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Gender and number morphology in Ethio-Eritrean semitic languages

Tesfay Tewolde Yohannes
University of Firenze (<tesfay.tewoldeyohannes@unifi.it>)
University of Napoli, College of Arts and Social Sciences (Eritrea), University of Addis Abeba

Abstract:

The vowel -ā can be identified as a marker of nominal and verbal plurality in different Semitic and Afroasiatic languages. The vowels -ā (feminine plural) and -ū (masculine plural) which are used for both internal and external plurals are, according to Hasselbach (2007), derived from a verbal system and a predicative adjective. In Semitic languages, ā, ū and *at* (< *a+t*) mark gender and/or number. They are interdependent and can be used as classifiers. Based on the analysis of data from the languages in question, this article argues the Semitic gender and/or number markers indicated above and their reflexes *-ačč*, *-očč*, *-o* and *-ot* can be used as gender and/or number markers in Ethio-Eritrean Semitic languages. As in other Semitic languages, gender and number markers can function as classifiers in EES languages too. Even though there is interdependence of gender with number, the use of the former on verbal and nominal forms may be regarded as more original than the latter. However, more research is also needed to explore the diachronic relationship between them.

Keywords: *Classifier, Gender, Number, Template*

1. *Introduction*

Rubin (2005) argues the participle is properly a nominal form, historically inflected for number and gender. Furthermore, Rubin says verbal noun or verbal adjective developed into a stative verb in Proto-Afro-Asiatic. In several world languages, the development of a passive form into a perfective verb can be observed (cf. Kouwenberg 2006 among others). In Ancient Hebrew, verbs can be used to express concepts which English expresses with adjectives (cf. Steiner 1997: 155). In Aramaic, Kaufman (1997: 124) says "adjectives probably were originally limited to the passive participles and the related form *kattīb*". In Neo-Aramaic, the verbal base is derived from an active or passive old participle (cf. Jastrow 1997: 360). As indicated in Lipiński

(1997), Semitic languages have nominal sentences consisting of two nominal phrases (with no copula) that may correspond roughly to English sentences containing "is". The predicate of a nominal sentence syntactically assumes a quasi-verbal function. In such nominal sentences, the predicate generally follows the subject as in *Yohannis mäkonnin* 'Yohannes (is) a/the judge' in Gɨʕɨz, *Adad* šarrum 'Adad (is) king' in Old Babylonian, *Yhwh roʕi* 'Yawhe (is) my shepherd' in Hebrew. If there is the need to express emphasis on the predicate, however, the word order can be inverted and the predicate may come in front of the sentence as in the case of Hebrew ʿāpār ʔattā 'dust you (are)' (cf. Lipiński 1997: 484-485). Carver (2016) says (a) the nominal origin of Akkadian stative is unquestionable (b) the morphological base of the Akkadian stative is undeniably related to verbal adjective base (c) the Akkadian stative is a non-finite verb morphologically marked for gender, number and person.

According to Hasselbach (2007: 132-135), the Semitic external plural and dual markers -ā, -āt and -ū can be derived from the verbal system and the predicative adjective. Hasselbach argues the nominal feminine plural -āt can be derived from the predicative feminine plural -ā by the suffixation of the feminine singular marker *t*.

In Semitic languages, we can observe the relationship among person, gender and number markers in demonstratives, independent pronouns, possessive suffixes attached to nouns and pronominal affixes attached to verbs etc. It is indicated in the literature that Semitic languages have verbal affixes, possessive suffixes, and affixes attached to demonstratives and independent pronouns[1] with a number marker, primary gender markers and secondary markers. Semitic languages have *-a* for the masculine and *-i* for the feminine as primary gender markers. Moreover, the Semitic languages have also *-ā* (as a secondary feminine gender marker) and -ū (as a secondary masculine gender marker), while *n* (which may become *m* in the masculine) functions as a number marker. According to Buccellati (1996) and others, the primary and secondary gender markers are represented by short and long vowels respectively.

In Semitic languages as in Akkadian, we also see that the originally secondary gender markers *-ū* and -ā can be used as number markers of verbs (cf. Buccellati 1996, 1997). In fact, the originally secondary gender markers *-ā* and -ū in verbs are related to external and internal plurals of nouns. Semitic languages use the gender markers *a*, *u, t* and a number marker *n* to indicate plurality. In Hasselbach (2007: 123, 129), we see *-au* in Ancient Egyptian, *-aw* in Middle Egyptian and *-aw* in Berber to mark masculine plural.

The article discusses Ethio-Eritrean Semitic (EES) gender and number markers. The primary goal of the work is to explore the relationship between gender and number markers in the languages in question. It focuses on data from Tigrinya, Amharic and Tigre. However, it also examines data from Gɨʕɨz, Harari and other EES languages. The article is organized as follows. Section 1 deals with the introduction. Section 2 offers an overview of EES number and gender markers. Section 3 concerns the relationship among EES gender and number markers. Section 4 discusses the role of EES gender and/or number markers as classifiers. Section 5 deals with issues regarding the "multi-plurals". Section 6 concerns the position of agreement morphemes on the structure. Section 7 provides a conclusion.

[1] In the literature, we can observe that demonstratives can develop into definite articles (cf. Lyons 1999 among others), while pronouns and definite articles may occupy the same position in the structure. In fact, we can observe in languages such as Ugaritic, Chaha and Sabaic that the same word (or similar words) may indicate a demonstrative and a pronoun (cf. Lipiński 1997; Pardee 1997; Tesfay 2016 among others). As indicated in Fuß (2005: 2-5), verbal agreement markers can be derived from (originally independent) personal pronouns (cf. also Simpson 2009).

2. An Overview on EES Number and Gender Morphemes

In EES (Ethio-Eritrean Semitic) and other Semitic languages, gender distinctions can be observed as it affects the forms of the related words. We can see in the literature that number and gender markers are related. This section offers an overview of number and gender markers in EES languages.

Nouns in EES and other Semitic languages can have singular and plural forms and the latter can be divided into internal and external plurals. In the literature, it is indicated that internal plurals of nouns are related to internal plurals of verbs (cf. Greenberg 1955, 1991; Benmamoun 2003; Tesfay 2009) and to external plurals of nouns (cf. Hasselbach 2007). According to Hasselbach (2007) and other scholars, the nominal masculine plural -ū, the nominal feminine plural -ā and -āt (i.e., -ā+t) can be derived from the verbal system and the predicative adjective. As indicated in Hasselbach (2007), *-ā -ū* and -ī can be used for both external plurals and internal plurals of nouns and verbs.

Verbs (as in Amharic, Tigrinya and Tigre) and adjectives (as in Tigre and Amharic) have internal plural forms which look like the internal plurals of nouns in Tigre, Tigrinya and several other Semitic languages.

Buccellati (1996) and other scholars reveal that verbs, independent pronouns and pronominal suffixes in Semitic languages have *-a* (masculine) and *-i* (feminine) as primary gender markers; -ā (feminine), and -ū (masculine) as secondary gender markers, and *n* as a number marker.

In the verbs of EES languages, we can find different person, number, and gender exponents. As we can see below, however, they can synchronically be indicated by the same element.

Languages can have grammatical gender and natural (biological) gender. In this article, however, the discussion focuses on the former.

According to Baye (2009 E.C.: 120-121), Amharic nouns do not have a masculine grammatical gender marker, while *-it* (as in the case of *ayɨt'* 'mouse' and *ayɨt'itu* 'the mouse') can indicate the gender of feminine nouns. However, Baye also says the feminine marker *it* (1) occurs together with the definite article *-u* and (2) *it* has diminutive function. I assume *-it* appears to indicate smallness, diminutive etc. functions which can occur attached to the definite article.

Gender is considered an inherent quality of nouns. But in these languages, as in several other languages, gender inflections generally do not appear on nouns and EES nouns usually lack any gender specification (cf. also Getahun 1989 E.C.; Gut 1997; Hetzron 1997; Hudson 1997; Kogan 1997; Wagner 1997 among others).

The formal distinction between nouns and adjectives are not always clear (cf. Moscati *et al.* 1964 among others). Adjectives which make masculine/feminine gender distinctions (as in the case of *sərax'i* 'one who steals (m)' and *sərax'it* 'one who steals (f)') can be used as nouns. In the same way, I believe *säbɔay* 'man' was originally an adjective derived from *säbɔ* 'man' and *-ay* with the meaning 'belonging to'; while *säbäyti* 'woman' was originally an adjective derived from *säbɔ* 'man', -ay 'belonging to' and *-ti* (feminine marker). Some feminine human nouns may end in *-ti*. However, this *-ti* is unproductive feminine ending and can be observed only in rare cases (cf. Hudson 1997: 483 for the unproductive feminine ending *-t* in Amharic words like ɨnnat 'mother'). Generally speaking, EES nouns do not show gender distinctions. For instance, Wagner (1997: 492) says "Harari does not distinguish between genders through a form element". In Amharic and in Argobba, the gender of a noun is, as Hudson (1997: 464) puts it, "apparent in its choice of pronoun, agreement with the verb, determiners and the definite article suffix" (cf. also Getahun 1989 E.C.; Leslau 1995, 1997; Baye 2009 E.C.). Gender distinctions can be

observed as it affects the forms of the related words, a process called agreement. Nouns can be regarded as the "triggers", while other words may be the "targets" of changes. In the languages in question, these related words can be verbs, determiners (including pronouns), the number one, possessives, originally gerundive adverbs and adpositions.

