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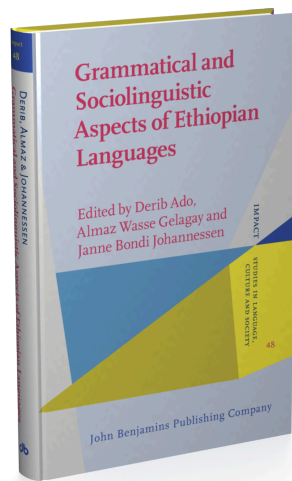
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Reduplication in Oromo

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The morphological processes of reduplication in Oromo involve copying a root or a stem, entirely or partially. The latter requires replication of a prosodic CVC template from the left side of the base. The process may require adapting the onset of the adjacent syllable as a coda of the prosodic template. The copied portion, reduplicant, of a root or a stem is prefixed to the latter. However, if the base consists of a geminate or a cluster, the prefixing of the copied reduplicant would be constrained to a CV by a dissimilation rule. In a total reduplication, as in partial reduplication, the copied root or stem is placed to the left of its base. The word classes amenable to total reduplication are nouns, determiners, numerals, adverbs and adpositions, while those agreeable to partial reduplication are adjectives and verbs. Functionally, reduplicated nouns assume a predicative role and adpositions an adverbial role. The reduplicative forms of the other word classes are limited to their respective canonical functions, essentially with the sense of augmentation in terms of quantity, frequency or intensity.

Keywords: reduplication, partial, total, prosodic, copy

1. Introduction

Reduplication, as a linguistic term, is one of the basic morphological operations by which roots, stems or words are formally adjusted so that they can be semantically fit in a sentence or in an utterance.¹ The other means of such operations are affixation, stem modification and suprafixation or suprasegmental modification, as pointed out by Payne (1997: 29). The operation of reduplication involves repetition by copying the entire root, stem or word (total copying) or by copying part

1. Based on prototypical definitions, in the present paper, *root* is the lexical unit of a word that cannot be reduced to smaller constituents, while *stem* is a word or part of a word (which may be a root or an affixed root) to which affix(es) can be attached. When an operation is applied, a root or a stem is considered a *base*.

of the latter forms (partial copying) and affixation. As to the source of reduplicants (reduplicated materials) across languages, Matthews (1991: 134f.) suggests that, in the case of prefixal and suffixal reduplication, they originate from the beginning and the end of the base, respectively, while in the case of infixal reduplication, they originate either from the beginning, the middle or the end of the base. Matthews further proposes that even total reduplication may be considered prefixal or suffixal, depending on the general pattern of the language. Although the forms of partial reduplication are generally considered to be prefixal, suffixal or infixal, they may involve complex processes. For instance, the following Tagalog (Philippines) examples present three different patterns of partial reduplication: (a) *sulat* 'writing' > *su-sulat* 'will write'; (b) *magpa-sulat* causative > *magpa-pa-sulat* 'will cause to write'; (c) *basa* 'reading', *mambasa* infinitive > *mam-ba-basa* nominalisation (Spencer 2001: 130). In (a), what is copied is simply the initial CV- of the base, whereas in (b) it is the final -CV of the first component, which marks causativity, and in (c) it is the initial CV- of the second component. In partial reduplication, the reduplicant may be just a segment or a concatenation of segments (consonants and/or vowels) or may be a prosodic constituent – syllable, foot, morpheme, etc. (Spencer 1991: 1). Making such a grammatical distinction by imposing a prosodic requirement on the segmental material copied from and affixing to the base is a case of prosodic morphology (McCarthy 2006; McCarthy & Prince 1988, 1993, 2001).

The general purpose of reduplication is to produce a new word so as to satisfy a grammatical or lexical requirement. If a reduplicative operation is for the former requirement, it is inflectional and, if for the latter, derivational. Usually, reduplication signifies such iconic meanings as repetition, frequency, increase or intensity. However, the meaning may sometimes be non-iconic and opposite to the preceding senses, that is, it may mean diminution or attenuation (Moravcsik 1978; Bauer 2003; Katamba & Stonham 2006, among others). As observed by Moravcsik (1978: 325), no predictive generalisation can be suggested concerning meanings of reduplicative constructions. For instance, in the above Tagalog example *sulat* 'to write' > *su-sulat* 'will write', the reduplication marks the grammatical feature of futurity (Bauer 2003: 32); it expresses neither augmentation nor diminution.

The concern of this paper is to examine and describe the formal and semantic properties of reduplication in Afaan Oromoo (for brevity, 'Oromo' hereafter), which is one of the Lowland East Cushitic languages that is widely spoken in Ethiopia. The Oromo people of Ethiopia are 25,489,024, constituting 34.45% of the total population of the country (F.D.R.E. Population Census Commission 2008). The language is also spoken in central and northern Kenya as well as in Somalia along some regions bordering Ethiopia. The reduplicative operations of the language will be dealt with in relation to word classes. Accordingly, we will examine reduplication in nominals

(Section 2), verbs (Section 3), adverbs (Section 4) and adpostpositions² (Section 5). Moreover, reduplicative outputs will be further examined from the perspective of inflectional operations involving case and focus. The latter are grammatical categories in which case is a form that marks the grammatical relation of nominals to other words in a sentence, and focus is a form or part of a sentence that highlights the centre of interest for interlocutors. Although Oromo has different kinds of formatives for the representation of various types of case and focus markers, only those necessary for descriptions will be employed here. For a better comprehension of the structural and functional properties of reduplication in the language, investigation of morphological operations will also be dealt with in syntactic contexts. The data that are analysed in this paper are from the Hararghe (eastern) variety of Oromo, which were obtained, essentially, introspectively and verified by two native speakers of the variety (See Acknowledgements).

2. Nominal reduplication

In this section, we will examine the processes of reduplication in relation to nouns, determiners, adjectives and numerals, as well as their co-occurrence. While nouns, determiners and numerals undergo total reduplication adjectives undergo partial reduplication. We will look at each one of them at a time.

