Fortition and reduplication in Leggbo ideophones

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Abstract

This article describes ideophones in Leggbo, a Cross River language of Nigeria. It focuses on two processes—fortition and reduplication—in the language and their special relation to ideophones. Fortition involves consonant gemination and lengthening and is used for intensification. Reduplication can be either lexical or grammatical. Ideophones can have an inherent repetitive structure but they can also employ reduplication like other modifiers to signal the plurality of nouns, or the diminutive of verbs. Both fortition and reduplication can occur in the same form, especially in ideophones. It is speculated that fortition could have arisen diachronically in ideophones before spreading to other parts of the language. If this scenario is assumed, it argues for treating ideophones in Leggbo, if not in other languages, as central rather than marginal parts of linguistic systems.

1. Introduction

Ideophones make up a rewarding area of study in African Linguistics. Sometimes they differ in some respects from the normal prosaic language. However, they have features that make them fit well within a particular language structure where they exist. In some languages, they may have features that are non-existent in other word classes synchronically, and/or whose distribution and behavior may be different from the rest of the language system. Changes in the rest of the grammar may not easily affect them as they are generally not subject to regular grammatical rules. But then, they can be useful in the reconstruction of the history of some aspects of a language. For instance, there are additional

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sounds in a language which can be found only in ideophones, and such sounds have been used to fill in gaps in phonological systems (Mithun 1982). The fact that in some languages they are spontaneous creations has raised some doubts about their stability, as in Thonga (Finnegan 1970) and Ibibio (Ekere 1987).

The word 'ideophone' has been defined from several perspectives. Cole (1955) defines it as a word that is "often onomatopoetic, which describes a qualitative, predicative or adverb with respect to sound, color, smell, manner, state, action or intensity". This definition is still suitable for ideophones in most languages.

Ideophones display little morphology according to Childs (1994:185), Schultz-Berndt (2001: 355), and they are a phonosemantic class with expressive and imaginative semantics (Kita 1997). Ameke (2001: 26) describes them as "deictic words with particular semantic function which can fall into different grammatical word classes - nominal, adverb, verb, or adjective etc. in a particular language". Ikoro (1997: 301) cites Kana, a Kegboid Nigerian language whose ideophones fall into three word classes - adjectives, nouns and verbs.

Leggo ideophones are more stable because they have a heavy grammatical load, and they are not peripheral. They constitute an important part of the language's grammatical and expressive potential. They modify the grammatical categories that express processes, states and nouns. Since processes and states are expressed by verbs, then Leggo ideophones are adverbs, and since they also modify nouns, they can also be adjectives. Leggo ideophones are thus from a grammatical point of view of two types: adverbs and adjectives. They have a peculiar phonological shape, which fall into three forms: CCV, e.g., fflai 'white', CCVCC, e.g., kkanj 'white'. Reduplicated, e.g., wakalawakal 'rough' (see Section 5 for more details). Morphologically, they have no affixes and in fact they have no inflection at all. The only processes they are sensitive to are reduplication, fortition and the lengthening of the segments.

In this paper, I present a description of Leggo ideophones with particular references to two copying processes which although independent of each other operate in similar ways. My argument is organized as follows. First, I present in Section 2, the grammatical functions of Leggo ideophones. Section 3 deals with an overview of the fortition prosody, while Section 4 deals with an overview of the reduplication process in some Leggo categories. In Section 5, I present a classification of Leggo ideophones, using the two processes: fortition and reduplication, and Section 6 concludes the paper.

2. Grammatical functions of Leggo ideophones

Semantically, Leggo ideophones indicate both intensity and duration in the language. Syntactically, they play an active role in the grammar and they are not just restricted to stories. They can be syntactically reduplicated to mark plurality (they share this property with the pure adjectives and adverbs). They can also be used predicatively, like the adjective, as shown in (1).

1. (a) e-de kkanj
   "It is hard."
   'It is hard.'
   (b) e-de fflai
   "It is white.
   'It is white.'

They can occur after a corresponding verb.

2. (a) e-kakanj kkanj
   "It is hard.
   hard.IDEO
   'It is hard.'
   (b) e-gwene fflai
   "It is white.
   white.IDEO
   'It is white.'

Ideophones can be used attributively, in place of adjectives as in (3a), and with an adjective as in (3b).

3. (a) lettal kkanj
    "stone hard.IDEO
    hard stone'
    (b) lettal ekakann kkanj
    "stone hard.ADJ hard.IDEO
    hard stone'

They can mark plurality like the adjective when used attributively.

4. (a) lettal kkanj kkanj
    "stone hard.IDEO Redup
    hard stones'
    (b) esi fflai fflai
    "bag white.IDEO Redup
    white bags'

However, the plurality is marked on the ideophone which is reduplicated, if both the adjective and ideophone occur together as shown in (5).
Like the adjective, it can be used without an obvious head noun, as the examples in (6) show.