In EES and other Semitic languages, person, number and gender can be marked by one element or by different elements. In the second person feminine plural (1a), for instance, we see the elements *k- ɨ -n-a* (<*kina*). The element *k* marks second person, ɨ (<*i*) marks primary feminine gender, *n* marks number; while *a* marks secondary feminine gender. In (1b-c), *-a* and *-u* mark third person feminine plural (3fpl) and third person masculine plural (3mpl) respectively. But in (1d-e), *-a* and *-u* mark feminine plural (fpl) and masculine plural (mpl) respectively. Consider the following:

(1) a. nägär-kɨna-ni
tell (perf.) -2fp-me
'you (2fpl) have told me',
b. nägär-a-ni
tell (perf.)-3fpl- me
'they (3fpl) have told -me'
c. nägär-u-ni
tell (perf.)-3mpl-me
'they (3mpl) have told me'
d. yɨ-nägr-a-ni näbär-a
3-tell (impf.)-fpl-me were-fpl
'they (f) were telling me'
e. yɨ-nägr-u-ni näbär-u
3-tell-(impf.)-mpl-me were-mpl
'they (m) were telling me'
Tigrinya

Amharic does not distinguish gender in the plural. Thus, the element *u* marks plural (pl) in (2a-b) and third person plural (3pl) in (2c) (cf. Moscati *et al.* 1964; Lipiński 1997 among others for Hebrew *-u* which marks plural in the perfective).

(2) a. näggär-ačč̣ih-u- ňň (ati+kum-+u + -ni > ačč̣čɨhuňň)
tell (perf.) -2pl-me
'you (2pl) told me'
b. yɨ-nägr-u-ňň näbbär
3-tell (impf.)-pl-me was
'they (pl) were telling me'
c. näggär-u-ňň
tell (perf.)-3pl-me
'they (3pl) told me'
Amharic

In Tigre, *-a* in (3a) and *-w* in (3b) indicate third person feminine plural (3fpl) and third person masculine plural (3mpl) respectively. In (3c-d), *-a* and *-o* (<*aw*) mark feminine plural (fpl) and masculine plural (mpl) respectively. Observe the following:

(3) a. qanṣa-y-a
get up (perf.)-3fpl
'They (f) got up'
b. qanṣa-w
get up (perf.)-3mpl
'They (m) got up'
c. tɨ-qanṣ-a
2-get up (impf.)-fpl
'you (fpl) are getting up'
d. tɨ-qanṣ-o
2-get up (impf.)-mpl
'you (mpl) are getting up'
Tigre

(Raz 1983:55-56)

In Gɨʔɨz, -ā in (4a) and -ū in (4b) indicate third person feminine plural and third person masculine plural respectively as shown in the following:

(4)	a. nagar-ā	b. nagar-ū	Gɨʔɨz
	speak(perf.)-3fpl	speak (perf.)-3mpl	
	ʿthey (f) spokeʾ	ʿthey (m) spokeʾ	

As indicated above, *-a* in (1a) marks feminine gender, while *-a* in (1d) marks feminine plural (cf. Buccellati 1996; Lipiński 1997 among others for similar cases in other Semitic languages). In the prefix conjugations, we find *y/t* to mark person, while *-a* and *-u* indicate feminine plural and masculine plural respectively in Proto-Semitic and in different Semitic languages including EES (1d-e, 2b). If there is a vowel *a/ä* before *u/w*, we can observe *a/ä+u/w=o* (cf. Leslau 1995; Tesfay 2002 among others). As in the case of *qäwämä=qomä* 'he stood up' (in Amharic and in Tigrinya), we can have *o* in *yɨfläṫṫ-o* 'let him know it' in Tigrinya that can be compared to Amharic -äw in *yɨsbär-äw* 'let him break it'. As in the case of other Semitic languages, *-a* and *-u* in the affirmative form of the imperative (imper.) EES verbs can indicate second person feminine plural and second person masculine plural respectively. If we compare the Tigrinya examples in (5ai, 5bi) and in (5aii, 5bii), however, we observe the second person marker *-t* appears on the surface in the negative forms of the verbs in the latter as in the following:

(5)	ai. nɨgär-a	aii. ʔay-ti-ngär-a	Tigrinya
	tell (imper.)-2fpl	do not you-tell-2fpl	
	ʿyou (2fpl) tellʾ	ʿyou (2fpl) do not tellʾ	
	bi. nɨgär-u	bii. ʔay-ti-ngär-u	
	tell (imper.)-2mpl	do not you-tell-2mpl	
	ʿyou (2mpl) tellʾ	ʿyou (2mpl) do not tellʾ	

If we compare the Amharic examples in (6a-b), we observe the second person marker *-t* appears on the surface in the negative form of the verb in (6b) as in the following:

(6)	a. nɨgär-u	b. ʔatti-ngär-u	Amharic
	tell (imper.)-mpl	do not you-tell-mpl	
	ʿyou (2pl) tellʾ	ʿyou (2pl) do not tellʾ	

As indicated above, the originally secondary gender marker can indicate both gender and number in the imperfective (impf.) form. In the Tigrinya verb *ti-wɨssɨn-u* 'you decide (2pl)', for instance, *t* indicates second person, while the originally secondary masculine gender marker *-u* indicates both masculine gender and number (plural). Hence, *-u* in *ti - u*, indicates both masculine and plural and we observe a syncretism of number with gender in the imperfective of Tigrinya (cf. Adger and Harbour 2007 for syncretism; Tesfay 2016 for syncretism in EES). Amharic does not distinguish gender in the plural. The originally masculine gender marker *-u* indicates both genders. In the imperfective third person plural of Amharic, we find an amalgam of number and gender. As in the case of (2b) above, we observe a syncretism of number with the originally secondary gender marker in the imperfective form of Amharic. In the perfective (perf.) forms such as *wässän-ačč̣ihu* 'you (have) decided (2pl)' or *näggär-ačč̣ihu-ňň* as in (2a), I assume *ačč̣ihu* is derived from *at+kumu* (<*kanu*) >*at+ḥuwu* >*ačč̣ihu* (cf. Tesfay 2016: 175-177 for more details).

In the above examples, we observe *-a* and *-u* that occur attached to verbs.

EES languages have also *-a* and *-u* (or their allomorphs) that occur attached to nouns, pronouns, determiners, gerundives (ger.), adpositions and adverbs with gerundive forms as illustrated in the examples in (7-9). The elements *-u* and *-a* occur attached to nouns as in (7a-b):

(7)	a. sɨm-u	b. sɨm-wa	Amharic
	name -3ms	name-3fs	
	'his (the) name'	'her (the) name'	

while in (8a-b), *-u* and *-a* are suffixed to pronouns as in the following:

(8)	a. hɨt-u	b. hɨt-a	Tigre
	hɨt-3ms	hɨt- 3fs	
	'he'	'she'	

(Raz 1997: 448)

Furthermore, *-u* and *-a* occur suffixed to determiners ((9a-b), gerundives (9c-d), adpositions (e-f), adverbs with gerundive forms (g-h)). Observe the following:

(9)	a. ʔɨt -u	b. ʔɨt -a	Tigrinya
	'the (3ms)'	'the (3fs)'	
	c. wässin-u	d. wässin-a	
	decide (ger.)-3ms	decide (ger.)-3fs	
	'he has decided'	'she has decided'	
	e. kab-ʔu	f. kab-ʔa	
	from-3ms	from -3fs	
	'from him/from there'	'from her/from there'	
	g. qäl'ɨf-u	h. qäl'ɨf-a	
	quick-3ms	quick-3ms	
	'quickly'	'quickly'	

In the examples in (7-9) and in (Tesfay 2016), we observe that gender can be marked by *-u* in the masculine and by *-a* in the feminine (or their allomorphs).

