#### SUPRAFIXATION IN YORUBA

#### Adekunle, Basirat Omolola

National Institute for Nigerian Languages, Aba Department of Linguistics Email: basiratumi@gmail.com

#### Abstract

Suprafix is one of the suprasegmental features in a language which is capable of changing the meaning of lexical items with the same sounds in a language. Yoruba as a tone language attests to suprafixation due to the lexical function which tones perform in the language. This study aims to analyze the cases of suprafixation and its operations in Yoruba. The objectives of this study are to list out the cases of suprafixation in the language and analyze these different contexts autosegmentally. The data for this study were gathered through the intuitive knowledge of the researcher in the language and through interview of other native speakers for introspection. Autosegmental phonological framework is used for the analysis and study found out that all the cases of suprafixation in Yoruba surfaced in underived words in the language. The study concludes that suprafixation surfaced in monosyllabic and bi-syllabic words of Yoruba. Also, it is more productive in Yoruba nouns than Yoruba verbs.

**Keywords:** Autosegmental; suprafix; suprasegmental; tone; Yoruba.

#### Introduction

Yoruba is a language spoken by the Yoruba people. The Yoruba people can be found majorly in southwestern Nigeria, but also in ther countries in the African continent and South America like Cuba, Brazil, Sierra Leone, Benin, and Togo among others. Yoruba has many dialects which include: Àwórì, owé, Ondó, Òyó, Ègbá, ìgbómìnà, Ìjùmu, Ìjèṣà, Ìjèbú, Yewa(Ègbádò), Èkìtì, òwò, Ìkálè etc. According to Adekunle and Ogunkunle (2020), many dialects of Yorùbá came into existence due to some situations and circumstances like migration, trade, the demarcation between towns, cities and communities, marriage, civilization, etc.

Following Hammarstrom, Harald, Forker, Robert, Haspermath and Marth (2017), Yorùbá is classified among the Edekiri languages together with Itsekiri and Igala from the Yoruboid group within the Volta-Niger branch of the Niger-Congo family. The name Yoruboid derives from its most widely spoken member Yoruba. Heine (2010) affirms that Yoruba estimates roughly 40 million speakers based on earlier estimates and population growth figures. According to Ibidayo (2024), Yorùbá spreads from the Gulf of Guinea and West from the Niger-River into Benin and Togo. The Yoruba Language belongs to the Congo Kordofanian Language family.

Yorùbá and its various dialects attest to tone just like many other African languages. Tone performs the lexical function in Yoruba and its dialects but their tone pattern varies from one another. The Lexical tones in this language are three types, namely: high tone ['] low tone ['] and mid tone [-]. The syllable structure includes CV, V and N, that is, only vowels and nasal syllabic consonants bear tone in the language. However, this study focuses on the suprafixation in Yoruba with the aim of analyzing its operations using autosegmental phonological theory Many Yoruba speakers

assume that change of tone on all Yoruba words can lead to a change in meaning. But it should be noted that not all Yoruba words can be found in this category. This paper therefore intends to showcase the type of words that falls in this category. It is discovered that many words of the same segments are well-sophisticated in Yoruba. A word can have several meanings if there is an addition of a suprafix. Suprafix is one of the properties of suprasegmental features in a language. This phenomenon is very rampant in Yoruba.

# **Conceptual Studies**

#### Suprasegmental in Phonology

Suprasegmental is a speech feature such as stress, tone, or word juncture that accompanies or is added over consonants and vowels. These features are not limited to single sounds but often extend over syllables, words, or phrases in a language. According to Crystal (2011, p. 393), the terms suprasegmental and prosody are often used interchangeably although they can have different meanings. 'Prosody' has roots in classical metrical composition and has been used specifically to refer to pitch, loudness, tempo, and rhythm. By contrast, 'suprasegmental' is used by phonologists as a super-ordinate label for features that accompany consonants or vowels and extend over more than one phoneme. That is, they are specific features in the phonology of a language that is superimposed on the vowel and consonants that make up a word in an utterance of speech.

