

The syntax of verbal modality in Tigrinya

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Abstract: This paper investigates the syntactic grammaticalization of verbal modality in Tigrinya (Ethiosemitic; Eritrea and Northern Ethiopia, SOV). We argue that Tigrinya distinguishes between a weak epistemic modal auxiliary and a set of clause-embedding modal predicates that encode either weak (possibility) or strong (necessity) modal force, while leaving the modal base contextually determined. The analysis reveals that weak modal predicates occur in subject control constructions, whereas strong modal predicates license Exceptional Object Marking (EOM) constructions analogous to Exceptional Case Marking in English. These findings refine previous analyses of Tigrinya modality and contribute to the broader typological and theoretical picture of Afroasiatic languages through the study of an under-studied and under-represented language. (110 words)

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1 Introduction

While verbal modality has received considerable attention in the typological and theoretical literature, how it is grammatically encoded remains unavailable for many languages. Tigrinya (Ethiosemitic, Eritrea and Ethiopia), despite being one of the major languages in the Horn of Africa, is no exception. Existing studies have identified a number of modal expressions in the language and proposed preliminary analyses, most notably those of [Tesfay 2016](#) and [Gebregziabher 2021](#). While these works are valuable contributions, several aspects of the morphosyntactic properties of modal elements remain underdescribed and invite alternative analyses. This paper contributes to filling that gap by providing a theoretically informed description of verbal modality in Tigrinya with a focus on morphosyntactic and representational properties, drawing on original fieldwork with native speakers of the language.

Toward these ends, section 2 provides relevant background on Tigrinya. section 3 presents the basic interpretive properties of verbal modal elements in Tigrinya. In section 4, we review previous proposals for the syntax of Tigrinya modals in [Tesfay 2016](#) and [Gebregziabher 2021](#).

Sections 5 and 6 present our analysis of modal elements in Tigrinya, summarized in Table 1.¹

	Force	Base	Category	Argument Structure
/kwn/	weak	epistemic	Aux	—
/gbʔ/, /hlw/	strong	root/epistemic	V	Exceptional Object Marking
/kʔl/	weak	root/epistemic	V	Subject Control

Table 1: Summary of verbal modal elements in Tigrinya

Through our investigation, we substantiate Tesfay’s 2016 claim that verbal modality is expressed through both modal auxiliaries and pseudo-modal verbs. We present morphosyntactic differences that collectively indicate that the weak epistemic modal /kwn/ ‘might’ is an auxiliary in monoclausal constructions such as (1).

¹While we denote Tigrinya roots as tri-consonantal templates lacking vocalic information, as is common in Semitic linguistics, we have no theoretical attachment to this position. See [Buckley 2003](#) and [Godfrey 2011](#) for a discussion of Tigrinya. Note, too, that a regular process of spirantization causes the initial /k/ of a root to be realized as [x] when prefixation makes it intervocalic.

(1) *Modal auxiliary /kwn/ in a monoclausal structure*²

[_{CP} ?it-a səbəjtɪ [_{VP} ti-xəjjid] **ti-xəwwin**]
 that-FS woman.F S.3FS-leave.IPFV S.3FS-might.IPFV
 ‘The woman might leave.’

The other modal elements, we argue, are pseudo-modal verbs that embed structurally reduced, subjunctive clauses in biclausal constructions. We distinguish these elements from the modal auxiliary by referring to them collectively as the “modal predicates”.

Contrary to previous analyses that propose (optional) Raising derivations for modal predicates (Tesfay, 2016; Gebregziabher, 2021), we argue in section 6 that Raising is in fact disallowed in the set of constructions investigated here. We propose that the strong modal predicates /gbʔ/ ‘should/need to’ and /hlw/ ‘must/have to’ are indeed unaccusative predicates, but that they instead embed what we refer to as Exceptional Object Marking (EOM) constructions, the analogy being with Exceptional Case Marking in a language like English. This analysis is sketched in (2).

(2) *Strong modal predicates are unaccusative Exceptional Object Marking constructions*

[_{CP} expl [_{IP} ?it-a səbəjtɪ ki-ti-xəjjid] **ji-gibaʔ-a**]
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
 ‘The woman needs to leave.’

The weak modal predicate /kʔl/ ‘can/able to’, on the other hand, is a transitive predicate that embeds Subject Control clauses. This proposed syntax is presented in (3):

(3) *Weak modal predicates are transitive Subject Control constructions*

[_{CP} ?it-a səbəjtɪ [_{IP} PRO₁ ki-ti-xəjjid] **ti-xəʔil**]
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV
 ‘The woman can leave.’

We show that differences in argument structure and syntax explain the distinct morphosyntactic properties of these modal constructions.

Finally, section 7 concludes the paper. This involves a summary of the major results of the

²Transcription conventions in Tigrinya vary considerably. We have reproduced examples from the literature as faithfully as possible while accounting for this variation by using consistent glossing following the Leipzig Glossing Rules. Our only deviation is using small cap S and O for subject and object marker morphology on verbal elements.

study. We also discuss the implications of this investigation, highlight some outstanding puzzles for future research, and comment on verbal modality in the closely related language Amharic.

2 Background on Tigrinya

2.1 Ethnographic information and data collection

Tigrinya is an Ethiosemitic language, belonging to the Eastern Ethiopic branch of the South Semitic language family. It is closely related to the languages Tigré and Amharic and more distantly related to Arabic and Hebrew. It is spoken by approximately 10 million people, mainly in central Eritrea, where it is the national language, and in the Tigray region of northern Ethiopia (Eberhard et al., 2024).

Unless otherwise indicated, the data presented in this paper were collected by the authors in individual interviews with four native Tigrinya speaking consultants. Three of the language consultants are from the Debub and Gash-Barka regions of Eritrea. These speakers are each fluent in French and have been living in Geneva since the 2010s. The fourth of our consultants, who is proficient in English, is from Mekelle in the Tigray region of Ethiopia and is currently living in Addis Ababa. There exist numerous regional varieties of Ethiopic and Eritrean Tigrinya, although there is relatively little research that systematically investigates this dialectal variation, with the notable exceptions of Tsehay 2009 and Niguss 2021. While we observed regional linguistic differences, we focus here on those properties of modal elements in the language that are largely consistent amongst our consultants.

Much of the data presented in this paper was collected using standard judgement tasks, wherein consultants were asked to provide intuitions about the grammaticality or acceptability of utterances constructed by the authors or by the language consultant themselves. Test sentences were often paired with contexts or translations that were constructed to demonstrate the intended interpretation and facilitate judgements. The data presented in section 3 were collected using a translation task that was modelled on a methodology employed in Cable 2017. The consultant was presented with a context that concluded with a single sentence in the contact language to be translated into Tigrinya. Several alternatives were presented as possible translations and

consultants were asked to evaluate the acceptability of the translation relative to the context and the intended meaning.

Finally, we follow the guidelines for citing Eritrean and Ethiopia authors that are proposed in [Meyer and Treis 2021](#). Accordingly, Eritrean and Ethiopian authors are cited in the text by their given names, unless there is evidence that the author themselves uses a patronymic name in citation.

2.2 Morphosyntactic properties of Tigrinya

Being a Semitic language, Tigrinya displays non-concatenative root morphology: words are typically formed by interpolating vowels into triconsonantal roots providing the semantic core. In verbal forms, transfixed vowel templates typically express aspectual information.³

(4) a. *Imperfective verb form*

ji-säbbir
S.3MS-break.IPFV
'He breaks.'

b. *"Gerundive" verb form*

säbir-u
break.GER-S.3MS
'He broke.'

c. *Perfect verb form*

säbär-ä
break.PRF-S.3MS
'He has broken.'

([Nazareth, 2011](#), 41)

Also like many other Semitic languages, subject agreement morphology on verbal elements varies between prefixal, suffixal, and mixed paradigms depending on verbal aspect.⁴ Subject agreement morphemes show agreement with the person, number, and gender features of the grammatical subject. The full subject agreement paradigm for each aspectual form of the

³The traditional conventions for referring to the aspectual verb forms in (4), following [Leslau 1941](#) and [Kogan 2005](#), use the terms *imperfect*, *gerundive*, and *perfect*. As [Nazareth 2011](#) notes, one or more of these terms may be misnomers. In particular, the gerundive seems to function as a perfective verb form. We preserve the name *gerundive* for convention, but adopt the term "imperfective" to highlight the non-past orientation of this form.

⁴Note that the prefixation of additional morphemes may result in the reduction or deletion of subsequent subject marker prefixes.

paradigmatic verb /sbr/ ‘break’ is presented in Table 2 (adapted from Leslau 1941).

Subject	Imperfective	Gerundive	Perfect
S.3MS	ji -säbbir	säbir- u	säbär- ä
S.3MP	ji -säbir- u	säbir- om	säbär- u
S.3FS	ti -säbbir	säbir- a	säbär- ät
S.3FP	ji -säbir- a	säbir- än	säbär- a
S.2MS	ti -säbbir	säbir- ka	säbär- ka
S.2MP	ti -säbir- u	säbir- kum	säbär- kum
S.2FS	ti -säbir- i	säbir- ki	säbär- ki
S.2FP	ti -säbir- a	säbir- kin	säbär- kin
S.1S	?i -säbbir	säbir- ä	säbär- ku
S.1P	ni -säbbir	säbir- na	säbär- na

Table 2: Subject marker paradigms by aspectual verb form in Tigrinya

Tigrinya is a fairly rigid head-final language with canonical SOV(Aux) word order.⁵ In (5), the object *mäts’haf* ‘book’ precedes the verb. The auxiliary *näbbär* ‘was’ expresses past tense and follows the verb.

- (5) Binyam *mäts’haf* *yi-ts’if* *näbbär-Ø*
 Binyam book S.3MS-write.IPFV AUX.PAST-S.3MS
 ‘Binyam was writing a book.’ (Tesfay, 2016, 232, (38b))

With regard to case morphology, Tigrinya is a nominative-accusative language. Subjects of transitive predicates, as in (6b), and intransitive predicates, as in (6a), are morphologically aligned with unmarked nominative case.

- (6) a. *?it-a* *t’irmuz* *tä-säbir-a*
 that-FS bottle INTR-break.GER-S.3FS
 ‘The bottle broke.’
 b. *Yonas* *n-ät-a* *t’irmuz* *säbir-u-wa*
 Yonas.M ACC-that-FS bottle break.GER-S.3MS-O.3FS
 ‘Yonas broke the bottle.’ (Nazareth, 2011, 56, (55a-b))

Objects in Tigrinya are marked differentially on the basis of specificity and definiteness (Bossong 1991; Aissen 2003; see Nazareth 2011, ch.9 on Tigrinya). Thus, the definite object *näta t’irmuz* ‘the bottle’ in (6b) is marked with accusative case but the indefinite *mäts’haf* ‘book’ in (5) is unmarked.⁶

⁵Despite generally being a well-behaved SOV(Aux) language, Tigrinya, like Amharic, employs prepositions. As discussed in Baker and Kramer 2014 for Amharic, this is a typologically rare combination from the perspective of Greenberg’s Universal 4. See Gebregziabher 2013 for discussion of Tigrinya in this context.