2.1 Nouns

The form of reduplication in relation to nouns involves copying the entire root and putting it before the latter. As we shall see later in the case of partial reduplication, the reduplicant copied from the base is prefixed to the latter and undergoes morphophonemic processes. With respect to total reduplication, simply the reduplicant combined with the base form a compound word. In the analysis, in the case of partial reduplication, the reduplicant is conjoined to its base with a hyphen, in the total reduplication the reduplicant, which is a copy of the entire base, is simply made to juxtapose the latter, but is not fixed to it. Nonetheless, the tonal pattern of reduplication shows that the reduplicant and its base together form a single phonological word, taking a single accent (otherwise, each independent word has its own accent). In all cases of total reduplication, there is tonal marking

2. The motivation for this study is the brief account of nominalisation of iterative verbs in Shimelis (2015).

to show that the form resulting from total reduplication operates as a single unit or a compounded word.

Based on some words that are distinct in meaning as a result of tone difference, Habte (2003) considers Oromo a tone language. On the other hand, Stroomer (1995) suggests that Oromo is a stress language in which a syllable in a word is accented and heard as more prominent than others. However, according to Owens (1980, 1985), Banti (1988), Hayward and Gemetchu (1996) as well as Shimelis (2015), Oromo is a language in which a syllable in a word is accented and perceived as more prominent with high pitch, hence a pitch-accent language. On the contrary, a tone language distinguishes lexical and grammatical meanings of words based on pitch specification of their syllables. That is, pitch differences of syllables result in phonemic contrasts that cause meaning difference in words. Unlike in tone languages, in which pitches alternate over a word, high tone in Oromo occurs towards the right end of a word whose other syllables are low. As pointed out by Owens (1985: 29), either the penultimate or final syllable of a nominal root can be accented involving high tone. In other words, if the penultimate is H, the pitch spreads to the final, but if the penultimate is L, it is only the final that is H. Considering the fact that basic tones of roots and morphemes may alter in syntactic structures, Owens (1985: 37) generalises that Oromo may be considered a pitch-accent system from the perspective of pitch occurrence at the basic lexical level, and a tonal system from the perspective of surface realisation.

In Oromo, the total reduplication of a noun is used with the quotative verb *ɖʒeʔ*- ‘say’ together resulting in a composite verbal structure. That is somewhat similar to composite words that are formed from ideophones combined with auxiliary verbs, as in (1) below. In the ideophonic construction, the semantic content is carried by the ideophone, while the grammatical information is provided by the accompanying auxiliary verb.

- (1) *c'al ɖʒeʔ-ø-e*
 quiet say-3MS-PFV
 ‘He kept quiet.’ (Lit. He said quiet)

Below, in Example (2b), the composite verbal structure involving total reduplication that is a complement to the verb states the subject of the sentence, *juuroo* ‘porridge’. The reduplication results in a sense different (‘flat taste’) from that of the source simple noun (‘water’) in (2a). The auxiliary verb accompanying the reduplication, as in (1), provides grammatical information of person, gender, number and aspect.

- (2) a. *ʔintal-n-i [ʔintalti] biʃáan fid-t-e* [fidde]
 girl-COP-EP water bring-3MS-PFV
 ‘(The) girl brought water.’

- b. *juuroo-n bifaan bifaan*³ *ɖeʔ-t-i* [ɖɛtti]
 porridge-NOM water water say-3FS-IPFV
 'The porridge has a flat taste.'

Tangentially, the reason for the feminine agreement on the verb for the subject *juuroo* 'porridge' is the fact that the eastern variety of the language tends to associate long word-final non-low vowels with the feminine gender. On the contrary, the agreement inflection on a verb for nouns ending in the open vowel *-a* is usually masculine. The sense of the subject noun in (3a) is 'women' (collective) and that of the subject noun in (3b) is 'men'. Nonetheless, in both cases the agreement on the verb is that of masculine singular (See also Owens 1985: 95).

- (3) a. *beer-n-i* [beerri] *ɖuf-ø-e*
 women.COL-NOM-EP come-3MS-\
 '(The) women came/have come.'
 b. *orm-ø-i* [ormi] *ɖuf-ø-e*
 men.COL-NOM-EP come-3MS-\
 '(The) men came/have come.'

The singular counterpart of *beera* 'women' (collective) is *dubartii* 'woman', of which the plural form is *dubartoota* 'women'. Nonetheless, some speakers use the singular form also for plural. In the case of *orma* 'men', the singular counterpart is *namicca* 'man' (singulative), which is derived from *nama* 'person/human'.

The Hararghe variety of Oromo does not formally distinguish between the perfective aspect (conflating past tense) and the present perfect. For instance, *naat-t-e* eat-3FS-\
 may have a perfective sense ('She ate') or a present perfect sense ('She has eaten'). On the contrary, for example, the western variety has distinct forms. In (4a) the verb is perfective, while in (4b) it is present perfect. Observe that, in the latter case, the main verb is accompanied by an auxiliary verb.

- (4) a. (ʔisiin) *naat-t-e*
 (she) eat-3FS-\
 'She ate.'
 b. (ʔisiin) *naat-t-ee ɖʒir-t-i* [naatteetti]
 (she) eat-3 FS-CNV exist-3 FS-IPFV
 'She has eaten.'

In the present study, the nominative case is marked in a manner different to a degree from previous studies such as Bender & Mulugeta (1976), Gragg (1976), Owens

3. A high tone (H) on the first of a double vowel signifies that the suprasegmental feature is borne by the whole long vowel. In this study, tone marking is limited to reduplicated compound words where H tone is marked by an acute accent and L tone by absence of marking.

(1985), and Griefenow-Mewis (2001). In the present study, the Oromo nominative marker is considered to be *-n*. Nonetheless, the marking surfaces in different forms depending on the ending of the host stem.⁴

Fabb (2001: 69) observes that reduplication of the entire base is similar to compounding, in which independent words together form a new one. As seen in (2b), the compounding is exocentric, in which the two juxtaposed elements are combined without a head-modifier relationship and the compound is not a hyponym of any of the two elements. In other words, the meaning of the compound is obtained from the whole unit, and not compositionally from the sum of the two elements. The fact that the two elements constitute a single unit could also be construed from the tone marking as (2b) demonstrates. The compound is a single word, and as such takes one H tone, that is, one of its syllables is accented. Owens (1985: 35) observes that, in nominals, it is the penultimate syllable whose tone should be specified, and from that the rest could be determined. If the penultimate bears H tone, that would spread to the right (to the final syllable), but it is L if the final syllable is H. For instance, the noun *biʔáan* ‘water’ in the absolute case (object of an imperative verb) is H on its final syllable and the penultimate syllable is L. On the other hand, the *bifaan bifaan* has only a H tone on the second member of the compound. A similar situation is observed in the example below, in which the meaning of the base is ‘honey’, and that of the reduplicative compound is ‘sweet (like honey)’.

