

Phonemes / ɔ̃ / and / ã / and their Allophones in Southeast Yorùbá (SEY): An Optimality Theory Account

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Abstract

The manifestation of ɔ̃~ã is recorded in the Standard Yorùbá (SY) which is contrast to what we know in the Southeast Yorùbá. This simply means vowels [ɔ̃ and ã] are known to be allophones of the same phoneme (/ã/) in the Standard Yorùbá (SY). In other words, there is ɔ̃~ã in SY. Can we say the same in the Southeast Yorùbá? Are [ɔ̃ and ã] allophones of the same phoneme in the SEY? Does ɔ̃~ã really exist in the Southeast Yorùbá? Hence, this study brings a contrast revelation to what we know in the SY; this work reveals there are more to phonemes / ɔ̃ and ã / and their allophones in the Southeast Yorùbá than what we know in the Standard Yorùbá as it will help us to realize that there is no ɔ̃~ã in these Yorùbá dialects, in order words, vowels / ɔ̃ and ã / cannot be treated as allophones of the same phoneme but distinctive phonemes. Three SEY dialects were selected for this study. They include Ègbá, Ìjèbú, and Ìkálè dialects, in order to have a good work on phonemes / ɔ̃ and ã / and their allophones in the SEY dialects. Moreover, this study will be accounted for with Optimality Theory (OT).

Introduction

This paper focuses on / ɔ̃ / and / ã / as different phonemes (not as allophones of the same phoneme) across the selected Southeast Yorùbá (SEY) dialects: An optimality theory account.

Against the orthodox knowledge on Yorùbá nasalized vowels where it appears that all Yorùbá nasalized vowels (an, ɛn, in, ɔn, and un) are distinctive sounds in SY. As knowledge progresses, we are made to realize that there is ã ~ ɔ̃ alternation in the language: as knowledge advances, scholars like Ajiboye and Pulleyblank (2014) claimed that there are only three nasal vowels (/ĩ/, /ũ/, and /ã/) that could be regarded as phonemes in SY. They proved that /ã/ as a phoneme has two allophones; [ã] and [ɔ̃] respectively in Yorùbá; vowel /ã/ becomes [ɔ̃] when it is preceded by a bilabial related consonant. The vowel /ã/ is realised as [ã] when it is preceded by non-labial consonants. Words with [ẽ] are very few in the SY and completely absent in Mòba. See Ajiboye and Pulleyblank (2014) for detail. Olumuyiwa (1994) also claimed there are three na-

salized vowels as phonemes across the selected Yorùbá dialects. These vowels are /ĩ/, /ũ/, and /ṣ/. For detail, see Olumuyiwa (1994).

This paper brings about discovery that /ã/ and /ṣ/ cannot be treated as allophones of the same phoneme, rather, separate phonemes in the SEY dialects: in order word, there is no ã~ṣ alternation in these dialects.

This paper accounts for phonemes /ṣ/ and /ã/ and their variants across the selected dialects in the Southeast Yorùbá dialects using optimality theory (OT); constraints are provided and ranked (dialect by dialect), candidates are generated and evaluated in order to know what is and what is not permissible in one dialect and the other: in turn, an optimal candidate emerges as the winner. Any candidate that will emerge as the winner (optimal candidate) must not violate any of the highly ranked constraints.

Phonemes /ṣ/ & /ã/ and Their Allophones in Southeast Yorùbá Dialects

Unlike SY, vowels /ã/ and /ṣ/ cannot be treated as allophones of the same phoneme, rather, as different phonemes across the selected Southeast Yorùbá dialects. The vowel /ã/ has two allophones which are [ã] and [ɛ̃] in Ìkálẹ̀ dialect: like /ã/, vowel /ṣ/ also has two allophones which are [ṣ] and [ɛ̃] in Ègbá and Ìjẹ̀bú dialects. What appears to be of interest about the allophones of /ṣ/ is the fact that all are nasalized vowels; a back nasal and a front nasal. Besides, the front and the back nasals belong to a mid-low group.

The Distribution of /ṣ/ and Its Allophones in Ègbá and Ìjẹ̀bú Dialects

In Ègbá and Ìjẹ̀bú dialects, vowel /ṣ/ has two allophones: [ṣ] and [ɛ̃]. The vowel [ṣ] occurs in all contexts in these two dialects as in the following examples.

	SY	Ègbá and Ìjẹ̀bú	
a.	/sã/	[s̃]	'to pay'
b.	/tã/	[t̃]	'to to finish'
c.	/ìbṣ/	[ìb̃]	'a gun'
d.	/ɔmṣ/	[ɔm̃]	'a child'
e.	/àgbṣ/	[àgb̃]	'coconut'
f.	/àkpṣ/	[àkp̃]	'a bachelor'
g.	/fṣ/	[f̃]	'to blow'
h.	/ahṣ/	[ah̃]	'tongue'

	SY	Ègbá and Ìjẹ̀bù	
a.	/sǎ/	[sǎ]	'to pay'
i.	/ifihǎ/	[ifihǎ]	'revelation'

Vowel [ɛ̃] only occurs in few words like “yẹn” etc. in these dialects as in the following examples.

(2)	SY	Ègbá and Ìjẹ̀bù	
a.	/jɛ̃/	[jɛ̃]	'that'
b.	/wúrɛ̃/	[wúrɛ̃]	'an item'

The Distribution of /ǎ/ and Its Allophones in Ìkálẹ̀ Dialect

The vowel /ǎ/ has two allophones: [ǎ̃] and [ɛ̃] in this dialect. Vowel [ǎ̃] occurs in all contexts as in the following examples as [ɛ̃] does in Ègbá and Ìjẹ̀bù dialects.