⁶Accusative case marking on definite/specific inanimate objects in Tigrinya is, at some level, optional. The

Also illustrated in example (6b) is that accusative-marked objects are typically cross-referenced by an object marker suffix on the verb (Nazareth, 2011, ch.8). Here, the 3FS *-wa* suffix agrees in person, number, and gender with the direct object *nāta t'irmuz* ‘the bottle’. Table 3, adapted from Leslau 1941, presents the Tigrinya object agreement paradigm as realized with a 3MS subject for the paradigmatic verb */k'tl/* ‘kill’.⁷

Object	Imperfective	Gerundive	Perfect
O.3MS	jǐ-k'ätl- o	k'ätil-u- wo	k'ätäl-Ø- o
O.3MP	jǐ-k'ätl- om	k'ätil-u- wom	k'ätäl-Ø- om
O.3FS	jǐ-k'ätl- a	k'ätil-u- wa	k'ätäl-Ø- a
O.3FP	jǐ-k'ätl- än	k'ätil-u- wän	k'ätäl-Ø- än
O.2MS	jǐ-k'ätlä- kka	k'ätil-u- kka	k'ätäl-ä- kka
O.2MP	jǐ-k'ätlä- kkum	k'ätil-u- kkum	k'ätäl-ä- kkum
O.2FS	jǐ-k'ätlä- kki	k'ätil-u- kki	k'ätäl-ä- kki
O.2FP	jǐ-k'ätlä- kkin	k'ätil-u- kkin	k'ätäl-ä- kkin
O.1S	jǐ-k'ätlä- nmi	k'ätil-u- nmi	k'ätäl-ä- nmi
O.1P	jǐ-k'ätlä- nna	k'ätil-u- nna	k'ätäl-ä- nna

Table 3: Object agreement paradigm with 3MS subject marker by aspectual verb form in Tigrinya

Object markers always appear as suffixes on the lexical verb and always follow the subject marker in the case that one surfaces. Object markers also display relatively less allomorphic variation across aspectual forms than subject markers (Gebregziabher, 2021).⁸

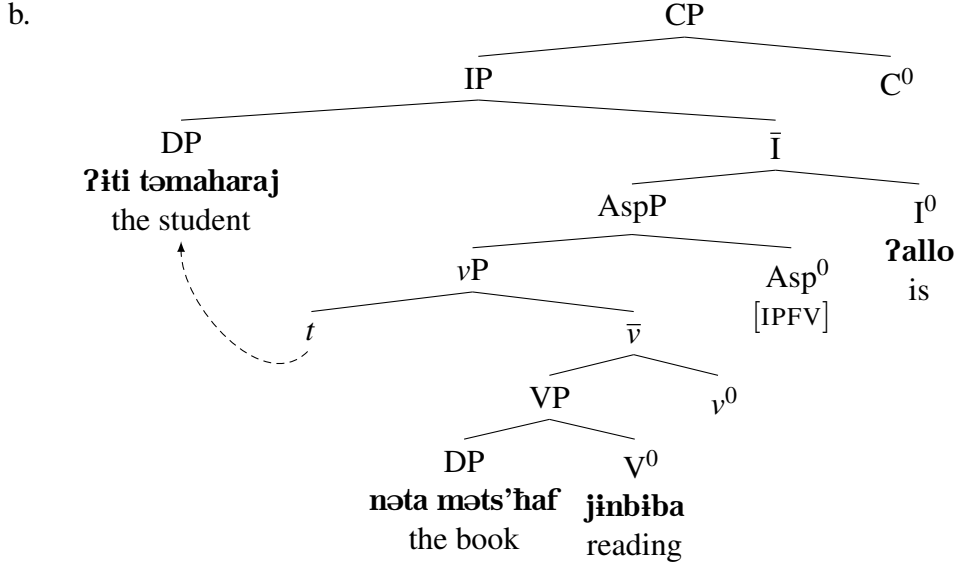
Our basic assumptions regarding the structure of the clause in Tigrinya is presented in (7).

choice seems to be related to topicality and discourse-linking, whereby highly topical or discourse-linked objects may be morphologically unmarked. See Nazareth 2011, ch.9 for discussion.

⁷Processes of consonant epenthesis, assimilation, resyllabification, and coalescence may preserve the language’s phonotactics by altering the object marker according to the subject marking on the verb; see Buckley 1994 and Bulakh 2019. For expository purposes we present the paradigm only with 3MS subjects. We hope the lack of aspect-based allomorphic variation largely mitigates any potential confusion.

⁸These are points related to familiar questions regarding the status of object markers as agreement morphemes or pronominal clitics. This is not a debate that we weigh in on in this paper, but we would recommend the reader to Kramer 2014 and Baker and Kramer 2018 on Amharic and Gebregziabher 2021 on Tigrinya.

- (7) a. *ʔiti-təmaharaj n-ət-a mət-s'haf ji-nbib-a*
 that-MS student ACC-that-FS book S.3MS-read.IPFV-O.3FS
ʔall-o
 AUX.NPST-S.3MS
 'The student is reading the book.'



In this structure, the predicate is labeled as vP , reflecting our assumptions regarding the predicate-internal source of a grammatical subject. Similar to [Tesfay 2016](#), we assume that the grammatical subject position is derived by promotion of the highest predicate-internal argument to Spec,IP, where it controls subject marking morphology.⁹

With regard to how the phonological realization of the object marker is determined, we follow previous work by [Kramer 2014](#) and [Baker and Kramer 2018](#) on Amharic and by [Gebregziabher 2021](#) and [Overfelt 2022](#) on Tigrinya. The object marker represents a formal AGREE relationship, in the sense of [Chomsky 2001](#), between v^0 and the structurally highest definite/specific internal argument.

We assume that the predicate combines with an aspectual projection (AspP) that encodes the aspectual information for the clause and determines the morphological shape of the predicate. We represent the other extended functional projections of the clause as IP. We understand IP to host an encode grammatical information related to tense, mood, and modality. This assumption will have utility in sections 5 and 6, where we will be able to account for the observation that the modal auxiliary, tense auxiliaries, and subjunctive mood are in complementary distribution.

⁹Subject marking in Tigrinya is an instance of what [Carstens 2001](#) dubs “hyperagreement”, in which the grammatical subject is cross-referenced on all verbal elements. We do not believe that the claims made in this paper rely on any particular syntactic or morphophonological analysis for the source of hyperagreement.

Finally, we would note that there is evidence for verb-raising head-movement in both Tigrinya (Overfelt, 2009) and Amharic (Baker and Kramer, 2014), though the full details have not been explicitly worked out in the literature known to us.¹⁰ For the purpose of this paper and for the sake of exposition, we abstract away from the movement of heads and present verbal elements in their suspected underlying positions.

3 Overview of verbal modality in Tigrinya

With an understanding of modality as the expression of possibility and necessity, we are aware of four verbal modal elements in Tigrinya. These elements, which are discussed in detail by Tesfay 2016, are listed succinctly in their tri-consonantal root form in Table 4.¹¹

	Force	Base	Translation
/kwn/	weak	epistemic	‘might’
/gbʔ/, /hlw/	strong	root/epistemic	‘should/need to’, ‘must/have to’
/kʔl/	weak	root/epistemic	‘can/be able to’

Table 4: Inventory of verbal modal elements in Tigrinya

It is a point of cross-linguistic variation whether modal elements lexicalize their base or their force (e.g., Kratzer, 1981; Nauze, 2008; Matthewson, 2010; Deal, 2011; Cable, 2017). As Table 4 indicates, modal elements in Tigrinya encode their quantificational force while, in general, the modal base is context-dependent. We turn immediately to a systematic investigation of each of these elements.¹²

¹⁰See van Urk 2024 for observations that speak against verb raising in Tigrinya.

¹¹For the sake of completeness, we note here that both /gbʔ/ and /hlw/ have possessive interpretations when they combine with a nominal complement.

- (i) *Possession usage of the roots /gbʔ/ and /hlw/*
- a. ni-ʔaj ʔit-i gāza **ji-gibbaʔ(-anni)**
 ACC-me that-MS house.M S.3MS-belong.IPFV-O.1S
 ‘The house belongs to me.’ (Tsfay, 2016, 220, (26b))
- b. hanti habti **ʔall-a-ni**
 one.FS sister.F have.IPFV-S.3FS-O.1S
 ‘I have one sister.’

We would direct the reader to Tesfay 2016 and Gebregziabher 2021 for additional discussion of these uses. The root /hlw/ additionally serves as a stage-level copula and non-past tense denoting auxiliary; see Nazareth 2011 and Cacchioli 2026. To the best of our knowledge, the root /kʔl/ does not show this kind of semantic variability.

¹²Despite the choice of translation and gloss for modal predicates that have been provided in the previous literature and the choice of translation and gloss made here, it remains unclear at this point exactly which readings (i.e., ordering sources, as in Kratzer 1981) are available to each modal on a root interpretation. This is an ongoing aspect of the semantic component of the research presented here and must be left for a future occasion.

The context below presents an assertion that is justified, although not entailed by the speaker's beliefs. These data, therefore, test for a weak epistemic interpretation for each of the modal elements, respectively.

(8) *Weak epistemic context*: Salem is looking for her key but cannot find it. She hasn't looked in her bag or in her jacket. Salem thinks to herself: The key might be in the bag.

- a. ?it-a məftəh ?ab borsa ti-hilu **ti-xəwwin**
that-FS key.F LOC bag S.3FS-COP S.3FS-might.IPFV
'The key might be in the bag.'
- b. # ?it-a məftəh ?ab borsa ki-ti-hilu **?all-o-wa**
that-FS key.F LOC bag SBJV-S.3FS-COP.NPST have.IPFV-S.3MS-O.3FS
'The key has to be in her bag.'
- c. # ?it-a məftəh ?ab borsa ki-ti-hilu **ji-giba?-a**
that-FS key.F LOC bag SBJV-S.3FS-COP.NPST S.3MS-need.IPFV-O.3FS
'The key should be in her bag.'
- d. ?it-a məftəh ?ab borsa ki-ti-hilu **ti-xə?il**
that-FS key.F LOC bag SBJV-S.3FS-COP.NPST S.3FS-be_able.IPFV
(?i-jja)
AUX.NPST-S.3FS
'The key could be in the bag.'

These examples reveal that /kwn/ is appropriate in the weak epistemic context in (8), supporting its classification as a weak epistemic modal (Tesfay, 2016). Regarding /gb?/ and /hlw/, Tesfay 2016 translates or glosses /gb?/ as 'must', 'need', or be 'necessary', while Tesfay 2016 and Gebregziabher 2021 translate and gloss /hlw/ as 'have to'. As the examples above show, neither of these elements is appropriate in this weak epistemic context. Instead, participants commented that /kwn/ is a more acceptable choice here. In contrast, the modal /k?l/, which Tesfay 2016 translates as either 'can' or 'able to', was deemed to be acceptable here. This suggests that /k?l/ is capable of expressing weak epistemic modality.

The modified context in (9) tests the ability to use these modal elements to express strong epistemic modality. The example presents an assertion that is entailed by the speaker's belief.

(9) *Strong epistemic context*: Salem is looking for her key but cannot find it. She has looked everywhere in her apartment except for in her bag. Salem thinks to herself: The key must be in the bag.

