

High-Toned Vowel Prefix in Yorùbá

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Abstract

In the traditional analysis of Standard Yorùbá prefixes, high-toned vowels and the vowel u are not eligible to be used as prefixes. There have been various explanations to these phenomenon, especially phonological analysis that justifies the exclusion of these two segments from the list of possible prefixes in the language. In their recent works on Yorùbá prefixes, Awobuluyi (2008) and Ilori (2010) claim that consonants in Yorùbá can be used as prefixes to derive gerunds. This paper argues against these two claims and submit that there actually exists a high-toned vowel prefix, í-, in Yorùbá, and that the nouns it derives are gerunds. It employs the theoretical models of Fixed Segmentism (Alderete, Beckman, Benua, Gnanadesikan, McCarthy, Urbanczyk, 1999; Keane, 2006) and Augmentative Morphology (Halle & Marantz, 1994; Davis & Tsujimura, 2014) to justify the claim that high-toned vowel prefix í- is a fixed segment with a gerundive feature in the language. However, due to some language internal constraint which does not allow for high-toned vowels to begin v-initial lexical items, such derivations are blocked. The need for augmentation of the ill-formed derivation by copying the initial consonant of the root which is then subsequently moved to the initial position of the derived word, therefore, arises to repair the seeming ill-formedness in the derivation.

Keywords: *Prefix, High-toned vowel Prefix, Derivation, Gerund, Augmentation.*

1. Introduction

There have been various efforts from scholars, both indigenous and foreign, on the study of word formation processes in Yorùbá language (Owolabi, 1976, 1984, 1995; Awoyale, 1989; Awobuluyi, 2008; etc.). Many controversies concerning the method and structure of word

formation have continued to trail the submission of these scholars on the way they see the process of word formation in general and nominal derivation in particular. The three major ways by which nominals could be derived in Yorùbá are compounding, reduplication and affixation. The focus of this paper is prefixation; a type of affixation.

Yorùbá has seven oral and five nasal vowels. This study demonstrates, following previous studies, that prefixes in Yorùbá are oral vowels; Standard Yorùbá (SY henceforth) does not have nasal vowel-initial lexical items. Out of the seven oral vowels, six are used as prefixes. The vowel *u* does not begin vowel-initial words in SY, as such, it cannot be considered a prefix. Furthermore, tones also play important roles in the prefixation process in the language. Out of the three tones employed in Yorùbá, mid-toned and low-toned vowels are used as prefixes. As such, the following are the Yoruba prefixes¹:

1. a-, e-, ẹ-, i-, o-, ọ-
 à-, è-, ẹ̀-, ì-, ò-, ọ̀-

Substantial works have been done on Yorùbá prefixes, especially in Owolabi (1984; 1995), Ogunwale (2002), Ajíbóyè, Dechaine and Stewart (2003), Ogunkeye (2005/2006) and Awóbùlúyì (2008). All of these scholars and some others have had their say on the classification of prefixes in Yorùbá language and how these prefixes interact with root words. In the quest of these scholars in the various analytical approach of derivation by prefixation, a gap has been left undiscussed. This has to do with providing some salient explanations on the reason why high-toned vowels are not used as prefixes in the language. One of the possible means of filling a part of the gap is what this study aims at, i.e. the use of the high-toned vowel *í* as a prefix to derive a particular nominal class. This paper proposes that vowel *í* is a gerundive prefix in Yoruba. Let us first and foremost observe the distribution of the vowel in the gerundive nominals:

¹ Vowel *u* is only relevant in the nominalisation process of some dialects of Yorùbá language, some of such dialects are Ìjẹ̀sà and Èkítì in which words like *uṣu* ‘yam’ and *ùlù* ‘drum’ are used in place of Standard Yoruba *iṣu* and *ilù* respectively.

2a.	l-í-lọ	lílọ	‘going’
b.	j-í-jẹ	jíjẹ	‘eating’
c.	s-í-sùn	sísùn	‘sleeping’
d.	mímu	m-í-mu	‘drinking’
e.	f-í-fò	fífò	‘flying’

Note that all the examples in (2) have the same CVCV syllabic structure. While the gerundive affix (*-ing*) is a suffix in English, it appears as a prefix in Yorùbá. The claim of some African linguists that reduplication is prefixation in some African languages underpins the claim that there is prefixation at some point in the derivation process of gerunds in Yorùbá (Awobuluyi, 2008; Ilori, 2010; Marlo, 2004; Adomako, 2012).

