
The Definite Article and Possessive Marking in Amharic

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1 Introduction

In this paper we are concerned with the grammar of noun phrases in Amharic, a Semitic language spoken in Ethiopia. Our theoretical frame is Head-Driven Phrase Structure Grammar (HPSG) and our focus is the Amharic definite article, a suffix which is homonymous with the 3rd singular possessive marker. In this paper we would like to account for the left edge effect of the Amharic definite marking as well as the distribution of definiteness marking in modified possessive noun phrases. Our suggestion is to promote definiteness from the head of the syntactic left-hand daughter, while, for example, person and number specifications, and also a POSS(essive) feature, are promoted from the head daughter; the latter is in accordance with the more general constraints embodied in the Head Feature Principle of HPSG.

Nouns in Amharic may carry affixes to indicate their gender, number, definiteness, and case. The language is at least partially agglutinative. Morphemes are suffixed to the noun in the order listed above (see also: Leslau 1995). Nominal modifiers and specifiers may host some of the nominal morphology, leading to patterns of nominal inflection throughout the noun phrase to be described below.

The paper is organized as follows: the second section describes possessive and definite marking while the third section gives a short overview of previous accounts of Amharic nominals and outlines some basic assumptions about noun phrases in HPSG. The fourth section suggests a constraint-based analysis of definite and possessive forms, and section five contains the conclusion.

2 Possessive and definite markers

2.1 The Possessive

Consider the following examples:

- (1) a. *məs'haf*
 'a book'
 b. *məs'haf-e*
 book -1per.sg. (poss)
 'my book'
 c. *yə-ənnə məs'haf*
 Gen- I book
 'my book'

Examples (1b) and (1c) show the two ways of constructing possessives in Amharic. In (1b) a possessive suffix is attached to the noun stem, that is, the morpheme */-e/* adds 1per.sg information, as it introduces a possessor, and *məs'haf* 'book' becomes 'my book'. The full array of possessive suffixes is shown in Table 1:

Singular		
	1	-e
	2.masc	-h
	2. fem	-š
	3.masc	-u/-w
	3. fem	-wa
Plural		
	1	-aččən
		-aččəhu
	3	-aččəw

Table 1. *Possessive suffixes in Amharic*

The second way of expressing possession is through the use of the genitive prefix /yə-/ (1c). It is attached to an independent pronoun or a noun and expresses ownership, but also part-whole relations and other asymmetric semantic dependencies between nominal entities. This latter construction has been treated, e.g., by den Dikken 2004, and will not further concern us here.

2.2 Definite Marking

Consider the following examples:

- | | |
|---|--|
| <p>(2) a. (and) zaf
 (one) tree
 ‘a tree’
 b. zaf-u
 tree- DEF/3masc.sg
 ‘the/his tree’</p> | <p>(3) a. wəša
 ‘a dog’
 b. wəša-w
 dog- DEF/3masc.sg
 ‘the/his dog’</p> |
|---|--|

Unlike in English, Amharic singular indefinite noun phrases do not need to be specified by a determiner, that is, bare singular nouns can serve as arguments and receive an indefinite interpretation. Indefinite noun phrases may also be construed with the help of the specifier *and* which literally means ‘one’, but when co-occurring with a noun often leads to an indefinite interpretation, as indicated in (2a). Definite singular nouns are derived via the suffixation of *u* or *w* to the singular noun, an alternation which is due to allomorphy: /-u/ goes to [-w] after a vowel, while /-u/ becomes [-u] after a consonant. As can be seen from Table 1 above, the definite article suffix and the possessive marker for third person masculine singular are homonyms. Depending on the context, however, it is not always the case that both meanings of a noun with a *u/w* suffix can be retrieved. If for example an object generally is not owned, such as a *river*, the possessive meaning of the noun becomes implausible, giving way to the definite interpretation only:

- | | |
|--|--|
| <p>(4) a. (and) wənz
 a river
 ‘a river’</p> | <p>b. wənz-u
 river-DEF
 ‘the river’</p> |
|--|--|

