

Article

Number System in Arbore

Binyam Sisay Mendisu
(The Africa Institute, Global Studies University (GSU),
Sharjah, UAE)
b.s.mend@gmail.com

Firew Girma Worku
(independent researcher)
firew.girma@aau.edu.et

Abstract

This paper deals with the number system in Arbore, an endangered Eastern Cushitic language spoken by a small community located in the southwestern part of Ethiopia. In Arbore, number reference can be coded through grammatical and lexical means. Number of a referent can be shown grammatically or marked on nouns, pronouns, demonstratives, interrogative words, verbs and so on. Number words and quantifiers are of the lexical coding of number marking type, and they both indicate number on an NP, often being modifiers of the heads of NPs. In terms of bearing overt morphological marking, Arbore nouns form three categories: singular (unit reference), plural (of two types—plural and multiple reference) and singulative (singulative reference). Thus, the language makes three-way (tripartite) number distinctions. There are also three genders in the language, masculine, feminine and plural gender. The third type, i.e., ‘plural gender’ is a peculiar feature of Cushitic languages. What makes the expression of number in Arbore a bit complex, but fascinating is that nouns labeled under the category of ‘plural’ may select different sets of affixes depending on phonological, morphological, syntactic and semantic (human-ness or animateness) factors. Crucial to the selection of more than form/affix for ‘plural’ is the fact that the form/affix triggering factor may lie on derivational morphology.

Keywords: number system, tripartite, singulative, Arbore

1 Introduction

Arbore is one of the most endangered languages in Ethiopia spoken by about 7000 people in the south-western part bordering Kenya near lake Chew Bahir. Arbore speakers live in four divisions/villages namely—*Gandareb*, *Kulaama*, *Murale*, and *Eegude*. Hayward (1984: 4) mentioned that the Arbore community are composed of two major groups— the *Gondorobba* and the *Marle*. There are also five divisions within these two groups— all four divisions listed earlier and the *Kuyle* in addition. At present a significant portion of the Arbore population is reported to live in Hamar Wereda, Southern Nations, Nationalities and Peoples Region (SNNPR)¹ (Binyam 2016: 1). A small number of the native population are found relatively dispersed over some parts of Oromia Regional State. Arbore speakers are predominantly pastoralists— they herd cattle, goats and sheep for home consumption and for sale. At small scale they cultivate maize and millet for home consumption only.

The Arbore language belongs to the West-Omo-Tana subgrouping of the Cushitic language family and is agglutinating, head-marking, both prefixing and suffixing, with complex nominal and verbal morphology. Whether a noun will select a prefix, or a suffix may depend on factors associated with phonological shape, morphological (lexical), and semantic (only for gender-specific noun forms) form of the particular noun. For a verb stem, lexical identity mostly governs the stem’s affix preference.

Syntactically, Arbore is a verb-final (predicate-final) language with SOV word order. Case, gender, number and definitives/determiners (possessive and deictic/demonstrative) are nominal categories while preverbal selector (bound subject pronoun and mood), person, gender, number, aspect, mood, voice, and deictic/direction are verbal categories.

Of all nominal and verbal categories, number is perhaps one of the most interesting and complex categories in Arbore grammar. Almost every language has some means for showing the number reference of an argument of a predicate (Dixon 2012: 45). With number, reference to one individual can easily be distinguished from reference to more than one (Aikhenvald 2015: 111). The only ways in which number reference is coded are grammatical (grammatical system of number) and lexical (lexical number modifier(s)). Thus, number reference in Arbore grammar is coded both ways. Nouns make a tripartite distinction: singular, plural and singulative. The third type, i.e. ‘plural gender’ is peculiar feature of Cushitic languages, particularly of East-Cushitic languages. The category ‘plural’ is of two types— (i) one that has nouns without a plural form—fused with gender and that should be treated along with the category of gender (‘plural gender’) and (ii) one

¹ Since 2023, the Wereda is reconstituted to the newly formed South Ethiopia Regional State.

that has more than one plural form for a noun ('multiple reference forms'). Hayward (1984) suggested that the morphological formation of the first two categories is inflectional while that of the singulative is derivational. There are also three genders in the language, masculine, feminine and plural gender. In Arbore, number marking on NPs is obligatory through appropriate number suffixes but there are instances where specification of number can fuse with gender specification. For example, the suffix *-h* can occur only with masculine and plural nouns along with possessive definite modifiers on NPs but *-h* and the other gender marker suffix *-t* (marks only gender not number) can never occur on nouns on their own (Hayward 1984). However, such instances can occur depending on the type of the head's modifiers. In an NP construction with modifiers such as possessive definitives (occur only in suffix/bound forms) and nominal demonstratives (occur in two forms—as suffix/bound forms and as independent forms, Binyam 2016), number and gender specification on the head noun is obligatory. Adjectival modifiers of the head nouns of an NP in attributive function have two forms: a form which agrees with non-plural heads and terminates with *-a* and a form which agrees with plural heads and terminates with *-o* (p. 201).

What makes the expression of number in Arbore complex but at the same time rich and fascinating is that nouns labeled under the category of 'plural' may select different sets of affixes depending on phonological, morphological, syntactic (gender-sensitive plural suffix –such as *-ha* (masculine) and *-ta* (feminine) and semantic (human-ness or animateness) factors. Crucial to selection of more than one form/affix for 'plural' is the fact that the form/affix triggering factor may also lie on derivational morphology. The main aim of this study therefore is to discuss the Arbore number system in general. In addition, a fair amount of analysis of Arbore's number realization, markedness/morphology, semantics (of nominals), and number words and quantifiers is presented in the study.

2 The realization of number

Generally, a two-term number distinction (between singular and non-singular) can be made for the following Arbore word classes: nouns, pronouns (only independent pronouns) nominal demonstratives, adjectives, and verbs. In these word classes, distinct forms for singular and non-singular exist and the distinct forms are realized through a morphological process—affixation, reduplication and suppletion. Very often, the specification for grammatical number fuses with other grammatical categories such as gender, case, attribution, demonstratives and determiners. Thus the singular

and non-singular of a particular lexeme from the above as well as other classes can be complex to distinguish, through only on nouns where number is marked overtly by portmanteau affixes.

3 Morphological process

Affixation is the most productive morphological process employed to mark number on nouns. Suppletion has been noted for a handful of noun and verb pairs. The formation of some adjectives may involve reduplication (Hayward 1984: 201). Morphologically, Arbore number markers on nouns are portmanteau affixes. However, semantically, nouns which take a specific type of affixal forms tend to show semantic categories. It is most often the case that affixal forms bear one or more allomorphs depending on the phonological system of the language. There may be a few exceptions in which the distribution/alternation of number marking affixes can be analyzed in terms of morphology.

