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Plurals of Tigrinya and their Relationship

Tigrinya plurals have different forms for number. The analysis of Tigrinya nominals in terms of the grammatical category for number, singular and plural, recognizes the division of plural forms into sound (suffixing) and broken plurals. This paper divides, classifies, systematizes, and demonstrates how one form is derived from another with the aim of assisting the reader to understand the seemingly complex and problematic plural forms of Tigrinya.

Tigrinya has two standard forms, that of Eritrea and that of Tegrāy, which are very close to each other, but this paper takes into account all the plural forms observed in different dialectal varieties.

Different scholars have studied the Tigrinya plural forms, but, as far as I know, the phenomenon has never been exhaustively dealt with. For instance, Mason (1996) mentions very few of the plurals which according to him are called plurals of adjectives. Kogan (1997: 433) says that there are no exact rules of correspondence between the types of broken plurals of Tigrinya and their nominal patterns; according to him, it is only possible to make a list of «some more or less frequent combinations». Asmeret (1983), Palmer (1955), Matewos (1958-59), and other traditional grammarians have also studied plurals of Tigrinya, and the broken plurals of Tigrinya are well discussed in Angoujard – Denais (1989). But no one of them has shown any systematic relationship of the plural forms as indicated in the present article. In fact Ratcliffe (1998: 186) says that «a complete description of the Tigrinya plural system is unavailable». Moreover, his partial description of the plurals is determined by linguistic features of the singulars (for his study of the plurals in other Semitic languages see Ratcliffe 2002). According to the present author (see Tesfay 1992; 1998-99; 2002) the plurals are very much systematically related: for instance, the broken plurals of Tigrinya could be derived from CVCVCVC (cf. McCarthy 1982 for the more or less similar basic prosodic template in Arabic).

This paper is a continuation of my previous works enriched by more examples and figures.

1. Suffixing Plurals

The external or sound plurals of Tigrinya involve the suffixation of plural morphemes. According to Asmeret (1983) and some other native traditional grammarians, (1.I-IX) are regarded as suffixing plurals. Mason (1996: 15) treats –at in (1.I) as –t and considers it a plural morpheme for adjectives. For Kogan (1997: 434) the form in (1.IX) is a broken plural form. Observe the following list:

1. I	–at	e.g.	säb + –at	>	säbat «men»
II	–tat	e.g.	'əmba + –tat	>	'əmbatat «mountains»
III	–an	e.g.	mämhər + –an	>	mämhəran «teachers»
IV	–yan	e.g.	həndawit + –yan	>	həndawyan «Indians»
V	–yat	e.g.	sudanawi + –yat	>	sudanawyat «Sudanese»
VI	–ut	e.g.	'aqha + –ut	>	'aqhut «goods»
VII	–o	e.g.	färadi + –o	>	färado «judges»
VIII	–ot	e.g.	šäqqalit + –ot	>	šäqqalot «workers»
IX	–ti	e.g.	šäqqalit + –ti	>	šäqqälti «workers»

I will hereafter discuss the different forms in (1.I-IX) and we can see from the discussion below, that most of the external plural formatives are limited to some environments. In fact, (1.VI) must be excluded from the list of suffixed plurals shown in (1.I-IX).

A. In (1.VI) –ut as in 'aqhut «goods», 'ab'ur «oxen», 'a'dug «asses» is part of the pattern CVCCVC that we are going to discuss later on (see 12.I-II).

B. –an is limited to very few words such as the following:

2. I	ḥatə'	+ –an	>	ḥat'an «sinners»
II	ṣadəq	+ –an	>	ṣadqan «blessed»
III	mämhər	+ –an	>	mämhəran «teachers»

Words with the suffix –an are usually used by clergymen who know Ge'ez. Such words are not only rare but they can also be substituted by other variants. For instance, (2.I-III) can be substituted by other plural forms (3.I-III).

3. I	ḥati'atäyna «sinner» (derived			
	from ḥati'at «sin» + –äyna)	+ tat	>	ḥati'atäynatat «sinners»
II	ṣadäq	+ –at	>	ṣadəqat «blessed»
III	mämhər		>	mämahər «teachers»

Thus, the plural forms ḥat'an, ṣadqan, and mämhəran (2.I-III) can be described as + Ge'ez for they are in use due to the influence of Ge'ez and can be substituted by the native plurals ḥati'atäynatat «sinners», ṣadəqat «blessed»,

and *mämahər* «teachers» respectively. In (3.I-II) the suffixed plural mor-
phemes –*tat* and –*at* are suffixed to *ḥaṭi'atäyna* «sinner», and *ṣadəq*
«blessed», to become *ḥaṭi'atäynatat* «sinners», and *ṣadəqat* «blessed», re-
spectively. We also see that the native broken plural form *mämahər* «teach-
ers» (3.III) can substitute the + Ge'ez *mämhəran* (2.III).

C. –*yan* and –*yat* are + Ge'ez plural forms which are allomorphs of –*an* and
–*at* respectively. –*yan* is used for masculine plural while –*yat* is used for femi-
nine plural. Here are examples:

4. I   *ēritrawi* «Eritrean (m.)» + –*an*   > **ēritrawian* > *ēritrawyan*
                                               «Eritreans (m.)»

   II   *ēritrawit* «Eritrean (f.)» + –*at*   > **ēritrawitat* > **ēritrawiat* >
                                               ēritrawyat «Eritreans (f.)»

   III *ēritrawi* «Eritrean»   + –*at*   > **ēritrawiat* > *ēritrawyat*
                                               «Eritreans (f.)»