In the adjectives, however, gender can be indicated by *-a-, -u-, -i-, -ti* or *-it.* In Tigrinya adjectives which describe colour, size, weight, concentration, depth or height of nouns, we see the forms in (10a-b). The form *cä*(*a*)*c*(*c*)*ac* as in (10f-g) and the form *cä*(*a*)*cuc* >*cicuc* as in (10ci, 10ei) are participles. In (10a-b), we see *-a-* (feminine) and -i- (masculine) gender markers. In (10c, 10e), we observe *-u-* (masculine) and *-ti* (feminine) gender markers. But in (10f-g), *-a-* indicates both feminine and masculine genders. Moreover, Tigrinya has the active participle form as in (10di, 10dii). In (10dii), *-t*, indicates feminine gender. Consider the following:

(10)	ai. qäṫ'ṫ'an 'thin (f)'	aii. qäṫ'ṫ'in 'thin (m)',	Tigrinya
	bi. ħaṣṣar ' short (f)'	bii. ħaṣṣir 'short (m)',	
	ci. fiṫ'ur 'creature/created (m)'	cii. fiṫ'irti[2] 'creature/created (f)'.	

[2] The element *-i* following *-t* in words such as *fiṫ'irti* is an epenthesis.

di. qätali 'killer (m)' dii. qätalit 'killer (f)'
ei. sɨbur 'brocken (m)' eii. sɨbɨrti 'brocken (f)'
f. säbar 'brocken (m and f)' g. ħaffar 'shy (m and f)'

In the examples in (11ai-aii), *-a-* (feminine) and *-i-* (masculine) are gender markers. In (11bi-bii) too, *-u-* (masculine) and *-t* (feminine) are gender markers. Observe the following:

(11) ai. ħaddas 'new (f)' aii. ħaddis 'new (m)' GɨʕɨZ
bi. nɨgur 'spoken (m)' bii. nɨgɨrt 'new (f)'

Furthermore, the examples below show that *-a-* in (12ai), *-i-* in (12aii), *-u-* in (12bi) and *-at* (<*a*+*t*) in (12bii) are gender markers in Tigre which correspond to their counterparts in other EES languages. Consider the following:

(12) ai. ħadas 'new (f)' aii. ħadis 'new (m)' Tigre
bi. sɨbur 'broken (m)' bii. sɨbrat 'broken (f)'
(Raz 1983: 33-34)

In Amharic too, we find vowels which correspond to North Ethio-Eritrean Semitic *-a-, -i-,* and *-u-* in adjectives as in the following:

(13) a. qäċċɨn 'thin (m and f)' b. ʔaċċɨr 'short (m and f)' Amharic
c. räjjɨm 'tall (m and f)'
(14) a. t̓ɨqqur 'black (m and f)' b. sɨwwur 'hidden (m and f)'
c. fɨṣṣum 'complete (m and f)' d. kɨbur 'dear' (m and f)
(15) a. qällal 'simple (m and f)' b. käbbad 'heavy (m and f)'
c. fät̓t̓an 'fast (m and f)'

Tigrinya *qät̓t̓in* in (10aii) and ħaṣṣir in (10bii) correspond to (13a) and (13b) respectively. Besides, if we compare the adjective forms of Tigrinya in (10ci) and in (10ei) with those in (14a-d) in Amharic we observe that they have the same -ɨ -u vowel pattern. We also see that the vowel pattern of the adjective forms in (10ai and 10bi) correspond to those in (15a-c) in Amharic. The Amharic forms, however, do not distinguish gender. In fact, the Tigrinya forms in (10f-g), or Tigrinya adjectives like *däffar* 'courageous (m and f)' can, as in the case of Amharic, indicate both genders.

In (16), we observe that Amharic adjectives have internal plural forms which are similar to those of Tigre (different from those of Tigrinya) as shown below:

(16) ai. t̓ɨyyɨm 'dark brown (m and f)' aii. t̓ɨyayyɨm (m and f pl) Amharic
bi. aċċɨr 'short (m and f)' bii. aċaċċɨr (m and f pl)
ci. räjjɨm 'tall (m and f)' cii. räjajjɨm (m and f pl)
di. sɨbär 'you break' dii. säbabɨr 'you break repeatedly'
ei. säbbär-ä 'he broke' eii. säbabbär-ä 'he broke repeatedly'

Tigre adjectives have internal plural forms similar to those of Amharic (different from those of Tigrinya) as illustrated in (17) below:

(17) ai. ħaċir 'short (m)', aii. ħaċār (f), aiii. ħaċāyɨr (m and f pl) Tigre
bi. ħadis 'new (m)', bii. ħadās (f), biii. ħadāyɨs (m and f pl)
ci. fadāb 'brave (m)', cii. fadābit (f), ciii. fadāyɨb (m and f pl)
(*Ibidem*)

As indicated earlier, EES gender and number markers occur affixed to verbs, nominals, pronouns, determiners etc. In *kina* (1a), for instance, we observe that *k, i, n* and *a* mark second person, primary feminine gender, number and secondary feminine gender respectively. In (1b), however, *-a* marks 3fpl, while in (1d), *-a* marks feminine gender and plural. In (7-9), *-a* and *-u* mark feminine and masculine genders respectively. In (10-12), *-a-* and *-t* mark feminine gender, while *-u-* and *-i-* mark masculine gender. In (16-17), *-a-* is a marker of plurality.

Thus far, we can see that *a, u*, *i* and *-t* can indicate gender and/or number in EES languages. In (3), I will discuss these elements in the languages in question.

3. Relating Gender and Plural Markers

In Semitic languages, *u, i,* and *a* are gender markers. But the forms we use as gender markers may occur in the plural forms. According to Hasselbach (2007: 124-125), -āt (primarily associated with feminine) is the most common external plural, while nominative (masculine) and oblique (masculine) *-ū* and -ī which occur in a limited number of languages are second common external plurals. Greenberg (1955) identifies *a* as a marker of nominal and verbal plurality in Afroasiatic languages inserted in a consonant-vowel pattern. In fact, scholars assume that internal plurals of nouns and verbs are related (cf. Greenberg 1955; Benmamoun 2003 among others).

As indicated above, Hasselbach (2007) and other scholars assume that External and internal plurals in Semitic languages are related to the gender markers.

In Ethio-Eritrean Semitic languages too, we can observe that internal plurals of nouns and verbs are related among themselves and to the gender marking elements (cf. Tesfay 2009, 2016).

The examples in (1-9) illustrate that *a* and *u* can indicate feminine and masculine genders respectively in EES languages. Moreover, the examples in (10-12, 17) show that *-u-*, *-i-* and also *-a-*, *-t* (in *-ti* and in *-it*) can indicate masculine and feminine genders respectively. But these elements may also show number. Moreover, some of these elements may occur together to mark plurality. In Tigrinya, for instance, the suffixes *-ti*,[3] *-t* and the vowel *-a-* in an affix or within the stems indicate feminine gender, while (1) *a* extended by t as in *-at*, (2) *a…ti* >ä… *ti* (i.e. *a* within the stem suffixed by *-ti* >ä….*ti*), or (3) *a* >*ä*[4] followed by *w*[5]+(*t*) >äw(*t*) >*o*(*t*) mark plural (cf. Lowenstamm 1991 among others for *aw* >*oo* in Proto-Semitic).

In the adjectives of Tigrinya, Tigre and Gɨʕɨz, we find gender markers *-a, -u-, -i-, -t* (in *-it* and *-ti*) as shown in (10-12) above. In Amharic too, we find vowels which correspond to North Ethio-Eritrean Semitic *-a-, -i-,* and *-u-* in adjectives as indicated in (13-15). As we can observe

[3] The element *-ti* in *nigis-ti* 'queen' (in Tigrinya) corresponds to *-t* in *nigis-t* 'queen' (in Gɨʕɨz).
[4] *a* and ā in Tigre, Harari and Proto-Semitic correspond to ä and *a* in Tigrinya and Amharic.
[5] The element *w* is a vocalic equivalent of ū/u (cf. Hasselbach 2007: 128).

from the examples in (16-17), Amharic and Tigre adjectives have internal plurals (more or less similar to the nominal and verbal internal plurals of Tigrinya) different from their adjective counterparts in Tigrinya.

Besides, we see EES nominals whose plurals are expressed by attaching suffixes to the stems. These suffixes are *-očč, -an, -yan, -yat* in Amharic, -āt*, -otāt, -ot, -ač, -at,* and *-am* in Tigre and *-at, -tat, -an, -yan, -yat, -ti, -o,* and *-ot* in Tigrinya (cf. Raz 1983 for Tigre; Getahun 1987 E.C. for Amharic; Leslau 1995; Tesfay 2003 for Tigrinya; Baye 2009 E.C.). Tigre has also -āt and *-at* which indicate feminine plural and feminine singular respectively.

