

10.

Cross-Segment Assimilation in Yorùbá

Adefabi, Francis Olayinka

Department of Linguistics and African Languages,

Obafemi Awolowo University, Ile-Ife, Nigeria.

Email: abb4fransico@yahoo.comabb4fransico@yahoo.com,

Tel: +234-806-493-8437, +234-808-497-2027

Abstract

Assimilation as a morpho-phonemic process is a product of fast speech. It is productively used by the Yoruba native speakers (just like in every human language) in preference to the underlying forms of the words in the language since native speakers hardly speak in the underlying form. Unlike in the literature where attention is on the assimilation of segments within word boundaries (where segments contiguously occur together), this research paper accounts for cross border assimilation where two vowel segments copy features across an intermediate consonant segment. This research paper is motivated by the fact that the cross-border assimilation is as common as the contiguous assimilation in the speech of the native speakers of the language. This paper, therefore, accounts for the internal structure, the computation, the motivation and the status of the assimilation across segments in Yoruba. The paper establishes that, this type of assimilation is restricted to the environment of the two high vowel sounds in the language. The paper concludes that, the language permits the transference of features between two vowel sounds that are separated by a consonant sound in the Yoruba language.

Keywords: Assimilation, Cross Segments, Yoruba, Verbs, High Vowels

Introduction

Many Yoruba scholars have discussed the manifestation of Assimilation between two contiguous segments (when two segments occur contiguously together) as a morpho-phonemic process in Yoruba. Among the scholars are: Bamgbose (1990), Oyeade (1998), Awobuluyi (2008), Awobuluyi (2013), Oladeji (2017). Unfortunately, however, the more interesting part of this morpho-phonemic process that concerns the assimilation across segments has not been explored Bamgbose (1990) defines Assimilation as the process where two different segments become the same. Utulu (2019) defines assimilation as the phonological patterns that involve the adoption of a

feature(s) by one segment from another thereby making the two assume total or partial structural identity.

Assimilation can, therefore, be explained as the transfer of features from one segment to another. According to Bamgbose (1990, pp. 48-50), two vowels sounds that are different become the same when they occur along word boundaries e.g.

1. i). ilé iṣé = iléeṣé “company”

house work

ii). Ilé iwé = iléèwé “school”

house book

iii). Ará oko = aróoko “an uncivilized fellow”

person farm

iv). Ọmọ àlè = ọmaàlè “a bastard”

child concubine

v). kú iṣé = kúuṣé “well done”

die work

(Bamgbose, 1990, pp. 48-50)

As can be observed, the segments so affected by the assimilation in the data 1 above occur contiguously without any other segment separating them. In 1i, vowel [i] (V2) becomes completely like [e] (V1), in 1ii, V2 becomes V1 (e +i = ee), in 1iii, V1

becomes V2 (a + o = oo), in 1iv, V1 becomes V2 (o + a = aa) and in 1v, V2 becomes V1 (u + i = uu). One thing that is common to all the segments involved in the assimilation process above is that, V1 and V2 (the two vowels sounds involved in the assimilation process in each case) are not separated by any segment whatsoever. It is this lack of separation that motivates the assimilation process in the examples above. In other words, the presence of an intermediate segment blocks the transfer of features between V1 and V2.

On the other hand, this research paper examines the case where two vowel segments that are separated by another segment share features and become completely alike. This latter type of assimilation is described as the Assimilation across segments.

Assimilation across Segments

Bamgbose (1990, p.51), Oyeade (1998, p. 16), Awobuluyi (2008, p. 10) account for “oní” as the only case where a segment moves across another segment to copy features.