Tigrinya employs the morpheme –*ay* (and its allomorphs such as –*ättay*) to
indicate someone who belongs to a particular tribe, place etc. as in *bilēn* + –*ay* >
bilēnay «someone who belongs to Bilen», and *ēritra* + –*ay* > *ēriträttay*
«someone from Eritrea / Eritrean» (*t* is inserted between the last vowel *a* in
ēritra and the vowel *a* in –*ay* to break the impermissible vowel sequence).
Currently, however, the morphemes –*awi* / –*wi* and –*awit* / –*wit* are taken from
Ge'ez and are used to indicate that someone belongs to a particular country, or
has a particular nationality. –*awi* (m.) and –*awit* (f.) (–*awi* and –*awit* become
–*wi* and –*wit* respectively when they occur after vowels) are + Ge'ez mor-
phemes that change a proper noun such as Eritrea into an adjective.
    The syllabic structure of Tigrinya is CV and CVC. Thus, in *ēritrawi* and
ēritrawit, the vowel *i* in the morphemes –*awi* and –*awit* is in a vowel position.
However, since a vowel sequence such as that of *ia* in **ēritrawian* and
*ēritrawiat is not permissible in Tigrinya, *i* becomes *y*. In other words, the *i* in
vowel position is changed to *y* when it takes the consonant position (Guerssel
1986). In the case of masculine plural, –*an* is suffixed to forms with –*awi* to
become –*awyan*, i.e. –*awi* + –*an* > **–awian* (not permissible) > –*awyan* (see
4.I). In the case of feminine plural we can assume the deletion of *t* in –*awit* as
in (4.II), or the suffixation of –*at* to –*awi* as in (4.III).
    On the other hand, Tigrinya adjectives show gender distinction as in *bəruk*
«blessed (m. s.)», and *bərəkti* «blessed (f. s.)». But –*at* is suffixed to the mascu-
line singular form such as *bəruk* and not to the feminine singular such as *bərəkti*,
and the plural of both *bəruk* and *bərəkti* is *bərukat*. Hence, the process in (4.III)
could be more plausible than that of (4.II). Thus, we can assume that –*an* and –*at*
could be suffixed to –*awi* / –*wi* (and not to –*awit* / –*wit*), to produce –*yan* (4.I)
and –*yat* (4.III) respectively. Nonetheless, –*an*, –*yan*, and –*yat* occur in a limited
environment and are unproductive. In fact, –*yat* is almost non existent.

D. The morphemes *–o*, *–ot*, and *–ti* are variants that can be affixed to special type of singular nominals with the patterns as below:

> (a) CÄCAC   + *–i* / *–ay* / *–it*   as in *färayi* / *färayay* / *färayit* (5.III)
> (b) CÄCCAC   + *–i* / *–ay* / *–it*   as in *šäqqali* / *šäqqalay* / *šäqqalit* (5.II)
> (c) CACAC   + *–i* / *–ay* / *–it*   as in *maraki* / *marakay* / *marakit* «captor»
> (d) CACCAC   + *–i* / *–ay* / *–it*   as in *ḥassawi* / *ḥassaway* / *ḥassawit* (5.X)

For the sake of generalization, the forms CÄCAC + –, CÄCCAC + –, CACAC + –, and CACCAC + – in (a–d) can be put as CÄ(A)C(C)AC + –. This pattern followed by the suffixes *–i*, *–ay*, and *–it* form the agentive nominal or the active participle of Tigrinya. The morphemes *–i*, *–ay*, and *–it* can be affixed not only to CÄ(A)C(C)AC + – (see 5.I-IV), but also to its derivatives with the prefixes *tä–* (see 5.VII-IX), *mä–* (see 5.VI) and *'a–* (see 5.V). The final *–i* or *–ay* of CÄ(A)C(C)ACi(–ay) which indicate masculine gender can be substituted by the feminine marker *–it* (or simply *–t* because when the vowel *i* in *–it* is in contact with the vowel *i* which occurs in the final position of CÄ(A)C(C)ACi, one of the *i* vowels is deleted) to refer to feminine gender (see 5.I-X). The morphemes *–o*, *–ot*, and *–ti* are called morphologically or lexically restricted because their singulars form the bases for forming the plurals. They can be attached to singular bases with a special pattern CÄ(A)C(C)AC– (see 5.I-X). But unlike those of Arabic, they are external plurals. The lexically or morphologically restricted plural forms of Tigrinya and Arabic can take active participle singular bases for their plurals. However, in the case of Arabic they are broken plurals because they take the *u–a* melody as in, for instance, changing the singular forms *ḥaakim* «judge» and *ǧaahil* «ignorant» to the plural forms *ḥukkaam* «judges» and *ǧuhhaal* «ignorant (pl.)» respectively (McCarthy 1982: 196). The bases for the plural markers *–o*, *–ot*, or *–ti* of Tigrinya are the old participle form as in *ṣällim* and its feminine counterpart *ṣällam* (7.I-IV), current participles and their derivatives (see 5.I-X). Hence, the bases of Tigrinya and Arabic lexically or morphologically restricted plurals are related to participles. But unlike those of Arabic, Tigrinya *–ot*, *–o*, and *–ti* are suffixes. Let us observe the following:

> 5. I   *näbari* / *näbaray* / *näbarit* + *–o* / *–ot* / *–ti* > *näbaro* / *näbarot* / *näbärti* «inhabitants»
>
> II   *šäqqali* / *šäqqalay* / *šäqqalit* + *–o* /*–ot* / *–ti* > *šäqqalo* / *šäqqalot* / *šäqqälti* «workers»
>
> III   *färayi* / *färayay* / *färayit* + *–o* / *–ot* / *–ti* > *färayo* / *färayot* / *färäyti* «productive (pl.)»
>
> IV   *'alami* / *'alamay* / *'alamit* + *–o* / *–ot* / *–ti* > *'alamo* / *'alamot* / *'alämti* «weavers»
>
> V   *'afrayi* / *'afrayay* / *'afrayit* + *–o* / *–ot* / *–ti* > *'afrayo* / *'afrayot* / *'afräyti* «productive (pl.)»