- (5) *fuuroo-n dayma dáymá dʒeʔ-t-i* [*dʒetti*]
 porridge-NOM honey honey say-3 FS-IPFV
 ‘(The) porridge is sweet.’ (Lit. The porridge says honey honey)

In both (2) and (5), the H tone occurs towards the right end. In Example (2), the H tone is on the ultimate super-heavy syllable while in (5), the occurrence is on the penultimate CVC- syllable and spreads to the ultimate -CV. Unlike in (2), in

4.

- (i) *-n* after a long vowel (e.g. *saree* ‘dog’ > *saree -n*);
- (ii) *-n-i* after dropping the final short *-a* of the base and following a simplex consonant of the latter (e.g., *mana* ‘house’ > *man-n-i*) (*-i* is epenthesis breaking the impermissible final -CC-);
- (iii) *-ø-i* (*-i* is epenthesis) after dropping the final *-a* that is preceded by a consonant cluster or gemination (e.g., *harka* ‘hand’ > *hark-ø-i*, *ʔibidda* ‘fire’ > *ʔibidd-ø-i*) (the nominative case is represented by *-ø-* (zero));
- (iv) *-t-i* after a feminine (or considered feminine) noun ending in a consonant preceding the final vowel (e.g., *ʔintala* ‘girl’ > *ʔintal-n-i* > *ʔintal-t-i* (epenthesis) (In the western (Macca) variety, *ʔintala* ‘girl’ > *ʔintal-n-i* > *ʔintal-l-i*); *raada* ‘heifer’ > *raad-n-i* > *raad-t-i* [*raaddi*]; *lafa* ‘land’ > *laf-n-I* > *laf-t-i*); *biyya* ‘country’ > *biy-n-i* > *biy-t-i*..
- (v) No marking after a noun ending in a consonant (usually *-n*) (e.g., *bifaan* ‘water’ > *bifaan*; *midaan* ‘grain’ > *midaan*; *kʷanynuur* ‘ant’ > *kʷanynuur*).

which the ultimate super-heavy syllable has attracted the H tone, in a case like (5) the H tone that is attracted towards the relatively heavy penultimate syllable spreads to the right. The Oromo nouns resulting from whole-word reduplication are of the exocentric compound type in which the combined elements are not in a head-dependent relationship. The meaning of the compound is the contribution of both elements, but is not predictable. However, as in Examples (2) and (5), the reduplicative compound with altered sense of the base noun describes the property of the syntactic subject. It is generally the case that the meaning of reduplication of concrete nouns reflects the property of the base noun. The reduplicative compounds of temporal nouns, rather, reflect the frequency of those of the base nouns, implying the repetitive occurrence of something.

- (6) *ganámá* ‘morning’ > *ganama ganámá* ‘every morning’
kamísá ‘Thursday’ > *kamisa kamísá* ‘every Thursday’

As the example below illustrates, reduplicative temporal compound nouns have an adverbial role in a sentence.

- (7) *sar-i-cc-ø-i* *ganama ganámá dut-ø-a*
 dog-EP-SGV-NOM- EP morning morning bark-3MS-IPFV
 ‘The dog barks every morning.’

The purpose of reduplicating nouns, as the examples demonstrate, is to provide interpretations that would not otherwise be obtained from the respective individual nouns. For instance, in the case of (2), considering the simple noun for description would result in *bifaan d̥eʔ-t-i* [*d̥etti*] ‘She/It says water’ or ‘She is asking for water’. This interpretation is totally different from what the reduplication conveys. In a nominal reduplication that involves an auxiliary verb, as in (2) and (5), the reduplicative compound is a contributor of the semantic substance, while the auxiliary verb is responsible for the grammatical information. Reduplicative compound nouns accompanied by an auxiliary verb assume a predicative role. As a result, such nouns do not, for instance, inflect for case (one of the properties of nouns), as their simple counterparts do. While (8a) is possible (8b) is not. In the latter case, one might expect the sense ‘for flat taste’, but the output is not a sensible one.

- (8) a. *bifaanii-f*
 water-DAT
 ‘for water’
 b. * *bifaan bifaanii-f*
 water water-DAT
 ?

As seen below in (9a, b), total reduplicative nouns similar to the ones above are also found in Amharic, which belongs to the Semitic family, but which is in a convergent relationship with Oromo within the Ethiopian linguistic area. In the structures below, the accent on the reduplicative forms marks stress, unlike H tone in Oromo, hence Amharic is a stress-accent language unlike the pitch-accent Oromo.

- (9) a. *t'əḏḏ-u wiha wihá yi-l-ʔall⁵ [yilall]*
 mead-DEF water water 3MS-say-exist.IPFV (AUX)
 'The mead has a flat taste.'
- b. *t'əlla-u [t'əllaw] mar már yi-l-ʔall [yilall]*
 traditional.beer-DEF honey honey 3MS-say-exist.IPFV
 'The traditional beer is as sweet as honey.'

In the discussion above, we saw the morphological organisation and semantic implications of reduplicative compound nouns. Now we will look at the way they are further organised involving inflection for focus. With respect to case, they are not agreeable to it, as they are functionally predicative. In the example below, the reduplicative compound noun is focused for a contrastive information that is contrary to what the interlocutor may presuppose. As regards the tonal marking, the reduplicative form is marked on the right end of the second element, indicating that they are a unit within the predicate accompanied by the auxiliary verb. The suffixed focus marker retains its characteristic tone (Owens 1980: 164).

- (10) *juuroo-n bifaan bifáani-llée ḏḡeʔ-t-u [ḏḡettu] ni=ʔan⁶ [niin]*
 porridge-NOM water water-FOC say-3FS-SUB FOC=1s
naadd-ø-a
 eat-1S-IPFV
 'I will eat the porridge, even if it has a flat taste.'

In the subsection below, we will investigate the formal and functional characteristics of reduplicative determiners.

5. *-l-* is considered to be the result of reduction from the root *b-h-l* 'say'. According to Desta (1970: 101), the Amharic *ʔal-ə* said-he 'he said' resulted from the reduction of *b-* and alteration of *-h-* to *-ʔ-*; hence *b-h-l* > *ʔ-l* [*ʔalə*]. In the example above, the guttural *ʔ-* is also deleted and what remained from *b-h-l* is simply *-l-*.