Take for instance:

2.	i).	oní ata	Underlying representation
	ii).	on áta	Elision
	iii).	olá ta	Denasalization
	iv).	aláta	Assimilation
	v).	aláta	“Owner of pepper/ pepper seller”

In data 2 above, the underlying form is “oní ata”. The first process in the derivation of the surface form “aláta” is the deletion of the high front vowel [i] of the “oní”. The second process is the conversion of the alveolar nasal [n] to its oral counterpart [l], the denasalisation occasions the assimilation across the lateral. According to Awobuluyi and Oyeade (1995) and Awobuluyi (2008), this lateral is the only sound in the language that permits a cross over assimilation. By implication, no other sound/segment in the Yoruba language that permits a cross over assimilation neither does the language

permit assimilation across segments in any other environment other than the environment of “oní”

Unfortunately, this submission by the researchers is not truthful on the manifestation of this phenomenon in the Yoruba Language. This research paper is set to account for the manifestation of assimilation across segments other than “oní”. This paper also stands as an expansion on the foremost account on the cross-segments assimilation involving “oní”. We, therefore, in this paper focus on several other segments that permit a cross over assimilation.

The Cross-over Domains

In the case of the cross-over assimilation, a vowel segment crosses a consonant segment to take feature from a subjacent vowel segment. The high back vowel sound [u] regressively assimilates its high front vowel counterpart [i] across any consonant sound in the language. Take for instance:

- 3.
- i. fífun = funfun “white”
- ii. dídú = dúdú “black”
- iii. mímu = múmu “drinking”
- iv. sísun = súnsun “roasted” (like işu súnsun)
- v. titun = tuntun “new”
- vi. rírún = rúnrun “being rough”
- vii. gígùn = gúngùn “being tall/long”
- viii. wíwù = wúwù “a manner of behaving” (
- compare iwà wúwù)
- ix. lílù = lúlù “being beaten”
- x. şışù = şúşù “being moulded”
- xi. síşù = súşù “in a matter of sleeping”
- xii. kíkù (òjò) = kúkù (òjò) “the sound of the rain”

xiii.	èdíídún =	èdúndún	“charcoal”
xiv.	egígún =	egungún	“bone”
xv.	títù =	tútù	“being cold”
xvi.	dídún =	dúndún	“being painful”
xvii.	ínú-rírun =	ínú-rúnrun	“stomach ache”
xviii.	orí-kikun =	orí-kunkun	“being obstinate”
xix.	jíjù =	jújù	“in a manner of throwing”
xx.	dídún =	dúndún	“in a manner of sounding”
xxi.	bíbù =	búbù	“in a manner of cutting”

It can be seen in the examples above that the host of the assimilation across segments is the high back vowel sound [u]. So, the high back vowel sound [u] conditions this type of assimilation. It can also be observed that, the assimilation noted in the above examples involves two high vowels. Therefore, the cross-segment assimilation is restricted to the environment of the two high vowel sounds [i, u]. It can also be observed that, it is the high front vowel sound [i] that loses its shape to the high back vowel sound [u] and not the other way round.

Morphological Decomposition

The words above are nominalised verbs, i.e., verbs that have been converted to nominal elements through some morphological operations (Adefabi, 2019). According to Awobuluyi (2008, 2013), Yoruba verbs are nominalised through the following morphological processes:

- a) Consonant reduplication
- b) Vowel /i/ insertion

The words above are, therefore, morphologically created from the Yoruba basic verbs through consonant reduplication, vowel [i] insertion and assimilation. According to Awobuluyi (1978, 2008 & 2013) and Bamgbose (1990), the structure of the Yoruba

basic verbs is CV. In the formation of the nominalised counterpart of the verbs, the consonant initial part of each of the verbs is reduplicated. The reduplication results in consonant clusters (which violates the phonotactics constraint of the language), therefore, the need for the insertion of the high front vowel [i] to rectify the problem created by the reduplicated consonant. The result of the insertion now feeds the assimilation process. Take for instance,