(6) a. **kkan** se
    hard.Ideo the
    'the hard one'

b. **ffai** se
    white.Ideo the
    'the white one'

They can modify a verb in the same way that adjectives do, to give an effect of great intensity, as seen in (7c).

(7) a. **e-kaka**
    it-hard.ADJ
    'It is hard.'

b. **e-kaka** **kka**
    it-hard.V hard.ADJ
    'It is hard.'

c. **e-kaka** **kkan**
    it-hard.ADJ hard.Ideo
    'It is very hard.'

However, ideophones differ in some aspects from adjectives. Unlike the adjectives which have a prefix and are prone to morphological modifications, ideophones can not take any prefix at all, but they can follow an adjective as exemplified in (8).

(8) a. **e-de kka**
    it-is hard.ADJ hard.Ideo
    'It is very hard.'

b. **e-de egwene** **ffai**
    it-is white.ADJ white.Ideo
    'It is white.'

The ideophone can have a corresponding verb form, noun form and adjective form. It can occur together with all three forms to give an impression of extreme intensity.

(9) e-kaka **kka**
    it-hard.V hard.ADJ hard.Ideo
    'It is extremely hard.'

3. An overview of fortition in Leggbô

Fortition involves certain special articulatory features. Pike (1943) describes fortis articulation as one involving "strong, tense movements relative to a norm assumed for all sounds". Clark and Yallop (1995) describe it as an articulation which is relatively strong and forceful. They attribute this to a combination of sub-glottal and supra glottal air pressure. Several descriptions and names have been given to fortis articulation in the literature. This may be due to the fact that investigations on it are still inadequate. It has been described as ‘tense’, ‘strengthened’, etc. But while we await the acoustic investigations on the Leggbô case, I represent the Leggbô fortis consonants as ‘geminate’ consonants for want of a better way of representation, but assuming that there is more going on in fortis articulation than duration and glottal pressure. However, my current analysis is a phonological one.

The Leggbô case involves the articulation of consonants with extra compression of the articulators, especially in those consonants whose articulators are visible like bilabials and dentals. There is also obvious consonantal lengthening as they contrast with their normal length counterparts. These features, coupled with some extra puff and release of the air burst give strength in form of tension to the output. The fortis prosody is a feature of the whole syllable as it affects other sounds. The fortis consonants appear long while the vowels following them are short. Fortition contrasts with lenition, which involves a weakening of the consonants. The lenis consonants appear shorter and the vowels following them appear longer than normal.

3.1. Lexical fortition

The data in (10) show the distinction between fortis and lenis consonants in the language. This distinction which involves all the consonants has both lexical and grammatical functions. Lexically its distinctive quality is widespread.

(10) a. **kpa** 
    'be strict'

b. **kkpa** 
    'pay'

3. Instrumental work on the phonetic features in Leggbô is on-going with Ian Maddison and Julie Larson, details of which will be presented at a later date.

4. In Leggbô we have both 'fortition' and 'strengthening' in the progressive in intervocalic positions. See examples in (13c, d).
In medial positions of progressives it strengthens laterals to stops as in (13a-b); and fricatives and glides to stops, as in (13c-d). Notice that there is both fortition and strengthening in medial positions as in (13c-d), where a fricative is strengthened to a fortis stop.

(13) a. bíá ‘climb’
bíiddi ‘climbing’
b. filá ‘germinate’
ffiddi ‘germinating’
c. ppyákha ‘arrest’
ppyákkì ‘arresting’
d. kkuwa ‘kneel’
kkukì ‘kneeling’

4. An overview of reduplication in Leggbo

Reduplication is a strategy Leggbo employs very liberally to cope with its grammatical needs. It is used to mark plurality, diminutive, intensity, compounding etc.

Leggbo has some simple nouns and compounds with reduplicated stems, but as a morphological process, it is quite productive. Different word classes can be reduplicated. For instance, nouns, verbs, adjectives, adverbs and ideophones can be reduplicated to achieve different semantic readings.

4.1. Lexical reduplication

Nouns and verbs in Leggbo undergo partial reduplication. Diminutivization is a major productive reduplication process in nouns, while verbs are partially reduplicated to indicate intensity.

4.1.1. Nouns. Generally, the first syllable (C(C)V) of the noun stem is copied along with its tone. In addition to this copy, a diminutive affix wé (for singular) and bë (for plural) is post-posed to the noun.

(14) a. litól ‘ear’
lito-tó-we ‘small ear’
lito-tó-bë ‘small ears’
b. ekaan ‘argument’
eka-kaa-we ‘small argument’
eka-kaa-bë ‘small arguments’

Bisyllabic stems reduplicate their first syllables.