4 Number marking on nouns

4.1 Plural coding (*Marked plural*)

This is an instance where nouns are unmarked for singular number but marked for plural number. The plural marking suffixes can be of different types depending on the gender of the noun.

**-m forms*

There are consonant-final monosyllabic noun forms with masculine gender in the singular but which take the suffix *-ame* [-aʔame] as plural and feminine marker, as in (1).

(1) Masculine (sg.)	Feminine (pl.)	
<i>gul</i>	<i>gul-ame</i>	‘hole’
<i>jub</i>	<i>jub-ame</i>	‘cliff’
<i>k’aad</i>	<i>k’aʔ-ame</i>	‘lid’
<i>suud</i>	<i>suud-ame</i>	‘lion’
<i>goos</i>	<i>goos-ame</i>	‘chin’

Most of the nouns taking the plural marker suffix *-ame* are feminine. However, the noun *ʔeeg* ‘fire’ stands apart from other nouns in this category in that it occurs only in a feminine gender, as in (2)

(2)	Feminine (sg.)	Feminine (pl.)	
	<i>ʔeeg</i>	<i>ʔeg-ame</i>	‘fire’

For plural gender-specific information, *-ame* and the other suffix *-o* may do likewise, as in (3). The suffix *-o*, which is a typical plural gender marker has an allomorph *-lo*.

(3)	Singular	Plural	
	<i>ʔeeg</i> (f)	<i>ʔeg-eno</i>	‘fire’
	<i>goos</i> (m)	<i>goos-lo</i>	‘chin’
	<i>neek’</i> (m)	<i>neek’-lo</i>	‘lion’

The vowel *e* of the *-eno* is due to vowel harmony but the *n* is not identified in the present study. Either it is a result of phonological process or it is a masculine gender suffix in plural forms.

The other plural suffix is *-me*. Two sets of nouns with a suffix *-me* have been presented here in light of the morphological analysis made in two studies: (1) the set of consonant-final nouns which add *-me* (an invariant form) and which are almost entirely feminine (Hayward’s 1984 study) and (2) the set of nouns which add *-me* and three other variants (*-ma*, *-maʔo*, *-mo/-moʔo*) (the present study). In Hayward’s work, nouns with the invariant *-me* are associated with animate (mostly) and some human references, animate and human body parts, basic tools used on daily basis, characters and abnormalities, and so on. The examples shown in (4) are from both studies and include marked singulative noun forms as well.

(4)	Masculine (sg.)	Feminine (pl.)	
	<i>hik’ič</i>	<i>hik’ij-me</i>	‘axe’
	<i>ʔirdʒat</i>	<i>ʔirdʒa-me</i>	‘smoke’
	<i>simbač</i>	<i>simbaj-me</i>	‘rope’
	<i>hurdač</i>	<i>hurdej-me</i>	‘sling’
	<i>ʔumat</i>	<i>ʔuma-me</i>	‘thief’
	<i>boč’an</i>	<i>boč’a-me</i>	‘wooden vessel’
	<i>barđante</i>	<i>barđa-mme</i>	‘fire stick’
	<i>hosan</i>	<i>hosa-mme</i>	‘digging poles’
	<i>boolan</i>	<i>boola-mme</i>	‘cloud’
	<i>dak’al</i>	<i>dak’al-me</i>	‘cheek’

Like *ʔeeg* in (2), the noun *ʔollah* ‘the village, neighbours (feminine sg.)’ *ʔoll[afia]-me* ‘the villages, neighbours (feminine pl.)’ occurs only in a feminine form. The masculine singular or the gender-neutral plural form of this noun has not been found. In addition, two of the nouns in *-me* take a plural gender marker suffix *-o*, as in (5).

(5) Plural gender

bolan-o

dak'al[l]-o

Both studies identified that *-me* taking nouns belong to two number systems—the singular/plural and the singulative (singular)/collective systems. However, in the present study, *-me* and its variants are suffixed to nouns referring to kinship relations and may function as plural gender markers, as in (6).

(6) Singular

Plural

mersat <*mersa-t*>

mersa-me

‘sibling’ {‘brother’ / ‘sister’}

mersate <*mersa-te*>

mersa-me

ʔawu

ʔawo-me

‘uncle’

ʔabera

ʔabera-me

‘stepfather’

ʔangafa

ʔangaf-me

‘first-born child’

ʔija

ʔija-ma

‘father’

ʔesi

ʔesi-ma

‘grandfather’

ʔaka

ʔaka-ma

‘grandmother’

ʔemel

ʔemel-maʔo

‘grandchild’

ʔege

ʔege-mo

‘mother’

ʔadada

ʔadada-moʔo

‘aunt’

ʔadada-n

In (6), the *-t* in *mersat* <*mersa-t*> ‘brother’ and the *-te* in *mersate* <*mersa-te*> ‘sister’ occur with singular forms and mark individual male and female referents (animates) respectively. Note that *-t* along with *-č* and *-n* are markers of singulative masculine referents whereas *-te* marks singulative female referents. As the present study indicates, it appears that the masculine markers are first layer suffixes whereas *-te* of the feminine may appear as a first and second layer suffixes (See also Hayward 1984: 179-82). For example, *serém* ‘kudu’ is a singular or a unit reference form but the singulative masculine form is *sermač* and the singulative feminine is *sermajte* <*serma-j-te*> (p.181).

Here, *-te* is a second layer derivative suffix. Thus in (6), *-t* alone can function both as number and gender marker. In fact, when it is attached to the other element *e* > *-te*, it may function likewise. The attempt to make a statement on the use and distribution of the number marking suffixes of the kinship nouns in (6) has made us focus on morpho-semantic points such as word formation and human-ness/animateness.

According to Hayward (p.168), only nouns adding the *-me* suffix can have reduplicated forms, for example *čáar*² ‘leopard’ is a masculine form and *čarčarmé* ‘leopards’ is a feminine form. Thus derivation can be the word formation nature of certain *-me* adding nouns. We should also remember that only a few plural number suffixes have a wider distribution while the majority of suffixes appear on small sets of nouns (Nijboer 2019: 20). Likewise, a plural suffix form beginning with **-m* (either *-ma* or *-mo*, most likely *-ma*) appears on kin relation referring nouns of Arbore. **-M* is the unlikely suffixal form because there is plausible evidence that **-ma* form can be reconstructed from **-mV* for the Proto-Western –Omo-Tana languages—or at least on the basis of the formation of Arbore plural number suffixes. The first five nouns in (6) add *-me* and they can be grouped in two sets—(a) with base forms and (b) those which appear to be borrowed from Cushitic languages (possibly from Oromo?) or cognates. Although we are unable to confirm whether *mersa*³ is the base form or not, we have made a thorough examination of some morphosemantic aspects of such morphologically-marked noun forms of the language on the basis of the data available at present (Dixon 2012: 68; Zaborski 1986: 105; Hayward 1984: 180). In addition, *ɣizze* ‘gazelles’, which is a base form with a collective meaning, has *ɣizzet* and *ɣizzete* as singulative masculine and feminine forms respectively. Similarly, by looking at the two singulative/singular forms *mersat* and *mersate*, and the plural form *mersame*, the likely base form that carries a collective meaning is *mersa*. Accordingly, since both the singulative forms appear to come from the base form, nouns with *-me* could be derivations. However, if the singulative form (*mersat* or *mersate*) is in use paired together with the plurative form (*mersame*) and if the latter form is non-specific with regard to gender, the former form may be recategorized as a generic noun (form) (cf. Hayward 1984).

