QP1: Focus constructions in Masalit

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Abstract

This paper presents a description and syntactic analysis of the focus marker *lo* and exclusive particle *de* 'only' in Masalit. In particular, I show that marking with *lo* is restricted to nominative case subjects, but does not involve a bi-clausal cleft structure. Lexical focus morphemes with asymmetric distributions are found in a wide variety of African languages, but *lo* is unique in that its distribution is most easily described in terms of grammatical case; whether it can be described as subject/non-subject asymmetric depends on the particular definition of "subject." The syntactic properties of *lo* motivate a systematic investigation of case-focus interactions cross-linguistically. I further show that focus is not morphosyntactically marked on non-nominal constituents. The particle *de* is semantically similar to English *only*, but has adnominal syntax; as a result, apparently "projected" focus readings can arise in configurations where *de* takes as its semantic argument a constituent that contains it. Assuming that the verbal suffix *-ti* is in fact an irrealis marker, the use of *de* in universal modal statements, as well as the use of *-ti* in future tense statements, are direct consequences of the analysis of *de*. The interaction of *-ti* and *de* in Masalit strongly parallels the interaction of *-het/-hat* 'may' and exhaustive focus in Hungarian. Further investigation of connections between modality and focus in Masalit—and cross-linguistically—is motivated by this parallelism.

1   Introduction

This paper describes morphosyntactic focus constructions involving the focus marker *lo* and the exclusive particle *de* in Masalit, a Nilo-Saharan language of the Maban family. Focus marking in Masalit is asymmetric in two respects: (i) only (nominative) subjects can be focused with *lo*, which is analyzed as the realization of a left-peripheral focus head; and (ii) focus is marked morphosyntactically on nominal constituents, but not on verbs, VPs, or other constituent types. The paper also discusses the syntactic and semantic properties of the particle *de* 'only' in the presence of focus. It is shown that while the semantics of *de* is roughly parallel to *only* and *nur* in English and German, respectively, its syntactic properties are considerably different. The proposed analysis of *de* accounts for apparently projected focus readings and also for its use in modal statements with (roughly) universal force.

The paper is structured as follows: §1.1 provides theoretical background on the notions of "focus" and "focus marking" from a cross-linguistic perspective. §1.2 provides basic information about the morphosyntactic properties of Masalit that are relevant for subsequent discussion. §2.1-2.2 provide descriptions of subject and object focus strategies. §2.3 discusses the asymmetric distribution of the lexical focus morpheme *lo*, and compares it to similar patterns of asymmetric focus marking in other languages. §2.4 presents a syntactic analysis of *lo*. It is argued that *lo* does not involve a biclausal cleft structure, but rather is the realization of a left-peripheral head Foc (Rizzi 1997; Aboh 2004, a.o.). §3 discusses the lack of morphosyntactic verb and VP focus marking in Masalit. §4.1 shows that the exclusive particle *de* is semantically parallel to *only* in English, but is syntactically very different. Because of *de*'s adnominal syntax, apparently "projected" focus readings can arise in configurations where *de* takes as its semantic argument a constituent that contains it. §4.2 discusses *de*'s use in modal contexts with the verbal suffix *-ti*, which is analyzed as an irrealis mood morpheme (contra Edgar 1989). §5 concludes.

1.1   Theoretical background on focus

Throughout, I use the term *focus* in the following sense: the *focus* of a sentence is the portion that contributes the most salient or relevant information (Aboh et al. 2007:1). Focus generally provides *new* or *contrasting* information (Selkirk 1984:200; Erteschik-Shir 2007). More specifically, focus indicates that a number of (contextually specified) *alternatives* are under consideration (Rooth 1985; 1992). Focus may be used to serve a variety of pragmatic functions, such as identifying which alternative(s) has a relevant property (new-information focus), indicating a contrast between alternatives (contrastive focus), etc. (Hartmann & Zimmermann 2007a). Notice that this characterization does not make reference to the specific means used by a language to indicate focus. While languages like English consistently use intonation to mark focus, many languages use morphological and syntactic strategies (Erteschik-Shir 2007; Büring 2009). For example, movement to a clause-initial (or left-peripheral) position is a common focus strategy cross-linguistically (see Aboh 2004; Fiedler et al. 2009 for a number of such languages); Hungarian is often claimed to have a preverbal position reserved for (exhaustive) foci (cf., e.g. É. Kiss 1998). Still other languages use strategies in which a functional morpheme indicates that an element (usually) adjacent to it contributes new or contrasting information.

A particular focus construction may utilize more than one of the above strategies. For example, in English *it*-clefts, the focused element occupies a designated position (syntactic strategy), and is accented (intonational strategy). Many African languages combine a syntactic strategy with a morphological strategy to indicate DP focus (cf. Collins 1994; Aboh 2004; Fiedler & Schwarz 2005; Aboh et al. 2007; etc.). Masalit is a language of this type.

Some languages have been argued to lack obligatory grammatical focus marking altogether for some constituent types (Hartmann & Zimmermann 2007b; Hartmann et al. 2007; Fiedler et al. 2009; Jacob 2005; etc.). While much work on the syntax and semantics of focus has assumed focus to be an abstract syntactic feature which must be indicated intonationally, I follow Hartmann & Zimmermann (2007b) in abandoning this assumption. Rather, I take focus to be a syntactic feature which can be marked prosodically, morphosyntactically, or (perhaps controversially) not at all. Absence of an overt realization of focus does not imply its non-existence, e.g. an element that is pragmatically intended to contrast with alternatives is still considered to be focused, regardless of whether it is overtly marked as such.

The most transparent paradigm for identifying constituents as focused is question-answer dialog (Selkirk 1996, a.o.). For example, in English, only new information can be prosodically prominent in a simple question-answer dialog. Therefore (1b), but not (1c), is an appropriate answer to (1a).[1] In general, focus on a constituent in an answer must correspond to the *wh*-expression in the question, reflecting the fact that in question-answer dialog, focus marks new information.

(1) a. Who does John love?

     b. John loves MARY.

     c. # JOHN loves Mary.

In (2), *run* contrasts with *walk*, and both elements are (intonationally) focused.

(2) I didn't WALK, I RAN.

While some languages may differ in how contrastive and new-information focus are marked, here I conflate the notions of contrastive and new-information focus, since Masalit marks them morphosyntactically in roughly the same ways (except in the presence of *de*; cf. §4). Note also that in many languages, *wh*-elements pattern morphosyntactically like focused elements.

A *focus particle* is a lexical item whose meaning interacts with the focus/background partition of sentences in which it occurs (Sudhoff 2010:6).[2] Sentences containing focus particles such as English *only* and *also* can have different truth-conditions depending on which constituent in their scope is focused. Many particles are called *focus-sensitive* for this reason (see Beaver & Clark 2008 for a survey of such expressions in English). For example (3a) but not (3b) is judged as false if John also bought the car. (3b) but not (3a) is judged false if John also rented a movie.

(3) a. John only [RENTED the car].

     b. John only [rented THE CAR].

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[1] Throughout, focus is notated by SMALL CAPS.

[2] Here I ignore the additional property of positional variability suggested by Sudhoff (2010).

Cross-linguistically, the syntactic properties of focus particles are highly variable (cf. Büring & Hartmann 2001; Hartmann & Zimmermann 2007c:fn2).

1.2 Background information on Masalit

Masalit (exonym for *Masarak*) is a Nilo-Saharan language of the Maban family. It is spoken primarily in the Darfur region of Sudan and the Ouaddaï prefecture of Chad;[3] Ethnologue estimates a population of 60,900 speakers (in 2006), although the actual number is probably higher (Eunice Kua, p.c.). The only published description of the Masalit language is a grammatical sketch by Edgar (1989), which contains mostly morpho-phonological information. König (2008) briefly describes the case system. To my knowledge, there are no published works on information structure in Masalit (though see chapter 15 of Weiss 2009 for information about topic and focus constructions in Maba, a closely related language).

Masalit is a predominately SOV language, with postnominal determiners and adpositions. Alignment is nominative/accusative (but see §1.2.2). Subject/object person and number agreement are realized by cross-reference prefixes on the (inflected) verb (König 2008:60-65). Finite verbs agree in person and number with their direct object if it is first- or second-person. If the direct object is third-person, agreement is with the subject (see Wood 2010 for details). Tense and mood are marked by verbal suffixes. Aspectual information is encoded by a verb-stem alternation (see Brillman 2011 for discussion).[4] This section describes some basic syntactic properties of Masalit.

1.2.1 Clausal word order

The following are examples of typical S(O)V sentences. Cross-reference markers are of the form (C)(V), and precede all other inflectional morphemes on the verb. In actual discourse, pro-drop is widespread, but in this exposition independent pronouns are typically included for perspicuity.[5]

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[3]Though recent violence in the Darfur region has caused a massive exile of Masalit people from this region.

[4]In reference to the verb-stem alternation, Edgar (1989:36) writes: "That there is a fundamental morphological dichotomy between base 1 and base 2 is clear; however the semantic basis for this dichotomy is as unclear as is the historical phonological relationship between the two." Recent research by the author and by Brillman (2011) suggests that the alternation correlates with perfective versus imperfective aspect.

[5]Tone is not transcribed throughout, as at the time of research the tonal system of Masalit was not well described. See Mathes (2010) for a recent description of the Masalit tone system. Unless otherwise indicated, all data presented here were elicited from a single middle-aged native Masalit speaker currently living in the United States. The following glosses are used in this paper: 1/2/3 = first/second/third person, ACC = accusative, COM = comitative, COP = copula, DEF = definite, DEM = demonstrative, FOC = focus, INV = inverse (something other than subject controls agreement), IRR = irrealis, LOC = locative, NEG = negation, NMLZ = nominalizer, NOM = nominative, pl = plural, POSS = possessive, PRS = present tense, REL = relative marker, SBJ = subject, sg = singular. Tense morphemes are separated from the verbal root with -; (possible) aspectual information is not provided in the glosses, since the morphology of

(4) a. ama a-ɲari
1sg 1sg-run.PRS
"I'm running."

b. maŋ Ø-ɲari
2sg 2sg-run.PRS
"You're running."

c. hawa ti-ɲari
Hawa 3sg-run.PRS
"Hawa's running.

(5) hawa su to-ron-a
Hawa goat.ACC 3sg-buy-PST
"Hawa bought a goat."

While verb-final ordering is the default in transitive clauses, SVO ordering is also possible, though most naturally interpreted as a polar question.

(6) hawa to-ron-a su
Hawa 3sg-buy-PST goat.ACC
"Did Hawa buy a goat?"

OSV ordering is also possible, but occurs only in certain pragmatic contexts (see §2.2 for further details).

(7) su hawa to-ron-a
goat.ACC Hawa 3sg-buy-PST
"Hawa bought A GOAT."

Other than in pro-drop sentences, verb-initial ordering is rare in Masalit (see SSWL database).[6]

In serial verb constructions, only the final verb is obligatorily inflected: the verbal root *ron* 'buy' in (8) does not bear agreement or tense morphology.

(8) jaja su ron ti-ɲan-a
Yahya goat.ACC buy 3sg-eat-PST
"Yahya bought and ate a goat."

1.2.2 Case

Masalit has a two-way case distinction, which has been described as nominative/accusative (König 2008:60-65). Independent pronouns have both subject and object forms, as shown in (9).

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verbal aspect in Masalit is not fully understood.

[6]http://sswl.railsplayground.net/browse/languages/Masarak . NB: the entry for Masalit in this database is incomplete.