- a. # ?it-a məftəḥ ?ab borsa ti-hilu **ti-xəwwin**
that-FS key.F LOC bag S.3FS-COP S.3FS-might.IPFV
‘The key might be in the bag.’
- b. ?it-a məftəḥ ?ab borsa ki-ti-hilu **?all-o-wa**
that-FS key.F LOC bag SBJV-S.3FS-COP.NPST have.IPFV-S.3MS-O.3FS
‘The key must be in the bag.’
- c. ?it-a məftəḥ ?ab borsa ki-ti-hilu **ji-giba?-a**
that-FS key.F LOC bag SBJV-S.3FS-COP.NPST S.3MS-need.IPFV-O.3FS
‘The key must be in the bag.’
- d. # ?it-a məftəḥ ?ab borsa ki-ti-hilu **ti-xə?il**
that-FS key.F LOC bag SBJV-S.3FS-COP.NPST S.3FS-be_able.IPFV
(?i-jja)
AUX.NPST-S.3FS
‘The key could be in the bag.’

Consultants indicated that /kwn/ is inappropriate in the strong epistemic context in (9). One informant offered a correction, saying that /gb?/ would express the meaning of the target English sentence in this context. In fact, both /gb?/ and /hlw/ were judged to be appropriate in this context. Participants also noted that these modal elements differ in the degree of certainty they convey. However, we did not observe a consensus regarding which is stronger or more appropriate. Eritrean speakers judged /hlw/ stronger and more appropriate, whereas our Ethiopian consultant preferred /gb?/. As noted in section 2 and footnote 12, we leave the extent of this dialectal variation and the finer semantic distinctions among Tigrinya verbal modals to future research. Notably, /k?l/ was judged by all consultants to be unacceptable in this strong epistemic context. This data point in fact elicited the comment that /k?l/ indicates only that it is possible that the key is in the bag, not that it must be.

We turn now to contexts that attempt to elicit root interpretations of the modal elements. The following context presents an assertion describing an action that is permissible under a given set of rules and thus is compatible with a weak root meaning.

(10) *Weak root context:* Students are required to spend one hour reading in the library after school. Now that she has read for an hour, Salem can leave.

- a. # salɛm ti-xəjjid **ti-xəwwin**
Salem.F S.3FS-leave.IPFV S.3FS-might.IPFV
'Salem might leave.'
- b. # salɛm ki-ti-xəjjid **?all-o-wa**
Salem.F SBJV-S.3FS-leave.IPFV have.IPFV-S.3MS-O.3FS
'Salem has to leave.'
- c. # salɛm ki-ti-xəjjid **ji-giba?-a**
Salem.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
'Salem needs to leave.'
- d. salɛm ki-ti-xəjjid **ti-xə?il**
Salem.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV
'Salem can leave.'

The use of /kwn/ in this contexts was deemed to be inappropriate. Informants instead recommended the use of /kʔl/. As the examples above show, /gbʔ/ and /hlw/ are also inappropriate in the weak root context of (10). Use of these elements elicited comments that they are too strong because Salem is merely permitted to leave.

We again presented a minimally differing context in (11) that offered an assertion that is now required under a given set of rules. The acceptability of a modal in such a context indicates an ability to express strong root modality.

(11) *Strong root context:* Students are only allowed to spend one hour reading in the library after school. Now that she has read for an hour, Salem must leave.

- a. # salɛm ti-xəjjid **ti-xəwwin**
Salem.F S.3FS-leave.IPFV S.3FS-might.IPFV
'Salem might leave.'
- b. salɛm ki-ti-xəjjid **?all-o-wa**
Salem.F SBJV-S.3FS-leave.IPFV have.IPFV-S.3MS-O.3FS
'Salem has to leave.'
- c. salɛm ki-ti-xəjjid **ji-giba?-a**
Salem.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
'Salem needs to leave.'
- d. # salɛm ki-ti-xəjjid **ti-xə?il**
Salem.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV
'Salem can leave.'

There is a portion of the literature on modality suggesting that formal distinctions should be made between participant-external root modality and participant-internal root modality (see especially [Brennan 1993](#) and [Nauze 2008](#)). Roughly speaking, the difference pivots on whether the modal expresses possibility or necessity on the basis of circumstances that can be attributed to some individual or entity involved in a situation or on the basis of circumstances that have some external source. The root contexts presented above provide circumstances that pertain to what is permitted or required on the basis of rules that have a source external to Salem and, thus, illustrate participant-external root meanings for */kʔl/*, */gbʔ/*, and */hlw/*. Although it is not stated explicitly, the discussion from [Tesfay \(2016, sec.6.3.1\)](#) suggests that these modal elements are also capable of expressing participant-internal root modality as well. Relevant examples are provided below, wherein possibility and necessity pertain to the internal abilities or needs of situational participants.

- Despite our best investigative efforts, there appear to be no stable syntactic differences correlated with differences in the modal base for these modal elements. That is, all of the morphosyntactic signatures to be discussed in section 5 are observed in both root and epistemic interpretations of */kʔl/*, */gbʔ/*, and */hlw/*. The same can be said for participant-external and participant-internal interpretation with the strong modal predicates */qbʔ/* and */hlw/* with a

possible exception related to object marking which we mention below in footnote 18.

The results of this investigation, therefore, are as summarized in Table 4 above. The element /kwn/ was found to only express weak epistemic modality. The elements /gbʔ/ and /hlw/ encode strong modal force and are compatible with either root or epistemic modal meanings. On the other hand, /kʔl/ encodes weak modal force but is similarly compatible with either root or epistemic modal meanings.

4 Previous analyses of Tigrinya modals

Having established the range of interpretations of Tigrinya modal elements, we now turn to the syntactic representations in which they occur. Before presenting our analysis, we briefly review the previous generative literature on these elements.

4.1 Tesfay 2016

Tesfay 2016, ch. 6.3 proposes a categorial distinction among the modal elements discussed above. Specifically, /kwn/ ‘might’ and /hlw/ ‘must/have to’ are analyzed as modal auxiliaries. Syntactically, they are claimed to be generated in the T^0 projection of a monoclausal structure, as illustrated for /kwn/ in (14).

(14) *The root /kwn/ claimed to be a modal auxiliary in T^0*

[_{CP} binyam [_{VP} siwwa sätj-u] **ji-xäwwin**]
 Binyam local_beer drink.PFV-S.3MS S.3MS-might.IPFV

‘Binyam might have drunk local beer.’ (Tesfay 2016, 205, (18g))

On the other hand, Tesfay 2016 treats /gbʔ/ ‘should/need to’ as a main verb. Although not stated explicitly, the discussion in Tesfay 2016, ch. 6.3 also suggests that /kʔl/ ‘can/be able to’ is analyzed as a main verb. Both are taken to be unaccusative CP-embedding predicates, yielding biclausal structures.¹³ It is further suggested that, although more research is needed, these elements occur in syntactic frames that involve an optional Raising-to-Subject operation.

¹³In sections 5 and 6 we examine evidence against the biclausality of constructions containing /kwn/ and evidence for the biclausality of constructions with other modal elements.

Tesfay 2016, 204 notes of example (15) that the logical subject *nissa* ‘she’ is cross-referenced by subject markers on both the embedded predicate and the matrix verb.

(15) *Raising-to-Subject syntax for modal verbs*

[CP **nissa**₁ [CP *t*₁ **ki-t-mäṣṣi?**] **ti-xəʔil** **näjr-a**]
 she COMP-S.3FS-come.IPFV S.3FS-be.able.IPFV AUX.PAST-S.3FS
 ‘It could have been possible for her to come.’ (Tesfay, 2016, 204, (17c))

This is expected, the claim goes, if the logical subject *nissa* ‘she’ is generated in the embedded clause and undergoes Raising to the grammatical subject position of the matrix clause.

The application of Raising is understood to be optional on the basis of examples like (16). In this case, the subject marker on the embedded predicate cross-references the logical subject *nissixa* ‘you(NOM.MS)’ while the matrix modal verb shows default 3MS subject marking.

(16) *In-situ syntax with expletive subject for modal verbs*

[CP *expl* [CP (**nissixa**) **ki-t-käjjid**] **ji-giba?**]
 you.NOM.MS COMP-S.2MS-help.IPFV S.3MS-must.IPFV
 ‘You need to go.’ (Tesfay, 2016, 207, (19a))

Tesfay 2016, 213 analyzes this agreement pattern as a result of a structure in which an expletive subject is inserted into the matrix clause subject position, yielding default agreement on the modal verb. As the sole embedded argument, the logical subject *nissixa* ‘you(NOM.MS)’ is expected to trigger subject agreement on the embedded predicate.

Agreement patterns such as those in (17) below are taken to motivate a third derivational strategy (Tesfay, 2016, 217–221). In addition to the subject agreement patterns familiar from above, the matrix modal verb also bears an object marker *-akka*, which cross-references the logical subject *nissixa* ‘you(NOM.MS)’.

(17) *Topicalization from object syntax for modal verbs*

[CP (**nissixa**₁) *expl* [VP *t*₁ [CP **ki-t-käjjid**] **ji-giba?-akka**]]
 you.NOM.MS COMP-S.2MS-help.IPFV S.3MS-must.IPFV-O.2MS
 ‘You need to go.’ (Tesfay, 2016, 207, (19b))

Default subject agreement in the matrix clause is again taken to indicate the presence of an expletive subject. By analogy with possessive uses of */gbʔ/*, shown in footnote 11, Tesfay

2016 interprets the object marker as evidence that the logical subject *nissixa* ‘you(NOM.MS)’ is generated as an internal argument of the matrix modal rather than as an embedded argument. The unmarked nominative case of this object is licensed via topicalization (see footnote 6). The derivational link between the topicalized matrix object and subject agreement on the embedded predicate, however, is not made fully explicit.

In addition to the discussion in the following sections, we note that the examples in (15)–(17) do not constitute a minimal triplet. This weakens the argument that /*kʔl*/ and /*gbʔ*/ share related derivational paths. We instead propose alternative and distinct analyses of these modal elements. We maintain that /*kwn*/ ‘might’ is an auxiliary, while /*hlw*/ ‘must/have to’ is a modal predicate, in line with the analysis of Gebregziabher 2021 discussed below. We further argue that the modal predicates /*gbʔ*/ ‘should/need to’ and /*kʔl*/ ‘can/be able to’ have distinct argument structures that yield different syntactic configurations, neither of which involves Raising. Moreover, we argue that only /*kʔl*/ introduces an argument in the matrix clause, whereas both /*gbʔ*/ and /*hlw*/ ‘must/have to’ are clause-selecting unaccusative predicates.

4.2 Gebregziabher 2021

Gebregziabher 2021 presents a pointed investigation of the relationship between possession and deontic root modality as expressed by the element /*hlw*/. A representative example of /*hlw*/ as a modal with the meaning of ‘must/have to’ and a sketch of its syntactic representation and derivation is provided in (18).

(18) *Raising-to-Object-to-Subject syntax for /hlw/*

[CP nissa ₁ [VP <i>t</i> ₁ [TP <i>t</i> ₁ ki-t-məs's'iʔ] ʔallew- wa]] she FUT-S.3FS-come.IPFV HAVE.PFV-O.3FS	(Gebregziabher, 2021, 104, (43))
‘She has to come.’	

For Gebregziabher 2021, the relevant descriptive properties of this construction include the embedded subject marker *t-* and the matrix object marker *-wa*, both of which cross-reference *nissa* ‘she’, the nominative logical subject of the sentence.

Parallel to the treatment of /*gbʔ*/ ‘should/need to’ in Tesfay 2016, the analysis of (18) in Gebregziabher 2021 is based on analogy with the possessive use of /*hlw*/, also shown in

footnote 11. The agreement between the object marker on this verbal modal and the logical subject *nissa* ‘she’ is derived from the status of *nissa* as an argument of the embedded predicate. This allows the matrix v^0 , which governs object marking, to identify *nissa* as a goal for an AGREE relation (Chomsky, 2001), as discussed in section 2.2. Setting certain details aside, the nominative case marking observed on this argument is the claimed result of a Raising-to-Subject derivation that proceeds through a derived object position in the matrix clause.