What about the other nouns with no *-t/-te* suffix? Nouns *ɣabera* and *ɣangafa* appear to have derived forms. Both have morphologically-unmarked forms. We can’t be certain on this because they also appear to be borrowed nouns from Oromo. In Oromo, the noun *aba* ‘father’ and the postposition *ira* ‘on/onto’ can co-occur. Thus, when the form *aba(e)* occurs preceding the form *ira*, a fused form similar to *aba(e)+ira* ~ *aba(e)ra* ‘lit.

² The form *čáar* of Arbore is much alike with the form *čár* of Mursi (cf. Worku 2021).

³ As Hayward noted where the vowel preceding the singulative suffixes is commonly *a*.

on/onto father’ can be derived. Again, the kin term *?angafa* is *angafa* ‘lit. the first’ in Oromo. Therefore, these two nouns in Arbore are likely to be either loans or cognates.

On the other hand, the singular (base forms) of those nouns which are not marked for singular or singulative have masculine gender. With the suffix *-ma*, they tend to show plural gender. Similarly, nouns which make their plural forms with a suffix *-mo* have also plural gender. The noun *?adada* takes two plural suffixes *-mo?o* and *-n*. When such two different suffixes exist as plurative markers (often denoting human or higher animates), the noun with the former suffix denotes a female individual and the latter suffix denotes a male one.

With regard to nouns referring to kin relations, two distinctions can be made according to the morphological marking/coding they possess. The first two nouns in (6) where both singulative and plurative forms are marked, indicate the unit/collective distinction. Accordingly those that are marked with the singulative suffix designate singularity or individuality (individuativeness) while their plurative counterparts designate collective (collectiveness). According to Haspelmath and Karjus (2017: 2), such nouns are used more frequently in a multiplex sense (multiple entities) and they often show overt marking of the singulative form. The other nouns in (6), where the singular (basic forms) are unmarked while the plurative forms are marked, are non-specific as to the unit/collective distinction.

We believe that all suffixes discussed earlier (both vowel and consonant-initial: *-ame*[-a?ame], *-me*[-mme], *-ma*[-ma?o], *-mo*[-mo?o] and *-oma*) are **-m* forms. They are determined by certain phonological rules such as syllabic shape, vowel length, consonant sequence, vowel epenthesis, and vowel harmony. There is little evidence to substantiate whether *-V* form independent plural suffixes (*-a*, *-o* and *-e*) can be combined with other consonant-form plural/gender marking suffixes or not, but they are the very same vowels which always come immediately following the **-m*. So they are related to number/gender specification. With the **-m* form, they may be suffixed to a group of nouns having a particular semantic property in common as it illustrated in (6). Except for kinship terms, the semantics of the **-m* form suffixes and nouns they attach to is more or less arbitrary. See the examples in (7-11) below.

(7)	Singular (m)	Plural	
	<i>gojdan</i>	<i>gojda-[m]ma</i>	‘hoe’
	<i>baara</i>	<i>baara-ma</i>	‘hut’
	<i>foomi</i>	<i>foomi-ma</i>	‘chief’

(8)	Singular (f)	Plural	
	<i>dilo</i>	<i>dilo-ma</i>	‘flour’
	<i>č'ak'ale</i>	<i>č'ak'ale-ma</i>	‘sprout, shoot’
(9)	Plural	Plural	
	<i>kure</i>	<i>kure-ma</i>	‘dance’
	<i>ʔeenu</i>	<i>ʔeenu-ma</i>	‘milk’
(10)	Singular	Plural	
	<i>gaʔ</i> (m)	<i>gaa-mo</i>	‘horn’
	<i>deere</i> (f)	<i>deere-mo</i>	‘cooking-pot’

The other word for ‘cooking-pot’ takes singulative and plurative suffixes—*bibi-nte* (*-nte* is a marker of singulative feminine referent) and *bibi-n* (the suffix *-n* marks only plural masculine referents). Hayward (1984: 175) reported that he was able to record two nouns which take the **-m* form suffix *-oma* as plural gender marker.

(11)	Singular (f)	Plural	
	<i>ǧil</i>	<i>ǧil-oma</i>	‘announcement of a death’
	<i>bij</i>	<i>bij-oma</i>	‘land, field’

-V forms

Quite a number of Arbore nouns take *-V* form plural suffixes. As we explained earlier, three *-V* form suffixes arranged here as *-o*, *-e* and *-a* (according to their breadth of distribution) can occur on nouns—only in their own form (*-V*) or in *-(C)V* form (*C* represents **-m* [-mm], **-č*, and **-t*). In general, we believe that vowels which often occur preceding **-C* forms such as *-oma* and *-ame* [-aʔama], whether in the plural or singulative marker suffixes, are insertions made between morpheme boundaries to simplify the phonotactics.

Among Arbore suffixes of the marked plural nouns, the suffix *-o* has relatively wide distribution. Also, *-o* is a typical plural gender marker suffix. All Arbore nouns which take this suffix have plural gender (see also Hayward 1984: 174ff.). The morphologically-unmarked singular counterparts of those nouns suffixing *-o* may occur in one of the genders, but mostly in feminine gender, as in (12-14).

(12)	Feminine (sg.)	Plural gender	
	<i>naan</i>	<i>naan-o</i>	‘spear’
	<i>kob</i>	<i>kob-o</i>	‘sandal’
	<i>k’ijj:</i>	<i>k’ijj:-o</i>	‘arrow, bullet’
	<i>karam</i>	<i>karm-o</i>	‘calabash’

(13)	Masculine (sg.)	Plural gender	
	<i>k’ač</i>	<i>k’ačč-o</i>	‘stone’
	<i>gez</i>	<i>gez(z)-o</i>	‘thigh’
	<i>gare?</i>	<i>gare-lo</i>	‘belly, abdomen’

This also adheres with Hayward’s analysis that most of the singular forms of those nouns that add *-o* in their plural forms are feminine. Also, they often have forms containing a final or penultimate liquid (p. 172-3). Although it is rare, at the lexical level, pitch variation on a few nouns suffixing *-o* could trigger a difference in gender⁴. In (14) below, the difference in gender is due to a H tone on the penultimate vowel of the masculine singular forms.