6. *ni=* is a preverbal clitic (Owens 1985: 60).

2.2 Determiners

Determiners are grammatical units that limit the referent of a noun. Traditionally, they are considered as adjectives when they modify a noun, and as pronouns when there is no apparent concomitant noun. In the present study, however, they are considered determiners, whether or not a noun is present. Below, in (11a) the head of the noun phrase is present, whereas in (11b) it is left for pragmatic retrieval.

- (11) a. *kitaaba san fid-i*
 book that bring-2IMPV
 ‘Bring that book.’
 b. *san fid-i*
 that bring-2IMPV
 ‘Bring that.’

Of the determiner types in Oromo, demonstratives are considered here as they may undergo reduplication. All languages seem to have at least two demonstrative types with two degrees of distance – proximal and distal (Diessel 1999: 2; Payne 1997: 102, among others). The Oromo proximal and distal demonstratives functioning as subject and object are provided in the table below.

Subject demonstratives				Object demonstratives	
Number	Gender	Proximal	Distal	Proximal	Distal
Singular	M.	<i>kun(i)</i> ⁷ ‘this’	<i>sun(i)</i> ‘that’	<i>kana</i> ‘this’	<i>san</i> ‘that’
	F.	<i>tun(i)</i> ‘this’		<i>tana</i> ‘this’	
Plural		<i>kun(i)</i> ‘these’	<i>sun(i)</i> ‘those’	<i>kana</i> ‘these’	<i>san</i> ‘those’

The proximal masculine demonstratives in both subject and object functions are structured on the stem consonants *k-n*, whereas for the feminine on *t-n*. The distal demonstratives, which do not distinguish gender, are structured on the stem consonants *s-n*. In both proximal and distal cases, the subject demonstratives are distinguished by the vowel pattern *-u-(i)*, while object demonstratives are distinguished by *-a-a*. The object case in Oromo is identified as ‘absolute’,⁸ due to the fact that nouns in the object function are distinguished by the absence of marking, in other words, by adopting the citation form.⁹

7. The final *(i)* is phonetically optional. In the eastern variety of Oromo, *k* is usually phoneticised as the voiceless uvular fricative [X] regardless of position in a word (e.g. [Xun(i)] ‘this’, [muXa] ‘wood, tree’). Nonetheless, in the transcription here, simply *k* (the underlying representation) is employed.

8. ‘Absolute’ is preferred to distinguish from the ergative languages that mark the subject of intransitive verbs or the object of transitive verbs in the ‘Absolute’ case.

9. The employment of *k/t* for distinguishing the masculine and feminine gender is a Cushitic feature (Tosco 2000: 92).

With respect to number, it is the masculine singular form that is also employed for proximal plural and, similarly, it is the common singular distal form (which functions for both masculine and feminine singular) that is also used for distal plural.

The type of reduplication the demonstratives undergo is total, as illustrated below. The meaning that results from the operation is identifying some referents in a large group. The reduplication is iconic in that the phonetic quantity implies plurality of what it signifies.

- (12) a. *kun(i)* ‘this’(M.) > *kun kún(i)* ‘these ones’ (all male or male and female)
 b. *tun(i)* ‘this’ (F.) > *tun tún(i)* ‘these ones’ (all female or nouns ending in a non-low vowel)
 c. *sun(i)* ‘that’ > *sun sún(i)* ‘those ones’ (all male or male and female)

Each of the reduplicated forms takes an H tone that reflects its being a single derived unit, a compound, as illustrated below.

- (13) *harr-oot-n-i* [*harroonni*] *kun kún(i)* *kiyya*
 donkey-PL-NOM-EP these these mine
 ‘These donkeys are mine.’

Notice that the sentence is a nominal one with no main verb (also no copula). The simple object demonstratives in (14) are counterparts of the subject demonstratives *kun* ‘this’ (M.), *tun* ‘this’ (F.) and *sun* ‘that’ (epicene), respectively.

- (14) a. *kana* ‘this’(M.) > *kana kána* ‘these ones’ (all male or male and female)
 b. *tana* ‘this’ (F.) > *tana tána* ‘these ones’ (all female or nouns ending in a non-low vowel)
 c. *san* ‘that’ (epicene) > *san sán* ‘those ones’ (epicene)

The reduplicative demonstrative in (15a) is subject, whereas the one in (15b) is object.

- (15) a. *sun sún gurgur-am- ø-an*
 those those sell-PAS-3PL-PL
 ‘Those ones have been sold.’
 b. *?intal-t-i kana kána d̥gaal-at-t-i*
 girl-NOM-EP these these like-MD-3FS-IPFV
 ‘The girl likes these ones.’

In each example, the compound determiner is without its noun head.

Like compound nouns, the subject compound determiner inflects for focus, while the object compound determiner inflects for both case and focus. In (16a), the inflection of the subject compound is that of focus, while in (16b) the inflection of the object compound is case, and in (16c) those of case as well as focus.

- (16) a. *reʔee-n tun tún-úu gurgur-am-t-e*
 goat.COL-NOM these these.F-FOC sell-PAS-f-PFV
 ‘Even these goats have been sold.’ (Lit. Even these ones goats have been sold)
- b. *reʔee tana tánaa-n ʔisii gammad-siis-i [gammacciisi]*
 goat.COL these these.f-INST her happy-CS-IMPV
 ‘Make her happy with these goats.’ (Lit. Make her happy with these ones goats)
- c. *reʔee tana tánáa-n-úu ʔisii gammad-siis-i [gammacciisi]*
 goat.COL These these.f-INST-FOC her happy-CS-IMPV.2s
 ‘Make her happy even with these goats.’ (Lit. Make her happy even with these ones goats.)

In (16a), *reʔee*, which is in the collective sense, is considered to be feminine due to the non-low terminal vowel, as pointed out earlier. This is why the determiner compound is feminine, in agreement with the gender of its head.