(9) **Independent pronouns**

		NOM	ACC
sg	1	ama	amboro
	2	maŋ	mboro
	3	ti	tiro
pl	1	mi	minta
	2	ki	kinta
	3	i	inta

The accusative forms of proper names, *ŋga* 'who', and (most) Arabic loans are formed with the suffix *-ko*, glossed ACC (see Myler 2010 for further discussion of *-ko*).

(10) *-ko* **as [acc]**

     a.   hawa **asuman-ko** to-ɲoɲ-e
           Hawa Asuman-ACC 3sg-like-PRS
           "Hawa loves Asuman."

     b.   hawa **ŋga-ko** to-ɲoɲ-e
           Hawa who-ACC 3sg-like-PRS
           "Who does Hawa love?"

     c.   ama **hamam-ko** a-kal-a
           1sg pigeon-ACC 1sg-see-PST
           "I saw a pigeon."

Other nominals are marked for accusative by a vowel alternation: in the accusative, underlying final vowels surface as their nearest back equivalent (König 2008:60-65; Coggshall 2010).

(11) **Vowel alternation as [acc]**

     a.   **de** harun-ko ti-min-a
           cow Harun-ACC 3sg-kick-PST
           "The cow kicked Harun."

     b.   harun **do** ti-lfil-a
           Harun cow.ACC 3sg-hit-PST
           "Harun hit the cow."   (/e/→[o])

(12)   a.   **si** harun-ko ti-s-a
           goat Harun-ACC 3sg-bite-PST
           "The goat bit Harun."

     b.   harun **su** ti-lfil-a
           Harun goat.ACC 3sg-hit-PST
           "Harun hit the goat."   (/i/→[u])

A potential complication to the nominative/accusative characterization of the Masalit case system is provided by a small number of stative predicates that select for single accusative arguments.[7]

(13) **Stative predicates that select for accusative arguments**

    a.   **jaja-ko** / **tiro**   to-maɲ je
        Yahya-ACC / 3sg.ACC 3sg-good COP
        "Yahya's / he's healthy."

    b.   **jaja-ko** / **tiro**   to-maɲ-nde
        Yahya-ACC / 3sg.ACC 3sg-good-NEG
        "Yahya's / he's sick."

    c.   **si-gu**   wadʒi ti-je
        goat-DEF.ACC hunger 3sg-COP
        "The goat is hungry."
        (SIL (2010), *Sîgi* 'The goat', p.4)

(13) provides evidence that Masalit has properties of an active/stative language.[8] An active/stative alignment system is one in which the single argument of an intransitive verb may pattern morphologically as a transitive subject (accusative alignment) or object (ergative alignment), depending on the semantics of the verb (Mithun 1991). Following Jakobi (2006:135), I refer to intransitive predicates that select for transitive subject-inflected arguments as "active" and intransitive predicates that select for transitive object-inflected arguments as "medium." Cross-linguistically, there is not a concrete class of medium predicates in active/stative languages, though aspectual properties like stativity and thematic properties like non-agentivity are typical of such predicates (Mithun 1991). (Translations of) 'hungry' and 'sick', for example, frequently select for object-inflected arguments in active/stative languages.

Active/stative alignment is rare in African languages, but is attested in Zaghawa (Jakobi 2006) and the pronominal system of Loma (Rude 1983). However, Zaghawa contains several medium

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[7]The verbs *uri* 'named' and (possibly) *daŋ* 'fall' also appear with accusative-marked arguments which might be construed as "subjects."

(1)   a.   kamba-**gu**   adam uri
         man-DEM.SG.ACC adam call.PRS
         "This man's name is Adam."
         (SIL (2010), *Kidime kambas nî mbo mûcó nî mbo* 'The work of men and women', p.3)

  b.   aram diri   molok **taru**   kubuk-ko tu-daŋ-a
         Arab camel from   scarf.ACC hat-ACC 3sg-fall-PST
         "An Arab fell from a camel and his headdress fell off."
         (SIL (2010), *Ajaja* 'Riddles', p.13)

While *be named Adam* is also plausibly a stative predicate, *fall* is not (though its argument presumably has a non-agentive thematic role). The syntactic structure of (1ab) are unclear and will not be further discussed.

[8]Also variously called "active/agentive", "active/static," "split intransitive," etc.

verbs whose Masalit translations are active (e.g. 'tired'). The class of predicates exemplified by (13) appears to be quite small, and does not represent the morphological pattern typical of stative predicates, or of intransitive verbs that take non-agentive arguments. Many such verbs select for nominative arguments. This is illustrated in (14).

(14) **Stative predicates that select for nominative arguments**

    a.   **ti** te-**nendʒ**-a / to-**ran**-a
          3sg 3sg-tired-PST / 3sg-scared-PST
          "S/he was tired/scared."

(15) **Non-agentive nominative intransitive arguments**

    a.   **ti** ti-**j**-a   / tu-**jen**-a   / ta-**r**-a
          3sg 3sg-die-PST / 3sg-born-PST / 3sg-come-PST
          "S/he died / was born / arrived."

The class of medium predicates in Masalit is fairly limited, but requires at least stativity and lack of volitional control, both of which are common properties of medium predicates cross-linguistically. The existence of intransitive predicates showing ergative alignment in Masalit could be indicative of influence from Zaghawa, which is geographically adjacent to Masalit, or a currently transforming case system. While the close proximity of Zaghawa to Masalit makes the areal influence hypothesis plausible, I will not further speculate. We will return to the class of predicates exemplified in (13) in the discussion of subject/object focus marking (§2.3).

1.2.3 Modifiers and adpositions

Adjectives, numerals, and relative clauses follow the nouns that they modify. This is illustrated below. Subject relatives are formed with a verbal prefix *nV-* and a verbal suffix *-gi* (or *-i* when the relativized noun is plural). The *-gi* in relative clause formation is homophonous with the definite morpheme *-gi*. Object relatives do not use the morpheme *nV-* (cf. (17b)). See Collins 2010 for more information on the structure of relative clauses.

(16)   a.   kima **tʃukaɲi**-gi ta-r-a
          child tall-DEF   3sg-come-PST
          "The tall child came."

      b.   kim-iŋ **kaŋ** wa-r-a
          child-PL three 3pl-come-PST
          "Three children came."

(17)   a.   mutʃo **na-k-a-gi**   ʔəɪ je
          woman REL.SBJ-leave-PST-REL.SG there COP
          "The woman who left is over there."

b.   mutʃo   **taraŋgi ti-s-a-gi**   ʔəɪ   je
        woman snake   3sg-bite-PST-REL.SG there COP
        "The woman who the snake bit is over there."

Determiners and possessive morphemes are also generally postnominal. The possessive morpheme agrees in person and number with the possessor.

(18)   a.   ka   **koj** ta-k-a
          people all   3sg-leave-PST
          "All the people left."

      b.   kangi   **tu**   ta-k-a
          person some 3sg-leave-PST
          "Someone left."

(19)   a.   asuman   mutʃo-**ta**-go   to-ŋoɲ-e
          Asuman woman-POSS.3sg-DEF.ACC 3sg-like-PRS
          "Asuman loves his wife."

      b.   mutʃo-**mbe**   / mutʃo-**na**
          woman-POSS.1sg / woman-POSS.2sg
          "my wife / your wife"

The possessive affix may also attach to an overt possessor DP, as in (20).[9]

(20)   asuman-**ta**   mutʃo-k   ta-r-a
      Asuman-POSS.3sg woman-DEF 3sg-come-PST
      "Asuman's wife arrived."

(21) shows an example of a locative postpositional phrase.

(21)   adam dara-**m**   ti-nd-e
      adam dara-LOC 3sg-stay-PRS
      "Adam is at the dara."

Masalit has many morphosyntactic properties typical of head-final languages: unmarked SOV word order, postnominal modifiers and determiners, and postpositions.

2   Focus on nominal constituents

This section describes the morphosyntactic marking of focus on subjects and objects in Masalit.[10] Subject/non-subject focus marking is asymmetric in its particular morphological realization. I

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[9]The morphemes *-gi* and *-k* both mark definiteness in many contexts; *-gi* is also the proximal singular demonstrative and singular relative marker. See Korte 2010 for more information on *-gi* and *-k*.

[10]Preliminary evidence based on f0 contours suggests that intonational correlates of focus are present in Masalit, but in this paper, I discuss only morphosyntactic alternations associated with focus.

argue that DP focus with the morpheme *lo* involves a left-peripheral projection FocP, and is not a biclausal cleft structure, as might be expected from its syntactic restriction to nominative case DPs: if the DP to the left of *lo* were clefted, then it would plausibly occupy [Spec,IP], a nominative Case position.

The notion of "subject" is a theoretically elusive one, and deserves a few remarks. "Subject" may be defined in a number of ways, e.g. structurally, a subject could be defined as the nominal that occupies [Spec,IP]. Thematically, a subject could be defined as the agent, actor, or experiencer (McCloskey 1997). McCloskey (1997) notes that subjects tend to have particular properties, such as the ability to bind reflexives. Keenan (1976) identifies a large number of syntactic, thematic, and case-related properties that "subjects" *tend* to have, though it is doubtful that there is a perfectly precise and cross-linguistically applicable notion of "subject."

There is an unfortunate lack of explicitness in the literature on subject versus non-subject focus as to what exactly is meant by "subject." Because Masalit distinguishes morphologically between nominative and accusative case in transitive sentences, I consider the *nominative* argument of a transitive verb to be the *subject* of a transitive sentence. The proper characterization of "subject" for intransitive sentences is less clear, since Masalit has properties of a split-intransitive case system (cf. §1.2.2). Defining all intransitive arguments as subjects would not structurally distinguish between nominative and accusative intransitive arguments, which trigger different verbal agreement patterns and relative morphology (cf. §2.3, in particular (44-47)). Defining only nominative arguments as subjects would render sentences such as (13) "subjectless."[11] This position is not entirely implausible, given that (i) the DPs in (13) lack many of the subject properties of Keenan (1976), and (ii) it is unclear whether every sentence of every language contains a subject, however characterized (McCloskey 1997:198). Defining only DPs with "active" thematic roles as subjects would result in an unnatural characterization of intransitive verb argument selection, since thematic role is not sufficient to determine the case that an intransitive argument will appear in (cf. (13-15)).

To conclude: it is not obvious how "subjecthood" should be characterized for Masalit intransitive clauses. In the remainder of this section, I will adopt the following terminological conventions: in a transitive clause, the nominative case argument is the subject.[12] In an intransitive clause, a single nominative DP is the subject. If an intransitive sentence has only an accusative argument, that sentence does not have a subject. This choice is mainly terminological (though see (44-47)), and is only important insofar as it makes cross-linguistic comparison more convenient. Identifying "subjects" with nominative Case DPs is compatible with other authors' use of the term, given that most discussion of differential subject/object focus marking in African languages concerns languages that do not mark case morphologically (though Jakobi 2006 is an exception).

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[11]And hence possibly incur systematic EPP violations.

[12]For transitive sentences with non-case-inflected objects (e.g. (48)), "subject" can be defined thematically.

2.1 Subject focus

Nominative subjects have a special status in Masalit information structure. The morpheme lo[13] indicates that the subject DP to its left is focused, and also occurs to the right of the nominative case interrogative pronouns *ŋga* 'who' and *ŋgəri* 'what' in subject constituent questions.