VI   *mäfräyi / mäfräyay / mäfräyit + –ti >* / *mäfräyti* «productive (pl.)»

VII   *tämähari / tämäharay / tämäharit + –o / –ot / –ti > tämäharo / tämäharot / tämäharti* «students»

VIII   *täfässaḥi / täfässaḥay / täfässaḥit + –ti > täfässaḥti* «very proud»

IX   *tähammami / tähammamay / tähammamit + –ti > tähammämti* «susceptible to disease»

X   *ḥassawi / ḥassaway / ḥassawit + –ti > ḥassäwti* «liars»

XI   *gʷasa* (*<gʷasay-i / gʷasay-ay*) *> gʷasot* (*< gʷasay-ot*) «shepherds»

XII   *barya* (*< baray-i / baray-ay* «digger») *> barot* (*< baray-ot*) «slaves»

In (5.I-XII) *–o, –ot,* and *–ti* may be suffixed to the agentive form CÄ(A)C(C)AC– and its derivatives. As we can see from (5.I-XII), the plural morphemes *–o, –ot,* and *–ti* can substitute the morphemes *–i, –ay,* and *–it* in the singular (it can be noted that some elements are deleted in the forms in 5.XI-XII). But a word of this form may not always take all these three affixes. For instance, the words *'alami, 'alamay,* and *'alamit* in (5.IV) can take the plural forms *–o, –ot,* or *–ti.* However, *täfässaḥi, täfässaḥay,* and *täfässaḥit* in (5.VIII) take only *–ti.* The words *näbari, näbaray,* and *näbarit* in (5.I) may take *–o,* or very rarely *–ot,* even though they most commonly take *–ti* for their plural. When the singular is changed to the plural by the suffixation of *–ti,* the vowel *a* after the penultimate radical, for instance the *a* that precedes the last radical *r* in *näbari* (also *näbaray / näbarit*), is changed to *ä* unless the consonant preceding or following it is a laryngeal or a pharyngeal (see 5.I-X).

The morpheme *–ot* occurs affixed to nominals with the adjective formative suffixes *–ay, –way, –äway, –ttay, –ättay* and their feminine counterparts *–äyti, –wäyti, –äwäyti, –ttäyti, –ättäyti.* For instance:

6. I   *ḥaml-äway* «green (m.)»
          (*i.e. ḥamli* «vegetable» +
          –äway)   *+ –ot > ḥamläwot* «green (pl.)»

II   *ḥaml-äwäyti* «green (f.)»   *+ –ot > ḥamläwot* «green (pl.)»

III   *bilēn-ay* «someone from
          Bilen (m.)»   *+ –ot > bilēnot* «belonging to Bilen (pl.)»

IV   *bilēn-äyti* «someone from
          Bilen (f.)»   *+ –ot > bilēnot* «belonging to Bilen (pl.)»

V   *'agamä-ttäyti* «someone   *+ –ot > 'agamättot*
          from 'Agamä (f.)»   «people from 'Agamä (pl.)»

VI   *'agamä-ttay* «someone   *+ –ot > 'agamättot*
          from 'Agamä (m.)»   «people from 'Agamä (pl.)»

In (6.I-VI), the singular forms can have suffixes *–ay, –äway, –ttay,* and their feminine counterparts *–äyti, –äwäyti, –ttäyti,* which are adjective formatives (see also Tesfay 2002). They can be suffixed to common nouns such as *ḥamli,* to a name of a tribe or nationality such as Bilen, or to a name of a place

such as 'Agamä to make them adjectives. The suffixation of the feminine marker –*ti* in (6.I-VI) brings about the change of the vowel *a* (in –*ay*, –*äway*, –*ttay*) to *ä* (in –*äyti*, –*äwäyti*, –*ttäyti*). The adjectives discussed in (6.I-VI) take the morpheme –*ot* for their plural forms. The singulars make distinctions for gender. But no gender distinction is made in the plural. They take –*ot* to indicate the plural forms but not gender.

In (5.I-X) we saw that –*ti* is used as a plural morpheme. Moreover, adjectives with the pattern CÄ(A)CCIC and CÄ(A)CCAC also take the plural morpheme –*ti*. The earlier Tigrinya active participle form CACƎC as in *maləs* «change», which is obviously related to the CVVCVC active participle pattern of other Semitic languages as in Arabic *ǧaahil* «ignorant», and Ugaritic *kaatib* (Pardee 1997; Fischer 1997; McCarthy 1983), is substituted by the active participle form CÄ(A)C(C)AC + –*i* / –*ay* / –*it* indicated in (a–d) above (Moscati *et al.* 1964: 146). Currently, the earlier Tigrinya active participle form, CACƎC, is usually used as a noun. But its later development CÄ(A)CCI(A)C is used as an adjective (see 7.I-IV). Proto-Semitic long *a* corresponds to Abyssinian Semitic *a*. But in the case of Tigrinya adjectives with the pattern CÄ(A)CCI(A)C such as *qäyyiḥ* «red», *a* is changed to *ä* and as a consequence the consonant C following it is geminated. The following are examples:

7. I	*ṣällim* «black (m. s.)»	>	*ṣällämti* «black (pl.)»
II	*ṣällam* «black (f. s.)»	>	*ṣällämti* «black (pl.)»
III	*qäyyiḥ* «red (m. s.)»	>	*qäyyaḥti* «red (pl.)»
IV	*qäyyaḥ* «red (f. s.)»	>	*qäyyaḥti* «red (pl.)»

The suffixation of –*ti* changes the vowel *a* or *i* of the second syllable of the input to *ä* unless there are laryngeals or pharyngeals preceding or following it.