As noted, we will depart in significant ways from the claims made in both Tesfay 2016 and Gebregziabher 2021. For one, while it is not glossed as such in Gebregziabher 2021, the modal element /*hlw*/ in (18) shows default 3MS subject agreement; see examples (8)–(11). This can be seen more transparently in the gerundive aspect, where the suppletive form of the modal carries a default 3MS subject marking -*u* suffix.

- (19) *expl* [ʔit-a səbəjti ki-ti-xəjjid] nəjr-u-wa
 that-FS woman.F SBJV-S3FS-leave.IPFV have.GER-SM.3MS-OM.3FS
 ‘The woman had to leave.’

Thus, the example above has the same descriptive profile as examples with /*gb?*/ from the previous section. We will demonstrate this in more detail in the following section, but we would point out that this supports the analysis to come, whereby /*hlw*/ and /*gb?*/ are assigned the same syntactic structure. Moreover, we show that default agreement is obligatory in both cases, which strongly suggests that Raising-to-Subject derivations are unavailable in these constructions. This is consistent with independent evidence that the logical subject of /*hlw*/ and /*gb?*/ constructions remains in the embedded clause, whereas the logical subject in /*kʔl*/ constructions functions as the grammatical subject of the matrix clause.

5 The morphosyntactic properties of verbal modality in Tigrinya

We now turn to our analysis of Tigrinya modals by cataloging and describing the properties of the four modal elements discussed in this paper: the weak epistemic /*kwn*/ ‘might’, the strong modals /*gb?*/ ‘should/need to’ and /*hlw*/ ‘must/have to’, and the weak modal /*kʔl*/ ‘can/be able to’. For convenience, these properties are summarized in Table 5.

	Mood Morphology	Complex Tense-Aspect	Subject Specification	Default Subject Marking	Object Marking
/kwn/	∅	*	same	*	*
/gbʔ/, /hlw/	ki-	✓	different	✓	✓
/kʔl/	ki-	✓	same	*	*

Table 5: Summary of the morphosyntactic properties of modal elements in Tigrinya

Throughout the discussion to follow we highlight the contrasts between /kwn/ and the modal predicates, as well as the partially overlapping behaviors that distinguish the weak modal predicate /kʔl/ from its strong counterparts. Section 6 will incorporate these observations into more proposals for more explicit syntactic representations.

5.1 Mood morphology

The first notable difference among the modal constructions concerns the presence or absence of the prefix *k(i)-* on the lexical verb. This prefix has been analyzed in the literature as a (goal) conjunction (Leslau, 1941; Bulakh, 2019), a purposive particle (Nazareth, 2011), a future tense marker (Gebregziabher, 2021), or a complementizer (Tesfay, 2016). Following Cacchioli 2025, we treat *k(i)-* as a subjunctive mood marker, noting its presence in the clausal complement of non-modal Control (20) and Raising-to-Object (21) predicates:¹⁴

(20) *Subject Control predicates embed subjunctive clauses in Tigrinya*

ʔit-a səbəjtɪ₁ [IP PRO₁ ki-ti-xəjjid] ti-fəttin ʔall-a
that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-try.IPFV AUX.NPST-S.3FS
‘The woman is trying to leave.’

¹⁴The prefix *k(i)-* is also found in purpose clauses and temporal adverbial clauses (Nazareth, 2011; Cacchioli, 2025, 2026). In addition to its presence in complement clauses, it is tempting to assert that *k(i)-* is an indicator of clausal embedding. While we believe this is true for the constructions examined in the present manuscript, this is not clearly the case for future-oriented constructions like (i):

(i) hanti məkina ki-Ø-gezziʔ ʔi-jje
one-FS car SBJV-S.1S-buy.IPFV COP.NPST-S.1S
‘I will buy a car.’

We leave it to future research to determine if (i) is plausibly treated as a bi-clausal construction or if *k(i)-* should be reanalyzed in such cases.

(21) *Raising-to-Object predicates embed subjunctive clauses*

ʔit-a məmhīr n-ət-om təmharo₁ [IP t₁ ni-**ki**-xəjd-u]
 that-FS teacher ACC-that-MP student.PL COMP-SBJV-leave.IPFV-S.3MP
 ti-dəli-j-om
 S.3FS-want.IPFV-O.3MP

‘The teacher wants the students to leave.’

Turning to the modal elements under consideration, note in (22) that the weak epistemic modal /kwn/ ‘might’ shows a strong preference for co-occurring with lexical verbs that are not prefixed by *ki*-.

(22) *Complement of /kwn/ resists mood marking morphology*

ʔit-a səbəjti (***ki**-)ti-kijjid **ti-xəwwin**
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-might.IPFV

‘The woman might leave.’

In contrast, the two strong modals /gbʔ/ and /hlw/ strongly prefer to co-occur with lexical verbs bearing the *ki*- prefix, as shown in (23) and (24).

(23) *Complement of /gbʔ/ carries mood morphology*

ʔit-a səbəjti *(**ki**-)ti-xejjid **ji-gibaʔ-a**
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS

‘The woman needs to leave.’

(24) *Complement of /hlw/ carries mood morphology*

səgən ʔaɁ’edim-a *(**ki**-)tibits’ih **ʔall-o-wa**
 Segen.F early-FS SBJV-arrive.IPFV-S.3FS have.IPFV-S.3MS-O.3FS

‘Segen has to arrive early.’

Similar to the two strong modals, /kʔl/ typically occurs with a *ki*-marked lexical verb, as in (25).¹⁵

¹⁵There is some dialectal variation in the distribution of the *ki* prefix. While Eritrean varieties strictly follow the pattern described above, our Ethiopian consultant allows all modal elements to optionally co-occur with a *ki*-marked verb. In all cases, the presence of *ki*- correlates with what the consultant characterizes as a future-oriented interpretation of the embedded event.

Providing a full account of the distribution of *ki*- lies outside the scope of this paper (but see [Cacchioli 2026](#)). Nonetheless, we would point out that the generalization promoted here is consistent with what one would surmise on the basis of the data that is available in the literature ([Nazareth, 2011](#); [Tesfay, 2016](#); [Gebregziabher, 2021](#)).

We would also note, for completeness, that /kʔl/ ‘can/be able to’ can combine with uninflected infinitival verb forms marked with the prefix *mi*-, often analyzed as a nominalizing affix in Tigrinya and other Semitic languages

(25) *The weak modal predicate appears with mood-marked verbs*

ʔit-a səbəjtɪ ***(ki)**-ti-xəjjid ti-xəʔil
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV
 ‘The woman is able to leave.’

We interpret this contrast as evidence for a difference in the category and size of the complement selected by the modal elements. The presence of *ki-* with the strong modals /*gbʔ*/ and /*hlw*/ indicates that they pattern with clause-embedding lexical verbs, consistent with previous analyses in [Tesfay 2016](#) and [Gebregziabher 2021](#). By parity of reasoning, this similarly supports the analysis of /*kʔl*/ ‘can/be able to’ as a clause-selecting modal predicate. The absence of the mood marker *ki-* on the lexical verb with the weak epistemic modal /*kwn*/, on the other hand, supports a monoclausal analysis in which /*kwn*/ functions as a modal auxiliary combining directly with the AspP projection above the predicate.

5.2 Complex tense-aspect constructions

Matrix clauses in Tigrinya permit complex tense–aspect constructions combining imperfective and gerundive forms with tense auxiliaries. This includes the complex progressive and perfect constructions given below, which are adapted from [Tesfay 2016](#), ch. 6.3.

(26) a. *Complex progressive construction in Tigrinya*¹⁶

binjam mətʰəf **ji-ts’ihif** { **ʔall-o** / **nejjr-u** }
 Binyam book S.3MS-write.IPFV AUX.NPST-S.3MS AUX.PAST-S.3MS
 ‘Binyam { is / was } writing a book.’

b. *Complex perfect construction in Tigrinya*

binjam siwwa **səʔj-u** { **ʔijj-u** / **nejjr-u** }
 Binyam local_beer drink.GER-S.3MS AUX.NPST-S.3MS AUX.PAST-S.3MS
 ‘Binyam { has / had } drunk beer.’

Relevant here is a constraint in the language that limits any given clause to a single auxiliary. As (e.g., [Leslau, 1941](#); [Frajzyngier, 2018](#); [Cacchioli, 2026](#)).

(i) (nissu) makkina **mi**-ziwwar yi-xəʔil
 he car NMLZ-to_drive S.3FS-be_able.IPFV
 ‘He knows how to drive a car.’

([Tesfay, 2016](#), 194, (8b))

This is a construction that we must also leave to future research.

¹⁶It is worth drawing attention again to the fact that the root /*hlw*/ serves both as the predicative element that is under investigation in this paper as well as a tense auxiliary; see footnote 11.

a result, sequences of multiple auxiliaries are not attested, unlike in languages such as English (e.g. *Binyam might have been writing a book*).

Against this background, the three modal classes differ in their compatibility with complex tense–aspect constructions. As shown in (27), the weak epistemic modal /*kwn*/ cannot co-occur with either past or non-past tense auxiliaries.

(27) *Weak epistemic /kwn/ cannot appear in a complex tense-aspect construction.*

- a. *ʔit-a səbəjti ti-xəjjid **ti-xəwwin** **ʔijj-a**
that-FS woman.F S.3FS-leave.IPFV S.3FS-IPFV.might AUX.NPST-3FS
Intended: ‘The woman might be leaving.’
- b. *ʔit-om k’oləfu ji-nbib-u **ji-xon-u**
that-MP children S.3MP-read.IPFV-S.3MP S.3MP-might.IPFV-S.3MP
nəjjr-om
AUX.PAST-S.3MP
Intended: ‘The children were possibly reading.’

This is possible, however, with the strong modal /*gbʔ*/ and the weak modal /*kʔl*/. The examples in (28) and (29) show each of these elements occurring with both past and non-past tense auxiliaries.¹⁷

(28) *Strong modal /gbʔ/ appears in complex tense-aspect constructions*

- a. ʔit-a səbəjti ti-xəjjid **ji-gibaʔ-a** **ʔi-jju**
that-FS woman.F S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS AUX.NPST-S.3MS
‘The woman does need to leave.’
- b. ʔit-om təmhəro ki-Ø-nbib-u
that-MP student.PL SBJV-S.3MP-read.IPFV-S.3MP-O.3FS
ji-gibaʔ-om **nəjjr-u**
S.3MS-need.IPFV-O.3MP AUX.PAST-S.3MS
‘The students needed to read.’

(29) *Weak modal /kʔl/ appears in complex tense-aspect constructions*

- a. ʔit-a səbəjti ki-ti-xəjjid ti-xəʔil **ʔijj-a**
that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV AUX.NPST-S.3FS
‘The woman is able to leave.’

¹⁷For reasons we do not fully understand, the strong modal /*hlw*/ does not appear in complex tense–aspect constructions. This may reflect either a functional dispreference for adjacent occurrences of /*hlw*/ or a semantic restriction analogous to English *??The woman is having to leave*.