Another example of the unambiguous use of the *u*-suffix derives from the possessive marking of inherently feminine nouns like *lam* ‘cow’. As mentioned above, nouns in Amharic can be inflected for gender. The marker for

feminine is /-it/ (see also Leslau 1995) while the marker for a definite feminine noun is, just like its masculine counterpart, homophonous with the 3p.fem possessive marker, so that the following patterns arise:

- | | |
|--|--|
| (5) a. lam-wa
cow- DEF/3fem.sg
'the/her cow' | b. lam-it-uwa
cow-fem-DEF/3fem.sg.
'the/her cow' |
| c. lam-it-u
cow-fem-DEF/3masc.sg
'the/his cow' | d. lam-u
cow-3masc.sg
'his cow' |

In the case that only the definite suffix is attached to *lam*, deriving *lamu*, (5d), its meaning is only possessive, since in order to be definite an inherently feminine noun has to be specified for gender in one of the ways indicated in (5).

2.3 Definite Marking in an Extended Noun Phrase

In Amharic, NPs adjectives and quantifiers precede the noun. Let us consider the following examples:

- (6) a. tələk' wənz/bet
big river/house
'a big river/house'
- b. tələk'-u wənz/bet
big-DEF river/house
'the big river/house'
- c. tələk'-u (wənz- u)/(bet-u)
big-DEF (river-poss.3msg)/(house- poss.3msg)
'his big river/house'
- d. *tələk' (wənz-u)/(bet-u)
big river-poss.3msg/house-poss.3msg

In examples (6a)-(6d) we make use of the fact that the possessive marking of a landmark like a river is in most cases contextually odd, to highlight the fact that what might look like definite agreement on adjective and noun is in fact the obligatory definiteness marking of the adjective in a possessive noun phrase. The *-u* suffixed to the adjective is the definite article suffix while the *-u* suffix attached to the head noun is the possessive marker. Let us examine this point further. Consider (7):

- (7) a. tələk'-u bet-e
 big- DEF house-1sg.(poss.)
 ‘my big house’
 b. *tələk' bet-e
 big bet-1sg(poss.)

When *bet-e* ‘my house’ is modified by an adjective, the adjective obligatorily attaches the definite article suffix. A modified possessive noun phrase thus needs, also morphosyntactically, to be marked as definite.

Let us now consider the following NPs:

- (8) a. bet'am tələk'-u wənz
 very big-DEF river
 ‘the very big river’
 b. *bet'am-u tələk' wənz
 very-DEF big river
 c. *bet'am-u tələk'-u wənz
 very-DEF big- DEF river
- (9) a. hulət-u tələlək' ləḡ-očč
 two-DEF big.PL child-PL
 ‘the two big children’
 b. hulət-u tələlək' ləḡ-očč
 two-DEF big.PL child-PL
 ‘the two big children’
 c. hulət-u tələlək' ləḡ-očč-u
 two-DEF big.PL child-PL-3masc(poss.)
 ‘the two of his big children’
 d. *hulət tələlək'-u ləḡ-očč
 two big.PL-DEF child-PL

In (8a) the definite article is attached to the adjective, while it is ungrammatical to attach it to an intensifier (8b) or to both the adjective and the intensifier (8c). In the case of a quantifier (9), it is only the quantifier that takes the definite marker (9b). Finally, attaching the marker to other constituents will again lead to ungrammaticality (9d).

In summary, what we observe is that the Amharic definite article is suffixed to the head of the left-most constituent within the noun phrase. This explains that the intensifier, which is a specifier of the adjective modifying the noun, is not a possible host for the definite article, while an adjective or a quantifier, both heading their own projection, are.

Let us finally point out that Amharic demonstrative pronouns generally cannot co-occur with the suffixed definite article as, e.g., in (10a) or (10b) below:

- (10) a. yəh betam tələk' * (tələk'-u) bet(-u)
 Dem.sg very big *(big-DEF) house(-3msg(poss.))
 'this very big house (of him)'
- b. ənziya hulət *(-u) tələlək' ləḡḡ-očč (-u)
 Dem.pl two *(-DEF) big.PL child-PL (-3msg (poss.))
 'those two big children (of him)'

This is allegedly a reflex of the fact the *u/w* suffix is not an agreement marker but rather the morphological realization of the definite article. Assuming that multiple specifiers are disallowed in Amharic, the facts in (10) would follow.