(14)	Feminine (sg.)	Masculine (sg.)	Plural	
	<i>k’or</i>	<i>k’ór</i>	<i>k’or-ó</i>	‘tree, wood’ (p.173)
	<i>Ker</i>	<i>Kér</i>	<i>ker-ó</i>	‘dog’ (p.173)
	<i>k’ij[j]</i>	<i>k’ij[j]</i>	<i>k’ij[j]-ó</i>	

It should be noted that tone can trigger a difference in gender only on monosyllabic singular noun forms but evidence has shown that tone in Arbore is primarily grammatical rather lexical. In this case, it is highly unlikely for plural nouns to have a monosyllabic form/shape (Nijboer 2019). Also as in (13), whenever a plural marker suffix with H tone is added onto a monosyllabic noun form, the H tone immediately preceding the suffix is removed (see Mous 2021: 10ff).

A few consonant-final nouns have been found with a suffix *-e*, as it is shown in (15-16). Except for two nouns—one is inherently feminine and the other has a feminine gender form, other nouns suffixing *-e* are masculine.

⁴ In Cushitic languages such as Somali and Rendille, such gender distinctions as the result of pitch/tone differences on nouns may come following lexicalization of a grammatical gender suffix (Mous 2021).

(15)	Singular (m)	Plural	
	<i>d̥zoram</i>	<i>d̥zoram-e</i>	‘wooden spoon’
	<i>liilam</i>	<i>liilam-e</i>	‘string, thread’
	<i>hiz</i>	<i>hizz-e</i>	‘blood vessel, root’
	<i>k’il</i>	<i>k’ill-e</i>	‘skin’
	<i>kunuf</i>	<i>kunuf-e</i>	‘claw, hoof’
	<i>k’ub</i>	<i>k’ub-e</i>	‘arm, hand’
	<i>min</i>	<i>minn-e</i>	‘house’
	<i>bomʔ</i>	<i>bonb-e</i>	‘pond’ (Hayward 1984:177)
	<i>ʔel</i>	<i>ʔell-e</i>	‘mountain’
(16)	Singular (f)	Plural	
	<i>lef</i>	<i>leff-e</i>	‘bone’
	<i>seʔ</i>	<i>seʔ-e</i>	‘cow’

A handful of nouns, which are identical in their stem-final consonant, take a *-V* form suffix *-a*.

(17)	Singular	Plural	
	<i>kaal</i> (f)	<i>kall-a</i>	‘kidney’
	<i>kool</i> (m)	<i>koll-a</i>	‘wing, shoulder, leaf’
	<i>ʔeel</i> (m)	<i>ʔell-a</i>	‘water-hole’

The noun *kaal* is reported to have a disyllabic stem *kalan* (cf. Hayward 1984: 371ff). Besides, Hayward has been able to identify only two forms of this noun: one plural form with *-o* suffix (*kalan-o*) and two singulative forms with *-te* and *-inte* suffixes (both feminine, *kalan-te* and *kalan-tinte*), but no mention of the plural suffix *-a*. In this study, however, these nouns have long vowels which are being replaced by geminated stem-final consonants. *Kaal* and *kool* adhere with the semantics of items that often occur in pairs such as body parts (Grimm 2012: 145). Only the noun *ʔeel* lacks such form-meaning relationship. Also, there are instances where nouns’ referents are likely to co-occur or form a natural pair or group to be distinguished from nouns those which are likely to be seen as individual entities (p. 50-51). Thus the extended meaning for *kaal* ‘leaf’ may come from such instances. In addition, a trace of the suffix *-a* as plural marker of nouns referring to paired body parts is found on a couple of forms, but it may not be coded through the regular

morphological way. The plurals of the feminine forms *ʔin* ‘eye’ and *luk* ‘leg’ are coded through partial suppletion— *ʔinda* ‘eyes’ and *hunda* ‘legs’ respectively.

-C forms

A considerable number of Arbore nouns manifest their plural forms by suffixing *-C* forms: *-n*, *-te* [-ten] and *-tono*. The suffix *-n* differs from the other *-C* form suffixes in its dual function—it marks number and gender at the same time.

(18)	Singular (f)	Plural (m)	
	<i>zazza</i>	<i>zazza-n</i>	‘heart’
	<i>dutu</i>	<i>dutu-n</i>	‘spider’
	<i>tira</i>	<i>tira-n</i>	‘liver’
	<i>kokke</i>	<i>kokke-n</i>	‘throat’
	<i>dejde</i>	<i>dejde-n</i>	‘palm of hand’
	<i>sube</i>	<i>sube-n</i>	‘heifer’

(19)	Singular (m)	Plural (m)	
	<i>hezu</i>	<i>hezu-n</i>	‘sign, mark’
	<i>garla</i>	<i>garla-n</i>	‘needle’
	<i>midda</i>	<i>midda-n</i>	‘left hand’

As is illustrated in (18 & 19), singular forms can occur in either gender: feminine (mostly) and masculine, but those that form plural forms by suffixing *-n* can occur only in masculine gender. The other *-C* form suffix is *-te*, which is suffixed to a handful of nouns in the singular masculine forms—see the examples in (20).

(20)	Singular (m)	Plural (f)	
	<i>kirma</i>	<i>kirma-te</i>	‘bird’
	<i>kaf</i>	<i>kaj-te</i>	‘chest’
	<i>haw</i>	<i>haw-te</i>	‘steer’
	<i>ʔaar</i>	<i>ʔar-te</i>	‘bull’
	<i>ɲawʔ</i>	<i>ɲawʔ-te</i>	‘crocodile’

This plural feminine suffix is identical (‘homophonous’, cf. Hayward 1984: 176ff.) with singulative feminine marker *-te* (see further on singulatives). As a plural marker, this suffix has an invariant form regardless of the syllable shape of the host noun. In

a recent work by Oda (2021: 73), a suffix *-ten* which appears to be a variant of *-te* has been mentioned on two of these nouns (*haw-ten* and *ɲaw-ten*), with no mention of *-te* at all. In addition, Hayward mentioned three forms for the noun ‘bird’—*kirmatin* <kirmat-in> (singulative masculine), *kirmatinte* <kirmat-inte> (singulative feminine) and *kirma-te* (plural feminine). However in our investigation and as shown in (20), we have been able to identify a fourth form of this noun, i.e. *kirma*. We cannot be certain with our present knowledge of Arbore morphology but singulative formation in this language may be both inflectional and derivational. For example, the suffixes *-in* in *kirmatin* <kirma-t-in> and *-inte* in *kirmatinte* <kirma-t-inte> are masculine and feminine gender markers respectively. The suffix *-t* often occurs with nouns in singulative masculine forms, thus *-t* can be regarded as a first layer derivative suffix and *-in* and *-inte* as second layer derivative suffixes