(22) **Subject focus with** *lo*

    a. **ŋga** lo su   to-ron-a
        who FOC goat.ACC 3sg-buy-PST
        "Who bought a goat?"

    b. **jaja** lo su   to-ron-a
        jaja FOC goat.ACC 3sg-buy-PST
        "YAHYA bought a goat."

    c. **ŋgəri** lo batto   ti-s-a
        what FOC cat.ACC 3sg-bite-PST
        "What bit the cat?"

    d. **indʒɛ** lo batto   ti-s-a
        dog   FOC cat.ACC 3sg-bite-PST
        "THE DOG bit the cat."

lo must find its argument to its left, and cannot occur in subject-pro-drop sentences, as illustrated in (23).

(23) a. * lo   asuman ti-ɲan-a
        FOC Asuman 3sg-eat-PST
        Intended: "ASUMAN ate."

    b. (*lo) a-ɲan-a
        FOC 1sg-eat-PST
        "I ate."

More generally, *lo* occupies a consistent post-DP position. For example, in the genitive *wh*-question in (24a), *lo* is separated from *ŋga* 'who', instead appearing to the right of the entire DP *mutʃo ŋga-ta-gi* "whose wife." The answer in (24b) also displays a separation from the focused element—*ismael*—and *lo*. This is an instance of "focus pied-piping" or "partial focus movement"—also found in Hausa (Hartmann & Zimmermann 2007b)—where only part of the syntactically focus-marked material is pragmatically understood as focused. (25) shows that pied-piping is obligatory in this construction.

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[13]*lo* (glossed FOC) is perhaps morphologically related to *tilo* 'one'. *lo* is listed in SIL's Masalit-French dictionary as *FOCALIS, c'est...*, p.50. In their Masalit orthography statement, SIL writes "*lo*: emphasis of a subject ('it is he who...')."

(24) **Possessor focus with** *lo*

    a.   mutʃo **ŋga**-ta-gi   **lo** hawa-ko ti-kel-a
          woman who-3sg.POSS-DEF FOC Hawa-ACC 3sg-see-PST
          "Whose wife saw Hawa?"

    b.   **ismael**-ta-gi   **lo** hawa-ko ti-kel-a
          Ismael-3sg.POSS-DEF FOC Hawa-ACC 3sg-see-PST
          "ISMAEL'S (wife) saw Hawa."

(25) a. * mutʃo **ŋga**-lo-ta-gi   mboro Ø-ndi-kel-a
          woman who-FOC-3sg.POSS-DEF 2sg.ACC 2sg-INV-see-PST
          Intended: "Whose wife saw you?"

    b. * harun **lo**-ta-gi   amboro a-ndi-kel-a
          Harun FOC-3sg.POSS-DEF 1sg.ACC 1sg-INV-see-PST
          Intended: "Harun's wife saw me."

A similar effect exists when adjectives are (contrastively) focused: in (26), even though the adjective is the contrasting element, the entire DP containing the adjective appears to the left of *lo*:

(26) **(Contrastive) adjective focus with** *lo*

    buta **mugula**-gi lo a-ndi-lfil-a   **sowana**-gi ra-nde
    stick heavy-DEF FOC 1sg-INV-hit-PST small-DEF COP-NEG

    "The HEAVY stick hit me, not the small (one)."

    lo can mark DPs of various morphological structures. (27-29) show that *lo* can follow coordinated DPs and plural interrogative pronouns, independent pronouns, and embedded subjects. (29) shows that *lo* can appear simultaneously in an embedded and matrix clause.

(27) a.   **Plural DPs with** *lo*

          ŋga-ta lo summo   wa-k-a
          who-PL FOC market.ACC 3pl-go-PST
          "Who.pl went to the market?"

    b.   [**adam-mbo jaja-mbo**] lo summo   wa-k-a
          Adam-COM Yahya-COM FOC market.ACC 3pl-go-PST
          "ADAM AND YAHYA went to the market."

    c.   **kimiɲ kali as** lo kodoka tile-m   sa   wa-ŋ-e
          child.PL girl four FOC calabash one-LOC water 3pl-drink-PRS
          "Four girls are drinking from a single calabash."
          (SIL (2010), *Ajaja* 'Riddles', p.3)

(28) **Pronouns with** *lo*

a. **ama** lo a-ɲan-a
1sg FOC 1st-eat-PST
"I ate."

b. **maŋ** lo ∅-ɲan-a
2sg FOC 2sg-eat-PST
"YOU ate."

(29) *lo* **in embedded clauses**

a. ama [**harun** lo hawa-ko to-ŋoɲ-e] rɛ
1sg Harun FOC Hawa-ACC 3sg-like-PRS say.PST
"I said that HARUN loves Hawa."

b. **ama** lo kuli-mbe-m [**ismael** lo su ti-niŋan-a] a-ser-e
1sg FOC heart-POSS.1sg-LOC Ismael FOC goat.ACC 3sg-steal-PST 1sg-see-PRS
"I strongly believe that ISMAEL stole the goat."

(lit. I see in my heart...)

Adverbials cannot intervene between a focused DP and *lo*, as shown in (30).

(30) a. hawa lo nije-mbo ti-ɲari
Hawa FOC strength-COM 3sg-run.PRS
"HAWA's running fast."

b. * hawa nije-mbo lo ti-ɲari
Hawa strength-COM FOC 3sg-run.PRS

lo cannot mark objects as focused, regardless of syntactic position. The following examples show that *lo* cannot mark accusative interrogative pronouns or other DPs in object position.

(31) **No *in situ* objects with *lo***

a. hawa **ŋga**-(*lo)**ko** (*lo) ti-kel-a
Hawa who-FOCACC FOC 3sg-see-PST
"Who did Hawa see?"

b. hawa **ŋgəru** (*lo) ti-lfil-a
Hawa what.ACC FOC 3sg-hit-PST
"What did Hawa hit?"

(32) a. hawa **harun**-(*lo)**ko** (*lo) ti-kel-a
Hawa Harun-FOCACC FOC 3sg-see-PST
"Hawa saw Harun."

b. hawa **do** (*lo) ti-lfil-a
Hawa cow.ACC FOC 3sg-hit-PST
"Hawa hit the cow."

Object DPs cannot host *lo* even if they appear clause-initially (more on object fronting in §2.2).

13

(33) **No *ex situ* objects with *lo***

    a.   **ŋga-(*lo)ko** (*lo) hawa ti-kel-a   / *ŋga lo hawa ti-kel-a
       who-FOCACC FOC Hawa 3sg-see-PST
       "Who did Hawa see?"

    b.   **harun-(*lo)ko** (*lo) hawa ti-kel-a   / *harun lo hawa ti-kel-a
       Harun-FOCACC FOC Hawa 3sg-see-PST
       "Hawa saw HARUN."

(34) a.   **ŋgəru**   (*lo) hawa ti-lfil-a   / *ŋgəri lo hawa ti-lfil-a
       what.ACC FOC Hawa 3sg-hit-PST
       "What did Hawa hit?"

    b.   **do**   (*lo) Hawa ti-lfil-a   / *de lo Hawa ti-lfil-a
       cow.ACC (FOC) Hawa 3sg-hit-PST
       "Hawa hit THE COW."

Finally, *lo* cannot appear to the right of verbs, PPs, or adjuncts, as illustrated in (35-37).

(35) **No verb focus with *lo***

    a.   jaja   ta-r-a   (*lo)
       Yahya 3sg-come-PST FOC
       "Yahya arrived."

    b.   jaja   lo   ta-r-a
       Yahya FOC 3sg-come-PST
       "YAHYA arrived." Not: "Yahya ARRIVED."

(36) **No PP focus with *lo***

    a.   jaja   asurti-m (*lo) ti-nd-e
       Yahya field-LOC FOC 3sg-stay-PRS
       "Yahya is in the field."

    b.   asurti-m (*lo) jaja   ti-nd-e
       field-LOC FOC Yahya 3sg-stay-PRS
       "Yahya is in the field."

(37) **No adjunct focus with *lo***

    a.   **ŋganam** (*lo) jaja   ta-r-a
       when   FOC Yahya 3sg-come-PST
       "When did Yahya arrive?"

    b.   **gendegu** (*lo) jaja   ta-r-a
       yesterday FOC Yahya 3sg-come-PST
       "Yahya arrived yesterday."

Subject/non-subject asymmetries in morphosyntactic focus marking are widely attested cross-linguistically, particularly in African languages (Eaton 2005; Hartmann et al. 2007; Reineke 2007;

Schwarz & Fiedler 2007; Fiedler et al. 2009; etc.). The asymmetric distribution of *lo* is discussed in detail in §2.3.

2.2 Object focus

Object constituent questions are formed with an accusative case interrogative pronoun, which may occur in its canonical position (*in situ*), or in a clause-initial (*ex situ*) position:

(38) *In situ* **object questions**

    a.   jaja   **ŋgo**   to-ron-a
           Yahya what.ACC 3sg-buy-PST
           "What did Yahya buy?"

    b.   jaja   **ŋga-ko**   ti-kel-a
           Yahya who-ACC 3sg-see-PST
           "Who did Yahya see?"

    c.   jaja   **ŋgəru**   te-n-a
           Yahya what.ACC 3sg-do-PST
           "What did Yahya do?"

(39) *Ex situ* **object questions**

    a.   **ŋgo**   jaja   to-ron-a
           what.ACC Yahya 3sg-buy-PST
           "What did Yahya buy?"

    b.   **ŋga-ko** jaja   ti-kel-a
           who-ACC Yahya 3sg-see-PST
           "Who did Yahya see?"

Instead of being marked with *lo*, objects can be focused in a number of ways. In response to an *in situ* (S O V) or *ex situ* (O S V) object constituent question, one may respond with the orders S O V, with the object morphosyntactically unmarked ((40a)), O S V, with the object fronted ((40b)), or S$_i$ pronoun$_i$ O V, where the subject is topicalized, thus indirectly indicating that the object is to be understood as focused ((40c)).[14] For example, (40abc) are possible answers to the questions in (38a) and (39a).[15] While word-order congruence between questions and answers is preferred (e.g. (40a) is judged to be a better answer to (38a) than it is to (39a)), it does not appear to be obligatory.

---

[14]The subject-topicalization strategy for object focus is also found in Bagirmi (cf. Jacob 2005) and Hausa (cf. Hartmann & Zimmermann 2007b). See Hartmann & Zimmermann 2007b for general discussion of topic marking as indirect focus marking.

[15]Topicalization in Masalit is achieved by doubling the topic expression with a coreferential pronoun that matches the topic in person, number, and case, e.g. as in (40c). Topic marking appears to be a left-dislocation construction involving a resumptive pronoun. While additional research is needed to verify this claim, (i) shows that interrogative pronouns and nonspecific indefinites—characteristic non-topics—are incompatible with doubling:

(40) **Object focus configurations**

    a. jaja **su** to-ron-a
      Yahya goat.ACC 3sg-buy-PST

    b. **su** jaja to-ron-a
      goat.ACC Yahya 3sg-buy-PST

    c. **jaja ti** su to-ron-a
      Yahya 3sg goat.ACC 3sg-buy-PST
      "Yahya bought A GOAT.

As expected, the object-focus configurations in (40b-40c) are not possible answers the subject constituent question *ŋga (lo) su torona?* "who bought a goat?".

2.3 The asymmetric distribution of *lo*

Fiedler et al. (2009) show that many West African languages display the following asymmetries with respect to morphosyntactic focus marking:

(41)   a.   **Marking Asymmetry:** Subject foci must be grammatically marked; non-subject foci need not be.