Ladd (2008) perceives suprasegmental as the systematic variation that speakers of all languages use to signal universal meanings that are not encoded in the linguistic structure. This applies to diverse linguistic cases such as pitch, duration, and loudness. Therefore, suprasegmental can often be described as the musical aspects of human speech.

Vowels and consonants are considered small segments of speech, which together form a syllable and make the utterance. Suprasegmentals are more than vowels or consonants in a language. Ohala (1994) affirms that suprasegmental variations in an overall pitch range may signal such general meanings as surprise, authoritativeness, and emphasis in a language.

#### **Suprafixation**

By definition, suprafixation is a morphological process where suprasegmental speech features, such as tone and stress, are used as affixes to perform either lexical or grammatical functions. Such kinds of affixes, in technical terms, are referred to as *suprafixes*. According to Arokoyo (2017), a suprafix is an affix which is marked over the segment that forms the root. They are the suprasegmental features like tones, stress, and pitch. They are morphemes because they are meaningful. Therefore, in strict morphological parlance, the phonological elements *tone* and *stress* are suprafixes. Just as stress performs the lexical function in languages like English, tones do the same in languages such as Igala, Igbo, Nupe and, Yorùbá. Tones predominantly perform the lexical function in Yorùbá and this linguistic practice is highly productive in the language.

#### Tone

The tone is one of the suprasegmental features which can perform lexical or grammatical functions (or both) in a language. Variations of tone can be used to distinguish the meaning of lexical items with the same form. When tone changes the meaning of a lexical item, it is said to have performed

a lexical function. Tone performs grammatical function if it is used to give information such as tense, numbers, negation etc. in a language. Awwal (2010, p. 13) in Awwal (2021) explains that every syllable, in a tone language has its assigned pitch of voice or tone. That is, some syllables are produced on a high pitch and others are produced on a low pitch. Considering Awwal's explanation, the mid-tone was not mentioned whereas some languages have mid-tone as part of their tone system. However, the syllable produced on the high pitch of the voice is referred to as a high tone while the syllable produced with a low pitch of the voice is referred to as a low tone.

Following Adewoyin (2014) and Adekunle and Ogunkunle (2020), there are three level tones in languages. However, the means of making or representing the diacritics of words of a language are different from one to another. For example, standard Yorùbá and its variants, i.e. Àwórì and Ìjèbú attest to these three tones, which are, high ('), low (`) and mid (-) tones. The high and low tones appear on every nucleus in the syllable of Àwórì and Ìjèbú, the mid-tone is unmarked in the dialect but appears on nasal syllabic consonants [m, n]. These tones mark out each syllable and disambiguate otherwise ambiguous words i.e. words with the same segments.

Tone can perform lexical function and grammatical functions. Tone performs a lexical function when a change of tone on a lexical form marks a difference in the meanings of a language.

# 1. Eggon

Singular /Tone		Plural/Tone	Gloss		
a.	àklá	LH	aklá	MH	monkey(s)
b.	ènú LH		enú	MH	fowl(s)
c.	ìbĩ LM		ibĩ	MM	goat(s)
Adapted from Arokoyo (2017).					

Data 1 indicates tone performing a grammatical function by showing the plural form in Eggon. That is, tone differences convey the singular and plural. The low tone on the first syllable represents the singular form and the mid tone on the first indicates the plural form. The following examples are drawn from Abiodun (2010, p. 54):

#### Standard Yoruba:

```
'give birth'
(2) (a) bí
                bì
                         'vomit'
   (b)
                         'time'
                àkókò
                àkókó
                         'wood pecker'
                orí
                         'head'
   (c)
                'shear-butter'
        òrí
Other examples in Yoruba are given below:
                         'twenty'
    (d)
                ogún
                ògún
                         'god of iron'
                         'war'
                ogun
                         'line'
                ìlà
    (e)
                ilá
                         'okra'
                ìlá
                         'name of a town in Osun state'
```

#### **Theoretical Framework**

This study analyzes the cases of suprafixation and its operations in Yoruba with the use of autosegmental Phonology. It is a framework of phonological analysis, proposed by John Goldsmith in 1976. Autosegmental, is a non-linear approach to phonology which allows phonological processes, such as tone and vowel harmony to be independent and extend beyond individual consonants and vowels. According to Garba (2021), the autosegmental theory is generally attributed to certain fundamental constraints which postulate the association lines never cross; and in the same way, vowel link to vowels and consonants link to consonants directly, but no skeletal node can be linked to two different segments on different tiers.