5. This observation was first made by Bendor-Samuel and Spreda (1969).
6. Long vowels after fortis consonants like these can be derived only by concatenation after a geminate in the progressive where CV verbs take -t suffix (Ci → CC-ti).
Noun compounds reduplicate their second elements, in addition to the diminutive affix which is added. The compounds in (16) behave like one entity. Note that the second component loses its prefix to the first component, and in fact, it provides the whole compound prefix. This category of compound does not allow any splitting of its components. For instance, *etem* 'heart' + *lebbol* 'pit' becomes *lete-bbol* 'heart'. This kind of compound can be referred to as subordinate compound.

On the other hand, reduplication in compounds derived from associative constructions shows the integrity of the individuality of the components and phrasal nature of the construction as each component can be reduplicated individually to give a different meaning. We refer to these loosely as coordinate compounds, along the lines of Mohanan's (1982) classification of compounds, and they are generally derived from N1 + N2 constructions. Some examples are given in (17).

4.2. Grammatical reduplication.

Total reduplication is used to mark plurality. Categories like nouns, verbs and all property terms generally are reduplicated either to mark intensity or plurals.

4.2.1. Plurality. In the few nouns that have plural forms, the plural marker *a*- is prefixed to the noun, most of which are human related (*eman* 'person', *amun* 'persons'). Plurality in the majority of Legblo nouns is marked in other categories, specifically in the adjectival class, which is rather reduplicated as has been indicated. For instance, the adjectives in (20) are reduplicated to mark their plural forms.

Verbs. Legblo verbs can also be reduplicated like the nouns. Such reduplications, however, can mean a number of things including intensification, or a little bit. Simple verbs can be intensified through reduplication of the CV-syllable as shown in (18).
5. A classification of Leggo ideophones

I now turn to ideophones and copying processes. To ease the discussion on the copying processes, I classify them into two: fortition and reduplication.

5.1. Fortified ideophones

Fortified ideophones are monosyllabic forms marked with fortition. They have the shapes CCV.../CC1VCC2... The ellipsis indicates some kind of conditional lengthening associated with the feature being described. The length of the segment is determined by either the intensity or the length of the feature being described. The initial consonant sequence is the one that is marked with fortition in both cases. In the CC1VCC2 forms, the CC2 is merely a lengthening of the consonant because it lacks the release which characterizes fortis consonants. Thus there is a difference between the mm in bbbmm 'cold' and mmaŋŋ 'sour', because the mm in bbbmm is not released, while the mm in mmaŋŋ is released with a force characteristic of other fortis consonants. The CCV ideophones are made up of a fortis consonant and a short vowel, while the CCVCC shapes have both which have either M or L tones.

(21) a. CCV
gg...  'belch'
ppe...  'wide'
tb...  'red'
ssa...  'dry'
ppe...  'stare into space'
b. CCVCC
bb:mm...  'cold'
t:mm...  'heavy'
f:mm...  'hot'
kk:mm...  'hard'
mm:mm...  'slow'
kk:mm...  'big'
kk:mm...  'black'
c. CCVCC
d:mm...  'deep'
mmaŋŋ...  'sour (taste)'
t:mm...  'thin, dry'

Unlike the other words in fortified syllables, the V of these ideophones can be lengthened, depending again on either the intensity or length of the feature being described by the ideophone.

5.2. Reduplicated ideophones

Ideophones are prone to two kinds of reduplication: morphological reduplication, where the reduplication is part of the stem, and grammatical reduplication, where the reduplication marks a grammatical function like plurality.

5.2.1. Morphological reduplication. This category of ideophones have reduplicated forms, and the reduplication is total. This copy does not affect the tones and the number of syllables in the word copied does not matter. There are five shapes in this category, broadly classified into monosyllables, disyllables, and multisyllables. The monosyllabic ideophones of this category are either open or closed as seen in (22a). Their initial consonants may be either fortis or lenis. The other two patterns have lenis consonants. A plausible explanation for this is that the reduplication process does not allow fortion, which is itself a kind of repetition. Examples (22d–e) illustrate this.

(22) a. CCV
    gwéngwé  'fast walk'
    nkkkppannkkppaŋ  'flat'
b. CVV
    kólkkai  'smooth'
c. CCVC
    pppomppom  'stupid'
d. CVVC
    vëlävëlä  'light and transparent (fabric)'
    mënnĩngĩ  'sweet (sugary)'
    mënnĩnĩ  'drizzle'
e. CVVCV...
    wukálawukálà  'rough surface'
    gbągbągbá  'spacious'
    lesopolelesogolol  'circle'

This kind of reduplication is morphological as opposed to grammatical reduplication where the word is reduplicated to mark a grammatical category like plurality.

5.2.2. Grammatical reduplication. The fortified ideophones can be further reduplicated for different purposes, especially to mark plurality on the nouns that do not have plural forms. When these ideophones are performing such grammatical functions, the closing element of the coda is reduced in length. Even the VV in the CCVV forms are also reduced in length as shown below: