame available only to the former language.

In conclusion, Tigrinya, along with Spanish and Japanese, plays an informative role in the typological landscape of symmetrical and asymmetrical object languages. If the presence of two distinct ditransitive frames masked by a surface ambiguity can create the effect of object symmetry, then the same could be true a priori for any suspected symmetrical object language. Thus, demonstrating object symmetry in any language must go further than the observation that both internal arguments of a predicate display primary object behaviors. At minimum, it is also necessary to demonstrate that the same underlying syntax feeds the primary object behaviors of both arguments. As we have seen, there is reason to believe that this is not the case in Tigrinya.

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