2. Reduplication in Yorùbá

Traditionally, reduplication has been categorised in the literature as consisting of full and partial processes (Owolabi, 1984, 1995; Ogunkeye, 2005/2006; Taiwo, 2006). More recently, other scholars introduced the idea of consonant prefixation as the process of deriving partial reduplication (Awobuluyi 2008; Ilori, 2010).

In this study, I take a critical look at the more recent report which claims that partial reduplication is derived through consonant prefixation; and present a new proposal and analytical approach.

3. Consonant Prefixation

The two works that support the consonant-prefix approach to partial reduplication in Yorùbá are Awobuluyi (2008) and Ilori (2010). The presentation of consonantal prefixes which Awobuluyi puts forward calls for a fresh debate on the process of nominalisation in the language.

Awobuluyi divides Yorùbá prefixes into two; the first category consists of all Yorùbá oral vowels excluding the vowel *u* and high tone vowels. The second category consists of Yorùbá consonants. The explanation for the latter is that, during the process of nominalisation, the consonant at the beginning of a verb is reduplicated as a prefix and then a vowel *i* is inserted to break the resulting consonant cluster:

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3a.	jẹ	→	j + jẹ (jjẹ)	→	jjẹ
	eat		C.eat		‘eating’
b.	ṣe	→	ṣ + ṣe (ṣṣe)	→	ṣṣe
	do		C.do		‘doing’
c.	fun	→	f + fun (ffun)	→	fifun
	give		C.give		‘giving’

Going by the above, it is evident that Awobuluyi (2008) sees what is traditionally known as partial reduplication; first as a form of prefixation and that consonants are utilised as prefix to derive gerund nouns in the language; and second, unlike what obtains with the vowel prefixes where the prefixes possess nominal features in their nominal derivation process, the consonants used as prefixes are not presented as deriving a particular type of noun.

The part that really concerns this study is that it is observed that there is a process of epenthesis with inserted vowels with different tones breaking the consonant cluster. The tone of the inserted vowel is not restricted to mid and low but also includes high tone. What this implies is that the vowels are three different vowel prefixes because the tonal representation has a distinctive effect on the vowels.

Also, what is not made clear to us is the role the inserted *i* is playing in the process. What kind of segment is the vowel? I claim in this report that the meaning of a nominal derived by prefixation is embedded in the prefix. This is why a particular vowel prefix is capable of deriving the same type of nouns. For instance, the vowel prefixes *ì-* and *a-* are respectively known as instrument and agentive prefixes in Yorùbá. The following examples in (4) and (5) are the instrument and agentive nominal derivation respectively:

4a.	ì + gbálẹ̀	-	ìgbálẹ̀
	Pre.sweep-floor		‘broom’
b.	ì + dáná	-	ìdáná
	Pre.cook		‘cooker’
c.	ì + lagi	-	ìlagi
	Pre.split-wood		‘axe’
d.	ì + fọyín	-	ìfọyín
	Pre.wash-teeth		‘toothbrush’

5a.	a + gbálè	-	agbálè
	Pre.sweep-floor		‘sweeper’
b.	a + kọrin	-	akọrin
	Pre.sing		‘singer’
c.	a + fọṣọ	-	afọṣọ
	Pre.wash-cloth		‘laundry person’
d.	a + gbẹgilére	-	agbẹgilére
	Pre.carve		‘sculptor’

From the foregoing, a particular vowel prefix is significant in the type of nominal it could derive. When this is compared to the case of consonant prefixation, no particular consonant is shown as being able to derive a certain nominal class.

Another concern raised here is whether a language allows vowels to be inserted haphazardly during a word formation process, or if there are some factors responsible for the type of tone found on the inserted vowel to break a cluster.

One of the questions which I raised on this issue is that: is it morphologically plausible to have all the eighteen Yorùbá consonants deriving one nominal type, i.e. gerunds? It is necessary to point out that in the discussion of the vowel prefixes in the same text, the prefixes are examined based on the type of nouns they derive. Furthermore, linguists, world over, have adopted the contemporary economy approach to language analysis but the idea of having all the consonants of a language as prefix deriving a type of noun negates this. Ilori (2010) claims that what scholars over the years have referred to as partial reduplication in Yorùbá is not so, but should be seen as consonant prefixation. Ilori argues that the high front unrounded vowel *i*, which is always inserted in-between two consonants to break consonant clusters after the consonant prefixation always have mid tone but that there is a stage in the process where tone-change rule applies, to effect the tone change. Examples:

6. a.	ò- yiyà	-	yyà	yiyà	-	yiyà	òyiyà
			C.separate	C.separate			‘comb’
b.	fun	-	ffun	-	fifun	(funfun)	
	white		C.white		‘white’		

Our submission to this assertion is that the examples above are not gerunds, they are instrumental nominal and derived adjective respectively, therefore, the inserted vowel *i* with the low and mid tones are not gerundive morphemes. So, the derivation process of these nominals are not the same with gerundive derivation which strictly involves the use of the high-toned vowel *í*.