Autosegmental phonology was initially developed to attend to the shortcomings of the previous Linear/rule-based theory. One of the shortcomings of generative phonology is the challenge of developing an adequate theory for a tone which eventually led to this particular theory. Its immediate source of inspiration was the work of Williams (1971) and Leben (1973); these were the first to introduce non-linear structures into generative phonology in the tone systems of West African languages. In the model proposed by these writers, underlying tones were represented on separate tiers from the feature matrices representing vowels and consonants; they were subsequently merged with these matrices by Tone Mapping Rules that applied in the course of derivation, creating single-tiered representations in surface structure.

The foremost innovation of autosegmental phonology as presented in Goldsmith (1976) was the idea that tone mapping rules do not merge tonal and segmental representations, but associate their elements utilizing formal entities known as Association lines. In this framework, phonological representations consist of parallel tiers of phonological segments, both tonal and segmental.

The representation is presented thus:

Tonal tier

T T T

Association line

Segmental tier

t t t

The basic principle of autosegmental theory is that suprasegmental features as stress, tone and intonation are not characteristics of segments. Goldsmith introduces multiple tiers in which tones and intonation are placed on different tier not with segments. So, there is the skeletal tie (consonants and vowels). The tonal tier (H, L) and these tiers are associated with each other by association lines. Goldsmith produces condition for associating lines between tiers:

- Each tone is associated with at least one vowel.
- Association lines don't cross.

Summary of Autosegment theory according to Goldsmith (1975):

- 1. Autosegmental theory presents and analyzes intonation in a new way different from other theories and models that deal with intonation.
- 2. The tone of a vowel is not considered one of its features, there is no specific tone for a specific vowel. In any language system, every syllable has a fixed feature as [bilabial],

- [dental] or [+ nasal]. However, the same syllables may have different tones in different words.
- 3. A vowel may be deleted or substituted or becomes disyllabic without affecting the tone, rather the tone shifts to the neighbouring syllable. Nonetheless, the same tone may spread on different syllables; therefore, tones are assigned on a separate tier from the segmental tier.
- 4. Sound variation as pitch, stress and rhythm are very important in delivering any speech and the intonation pattern has a role in differentiating sentence types. It has been observed the sentences have a low tone. The falling tone is used to emphasize the idea.

#### **Strength of Autosegmental Theory**

The major strength of autosegmental theory is tone representation the ability to capture one-to-many relationships between tones and tone-bearing units. Tonal stability in many tone languages was a sign that tones required a separate tier of representation. The autosegmental framework captures this naturally, as sequences of elements on one tier can be connected to a single element on another. Goldsmith's Well-Formedness Condition was a unique constraint that allows tones to spread automatically to segments lacking them. This concept is widespread in long-distance phenomena like intonation, vowel harmony, and nasal prosodies. The early autosegmental model evolved to one basic tier connected to tiers for specific articulation, leading to hierarchical representations of phonological features in current models.

# Research Methodology

The data for this study were gathered through intuition of the researcher and introspection. These data are analyzed under the framework of the autosegmental theory. The autosegmental theory is best in describing this phenomenon in Yoruba since tone is the only suprafix present in Yoruba.