Hayward (1984: 176) reported two nouns which make their plural forms by suffixing *-tono*, but no such plural suffix form has been found in our data. The nouns are:

(21)	Singular	Plural		
	<i>gor</i> (m)	<i>gor-tonó</i>	‘road’	In Mursi: <i>gòr-ò</i> (sg); <i>gòr-í</i> (pl) ‘road, path’ (Worku 2021: 243)
	<i>fer[r]</i> (f) ‘dust’	<i>fer-tonó</i>	‘lots of dust, separate clouds’	

Like nouns, Arbore demonstratives also manifest a singular-plural contrast and have gender distinctions. For example, *-to* is a bound demonstrative suffix and a masculine plural form (Binyam 2017:4, Hayward 1984: 229). Since such nouns tend to be used frequently in multiple senses, we believe that the plural suffix *-tono* might be a form composed of *-to* and *-no* (an allomorph of the deictic suffix *-lo* which functions as proximal and definiteness marker). In contrast, *-no* and the other bound deictic definitive suffix of Arbore (*-atto*) do not make gender distinctions. Therefore the number and gender specifications are most likely to come from the form *-to* and that of the non-number/gender specification from *-no*.

4.2 Singulative coding

(i) Marked singulatives with unmarked plurative forms

The primary plausible explanation for number marking on singulative noun forms is usage frequency, i.e., a high tendency to mark rarer forms. Recent work on the cross-linguistic coding pattern of singulatives shows that singulative lexemes are almost always marked/coded overtly while plurative lexemes (overt plurals) which are regarded as their counterparts are not marked/coded (Haspelmath 2017: 1-3). According to Haspelmath, in languages where nouns tend to be used in a multiplex sense (multiple entities), the ones that bear/show overt marking are the singulative/uniplex forms. Like in other languages, Arbore’s singulative forms/suffixes often denote individuality (individuativeness or individual entities), singularity, non-generics, and so on. In Arbore, nouns that tend to be shown by singulative suffixes are paired body-parts, groups of people, birds/insects/animals that occur in groups, plants and plant-parts (fruits/trees, fruit/tree-parts), celestial bodies, and so on.

Arbore, which is a language with an extensive number-marking morphology, has the following singulative marker suffixes: *-t*, [-at, -et, -it], *-te*, *-n* [-in], *-č*, *-nte*, *-ante*, *-ta*, [-tat], and *-tate*. These are regularly shown on unmarked plural noun forms. Some nouns may display a three-term number distinction {singulative, plurative and plural} while others display a two-term distinction {singulative/plurative or singulative/plural}. The suffixes, *-t*, *-n* and *-č* almost always have a masculine gender value thus they are regarded as first layer suffixes. Contrary to this, *-te* has a feminine gender value but there are a few instances where it appears as a second layer suffix. See the examples below.

(22) Singulative	Plurative	Marked plural	
(m)	(f)		
<i>gufi-t</i>	<i>gufi</i>		‘stump’
<i>sombo-t</i>	<i>sombo</i>	<i>sombot-me</i> (f)	‘lung’
<i>horma-t</i>	<i>horma</i>		‘womb, uterus’
<i>ʔerme-t</i>	<i>ʔerme</i>	<i>ʔermet-me</i> (m)	‘nasal mucus, cold, influenza’
<i>hizz-at</i>	<i>hiz</i>	<i>hizz-e</i>	‘root, blood vessel, stem’
<i>deer-it</i>	<i>deerit-inte</i>	<i>deer</i>	‘baboon’
<i>ʔoot</i>			
<i>mih-it</i>		<i>heh</i> (m)	‘goods, property’
<i>sajj-it</i>		<i>sajj</i> (m)	‘grass’

Interestingly, just a few singulative forms which denote individuals or individual entities may also be used to denote collective along with distributive interpretations, for example, the masculine form *deerit* ‘baboon’ may be said of an individual male baboon or a group—collectively. The same applies to the noun *reʔet* ‘goat/goats, collectively’, illustrated in (23).

(23)	Singulative		Plurative	
	(m)	(f)		
		<i>doll-te</i>	<i>doll</i> (m)	‘skin, hide, leather mat’
	<i>reʔ-et</i>	<i>ret-te</i>	<i>reʔ</i>	‘goat’
		<i>ʔawa-te</i>	<i>ʔawa</i>	‘sun’
		<i>bibin-te</i>	<i>bibin</i>	‘cooking pot’

The suffix *-nte* also marks singulative and feminine gender.

(24)	Singulative (f)	Plurative	
	<i>soono-nte</i>	<i>soono</i>	‘a nostril, nose (pl)’
	<i>mojde-nte</i>	<i>mojde</i>	‘an eyelash, eyelash/eyebrow (pl)’
	<i>hinderu-nte</i>	<i>hinderu</i> (f)	‘flute’
	<i>zire-nte</i>	<i>zire</i> (f)	‘individual bead, bead (pl)’

As Hayward (1984: 182) noted, there are a number of instances where singulative and plural masculine forms terminating in a suffix *-n* are paired with singulative feminine forms terminating in *-nte*. In such cases, it can be difficult to distinguish between first and second layer derivatives. See the following examples.

(25)	Singular/Plural	Singulative (m)	Singulative (f)	
	<i>lukku</i> (f)	<i>lukku-n</i>	<i>lukku-nte</i>	‘chicken’
	<i>guraara</i> (f)	<i>guraara-n</i>	<i>guraar-ante</i>	‘lizard’
	<i>beéek</i> ’ (f)/ <i>béeg</i> (m)	<i>beek</i> ’-in/ <i>beeg-in</i>	<i>beeg-inte</i>	‘fish’

As it is shown in (25), even if the singular/plural (unitary referent) form *lukku* exists, we cannot know whether the *-nte* in *lukkunte* is a first layer suffix (from *likkun* <likkun-nte>) or a second layer (from *lukku* <lukku-n-nte>). Whether paired with a singulative or a plural noun form, only singulative forms terminating in a suffix *-č* (first layer suffix) can help us to distinguish between a first and second layer suffix. For example, when

the singulative form in *-č* is paired with the singulative form in *-te* (*serma-č* ‘(m) < *serma-j-te* (f) ‘kudu’), *-te* becomes a second layer suffix/derivative. We also find such instances in the way they adhere to Hayward’s derivational approach regarding the formation of singulative forms.

The other singulative feminine marker suffix of the previous type is *-ante*.

(26)	Singulative (f)	Plurative	
	<i>ʔuut-ante</i>	<i>ʔuuta</i> (m)	‘bride; brides (collectively)’
	<i>merd-ante</i>	<i>merde</i>	‘portion of intestine; intestine’
	<i>ʔed-ante</i>	<i>ʔedî</i> (m)	‘goat, sheep’
	<i>hezzuk’-ante</i>	<i>hezzuk’</i> (f)	‘star’

The plurative suffix *-ante* remains the same whether its hosts terminate in a vowel or in a consonant. Besides, the pluratives (collective forms), in other words the unmarked counterparts of the singulative forms, have collective meaning. Like in many Nilo-Saharan languages neighboring Arbore, entities congregated in large numbers or quantities tend to be morphologically in the plural (cf. Worku 2021: 252ff).

(ii) Marked singulative with marked plural forms

There are a group of marked singulative noun forms having marked plural forms with a suffix *-j*. These marked plural nouns designate a group of individuals of insects or humans which do not appear in groups where each individual touches another—and are likely to be of the types/members which fall under the collective or countable noun class.

(27)	Singulative (f)	Singulative (m)	Plural (m)	
	<i>kede-te</i> < <i>kedet-te</i> >	<i>kedet-in</i>	<i>kede-j</i>	‘bee’
		<i>keddî-t</i>	<i>keddî-j</i>	‘fly’
		<i>hafuurna-t</i>	<i>hafuurna-j</i>	‘greedy person’
		<i>sirga-t</i>	<i>sirga-j</i>	‘mad person’
		<i>da[wʔweʔe]ne-t</i>	<i>da[wʔweʔe]ne-j</i>	‘beggar’

The suffix *-j* appears to be a marker of plural and masculine gender. Note that the nouns shown in (27) are mostly from Hayward (1984: 174-5). There is also another interesting plural form with *-j* but having a singulative form with a suffix *-č* and plural forms with suffixes *-a/-ma* and *-me*.

(28)	Singulative (m)	Plural (m)	Plural (f)	Plural (f)	
	<i>bella-č</i>	<i>bellá-j</i> < <i>bella-č-j</i> >	<i>bellač-ma</i>	<i>bellač-me</i>	‘liar’

Another noun of the human category ‘adulterer’ has three forms: singular *kaʔim* (m), singulative *kaʔim-te* (f) and plural *kaʔim-a* or *kaʔim-ma* (pl.gender). We are unable to confirm whether the plural suffix here is *-a* or *-ma*, but more likely the former since *-ma* applies to vowel-final nouns. In (29) below is a list of such *-a* suffixing plurative noun forms.

(29)	Singulative (m/f)	Singular (m/f)	Plurative	Plural (m/f)	
	<i>koll-it</i> (m)	<i>kool</i> (m)	<i>koll-a</i>		‘leaf, wing, shoulder’
	<i>kurs-et</i> (?)	<i>kurs-at</i> (m)	<i>kurs-a</i>	<i>kursat-me</i> (f)	‘knee’
	<i>komait-[t]e</i> (f)		<i>komait-a</i>		‘turtle’
	<i>buut-[t]e</i> (f)		<i>buut-a</i>	<i>buute-n</i> (n)	‘navel’
	<i>k’ellat-[t]e</i> (f)		<i>k’ell-a</i>	<i>k’ellaj-lo</i> (f)	‘wild dog’
	<i>kurkurat-[t]e</i> (f)		<i>kurkurat-a</i>		‘eyeball’
	<i>ʔegert-[t]e</i>		<i>ʔegert-a</i>		‘sand’

To a certain extent nouns in this category denote individualized, unit, portion, groups collective (countable and uncountable) such paired body parts, animals and objects. The singulatives (individuals, portions) can be regarded as members of the pluratives (collectives/groups).

The last singulative suffix, which is used to denote an individual member of a given ethnic group or race is *-tat/-ta* (masculine) or *-tate* (feminine)—see also Hayward (1984). These singulatives tend to express unit referents—they may either refer to an individual member or a group of individuals.

(30)	Singulative (m)	Singulative (f)	Singular/Plural (unit)	
	<i>hamar-tat,</i> <i>hamar-ta</i>	<i>hamar-tate</i>	<i>hamar</i> (m)	‘Hamar’
	<i>koonson-tat</i> <i>koonson-ta</i>	<i>koonson-tate</i>	<i>koonso</i> (f)	‘Konso’

It appears that the suffix form *-tat* is used when referring to an individual member of a particular ethnic group while the form *-ta* is used when referring to a particular ethnic group in relation to other ethnic groups or nationalities.

4.3 Other number marking morphological devices

In addition to affixation, number can be shown by two other morphological processes: reduplication and suppletion. The former process applies to nouns and adjectives while the latter applies to nouns and verbs.

(i) Reduplication

Both types of reduplication (full and partial) have been identified in the language. Full reduplication applies to nouns and partial reduplication applies to adjectives only. In both nouns and adjectives, reduplication is an optional number marking.

Although it applies to a group of monosyllabic forms referring to human and animate body part nouns and which are almost entirely masculine, all their plural forms add the plural feminine suffix *-me*. See the examples in (31).

(31)	Singular (m)	Plural	
	<i>fill</i>	<i>fil.fil-me</i>	‘tail’
	<i>dum</i>	<i>dum.dum-me</i>	
	<i>čar</i>	<i>čar.čar-me</i>	‘leopard’
	<i>zeh</i>	<i>ze.zeh-me</i>	‘nape of neck’
	<i>koʔ</i>	<i>ko.koʔo-me</i>	‘collar-bone’
	<i>lah</i> (f)	<i>la.laha-me</i>	‘back’

These singular forms have no other forms. In other words, they do not occur in singulative forms. They do not have plural masculine forms either. Nor do they form plural gender forms. As is shown in (31), reduplication alone is not enough to specify number and gender therefore an appropriate suffix is added onto the reduplicated forms.

Like those nouns in (31) that reduplicate the first two segments of their base form, adjectives can do likewise.

(32)	Base/simple form	Reduplication form	
	<i>burra</i>	<i>bu.bur-a</i>	‘red’
	<i>wati</i>	<i>wa.wat-o</i>	‘black’
	<i>guddo</i>	<i>gu.gudd-o</i>	‘big’

<i>gič'č'o</i>	<i>gi.gič'č'-o</i>	'small, few'
<i>deera</i>	<i>dē.dēr-o</i>	'long'
<i>ʔilči/ʔilči</i>	<i>ʔi.ʔilč-o</i>	'heavy'
<i>wajna</i>	<i>wa.wajna-a</i>	'old'

As modifiers of the head noun in an NP, those obtained by reduplication can function in the same way as the base/simple form. On both adjective forms, agreement number and gender can be expressed in the same way. In NPs where they follow the head nouns they modify, both forms add agreement suffixes depending on the number and gender of their heads: *-a* with singular masculine and feminine heads and *-o* with plural heads. However, when the head noun is semantically plural as in (33a), the modifying adjective form may maintain the *-a* suffix (see Hayward 1984: 201ff).

- (33) a. *modo-ha* *gudda*
 people.m-pl.gen big
 'many people'

Since the head is a gender-sensitive noun, a suffix which indicates plural gender is suffixed to it (*-ha*)

- b. *wa-ha* *guddo*
 thing-pl.gend big
 'many things'

The use of such gender-sensitive suffix is clear from the form of an NP head modified by a quantifier, as in (33c).

- c. *modo* *buli*
 people.m all/every
 'all people'

(ii) Suppletion

Number suppletion is attested in Arbore nouns and verbs. Suppletive noun forms are given in (34) below.

(34)	Singular	Plural	
	<i>ʔil</i> (f)	<i>ʔindʔ</i>	‘eye’
	<i>ʔini</i> (m)	<i>ʔummo</i>	‘child’
	<i>lukk</i> (f)	<i>nundʔ</i>	‘leg’
	<i>saale</i> (f)	<i>wannit</i> (m)	‘woman’
	<i>nʔag</i> (m) ‘boy’	<i>nungul</i> (m)	‘children’
	<i>naag</i> (f) ‘girl’		

Semantically, the suppletive forms in (34) can form a special category which comprises nouns denoting paired human and body-parts. Also, there is a doublet/variant for plural form of *wannit*, i.e. *saalmo*, but it is not semantically differentiated.

In addition to nouns, a handful of number-determined suppletive verb forms are attested in the language. The singular-plural pairs of these verbs are listed in (35) below.

(35)	Singular form	Plural form	
	1/2/3m(f) <i>haadaʔ</i>	<i>bakʔadʔ</i>	‘run’
	<i>hil</i>	<i>faʔm</i>	‘enter’
	<i>beh</i>	<i>huym</i>	‘go out’
	<i>seʔadʔ</i>	<i>rot</i>	‘travel on foot’
	<i>zah</i>	<i>rahasadʔ</i>	‘die’
	<i>ʔeldʔ</i> (1s)	<i>kʔeʔ</i>	‘stand’
	<i>ʔell</i> (2&3s)		

Besides, Hayward noted that the plural form *bakʔadʔ* has an equivalent lexical doublet/variant—*ʔorǧ*. Interestingly, all these suppletive forms are intransitives thus they refer to either the singular or the plural number of the S argument.

4.4 Number agreement within an NP and at clausal level

Number is attested in Arbore pronouns—personal, possessive, demonstrative interrogative, reflexive and reciprocal. However, only nouns can be marked for number overtly by suffixation. Also, in NPs number-marking suffixes often correlate with gender. Other number-marking morphological devices associated with nouns, adjectives and verbs are reduplication and suppletion. Nominal inflectional categories number and gender are regular and predictable. In order to indicate number/gender agreement within constituents of a clause such as S/A, bound subject pronouns cross-reference verbal predicates.

(i) Number agreement within an NP

The head of an NP in Arbore has the following modifiers: definitives, adjectives, possessive and demonstrative pronouns, and numerals. Except definitives (bound possessive and deictic pronouns) that are suffixes attached to the head noun, other modifiers are independent/self-standing forms. The examples presented below demonstrate how number agreement within an NP is realized—using bound and independent possessive forms.

	Bound possessive pronoun form	Independent possessive pronoun forms
1m.sg	<i>-aw</i>	<i>hawa/haw</i> (m)
1f.sg		<i>tawa/taw</i> (f)
2m.sg	<i>-ako</i>	<i>hako</i>
2f.sg		<i>tako</i>
3m.sg	<i>-asut</i>	<i>hasuta/hasu</i>
3f.sg	<i>-aset</i>	<i>haseta/hase</i>
1pl	<i>-ano</i>	<i>hano</i> (m) <i>tano</i> (f)
2pl	<i>-aŋ</i>	<i>haŋa/ haŋ</i> (m) <i>taŋa/taŋ</i> (f)
3pl	<i>-aso</i>	<i>hasota/haso</i> (m) <i>tasota/taso</i> (f)

Note that the independent possessive pronouns are not exhaustively listed. There are also gender marker suffixes which appear on the head noun of a possessive NP, but depending on the gender of the noun: *-h-* (for masculine and plural nouns) and *-t-* (for feminine nouns). Accordingly, those in (36a-d) are possessive NPs with independent possessive pronoun modifiers whereas in (36e-g) are possessive NPs with bound possessive modifiers.

(36)	a.	<i>seʔ-e</i>	<i>tawa</i>	<t-aw-a>
		cow.sg-nom	my.f	f-1sg.f.poss-pred
		‘My (f) cow’		> Predicative form
	b.	<i>seʔ-e</i>	<i>taw</i>	<t-aw>
		cow.sg-nom	my.f	f-1sg.f.poss
		‘My (f) cow’		> Nominative form

- c. *seʔ-e* *Tano* <t-ano>
 cow.sg-nom our.f f-1pl.f.poss
 ‘Our (f) cow’
- d. *ʔin-e* *hasot* <h-asot>
 child.m-nom their.m m-3pl.poss
 ‘their son’
- e. *ʔin-e-[h]aw*
 child.m-nom-1sg.poss
 ‘my son’
- f. *nungul-aw*
 child.m.pl-1sg.poss
 ‘my (m) sons’
- g. *ʔumm-o-sut*
 child-pl-3sg.m.poss
 ‘his children’

What is to be noted from the examples above is that modifier forms which end in *-a* may not actually apply only to adjectives agreeing with non-plural noun heads as Hayward suggested. As it is shown in (36a-b), independent possessive pronouns in same syntactic function can also end in *-a*, it appears optional though. Moreover, when it comes to number agreement with both non-plural and plural head nouns, even adjectives within same semantic category do not show uniformity of form.

- (37) [*liiʔi-ta* *bura*]_{NP} *ʔij-j-ečč-e*
 bull-def red.attr 3-m-come-perv
 ‘The red bull came.’

- (38) [*seʔe-ta* *ʔeze*]_{NP} *ʔij-čeeč-e*
 cow.sg-def white.attr 3-f.come-perv
 ‘The white cow came.’

- (39) [ʔowo-ta ʔeʔeze]_{NP} ʔij-ʔečč-e
 cow.pl-def white.redup 3-come-perv
 ‘The white cows came.’

In (37 and 38) the head of the NP is non-plural whereas in (39) the head noun is plural. Nevertheless, the adjective forms in (38 and 39) do not end in *-a*.

(ii) Number agreement at clausal level

Arbore is a predicate-final language thus it has an AOV constituent order in clauses headed by transitive predicates (verbs) and an SV order in clauses headed by intransitive predicates. Thus at a clause level, number agreement is realized through an NP functioning as an A/S of the predicate or as a nominal predicate. In other words, the referential number of a core argument, whether it be of an NP functioning as A/S of a predicate or within the predicate or on a nominal functioning as nominal predicate, may be shown by cross-referencing bound subject pronouns to the predicate form of the clause. In Arbore, bound subject pronouns are always cross-referenced to non-copular verb predicates because they are subject agreement marker suffixes which indicate person, number and gender of the A/S.