As we can observe from the discussion below, the plural forms are related among themselves and with the gender elements. The element *-a-/-ā-* as in (10ai, 17bii) indicates feminine gender, while *-a-/-ā-* as in *mänabɨr* 'chairs' (a plural form of *mänbär* 'chair') in Tigrinya and as in (17ciii) in Tigre marks plural. In (18a-b), *-a-* and *-i-* indicate feminine and masculine genders, while in the rest of the examples we observe a verbal and nominal plural marker *-a-* in the cvcacvc pattern in Tigrinya as in the case of *säbabär-ä* 'he broke repeatedly' (a plural form of *säbär-ä* 'he broke') as exemplified in (18c-g):

(18)	ai. qäṫṫan 'thin(f)'	aii. qäṫṫin 'thin(m)',		Tigrinya
	bi. ṣällam 'black(f)'	bii. ṣällim 'black(m)'		
	ci. mänṣäf 'carpet'	cii. mänaṣɨf 'carpets'		
	di. bäggiʕ 'sheep (sg)'	dii. ʔabagiʕ 'sheep(pl)'		
	ei. sɨbär 'you break'	eii. säbabɨr 'you break repeatedly'		
	fi. mänṫil-u 'he snatched'	fii. mänaṫil-u 'he snatched repeatedly'		
	gi. säbär-ä 'he broke'	gii. säbabär-ä 'he broke repeatedly'		

In Harari too, we find a verbal plural cvcācvc as in (19) below:

(19)	a. sabara 'he broke'	b. sibābara 'he broke repeatedly'	Harari
			(Wagner 1997: 494)

In Tigre, we see a feminine gender marker -ā- (20ai, 20bi) and a masculine gender marker *-i-* (20aii, 20bii) as in the following:

(20)	ai. ħaċċār 'short (f)',	aii. ħaċir (m),	aiii. ħaċāyɨr (m and f pl)	Tigre
	bi. ħaddās 'new(f)',	bii. ħaddis (m),	biii. ħaddāyɨs (m and f pl)	
				(Raz 1983: 33-34)

Furthermore, Tigre has a verbal and nominal plural marker *-ā-* inserted in the plural pattern cvcācvc as in *kanāfɨr* 'lips' (plural of *kanfar* 'lip') or in (20aiii, 20biii) above, and in (21aii, 21bii and 21cii) below:

(21)	ai. sabar-a 'he broke'	aii. sabābar-a 'he broke repeatedly'		Tigre
	bi. manṣaf 'carpet'	bii. manāṣɨf 'carpets'		
	ci. bɨgguʕ 'sheep (sg)'	cii. ʔabāgɨʕ 'sheep (pl)'		
				(1983: 19-20, 53)

The element -ā-/-a- inserted in the verbal and nominal internal plural cvcācvc/cvcacvc (cvcācvc >cvcacvc) pattern of Gᵻʕiz, Tigre and Tigrinya shows plurality. As we observe in (16), however, the pattern of the plural forms of verbs and adjectives can become cvcaccvc in Amharic as in the case of *aċċɨr* 'short (m and f sg)' and *aċaċċɨr* 'short (m and f pl)'. In Tigre too, we see the plural forms of adjectives *cacācɨc*/*caccācɨc*[6] as in (20aiii) and in (20biii).

As indicated above, the element -ā- in Tigre and Harari correspond to *-a-* in Tigrinya. In (18ai,18bi, 20ai, and 20bi) a/ā marks feminine gender, while in (18cii, 18dii, 18eii, 18fii, 18gii and in 20aiii, 20biii, 21aii, 21bii, and 21cii), a/ā marks plurality. The vowels *-a-* and *-i-* in Tigrinya ħaddas 'new(f)' and ħaddis 'new(m)' indicate feminine (f) and masculine (m) genders respectively. In Tigre too, we have *-ā* in ħadās 'new(f)' and *-i-* in ħadis 'new(m)' which indicate feminine and masculine genders respectively. In Tigre, the plural of ħadās and ħadis is ħadāyɨs 'new (pl)'. In Tigrinya, the plural of ħaddas and ħaddis is ħaddästi 'new (pl)'. In both Tigrinya and Tigre the vowel -ā or -ā >*-a* in ħad(*d*)*as*/ħad(*d*)ās 'new (f)' indicates feminine gender. In Tigre, the vowel -ā in ħadāyɨs 'new (m and f pl)' marks plural. In Tigrinya, the vowel *a* >*ä* and the suffix *-t* in ħaddästi 'new (m and f pl)' (*-i* in *-ti* is an epenthesis) mark plural. In Tigre too, feminine gender can be marked by *t* as illustrated in (22bi, 22di).

(22)	ai. gɨrrɨm 'handsome (msg)'	aii. gɨrrumām (mpl)	Tigre
	bi. gɨrrɨmɨt 'beautiful (fsg)'	bii. gɨrrumāt (fpl)	
	ci. qɨrub 'near, kin (msg)'	cii. qɨrubām (mpl)	
	di. qɨrbɨt 'near, kin (fsg)'	dii. qɨrubāt (fpl)	
	ei. sɨbur 'broken (msg)'	eii. sɨburām (mpl)	
	fi. sɨbrat 'broken (fsg)'	fii. sɨburāt (mpl)	

(1997: 449-450)

Moreover, feminine gender can be marked by *t* in Tigrinya as shown in (23aii, 23bii, 23cii, 23dii), while the plural can be marked by two feminine gender markers (*a*+*t*) as in (23aiii, 23biii, 23ciii and 23diii) below:

(23)	ai. mɨluʔ 'full (msg)'	aii. mɨlɨʔti 'full (fsg)'	Tigrinya
	aiii. mɨluʔat 'full (m and fpl)'		
	bi. ʕɨwwur 'blind (msg)'	bii. ʕɨwwɨrti (<ʕɨwwur+ti) 'blind (fsg)'	
	biii. ʕɨwwurat 'blind (m and f pl)'		
	ci. kɨbur 'dear (msg)'	cii. kɨbɨrti (<kɨbur+ti) 'dear (fsg)'	
	ciii. kɨburat 'dear (m and f pl)'		
	di. fɨluṭ 'known (msg)'	dii. fɨlɨṭti (> fɨluṭ+ti) 'known (fsg)'	
	diii. fɨluṭat 'known (m and f pl)'		

As in the case of Tigre and Tigrinya, *t* in Gᵻʕiz marks a feminine gender as in (24bi). The elements *-an* and *-at* are used as masculine plural (24aii) and feminine plural (24bii) gender markers.

(24)	ai. kɨbur 'dear (fsg)'	aii. kɨbur-an (mpl)	Gᵻʕiz
	bi. kɨbɨrt (fsg)	bii. kɨburat (fpl)	

[6] Short *-a-* and -ā- (long *-a-*) in Tigre cacācic/caccācic correspond to -ä- and *-a-* in Tigrinya cäcacic.

In (25a) and in (25c-f), we can see that the Amharic forms can be used for both genders. Thus, *-t* in (25b*)* appears to mark smallness, diminutive etc. Consider the following:

(25)	a. and	b. andit (< and-it)	Amharic
	one	one-f	
	'one(m)'	'one (f)'	
	c. and set	d. and wänd	
	'one woman'	'one man'	
	e. hulät set-očč	f. hulät wänd-očč	
	two woman-pl	two man-pl	
	'two women'	'two men'	

As illustrated in the examples above, the elements *a*, *t* or *a+t* can indicate feminine gender. But these feminine gender markers can also indicate plural. In Tigrinya, the two feminine gender markers *a+t*, can, as in (23aiii, 23biii, 23ciii, 23diii), indicate plural (m and f). In Tigre as in (22eii) and Gɨʕɨz as in (24bii), the feminine plural is marked by two feminine gender markers, ā/*a* + *t*. According to Hasselbach (2007), it is developed through the spread of /t/ from a feminine singular after it was interpreted as a general feminine marker. In (22cii, 22eii), we also observe that Tigre indicates number by ā+m in the masculine. As we can see in (24aii), Gɨʕɨz marks masculine plural by *a+n*. The morpheme *n* is an Afro-Asiatic number marker which can become *m* in the masculine as in the case of Tigre or Berber (cf. Siddiqi 2009 for examples from Berber; Tesfay 2016 for examples from Tigrinya).

In pronouns, the number element *n* (that can be realized as *m* in the masculine) can mark number (cf. Buccellati 1996; Lipiński 1997; Siddiqi 2009; Tesfay 2016) in EES and other Semitic languages. The element *-n/m* can also mark number in EES possessive suffixes. In verbs too, number can be indicated by the elements *n/m*, *-a* or *-u.* In EES Nouns and adjectives, *-at, -ti, -ač, -oč, -o/ot* can indicate plural. We observe palatalization in EES languages. According to Lowenstamm (1991), *au* becomes *ō* in Proto-Semitic. I assume the suffixes *-ač* in Tigre and *-oč* in Amharic are derived from *-a+ti* (i.e., *-a +ti* > *-ač*) and *-o+ti* (i.e., *-o + ti* > *-oč*) respectively.

As we can see in the examples above, the elements *t* (realized as *-t, -ti* or *it*) and *a* can mark feminine gender. However, these elements can also be used as plural markers.