On a concluding note to the consonant prefixation analysis, this claim appears less natural when compared to the analysis which I am proposing in this paper.

3.1. Gerunds Formation in Yorùbá

Before I establish my claim on Yorùbá gerundive morpheme, I take a look at the process of gerund formation in some languages. The English gerundive morpheme is the suffix *-ing*, it is a constant morpheme, i.e. it is not phonologically determined. In Spanish, the gerund morpheme is the suffix *-ndo* (Bargonovo, 1994). There are some languages with phonologically conditioned gerundive morphemes which consists of two or three variants. Example of such language is the Kazakh language which has the suffixes *-yp/-ip*, *-up/-ýp*, and *-p* as its gerundive morpheme (Kakzhanova, 2013).

In the morphology of Indic, gerunds suffixes are determined by the structure of the verb with which it merges with (Hamp, 1986). If it is a simple V, the gerund suffix is *-tva* or *tvaya* but for complex structure, it is the suffix *-ya*. Observe that the the gerundive morphemes of all these languages are suffixes.

In a related situation, Ígálà language, which belongs to a Benue-Congo language group, and classified under the Yoruboid family subgroup, has a high tone vowel prefix *e* as the gerundive morpheme. Consider the following adapted from Ilori (2010:265):

- 7. a. *é*+che
 Pre.do
 ‘doing’
- b. *é*+wu
 Pre.fly
 ‘flying’

- b. é+je
 Pre.eat
 ‘eating’
- c. é+ló
 Pre.go
 ‘going’

The data set above shows that the gerundive morpheme in Ígálà is a prefix and it is constant, just like the gerundive í in Yoruba. Also, the tone on the vowel prefix is distinctive. This, in a way, confirms the possible relationship that holds between the Ígálà and Yorùbá.

Considering the morphology of the gerunds in the diverse languages exhibited above and the claim by other scholars, it is confirmed that gerunds formation is strictly through affixation only. The gerundive morpheme is a fixed segment and the augmentation is a constant procedure.

4. Theoretical Framework

In this study, I employ two theoretical models namely, fixed segmentism and augmentative morphology.

4.1. Fixed Segmentism

Fixed segmentism is a phenomenon that is employed for the analysis of word formation that involves partial reduplication. It is a process whereby a reduplicative morpheme contains an invariant segment, i.e. a segment that is not part of the copied morpheme, it is seen as a kind of affixation (Alderete et.al., 1999; Nelson, 2002; Keane, 2006). Since it has been argued that perfect copying is not always achieved in the process of reduplication, a language therefore finds a segment that helps complete the process. Such segment is mostly fixed; it only alternates when there is need to satisfy any harmonic feature that arises (Alderete et al., 1999:1).

4.2. Augmentative Morphology

Augmentative morphology is a process whereby a phonological realization of a morpheme (exponence) is expressed with the addition of an underspecified segment for the purpose of the actualization of a

phonemic content (Halle & Marantz, 1994; Körtvelyessy & Stekauer, 2011; Davis & Tsujimura, 2014). What this process posits is that the realization of the moraic unit used in the augmentative process largely depends on the nature of the base. (Davis & Tsujimura, 2014:207). The addition of this moraic unit could be in form of vowel lengthening, consonant insertion or any other possibilities in the morphemic actualization process.

This augmentative morphology model of word formation has been used in the analysis of Shizuoka Japanese to actualize the emphatic adjective in the language (Davis & Ueda, 2002; Trommer & Zimmermann, 2010). It is worth noting that in augmentative morphology, there cannot be a uniform phonological realization of the morpheme employed as an augmentative item. Davis & Ueda (2002) explains that the inclusion of the mora is a process of affixation in any language where it is used.

The explanation of the two theoretical models above seems apt for the derivation of gerunds in Yorùbá. Therefore, I will apply these models to the analysis of Yorùbá gerunds derivation.

5. High-toned Vowel Prefix: Analysis

In this report, I present the vowel *í* as a prefix, just like other vowel prefixes in the language. Given that high tone vowels do not begin words in the Yorùbá language, there is a need to rescue the situation in this particular derivation. To salvage the ill-formed process, another segment is used to augment the word formation process. We assume that the process of employing such augmentative segment must be with the least of efforts and possibly one occupying the nearest position. This, for us, is the next available consonant around vowel *í*.