2.3 Adjectives

As attributes of nouns, Oromo adjectives agree in gender, number and case with the nouns they modify. While gender and case distinctions in adjectives are expressed by suffixation, plurality is signaled iconically by reduplication, which involves prefixation of the copied material from the stem. In some cases, additional phonological processes, such as assimilation and/or vowel reduction, take place. In plural adjectives, the language employs two types of reduplication, depending on the structures of the stem. They are treated here as Type I and Type II adjectives. The two types are distinguished from each other in the presence or absence of gemination or consonant cluster. While the latter are absent in Type I, they are present in Type II. In the two subsections that follow we will discuss the structural and semantic characteristics of the reduplicative forms of the two adjective types.

2.3.1 Type I adjectives

As indicated above, the adjectives of this category are distinguished by the absence of gemination or cluster in their roots. When they are attributes of plural nouns, they undergo reduplication, in which the copied reduplicant is prefixed to the base. Accordingly, the template of a prosodic unit of a CVC syllable structure is copied from the left end of the root and is prefixed to the latter. While copying the CVC from a root with such a structure is direct, copying from the roots with a CVVC structure or with initial CVV- or CV- involves adjusting what is copied to a CVC template, even if it affects the onset of the adjacent syllable to the right. Thus, the

copied CVC reduplicant is prefixed to the base, and that is followed by a phonological process of assimilation of the coda of the reduplicant syllable to the onset of the base.

The assumption that the material to be copied for reduplication should be a CVC template of the prosodic unit of a syllable is seen, for instance, in the reduplicated plural form of the adjective *?adii* 'white'. The root is *?ad-* and what is copied for reduplication according to the prosodic rule is CVC, which means in this case the whole root. Thus the copied *?ad-* is prefixed to the base and results in *?ad-?ad-*, which is not actually used. Then, for the phonetic (surface) representation, the phonological processes of deleting the medial glottal stop follows, and consequently the neighboring vowel is lengthened (compensatory lengthening). Hence, the form of the plural form of the adjective appears as *?adaadii* 'white', which is in use. Accordingly, the data below exemplify the descriptions given about Type I adjectives that involve copying a CVC template.

(17)	Base	Reduplication	Reduplicative
a.	<i>c'im-</i> 'strong'	<i>> c'im-c'im-</i>	<i>> [c'icc'im-]</i> (plural)
	c_1VC_2-	$c_1VC_2-c_1VC_2-$	$c_1VC_1c_1VC_2-$
b.	<i>laaf-</i> 'soft'	<i>> laf-laaf-</i>	<i>> [lallaaf-]</i> (plural)
	c_1VVC_2-	$c_1VC_2-c_1VVC_2-$	$c_1VC_1c_1VVC_2-$
c.	<i>gabaab-</i> 'short'	<i>> gab-gabaab-</i>	<i>> [gaggabaab-]</i> (plural)
	$c_1VC_2VVC_2-$	$c_1VC_2-c_1VC_2VVC_2-$	$c_1VC_1c_1VC_2VVC_2-$

In (17a), since the c_1VC_2- structure of the stem of *cimaa* 'strong (M.)' concurs with the required template for reduplicant, the copying is that of the whole root, while in (17b), in the stem of *laafaa* 'soft (M.)', the syllable is reduced to fit the required template, C_1VC_2- . In (16c), in the root of *gabaabaa* 'short (M.)', that is *gabaab-*, the adjacent syllable to the right has been made to lose its onset (*gab.aab-*) so as to satisfy the templatic prosody of the reduplicant, CVC.

Instead of the above C_1VC_2- copying for the reduplication of Type I adjectives, an alternative analysis could be copying the first CV- of the root and prefixing to the base, which should undergo gemination of its first consonant. Accordingly, for instance, *c'im-* 'strong' *> c'icc'im-* 'strong' (plural) appears to be a result of the process *c'im-* *> c'i-c'im-* *> c'i-cc'im-*. But the approach does not seem to be plausible. Especially, how and why the initial *c-* of the base is geminated does not seem to be explicable. Furthermore, it does not work for such a root with initial guttural as *?ad-* 'white': *?ad-* *> *?a-?adii* (quite different from the accepted plural form, *?adaadii*, and not acceptable, at least in the eastern variety of the language).

2.3.2 Type II adjectives

In Type II adjectives, which are characterised by their roots containing either a geminate or a cluster of consonants, reduplication for plural formation involves, as in relation to Type I adjectives, a templatic copying of a prosodic CVC. But here the prefixing of the reduplicant is constrained. Unlike in the reduplication of Type I adjectives, the strategy requires phonetic reduction of the reduplicant CVC to CV. The purpose is to avoid gemination, as in the case of Type I adjectives, so as to contrast quantitatively with the geminate or cluster of the base. Thus, the reduplication culminates with prefixing a CV reduplicant to the base, as seen in the examples below. Fikadu (2014: 193) considers the suspension of gemination to be due to blockage by the subsequent gemination, hence dissimilation in gemination. His argument is plausible, but needs to consider alternatively the existence of a cluster (not only a geminate) as a constraint for disallowing the prefixing of a CVC. In (18a), the constraint is due to the existing gemination, while in (18b), a cluster.

(18)	Base	Reduplicative
a.	<i>bat't'-</i> (<i>bat't'ee</i> 'flat') C ₁ VC ₂ C ₂ -	> <i>ba-bat't'-</i> [<i>babat't'-</i>] (plural) C ₁ V-C ₁ VC ₂ C ₂ - C ₁ VC ₁ VC ₂ C ₂ -
b.	<i>furd-</i> (<i>furdaa</i> 'fat/thick (M.)') C ₁ VC ₂ C ₃ -	> <i>fu-furd-</i> [<i>fufurd-</i>] (plural) C ₁ V-C ₁ VC ₂ C ₃ - C ₁ VC ₁ VC ₂ C ₃ -

Both Type I and II adjectives may be marked for both case and focus. Example (19a) is that of Type I, in which a root contains neither geminate nor cluster and (19b), that of Type II, in which a root contains either geminate or cluster.

(19)	a.	<i>nama</i>	<i>deddéer-áa-fii-s</i>	<i>ni=tah-ø-a</i>	(root = <i>deer-</i>)
		person.COL	tall.PL-M.-DAT-also	FOC-fit-3MS-IPFV	
		'It also fits tall people.'			
	b.	<i>nama</i>	<i>kak'al?-áa-fii-s</i>	<i>ni=tah-ø-a</i>	(root = <i>k'alʔ-</i>)
		person.COL	thin.PL-M.-DAT-also	FOC-fit-3MS-IPFV	
		'It also fits thin people.'			