To summarize, –*ti*, –*o*, and –*ot* form special kind of plurals that may be compared to what McCarthy (1982) calls lexically or morphologically restricted plurals in Arabic. We can call them lexically or morphologically restricted plurals because the template of the singular serves as the basis for forming the plural. But these plural morphemes are suffixes and can be regarded as external plurals.

E. The morpheme –*at* and its allomorph –*tat* are very productive. –*at* can be suffixed to nominals ending with a consonant, whereas –*tat* can be suffixed to nominals ending with a vowel. For example:

8. I	*säb* «man»	+ –*at*	>	*säbat* «men»
II	*'əmba* «mountain»	+ –*at*	>	*'əmbatat* «mountains»
III	*färä* «fruit»	+ –*at*	>	*färätat* «fruits»
IV	*säbar* «broken (s.)»	+ –*at*	>	*säbarat* «broken (pl.)»
V	*kəbur* «dear (s.)»	+ –*at*	>	*kəburat* «dear (pl.)»

The segment *t* is inserted as an epenthetic segment to break the impermissible sequence of vowels. In (8.II-III) the final vowels of the base and the vowel *a* of the suffix *–at* are in sequence and *t* is inserted to break the impermissible sequence of the vowels. The morpheme *–at* is used to form plurals of nouns and adjectives while *–tat* is used to form plurals of nouns.

So far we have discussed the different external plurals of Tigrinya, classified as follows:
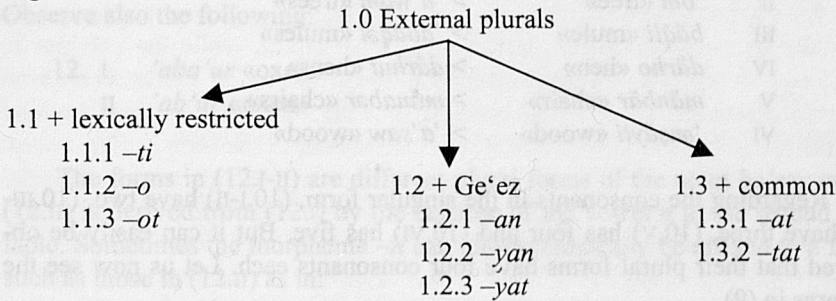
1.1 + lexically restricted

1.2 + Ge'ez

1.3 + common.

+ lexically restricted refers to the suffixes *–ti*, *–o*, and *–ot*, + Ge'ez refers to *–an*, *–yan*, and *–yat*, while + common (a term selected to indicate its frequency) is used to indicate the plural suffixes *–at* and *–tat* which are the most commonly used of its group known as external plural suffixes (see fig. 1).

Fig. 1

1.0 External plurals

1.1 + lexically restricted
   1.1.1 *–ti*
   1.1.2 *–o*   1.2 + Ge'ez   1.3 + common
   1.1.3 *–ot*   1.2.1 *–an*   1.3.1 *–at*
                   1.2.2 *–yan*   1.3.2 *–tat*
                   1.2.3 *–yat*

2. *Broken Plurals*

In the previous studies of Tigrinya plurals, different broken plural patterns are listed. For instance, in Kogan (1997), Palmer (1955) or Asmeret (1983), we can find a list of the following:

9.	I	CÄCACƏC	e.g. *känafər* «lips»
	II	'A-CCUC	e.g. *'ab'ur* «oxen»
	III	'A-CACƏC	e.g. *'abatər* «sticks»
	IV	'A-CCAC	e.g. *'afras* «horses»
	V	'A-CCƏC-*ti*	e.g. *'ahməl-ti* «vegetables»
	VI	CÄCACƏC-*ti*	e.g. *mäṣahəf-ti* «books»
	VII	CÄC(C)ÄC-*ti*	e.g. *säräq̄-ti* «thieves», *fäwwäs-ti* «healers»
	VIII	CÄCACU	e.g. *dämamu* «cats»
	IX	CACACƏC-*ti*	e.g. *hamawətti* «mothers-in-law»
	X	Unpredictable	e.g. *'a-waləd* «girls», *'a-nəsti* «women», *däqqi* «sons», *'aw'ur* «oxen», *qənawətti* «belts», etc.

To this list we can add the patterns 'A-CCAC-*at* and CÄ(A)CÄCCƎC. Furthermore, Asmeret (1983) has listed:

(a) *a*   (c) *'a--a--*   (e) *'a- u*   (g) *-a-u-*   (i) *-wǝtti*
(b) *'a--*   (d) *'a--ǝ--*   (f) *'a- ǝ*   (h) *-a-ǝ-*   (j) *-wǝnti* etc.

as plural markers.

However, the forms of broken plurals are not unrelated and completely idiosyncratic. In fact, we shall see later on that all or nearly all of them are de-rived from one basic prosodic template. As in Arabic, Tigrinya biliteral or tri-literal nominals add extra consonant(s) to fill the extra C-slot(s) in the plural prosodic template, while quadriliterals remain quadriliterals, and nouns with more than four consonants reduce or lose the supernumerary consonant tem-plate. Take the following examples:

10.	I	*sur* «root»	> *särawǝr* «roots»
	II	*'om* «tree»	> *'a'wam* «trees»
	III	*bäqli* «mule»	> *'abaqǝl* «mules»
	IV	*därho* «hen»	> *därhut* «hens»
	V	*mänbär* «chair»	> *mänabǝr* «chairs»
	VI	*'ǝnṣäyti* «wood»	> *'a'ṣaw* «wood»

Regarding the consonants in the singular form, (10.I-II) have two, (10.III-IV) have three, (10.V) has four and (10.VI) has five. But it can easily be ob-served that their plural forms have four consonants each. Let us now see the patterns in (9).