#### **Data Presentation and Analysis**

This study presents data in four groups, which are:

- a. Two words variation (word in two forms due to the addition of suprafix)
  - b. Three words variation (word in three forms due to the addition of suprafix)
  - c. Four words variation (word in four forms due to the addition of suprafix)
  - d. Five words variation (word in five forms due to the addition of suprafix)

#### Data Group 1

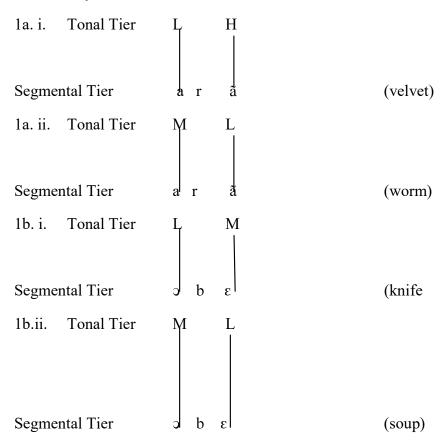
Two words variation (Noun) is the set of data that presents words of the same segments in two forms with the addition different suprafix. The classes of words in this category are nouns and verbs. However, data group (1) is divided into 1a and 1b. The (1a) comprises the nouns while (1b) is comprised of verbs in the language.

#### Data Group 1a

```
a. i.
        /ori/
                   'head'
  ii.
        /òrí/
                  'shell butter'
                   'owner'
b. i.
        /oni/
  ii.
         /òní/
                   'today'
                   'reason/buttocks'
c. i.
         /ìdí/
  ii.
        /idi/
                  'bunch'
d. i.
        /owó/
                    'money'
```

```
ii.
         /òwò/
                    'trade'
e. i.
          /adzá/
                    'dog'
  ii.
          /àdʒà/
                    'roof'
f. i.
                    'wife'
         /aja/
  ii.
         /àjà/
                     'chest'
         /cmí/
                  'knowledge'
g. i.
                  'palm leaf'
  ii.
         /imà/
h. i.
        /igbó/
                  'forest/Indianhemp'
                  'a kind of vegetable'
  ii.
         /ìgbó/
         /ègbo/
                  'a kind of Yoruba food'
i. i.
        /egbò/
                  'wound'
  ii.
      /àdzá/
                  'baby sling'
j. i.
   ii. /ɔʤà/
                  'market'
k. i. /irɔ/
                  'lies'
  ii. /irò/
                  'peers'
1. i.
       /3dc/
                  'knife'
   ii. /ɔbɛ/
                  'soup'
m. i. /ɔja/
                 'god of the storm'
   ii. /sjà/
                  'market'
o. i. /ijắ/
                  'pounded yam'
  ii. /ìjà/
                  'famine'
p. i.
      /oro/
                  'word'
  ii. /crc/
                  'wealth'
q. i. /ikấ/
                  'glutton'
  ii. /ikä/
                  'termite'
r. i. /iʃu/
                  'yam'
  ii. /iʃù/
                  'rap'
s. i. /ojè/
                  'chieftancy'
  ii. /òje/
                  'understanding'
      /àtấ/
t. i.
                  'right'
                  'new'
  ii. /àtũ/
u. i. /idấ/
                  'magic'
  ii. /ìdã/
                  'inner part of trouser'
v. i. /ajé/
                  'world'
  ii. /ajè/
                  'space'
w. i. /amò/
                  'clay'
  ii. /àmó/
                  'but'
x. i. /àrấ/
                  'velvet'
  ii. /arã/
                  'worm'
```

# **Data Analysis**



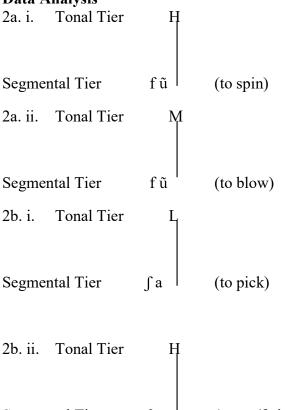
The above segmental tiers illustrate segments /ara/ and /ɔbɛ/ in two different forms with a difference of tone on each word and they mark the difference in the meaning of those forms. In this case, tone performs the lexical function. However, different tones mark different meanings in the language. The suprafix marked over the words in this category have no specific pattern. They only surface with themselves without restrictions.