  (i)   **Context**: Upon entering room, speaker's water cup is empty.

    a.   ŋga (*ti) sa-mbe-ŋa ta-ŋan-a
      who (3sg) water-1sg.POSS-PL 3sg-drink-PST
      "Who drank my water?"

    b.   kaŋgi tu (*ti) sa-mbe-ŋa ta-ŋan-a
      person some (3sg) water-1sg.POSS-PL 3sg-drink-PST
      "Someone drank my water!"

Further, a constituent that is pragmatically understood as focused cannot be doubled, as shown in (ii-iii). This is due to the complementary nature of topic and focus.

  (ii)   a.   adam nguri je
      Adam where COP
      "Where's Adam?"

      b.   adam ti dara-m ti-nd-e
        Adam 3sg dara-LOC 3sg-stay-PRS
        "Adam, he's at the dara."

  (iii)   a.   ŋga dara-m ti-nd-e
      who dara-LOC 3sg-stay-PRS
      "Who is at the dara?"

      b.   adam (#ti) dara-m ti-nd-e
        Adam (3sg) dara-LOC 3sg-stay-PRS
        "Adam is at the dara."

b. **Structural Asymmetry:** Subjects are focused using a morphological, syntactic, and/or prosodic strategy which is not used for other types of constituents.

Similar asymmetries exist in Bagirmi (Nilo-Saharan, Chad) (Jacob 2005) and Sandawe (Khoisan, Tanzania) (Eaton 2005), showing that the phenomena are not particular to West African languages. In Masalit, only nominative subjects may be focused with *lo*, exemplifying something similar to property (41b).[16]

Fiedler et al. offer a functional explanation for the widely-observed patterns described in (41): "Focused subjects must be marked, often in a special way, in order to avoid a default interpretation of grammatical (preverbal) subjects as topics." (Fiedler et al. 2009:235) The idea of unmarked subjects as default topics goes back at least to Givón (1976), and has been advocated as an explanation for subject/non-subject focus asymmetries by other authors as well (e.g. Jacob 2005).

Masalit provides a unique perspective on subject/object focus asymmetry. Recall that in Masalit, some intransitive predicates ("medium predicates") select for a single accusative argument, as in (42).

(42) a. jaja-ko   to-maɲ je
          Yahya-ACC 3sg-good COP
          "Yahya's healthy."

      b. jaja-ko   to-maɲ-nde
          Yahya-ACC 3sg-good-NEG
          "Yahya's sick."

      c. jaja-ko   wadʒi ti-je
          Yahya-ACC hunger 3sg-COP
          "Yahya's hungry."

The DP arguments of these predicates cannot host *lo*, nor can an interrogative pronoun in this position, as illustrated in (43).

(43) **Arguments of medium predicates reject** *lo*

      a. **ŋga-ko**   (*lo) to-maɲ-nde   / ***ŋga** lo to-maɲ-nde
          who-ACC FOC 3sg-good-NEG
          "Who is sick?"

      b. **jaja-ko**   (*lo) to-maɲ-nde   / ***jaja** lo to-maɲ-nde
          Yahya-ACC FOC 3sg-good-NEG
          "YAHYA is sick."

---

[16]Based on my own observations, the occurrence of *lo* in subject-focus inducing contexts appears to be more frequent than O S V ordering in object-focus inducing contexts. This suggests that Masalit has a kind of Marking Asymmetry as well. Quantitative evidence would be needed to verify this claim, which is left for future investigation.

In Masalit, arguments of intransitive medium predicates pattern like transitive objects in various other ways, as well. Recall that person/number transitive verbal agreement is with the object, unless it is third-person (Wood 2010). When verbal agreement is with the object, "inverse morphology" is present (-*ndo*- in (44ab)).

(44) a. ti amboro a-**ndo**-ŋoɲ-e
          3sg 1sg.ACC 1sg-INV-like-PRS
          "S/he loves me."   (INV; OBJ agreement)

      b. ti mboro ∅-**ndo**-ŋoɲ-e
          3sg 2sg.ACC 2sg-INV-like-PRS
          "S/he loves you."   (INV; OBJ agreement)

      c. ti tiro   to-ŋoɲ-e
          3sg 3sg.ACC 3sg-like-PRS
          "S/he loves him/her."   (no INV; SBJ agreement)

Arguments of medium predicates show the same agreement pattern:

(45) **Medium predicates show object agreement**

      a. amboro a-**ndo**-maɲ je
          1sg.ACC 1sg-INV-well COP
          "I'm healthy."   (INV; OBJ agreement)

      b. mboro ∅-**ndo**-maɲ je
          2sg.ACC 2sg-INV-well COP
          "You're healthy."   (INV; OBJ agreement)

      c. tiro   to-maɲ je
          3sg.ACC 3sg-well COP
          "S/he's healthy."   (no INV; SBJ agreement)

This agreement is not triggered by arguments of active intransitive predicates:

(46) **Active predicates show subject agreement**

      a. ama a-ɲari
          1sg 1sg-run.PRS
          "I run."   (no INV; SBJ agreement)

      b. maŋ ∅-ɲari
          2sg 2sg-run.PRS
          "You run."   (no INV; SBJ agreement)

      c. ti ti-ɲari
          3sg 3sg-run.PRS
          "S/he runs."   (no INV; SBJ agreement)

Therefore, arguments of medium predicates trigger the same verbal agreement patterns that transitive objects—and not subjects—do.

Relativized arguments of medium predicates also follow the morphological pattern of object relatives, as shown by the absence of *nV-* 'REL.SBJ' in (47) (cf. (16-17) for subject/object relatives):

(47)   kaŋgi to-maɲd-a-gi   Ɂəɪ je
            person 3sg-good.NEG-PST-REL.SG there COP
            "The person who was sick is over there."   (no *nV-*; OBJ relative)

(43-47) show that arguments of medium predicates pattern like objects—and not subjects—of transitive clauses with respect to focus, verbal agreement, and relativization. This suggests that they occupy the same structural position as transitive objects.

Assuming an identification between subjecthood and nominative structural Case, the selectional properties of *lo* can be equivalently described in terms of structural Case or grammatical function. That the restriction cannot be stated in terms of *morphological* case is shown by (48): in copular predication constructions, a nominal predicate is not accusative-marked, but cannot be marked with *lo*.

(48)   a.   jaja   kaŋgi (*lo) re
               Yahya person FOC COP
               "Yahya is a person."

        b. * kaŋgi lo jaja   re
              person FOC Yahya COP
              Intended: "Yahya is A PERSON."

It should also be noted that some nouns in Masalit lack overt accusative case inflection altogether, such as many plural forms, and *sa* 'water.ACC/NOM', *mutʃo* 'wife/woman.ACC/NOM' (König 2008:62). These nouns also cannot be marked with *lo* when they are objects, regardless of syntactic position.

The descriptive generalization concerning the distribution of *lo* could be stated equivalently as (49a) or (49b):

(49)   a.   A DP can be focused with *lo* if and only if it is a subject.

        b.   A DP can be focused with *lo* if and only if it bears nominative structural Case.

The distribution of *lo* is strikingly similar to the focus morpheme *an* in Maba, a closely related language. According to Weiss (2009:329), *an* marks animate subjects as focused, and also occurs to the right of *ɲà:* 'who' in subject constituent questions. *ɲà:* 'who' is case-marked with *-gu* 'ACC'

in object constituent questions (parallel to *ŋga-ko*; cf. (38b),(39b)), and appears to the left of *ma*—an apparent allomorph of *an*—in sentence-initial position. *ma* is used to focus elements that are not animate subjects. This is illustrated in (50):[17]

(50) a. ɲàː **án** Φ-ndìdìs-á-r-ì,   àm síb á-r=nù?
          who EMPH TH-2sg.say-PST-PL-DECL 1sg sew 1sg-AUX-SUB
          "Who is it that told you that me, I sew?"
          (Maba, Weiss 2009:329)

    b. ɲàː=gú **má** l-ɔ̀kɔ́y?
          who=ACC EMPH TH-see.DECL
          "Who do you see?"
          (Maba, Weiss 2009:330)

As can be seen from (50), there is different realization of focus morphology depending on the case (or possibly grammatical function) of the focused element (in this case, interrogative pronoun) in Maba. For both subject and object constituent questions, the interrogative pronoun appears sentence-initially and receives focus morphology. The alternation between *an* and *ma* in Maba resembles the alternation between *lo* and ∅ in Masalit. In Masalit, however, *lo* does not have an animacy restriction:

(51) **Inanimate subject with** *lo*

    bille-gi   lo a-ndi-lfil-a
    boomerang-DEF FOC 1sg-INV-hit-PST

    "THE BOOMERANG hit me."

The data from Masalit appear to be compatible with the Fiedler et al. (2009) functional explanation for subject/non-subject asymmetry, provided that "subject" is understood in the way indicated above, i.e. as "nominative core argument."[18] Again, though, it is difficult to evaluate their proposed explanation without a concrete and cross-linguistically applicable definition of "subject." If all intransitive arguments are taken to be "subjects," then the Masalit data would not be compatible with this explanation.

---

[17]Weiss's (2009) original translations for (50a) and (50b) are *C'est qui qui t'a dit que moi, je cousais?* and *Qui vois-tu?* respectively. The English renderings here are my own. The glosses in (50) are: AUX = auxiliary; DECL = declarative; EMPH = emphasis; SUB = subordination; TH = thematic prefix.

[18]Note though that subject positions are not always reserved for topics cross-linguistically. For example, Chris Collins (p.c.) observes that idiom chunks in English can occupy the canonical subject position, despite clearly not being potential topics (e.g. *the cat appears to be out of the bag*). Expletives and nonspecific indefinites are also clearly non-topical but nevertheless are suitable subjects. It is possible that subject positions are characteristically topical in some languages, but not in others.

Differential focus marking that is definable in terms of case is also found in Somali, in which focused subjects obligatorily appear in absolutive case (Frascarelli & Puglielli 2007), and in Zaghawa, in which focused A (transitive subject) constituents are marked differently than focused O/S (transitive object and intransitive argument) constituents (Jakobi 2006). This is illustrated below for Zaghawa:[19]

(52) a.   náá=**dî**   nɛ̀-gɛ̀r-ɡ-ì
            PP:2sg=FOC$_{\text{ABS}}$ OJ:2-look.for-SJ:1sg-IPV
            "It's you I am looking for."
            (Zaghawa, Jakobi 2006:137)

      b.   bágú-ɔ́gɔ́=**gú**   ∅:kú-gú-r-í
            wife-POSS:3sg=FOC$_{\text{ERG}}$ OJ:3:PFV:3-call-SJ:3-PFV
            "It's his wife who called him."
            (Zaghawa, Jakobi 2006:136)

Futhermore, some ergative/absolutive languages mark focus differentially depending on thematic role (cf. Stiebels 2006). The interaction of case marking and focus marking—or why such an interaction should exist at all—is not well-studied, and deserves further investigation (but see König 2008:§5.4).