Observe the structural difference between the adjectives from the viewpoint of the templates of the reduplicants. In (19a), the template of the reduplicant is CVC- (*ded-*), while that of (19b) is CV- (*k'a-*). In the latter case, the reduplicant has been reduced to CV- as a result of dissimilation from the cluster in the root.

2.4 Numerals

From the viewpoint of their occurrence as modifiers of nouns, numerals are treated here with the other nominals. The reduplicated forms provide a distributive sense. However, in the case of the numeral for ‘one’, it may also provide a partitive sense, depending on context. In (20a), the total reduplication of *tokko* ‘one’ resulted in a compound word. But in (20b), what is copied is already a compound and the result of the reduplication process is double compounding, that is, two independent compounds in juxtaposition, which is what the H tone on each of the two compounds signifies.

- (20) a. *tókko* ‘one’ > *tokko tókko* ‘one each’
 b. *kuda-ʔáfúr* ‘fourteen’ > *kuda-ʔáfúr kuda-ʔáfúr* ‘fourteen each’

Below, in (21a) the ‘simple’ compound, and in (21b) the ‘complex’ compound limit the distributive quantity of their head nouns, *kitaaba* ‘book’ and *K’arfii* (the standard unit of money in Oromo; in Amharic *Birr*).

- (21) a. *bar-siis-aa-n* *kitaaba tokko tókkó nu-f* [*nuu-f*]
 learn-CS-NMZR.M-NOM book.ABS one one US-DAT
kenn-ø-e
 give-3MS-PFV
 ‘(The) teacher gave us one book each.’
 b. *Umar K’arfii*¹⁰ *kuda-ʔáfúr kuda-ʔáfúr nu-f* [*nuu-f*] *kenn-ø-e*
 Umar K’arfii.ABS fourteen fourteen US-DAT give-3 MS-PFV
 ‘Umar gave us fourteen K’arfii each.’

The reduplicative numeral for ‘one’, as indicated above, may give a partitive sense apart from the distributive meaning like the rest of reduplicative numerals. The example below is an illustration of the partitive interpretation.

- (22) *nam-n-i* *tokko tókkó gaarii-dá*
 person.COL-NOM-EP. one good-COP
 ‘Some people are good.’

The compound reduplicative numerals, like the object compound reduplicative determiners, inflect for both case and focus.

10. In the noun phrase *K’arfii kuda-ʔáfúr kuda-ʔáfúr*, *K’arfii* is not inflected for the plural number, as is also the case, for instance, in Amharic, where *Birr* co-occurs with a numeral more than one (e.g. *sabatBirr* ‘seven Birr’).

- (23) *bar-siis-aa-n* *barat-oota tokko tókkóo-fi-llée kitaab-ota*
 learn-CS-NMZR.M.-NOM student-PL one one-DAT-FOC book-PL
kenn-ø-e
 give-3MS-PFV
 ‘(The) teacher gave books even to some students.’

2.5 Co-occurrence of reduplicative nominals

Of the reduplicative nominals discussed above, adjectives, determiners and numerals may co-occur in noun phrases. But reduplicative nouns may not, since they assume a predicative role in syntactic structures. When reduplicative adjectives, determiners and numerals co-occur in a noun phrase, it is two of them that co-occur at a time, and the pattern is that of their simple counterparts, in which the head noun is on the left immediately followed by the adjective and then, either the numeral or determiner coming next or numeral and finally determiner – Noun + Adjective + Determiner/ Numeral. In (24a), the co-location in the noun phrase is Noun + Adjective + Determiner while in (24b) Noun + Adjective + Numeral.

- (24) a. *?intal-t-i* *timaatim* *diddiim-aa* *kana káná* *nu-f* [*nuu-f*]
 girl-NOM-EP tomato.ABS red.PL-M.ABS these these.ABS us-DAT
kenn-i-t-e
 give-EP-3FS-PFV
 ‘(The) girl gave us these red (ripe) tomatoes each.’
 b. *?intal-t-i* *timaatim* *diddiim-aa* *torba tórbá* *nu-f* [*nuu-f*]
 girl-NOM-EP tomato.ABS red.PL-M.ABS seven seven us-DAT
kenn-i-t-e
 give-EP-3FS-PFV
 ‘(The) girl gave us seven red (ripe) tomatoes each.’

In the case of the co-occurrence of simple numeral and determiner, the former may precede the latter – Noun + Adjective + Number + Determiner. For example, *hoolota fufurda lamaan kana* sheep fat two these ‘These two fat sheep’.

While the reduplicative determiner in (24a) is in the absolute case, the reduplicative numeral in (24b) does not show distinction between the absolute and nominative case. Again, while the former has a sense of selection, the latter has a sense of distribution. In both examples, the attributive adjective comes immediately next to the head noun. The reason why the attributive adjective has precedence is possibly due to the fact that it is the inherent property of the subject. Altering the sequence of the modifiers would be ungrammatical (**timaatim kana-kana diddiim-aa*; **timaatim torba-torba diddiim-aa*).

3. Verbal reduplication

Like the adjectives, verbs may be grouped into Type I and Type II depending on the shape of their roots. The two types are distinguished from each other by the presence or absence of gemination or cluster. While the latter are absent in Type I verbs, they are present in Type II. As in the case of the adjectives, the material to be copied for reduplication is of CVC template originating from the left side of the base and is prefixed to the latter.

3.1 Type I Verbs

As in the case of Type I adjectives whose roots do not contain a geminate or a cluster of consonants, the template to be copied is CVC. The latter may be obtained even by affecting the onset of the adjacent syllable on the right and, when a long vowel is encountered, by simplifying it to a short one. As in the case of adjectives, the assumption that the reduplicant is of CVC template can easily be seen from the way monosyllabic verbs are sometimes reduplicated in the western variety, for instance, *mur-* ‘cut’ > *murmur-*. However, the reduplication surfaces as [*mummur-*]. As also in reduplicative adjectives, in the reduplicative output here the final consonant of the prefixed reduplicant is assimilated to the onset of the base. The examples in (25) illustrate the reduplication processes of Type I verbs whose root involves a long vowel.