In Tigre, -āt can mark plural (cf. Raz 1983: 17-18), while diminutives and paucatives can be marked by *-at* or *-it* and by -āt respectively (1983: 25-26).

In the languages in question, we see syncretism that can be defined as the representation of different combinations of morphosyntactic values by the same form. In the third person plural for instance, Tigrinya syncretizes number and person with gender in the perfective. Thus, in (1b) and (1c) we see -a (3fpl) and -u (3mpl) respectively. However, number can also be marked by *au/aw* > *o* / -äu/äw > *o* and *-aut/awt* > *ot* / -äut/äwt > *ot* (short *a* becomes ä in several EES languages) and their allomorphs.

As discussed above, gender and number markers are related. Hence, (1) the feminine gender markers *a/ā,* and *at*/āt can function as internal or external plural markers, (2) the masculine gender marker *u* can function as a plural marker. (3) *au*/äu > *o* or *aut*/äut > *ot* can become external plurals (4) *a* + *ti* > *-ač* and *au+t*/äu+ti > *-oč* can be used as external plurals.

4. Number and Gender as classifiers

We have said earlier that gender is not overtly marked on EES head nouns. In fact, Lipiński (1997: 233) says "the formal distinction between masculine and feminine is not an original feature of Semitic languages, as shown by the many basic feminine nouns without any special morpheme". Lipiński notes that "This opinion is apparently confirmed by the South Ethiopic idioms of the Gurage group which have no feminine mark" (*ibidem*). However, nouns derived from earlier adjectives and participles can show gender distinctions as illustrated in (26-28) Tigrinya examples below:

(26)	a. wäladi	b. wäladit	c. wälädi (< wäläd-ti)	Tigrinya
	parent-m	parent-f	parent-pl	
	'parent (m)'	'parent (f)'	'parents'	
(27)	a. ʔamani	b. ʔamanit	c. ʔamän-ti	
	believer-m	believer-f	believer-pl	
	'believer (m)'	'believer (f)'	'believers'	
(28)	a. mɨrux	b. mɨrɨx-ti	c. mɨrux-at	
	prisoner (m)	prisoner (f)	prisoner-pl	
	'prisoner (m)'	'prisoner (f)'	'prisoners'	

The word ʔanɨsti (29b) can be related to Proto-Semitic, *nš* 'man (kind)' and *ʔnθ* 'woman'. The early function of *-t* in *ʔanɨsti* may be a classier, a feminine gender marker or a plural marker. For the current speaker of the language, however, *-t* in *säbäyti* (29a) and in *ʔanɨsti* (29b) does not play such a role. The element *-t* is only regarded as a part of the word *ʔanɨsti* or *säbäyti* and not as a morpheme *-t*. Consider the following:

(29)	a. säbäyti	b. ʔanɨsti	Tigrinya
	'woman'	'women'	

But *-t* in (26b, 27b), and *t-* in (28b) indicate feminine gender, while the vowel *a >ä* (in the cv pattern of the stem) followed by *t-* in (26c, 27c) and *-at* in (28c) are plural markers.

In Tigre, *-at/-it*[7] and -āt can indicate feminine singular (fsg) and feminine plural (fpl) respectively as in the following:

(30)	a. nāfɨʕ	b. nāfʕat	c. nafʕāt	Tigre
	'useful (m)'	'useful (fsg)'	'useful (fpl)'	
(31)	a. qadām	b. qadāmit	c. qadāmyāt	
	'former'	'former (fsg)'	'former (fpl)'	

(Raz 1983: 33)

Languages like Burmese never use a simple numeral, as "one man", but employ auxiliaries, affixes, words or items which signify the class to which the name belongs, the use to which it is put, the resemblance in shape, or form of the referent etc. In EES languages, as in many other world languages, we do not expect to see such classifiers.

[7] The element *i* in *it* is an epenthesis (cf. Raz 1983: 7 for typical Tigre sequence composed of cv and cvc).

However, EES languages, as in the case of European languages, use measure words, which are required for counting mass nouns. Measure words denote a particular measurement of something (e.g. a drop, a pint, a cupful). They can be used to quantify mass nouns that indicate things without inherent countable units as in (32-33). In this sense, measure words are also known as mass classifiers. Observe the following examples from Amharic:

(32) a. hulät bɨrćiqo təĵ Amharic
two glass local wine
'two glasses of local wine'
b. assɨr doniyya ťef
ten sack ťef
'Ten sacks of ťef'

In the same way, we have similar Tigrinya examples in (33)

(33) a. ħadä ʕɨtro may Tigrinya
one jar water
'a jar of water'
b. sälästä ṣiʕnät gämäl ćäw
three load camel salt
'three camel load of salt'
c. sälästä ʔɨnfɨx'ti mäšäla
three ʔɨnfɨx'ti sorghum
'three ʔɨnfɨx'ti of sorghum' (ʔɨnfɨx'ti = about 20 kilos)
d. ħadä saṣun kɨdawɨnti
one box clothes
'one box full of clothes'

In general, we have said earlier that gender is not overtly marked on EES head nouns (it is not marked by a gender marker attached to the noun). In Amharic for instance, Leslau (1995: 161) says distinction in gender is indicated by the gender of the definite article, by gender of the verb etc. If we compare the Amharic phrases *and set* 'one woman' (25c), *andit set* 'one woman' (25b) and *and wänd* 'one man' (25d), the element *-it* does not appear to show gender. It may have diminutive or classifying functions. If we take other Amharic examples, the element *-it* as in *ɨj* 'child, girl, boy' and *ɨj-itu* 'the girl', *bäg* 'sheep' and *bägitu* 'the ewe' which occurs attached to a definite article may have similar functions. Moreover, Some EES languages have the same form for the singulars and plurals. In Muher, for instance, *fàrὰz* 'horse' can also mean 'horses'. In Tigre, the suffix *-at* (or *-tat*[8]) can be used to derive the singulative from the collective as in *rɨšaš* 'lead' and *rɨšaš -at* 'a bullet, piece of lead', *wagre* 'olive trees, fruits' and *wagretat* 'an olive tree, a piece of olive wood'.

Genders can be defined as classes of nouns reflected in the behaviour of associated words (cf. Corbett 1991: 3; Wälchli and Di Garbo 2019). If one says a language has 3 genders, it implies that there are 3 classes of nouns that can be distinguished syntactically. In fact, Corbett (1991: 135) argues gender systems arise from the use of nouns with classificatory possibilities.

[8] As *-tat,* as in *wagre-tat,* occurs suffixed to stems ending in vowels, the first *t* in *-tat* is inserted to break the impermissible sequence of the vowel *a* in *-at* and the preceding vowel.

Hasselbach (2007: 131-133) says -ā/-āt, *-ū* and -ī seem to be gender dependent associated with plurality used for both internal and external plurals. According to Fischer (1997: 193-194), the most common of the Arabic feminine markers is *-at*, (*-a*: and *-aːʔ* are mainly reserved for adjectives). Fischer argues the basic function of *-at* is to denote the particular distinguishing it from the general. According to Fischer, *-at* marks (i) the female in contrast to the generic term (which includes the male gender), (ii) the outstanding person in contrast to the common (the evaluative function may be included here) (iii) the singulative in contrast to the collective. Lipiński (1997), Buccellati (1996), Siddiqi (2009) and several other scholars show that the element *n* (which can become *m* in the masculine) is an Afro-Asiatic number marker. However, the data from Semitic languages reveal that number is frequently marked by gender elements *a, u* and *t*. Moreover, number can be marked by the combination of these gender markers. I assume EES gender and/or number markers (*a/ā, t, u/ū, a+t/*ā+t=*at/*āt, *a+u/ä+u=o, a/*ä+u+t=*ot, a+ti=ač, a+u+ti=oč*) can function as classifiers. However, further research is also needed.