The patterns in (9.VI) and (9.IX) are derived from (9.I) and (9.III) respec-tively by the suffixation of *-ti* to each of them (McCarthy 1983 for a similar suffixation of a feminine morpheme in Arabic). We can derive pattern (9.V) from (9.III) not only by adding *-ti* to it, but also by deleting the vowel a of the second syllable. For example the plural form of *bäqli* may be one of the fol-lowing:

11.	I	*'abaqǝl*	«mules»
	II	*'abqǝlti*	«mules»
	III	*'abqal*	«mules»

(11.II) is derived from (11.I) by adding *-ti* to it and by deleting the vowel a which occurs between the consonants *b* and *q* in (11.I).

The pattern indicated in (9.I) is CÄCACƎC. The vowel in the first sylla-ble of the words such as *'abatǝr* «sticks» or *'abaqǝl* is only due to the laryn-geal consonant ' (McCarthy 1991; Ratcliffe 1990; Girmay 1991). The vowel *ä* following the first consonant is changed to *a* if the first consonant is a laryn-geal or a pharyngeal as in (9.III) (see also 11.I-III). Thus, both (9.I) and (9.III)

can be subsumed under the pattern CÄ(A)CACƎC. As far as (9.II) is concerned, it is also derived from (9.I) or from a pattern related to it. The last syllable of the pattern may have the vowels *i* or *u* instead of *ə*. The basic prosodic template CVCVCVC (for instance *mäfatəḥ* «keys», *'ama'it* «hundreds», and *'aba'ur* «oxen») of Tigrinya could be compared to the Arabic basic prosodic template CVCVVCV(V)C as in *mafaatiiḥ* «keys» or *makaatib* «offices» (McCarthy 1982). The short vowel *a* in the first syllable, the long vowel *a* in the second syllable, and the either long or short vowel *i* in the third syllable of Arabic are clearly related to the vowel *ä* in the first syllable, to vowel *a* in the second syllable, and to the vowels *ə* or *i* in the third syllable which may also be realized as *u* or *əw* (*u* in the vowel position can be realized as *w* in the consonant position) as in *'aba'ur* / *'aba'əwər*, which can be changed to *'ab'əwər* / *'ab'ur* «oxen». The basic difference between (9.I), (9.II) and also the form in words such as *'ama'it*, plural of *mi'ti* «hundred», is the use of *ə* in (9.I), *u* in (9.II) and *i* in *'ama'it*. Hence, the form CÄ(A)CACƎC can be modified as CÄ(A)CACƎ(I/U)C, and from this form we can derive the pattern in (9.II). Observe also the following:

12. I   *'aba'ur* «oxen»
    II   *'ab'ur* «oxen»

The forms in (12.I-II) are different plural forms of the noun *bə'ray* «ox». (12.II) is derived from (12.I) by the deletion of the vowel *a* in the second syllable. Sometimes the morpheme *–ti* can idiosyncronically be affixed to a form such as those in (12.II) as in:

13. I   *'arki* «friend»> *'a'ruḵ* / *'a'rə(u)ḵti* «friends»

Moreover (9.VIII) is also very much related to (9.I) and (9.III). The only difference between them is the change *əw > u* in (9.VIII). This can be compared with *əw > u* in words such as *yəfättəw > yəfättu* «he likes», and *yə'äṣṣəw > yə'äṣṣu* «he closes». Let us take the following examples:

14. I   **dämaməw*   *> dämamu* «cats»
    II   **'atarəw*   *> 'ataru* «jars»
    III   **wäḵarəw*   *> wäḵaru* «foxes»
    IV   **mä'aṣəw*   *> mä'aṣu* «doors»
    V   **därahəw*   *> därahu* «hens»

In (14.I-V), we can observe that prior to the change of *əw > u* the pattern is the same as that of (9.I) and (9.III). This shows (9.VIII) is derived from them. Sometimes *–t* is added to substitute the lost consonant *w*. For example, the plural form of the word *'aqḥa* «goods» may be

15. I   *'aqaḥu* «goods»
    II   *'aqaḥut* «goods»
    III *'aqḥut* «goods»
    IV   *'aqḥu* «goods»

and the plural form of the word *därho* «hen» may be

16. I   *därahu* «hens»
    II   *därahut* «hens»
    III *därhut* «hens»
    IV   *därhu* «hens»
    V   *därawəh* «hens»
    VI   *däräwwəh* «hens»

In (15.II-III) and in (16.II-III) we observe the suffixation of *–t*, while in (15.III-IV) and (16.III-IV) we see the reduction of the vowel *a* as in (2.1.1) of fig. 2.

Besides, we can consider (9.VII) part of what we earlier referred to as the lexically or morphologically restricted external plural, while the patterns in (9.X) can, except *däqqi* «children», be regarded as part of the broken plural patterns discussed so far. It is obvious that the form of the word *'awaləd* «girls» is the same as that of (9.III). It is also similar to the form in (9.I) except that the vowel following the laryngeal *'* is *a* and not *ä*. *'aw'ur* is a dialectal variant of *'ab'ur*, while the forms of *'anəsti*, *qənawətti*, *däqqi* and *'awäddat* are rare and can be neglected. However, the word *'anəsti* «women» is derived from * *'ana'əsti* which is similar to the form in (9.IX). The word *'aw'ur* «oxen» is derived from *'ab'ur* (see 9.II) due to the weakening of the segment *b* to *w*. *qənawətti* «belts» (9.X) can be derived from *qänawətti* which has the same pattern as in (9.VI). *däqqi* has no singular from which it is derived, but it can be used as a lexical plural form of *wäddi* (< *wäldi) «son», *gʷal* «daughter» or *qʷäl'a* «child» which can have plural morphemes *'awäddat* (from a form in 9.IV we can have *'awdat* > * *'awədat* > * *'awdat* > * *'awəddat* > *'awäddat*), *'awaləd* and *qʷäl'ut* respectively.

Hence, it is not difficult to see the derivation of the so far discussed different plural forms from CÄ(A)CACƐ(I/U)C.