# Data Group 1b

# Two Words Variation (Verbs)

NILAS Vol 8 - A Journal of The National Institute for Nigerian Languages, Aba

# **Data Analysis**



Segmental Tier

The above segmental tiers illustrate segments /  $f\tilde{u}$  / and / fa / in two different forms with a difference of suprafixes marked over each word and they mark the difference in the meaning of those forms. These suprafixes perform the lexical function by changing the meaning of these forms from one another. It is noticeable that words in this group are all underived monosyllabic words. In all the forms in this category which ends with open-mid oral and nasal vowel /a/ and /ã/ the tone pattern on the nucleos are the same as seen in no (1ba, 1bb and 1bh). The tone pattern on this form is high and low tone or vice versa. The form does not take a mid tone in their representation in this context, while other vowels do not have a specific pattern in the context.

# Data Group 2

Data group 2 comprises the words variation of the same segments in three forms with the addition of different suprafix. The classes of words in this category are nouns and verbs. However, data group 2 is divided into 2a and 2b. The (2a) comprises the nouns while (2b) comprises verbs in the language.

#### Data Group 2a

# Three Words Variations (Noun) a. i. /ikpa/ 'impact'

ii. /ìkpá/ 'scrotal lymphedema'

iii. /ikpá/ 'ability'

b. i./okó/ 'penis'

ii. /òkò/ 'stone'

iii. /oko/ 'farm'

c. i./agbo/ 'circle' ii./àgbò/ 'ram'

iii. /àgbo/ 'herb'

d. i. /odò/ 'river'

ii. /òdo/ 'zero'

iii. /odó/ 'mortar'

e. i /ekpo/ 'fuel/palm oil'

ii. /èkpò/ 'weed'

iii. /èkpo/ 'back/cover'

f. i./oru/ 'heat' ii./òru/ 'mid-night'

iii. /orù/'a kind clay pot'

g. i. /iku/ 'mucus' ii. /iku/ 'stomach'

iii. /ikū/ 'chipmunk'

h. i. /okŭ/ 'rope'

ii. /oku/ 'strength'

iii./òku/ 'sea'

i. i. /odi/ 'dumb' ii. /òdì/ 'opposite'

iii. /odì/ 'malice'

j. i./òdʒò/'rain'

ii./òdzó/ 'preordained name'

iii./od3o/ 'fear'

k. i. /ɔwɔ́/ 'hand'

ii. /òwó/'set'

iii. /òwò/ 'respect/town'

i. /à∫á/ 'hawk'
 ii. /à∫à/ 'culture'

iii. /aʃa/ 'impolite/ discourteous

m. i./èʤì/ 'two'

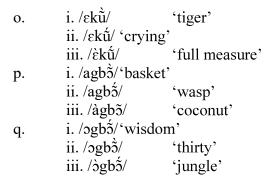
ii. /èʤi/ 'diastema' iii. /eʤi/ 'rain'

i /idu/ 'fibroid

n. i./idʒu/ 'fibroid'

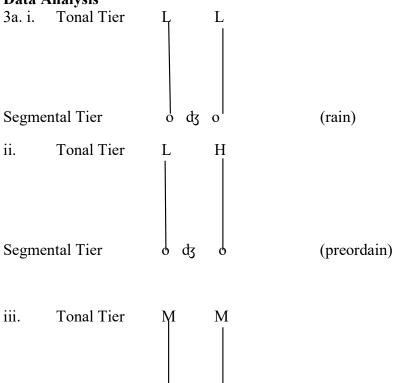
ii./idʒù/'forest'

iii. /ìdʒú/ 'town'



# **Data Analysis**

Segmental Tier



The above segmental tiers illustrate segments /odʒo/ in three different forms with a difference of suprafixes marked over each word and they mark the difference in the meaning of those forms. These suprafixes perform the lexical function by changing the meaning of these forms from one another. All these are underived words in the language. In all the forms in this category, the tone does not have a specific pattern in the context.