- | | | | |
|----|------|--------|-------------------------|
| 4. | i) | fun | “to be white” |
| | | ffun | Reduplication |
| | | fifun | Vowel Insertion |
| | | funfun | Assimilation across [f] |
| | ii) | dún | “to sound” |
| | | ddún | Reduplication |
| | | dídún | Vowel Insertion |
| | | dúndún | Assimilation across [d] |
| | iii) | dú | “to be black” |
| | | ddú | Reduplication |
| | | dídú | Vowel Insertion |
| | | dúdú | Assimilation across [d] |
| | iv) | mu | “to drink” |
| | | mmu | Reduplication |
| | | mímu | Vowel Insertion |
| | | múmu | Assimilation across [m] |
| | v). | sun | “to burn” |
| | | ssun | Reduplication |
| | | sísun | Vowel Insertion |

	súnsun	Assimilation across [s]
vi).	tun	“to be new”
	ttun	Reduplication
	titun	Vowel Insertion
	tuntun	Assimilation across [t]
vii).	kù	“to ground”
	kkù	Reduplication
	kíkù	Vowel Insertion
	kúkù	Assimilation across [k]
viii)	gùn	“to be long”
	ggùn	Reduplication
	gígùn	Vowel Insertion
	gúngùn	Assimilation across [g]

An examination of data 4 above will reveal the formation processes of the Yoruba nominalised verbs. The consonant initial part of the verbs is reduplicated. The output of the reduplication feeds in the application of the vowel insertion operation. The presence of the high front vowel sound /i/ thus, paves way for the application of the assimilation across the mediating consonant between the two vocalic elements in the word. The reversal of the order of the processes above will lead to ill-formedness. Take for instance:

5.

i). Process Ordering	Specification	Input	Gloss
		Tun	“to be new”
Vowel Insertion	Insert /i/ between two identical	N/A	

Lapai Research in Humanities

	consonants		
Reduplication	Reduplicate the consonant initial part of the word	Ttun	
Cross segment assimilation	Regressively assimilate between /i/ and /u/ across consonant segment	N/A	
Output		*ttun	
ii. Process Ordering		Tun	“to be new”
Cross segment Assimilation	Regressively assimilate between /i/ and /u/ across consonant segment	N/A	
Vowel Insertion	Insert /i/ between two identical consonants	N/A	
Reduplication	Reduplicate the consonant initial part of the word	ttun	
Output		*ttun	

Lapai Research in Humanities

iii). Process Ordering		Tun	“to be new”
Cross segment Assimilation	Regressively assimilate between /i/ and /u/ across consonant segment	N/A	
Reduplication	Reduplicate the consonant initial part of the word	ttun	
Vowel Insertion	Insert /i/ between two identical consonants	titun	
Output		titun	
iv). Process Ordering		Tun	“to be new”
Consonant	Reduplicate the consonant initial part of the word	ttun	
Vowel Insertion	Insert /i/ between two identical consonants	titun	
Cross segment Assimilation	Regressively assimilate between /i/ and /u/ across	tuntun	

	consonant segment		
Output		tuntun	

Table 5 above shows that the grammar of the language gives preference to a particular ordering principle in the realisation of the surface forms of the nominalised verbs. It can be observed that, the output of 5i is ill-formed because of the sequencing of the applied processes. Vowel assimilation could not be applied because the input for the rule failed to meet the specification of the rule. Thus, the output “*ttun” could not be accommodated by the grammar of the language. In 5ii, the rule ordering (assimilation-vowel insertion- reduplication) makes assimilation and vowel insertion to fail the specification of the rules and thus the output “*ttun” is ill-formed In 5iii, the rules ordering (assimilation – reduplication-vowel insertion) blocks the application of the assimilation rule because the input for the rule does not meet up with the specification. And thus, the output “titun” does not conform to the expected output. The output of 5iv “tuntun” produces the expected surface form because the rules ordering (reduplication-vowel insertion-assimilation) allows all the processes to meet up with the specification of the processes. Therefore, the right candidate to arrive at the expected output is 5iv.