5. Multi-Plurals

In this section, internal plurals followed by one or two external plural suffixes are referred to as multi-plurals. As indicated above, the languages in question can have internal plurals with the pattern $c^1vc^2ac^3vc^4/c^1vc^2āc^3vc^4$. The vowel *a/ā* following c^2 is a plural marker. The vowels after c^1 and after c^3 are usually ä/ā and ɨ respectively. In languages such as Tigrinya, for instance, we see forms like *sur* 'root' and *särawɨr/särawur* 'roots'. In languages like Tigre too, the vowels after c^1 and after c^3 are usually realized as *a* and ɨ respectively as in the case of *manṣaf* 'carpet' and *manāṣif* 'carpets'. But it is possible that the vowels after c^1 and after c^3 in the cv plural pattern can be similar to the vowels of the first and last syllables in the singular (cf. McCarthy 1982 among others for Arabic). If, for instance, we compare the words ħiṣan 'baby' and $ħ^1iṣ^2aw^3in^4ti$ 'babies' in Tigrinya, *liq* 'scholar' and $l^1iq^2aw^3in^4t$ 'scholars' in Gɨʕɨz and in Amharic, we observe that the vowels after c^1 in the internal plural patterns are similar to the vowels in the first syllables of their singular forms. Furthermore, the vowel following c^1 can also be realized as *a* if c^1 is a pharyngeal or a laryngeal as in (37b). As indicated above, the vowel between c^3 and c^4 in $c^1vc^2ac^3vc^4$ /$c^1vc^2āc^3vc^4$ is usually ɨ. However, it may be similar to the vowel in the last syllable of the singular as in the case of Tigrinya ʿamil 'client' and ʿamawil 'clients', *mändil* 'handkerchief' and *mänadil* 'handkerchiefs'. If the last syllable of the plural ends in ɨw, we observe ɨw>*u* as in Tigrinya *ʕataɨw>ʕataru 'jars' (plural of ʕɨtro 'jar'). If c^3 is geminated, the vowel *a* following c^2 can be realized as ä as in the case of ʕanjal 'fool' which forms its plural as ʕanajɨl in standard Tigrinya and ʕanäjjɨl in a dialect of Tigrinya. According to Lowenstamm (1991) (verbal communication), Ratcliff (1998) and other scholars, the change of *a* to ä following c^2 is substituted by the gemination of the following consonant (i.e. c^3). As mentioned above, the vowel v following c^3 can be similar to the vowel of the singular in the last syllable or can be realized as ɨ, *u* or *a*. If the vowel following c^3 is realized as *u*, the plural vowel *a* following c^2 can optionally be deleted as in the case of *ʔabaʕur/ʔabʕur* 'oxen' in Tigrinya. If the vowel following c^3 is realized as *a*, the plural vowel *a* following c^2 can be deleted as in the case of **ʔaħawat* >*ʔaħwat* 'brothers/sisters' (40b) which can be related to Arabic *ʔaḫawāt-un* 'sisters' (cf. Hasselbach 2007: 125) and to Arabic *ʔaḫawāni* 'brothers'. Moreover, *-at* or *-ti* can idiosyncratically be added to the internal plural pattern as in the case of *mäṣaħɨfti* 'books', *ʔataxɨlti/ʔatkɨlti* 'plants' (38b, 38c) or *ʔaxlabat* 'dogs' (36d). As in other Semitic languages (cf. Moscati *et al*. 1964 among others), the internal plurals of Tigrinya, Amharic, Gɨʕɨz and Tigre followed by *-at* or *-ti* suffixes can etymologically be regarded as double plurals. However, we

may find Amharic internal plurals followed by two external suffixes as in (41c, 42c). In this article, the multi-plurals and double plurals in (34b, 34c, 35c, 36d, 37d, 38b, 38c, 41b, 41c, 42b, 42c) can be referred to as multi-plurals.

The word in (34b) is etymologically a double plural form of the singular indicated in (34a). In (35b), the word *mämhɨran* (derived from *mämhɨr+an*) is a plural form of the singular word in (35a). Moreover, the words in (34c and 35c) are the multi plurals of the singulars in (34a and 35a) respectively as in the following:

(34)	a. liq	b. liqawɨnt	c. liqawɨntočč	Amharic
	'scholar'	'scholars'	'scholars'	
(35)	a. mämhɨr	b. mämhɨran	c. mämhɨranočč	
	'teacher'	'teachers'	'teachers'	

The forms in (36b-d), (37b-d), (38b-c), (39b) and (40b) are the plural forms of (36a), (37a), (38a), (39a), and (40a) respectively. (36b) and (37b) are the basic internal plural forms, while in (38b) *-ti* is added to the basic internal plural. In (36c-d, 37c-d, 38c, 39b and 40b), the plural vowel *a* following c^2 in the cv plural pattern is deleted. This may happen if the vowel following c^3 in the prosodic template of the plural (or cv plural pattern) is realized as *a* as in (36c, 37c, 39b, 40b) or *u* as in *ʔabaʿur/ʔabʿur* 'oxen' and/or if the cv pattern is followed by *-at* or *-it* as in (36d, 37d, 38c). In (36d), *-at* is added to the form in (36c). In (37d) too, *-ti* is, I assume, added to the form in (37b). The plural form of ħaw 'brother' in (39a) and ħawti 'sister' in (40a) is *ʔaħwat* in (39b and 40b) which is derived from the basic internal plural form **ʔaħawat* (similar to Arabic *ʔaħawat*). Consider the following:

(36)	a. kälbi	b. ʔaxalɨb	c. ʔaxlab (< ʔaxalab)	Tigrinya
	'dog'	'dogs'	'dogs'	
	d. ʔaxlab-at			
	'dogs'			
(37)	a. bäx'li	b. ʔabax'ɨl	c. ʔabqal (< ʔabaqal)	
	'mule'	'mules'	'mules'	
	d. ʔabqɨlti			
	'mules'			
(38)	a. täxli	b. ʔataxɨlti	c. ʔatkɨlti (<ʔataxɨl-ti)	
	'plant'	'plants'	'plants'	
(39)	a. ħaw	b. ʔaħwat (< *ʔaħawat)		
	'brother'	'brothers/sisters'		
(40)	a. ħawti	b. ʔaħwat (< *ʔaħawat)		
	'brother'	'brothers/sisters'		

The forms in (41b-c) are the plurals of (41a). The forms in (42b-c) are the plurals of (42a). However, there are formal differences between the forms in (41b and 42b) and those in (41c and 42c). Those in (41b and 42b) are etymologically double plurals, while in (41c and 42c) we find the Amharic external plural *-očč* suffixed to the double plurals as illustrated below:

(41)	a. mäṣħaf	b. mäṣaħɨft	c. mäṣaħɨftočč	Amharic
	'book'	'books'	'books'	
(42)	a. liq	b. liqawɨnt	c. liqawɨntočč	
	'intellectual'	'intellectuals'	'intellectuals'	

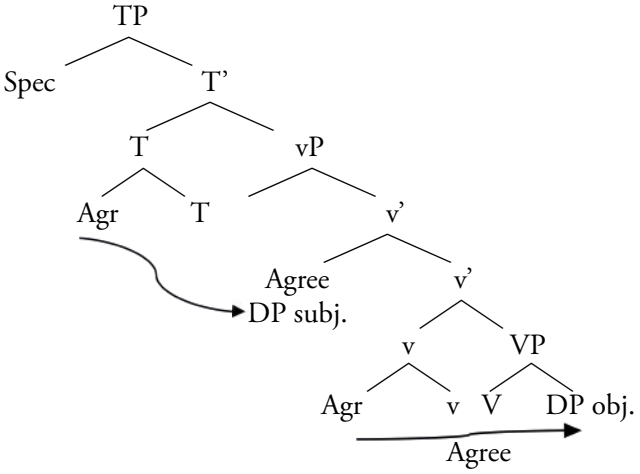
There are Amharic native speakers who think that the plurals of *mäṣhaf* and *liq* must be *mäṣhafočč* or *mäṣahift* (and not *mäṣahiftočč*) for the former, *liqočč* and *liqawint* (and not *liqawintočč*) for the latter. The plural of the English word *child* is *children*. But in the literature, we see that the plural of the word *child* was originally *childer* and *children* was considered a double plural. In Tigrinya, native speakers are not aware that the suffixes *-at* in (36d) and *-it* in (38b) are double plural markers. In fact, they are (ignoring historical antecedents) regarded as only part of the plural form. In Amharic too, the originally double plurals *liqawint/liqočč* and *mäṣahift/mäṣhafočč* (together with *liqawintočč* and *mäṣahiftočč*) may be accepted as plurals of their singular forms.

6. Position of Agreement morphemes on the Structure

In the literature, it is indicated that the structure that contains the nominative subject is a CP and the C selects the T, whereas the structure that contains the genitive subject is without CP. Thus, it is assumed to have a defective T. Scholars argue that the D that takes the defective T is allowed to license the genitive case (cf. Miyagawa 2012: 8, 126, 131, 134, 146).

Fuß (2005) and other scholars believe that Agr-nodes do not head their own projections in the syntax. Thus, Agr-morphemes can attach parasitically to other "substantial" functional categories (such as T). In Corbett (1991: 18), we see that gender is located at n, while number can be located at n, n and num or just num. According to Fuß (2005: 81-84), subject and object agreement morphemes occur attached to T and v respectively. The head complex [v Agr (v)] can enter into an Agree relation with the feature set of the object DP, while the head complex [T Agr (T)] initiates an Agree operation which targets the closest active DP with an appropriate feature content which leads to subject agreement and nominative licensing. Object and subject agreements are checked after v and T have been merged with their complements. In the latter T merges with vP, while in the former, v merges with its complement VP which contains the object as we can see from the tree below adapted from Fuß (2005: 83-84):

(43)



(*Ibidem*)

In the case of EES languages, I assume subject, object and genitive subject agreement morphemes occur attached to T, v and D respectively. In the latter case, I assume agreement is checked after D has been merged with its complement nP. I think the head complex [D Agr

(D)] may enter into an Agree relation with the feature set of the genitive DP.[9] Following recent literature, I assume the following:

a. Agents within DP are generated in the specifier of a little n whose complement is NP and the head of NP raises into n (cf. Adger 2003: 267-275, Fuß 2005 among others).

b. Roots are considered acategorial in that their syntactic category is contextually specified by combining with category-defining functional heads such as v, n, a (cf. Sato 2010: 16-19, Arad 2005: 42-47 among others).

c. APs branch from nP (cf. Adger among others).