However, since Arbore has some verbs with suppletive number forms (number-determined suppletive verb forms), number of a core argument may not always be shown within the predicate. A good example of which is the verb *ʔečč* ‘come’. As is shown below in (40-43), only person and gender (optional) of the core argument can be cross-referenced on the verb *ʔečč*. On the other hand, number of the core argument in S function within the clauses shown below is indicated by morphologically determined forms of *ʔečč*.

- (40) *seʔe-te ʔeze ma-ʔečč-i*
 cow.sg-def white.attr neg-come-neg.perv
 ‘The white cow didn’t come.’

- (41) *ʔowo-ta ʔeʔeze ʔij-ʔečč-e*
 cow.pl-def white.redup 3-come-perv
 ‘The white cows came.’

- (42) *ʔowo-ta guguda bubura ʔij-ʔečč-e*
 cow.pl big:redup red:redup 3-come-perv
 ‘The big red cows came.’

- (43) *ʔed-e* *bubura* *ʔij-ječč-e*
 sheep/goat.pl-def red.redup 3-come-perv
 ‘The red sheep and goats came.’

Another instance where number cannot be shown overtly within a predicate is in a copular clause construction, as in (44-45) below.

- (44) *seʔ-e* *ʔezi-dā*
 cow.sg-def white.attr-cop.3
 ‘The cow is white.’

- (45) *seʔ-e* *ʔezi* *maala*
 cow.sg-def white.attr is.not(cop.3.neg)
 ‘The cow is not white.’

4.5 Number words/Numerals

Arbore has lexical items referring to numerals or counting numbers (also known as number words). Number words (numerals) may share some grammatical properties with nouns. In this regard, Arbore number words can carry specification of gender and can occur in S function.

(i) Number words

- | | | |
|--|--------------|--|
| (46) <i>tokko</i> (m) | ‘one’ | <i>takka</i> (f) (Hayward 1984: 209ff) |
| <i>laama</i> (p) | ‘two’ | |
| <i>sezze</i> (p) | ‘three’ | |
| <i>ʔafur</i> (f) | ‘four’ | |
| <i>čan/fan</i> (f) | ‘five’ | <i>čenn</i> (Hayward 1984: 208ff) |
| <i>dʒih</i> (f) | ‘six’ | |
| <i>tuzbah</i> (p) | ‘seven’ | <i>tuzbah</i> (Hayward 1984: 208ff) |
| <i>suwi</i> (f/p) | ‘eight’ | <i>suje</i> (Hayward 1984: 208ff) |
| <i>saagal</i> (f) | ‘nine’ | <i>saagald</i> (Hayward 1984: 208ff) |
| <i>tommon</i> (f) | ‘ten’ | <i>tommond</i> (Hayward 1984: 208ff) |
| <i>tommon san takka</i> (<i>san takka</i>) | ‘eleven’ | |
| <i>tommon lamma</i> | ‘twenty’ | |
| <i>tommon lamma san takka</i> | ‘twenty-one’ | |
| <i>dibba</i> (m) | ‘hundred’ | |
| <i>kum(a) tokk(o)</i> | ‘thousand’ | |

As is illustrated in (46) above, number words 1-10 and 100 have inherent gender. In addition, the number word has two forms. In NPs, both forms agree in gender with the head noun they modify.

- (47) *mo* *d̄ir* *tokko*
 person.m male one.m
 ‘inhabitant, resident’ (Lit. ‘one male person’)

- (48) *mo* *tokko*
 person.m one.m
 ‘one man’

Hayward (1984: 209ff)

- (49) *saal* *takka*
 woman one.f
 ‘one woman’

Hayward (1984: 209ff)

The other grammatical property they share with nouns is that they function as a predicate. Predicatively, Arbore number words may occur as S and O functions.

- (50) *tokko-d̄a*
 one.m-cop.3
 ‘it is one’

- (51) *takka-d̄a*
 one.f-cop.3
 ‘it is one’

- (52) *saagalde* *ʔaj* *gir-t-a*
 nine.f 3sg.sub to.be-f-imperv
 ‘there are nine’

Hayward (1984: 210ff)

Or

- (53) *saagal* *ʔaso* *gir-a*
 nine.f 3pl.sub to.be-imperv
 ‘there are nine’

- (54) *laama* *ʔin* *koon-e*
two.pl 1sg.sub bring-perv
'I brought two.'

In copula clauses, the invariant copula form *-da* is suffixed to number words (as in (50 and 51)), and in such case it specifies person, but not number or gender. Like nouns, number words may take a feminine suffix, i.e. *-e* (52).

(ii) Ordinals

Ordinals can be formed by suffixing *-so* to number words/numerals as it is shown below.

- (55) *laam-so* 'second'
sezze-so 'third'
čene-so 'fifth'
dibbana-so 'hundredth'

5 Summary and Conclusion

Across many languages of the world, number of a reference can be shown either grammatically or marked on different classes of words, such as nouns, pronouns, demonstratives, interrogative words, and verbs. Likewise in Arbore, number reference can be coded through grammatical and lexical means. Number words or quantifiers are of the lexical coding of number marking type, and both may indicate number within an NP being modifiers of the head noun. Arbore has a rich and fascinating number system. In terms of bearing overt morphological marking, Arbore nouns form three categories: singular (unit reference), plural (of two types—plural and multiple reference) and singulative (singulative reference). In this regard, Arbore makes a three-way (tripartite) number distinction.

Besides, number marking on NPs is obligatory through appropriate number affixes but there are instances where specification of number can fuse with gender. Suffixation is by far the most common morphological means of coding number. Nevertheless, different sets of number affixes of the language depend on factors, such as phonological, morphological, syntactic (gender-sensitive plural suffix *-ha* (masculine) and *-ta* (feminine)) and semantic (human-ness or animateness). In addition to affixation, number can be shown by two other morphological processes: reduplication and

suppletion. The former process applies to nouns and adjectives while the latter applies to nouns and verbs.

In order to indicate number/gender of core arguments within a clause (S/A, O), bound subject pronouns cross-reference verbal predicates. Arbore is a predicate-final language thus it has an AOV constituent order in a clause headed by transitive predicates (verbs) and an SV order in a clause headed by intransitive predicates. Thus at a clausal level, number agreement is realized through an NP functioning as an A/S of the predicate or as a nominal predicate. In other words, the referential number of a core argument—whether it be of an NP functioning as A/S of a predicate or within the predicate or on a nominal functioning as nominal predicate—may be shown by cross-referencing bound subject pronouns to the predicate form of the clause.

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