- | | | | |
|------|--|--|---|
| (25) | Base | Reduplicative | |
| a. | <i>dīb-</i> ‘push’ | > <i>dīb-dīb-</i> | [<i>didīdīb-</i>] ‘push repeatedly’ |
| | C ₁ VVC ₂ - | C ₁ VC ₂ -C ₁ VVC ₂ - | [C ₁ VC ₁ VVC ₂ -] |
| b. | <i>bak’ak’-</i> ‘tear’(intr.) | > <i>bak’- bak’8ak’-</i> | [<i>babbak’ak’-</i>] ‘tear at several places’ |
| | C ₁ VC ₂ VC ₂ - | C ₁ VC ₂ -C ₁ VC ₂ VC ₂ - | [C ₁ VC ₁ C ₁ VC ₂ VC ₂ -] |

Observe that in (25b) the CVC-template is carved by including the onset of the syllable to the right.

The verb *daf-* ‘be quick, fast’, the function of which is adverbial, undergoes partial reduplication, as in (26), resulting in the sense of ‘very quickly’ (adverbial). As with any finite verb, it inflects for gender and number.

- (26) *bar-siis-tuu-n* [*barsiiftuun*] *kitaaba* *daddaf-t-ée*
 learn-CS-F-NOM book.ABS quick.ITR-3FS-CNV
dubb-i-s-t-i [*dubbifti*]
 speak-EP-CS-3FS-IPFV
 ‘(The) female teacher reads (the) book very fast.’

3.2 Type II verbs

The reduplicative behaviour of this class of verbs is also similar to that of the corresponding Type II adjectives, as indicated above. The distinguishing factor is the presence of a -CC- within the root in terms of either a geminate or a cluster. Consequently, the prosodic reduplicant CVC is constrained by dissimilation to CV. Here are examples:

- (27)
- | | Base | | Reduplicative | |
|----|------------------------|---|-------------------------|---|
| a. | <i>fannis-</i> ‘hang’ | > | <i>fa-fannis-</i> | [<i>fafannis-</i>] ‘hang several things’ |
| | $C_1VC_2C_2VC_3-$ | | $C_1V-C_1VC_2C_2VC_3-$ | [$c_1VC_1VC_2c_2VC_3-$] |
| b. | <i>ʔarraab-</i> ‘lick’ | > | <i>ʔa-ʔarraab-</i> | [<i>ʔaʔarraab-</i>] ‘lick lightly/repeatedly’ |
| | $C_1VC_2C_2VVC_3-$ | | $C_1V-C_1VC_2C_2VVC_3-$ | [$C_1VC_1VC_2C_2VVC_3-$] |

In this category, the meanings of the reduplicative forms may be iconic or not, depending on the kind of message a speaker wishes to convey.

In the Hararghe variety, a few Type I verbs have been found to be deviating from the typical reduplication pattern of the class and seem to adopt that of Type II. While they are expected to prefix CVC, which is typical of the class, they rather prefix CV, as Type II verbs do. After having checked with various varieties of the language (Mac’c’a, Boorana, Tuulama and Baalee), it was discovered that the alteration is observed only in the Hararghe and part of the Mac’c’a (western) varieties. In the Baalee variety, alternate uses of CVC- and CV- have been observed. Below are comparative examples based on the root of the verb *dooh-* ‘burst’. In (28a) the prefixed template is CVC-, while in (28b) CV-, resulting in *doddooh-* and *dodooh-*, respectively.

- (28)
- | | Base | | Reduplicative | |
|----|----------------------|---|--|---------------------------------------|
| a. | <i>dooh-</i> ‘burst’ | > | <i>doh-dooh-</i> [<i>doddooh-</i>] ‘burst repeatedly’ (Expected pattern) | |
| | C_1VVC_2- | | $C_1VC_2-C_1VVC_2-$ | |
| b. | <i>dooh-</i> | > | <i>dō-dooh-</i> | [<i>dodooh-</i>] (Existing pattern) |
| | C_1VVC_2- | | $C_1V-C_1VVC_2-$ | |

In (28a), the prefixing based on a CVC- template goes with the norm of the language, whereas in (28b) constraining the template falls out of the pattern. The reason the particular verbs such as *dooh-* ‘burst’, *c’iis-* ‘lie down’, *looh-* ‘crawl, creep (of reptile)’, etc. fall out of the reduplication pattern of the class needs further investigation.

In the examples below, both perfective and imperfective verbs are focused. In the Hararghe variety, as already seen, the imperfective is normally marked with the preverbal focus clitic *ni=*, as in (29a). The perfective may also be marked similarly when emphasis is required, as in (29b).

- (29) a. *gurbaa-n foon ni=mummur-ø-á-llé*
 boy-NOM meat.ABS FOC-cut.ITER-3MS-IPFV-FOC
 ‘(The) boy does cut meat into pieces.’
 b. *gurbaa-n foon ni=mummur-ø-é-llé*
 boy-NOM meat FOC-cut.ITER-3MS-PFV-FOC
 ‘(The) boy did cut meat into pieces.’

Note that in both constructions the focus marker terminates with the short *-e*. This is due to the fact that the verb is a main one and not a completive converb with a final long *-ee*, requiring a main verb to follow it. On the contrary, as seen below, a converb with its final long vowel is followed by the focus marker and then a main verb.

- (30) *gurbaa-n foon mummur-ø-ée-llée hin-kenn-i-n-e*
 boy-NOM meat cut.ITER-3MS-CNV.PFV-FOC NEG-give-EP-CM-PFV
 ‘(The) boy did not give meat having cut into pieces.’

The verb in (29) and (30) is in a reduplicative form based on the templatic reduplicant CVC-. Verbs from the counterpart class whose reduplicative pattern is based on prefixing CV- also behave in the same manner. For instance, *fafannis-* ‘hang repeatedly’ could fit in similar templates of the verb in the three examples seen below.

- (31) a. *gurbaa-n foon ni=fafannis-ø-á-lle*
 boy-NOM meat.ABS FOC-hang.ITER-3MS-IPFV-FOC
 ‘(The) boy does hang pieces of meat.’
 b. *gurbaa-n foon ni=fafannis-ø-é-lle*
 boy-NOM meat.ABS FOC-hang.repeatedly-3MS-PFV-FOC
 ‘(The) boy did hang pieces of meat.’
 c. *gurbaa-n foon fafannis-ø-ée-llée hin-fit’-n-e [hinfinʔe]*
 boy-NOM meat.ABS hang.ITER-3MS-PFV-FOC NEG-finish-CM-PFV
 ‘(The) boy did not even finish hanging pieces of meat.’