- b. ʔit-om k'oleŋu ki-Ø-nbib-u ji-xi'il-u
that-MS children SBJV-S.3MP-read.IPFV-S.3MP S.3MP-be_able.IPFV-S.3MP
nejjr-om
AUX.PAST-S.3MP
'The children were able to read.'

This contrast suggests a categorial distinction amongst the modal elements. The weak modal */kwn/* patterns with other auxiliaries by being in complementary distribution with other members of the class. By contrast, the strong modal */gbʔ/* and the weak modal */kʔl/* behave like elements of the predicate as pseudo-modal verbal elements. Accordingly, they can occur in complex tense–aspect constructions with tense auxiliaries.

5.3 Specification for same or different subjects

In typical monoclausal structures in Tigrinya, all verbal elements (i.e., the lexical verb and any auxiliary) exhibit ϕ -complete agreement with the grammatical subject. As noted in section 2.2, this entails that both the lexical verb and the tense auxiliary in (30) carry subject-marking morphology cross-referencing the argument promoted to Spec,IP. In example (30), this is the nominal constituent *ḥanti səbəjti* ‘the woman’.

- (30) *Tense auxiliaries must agree with the grammatical subject*

hanti səbəjti maj ti-səttij ʔall-a (*ʔall-o)
 one.FS woman.F water.M S.3FS-drink.IPFV AUX.NPST-S.3FS AUX.NPST-S.3MS
 ‘A woman is drinking water.’

It is worth noting that in (30) the tense auxiliary cannot bear a subject specification different from that of the lexical verb. In the case at hand, a default 3MS subject marker yields ungrammaticality.

In this respect, a further contrast emerges between */kwn/*, the strong modals */gbʔ/* and */hlw/*, and the weak modal */kʔl/*. Consider first the example in (31). As with the tense auxiliary above, the weak epistemic */kwn/*, together with the main verb, must agree with the logical subject of the sentence, *ʔita səbəjti* ‘the woman’. When the subject marker on */kwn/* is instead realized as default 3MS, the result is ungrammatical.

- (31) *Weak epistemic /kwn/ must agree with the logical subject*

?it-a səbəjti ti-xəjjid ti-xəwwin (*ji-xəwwin)
 that-FS woman.F S.3FS-leave.IPFV S.3FS-might.IPFV S.3MS-might.IPFV
 ‘The woman might leave.’

The situation differs for the two strong modals */gbʔ/* ‘should/need to’ and */hlw/* ‘must/have to’, as shown in (32) and (33) respectively. Both elements can bear a subject specification distinct from that of the *ki*-marked lexical verbs. While the lexical verbs cross-reference the logical subjects *?ita səbəjti* ‘the woman’ and *Segen*, the modal predicates are specified with default 3MS subject marking.

- (32) *Strong modal /gbʔ/ does not agree with the logical subject*

?it-a səbəjti ki-ti-xəjjid ji-gibaʔ-a
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
 ‘The woman needs to leave.’

- (33) *Strong modal /hlw/ does not agree with the logical subject*

səgən ʔaɐʔədim-a ki-ti-bitsʔih ʔall-o-wa
 Segen.F early-FS SBJV-S.3FS-arrive.IPFV have.IPFV-S.3MS-O.3FS
 ‘Segen has to arrive early.’

In contrast to the patterns observed so far regarding identical versus distinct subject specifications, the weak modal */kʔl/* does not pattern with the strong modal predicates. Unlike them, */kʔl/* must bear subject marking that cross-references the logical subject of the sentence, as shown in (34).

- (34) *Weak modal predicates must agree with the logical subject*

?it-a səbəjti ki-ti-xəjjid ti-xəʔil (*ji-xəʔil)
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV S.3MS-be_able.IPFV
 ‘The woman is able to leave.’

In the case of (34), both verbal elements bear the 3FS subject-marking prefix, which cross-references the argument *?ita səbəjti* ‘the woman’.

The fact that */kwn/* must agree with the logical subject in (31) shows that it continues to pattern morphosyntactically with auxiliaries in monoclausal structures. By contrast, the ability

of the strong modals */gbʔ/* and */hlw/* to bear subject markers distinct from those on the lexical verb suggests that they are not auxiliaries and that their subject agreement is not determined by the logical subject of the sentence. The weak modal */kʔl/* at this point begins to show mixed behaviors. Despite the evidence above that it is a clause-embedding predicate, its necessary agreement with the logical subject speaks against a uniform syntax for all modal predicates.

5.4 Default subject marking

We add to the previous discussion the observation that the strong modals */gbʔ/* and */hlw/* not only may bear a subject specification distinct from that of the *ki*-marked lexical verb, but in fact must do so. Specifically, these modals permit only default 3MS subject marking. This is shown in (35) and (36), where agreement with the logical subjects *ʔita səbəjti* ‘the woman’ and *Segen* results in ungrammaticality. This holds regardless of the presence of an object marker, which is addressed in the following subsection.

(35) *Strong modal /gbʔ/ cannot agree with logical subject*

***ʔit-a səbəjti** ki-ti-xəjjid ti-gibaʔ(-a)
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-need.IPFV-O.3FS
 ‘The woman needs to leave.’

(36) *Strong modal /hlw/ cannot agree with logical subject*

***səgən** ʔaɐ’ədim-a ki-ti-bits’ih ʔall-a(-wa)
 Segen.F early-FS SBJV-S.3FS-arrive.IPFV have.IPFV-S.3FS-O.3FS
 ‘Segen has to arrive early.’

This contrasts with the weak modals */kwn/* and */kʔl/*. As shown in examples (31) and (34) above, these modals must agree with the logical subject of the sentence and disallow default subject marking.

The fact that the strong modals are necessarily specified with a different subject suggests the presence of multiple grammatical subjects in these constructions. The requirement for default subject agreement is particularly revealing. As discussed in section 6, it points to the need for a distinct syntax for the strong modals */gbʔ/* and */hlw/* whereby the logical subject of the sentence does not establish a formal relationship with these elements.

5.5 Object marking

The availability of object marking constitutes the final dimension along which the verbal modals are contrasted. As discussed in section 2.2, accusative-marked direct objects are typically cross-referenced by object marking on the lexical verb. The example in (37) shows that object marking can only attach to a verbal element within the predicate; tense auxiliaries cannot host object-marking morphology.

(37) *Tense auxiliaries cannot carry object marking morphology*

ʔit-i səʔbaj **n-ət-a** **dəbdabe** ts'ihif-u-wa
 that-MS man.M ACC-that-FS letter write.GER-S.3MS-O.3FS
 ʔall-o-(*wa)
 AUX.NPST-S.3MS-O.3FS
 'That man has written the letter.'

This restriction follows from the analysis of object marking outlined in section 2.2. If the object marker is the morphological realization of a relation between v^0 and the highest internal argument, auxiliaries—located outside the predicate—can be seen as too high in the clause to participate in this relation.

With respect to the modal elements under consideration, observe in (38) that the weak epistemic /kwn/ 'might' cannot host object-marking morphology. This holds regardless of whether the cross-referenced argument functions as the logical or grammatical subject of the sentence.

(38) *Epistemic modals cannot carry object marking morphology*

- a. ʔit-a səbəjti ti-xəjjid ti-xəwwin(*-a)
 that-FS woman.F S.3FS-leave.IPFV S.3FS-might.IPFV-O.3FS
 'The woman might leave.'
- b. ʔit-a səbəjti **n-ət-a** **məts'haf** ti-nbib-a
 that-FS woman.F ACC-that-FS book S.3FS-read.IPFV-O.3FS
 ti-xəwwin(*-a)
 S.3FS-might.IPFV-O.3FS
 'The woman might read the book.'

In line with the pattern established throughout this subsection, the situation differs for the two strong modals /gbʔ/ 'should/need to' and /hlw/ 'must/have to'. As shown in (39) and (40), both elements can host object-marking morphology.¹⁸

¹⁸For reasons that we are not entirely prepared to address here, object marking is optional on /gbʔ/ but obliga-

(39) *Strong modal /gbʔ/ optionally hosts object marking morphology*

ʔit-a səbəjti ki-ti-xəjjid ji-gibaʔ(-a)
 that-FS woman.F PROS-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
 ‘The woman needs to leave.’

(40) *Strong modal /hlw/ hosts object marking morphology*

ʔit-om təmaharo ki-s’niŋ-u ʔall-o-wom
 that-MP student.P SBJV-study.IPFV-S.3MP have.IPFV-S.3MS-O.3MP
 ‘The students have to study.’ (adapted from Gebregziabher, 2021, 85, (16b))

With regard to the weak modal /kʔl/, it again differs from the strong modals by not allowing object marking; see (41).

(41) *Weak modal predicates cannot appear with object markers*

ʔit-a səbəjti ki-ti-xəjjid ti-xəʔil-(*a)
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV-O.3FS
 ‘The woman can leave.’

The inability of the weak epistemic /kwn/ to host object-marking morphology shows once again that it consistently patterns with auxiliaries. By contrast, the strong modals /gbʔ/ and /hlw/ behave like verbs, since the ability to host object marking is expected of elements within the predicate. Finally, the continued mixed behaviors of /kʔl/ ‘can/be able to’ further supports the need to treat it as a type of modal predicate that is distinct from the strong modal predicates.

6 Theoretical analyses of verbal modality in Tigrinya

With the properties summarized in Table 5 in mind, we present our analyses for the syntax of verbal modality in Tigrinya. A high-level summary of our claims is presented in Table 7.

tory on /hlw/. The presence of object marking on /gbʔ/ consistently evokes the remark that the cross-referenced argument is somehow “emphasized”. These comments also suggest that the presence of object marking biases the interpretation towards participant-internal root modal meanings. We return to object marking on modal predicates in section 6, and refer the reader to Tesfay 2016, Gebregziabher 2021, and Author (in prep.) for further discussion.

	Force	Base	Category	Argument Structure
/kwn/	weak	epis	Aux	—
/gbʔ/, /hlw/	strong	root/epis	V	Exceptional Object Marking
/kʔl/	weak	root/epis	V	Subject Control

Table 6: Summary of modals in Tigrinya

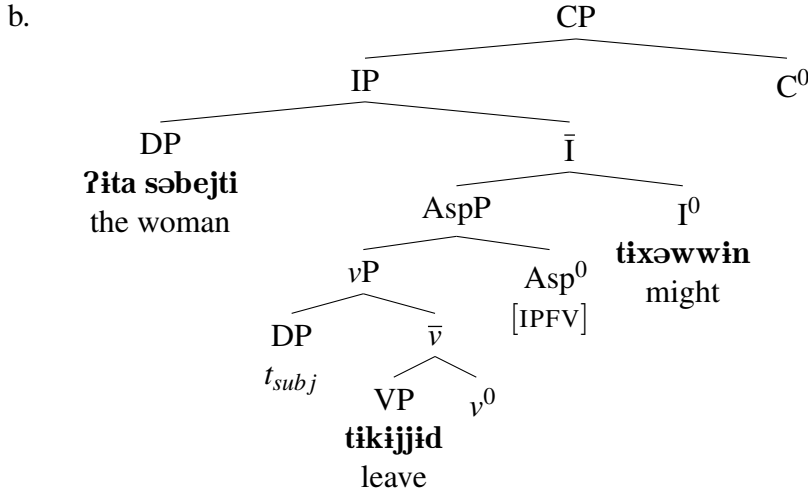
The following discussion will substantiate previous claims that the modal /kwn/ ‘might’ is a modal auxiliary while the other modals are elements of the predicate. Among the predicate modals, we will distinguish /gbʔ/ ‘need to’ and /hlw/ ‘have to’ as unaccusative predicates that embed so-called Exceptional Object Marking clauses. The modal predicate /kʔl/ ‘able to’, on the other hand, will be shown to be a transitive Subject Control predicate. We will demonstrate how these proposals account for the properties summarized in Table 5 and offer a better account than existing alternatives for observations regarding word order, sentential negation, and co-occurrence restrictions with other auxiliaries and among the modal elements themselves.