EES languages have nouns which can correspond to Hebrew mišqalic andNon-mišqalic nouns. In the former, consonantal roots are combined with nominal patterns, while in the latter, nouns are made of syllabic roots and many of them can be borrowed (cf. Arad 2005). Thus, items like *därho* 'hen', *lam* 'cow' and *bet* 'house' are roots.

According to Arad (2005: 42), binyanim have vowel slots, but lack the vowels themselves, while mišqalim have their inherent vowels specified. According to Siddiqi (2009: 51-54), irregular nouns and irregular verbs of English are realized by one VI. In *John ate*, for instance, √eat and [PAST] are realized by one VI, while in *John killed,* √kill and [PAST] are realized by two VIs*, kill* and *-ed.* Taking such views into account, we can have Tigrinya plural forms such as *m¹än²ab³ir⁴* 'chairs' (a plural form of *m¹*än²b³är⁴ 'chair') that can be realized as one VI. Regarding the plurals like *säb-at* 'persons', however, the root and the suffixed plurals are realized by two VIs. In the internal plurals like *mälaʔixti* 'angels', *ʔataxilti/ʔatkilti* 'plants', and *ʔaxlabat* (<*ʔaxalabat) 'dogs', *-ti* and *-at* may be added idiosyncratically to the already plural and form a double plural (cf. also the examples in 34-42 above). The plural marking *a/ā* of the template may be deleted (McCarthy 1982 among others).

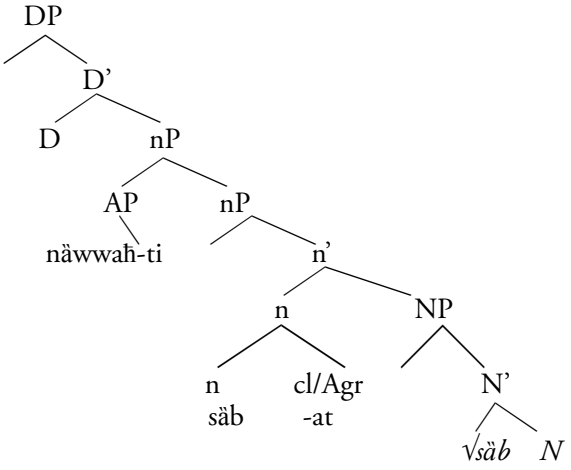
Taking the above indicated views into consideration, we can have Tigrinya examples *näwaħ-ti säb-at* (44b and 44d), *näwwaħ märaħit hagär* (44e) and *näwwaħ-ti märaħti hagär* (44f) which correspond to the structures in (45), (46) and in (47) respectively.

(44)	a. näwwiħ säb	b. näwwaħ-ti säb-at	Tigrinya
	tall (m) person	tall- pl person-pl	
	'tall (masculine) person'	'tall persons'	
	c. näwwaħ säb	d. näwwaħ-ti säb-at	
	tall (f) person	tall- pl person-pl	
	'tall (feminine) person'	'tall persons'	
	e. näwwaħ märaħ-it hagär	f. näwwaħ-ti märaħ-ti hagär	
	tall (f) leader-f country	tall -pl leader-pl country	
	'a tall (f) leader (f) of a country'	'tall (pl) leaders of a country'	

In (45), the root *säb* is inserted under the root node and merges with the category-defining head N. The root *säb* which occurs as a sister to N raises to n, while *näwwaħ* followed by the plural suffix *-ti* occurs in AP which branches from nP as in the following:

[9] Subjects in both nouns and clauses are generated within the projection of the lexical categories: N in the former and V in the latter (cf. Adger 2003; Fukui 2006 among others).

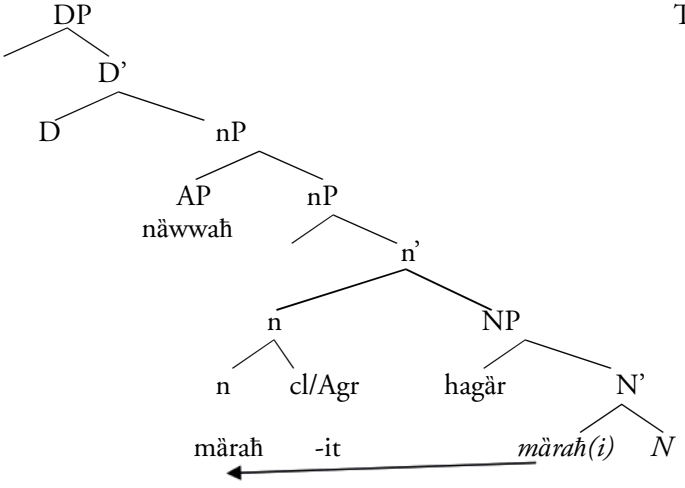
(45) Tigrinya



According to Adger (2003) and others, we can have nP (which corresponds to vP) between NP and DP, while APs can branch from nP. The head complex [n Agr [n]] may enter into Agree relation with the feature set of the DP under NP. In (45), I assume the plural element *-at* is added to n. I assume the plural suffixes *-at* and *-ti* are suffixed to *säb* and to *näwwaħ* respectively.

As we can observe below, *näwwaħ märaħ-it hagär* (44e) corresponds to the structure in (46). We can see that in (46), the head *märaħ*(*i*) raises into n, just as the head of VP raises into v (cf. Adger 2003: 275), while *hagär* occurs in the spec of NP. I assume the feminine marker *-it* occurs under n. In the adjective *näwwaħ* (which branches from nP) the vowel *a* marks feminine gender. I assume the actual ϕ-features of the Goal are copied onto the Probe in the initial postsyntactic module (after syntactic operations are complete) at MS, though the details may need further investigation. Let's see the following:

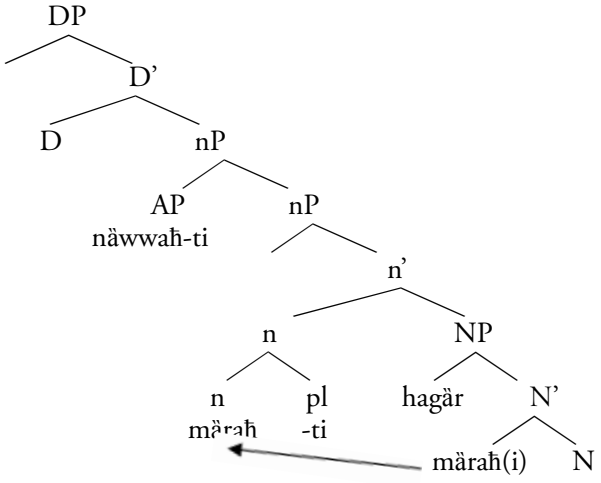
(46) Tigrinya



In (46), the feminine marker *a* in *näwwaħ* can be compared to the masculine marker *i* in *näwwiħ* 'tall (m)'.

We see that näwwaħti märaħ-ti hagär (44f) has a structure in (47). The head raises into *n* and gets the plural suffix *-ti*. The adjectival phrase (AP), which includes participles and adjectives of the language in question, branches from nP (cf. Adger 2003: 274-276).

(47) Tigrinya



As indicated above, Hebrew binyanim have vowel slots, but lack the vowels themselves, while mišqalic nouns have their inherent vowels specified. However, non-mišqalic nouns are made of syllabic roots. Mišqalic nouns are made of consonantal roots, while non-mišqalic nouns are made of syllabic roots (cf. also Arad 2005: 34-42). Taking such views into account, we can have the root *liq* in Amharic, Tigrinya and Gɨʕɨz. As in the case of *m*^{1}änb^{2}är^{3} 'chair', *m*^{1}än^{2}*ab*^{3}ɨr^{4} 'chairs', *saʔni* 'shoe' ʔ^{1}*as*^{2}*a*ʔ^{3}ɨn^{4} 'shoes', **l*^{1}*iq*^{2}*aw*^{3}ɨn^{4} is a possible plural of *liq* 'scholar'. However, the actual plural of *liq* is *l*^{1}*iq*^{2}*aw*^{3}ɨn^{4} +*-ti* 'scholars' in Tigrinya. Recall the noun liq and its plural form in Tigrinya (repeated here as 48b).