On the other hand, the derivation of the pattern indicated in (9.IV) from (9.I) or even from CÄ(A)CACƐ(I/U)C may not be easily acceptable. But I assume the derivation of (9.IV) from (9.I) or from (9.III) by the process of metathesis (McCarthy 1982: 193-203 for quasi similar cases in Arabic). Observe the following:

17. I   *'afarəs*   > *'afəras*   > *'afras* «horses»
    II   *'abaqəl*   > *'abəqal*   > *'abqal* «mules»
    III *'abatər*   > *'abətar*   > *'abtar* «sticks»
    IV   * *'a'amən* > *'a'əman*   > *'a'man* «stones».

The process of metathesis in Tigrinya may be assumed to operate in different ways. The first one may be by changing *a–ə* to *ə–a* which may finally result in the deletion of *ə* as in *'afəras > 'afras* (see 17.I-IV). The second may be a stop-spirant metathesis, like the Akkadian rule. This sort of metathesis is particularly evident in speech errors and spoonerisms as in the case of English *ask / aks*. The third could be due to the vowel-liquid metathesis as in the case of *ro > or* in Old English *hros* to *hors*, or the change of *ar > ra* as in the derivation of Tigrinya *'afras* from the less acceptable form *'afərəs*. For the type of metathesis in (17.I-IV), it may be more convincing to accept the third assumption. Even though it may initially be limited to vowel-liquid metathesis, vowel-non liquid metathesis may eventually take place in conformity to the vowel-liquid processes. But it may not be possible to have phonetically-determined considerations of naturalness in morphological rules and the role of idiosyncrasies could have been significant in the derivation of one pattern from another (McCarthy 1982: 202).

Sometimes, the morpheme *–at* can idiosyncratically be suffixed to the patterns in (17.I-IV) as in (18.I-II):

18. I   *'aklab*   + *–at*   > *'aklabat* «dogs»
    II   *'aflag*   + *–at*   > *'aflagat* «rivers»
    III   *mäḥsə'* «young goat» > *mäḥasə' / mäḥasə'at* «young goats»

The examples in (18.I-II) show *–at* suffixed to the pattern CVCCVC. In (18.I) both *'aklab* and *'aklabat* are actual plural forms of *kälbi* «dog», while in (18.II) * *'aflag* is only a possible (not actual) plural. The actual plural form of *fäläg* «river» is *'aflagat*. In (18.III) it can be seen that *–at* may also be suffixed to the pattern in (9.I) even though this is not common.

In a dialect spoken in Eritrea, we find a broken plural form with the pattern CÄ(A)CÄCCƎC. Like other broken plural forms of the language, this pattern can be derived from the basic prosodic template CÄ(A)CACƎ(U/I)C that we have discussed earlier by another phonological process. According to Jean Lowenstamm (personal communication) CÄ(A)CÄCCƎC is derived from CÄ(A)CACƎ(U/I)C as in:

19. I   *därawəh*   > *däräwwəh*
    II   *fänagəl*   > *fänäǧǧəl*
    III   *mänadəq*   > *mänäddəq*
    IV   *'anatər*   > *'anättər*

According to Lowenstamm and also Ratcliffe (1998), the vowel *a* in the second syllable is changed to *ä* and instead the consonant following it is geminated.

In short, the derivation of the different broken plurals of Tigrinya from the basic prosodic template is represented in fig. 2. In this figure the first, sec-
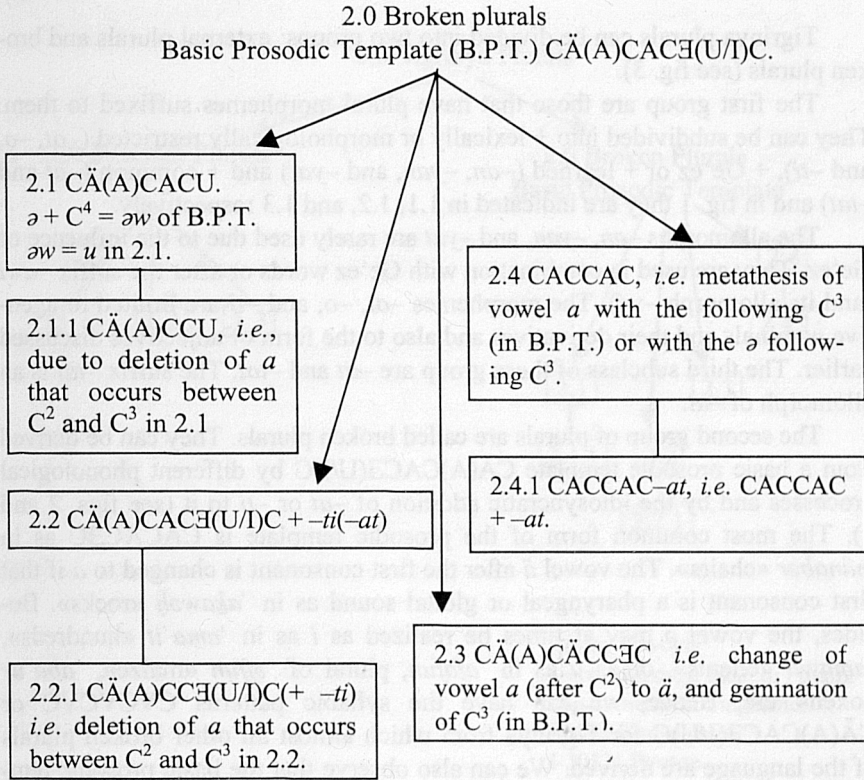
ond, third, and fourth consonants can be regarded as C^1, C^2, C^3, and C^4, *i.e.* consonant 1, consonant 2 etc. respectively.