6.1 The modal auxiliary /kwn/

The properties of the weak epistemic modal /kwn/ ‘might’ that were discussed in the previous section establish this element as an auxiliary verb in a monoclausal construction. The syntax that we propose is provided in (42).

(42) *Monoclausal construction for weak epistemic modal /kwn/*

- a. ?it-a səbəjti ti-xəjjid **ti-xəwwin**
 that-FS woman.F S.3FS-leave.IPFV S.3FS-might.IPFV
 ‘The woman might leave.’



As an auxiliary, the modal element /kwn/ is introduced as the head of IP. This modal auxiliary combines with AspP, an extended projection of the predicate, as part of a monoclausal structure. The predicate-internal subject then undergoes movement to the derived subject position of the clause in Spec,IP.

This representation offers an account for the dispreference for *ki*-marking on the lexical verb observed in section 5.1. Assuming grammatical mood is encoded on the head of IP, it is possible to assert that the insertion of the modal auxiliary precludes the insertion of the subjunctive mood prefix *ki*-. Therefore, the two morphemes are expected to be in complementary distribution.

The monoclausal status of (41) is independently supported by the distribution of sentential negation, expressed by the circumfix ?aj-(i)n, which generally appears on the lowest verbal element in a clause. For example, in complex tense-aspect constructions, including the future-oriented construction in (43), sentential negation appears on the lexical verb rather than the tense auxiliary.¹⁹

¹⁹This is another domain in which we have observed variation. For some speakers of the Eritrean dialect, but not the Ethiopian dialect, sentential negation in complex progressive constructions optionally appears on either the lexical verb or the tense auxiliary, whereas other complex tense-aspect constructions behave as expected under the generalization in (44). We suspect that this purported counter-example reveals that progressive constructions are biclausal. See [Cacchioli 2026](#) for further discussion.

(43) *Sentential negation appears on the main verb in complex tense-aspect constructions*

- a. henok **?aj-Ø-Ø-särix-in** ?ijj-u
Henok.M NEG-SBJV-S.3MS-work.IPFV-NEG AUX.NPST-S.3MS
‘Henok won’t work.’
- b. *henok k-i-särrix **?aj-konä-n**
Henok.M SBJV-S.3MS-work.IPFV NEG-AUX.NPST.S.3MS-NEG
Intended: ‘Henok won’t work.’ (p.c. Milena Abraham)

Thus, the inability for /*kwn*/ to host sentential negation, shown in (44), is consistent with its status as an auxiliary, as opposed to a main verb.

(44) *Sentential negation appears on the main verb in epistemic modal constructions*

- a. nissixa walahade seb **?aj-Ø-ti-higiz-in** ti-xəwwin
 you any.MS people NEG-SBJV-S.2MS-help.IPFV-NEG S.2MS-might.IPFV
 ‘It might be that you do not help anyone.’
- b. *nissixa walahade seb ti-higgiz **?aj-ti-xəwin-in**
 you.NOM.MS any.MS people S.2MS-help.IPFV NEG-S.2MS-might.IPFV-NEG
 Intended: ‘It’s not possible that you help anyone.’

We would also briefly reiterate the importance of the complementary distribution of /kwn/ and other auxiliaries shown in section 5.2. Given the one-auxiliary-per-clause restriction in Tigrinya, the observed complementarity in complex tense-aspect constructions is expected if /kwn/ is the sole auxiliary of this monoclausal construction.

Both the same-subject requirement (section 5.3) and the lack of default agreement (section 5.4) follow directly from the fact that the representation in (42b) contains a single clause with a single grammatical subject. As noted in section 2.2, an argument promoted to grammatical subject controls subject marking on all verbal elements of a clause. As the subject of a monoclausal structure, *?ita səbəjti* in (42b) is therefore expected to serve this role. The lack of default subject agreement reflects the non-optionality of promoting a contentful argument to the grammatical subject position. Thus, *?ita səbəjti* must be promoted to grammatical subject and, as observed, controls agreement on all verbal elements of the clause.

Finally, the inability of /*kwn*/ to host object marking morphology, seen in section 5.5, is entirely expected given its role as an auxiliary. As noted in section 2.2, only predicate-internal verbal elements can host object marking.

6.2 The Exceptional Object Marking syntax of strong modal predicates

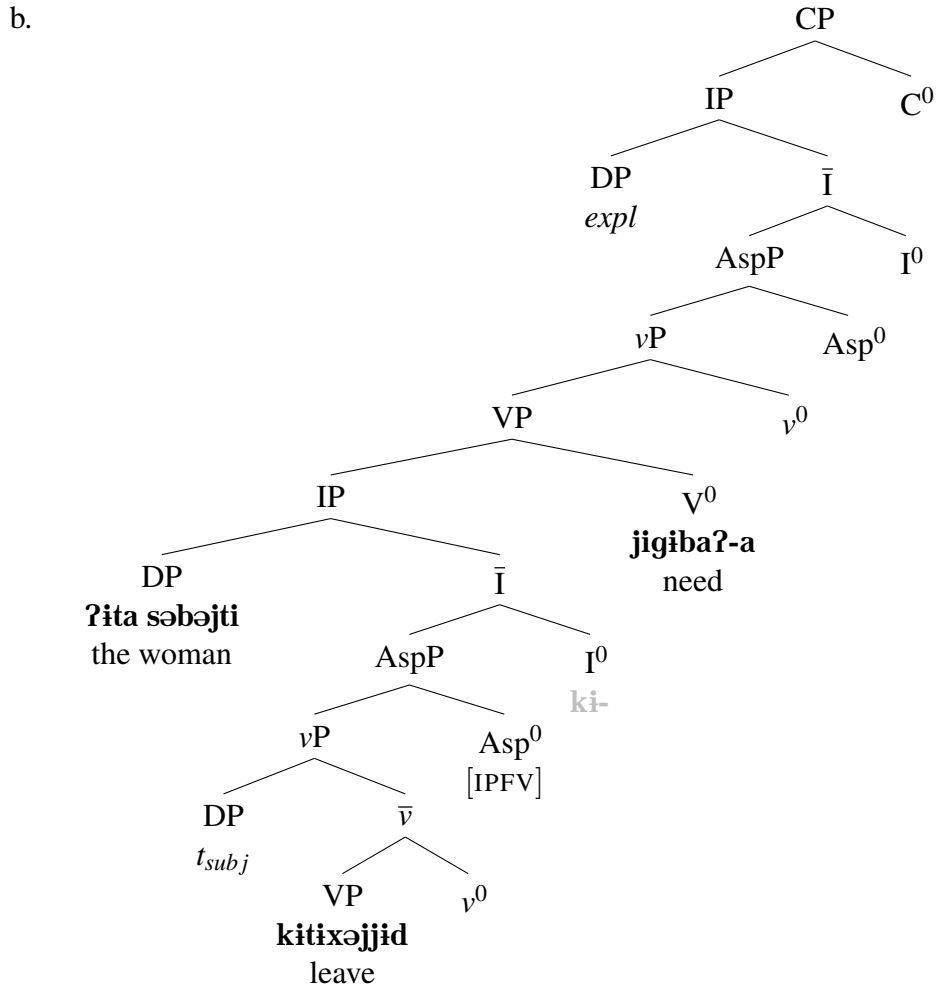
On the basis of the morphosyntactic properties observed in section 5, we propose that the strong modal predicates /*gb?*/ ‘should/need to’ and /*hlw*/ ‘must/have to’ are unaccusative predicates embedding what we call Exceptional Object Marking (EOM) constructions. The term EOM is intended as an analogy to Exceptional Case Marking constructions. Just as a matrix predicate has been claimed to exceptionally interact with an argument of the embedded predicate in the English example in (45) (e.g., Chomsky, 1973), we claim that a matrix predicate in Tigrinya exceptionally interacts with embedded arguments.

(45) They expect **her** to leave.

The representation we propose for the strong modals is shown in (46). Although the example includes only /*gb?*/ ‘should/need to’, we believe the analysis extends straightforwardly to constructions with /*hlw*/ ‘must/have to’.

(46) *Exceptional Object Marking construction for strong modal predicates*

- a. *ʔit-a səbəjti ki-ti-xəjjid ji-gibaʔ-a*
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
 ‘The woman needs to leave.’



In a representation like (46b), the strong modals /gbʔ/ and /hlw/ are introduced as part of the matrix predicate rather than in an auxiliary position. This structure also presents the biclausal status of these constructions, whereby the modal predicate embeds a clausal IP complement. Within the embedded clause, the logical subject of the sentence *ʔita səbəjti* ‘the woman’ raises to Spec,IP as the embedded grammatical subject.

As noted above, we take the *ki*-prefix to expone subjunctive mood in an embedded I⁰. The strong preference for *ki*-marking on the embedded lexical verb, shown in section 5.1, can be made to follow from the selectional properties of the strong modal predicates. Whereas the modal auxiliary /kwn/ ‘might’ combines with an aspectual projection of the predicate, the strong modals are predicate-internal elements that select for clausal complements. More

specifically, we are proposing here that these elements select clausal complements with an IP projection that expresses subjunctive mood, hence the presence of the *ki*-prefix.

This proposal finds further support from its account of the fact, shown below, that neither of the strong modals can embed a complex tense-aspect construction. For example, (47) and (48) show that a complex progressive construction cannot be embedded under either */gbʔ/* or */hlw/*.

(47) *The strong modal predicate /gbʔ/ cannot embed tense auxiliaries*

*[_{IP} ʔit-a səbəjti ti-nəbib (ki)-ʔall-a]
 that-FS woman.F S.3FS-read.IPFV SBJV-AUX.NPST-S.3FS
 ji-gibaʔ-a
 S.3MS-need.IPFV-O.3FS
 ‘The woman needs to be reading.’

(48) *The strong modal predicate /hlw/ cannot embed tense auxiliaries*

*[_{IP} ʔit-a səbəjti ti-nəbib (ki)-ʔall-a]
 that-FS woman.F S.3FS-read.IPFV SBJV-AUX.NPST-S.3FS
 ʔall-o-wa
 have.IPFV-S.3MS-O.3FS
 ‘The woman has to be reading.’

Importantly, this does not reflect a general ban on embedding complex tense-aspect constructions. For instance, other predicates embed indicative *kəmzi*-clauses, so called for the complementizer prefix *kəmzi* on the highest verbal element (see Spadine 2020). As shown in (49), these clausal complements can contain tense auxiliaries, which appear in the complex progressive construction:

(49) *Embedded /kəmzi/ clauses contain complex tense-aspect constructions*

pro [_{CP} ʔit-a səbəjti ti-xəjjid kəmzi-ʔall-a] rasiʔi-na
 1P that-F woman.F S.3FS-leave COMP-AUX.NPST-S.3FS forget.GER-S.1P
 ‘We forgot that the woman is leaving.’

It is the assertion that the strong modal predicates */gbʔ/* or */hlw/* select for subjunctive marked complements that accounts the data in (47) and (48); the complementary distribution of subjunctive marking and tense auxiliaries in I⁰ will preclude their co-occurrence.