2.4   A left-peripheral analysis of subject/object focus marking

This section entertains three possible syntactic structures for sentences containing *lo*. I argue that sentences containing *lo* are not clefts, but involve raising of the subject to the specifier of a left-peripheral functional projection, the "focus phrase." The analysis is extended to OSV object focus.
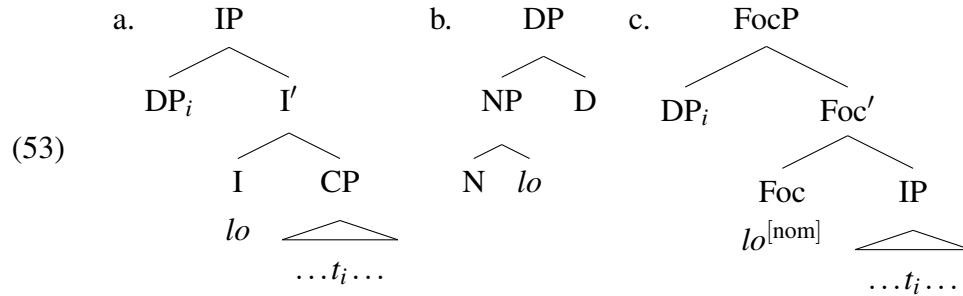
Concerning the syntactic status of the morpheme *lo*, there are (at least) three possible analyses:

1. *lo* is a copular element occupying I. Therefore the configuration [S *lo* O V] involves a biclausal cleft structure.

2. *lo* is an inflectional case morpheme that surfaces only in focus-inducing contexts.

3. *lo* is the head of a left-peripheral functional projection FocP. The DP to the left of *lo* occupies the specifier of this projection. *lo* selects for nominative specifiers.

Basic structures representing these analyses are given in (53).[20]

---

[19]The glosses in (52) are: ABS = absolutive; ERG = ergative; IPV = imperfective marker; OJ = object marker; PFV = perfective; PP = personal pronoun; PP = personal pronoun.

[20](53c) is not meant to represent a complete picture of the Masalit C-system; see 2.2.

(53)

a.

```
        IP
      /    \
   DP_i     I'
          /    \
         I      CP
         lo    /‾‾‾\
             …t_i…
```

b.

```
      DP
    /    \
   NP     D
  /  \
 N    lo
```

c.

```
          FocP
        /      \
      DP_i      Foc'
              /      \
           Foc        IP
           lo^[nom]  /‾‾‾\
                   …t_i…
```

In (53a), *lo* is a kind of focus copula. Such morphemes are attested, e.g. in Bura (cf. Hartmann et al. 2007); many focus morphemes have developed historically from copulas (Julia Horvath, p.c.). Clefting is an extremely common focus strategy, found in genetically unrelated languages, e.g. Chadic, Germanic, Romance, etc. The nominative restriction on *lo* would follow from (53a) assuming that [Spec,IP] is a nominative Case position.

In (53b), *lo* is an inflectional morpheme morphosyntactically on a par with *-ko* 'ACC'. Gradual transformation of a focus morpheme into a case morpheme is attested, e.g. in Khwe (cf. König 2008:276). If this is the case in Masalit, then *-ko* could have been an accusative form of *lo* historically, but has been grammaticalized as a case morpheme, or possibly *lo* could have been a simple nominative marker, but has been grammaticalized as a focus morpheme. A variant of (53b) would analyze DP+*lo* as a constituent.

In (53c), *lo* is the head of a functional projection FocP. Focused elements must raise to *lo*'s specifier to check their [+f(ocus)] feature against *lo* (Aboh 2004:249). Functional focus morphemes are found widely in African languages, often occupying positions in the C-domain (cf. Collins 1994; Aboh 2004; etc.). In Masalit, *lo* selects for nominative case specifiers.[21] Here I show that (53c) is the correct analysis for *lo*.

For concreteness, we will consider the sentence in (22b), repeated as (54).

(54)   jaja   lo   su   to-ron-a
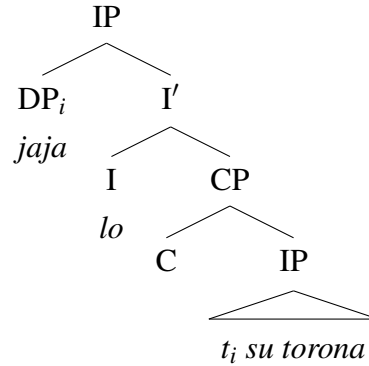   Yahya FOC   goat.ACC 3sg-buy-PST
       "YAHYA bought a goat."

2.4.1 The cleft analysis

On a cleft analysis, (54) would receive the structure in (55b).

(55)   a.   jaja   lo   su   to-ron-a
            Yahya FOC   goat.ACC 3sg-buy-PST
            "YAHYA bought a goat."

---

[21]This is not to say that Foc is involved with case assignment/licensing/checking, which I assume takes place in the I-system.

b.

```
                              IP
                          ╱      ╲
                      DP_i        I′
                      jaja      ╱    ╲
                              I       CP
                              lo    ╱    ╲
                                  C       IP
                                        ╱    ╲
                                    t_i su torona
```

There are three reasons to reject this analysis. First, if *lo* were a copular element, we should expect to see person/number agreement between it and the focused element. In Masalit, the copula agrees with the subject, as illustrated in (56).

(56) "I/you/… am/are… Masalit."

sg	1	ama	masara	je
	2	maŋ	masara	ge
	3	ti	masara	re
pl	1	mi	masara	me
	2	ki	masara	ke
	3	i	masara	je

(57) shows that the form of *lo* remains constant when the person and number features of the focus are varied. In other words, *lo* is morphologically invariant, failing to show person/number agreement.

(57) a. ama/maŋ/ti lo   a/Ø/ti-ɲan-a
          1sg/2sg/3sg FOC 1sg/2sg/3sg-eat-PST
          "I/YOU/(S)HE ate."

      b. mi lo   mi-ɲan-a
          1pl FOC 1pl-eat-PST
          "WE ate."

Note also that copular elements tend to occur sentence-finally (as in (56)), whereas *lo* must occur immediately following the subject. This suggests that IP is head-final in Masalit. If so, the cleft analysis predicts that *lo* should pattern syntactically like a copula, which I have shown that it does not.

Second, if the *lo*-construction were a cleft, then the post-*lo* CP should show relative morphology. In Masalit, relative clauses have morphological properties that distinguish them from matrix clauses. For example, compare (58a) with (17a), repeated as (58b).

(58) a. mutʃo ta-k-a
woman 3sg-leave-PST
"A/the woman left."

b. mutʃo na-k-a-gi ʔəɪ je
woman REL.SBJ-leave-PST-REL.SG there COP
"The woman who left is over there."

VPs following *lo* lack relative morphology. This fact is illustrated in (59).

(59) jaja lo ta-k-a
Yahya FOC 3sg-leave-PST
"YAHYA left."

In other clear cases of clefting in Masalit, such as (60), relative morphology is present.[22]

(60) a. habu-tu [harun-ko ni-s-a-gi] ŋgəri te
thing-some Harun-ACC REL.SBJ-bite-PST-REL.SG what 3sg.COP
"What's the thing that bit Harun?"

b. habu-tu [harun-ko ni-s-a-gi] taraŋ-gi re
thing-some Harun-ACC REL.SBJ-bite-PST-REL.SG snake-DEF COP
"The snake's the thing that bit Harun."

Finally, the copular element *te* may intervene between a clefted element and a relative clause, as in (61a). *lo* cannot appear in this environment without a copular element:

(61) a. jaja te [na-k-a-gi]
Yahya 3sg.COP REL.SBJ-leave-PST-REL.SG
"Yahya is who left."

b. jaja lo [na-k-a-gi] *(re)
Yahya FOC REL.SBJ-leave-PST-REL.SG 3sg.COP
"YAHYA is who left."

The fact that a sentence-final copular element is required in (61b) but not in (61a) shows that *lo* is not a copula, and hence the *lo*-construction is not a biclausal cleft.

2.4.2 The nominative morpheme analysis

Given the discussion in §2.1-2.3, one might suspect that *lo* is just a nominative case marker that only appears in focus contexts. If this were correct, *lo* would be syntactically parallel to *-ko*. But this is very clearly not the case. For example, *-ko* cannot attach to coordinated DPs, whereas *lo* can.

---

[22]*te* is possibly an emphatic or focusing copula, as it commonly occurs in clefted questions and answers. In SIL's Masalit-French dictionary, *te* is glossed as *EMPHASE? véracité, certainement, avec certitude* (p.88).

(62) a. ama [adam-mbo jaja-mbo](*-ko) a-ŋoɲ-e
        1sg Adam-COM Yahya-COM-ACC 1sg-like-PRS
        "I like Adam and Yahya."

b. [adam-mbo jaja-mbo] lo summo   wa-k-a
    Adam-COM Yahya-COM FOC market.ACC 3pl-go-PST
    "ADAM AND YAHYA went to the market."

Furthermore, the relative ordering between the particle *de* 'only' and *lo* is different than between *de* and *-ko*, suggesting DP+*ko* forms a constituent, whereas DP+*lo* does not.

(63) a. adam hawa-ko   de ti-kel-a
        Adam Hawa-ACC de 3sg-see-PST
        "Adam only saw HAWA."

b. * adam hawa de ko   ti-kel-a
      Adam Hawa de ACC 3sg-see-PST

(64) a. adam de lo   hawa-ko   ti-kel-a
        Adam de FOC Hawa-ACC 3sg-see-PST
        "Only ADAM saw Hawa."

b. * adam lo   de hawa-ko   ti-kel-a
      Adam FOC de Hawa-ACC 3sg-see-PST

Finally, in contexts where accusative case is not realized as *-ko*, *lo* may still appear: *-gi* in (65a) is the nominative (or unmarked) form of the definite article. If *lo* and *-ko* were syntactically parallel, we should expect to see *-ko* realize accusative case in (65b).

(65) a. asuman mutʃo-ta-**gi**
        Asuman woman-3sg.POSS-DEF
        "Asuman's wife" (nominative)

b. asuman mutʃo-ta-**go**
    Asuman woman-3sg.POSS-DEF.ACC
    "Asuman's wife (accusative)"

c. asuman mutʃo-ta-gi   lo
    Asuman wife-3sg.POSS-DEF FOC
    "Asuman's wife (nominative, focused)"

From (62-65), I conclude that *lo* is not an inflectional case morpheme.