Unlike finite verbs, those referred to as ‘infinitive’ behave as nominals and alternatively as verbals. As nominals, they may be inflected for case and, if necessary, additionally for focus. Accordingly, the structure in bold in (32a) is nominal while the one in (32b) is verbal.

- (32) a. *gurbaa-n foon mummur-uu-n-í-llée*
 boy-NOM meat.ABS cut.ITER-NMZR-INST-EP-FOC
hin-gammad-n-e [hingammanne]
 NEG-happy-CM-PFV
 ‘(The) boy was not happy even by cutting meat into pieces.’
 b. *foon.ABS san mummúr-úu k’ab-t-a [k’abda]*
 meat that cut.ITER-INF have-2S-IPFV
 ‘You have to cut that meat into pieces.’

The evidence for *mummúr-úu* in (32b) to be verbal is the fact that it is accompanied by the verb *káb-* ‘have/possess’ grammaticalized to manifesting the sense ‘have to/must’. If *káb-* retains its lexical sense ‘have/possess’, it would be preceded by a nominal as in *foon k’ab-t-a* [*k’abda*] meat have.you-IPFV ‘You have meat’.

4. Adverbial reduplication

There are few typical adverbs in the language. They modify verbs and adjectives in terms of place, time and manner. Adverbs normally undergo total reduplication. Below, in (33a) the reduplication is that of *suuta* ‘slowly’, while in (33b) it is that of *t’ik’k’o* ‘little’. In (33a) the compound expresses the manner of the verbal action, while in (33b) the compound expresses the degree of the verbal sense.

- (33) a. *Abraham suuta súutáa-n mana d̥ʒaar-ø-e*
 Abraham slow slow-INST house.ABS build-3MS-PFV
 ‘Abraham built a house gradually.’
 b. *Kadija ʔafaan t’ik’k’o t’ik’k’o ni=beek-t-i* [*nibeeyti*]
 Kadija language.ABS little little FOC=know-3FS-IPFV
 ‘Kadija knows the language very little.’

5. Adpositional reduplication

In Oromo, prepositions are rare, and the language is rather postpositional. As in the case of nominals and, partly, adverbs, reduplication of adpositions is carried out by total copying of the root. The function of the reduplicative is to express iterativity along with an iterative verb. In (34) the reduplication of the preposition *gama* ‘on the side of, toward’ provides an adverbial function. The reduplication is a combination of *gama* (shortened form of *gamas* ‘yonder/over there/that side’) with its final vowel lengthened due to the suffixed conjunction but deleted – *gamaa-fii gamana* ‘thither-and hither’ > *gamaa gamana* ‘thither (and) hither’ (forwards and backwards) (English: *hither and thither* ‘backwards and forwards’).

- (34) *gurbaa-n gamaa gamáná deddeem-ø-a*
 boy-NOM thither hither go.ITER-3MS-IPFV
 ‘(The) boy goes is wandering.’

The reduplicative form may be inflected for case and focus; *gamaa gamanaa-f* ‘for that side and this side’; *gamaa gaman-uma* ‘just on that side and this side’ (or ‘just that way and this way’).

In (35) the postposition *gubbaa* ‘on, over’ is copied entirely and is put before the base to indicate that several people are sitting on mules.

- (35) *ʔorm-ø-i* *gaang-ota gubba gúbbáa tattaaʔ-ø-a*
 men.COL-NOM-EP mule-PL on on sit.1TR-3MS-IPFV
 ‘The men are sitting on (the) mules.’

In isolation, the postposition is *gubbaa*. But as a reduplicant, it undergoes phonetic reduction, *gubbaa* > *gubba*, and the reduplicative emerges as *gubba gubbaa*. The postpositional reduplicative compound may be inflected for case and focus; *gubba gúbbaa-f* ‘for the top of each one’; *gubba gúbbáa-llée* ‘even on/over each one’; *gubba-gúbbáa-fi-llée* ‘even for the top of each one’.

Apart from the reduplication types discussed in the sections above – basically total and partial – Oromo has a frozen type as observed by Lloret (1988: 167f); for example, *galgála* ‘evening’, *gurgúruu* ‘selling’ (*gurgur-* ‘sell’). The structures of frozen reduplicatives are fixed and it is difficult to reanalyse and determine the roots they emerged from.

6. Conclusion

In Oromo, both total and partial reduplication are encountered. Total reduplication involves copying a root or a stem. On the other hand, partial reduplication involves copying a CVC prosodic template. In the latter case, copying is done from the left side of the base. The process may involve drawing the onset of the adjacent syllable on the right to the coda position of the reduplicant so as to satisfy the prosody of the template. While the reduplicant of total reduplication is juxtaposed before the base, that of partial reduplication is prefixed. The prefixing of the CVC template involves constraint if a geminate or a cluster exists in the base, in which case the template is reduced to CV. In some cases, the copying and prefixing processes of reduplication may be followed by such additional phonological processes of assimilation and/or reduction. As regards the direction of attaching a reduplicant to the base, it is contrary to the general pattern of the language, which is normally suffixing. Total reduplication is often encountered in relation to nominals, adverbs and adpositions, while partial reduplication commonly occurs in adjectives and verbs. In Oromo, partial reduplication, which is essentially the characteristic of adjectives and verbs, is more productive than total reduplication.

To sum up, in Oromo total reduplication of nouns function as predicates, while reduplication of other word classes generally signifies augmentation. Partial reduplication is usually iconic, and results in signifying increase in quantity, frequency

or intensity. In some cases, however, the opposite diminutive interpretation may be implied. In addition to investigating the characteristics of both total and partial reduplication types in Oromo, various related inflectional operations have also been examined.

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Abbreviations and symbols

1	first person	IPFV	imperfective
2	second person	ITR	iterative
3	third person	L	low tone
ABS	absolute	Lit.	literally
AUX	auxiliary	M	masculine
C	consonant	MD	middle
CM	clause marker	NEG	negation
CNV	converb	NMZR	nominaliser
COL	collective	NOM	nominative
COP	copula	PAS	passive
CS	causative	PFV	perfective
DAT	dative	PL	plural
DEF	definite	S	singular
EP	epenthesis	SGV	singulative
F	feminine	SUB	subordinate
FOC	focus	V	vowel
H	high tone	∅	zero, formally absent
IMPV	imperative	*	ungrammatical/unacceptable
INF	infinitive		

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