As a biclausal structure, the proposal in (46b) makes different predictions regarding the dis-

(50) *The strong modal predicate /qbʔ/ hosts sentential negation*

(51) *The strong modal predicate /hlw/ hosts sentential negation*²⁰

This observation regarding negation is closely related to the ability of the strong modal */gbʔ/* to appear in complex tense-aspect constructions of the kind shown in section 5.2. As an element of the matrix predicate, the strong modals are expected to possibly co-occur with a tense auxiliary that appears in matrix I^0 . This analysis also predicts the co-occurrence of the different modal elements. Because the epistemic modal */kwn/* is an auxiliary and the strong modals are predicate-internal elements, they are expected to appear together in “double-modal” constructions such as (52):

(52) “Double-modal” construction with strong modal predicate + epistemic modal auxiliary

Turning now to the observed agreement patterns with the strong modal predicates, section 5.3 showed that, unlike the modal auxiliary /*kwn*/, the strong modal predicates /*gbʔ*/ and /*hlw*/ can bear subject marking distinct from that on the embedded verb. This is enabled by the biclausal structure in (46b). Given two clauses with two predicates, each clause is expected to contain its own subject. In (46b), the logical subject *ʔita səbəʔiti* ‘the woman’ serves as the

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grammatical subject of the embedded clause, yielding 3FS agreement on the embedded verb. The default 3MS agreement on the matrix modal reflects an expletive element as the matrix subject, which controls subject marking on the modal predicates (see [Tesfay 2016](#); compare with [Gebregziabher 2021](#)).

This raises questions about the obligation that subject markers on strong modals show default 3MS agreement. Recall from section 5.4 that */gbʔ/* and */hlw/* cannot agree with the logical subject of the sentence, analyzed here as an argument of the embedded predicate. This follows from two claims. First, */gbʔ/* and */hlw/* are unaccusative predicates. Second, they do not permit Raising derivations, *pace* [Tesfay 2016](#) and [Gebregziabher 2021](#).

Starting with the status of strong modals as unaccusative, this finds initial support in the morphology of */gbʔ/*.²¹ The typical vocalic template for the imperfective form of a verbal root has the shape **CaC(C)iC**, as shown in (53). However, */gbʔ/* appears in the imperfective with the template **CiC(C)aC**, illustrated in (54). As [Tesfay 2016](#), 206–207 notes, this is the root form expected from an imperfective predicate in its detransitivized state, which derives unaccusative predicates, including passives and inchoatives (see [Nazareth 2011](#), ch.2.4).

(53) *Imperfective verb form*

ji-säbbir
S.3MS-break.IPFV
'He breaks.'

(54) *Detransitivized imperfective /gbʔ/*

ji-gibaʔ
S.3MS-need.IPFV
'It is necessary.'

In fact, the strong modal usage of */gbʔ/* investigated in this paper always surfaces in its detransitivized form. Thus, the obligatory default agreement on */gbʔ/* and, by extrapolation, on */hlw/*, reflects a null expletive inserted in the absence of an external argument.

Moreover, the strong modals */gbʔ/* and */hlw/* demonstrably fail to introduce an external argument. Consider the examples in (55) and (56), which are adapted from data in section 5.3. Interpreting the obligatory 3MS subject marking on the strong modals as cross-referencing a contentful subject *nissu* 'he' necessarily yields ungrammaticality.

²¹As an irregular verb, */hlw/* does not allow a comparable morphological test for unaccusativity.

- (55) *The strong modal predicate /gbʔ/ cannot introduce an argument*

- (56) *The strong modal predicate /hlw/ cannot introduce an argument*

The inability of these predicates to introduce thematic arguments into the matrix clause is an additional reflection of their status as unaccusative predicates.

- (57) [CP *expl* [IP (bi-bikeri) **səgen** (bi-bikeri) maj ki-ti-sətti
INS-glass Segen.F INS-glass water SBJV-S.3FS-drink.IPFV
ji-giba?-a
S.3MS-need.IPFV-O.3FS
'Segen needs to drink water with a glass.'

These word-order facts similarly suggest that the logical subject of strong modal constructions do not undergo Raising-to-Object. This is further corroborated by case-marking patterns.

Embedded arguments that control matrix object marking on EOM predicates show the case marking expected from their role in the embedded clause. Thus the embedded subject in (58) controls object marking on the matrix predicate, but cannot bear the accusative case marking that would be expected for a derived object.²²

(58) *No accusative case marking on the embedded subjects of strong root modals*

{ *n-ət-a / ?it-a } səbəjti ki-ti-xəjjid ji-giba?-a
ACC-that-FS that-FS woman.F SBJV-S.3FS-leave.IPFV S.3MS-need.IPFV-O.3FS
‘The woman needs to leave.’

We turn finally to the namesake phenomenon of Exceptional Object Marking, referring to the ability of strong modal predicates /gbʔ/ and /hlw/ to host object marking morphology. This behavior aligns them with verbal predicates, rather than auxiliaries, and is consistent with the proposed structure in (46b). Having just argued that subject and object agreement patterns in the matrix clause are not fed by Raising operations, we propose that object agreement in particular is fed by a long-distance agreement relationship. In particular, we assume that the matrix v^0 enters into a formal AGREE relation with the embedded subject. This is a formal relationship that is compatible with standard phase-based accounts of syntactic locality from Chomsky 2000, 2001 if, as we have proposed, the strong modals select for a structurally reduced IP complement.²³

6.3 A Control syntax for weak modal predicates

The morphosyntactic properties that were observed for constructions with the weak modal predicate /kʔl/ ‘can/able’ motivate a syntactic representation that is distinct from the strong modal predicates. While constructions with the weak modal predicate also show evidence of being

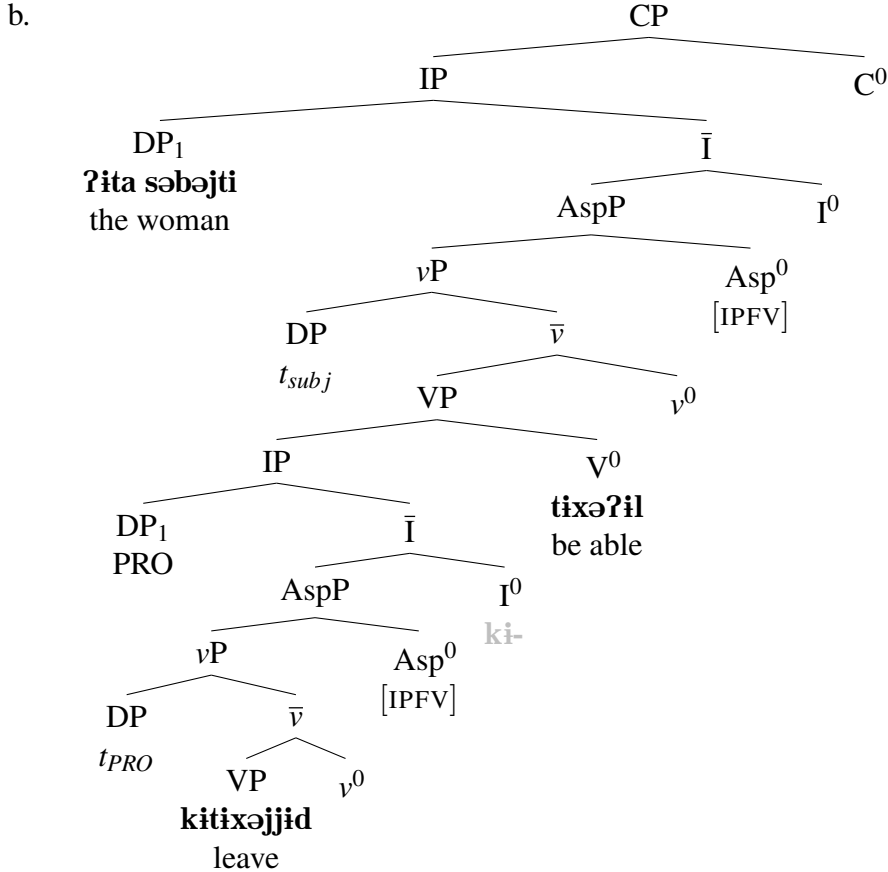
²²Even if there is no Raising in these constructions, it is possible that they are derived via an operation of clitic raising. On this analysis, the object marking morpheme would be treated as a pronominal clitic—as proposed for Amharic by Kramer 2014 and Baker and Kramer 2018—which raises from a position in the embedded clause to a position that sees it adjoin to the matrix predicate. While we cannot definitively rule this possibility out at present, we would note that there is no independent evidence for the raising of clitics, which always appear on the main verb that selects their cross-referenced argument.

²³We leave a full treatment of long-distance agreement to future research. See Bhatt and Keine 2017 for an overview of analyses of the phenomenon. We would note that, at the time of writing, we expect an analysis in which clause-bounded scrambling feeds long-distance agreement, as in Polinsky and Potsdam 2001, is best suited for Tigrinya (see Author in prep.).

biclausal, we argue that it is best treated as a transitive Subject Control predicate, as in (59):

(59) *Subject Control construction for the weak modal predicate*

- a. [CP ʔit-a səbəjtɪ_1 [IP PRO_1 ki-ti-xəjjid] ti-xəʔil]
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-be_able.IPFV
 ‘The woman is able leave.’



In the representation above, the weak modal $/kʔl/$ serves as the matrix predicate and embeds a subjunctive IP complement clause. Unlike the strong modal predicates, $/kʔl/$ introduces as an external argument the logical subject ʔita səbəjti ‘the woman’, which is promoted to the grammatical subject of matrix clause. This argument is obligatorily interpreted as the logical subject of the embedded clause through co-indexing with the null pronominal subject PRO (Chomsky, 1981; Landau, 2000, 2015).

The biclausal representation in (59b) accommodates a range of facts that will be familiar at this point. The presence of the subjunctive marker reflects the fact that $/kʔl/$ ‘can/be able’ similarly selects for subjunctive IP complements (section 5.1).²⁴ As such, we correctly predict

²⁴This conclusion may appear at odds with a Control analysis. It is often claimed that Control clauses contain more structure than Raising clauses (e.g., Landau, 2013). A more fine-grained theory of the clausal spine may

that weak modal predicate constructions also fail to embed complex tense-aspect constructions:

(60) *The weak modal predicate /kʔl/ cannot embed tense auxiliaries*

*ʔit-a səbəjti₁ [IP PRO₁ ti-nəbib (ki)-ʔall-a]
 that-FS woman.F S.3FS-read.IPFV SBJV-AUX.NPST-S.3FS
 ti-xəʔil
 S.3FS-be_able.IPFV
 'The woman is able to be reading.'

The status of /kʔl/ 'can/be able' as the predicate of the matrix clause accommodates the observation that it co-occurs with tense auxiliaries (section 5.2). This representation also allows for the weak modal predicate's ability to host sentential negation in (61) and its co-occurrence with the modal auxiliary /kwn/ 'might' in (62).

(61) *The weak modal predicate /kʔl/ hosts sentential negation*

pro₁ [IP PRO₁ ki-ti-xəjjid] ʔaj-ti-xəʔil-in
 2FS SBJV-S.2FS-leave.IPFV NEG-S.3FS-be_able.IPFV-NEG
 'You are not able to leave.'