2.4.3 The left-peripheral analysis

Morphemes semantically and syntactically similar to *lo* have been analyzed as functional heads occupying a left-peripheral projection FocP (e.g. Collins 1994; Aboh 2004, a.o.). FocP was

proposed as part of the split-C hypothesis of Rizzi (1997) to account for relative ordering constraints in the Italian C-system, and has been implemented in the analysis of focus morphology. In Aboh's (2004:235-289) analysis of Gungbe, the morpheme *wɛ̀* is the realization of the head of FocP. This accounts for the fact that focused elements undergo leftward movement plus *wɛ̀*-marking. In Gungbe, the focused element occupies [Spec,FocP], and *wɛ̀* occupies Foc. For Aboh, this movement is driven by the need for the focused expression to check its focus ([+f]) feature in a Spec-head configuration (Aboh 2004:248-259)

Here I propose an analysis of the *lo*-construction which is built directly on Aboh's analysis of Gungbe: *lo* is the head of FocP. In contrast to *wɛ̀*, *lo* selects for nominative case DP specifiers. *lo* alternates with a null accusative focus head, accounting for the fact that object fronting is a focus strategy in Masalit. Given (53c), (54) (repeated as (66a)) has the structure in (66b) (irrelevant details suppressed):[23]

(66) a. jaja lo su to-ron-a
Yahya FOC goat.ACC 3sg-buy-PST
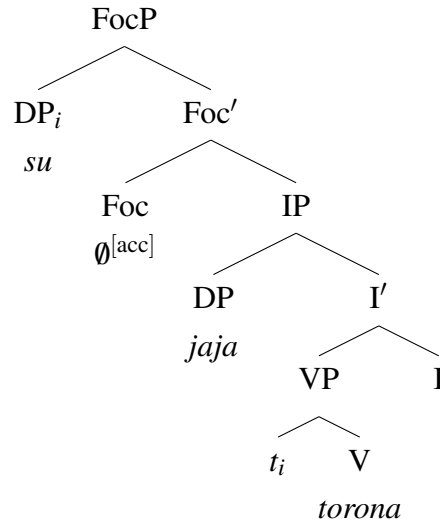"YAHYA bought a goat."

b.
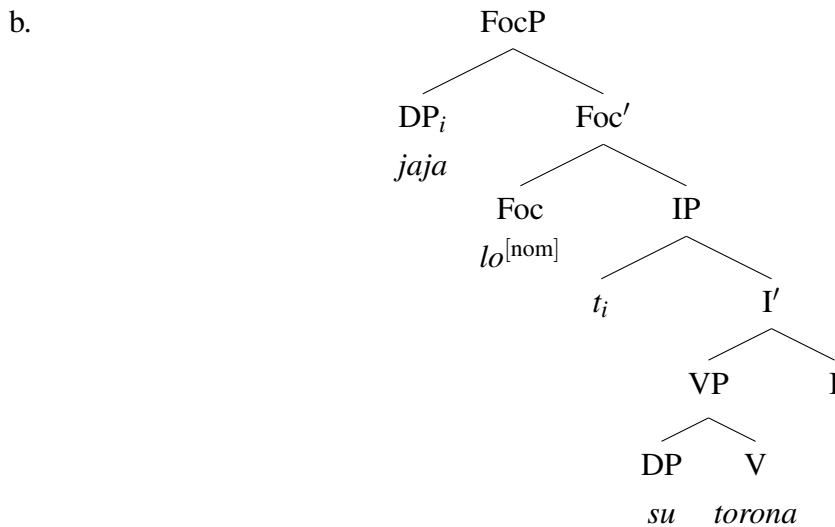
If *lo* selects for nominative DPs, it follows that *lo* cannot mark transitive objects or arguments of intransitive medium predicates. If we assume a null allomorph of *lo* that selects for accusative specifiers, OSV object focus can also be analyzed as movement to [Spec,FocP], as in (67b).

(67) a. su jaja to-ron-a
goat.ACC Yahya 3sg-buy-PST
"Yahya bought A GOAT."

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[23]One peculiarity of (66) is that IP and VP are plausibly head-final, whereas FocP is head-initial. It is possible that Masalit is a mixed-headed language, being head-final in the I-system and head-initial in the C-system. I will leave this issue for future investigation.

b.

```
                        FocP
                       /    \
                   DP_i      Foc′
                    su      /    \
                         Foc      IP
                       ∅^[acc]   /   \
                               DP     I′
                              jaja   /  \
                                   VP    I
                                  /  \
                                 t_i   V
                                     torona
```

Verb fronting is not a focus strategy (cf. §1.2.1 and 3.1); since verbs are not case-bearing elements, this fact immediately follows. In Gungbe verbs (and elements of other categories) can also be focused with fronting+*wɛ̀* (Aboh 2004:240). The primary difference between Gungbe and Masalit with respect to focus morphology, then, is that *lo* requires a more specific type of specifier than *wɛ̀* does. There is considerable variability in the selectional properties of focus morphemes cross-linguistically; e.g. in Kisi, all morphologically focused (non-nominal) elements are obligatorily nominalized (Childs 2009). See Hartmann & Zimmermann 2007a:217-219 for discussion of "category-dependent focus strategies" in Chadic languages.

Finally, note that this analysis could be extended to the lexical marker *an* in Maba (cf. (50)), with the additional requirement that *an* selects for animate specifiers.

3 Focus on verbal categories

3.1 Narrow V and VP focus

Masalit does not morphosyntactically mark focus on verbs. For example, (68b) is an appropriate answer to (68a), and (69b) is an appropriate answer to (69a).

(68) a. hawa ŋgəru ti-g-e
Hawa what.ACC 3sg-do-PRS
"What is Hawa doing?"

b. hawa ti-ɲari
Hawa 3sg-run.PRS
"Hawa's RUNNING."

(69) a. harun ŋgəru te-n-a do
Harun what 3sg-do-PST cow.ACC

"What did Harun do to the cow?"

b. harun do ti-lfil-a
Harun cow.ACC 3sg-hit-PST
"Harun HIT the cow."

As shown in (35ab), verbs cannot be focused with *lo*. Furthermore, there is no evidence that verb-fronting is a focus strategy in Masalit. As verbs do not possess case features, this fact is predicted by the analysis in (53c). There appears to be no morphosyntactic marking of narrow-verb new-information focus in Masalit. The same is true of VP focus, as shown in (70).

(70) a. harun ŋgəru te-n-a
Harun what 3sg-do-PST
"What did Harun do?"

b. harun do ti-lfil-a
Harun cow.ACC 3sg-hit-PST
"Harun HIT THE COW."

Although focus on verbal categories is unmarked morphosyntactically in Masalit, we will see in §4.1 that contrastive VP focus in the presence of the particle *de* 'only' requires special nominalization morphology.

3.2 Marking asymmetry between verbal and nominal constituents

The contrast between the left-peripheral focus strategy for DPs and the lack of morphosyntactic focus marking on verbal constituents represents another asymmetry in the Masalit focus system. Relative lack of focus marking on verbal elements in languages with morphosyntactic DP focus is also found in Tangale (Hartmann & Zimmermann 2007a) and Bura (Hartmann et al. 2007). Hartmann & Zimmermann (2007b) suggest that the consistent and uniform marking of focus across grammatical categories and syntactic constituent types in intonational languages does not reflect a general property of language, but is specific to intonational languages. From this perspective, the lack of morphosyntactic focus marking on verbal elements in Masalit is not particularly surprising (though why this might hold of languages in the first place is not well-understood). It should be emphasized that acoustic correlates of focus—if they exist at all—are not well studied for many languages with asymmetric morphological focus marking (including, of course, Masalit).

4 Association with the exclusive particle *de*

This section discusses the exclusive focus particle *de* 'only'. I show that *de* has an adnominal syntax which requires a DP to appear immediately to its left. This syntactic property results in

the configuration [S O *de* V] being ambiguous between a narrow-object focus reading, and a "projected" VP focus reading.[24][25] These facts are accounted for by the assumption that *de* heads a left-headed structure in all contexts. *de* is subject to the syntactic requirement that a DP fill its specifier, so that the configuration [DP *de*] is analyzed as [DP$_i$ [*de* t$_i$]]. This analysis straightforwardly derives the ambiguity between object and VP focus.[26] I also show how combining the left-headed analysis of *de* with a Rooth (1985)-style semantics, accounts for its dual use in modal contexts.

4.1 Basic distribution and analysis of *de*

In its most common use, the particle *de* conveys that its argument is the unique element of the set of relevant alternatives that has a certain property. In this sense, it is semantically similar to the exclusive particles *only* in English and *nur* in German (on their non-scalar interpretations). For example, (71a) states that Adam came to the speaker's house, but that no one else did. When *de* follows a subject, it is usually followed by *lo*. (71b) shows that *lo* cannot precede *de*, suggesting that *de* requires a DP to its left, and that DP+*lo* does not form a constituent.

(71) a. adam **de** lo toŋgo-mini-m ta-r-a
Adam de FOC house.ACC-POSS.1pl-LOC 3sg-come-PST
"Only ADAM came to our house."

  b. * adam lo **de** toŋgo-mini-m ta-r-a
Adam FOC de house.ACC-POSS.1pl-LOC 3sg-come-PST

(72) shows that *de* must find its argument to its left.

(72) a. asuman de su to-ron-a
Asuman de goat.ACC 3sg-buy-PST
"Only ASUMAN bought a goat." (NOT: "Asuman bought only a goat.")

  b. * de asuman su to-ron-a
de Asuman goat.ACC 3sg-buy-PST
Intended: "Only Asuman bought a goat."

Contrastive VP focus can be achieved with *de*. However, *de* cannot directly follow a verb (see (73a)). Instead, a nominalizing morpheme *-gu* or *-o/u* suffixes to the verb, forming a kind of

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[24]The possibility of narrow-verb focus in this configuration is unclear at present.

[25]Chris Collins (p.c.) reports that a similar ambiguity exists in Ewe, which also has postnominal focus particles.

[26]And is compatible with narrow-verb focus in this configuration under the assumption that semantic reconstruction is an optional process.

gerundive unit with the direct object (in transitive clauses).[27] In this construction, an auxiliary verb appears sentence finally.[28]

(73) a. * hawa ti-ɲari   de
          Hawa 3sg-run.PRS de
          Intended: "Hawa only runs."

     b.   hawa ti-ɲari-**gu**   de ti-g-e
          Hawa 3sg-run.PRS-NMLZ de 3sg-do-PRS
          "Hawa's only RUNS." (she doesn't do anything else)

-*o* is illustrated in (74a). If the suffix -*tu* appears on a verb, that verb may be followed by *de* ((74b)).[29]

(74) a. de-gi   harun ti-min-**o**   de te-n-a
          cow-DEF harun 3sg-kick-NMLZ de 3sg-do-PST
          "The cow only KICKED HARUN."

     b.   harun do   ti-lfin-**tu**   de te-n-a
          Harun cow.ACC 3sg-hit-tu de 3sg-do-PST
          "Harun only HIT THE COW." or "Harun only TRIED TO HIT THE COW."

(73-74) show that *de* can semantically take a VP as its argument, but requires an item with nominal syntactic properties to its left.[30] This stands in contrast to *nur* in German, which has similar semantic flexibility, but has adverbial syntactic properties (Büring & Hartmann 2001). See Hartmann & Zimmermann 2007c; Hartmann & Zimmermann 2007a for discussion of cross-linguistic variation in particle placement.

The availability of a narrow-verb focus reading of the configuration [S O V-NMLZ *de* Aux] is doubtful. For example, in truth-value-judgment tasks, sentence (75) is consistently judged as

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[27] The SIL Masalit-French glosses -*o* as *gerondif* and -*o/u* as *accus. sur V* (p.74).

[28] Alternation in auxiliary root in (73a) and (74) is related to perfective versus imperfective aspect; see Brillman (2011) for details.

[29] The semantics of -*tu* are not entirely clear—in some contexts, it has an irrealis meaning similar to *try*.

[30] The additive particle *koj*, homophonous with the universal quantifier *koj* 'all' appears to have a similar property:

(1) a. * hawa ti-ɲari   ti te-tʃek-e   koj
          Hawa 3sg-run.PRS 3sg 3sg-laugh-PRS koj
          Intended: "Hawa's running; she's also laughing."

     b.   ... ti   te-tʃek-**u**   koj ti-g-e
          3sg 3sg-laugh-NMLZ koj 3sg-do-PRS
          "...she's also laughing."

Further discussion of the particle *koj* is beyond the scope of the present paper.

false when the context entails the truth of the narrow-verb focus reading and the falsehood of the VP-focus reading.[31]

(75) hawa [harun-ko ti-lfin-tu]$_F$ de ti-g-e
      Hawa Harun-ACC 3sg-hit-NMLZ de 3sg-do-PRS
      "Hawa only HITS HARUN." (like her hobby is to hit Harun)

This fact suggests that the suffixes *-o/-gu/-tu* attach to VPs which are then arguments of *de*. Therefore, the sister of *de* is its syntactic and semantic argument in the case of the nominalized VP focus construction.

The configuration [S O *de* V] can be used for narrow-object or VP focus.[32] The following sequences illustrate these readings.

(76) a. hawa [mada de ta-ŋg-e]$_F$ habu-tu   to   ti-g-e-nde
          Hawa mada de 3sg-drink-PRS thing.ACC-some other 3sg-do-PRS-NEG
          "Hawa only DRINKS MADA, she does nothing else."

      b. hawa [sa]$_F$ de ta-ŋg-e   ti mada ta-ŋg-e-nde
          Hawa water de 3sg-drink-PRS 3sg mada 3sg-drink-PRS-NEG
   "Hawa only drinks WATER, she doesn't drink mada."

In the configuration [S O *de* V], the semantic argument of *de* is therefore underdetermined in the sense that [S O *de* V] can be used for VP or narrow-object focus.[33] This fact is difficult to derive if *de* is analyzed as a determiner that takes a DP complement to its left, as might be naturally assumed given the strongly head-final features of Masalit. If instead we take *de* to be the head of a left-headed projection, though, we can then analyze the fact that a DP must appear to the left of *de* as obligatory movement of a DP to its specifier.[34] For example, in a simple DP focus construction with *de*, the following schematic derivation results in the observed linear ordering:

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[31]In the scope of *de* or *only*, it is logically impossible for a VP-focus reading to be true while a V-focus reading is false; therefore we can infer nothing from the judgment of [S O V-NMLZ *de* Aux] as true when the context entails the VP focus reading.

[32]The possibility of narrow-verb focus in this configuration is less clear. On the proposed analysis, narrow-verb focus in [S O *de* V] would be analyzed as in (78) but without object reconstruction. Hartmann & Zimmermann (2007a):115 have observed that this kind of ambiguity is problematic for standard theories of focus projection (e.g. Selkirk 1996).

[33]A similar (though more general) ambiguity exists with the Bagirmi particle *mal dé* 'only', which also appears to have adnominal syntax (Jacob 2005:130-132). Chris Collins (p.c.) observes that the a very similar phenomenon occurs in Ewe.

[34]This strategy was suggested by Anna Szabolcsi (p.c.), and is also used to analyze focus ambiguities in Fongbe by Collins (1994).

(77)

deP $\Rightarrow$ deP

de' | DP$_i$ de'
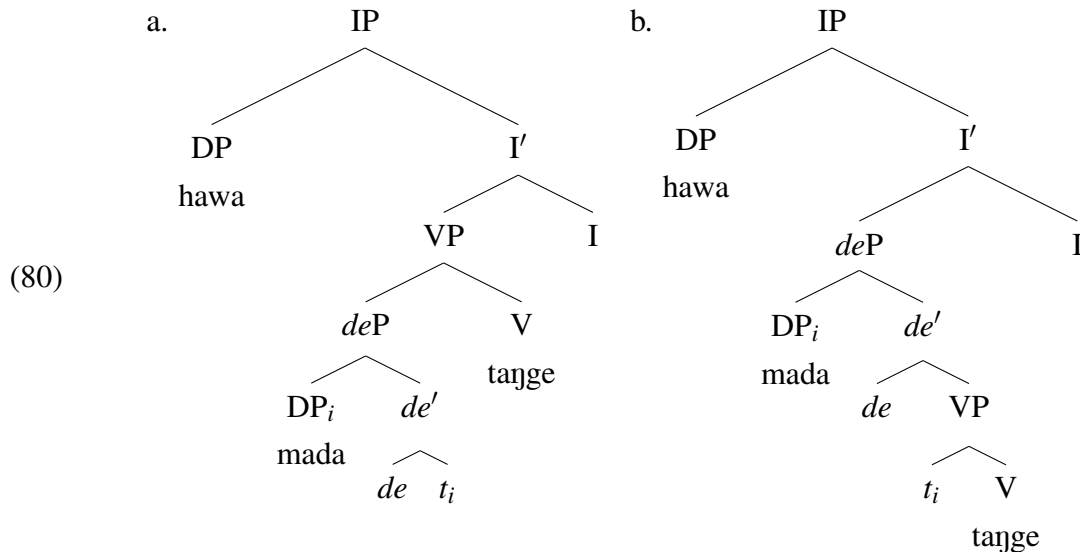
de DP | de t_i
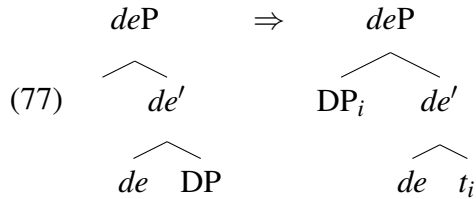
Nothing prevents *de* from taking a VP complement, as long as its surface requirement that a DP appear in its specifier is satisfied. This requirement can be met by raising the direct object to [Spec,*de*P]. The ambiguity in [S O *de* V] is thus analyzed as underdetermination of *de*'s complement category. In the narrow-object reading, *de* takes a DP complement, as in (77); in the VP reading, *de* takes a VP complement, and the object DP then raises to its specifier, as in (78).

(78)

deP $\Rightarrow$ deP

de' | OBJ$_i$ de'

de VP | de VP

OBJ V | t_i V
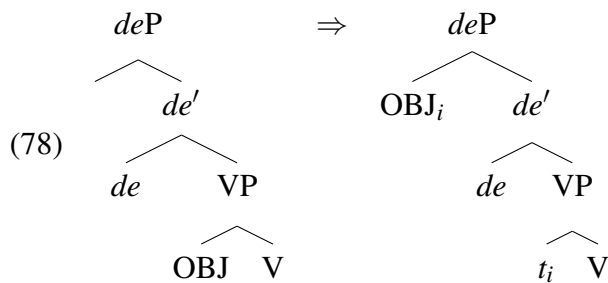
In (78), the raised object must semantically reconstruct at its base-generation site in order for *de* to take VP as its semantic argument. The structures in (80) represent applications of this proposal for the two readings of (79).

(79) hawa mada de ta-ŋg-e
Hawa mada de 3sg-drink-PRS
"Hawa only drinks MADA." (=(80a)) OR "Hawa only DRINKS MADA." (=(80b))

(80)

a. IP

DP I′
hawa

VP I

deP V
taŋge

DP$_i$ de'
mada

de t_i

b. IP

DP I′
hawa

deP I

DP$_i$ de'
mada

de VP

t_i V

taŋge

This analysis is similar to Collins's (1994) approach to focus ambiguity in Fongbe, wherein *wɛ* 'FOC' heads a left-headed projection, and requires a filled specifier. Collins (1994) proposed this

analysis to account for [O *wɛ* S V] ordering being ambiguous between narrow-object and clausal focus.[35]

4.2 *de* in modal contexts

In this section, I provide preliminary data about *de*'s use in modal contexts. I show that the verbal suffix *-ti* functions as an irrealis mood morpheme whose specific flavor (temporal, epistemic, etc.) is variable, similar to modal auxiliaries in English. Assigning standard semantics to *de* and *-ti* along the lines of Rooth 1985 and Kratzer 1981, respectively, combined with the assumption that *-ti* can quantify over worlds or times, accounts for the interpretations of modal statements containing both *de* and *-ti*. The approach also derives the use of *-ti* as a future tense marker.

de can be used in modal statements with (roughly) universal force. For example, (81ab) express certainty ("epistemic necessity").[36]

(81) a. **Context**: we see a man speaking the Masalit language.

        ti   masara de tu-ti
        3sg Masalit de 3sg-IRR
        "He must be Masalit." (otherwise he wouldn't be speaking the language)

  b. **Context**: we know an animal is inside the house, but we don't know what kind. Then we hear a lion's roar.

        ti   amara de tu-ti
        3sg lion   de 3sg-IRR
        "It must be a lion."

That the suffix *-ti* appears in (81) is surprising if *-ti* is just a future tense morpheme, as assumed by Edgar (1989:35). Here I propose that *-ti* is more generally an irrealis mood morpheme, indi-

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[35]Nothing in this analysis prevents *de* from taking an IP complement in a clausal-focus-inducing context. However, the configuration [S *de* (*lo*) O V] does not have a clausal focus interpretation. But if *de* can take a VP complement, there is no obvious reason why it cannot take an IP complement. One relevant analogy is the fact that in English, the configuration [*only* S V O] (e.g. *only JOHN likes Mary*) cannot have a clausal focus interpretation.

[36]In the future tense, copular elements consists of a cross-reference morpheme and *-ti*, as in (1).

(1) a. ti amara tu-ti
        3sg lion   3sg-IRR
        "He will be a lion."

  b. ama amara au-ti
        1sg lion   1sg-IRR
        "I will be a lion."

cating that the described situation has not been realized.[37] On this analysis, *-ti*'s use as a future tense morpheme is just one instantiation of its more general meaning. Support for this characterization comes from (82-85), which show that *-ti* occurs in contexts in which the future is not being discussed.[38]

(82)   **-*ti* in a non-future context**

   a.   ama kummo   a-ser-e
       1sg mountain.ACC 1sg-see-PRS
       "I see the mountain."

   b.   ama kummo   a-sende
       1sg mountain.ACC 1sg-see.NEG
       "I don't see the mountain."

   c.   ama kummo   (mɛt) a-kal-**ti**
       1sg mountain.ACC able   1sg-see-IRR
       "I can see the mountain."

   d.   ama kummo   mɛt a-kan-**ti**
       1sg mountain.ACC able 1sg-see.NEG-IRR
       "I can't see the mountain."

(83)   **Circumstantial possibility**

   a.   ama ɲi-mbo   a-ɲari
       1sg strength-COM 1sg-run.PRS
       "I'm running fast."

   b.   ama ɲi-mbo   a-ɲari-**ti**
       1sg strength-COM 1sg-run.PRS-IRR
       "I can run fast."

(84)   **Deontic possibility**

   ama summa a-**ti**
   1sg market 1sg-IRR

   "Can I go to the market?"

(85)   **Conditionals**

   a.   harun ta-r-**a**   ken ama a-r-**ti**
       Harun 3sg-come-PST if   1sg 1sg-come-IRR
       "If Harun came, I would come."

   b.   ambro   wadʒi a-ndi-je   ken ɲuguru   a-n-**ti**
       1sg.ACC hunger 1sg-INV-COP if   food.ACC 1sg-do-IRR
       "If I'm hungry, I make food."

---

[37]This possibility was first raised by Chris Collins (p.c.); verification from my own elicitations.

[38]The verb-stem alternation in (82) is related to aspect; see Brillman 2011 for additional information.

Conceptually speaking, there is a close connection between future tense and modal statements: both involve reference to events or situations that have not been realized. Future-tense statements assert that the event or state described by the sentence will obtain at some or every time subsequent to the speech time. Epistemic modal statements assert that the event or state described by the sentence obtains in some or all of the (non-actual) situations compatible with the speaker's knowledge. This idea can be made more precise using Kratzer's (1981) framework for modal semantics.

According to Kratzer (1981), sentences are interpreted relative to a *conversational background*, which is a function from possible worlds to sets of propositions. A conversational background determines, for each possible world, a set of propositions which have a certain property relative to that world. What the property is depends on the nature of the conversational background. For example, an *epistemic* conversational background will return, for a world w, the set of propositions that are known to be true in w. A *deontic* conversational background will return the set of propositions that are obligatory in w. A conversational background f determines for every world w the set of worlds where all propositions in $f(w)$ are true (Kratzer 1981:46). A statement of possibility *possibly p* (written '$\Diamond p$') evaluated with respect to a conversational background f and a world w is true iff p is true in at least one of the worlds in $\cap f(w)$. A statement of necessity *necessarily p'* (written '$\Box p'$') is true iff p' is true in every world in $\cap f(w)$. In other words, $\Diamond$ and $\Box$ specify the quantificational force of modal statements. This is illustrated for some English examples below. In (86ab), the conversational background is epistemic. In (86cd), it is deontic.