Nevertheless, the role of idiosyncrasies could be significant in morphology and at times we can find Tigrinya broken plural forms somehow different from what we have seen earlier. Observe the following:

20. I   *məsəkkər* «witness»   > *mäsäkakər* «witnesses»
    II *mantillä* «rabbit»   > *mä(a)natillä* «rabbits»
    III *hənbašša* «loaf»   > *hanabəšša* «loaves»
    IV *däng"älla* «stone»   > *dänag"əlla* «stones»
    V   *mäsängälä* «rib»   > *mäsänagəllä* «ribs»

The examples in (20.I-V) have the melody *ä(a) - a - ə (i/u)* in the plural forms (in 20.IV *-wə* can also be realized as *-u*) which looks like that of the basic prosodic template of Tigrinya broken plurals discussed earlier. But there are extra-syllables in the plurals in (20.I-V). The plural of *məsəkkər* «witness» is not the expected form **mäsakər*, but *mäsäkakər*. Those in (20.II-V) form their plurals by taking the consonants of their singulars and insert the vowel *a* before the penultimate consonant. In fact, if we compare the verbs *wässäkä* «added», *mäntälä* «snatched», and *säbärä* «broke» to *wäsasäkä* «added repeatedly», *mänatälä* «snatched repeatedly», and *säbabärä* «broke repeatedly», it is worth noting that the vowel *a* inserted before penultimate consonant position in the latter shows reduplications or repeated actions. As the vowel *a* indicates repetition or reduplication in the verbs, I assume that the *a* in the plural forms in (20.I-V) which is inserted in the same position as in the verbs has primarily similar function. The plural forms in (20) could be neglected not only because they are rare, but they are also primarily meant to indicate some sort of reduplication. Besides, they may also show less importance or significance. If the singular is «X», the plural in (20) above could mean «X and the like». For instance, *mä(a)natillä* «rabbits» may primarily mean *mantillä* «rabbit» and its type which can also refer to plurals or plurals with less importance. Furthermore, not only these plurals are rare, but their singulars can also take the external plural morphemes *–at* or *–tat* for their plurals. Thus, we can say *məsəkkərat, mantillätat, hənbaššatat, däng"ällatat* and *mäsängälätat* instead of *mäsäkakər, mä(a)natillä, hanabəšša, dänagulla* and *mäsänagəllä* respectively.

Fig. 2

2.0 Broken plurals
Basic Prosodic Template (B.P.T.) CÄ(A)CACƎ(U/I)C.

2.1 CÄ(A)CACU.
$ə + C^4 = əw$ of B.P.T.
$əw = u$ in 2.1.

2.1.1 CÄ(A)CCU, *i.e.*, due to deletion of a that occurs between C^2 and C^3 in 2.1

2.2 CÄ(A)CACƎ(U/I)C + −*ti*(−*at*)

2.2.1 CÄ(A)CCƎ(U/I)C(+ −*ti*) *i.e.* deletion of a that occurs between C^2 and C^3 in 2.2.

2.4 CACCAC, *i.e.* metathesis of vowel a with the following C^3 (in B.P.T.) or with the $ə$ following C^3.

2.4.1 CACCAC−*at*, *i.e.* CACCAC + −*at*.

2.3 CÄ(A)CÄCCƎC *i.e.* change of vowel a (after C^2) to $ä$, and gemination of C^3 (in B.P.T.).

3. *Conclusion*

Tigrinya plurals can be divided into two groups: external plurals and broken plurals (see fig. 3).

The first group are those that have plural morphemes suffixed to them. They can be subdivided into + lexically or morphologically restricted (*–ot, –o,* and *–ti*), + Ge'ez or + learned (*–an, –yan,* and *–yat*) and + common (*–at* and *–tat*) and in fig. 1 they are indicated in 1.1, 1.2, and 1.3 respectively.
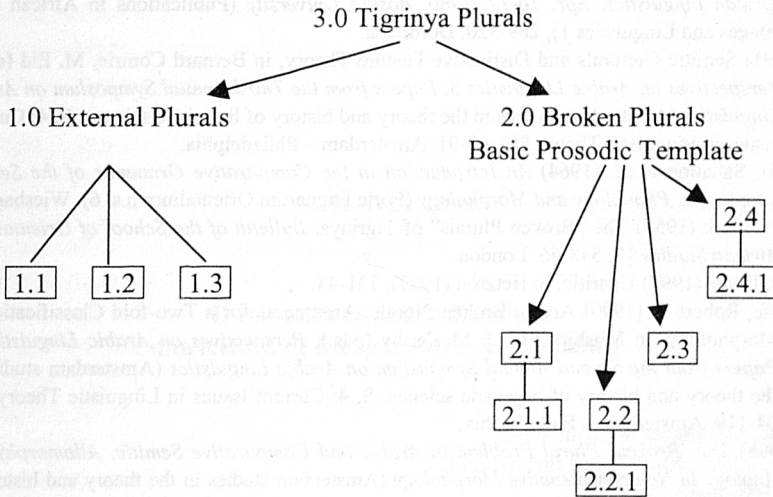
The allomorphs *–an, –yan,* and *–yat* are rarely used due to the influence of Ge'ez. They are used in combination with Ge'ez words or after the suffix *–awi* (and its allomorph *–wi*). The morphemes *–ot, –o,* and *–ti* are limited to agentive nominals and their derivatives and also to the form of adjectives discussed earlier. The third subclass of these group are *–at* and *–tat*. The suffix *–tat* is an allomorph of *–at*.