(62) *"Double-modal" construction with weak modal predicate + epistemic auxiliary modal*

[CP nissixa₁ [IP PRO₁ səb ki-ti-higgiz] ti-xəʔil
 you.NOM.FS person SBJV-S.2FS-help.IPFV S.3FS-able.IPFV
 ti-xəwwin]
 S.3FS-might.IPFV
 'You might be able to help people.' (Tesfay, 2016, 203, (16f))

It is possible to identify additional support for the proposed syntax through comparison with other non-modal predicates independently suspected to have a similar Control syntax, including /ftn/ 'try'. The morphosyntactic properties of such constructions, shown in (63), overlap significantly with those containing the weak modal predicate /kʔl/.

(63) *Exemplar for Subject Control predicates in Tigrinya*

ʔit-a səbəjti₁ [IP PRO₁ ki-ti-xəjjid] ti-fəttin ʔall-a
 that-FS woman.F SBJV-S.3FS-leave.IPFV S.3FS-try.IPFV AUX.NPST-S.3FS
 'The woman is trying to leave.'

show that this is the case. Alternatively, given the lack of independent evidence for Raising in the constructions at hand, there may be no real structural difference among *ki*-marked complement clauses. This remains an avenue for further research.

The predicate /*ftn*/ ‘try’ embeds a subjunctive *ki*-marked complement and behaves like an element of the matrix predicate with respect to both tense auxiliaries in (63) above and sentential negation in (64) below:

(64) *Subject Control predicate /ftn/ hosts sentential negation*

*pro*₁ [_{IP} *PRO*₁ *ki-Ø-xəjjid*] *ʔaj-fəttin-ku-n*
 1S SBJV-S.1S-leave.IPFV NEG-try.GER-S.1S-NEG
 ‘I didn’t try to leave.’

The two examples above also illustrate overlap in the agreement properties of the weak modal predicate /*kʔl*/ and Subject Control predicates. In both cases, the matrix verb shows agreement with the grammatical subject of the matrix clause (section 5.3), rather than the default agreement observed in the previous section for strong modal predicates (section 5.4). Moreover, neither example shows object agreement morphology on the matrix verb, nor is it permitted.

Under the analysis proposed in (59b), the logical subject *ʔita səbəjti* ‘the woman’ of the weak modal predicate controls subject agreement on the matrix verb because it is generated in the matrix clause and is promoted to the grammatical subject position of that clause. It is possible to point to the word-order facts in the examples below as independent evidence to this effect.

(65) [_{CP} (**bi-bikeri*) *səgen*₁ [_{IP} *PRO*₁ (*bi-bikeri*) *maj ki-ti-setti*]
 INS-glass Segen.F INS-glass water SBJV-S.3FS-drink.IPFV
ti-xəʔil]
 S.3FS-be_able.IPFV
 ‘Segen is able to drink water with a glass.’

(66) [_{CP} (**bi-risas*) *tesfaj*₁ [_{IP} *PRO*₁ (*bi-risas*) *dʒalba ki-Ø-siʔil*]
 INS-pencil Tesfay.M INS-pencil boat SBJV-S.3MS-draw.IPFV
fəttin-u]
 try.GER-S.3MS
 ‘Tesfay tried to draw a boat with a pencil.’

The modifier *bibikeri* ‘with a glass’ of the predicate embedded under /*kʔl*/ in (65) cannot precede the logical subject *Segen*. The Subject Control exemplar /*ftn*/ shows the same behavior in (66) with the adjunct modifier *bi-risas* ‘with a pencil’ and the logical subject *Tesfay*. This is a contrast that is expected if the logical subject of the clause is, in this case, a constituent of the matrix clause.

We end again by considering object marking. In the context of a weak modal predicate in (59b), the logical subject’s status as a matrix-clause argument accounts for its inability to control object marking on /kʔl/ (section 5.5). Because *ʔita səbəjti* ‘the woman’ is generated as an external argument of the modal predicate, it lies outside the c-command domain of the matrix v^0 and, like all external arguments, cannot be a goal for agreement with elements of its selecting predicate.²⁵

7 Conclusion

7.1 Summary

A summary of our investigation into verbal modality in Tigrinya is repeated in Table 7.

	Force	Base	Category	Argument Structure
/kwn/	weak	epis	Aux	—
/gbʔ/, /hlw/	strong	root/epis	V	Exceptional Object Marking
/kʔl/	weak	root/epis	V	Subject Control

Table 7: Summary of modals in Tigrinya

From this table, we see that Tigrinya tends to lexically encode the quantificational force of modal elements while leaving the modal base to contextual accommodation. The modal elements summarized in this table also differ in syntactic category. Specifically, the weak epistemic modal /kwn/ ‘might’ is an auxiliary, while the other modals are predicate-internal elements that we identify here as verbs.

These conclusions are partially in line with the assumptions made in previous investigations. In particular, our investigation substantiates previous assertions by [Tsfay 2016](#) that /kwn/ ‘might’ is a modal auxiliary while /gbʔ/ ‘should/need to’ and /kʔl/ ‘can/be able to’ are modal predicates. However, our investigation supports the assertion by [Gebregziabher \(2021\)](#) that /hlw/ ‘must/have to’ is better treated as a modal predicate, in opposition to Tsfay’s (2016) claim that it is also an auxiliary.

²⁵This leaves open the question of why embedded PRO cannot control object marking. While we do not have a fully satisfactory account, we would hope that this fact would follow from a more explicit theory of PRO and for the syntax and semantics of Control.

Where we diverge most significantly from previous literature is with regard to the syntactic analyses for the modal predicates. For both [Tesfay 2016](#) and [Gebregziabher 2021](#), the modal predicates were claimed to embed complement clauses from which an argument could (optionally) undergo Raising into the grammatical subject position of the matrix clause or be base-generated in the matrix clause. Our investigation has revealed instead that the strong modal predicates /*gbʔ*/ and /*hlw*/ appear in what we refer to as Exceptional Object Marking configurations. In EOM configurations an object marker on the modal predicate cross-references an argument that is generated within the embedded clause. This syntax follows from the claim that strong modals are unaccusative predicates and that these constructions in fact do not permit Raising derivations. The weak modal predicate /*kʔl*/, by contrast, appears in a Subject Control syntax derived from a transitive argument structure. We argued that these separate syntaxes provide a more satisfactory account for the differing morphosyntactic properties of the two types of modal predicates.

7.2 Discussion

This investigation elucidates two interesting puzzles that we believe ought to guide future research. The first concerns the observation, made in section 6.2, that the strong modal predicates /*gbʔ*/ and /*hlw*/ do not permit Raising derivations, whether this is Raising-to-Subject or Raising-to-Object. This is particularly interesting given that these are both unaccusative predicates that embed clausal complements that are otherwise transparent for formal relationship with embedded arguments; recall that long-distance agreement was proposed in section 5.2.

Notably, this restriction against Raising-to-Subject appears not to be a symptom of a complete lack of Raising in the language. As Author (Year) argues, intensional predicates, such as /*dlj*/ ‘want’, permit an embedded argument to undergo Raising to a derived object position in the matrix clause. This is shown in (67) for the nominal argument *nətom təmharo*, which is claimed to Raise to a position where it is marked with accusative case and controls matrix object marking.

(67) *Raising-to-Object construction for the intensional predicate /dlj/*

ʔit-a məmhir **n-ət-om** təmharo₁ [t₁ ni-ki-xəjd-u]
 that-FS teacher ACC-that-MP student.PL COMP-SBJV-leave.IPFV-S.3MP
 ti-dəli-j-**om**
 S.3FS-want.IPFV-O.3MP

‘The teacher wants the students to leave.’

We leave it to future research to determine how strong modal constructions in Tigrinya differ from similar constructions in other languages that do permit Raising-to-Subject derivations. We must also leave it to future research to provide a more explicit proposal for the derivation of the long-distance agreement relationship claimed to be present in EOM constructions.

The second issue worth considering is the nature of the Θ -role that is assigned by the weak modal /kʔl/, which we have argued is a transitive Subject Control predicate and is also capable of having an epistemic modal base. On one hand, this may not be a particularly surprising finding. There is significant consensus in the literature that there is no correlation between the base of a modal expression and the argument structure with which it appears (see [Postal 1974](#); [Bhatt 1998](#); [Wurmbbrand 1999](#); [Barbiers 2006](#); [von Stechow and Iatridou 2009](#); compare to [Jackendoff 1972](#); [Piccolo 1990](#); [Brennan 1993](#)). Thus, nothing in principle should preclude a modal predicate from projecting an external argument and receiving an epistemic interpretation. However, if this is an accurate picture of Tigrinya, there would need to be some significant tolerance for variation in the animacy, agency, and volitionality of the argument bearing this Θ -role in order to account for the data on /kʔl/ that we have presented throughout the manuscript and that can be found in the literature.²⁶

Having said that, it is possible that /kʔl/ does not truth-conditionally express a weak epistemic interpretation, contrary to the claims above. One could imagine that /kʔl/ instead expresses weak circumstantial modality, perhaps alongside other flavors of root modality. To the extent that our consultants are able to pragmatically infer that Salem’s epistemic state reflects the circumstances of the situation, it is possible that this modal element simply proxies for epistemic interpretations in scenarios such as (8). The same could possibly be said for the strong modal predicates /gbʔ/ and /hlw/. This scenario would result in a different picture of verbal

²⁶We thank Irina Burukina (p.c.) for discussion of this point.

modality in Tigrinya, which we present in Table 8.

	Force	Base	Category
/kwn/	weak	epis	Aux
/gbʔ/, /hlw/	strong	root	V
/kʔl/	weak	root	V

Table 8: Hypothetical alternative inventory of modals in Tigrinya

Under this state of affairs, Tigrinya would notably lack a verbal modal element that expresses epistemic necessity. Speakers, however, would clearly have the tools to express such meanings with circumstantial root modality in the way sketched just above, as well as with epistemic modal adverbs, including the necessity adverb *birgits* ‘obviously’. We leave this semantic issue open for future research to explore.

To conclude the paper, we would briefly mention the expression of verbal modality in the closely related language Amharic. Representative examples, adapted from [Tesfay 2016](#), are provided below:

(68) *Weak epistemic modal in Amharic*

anta säw ti-räda **ji-hon** **-al**
 you.NOM.MS person S.2MS-help S.3MS-may AUX.NPST-S.3MS
 ‘You might help people.’ ([Tesfay, 2016](#), 235, (41g))

(69) *Strong modal in Amharic*

anta li-t-hed **ji-ggäb-(h)** **-al**
 you.NOM.MS COMP-S.3FS-go S.3MS-must-O.2MS AUX.NPST-S.3MS
 ‘You need to go.’ ([Tesfay, 2016](#), 245, (48a–b))

(70) *Weak modal in Amharic*

i-ssuwa li-ti-mät’a **tī-ččil** **-all-äčč**
 she COMP-S.3FS-go S.3FS-can AUX.NPST-S.3FS
 ‘The woman is able to come.’ ([Tesfay, 2016](#), 235, (41h))

With the morphosyntactic properties in Table 5 in mind, there is significant similarity between the modal elements of the two languages. There are, however, appreciable differences that are discussed [Baye 2011](#); [Lumsden and Girma 2011](#); [Tesfay 2016](#), and [Leung and Girma 2017](#). We

suggest that a productive direction for future research could also involve a comparative study of verbal modal elements in the two languages. Such an investigation would provide a richer and picture for the expression of modality in Ethiosemitic languages and, therefore, in Semitic and Afroasiatic languages.

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