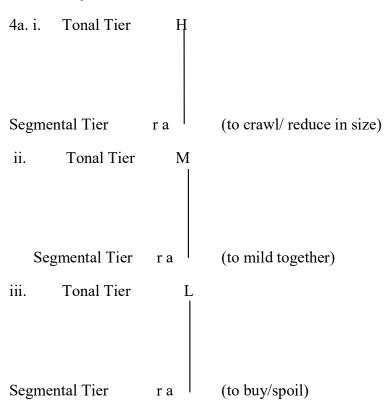
(fear)

# Data Group 2b

# Three Words Variations (Verb)

a. i./sū/ 'to sleep'
ii./sū/ 'to shift'
iii./sū/ 'to burn'
b. i./rá/ 'to crawl/ reduce in size'
iii./ra/ 'to mild together'
iii./rà/ 'to buy/ spoil'
c. i./tɔ/ 'to jump/ too forward'
ii./tò/ 'to urinate'
iii./tó/ 'to pick vegetable

# **Data Analysis**

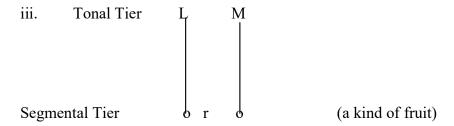


The above segmental tiers illustrate segments /ra/, /sũ/ and /tɔ/ in three different forms with a difference of suprafixes marked over each word and they mark the difference in the meaning of those forms. These suprafixes perform the lexical function by changing the meaning of these forms from one another. All the words in these forms are underived monosyllabic words with the same tone pattern marked over the words.

# Data Group 3

# Four Words Variation

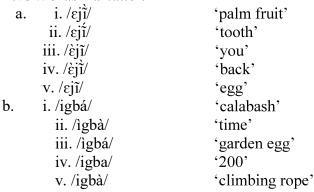
```
a.
        i. /ará/
                                   'relatives'
        ii. /àrà/
                                  'wonder'
        iii. /àrá/
                                  'thunder'
                                  'body'
        iv. /ara/
b
        i. /oró/
                                   'poison'
        ii./orò/
                                   'custom'
                                  'horizontal/ town'
        iii. /òró/
        iv. /òro/
                                   'a kind of fruit'
c.
        i./ògắ/
                                  'god of iron'
        ii. /ògằ/
                                   'state/river'
        iii. /ogũ/
                                  'war'
        iv. /ogű/
                                  'twenty'
Data Analysis
        Tonal Tier
5a. i.
                           M
                                  Η
        Segmental Tier
                                                   (poison)
ii.
        Tonal Tier
Segmental Tier
                                                   (custom)
iii.
        Tonal Tier
Segmental Tier
                                                   (horizontal /town)
```

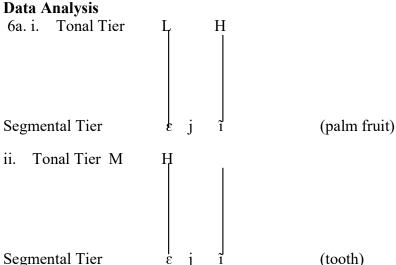


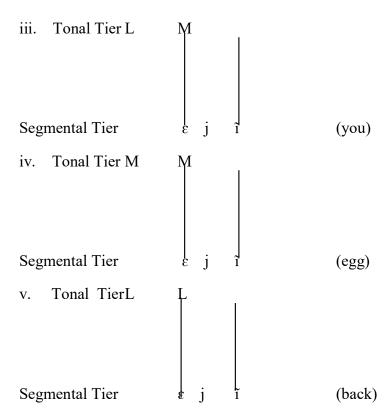
The above segmental tiers illustrate segments /oro/ in three different forms with a difference of suprafixes marked over each word and they mark the difference in the meaning of those forms. These suprafixes perform the lexical function by changing the meaning of these forms from one another. All the words underived words in the language. The forms in this category are minimal unlike two and three words variations. They are nouns without a specific tone pattern.

# Data Group 4

#### Five Words Variation







The above segmental tiers in Group (4) illustrate segments  $/\epsilon j \tilde{\imath}$  / in five different forms with a difference of suprafixes marked over each word and they mark the difference in the meaning of those forms. These suprafixes perform the lexical function by changing the meaning of these forms from one another. All the words are also underived nouns and pronoun in the language. The forms in this category are just two unlike two and three words variations that are many in the grammar of the language. The sets in this category have no specific tone pattern.