In this section, I present the analysis that establishes the claim that the process of gerund formation in Yorùbá is originally through prefixation and I claim that the high-toned vowel *í-* is the gerund morpheme. However, because Yorùbá lexical items do not begin with high tone vowels, there is need to augment the derivation in order to avoid it being blocked. In the process, the initial consonant of the verb is copied to the initial position of the ill-formed derivation to augment it.

- 8 a. jẹ - jíjẹ
 'eat' - 'eating'
 b. mu - mímu
 'drink' - 'drinking'
 c. ẹ - ẹẹ
 'do' - 'doing'
 d. kẹ - kíkẹ
 'care' - 'caring'

There have been two different analytical strategy for the derivation of gerunds in Yoruba, which are (1) formation by partial reduplication and (2) the consonant prefix analysis.

The first procedure is the traditional process of forming gerunds which involves the reduplication of a part of the base morpheme. The duplicated segment always involves the copy of the initial consonant and insertion of high tone vowel *í*, i.e. *Cí*.

9. a. jẹ
Cí.jẹ
 jíjẹ
 'eating'
 b. mu
Cí.mu
 mímu
 'drinking'
 c. ẹ
Cí.ẹ
 ẹẹ
 'doing'
 d. kẹ
Cí.kẹ
 kíkẹ
 'caring'

Note that in the examples above, the initial consonant of the verb is always copied and vowel high tone vowel *í* added to form the new segment. This is the traditional method employed by early scholars.

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The second analysis involves process of achieving partial reduplication through firstly, the prefixation of consonant to the verb (which is always consonant initial), and secondly, the insertion of a vowel to break the resulting consonants cluster because language internal evidence does not allow for consonant clusters in Yorùbá. This notion was presented by Awobuluyi (2008), as illustrated in (10) below.

	Consonant Prefixation	Vowel Epenthesis	
10a. jẹ	j+jẹ	j-í+jẹ	jíjẹ
eat	Pre.eat	Pre.í.eat	‘eating’
b. mu	m+mu	m-í+mu	mímu
drink	Pre.drink	Pre.í.drink	‘drinking’
c. ẹ	ş+ẹ	ş-í+ẹ	ş-í+ẹ
do	Pre.do	Pre.í.do	‘doing’
d kẹ	k+kẹ	k-í+kẹ	kíkẹ
care	Pre.care	Pre.í.care	‘caring’

The major flaw of using consonant prefixation process to derive nominals is that it is less natural, and it lacks motivation in that, before now, consonants segments have not been considered as prefixes in Yorùbá. Apart from that, if a copied consonant is to be analysed as gerundive morpheme, then as many as the number of consonants in the language will be eligible as gerundive prefix deriving the same nominal type. For instance, if a gerund is to be derived from *wá* ‘come’ and *sùn* ‘sleep’, using consonant prefixation process, below is the derivation process:

11a. wá	w+wá	w-í+wá	
come	Pre-come	Pre-í-come	‘coming’
b. sùn	s+sùn	s-í+sùn	
sleep	Pre-sleep	Pre-í-sleep	‘sleeping’

The use of consonants *w* and *s* as gerundive prefixes in (11a and 11b) depicts that both consonants are seen as gerundive prefixes. This opposes the claim that a particular prefix possesses an innate meaning which is salient in the derived nominal. In the case of (11), gerundive

meaning cannot be in both *w* and *s*, and even in all other consonants that are employed as prefix in the derivation of gerunds. This is not economical and not plausible, each consonant prefix should be able to derive a set of words.

An example for illustration is vowel *ì*- prefix which can derive different noun classes, for example: *ì-fé* (love) (abstract noun class), *ì-lù* (drum) (concrete noun class), *ì-ṣe* (act) (abstract noun class), etc. Were consonants to be qualified as a prefix, one would expect a consonant like *b* to be able to generate words such as *bíjẹ*, *bímu*, *bíwá*, etc. However, this is not the case as none of those words is attested in Yorùbá.

Owning to the reservations raised in the two analytical methods above, I hereby propose a third way of deriving the gerunds which is the use of the *í*- prefix followed by the addition of a copy of the initial consonant of the root. This contradicts the traditional account of *í*-epenthesis. The claim is that high tone prefix is a unique morpheme that derives gerunds in Yorùbá in the manner shown in (12) below.