Let us summarize:

- the morpheme /-u/ is a definite article which can be suffixed to nouns, adjectives, or quantifiers
- 3person possessive markers are homophonous with the definite article suffix
- left-hand daughters of possessive nouns, independent of their functional status, need to be morphologically marked as definite.
- Amharic NPs are marked for definiteness on the head of the left-most constituent.

3 The definite article

3.1 The Amharic Definite Article

The definite article in Amharic is a morphologically bound element, a fact that has triggered some theoretical disagreement concerning its functional status. Against Lyons (1999), who treats the Amharic definite article as a clitic, but with Wintner (2000), using HPSG, as well as den Dikken, using

the Minimalist Program (2004), we would like to treat the Amharic article as an inflectional suffix. We furthermore would like to assume that the noun is the semantic and syntactic head of the nominal phrase and that the indefinite determiner *and*, demonstratives, and quantifiers are selected by the nominal head. The definite article, however, is an inflectional suffix, added to the nominal stem by a lexical rule. In the following we describe how such a rule could look and its interaction with possessive marking on the one hand, and the left-edge effect of the Amharic definiteness marking on the other.

3.2 The Treatment of the Definite Article in HPSG

HPSG has so far been primarily concerned with English. In English the article is an independent word preceding the noun, which, in an HPSG grammar, is combined with the head through the SPECIFIER-HEAD SCHEMA (Pollard and Sag 1994). Without being able to explain its theoretical background, the essence of the SPECIFIER-HEAD SCHEMA may be characterized as follows: the head noun subcategorizes for its determiner, while the determiner may specify in its SPEC feature certain properties of the noun that it restricts. The SPECIFIER-HEAD SCHEMA thus comes very close to a formalization of the double-headedness of noun phrases. In the interaction of the constraints imposed on the values of the SPEC and SPR(specifier) features, nominal inflection with respect to, e.g., number, gender and definiteness can be expressed. With the extension of HPSG to languages where the expression of definiteness is part of the morphological component of the language, as for example in the Scandinavian languages (Hellan and Beermann 2005) and within the Semitic language family, for example for Modern Hebrew, linguists working within HPSG have suggested an account of definiteness as part of the lexical rule inventory of the language. Wintner (2000), for example, suggests to treat the definite marker in Modern Hebrew as an affix and to combine it with nouns, adjectives, and quantifiers in the lexicon. Here we will follow Wintner's approach and treat the Amharic definite suffix as an inflectional affix. However, different from Hebrew, Amharic marks definiteness only once and only on the head of the left daughter of a noun phrase. Departing from Wintner's word-to-word rule of definiteness marking in Hebrew, we will in the following develop a set of morphological rules that will try to accommodate the Amharic left-edge effect of definiteness marking. We will pay special attention to possessive noun phrases and the effects that arise from the homophony between the 3sg possessive markers and the obligatory definiteness marking of possessive phrases.

4 The Analysis

Wintner (2000) suggests the following Definite Lexical Rule to derive definite nominal words:

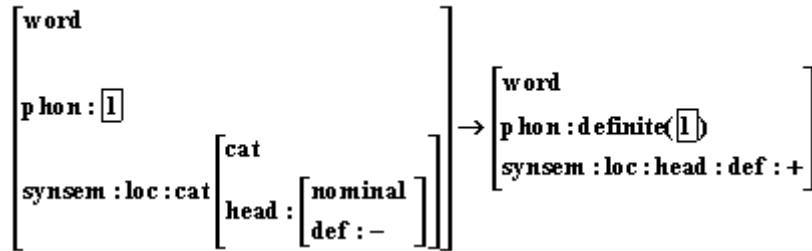


Figure 1. *Wintner's Definite Lexical Rule for Modern Hebrew* (Wintner 2000: 349)

Wintner's rule applies to indefinite nominal words which are nouns, adjectives, cardinals, and numerals, and returns definite nominal words. Note that Wintner uses a denotation different from ours: we separate features in a feature path by a period rather than by a double colon, the PHON feature is a list value, words are strings, and the output of an inflectional rule will be given by indicating morph-boundaries by hyphens in the PHON value, as shown in Figure 2. Also note that the Hebrew definite marker is a prefix while it is a suffix in Amharic. In our adaptation of Wintner's rule, the most substantial modification of Figure 1, however, lies in the fact that in Amharic, definiteness is not expressed as a head feature, instead the definiteness feature DEF is a sister to HEAD, for reasons to be explained shortly:

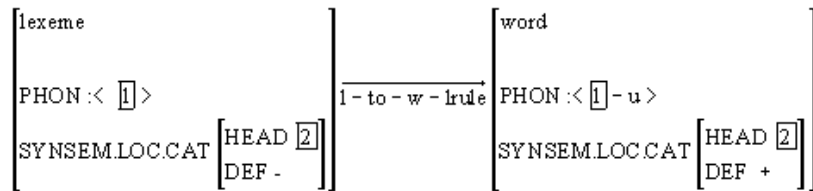


Figure 2. *Definite-lexeme-to-word-rule for Amharic*

Definiteness in Amharic is signalled on the head of the left-hand daughter independently of its categorial or functional status. To account for this

fact we assume that definiteness of a non-unary NP is propagated from the left-hand daughter to the mother node. HEAD-SPECIFIER and HEAD-MODIFIER RULE need to be rendered accordingly. In the following we only consider the HEAD-MODIFIER RULE in more detail.

In Figure 3 we use the HEAD-MOD SCHEMA to combine an adjective with the noun it modifies. In HPSG, it is the adjunct that selects the element it modifies. In Amharic, independent of whether we deal with possessive nouns or not, it is an adjective specified as [DEF +] that selects in its MOD feature a noun that is specified as [DEF -]. This means that definiteness will always reside in the left hand daughter (nonhead daughter). We suggest that the DEF value of the left-hand daughter is re-entered with the DEF value of the phrase as a whole. The latter fact is shown in Figure 3:

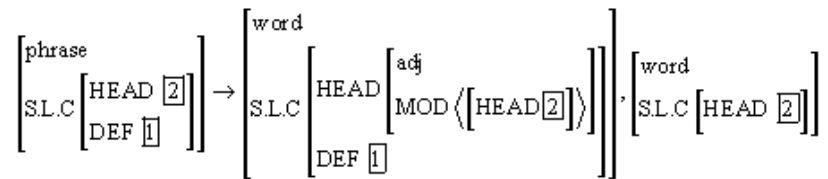


Figure 3. Revised HEAD-MODIFIER SCHEMA for Amharic

Notice that the head value of the head-daughter is re-entered with the head-value of the mother node, thus instantiating the Head-Feature-Principle, however, morphosyntactic definiteness, captured by the feature DEF, is promoted from the adjective to the phrase as a whole. In Figure 3 we have kept the DEF value of the adjective underspecified, capturing the fact that it is possible for an adjective which is either a [DEF +] or a [DEF -] to combine with a noun which is [DEF-]. For example, let us take *t□lk' bet* ‘a big house’ and *t□lk'u bet* ‘the big house’. In both cases the noun *bet* is [DEF -], that is morphosyntactically not marked for definiteness, as it doesn’t attach the definite article. Crucially, we constrain the definite adjective word, that is an adjective which is suffixed with *-u/-w*, to only combine with nominal words or phrases that are marked as [DEF -].

Left-edge marking of definiteness involving quantifiers and cardinals, follow a pattern parallel to the one shown here for the definiteness marking of modifiers.

We now would like to turn to definiteness marking in modified possessive noun-phrases. As outlined in section 1, possessive noun phrases can be derived by means of a possessive suffix. The possessive lexeme-to-word rule given in Figure 4 captures this process:

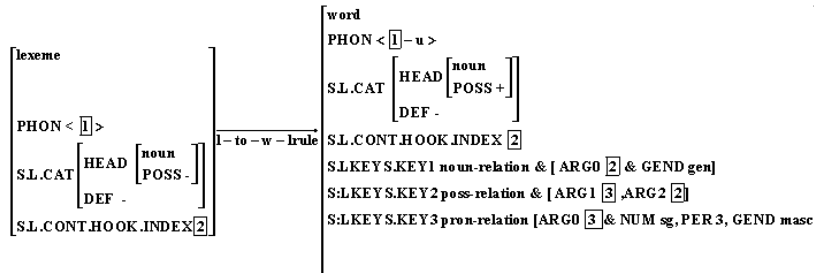


Figure 4. Possessive-lexeme-to-word rule for Amharic

The boolean head-feature POSS identifies the noun word syntactically as possessive. Notice that possessive noun words are syntactically marked as DEF -. The word *bet-u* ‘the/his house’ is thus truly ambiguous—also in its morphosyntactic rendering, with either the specification [HEAD.POSS -] as a definite noun word, or as a possessive 3per.sg.masc-noun-word with the specification [HEAD.POSS +]. In Figure 4, we have included the semantic specifications of a possessive noun. A possessive introduces next to the noun-relation a poss(essive) relation and an abstract pronoun relation representing the possessor. The *poss-relation* takes the possessor as its logical subject and the possessed as its logical object. Not illustrated here, the possessive noun index will be bound by a *definite q_rel* which ensures that the possessive NP is semantically identified as a definite expression. The semantic formalism chosen here is Minimal Recursion Semantics (the reader is referred to Copestake et. al 2004 for more information).

Let us now turn to the modification of possessive nouns. As we observed in Figure 4, the output of the possessive rule is a noun word with a [DEF -] value. As outlined in Section 1, when a possessive noun is modified or quantified, the left-hand daughter of the complex noun phrase necessarily needs to be marked as definite. In Figure 5 we show a possessive noun modified by an adjective:

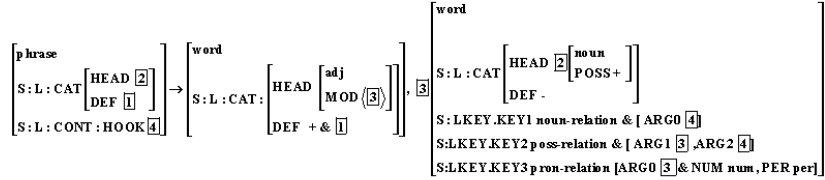


Figure 5. HEAD-MOD-SCHEMA for possessive nouns in Amharic

Again, it is the left-hand daughter, which has undergone the definite lexeme-to-word rule that promotes its morphosyntactic definiteness up to the mother node. It then selects nouns which are specified as DEF-, and, in case of modified possessive nouns as POSS+. We thus exclude the double marking of definiteness in a possessive NP and identify correctly the suffix of the modifier as marker of definiteness while the morphologically identical marker on the noun is rendered as possessive.

5 Conclusion

We have described the distribution of the definite article suffix in Amharic. Using HPSG, we have focused on the HEAD-MODIFIER SCHEMA in our account of the left-edge effect of definiteness marking in Amharic. We have modelled the dependency between morphological nominal possessives and definiteness marking. In promoting definiteness from the left-hand, non-head daughter we have suggested a modular approach to the HEAD-FEATURE PRINCIPLE in order to account for the Amharic facts. In modified possessive nouns we have correctly identified the suffix on the modifier as the definite marker while the suffix on the head noun is identified as the suffixed possessive. Cross-linguistically nominal phrases seem to be double-headed structures, and languages seem to differ widely in where they express morphological agreement, either choosing the head or the specifier as a host. Allowing the ‘collection’ of agreement features from both daughters in a complex NP might be a necessary move also for other languages than Amharic.

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