Conditions for Assimilation

This type of assimilation is permitted in the environment of the high back vowel [u]. When a Yoruba verb with the CV structure, contain [u] as the V, the (V)owel initiates a regressive assimilation across the (C)onsonant to produce a nominalised version of the verb. The presence of the high back vowel [u] in the CV canonical structure allows cross border assimilation over any consonant sound in the language. Take for instance:

- | | | |
|----|-------|-------------------------|
| 6. | i) tù | “to be cold” |
| | ttù | Consonant Reduplication |
| | títù | Vowel /i/ insertion |

Lapai Research in Humanities

tútù	Cross segment assimilation
ii) tà	“to sell”
ttà	Consonant reduplication
títà	Vowel /i/ insertion
*tátà	Cross segment assimilation
iii) dú	“to be black”
ddú	Consonant Reduplication
dídú	Vowel /i/ insertion
dúdú	Cross segment assimilation
iv) dá	“to break”
ddá	Consonant Reduplication
dídá	Vowel /i/ insertion
*dádá	Cross segment assimilation
v) kù	“to ground”
kkù	Consonant Reduplication
kíkù	Vowel /i/ insertion
kúkù	Cross segment assimilation
vi) kò	“to refuse”
kkò	Consonant Reduplication
kíkò	Vowel /i/ insertion
*kókò	Cross segment assimilation

While all the words in 6 above have the same structure, the final output of i, iii, and v are natural and permissible in the language. On the other hand, the final output of ii, iv

and vi are ill-formed because of the absence of [u] in the CV canonical structure of the verbs. The presence of any vowel sound other than the high back vowel [u] blocks the cross segments assimilation. Thus, the result of such cross segments assimilation is disallowed by the language (represented by an asterisk in ii, iv and vi). It can also be recognised from data 6 above that, all the verbs permit a successful operation of Consonant Reduplication and Vowel /i/ insertion.

According to Awobuluyi (2008, 2013) and Adefabi (2019) all Yoruba verbs with CV structure can be nominalised Adefabi (2019) states that, the nominalised version of a verb in Yoruba is the nominal counterpart (cognate) of the verb and of course, the two basic operations required for such nominalisation are Consonant Reduplication and Vowel [i] insertion.

Conclusion

In this research paper, we have established the existence of the cross-border assimilation in the Yoruba language. This research paper has accounted for the motivation as well as the derivation of the cross-segment assimilation. We have seen that, the assimilation across segments in the Yoruba language is restricted to the environment of the two high vowel sounds [i,u]. It is also discovered that the nominalised verbs are the candidates for this type of assimilation. The canonical verb structure in the language is CV while the structure for the nominalised verb is CVCV. The research revealed that V1 completely copies the shape of the V2 across C2 in the CVCV structure. It can now be concluded that, cross segment assimilation in Yoruba is not restricted to the environment of the alveolar lateral [l] and its nasal counterpart [n] but extends to the environment of the two high vowel sounds in the language.

References

Adefabi, F. (2019). A case for nominalised focus in Yorùbá. *Clarep Journal of English and Linguistics*. (Ed Alexandra Esimaje and Josef Schmied). Volume 1. pp. 185-200.

- Awobuluyi, O. & Oyeade, F. (1995). Denasalization in Yoruba: A non-linear approach. In Owolabi, K (ed): *Language in Nigeria*. Group Publishers.
- Awobuluyi, O. (1978). *Essentials of Yorùbá Grammar*. Oxford Universal Press.
- Awobuluyi, O. (2008). *Èkó Ìṣẹ̀dà-Òrò Yorùbá*. Montem Paperbacks.
- Awobuluyi, O. (2013). *Èkó Gírámà Èdè Yorùbá*. Atman Limited
- Bamgbose, A. (1990). *Fonólójì àti Gírámà Yorùbá*. University Press Plc.
- Oladeji, K. (2017). Vowel assimilation in monosyllabic verb + noun construction in Yoruba revisited *European Journal of Language Studies*. Volume 4, Number 1. pp. 38-46.
- Oyeade, F. (1998). *A Course in Phonology*. Shebiotimo Publication. Ijebu-Ode.
- Utulu, D. (2019). *Segmental Assimilation Processes in Èwùlù*. European Journal of Literature, Language and Linguistics Studies. Volume 2, Issue 2, 2019. pp. 109-124.