12. a. *í + jẹ*
 Pre.eat
 **íjẹ*
 (*j*)*íjẹ* (Aug. segment)
 ‘eating’
- b. *í + mu*
 Pre.drink
 **ímu*
 (*m*)*ímu* (Aug. segment)
 drink
 ‘drinking’
- c. *í + ṣe*
 Pre.do
 **íse*
 (*ṣ*)*íṣe* (Aug. Segment)
 ‘doing’
- d. *í + kẹ*
 Pre.care

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*íké
(k)íké (Aug. segment)
'caring'

When the high-toned vowel *í-* is prefixed to the root verb, it derives a sort of intermediate level nominal because high tone vowels do not begin vowel-initial words in Yorùbá. In order to augment the derivation, using the most economical means, an augmentative segment is introduced, in this case, a consonant is attached to the initial position of the derived nominal.

The structure of the gerund derivation using the high tone vowel prefix is schematised in (13) below:

13. [C-*[HTV_{pre}[VP_{root}]]]

In (13), the high tone vowel (HTV) is prefixed to a VP, the resulting nominal, which is not adequately derived, is augmented by the introduction of a copy of the initial consonant of the VP. The idea is that for gerunds to be properly derived, we need to augment the form in (12). The easiest way to do this is to have a consonant to the left of the high toned prefix. This is a form that the language internal evidence supports. Consider (14):

- 14a. kí
- b. ní
- c. wí
- d. bímpé
- e. jídé

As to what kind of augmentation to apply, the language allows an existing consonant in each word to augment the intermediate structure. So, what the augmentation principle for Yorùbá says is: copy the initial consonant of the base to the left of the gerund. This is how it applies in the derivation:

15a. í + jẹ	*íjẹ	C-íjẹ	jíjẹ
Pre.eat			‘eating’
b. í + mu	*ímu	C-ímu	mímu
Pre.drink			‘drinking’
c. í + ẹ	*íẹ	C-íẹ	şíẹ
Pre.do			‘doing’

In the case of (15), it is most economical to make use of an existing unit as stipulated by the augmentative morphological model, which states that the unit to be introduced should depend, largely, on the nature of the root word. Therefore, the copy of the initial consonant of the root word is considered as a suitable augmentative segment. Consider (16):

16a. í + jẹ	*íjẹ	C-íjẹ	j-íjẹ
Pre.eat			‘eating’
b. í + mu	*ímu	C-ímu	m-ímu
Pre.eat			‘drinking’
c. í + ẹ	*íẹ	C-íẹ.	ş-íẹ
Pre.do			‘doing’

Recall that what the works of Awobuluyi and Ilori present on derivation of gerund is that, gerund formation involves the use of consonant as prefix in Yorùbá, this is not an impossible and unexpected linguistic phenomenon, but it is not evident in Yorùbá. Had the consonant prefixation process exists in the language, each consonant is expected to derive a set of nouns, but this is not the case. Thus, when we have j-prefix or d-prefix; it should be able to derive a set of distinctive nominals. Also, a proposal that states that all consonants in the language should be treated as prefix that derive same type of noun namely gerund is stipulative and cannot be said to be plausible.

By contrast, the present proposal which claims that gerund derivation in Yorùbá involves *í-* prefix, to be augmented by the initial consonant seems to fair better. First, it presents the claim that the vowel *í-*, just like other vowel prefixes, can be used as a prefix in Yorùbá; and the set of nouns it derives consists of gerunds. Second,

just like other vowels that show that the meaning of nominals derived by prefixation is embedded in the prefix, it is the high-toned prefix *í-* that has the gerundive meaning. It is a natural phenomenon that a prefix derives a particular set of nominals.

6. Conclusion

In this report, I have presented the claim that there exists a high tone vowel prefix in Yorùbá. This follows the interrogation of the traditional process of gerund derivation and the consonant prefixation proposal put forward by in Awobuluyi (2008) and Ilori (2010). I have been able to show in this paper that the rule that allows for the use of all the whole eighteen consonants in Yorùbá to derive a class of noun, is less natural and not economical. In this light, I establish in this study that, just like other prefixes in the language, the vowel *í-* is a unique prefix that derives gerunds in Yorùbá, with the use of the augmentative morphological model that helps to augment the ill-formedness of the derivation by the vowel prefix *í-*.

Concerning the process of word formation by reduplication in Yoruba, I claim that the fixed segment, which is the high-toned *í*, is a prefix on its own. And that this unique prefix is involved in the derivation of Yorùbá gerunds only. In the derivation of gerunds, just as other vowels function as prefix, the high-toned *í* is a prefix that derives gerund class of noun.

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