(86) a. John might be home. (In view of what is known, it is possible that John is home.)
       $\Diamond be.home(john)$
       "There is a world compatible with what is known in which John is home."

      b. John must be home. (In view of what is known, it is necessary that John is home.)
       $\Box be.home(john)$
       "In every world compatible with what is known, John is home."

      c. John can go home. (In view of what is required, it is possible that John go home.)
       $\Diamond go.home(john)$
       "There is a world compatible with what is required in which John goes home."

      d. John must go home. (In view of what is required, it is necessary that John go home.)
       $\Box go.home(john)$
       "In every world compatible with what is required, John goes home."

In English, auxiliary verbs indicate modality and future tense. In Masalit, the suffix *-ti* can indicate future tense or modality. Consider (87).

(87) a. ama su   a-ron-ti
          1sg goat.ACC 1sg-buy-IRR

"I will buy a goat." (="There is a future time during which I buy a goat.")

b. ama ɲi-mbo   a-ɲari-**ti**
    1sg strength-COM 1sg-run.PRS-IRR
    "I can run fast." (="In view of my abilities, it is possible that I run fast.")

In Masalit, something similar to a necessity or "universal" modal like *must* can be constructed from *de* and *-ti*. Consider again (81a), repeated as (88).

(88) ti masara de tu-ti
      3sg Masalit de 3sg-IRR
      "He must be Masalit."

In (88), *-ti* contributes the modal component, and *de* contributes the quantificational force. This closely resembles the situation in Hungarian as described by Kiefer (1986), where simultaneous presence of exhaustive focus and the verbal possibility suffix *-het/-hat* 'may' (on an epistemic reading) results in a statement with universal force (in Hungarian, the preverbal position is reserved for exhaustive foci, cf. É. Kiss 1998).

(89) a. Péter lehet   nyelvész
          Peter be.may linguist
          "Peter may be a linguist."

      b. Péter [**nyelvész**]F lehet
          Peter linguist   be.may
          "Peter must be a linguist."

          (=Kiefer 1986 (15ba))

Exclusive particles such as *de* and *only* also exhaust focus alternatives, so (89b) can be seen as semantically parallel to the Masalit example in (88). Also consider a closely related English sentence:

(90)   He can only be Masalit.

Even though *can* has existential quantificational force, (90) has a meaning similar to *he must be Masalit*. This is because of the presence of *only*, which universally quantifies over alternative propositions (Rooth 1985:120). In Rooth (1985), focus evokes a set of *alternatives*, which are of the same type as the focused expression. *only* associates with those alternatives in its lexical semantics, which is why varying the placement of focus in the scope of *only* can result in different truth conditions (cf. (3)). For example, (3b) repeated as (91a) is interpreted as in (91b),[39]

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[39]The $^\vee$ operator evaluates a proposition at the actual world; the $^\wedge$ operator essentially abstracts over worlds, forming a proposition.

which (crudely) captures the truth-conditions of (3a) (where C is (the characteristic function of) the alternative set $\{^\wedge rented(a.car)(john), ^\wedge rented(the.boat)(john)\dots\}$).[40]

(91) a.   John only rented [THE CAR]$_F$.

   b. $\forall p[[C(p) \wedge^\vee p] \to p =^\wedge rented(the.car)(john)] \wedge rented(the.car)(john)$
        "If John rented something, it was the car; and he did rent the car."

If we view *-ti* as contributing a temporal *or* modal meaning, and *de* as providing quantificational force, (88) can be analyzed parallel to (90). More specifically, using Kratzer's (1981) framework for modal semantics and Rooth's (1985) alternative semantics for *only*, we can derive the following representation for (88):

(92) $\forall p[[C(p) \wedge^\vee p] \to p =^\wedge \Diamond masalit(him)] \wedge \Diamond masalit(him)$
       "In view of what is known, his only possible tribe is Masalit."

In (92), $\Diamond$ is evaluated with respect to an epistemic conversational background, and C denotes (the characteristic function of) a set of alternatives to $^\wedge \Diamond masalit(him)$, i.e. $\{^\wedge \Diamond masalit(him), ^\wedge \Diamond zaghawa(him),\dots\}$. The identity of C is determined by the focus of the sentence (and context), which in this case is the argument of *de*, *masara* 'Masalit'. Combined with the assumption that each individual has exactly one tribal identity,[41] (92) is equivalent to $\Box masalit(he)$. Support for this additional assumption comes from the oddness of (93b) when compared to (93a): the simpler and equally informative (93a) is preferred.

(93) a.   ti   masara re
           3sg Masalit COP
           "He is Masalit."

   b.   # ti   masara de re
           3sg Masalit de COP
           "He is only Masalit."

In order to derive the truth-conditions in (92) for (88) compositionally, *masara de* must take scope above *-ti* at LF; otherwise, the interpretation of (88) would be "It's possible that he is only Masalit." This can be achieved via a mechanism analogous to quantifier raising, where *masara de* raises above IP at LF and introduces an abstraction index (which binds the trace of *masara de*) just below the landing site.[42] Assuming that the subject *ti* is base-generated in a position below I′, *-ti* can

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[40]Many more precise theories of *only* have been proposed since Rooth 1985; this particular version is chosen primarily for its simplicity.

[41]This additional assumption is necessary since, e.g. (92) would be false while may $\Box masalit(he)$ may be true or false in a scenario where the individual in question has two tribal identities.

[42]If we assume that the meaning of *masara* is given by an expression of type $\langle e,t \rangle$, the combinatorics of deriving (92) become a bit more complicated. (92) could be derived from (94), e.g., by shifting the type of *de* and interpreting the trace of *masara de* as a variable of type $\langle e,t \rangle$.

be interpreted *in situ*. This allows *de* to quantify over propositions of the form $\Diamond P(him)$, and not $P(him)$. The (abbreviated) LF for (88) can be derived from its surface structure as in (94).

(94) a. SS: [$_{IP}$ ti [[$_{de}$P masara de] tu-ti]]

b. LF: [$_{de}$P masara de] 1[$_{IP}$ ti [t_1 tu-ti]]

The surface position of *de* in modal contexts is not irrelevant, though, as shown in (95): since the syntactic position of *de* determines the range of possible focus values, varying the position of *de* will naturally result in different interpretations. In (88), I assume that *de* takes *masara* 'Masalit' as its complement, but in (95a), it takes a (subject) DP complement. The position of *de* (along with context) determines the elements of the alternative set, which explains why (88) and (95a) have different interpretations. (95b) represents the truth-conditions of (95a).

(95) a. **Context**: we see a man speaking Masalit, but no one around understands him.

   ti   de lo   masara tu-ti
   3sg de FOC Masalit 3sg-IRR
   "Only he can be Masalit."

b. $\forall p[[C(p) \wedge^{\vee} p] \rightarrow p =^{\wedge} \Diamond masalit(him)] \wedge \Diamond masalit(him)$
   (where C is $\{^{\wedge}\Diamond masalit(him),^{\wedge} \Diamond masalit(her),\ldots\}$)
   "In view of what is known, he is the only one who is possibly Masalit."

The truth-conditions in (95b) are considerably different than *HE must be Masalit* in English, reflecting the fact that while *de+-ti* has a meaning similar to a universal modal in some contexts, universal modals in Masalit are not constructed directly from *de* and *-ti*. However, (95) does appear to carry with it the implication that (the referent of) *ti* is in fact Masalit. This is likely due to pragmatic reasons—consider the context in (95): we see someone speaking Masalit. By uttering (95a), one asserts that no one in the group of salient people is possibly Masalit, other than the referent of *ti*. Since we know *someone* in the group is in fact Masalit, and only one person in the group is *possibly* Masalit, it follows that it is the referent of *ti*.

The specific nature of the set of worlds generated by *-ti* may vary contextually, just like English modal auxiliaries. In contrast to English *can*, *-ti* can also generate what I will call a "temporal base," whose elements are future points in time (suitably ordered), instead of possible worlds.[43] (96ac) are examples of sentences in which *-ti* receives a temporal and circumstantial interpretation, respectively.[44]

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[43]Restricting the temporal base to *future* points in time is motivated by the fact that they are the points in time which have not been realized, similar to how possible worlds represent non-actual courses of events.

[44]Since the flavor of *-ti* is underspecified, there should be multiple interpretations for many of the sentences in this section. Sorting out which interpretations are possible in which contexts is a topic for future research.

(96) a. ama a-ɲan-ti
1sg 1sg-eat-IRR
$\Diamond eat(me)$
"There is a future point in time in which I eat."

b. ama ɲi-mbo a-ɲari
1sg strength-COM 1sg-run.PRS
"I'm running fast."

c. ama ɲi-mbo a-ɲari-**ti**
1sg strength-COM 1sg-run.PRS-IRR
$\Diamond(fast(run))(me)$
"In view of my abilities, it's possible for me to run fast."

In (96a), $\Diamond$ quantifies over a set of future times; in (96c), $\Diamond$ quantifies over a set of worlds that are given by a circumstantial conversational background. Again, context specifies the specific nature of the domain of quantification. In (97), the presence of *de* results in a deontic statement with quantificational force that appears to differ from both *may* and *must* in English.

(97) maŋ gano de bil ge-n-ti
2sg floor.ACC de clean 2sg-do-IRR
$\forall p[[C(p) \wedge^{\vee} p] \rightarrow p =^{\wedge} \Diamond clean(floor)(you)] \wedge \Diamond clean(floor)(you)$
(where C is$\{^{\wedge}\Diamond clean(floor)(you), {}^{\wedge}\Diamond play(you), {}^{\wedge}\Diamond eat(dinner)(you), \ldots\}$)
"In view of what is required, the only thing that is permissible (concerning you) is that you clean the floor."

To summarize: the simultaneous presence of *de* and *-ti* can result in modal statements with a force similar to *can+only* in English. Under certain conditions, this force is universal. Further investigation is needed to determine what kinds of modal interpretations result from varying the position of *de*, and what the range of possible modality types expressible with *-ti* is. This discussion leaves many questions about tense and modality in Masalit open, and I leave them as topics for future research.

5 Conclusion

This paper has presented a description and analysis of Masalit focus constructions involving *lo* and *de*. In particular, I have shown that focus marking with *lo* in Masalit is restricted to nominative case subjects, but does not involve a bi-clausal cleft structure. Related restrictions on lexical focus markers are found in a variety of African languages, but *lo* is unique in that its distribution is most easily described in terms of grammatical case; whether it can be described as subject/object asymmetric depends on particular definition of "subject." The syntactic properties of *lo* motivate

a more systematic investigation of case-focus interactions cross-linguistically. The particle *de* is semantically similar to English *only* but has adnominal syntax. Assuming that the verbal suffix *-ti* is in fact an irrealis marker, the use of *de* in universal modal statements, as well as the use of *-ti* in future tense statements, are direct consequences. The interaction of *-ti* and *de* in Masalit strongly parallels the interaction of *-het/-hat* 'may' and exhaustive focus in Hungarian. Further investigation of connections between modality and focus in Masalit—and cross-linguistically—is motivated by this parallelism. Many outstanding issues related to modality and focus in Masalit remain, such as the range of possible modality types for which *de+-ti* can express necessity, and how epistemic necessity is expressed for sentences with different syntactic properties.

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