(48) Tigrinya

a. liq	b. l^{1}iq ^{2}aw^{3}ɨn^{4}-ti
'scholar'	'scholars'

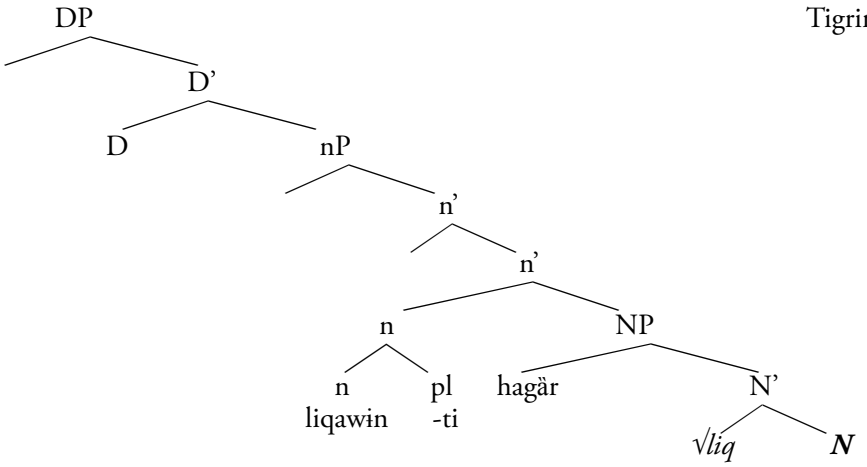
In Amharic too, **l*^{1}*iq*^{2}*aw*^{3}ɨn^{4} is a possible plural of liq, while the actual plurals are *l*^{1}*iq*^{2}*a-w*^{3}ɨn^{4} +*-t* 'scholars' or *l*^{1}*iq*^{2}*aw*^{3}ɨn^{4}+*-t*+*-očč* 'scholars'. Recall the Amharic plurals for liq (repeated here as 49b, 49d).

(49) Amharic

a. liq	b. l^{1}iq^{2}aw^{3}ɨn^{4}-t
'scholar'	'scholars'
c. liq	d. l^{1}iq^{2}aw^{3}n^{4}t-očč
'scholar'	'scholars'

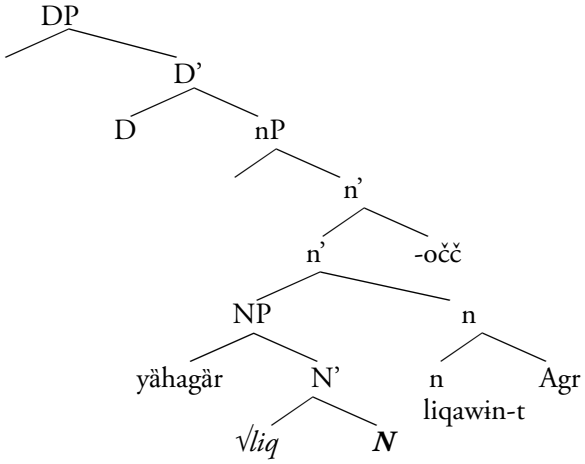
In the examples in (48b) and in the tree structure in (50), we see a double plural in Tigrinya. As illustrated in (50), Tigrinya *liq* forms a possible plural liqawɨn in n. The possible plural and the suffix *-ti* form a double plural. The double plural is the actual plural of Tigrinya *liq* as shown in (50).

(50) Tigrinya



In Amharic, we see double and multi plurals as in (51). In (51), Amharic *liq* forms a possible plural *liqawɨn* in n. The possible plural and the suffix *-t* form a double plural. The double plural is the actual plural of Amharic liq. Furthermore, Amharic can form the multi plural *liqawɨn-t-očč* by adding *-očč* to the double plural *liqawɨnt.*

(51) Amharic



In Amharic, we observe the suffixes on the right side of the tree structure. Compound words in Amharic are right headed and the suffixes indicating number occur attached to the head as in the case of *yämängɨst särratäňa* 'public servant' and *yämängɨst särratäňočč* 'public servants'. In languages like Tigrinya, compound words such as *särahtäyna mängɨsti* 'public servant' and *särahtäyna-tat mängɨsti* 'public servants' are left headed and the suffixes indicating number occur attached to the head. I have no intention to go into details. According to Arregi and Nevins (2012), however, the syntactic computation does not contain statements of linear order only of sisterhood and dominance. Fuß (2005) also assumes linear order is not completely determined by syntax and certain points regarding the inflectional markers are resolved in the post-syntactic morphological component.

7. Conclusion

In this article, I tried to give an overview on the relationship of some aspects of Semitic languages. More specifically, different EES gender and number markers are discussed.

The first observation made is that the vowel -ā which can be identified as a marker of nominal and verbal plurality in Afroasiatic languages survives in the internal plurals, external plurals, verbal plurals and nominal plurals of Semitic (including EES) languages. Moreover, the element *n* also marks number in Semitic and Afroasiatic languages.

The second observation is that Semitic languages employ the elements ā, ū, ī and *t* to mark gender. However, the elements ā, ū, ī, *-an* (<*a+n*) and *-at* (<*a+t*) also mark plural (cf. also Hasselbach 2007 for Ancient Egyptian, Middle Egyptian and Berber *-au* and *-aw* to indicate masculine plural). Thus, we see the interdependence of gender and number markers in nouns, adjectives and verbs of Semitic languages. The fact that the Semitic verbal system is based on an originally adjectival pattern[10] may be the reason why gender and number are marked by the same elements in nominal and in verbal forms (cf. Moscati *et al.* 1964, Lipiński 1997; Hasselbach 2007; Carver 2016 among others for the use of similar gender/number markers in the verbal system and on the predicative adjective and for the frequent lack of clear distinctions between nouns and adjectives in Semitic languages).

The third observation is that EES gender and number markers are similar or strikingly related to Semitic gender and number markers. In EES languages, ā or ā >*a*, and ū or ū >*u* can mark gender in verbs and in pronouns. But these elements can also mark gender and number or gender, number and person. Furthermore, EES languages employ ā or ā>a, *u*, *i* and *t* to mark gender in adjectives and participles. The gender markers ā/a, āt/*at* and *a..t*>*ä--t* can also be used as internal and/or external plural markers in nouns and/or in adjectives of EES languages. As in other Semitic languages, EES languages use ā or ā >*a*, ū or ū >*u,* āt/*at, n* and *an* to indicate number. However, plurality in EES is also indicated by the reflexes of these Semitic plural forms. Thus, EES languages have -ā/a, -āt/*at, -ačč* (<*-ati*), *-ū/u, -očč* (<-ä*u+ti*), *-o* (<-äw), *-ot* (<-äwt), *-n/m*, *-an*, *-yan*[11], *-yat*, ʔn[12] as plural markers. As in other Semitic and Afroasiatic languages, number can be marked by n/m. As in the case of other Semitic languages, gender markers alone or together with other gender or number markers can be used as number markers. Hence, we observe the interdependence of gender and number markers in EES languages too.

The fourth observation is that genders can be defined as classes of nouns reflected in the behaviour of associated words (cf. Corbett 1991 among others). Several previous works on Semitic languages show that the long vowels in verbs, adjectives and participles mark gender. Gender morphemes can correspond to classifiers. As indicated in Wälchli and Di Garbo (2019), I believe classifiers are similar to gender in that they function as classes of referents in the languages in question (cf. Corbett 1991; Kihm 2008; Manzini, Savoia and Tesfay 2018 among others).

It seems possible to assume that -ā or ā >a and -ū or *ū* >*u* were early gender morphemes in verbs and in adjectives (cf. Lipiński 1997: 341, 360 for the relationship between stative forms, verbs and nouns, Hasselbach 2007:132 for the originality of *-ū* and -ā on the verbal system

[10] According to Lipiński (1997: 336-337, 360), the aspectual category of the verbal system is based on the adjectival $c^1a\ c^2c^3$ pattern which can be represented by the Assyro-Babylonian verbal adjective. It developed to the stative/permansive form that became a perfective which can function as a verb. The stative, however, essentially represents the conjugation of a noun or an adjective.

[11] *y* in *-yan* and *-yat* is an epenthesis.

[12] The element ʔn can be related to the demonstrative hn and to the number element *n* (cf. Buccellati 1996; Lipiński 1997 among others).

and on the predicative adjective). I assume that *-ā* or *ā* >*a,* and -ū or *ū* >*u* (which may be followed by *-t, -u,* or *-n/m*) became markers of a section of a group as a subset of another group depending on gender or number. As in other Semitic languages, there is interdependence of gender with number and the use of the former on verbal and nominal forms may be regarded as more original than the latter. Nonetheless, I also assume further research is needed to explore the diachronic relationship between them.

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