#### **Discussion of Findings**

Having studied the data and analysis presented for this study, it is deduced that all the data that fall under the variation of tone on the same segments in isolation are monosyllabic and bi-syllabic words in the language. The monosyllabic data are strictly verbs while all the bi-syllabic data in this study are majorly nouns of the language except data (4aiii) which is a pronoun. Considering data groups (1a) and (1b), two words variation of the same segments is very productive in the grammar of Yoruba. It should be noted that verbs in two words variations are minimal compared to the nouns in this category.

The three words variations of the same segments are less productive than two words variations; also the verbs in this category are very few in the language, (see data groups 1b and 2b). Four words variation of the same segments is not productive; this study gets just three different segments set that make up four different words each. However, four words variation is minimal in the grammar of the language.

Taking a close look at the data group (4), it is obvious that five words variations of the same segments are also minimal in the language.

#### Conclusion

This study analyzes the cases of suprafixation and its operations in standard Yoruba. Autosegmental framework is used for the analysis of this study. Yoruba has tone as the only suprafix in the language which performs lexical function. Data were grouped into two words variation, three words variation, four words variation and five words variation. All the cases of tone variation in Yoruba surfaced in underived words in the language. The study concludes that suprafixation surfaced in monosyllabic and bi-syllabic words of Yoruba. Also, it is more productive in Yoruba nouns than Yoruba verbs.

#### References

- Abiodun, M. (2010). Phonology. In O. Yusuf (Ed.), *Basic linguistics for Nigerian languages*. (pp. 38-65). Shebiotimo Publications.
- Adekunle, B. O., & Ogunkunle, F. F. (2020). Segmental Variation between Standard Yoruba and Awori dialect. In H. Adeniyi, G. Ibileye, &N. Abdulmalik (Eds.), *Issues in minority languages and language development studies in Nigeria*. A festschrift in honour of Andrew Haruna. 213-221. LAN. (16).
- Adewoyin S. A. (2014). Simplified Yoruba L<sub>1</sub>, JSS2. Corpromutt Nigeria Limited.
- Arokoyo, B. E. (2017). *Unlocking morphology* (2nd ed.). Chridamel.
- Awwal, I. (2021). Issues on tone and its pedagogical implication. In H. Adeniyi, G. Obiamalu & T. Olagunju (Eds.), *Interdisciplinary approach to the study of African language essays in honour of Francis Egbokhare* (pp. 173-178). LAN. (17).
- Awwal, I. (2013). Syllabification in Hausa and Yoruba in optimality theory. In Adegbite, W. et al. (Eds). *Linguistics and the globalization of African languages for sustainable development. A festschrift in honor of Prof. Kola Owolabi* (pp. 491-498). Universal Akada books Ltd.
- Crystal, D. (2011). Dictionary of linguistics and phonetics. London: John Wiley & Sons.
- Garba, I. (2021). A Non-linear Approach to the Analysis of Total Assimilation Involving Obstruent Segments in the Formation of HausaPluractional Verbs. In H. Adeniyi, G. Obiamalu & T. Olagunju (Eds.), *Interdisciplinary approach to the study of African language essays in honour of Francis Egbokhare* (pp.161-172). LAN. (17)
- Goldsmith, J. A. (1990). Autosegmental and metrical phonology. Basil Blackwell.
- Hammarstrom, Haraid, Forker, Robert, Haspermath & Marth (Eds). (2017). *Mak Planck Institute for the Science of Human History*. Glotto lag 3.0 Jera.
- Heine, B., & Derek, N. (2010). African languages: An introduction. Cambridge University Press.
- Ibidayo, G. (2024). Yorubaland. Wikipedia.
- Ladd, D. R. (2008). *Intonation phonology*. Cambridge University Press.
- Leben, W. R. (1973). Suprasegmental phonology. PhD dissertation. Garland Press.
- Williams, H. W. (1971). A dictionary of the Maori language. A. R. Shearer, Government Printer.