The second group of plurals are called broken plurals. They can be derived from a basic prosodic template CÄ(A)CACƐ(U/I)C by different phonological processes and by the idiosyncratic addition of *–at* or *–ti* to it (see figs. 2 and 3). The most common form of the prosodic template is CÄCACƐC as in *mänabər* «chairs». The vowel *ä* after the first consonant is changed to *a* if that first consonant is a pharyngeal or glottal sound as in *'aḵawəḥ* «rocks». Besides, the vowel *ə* may at times be realized as *i* as in *'ama'it* «hundreds», *'amawil* «clients», or as *u* as in *'afafun,* plural of *'əffun* «maize», *'aba'ur* «oxen» etc. Hence, we can have the syllabic patterns CVCVCVC or CÄ(A)CACƐ(I/U)C for Tigrinya from which almost all other broken plurals of the language are derived. We can also observe that the basic prosodic template of Tigrinya, CÄ(A)CACƐ(I/U)C, is closely related to the Arabic basic prosodic template CACAACI(I)C because Abyssinian Semitic vowels *ä* and *a* correspond to Proto-Semitic short *a* and long *a* respectively. In addition to this, there is a merger of Proto-Semitic short high vowels *i, u* into a high central vowel *ə* in Abyssinian Semitic (Gragg 1997; Girmay 1991).

From our discussion so far and from fig. 3 below, we can observe that 2.1, 2.2, 2.3, and 2.4 are derived from CÄ(A)CACƐ(I/U)C whereas 2.1.1, 2.2.1 and 2.4.1 are derived from 2.1, 2.2 and 2.4 respectively.

Fig. 3

3.0 Tigrinya Plurals

1.0 External Plurals

2.0 Broken Plurals
Basic Prosodic Template

2.4

1.1   1.2   1.3

2.4.1

2.1   2.3

2.1.1   2.2

2.2.1

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REFERENCES

Angoujard, J.P., M. Denais (1989) Le pluriel brisé en tigrigna. *Langues Orientales Anciennes Philologie et Linguistique* 2, 99-148. Louvain – Paris.

Asmeret Kidanemariam (1983) *The Morphophonemics of Noun and Verb in Tigrinya* (B.A. Thesis, Addis Ababa University). Addis Ababa.

Fischer, Wolfdietrich (1997) Classical Arabic, in Hetzron (1997), 187-219.

Girmay Berhane (1991) *Issues on the Morphology and Phonology of Tigrinya* (Ph.D. Dissertation, Université du Quebec). Montreal.

Gragg, Gene (1997) Ge'ez (Ethiopic), in Hetzron (1997), 242-60.

Guerssel, Mohammad (1986) Glides in Berber and Syllabicity. *Linguistic Inquiry* 17, 1-12. Cambridge, Mass. – London.

Hetzron, Robert ed. (1997) *The Semitic Languages* (Routledge Language Family Descriptions). London.

Kogan, Leonid E. (1997) Tigrinya, in Hetzron (1997), 425-45.

Mason, John (1996) *Tigrinya Grammar*. Lawrenceville, NJ.

Matewos Hagos (1958-59) *Säwasəw Təgräñña*. Asmara [1951 Ethiopian calendar].

McCarthy, John Joseph III (1982) *Formal Problems in Semitic Phonology and Morphology*. Bloomington, Ind. [MIT Diss. 1979; Outstanding Dissertations in Linguistics. New York 1985²].

— (1983) A Prosodic Account of Arabic Broken Plurals, in Ivan R. Dihoff (ed.), *Current Approaches to African Linguistics. Vol. I. Papers Read at the 11th Annual Conference on African Linguistics, Apr. 10-12, 1980, Boston University* (Publications in African Languages and Linguistics 1), 289-320. Dordrecht.

— (1991) Semitic Gutturals and Distinctive Feature Theory, in Bernard Comrie, M. Eid (eds.), *Perspectives on Arabic Linguistics 3. Papers from the Third Annual Symposium on Arabic Linguistics* (Amsterdam studies in the theory and history of linguistic science. S. 4: Current Issues in Linguistic Theory 80), 63-91. Amsterdam – Philadelphia.

Moscati, Sabatino *et al.* (1964) *An Introduction to the Comparative Grammar of the Semitic Languages. Phonology and Morphology* (Porta linguarum Orientalium n.s. 6). Wiesbaden.

Palmer, Frank (1955) The "Broken Plurals" of Tigrinya. *Bulletin of the School of Oriental and African Studies* 17, 548-66. London.

Pardee, Denis (1997) Ugaritic, in Hetzron (1997), 131-44.

Ratcliffe, Robert R. (1990) Arabic Broken Plurals: Arguments for a Two-fold Classification of Morphology, in Mushira Eid, J. McCarthy (eds.), *Perspectives on Arabic Linguistics 2. Papers from the Second Annual Symposium on Arabic Linguistics* (Amsterdam studies in the theory and history of linguistic science. S. 4: Current Issues in Linguistic Theory 72), 94-119. Amsterdam – Philadelphia.

— (1998) *The 'Broken' Plural Problem in Arabic and Comparative Semitic. Allomorphy and Analogy in Non-concatenative Morphology* (Amsterdam studies in the theory and history of linguistic science. S. 4: Current Issues in Linguistic Theory 168). Amsterdam – Philadelphia.

— (2002) The Broken Plural System of Moroccan Arabic: Diachronic and Cognitive Perspectives, in Dilworth B. Parkinson, Elabbas Benmamoun (eds.), *Perspectives on Arabic Linguistics XIII-XIV. Papers from the Thirteenth and Fourteenth Annual Symposia on Arabic Linguistics* (Amsterdam studies in the theory and history of linguistic science. S. 4: Current Issues in Linguistic Theory 230), 87-109. Amsterdam – Philadelphia.

Tesfay Tewolde Y. (1992) *Plurals of Tigrinya* [Paper presented at the First Annual Language Seminar of Kotebe College of Education]. Addis Ababa [unpublished].

— (1998-99) The Plural of Tigrinya, in *Mädna'tat qädamay simpoziyäm q^{w}anq^{w}a təgraňňa.* s.l. Maḥbär bahli Təgray [1991 Ethiopian calendar], 252-65.

— (2002) *A Modern Grammar of Tigrinya.* Rome.