3	SY	Ìkálẹ̀	
a.	/sǎ/	[sǎ̃]	'to pay'
b.	/tǎ/	[tǎ̃]	'to to finish'
c.	/ìbǎ/	[ìbǎ̃]	'a gun'
d.	/ɔmǎ/	[ɔmǎ̃]	'a child'
e.	/àgbǎ/	[àgbǎ̃]	'coconut'
f.	/àkpǎ/	[àkpǎ̃]	'a bachelor'
g.	/ahǎ/	[ihǎ̃]	'tongue'
h.	/ifihǎ/	[ifihǎ̃]	'revelation'

Vowel [ɛ̃] only occurs in words like “yẹn” etc. as in the following examples.

4	SY	1	Ìkálẹ̀
a.	/jɛ̃/	[jɛ̃]	'that'
b.	/wǎjɛ̃/	[wǎjɛ̃]	'those'

From the data presentation and the discussion above, it is clear that the [ɛ̃] in Ègbá and Ìjẹ̀bù dialects has a wider distribution than the other allophone; the [ǎ̃] in Ìkálẹ̀ dialect has more distribution than the other allophone.

An Optimality Account of /ɔ̃/ and /ã/ in Ègbá, Ìjẹ̀bù, and Ìkálẹ̀ Dialects

Constraints ranking for the distribution of /ã/ and /ɔ̃/ and their allophones will be in three groups. The following constraints will be used to account for relevant data where /ã/ and /ɔ̃/ and their allophones show up.

1.	*LOW NAS:	Prohibit low nasal
2.	*MIDLOWBKNAS:	Prohibit mid-low back nasal
3.	FAITH LOW NAS:	The low nasal in the input must have a correspondent in the output
4.	*MIDLOWFR NAS:	Prohibit mid-low front nasal vowel
5.	FAITH MIDLOWBKNAS:	The mid-low back nasal in the input must have a correspondent in the output.

The constraints above must be ranked in the following ways.

This is the ranking accounting for allophone [ɔ̃]

FAITH MIDLOWBKNAS >> *HIBA NAS >> *LOW NAS >> FAITH LOW NAS >> *MIDLOWBKNAS


This is the ranking accounting for allophone [ã]

FAITH LOW NAS >> *MIDLOWBKNAS >> *HIBA NAS >> *LOW NAS

This is the ranking accounting for allophone [ẽ]

*LOW NAS >> *MIDLOWBKNAS >> *MIDLOWFR NAS

Tableaux 1 & 2: [ɔ̃] account in Ègbá and Ìjẹ̀bù dialects

/tã/ 'to finish'	FAITH MIDLOWBKNAS	*HIBA NAS	*LOW NAS	FAITH LOW NAS	*MIDLOWBKNAS
 a [tɔ̃]				*	*
b [tã]			*!		

In tableau 1, FAITH MIDLOWBKNAS, *HIBA NAS and *LOW NAS constraints are highly ranked in these dialects. In this example, any candidate that will emerge as an optimal candidate must not violate any of these three constraints. Though, both candidates in (1) violated one constraint or the other; candidate 1a violates FAITH LOW NAS and *MIDLOWBKNAS (lowly ranked constraints): candidate 1b only violates *LOW NAS (a highly ranked constraint). Despite the fact candidate 1a violates two constraints and candidate 1b violates just a constraint, it is candidate 1a that emerges as the optimal candidate as it only violates lowly ranked constraints.

Tableau 2

/ɔmɔ̃/ 'a child'	FAITH MIDLOWBKNAS	*HIBA NAS	*LOW NAS	FAITH LOW NAS	*MIDLOW- BKNAS
☞ a [ɔmɔ̃]				*	*
b [ɔmã]	*!		*!		

In tableau 2, FAITH MIDLOWBKNAS, *HIBA NAS and *LOW NAS constraints are highly ranked in these dialects. In this example, any candidate that will emerge as an optimal candidate must not violate any of these three constraints. Though, both candidates in (2) violated two constraints each; candidate 2a violates FAITH LOW NAS and *MIDLOWBKNAS (lowly ranked constraints): candidate 2b violates FAITH MIDLOWBKNAS and *LOW NAS (highly ranked constraint). In spite the fact the two candidates in tableau 2 violated two constraints each, it is candidate 2a that emerges as the optimal candidate as it only violates lowly ranked constraints.


Tableaux 3 & 4: [ã] account in Ìkálẹ̀ dialect

/tã/ 'to finish'	FAITH LOW NAS	*MIDLOW-BKNAS	*HIBA NAS	*LOW NAS
a [tɔ̃]	*!	*!		
☞ b [tã]				*

In tableau 3, FAITH LOW NAS and *MIDLOWBKNAS/*HIBA NAS constraints are ranked higher in this dialect. In this example, any candidate that will emerge as an optimal candidate must not violate any of these three constraints. Though, both candidates in (3) violated one constraint or the other; candidate 3a violates FAITH LOW NAS and *MIDLOWBKNAS (high ranked constraints): candidate 3b only violates *LOW NAS (a lowly ranked constraint). Without any doubt, candidate 3b emerges as the optimal candidate as it only violates a constraint which is lowly ranked.

Tableau 4

/ɔmɔ̃/ 'a child'	FAITH LOW NAS	*MIDLOWBKNAS	*HIBA NAS	*LOW NAS
a [ɔmɔ̃]		*!		

/ɔmɔ̃/ 'a child'	FAITH LOW NAS	*MIDLOWBKNAS	*HIBA NAS	*LOW NAS
 b [ɔmã]				*

In tableau 4, FAITH LOW NAS and *MIDLOWBKNAS/*HIBA NAS constraints are highly ranked in this dialect. In this example, any candidate that will emerge as an optimal candidate must not violate any of these three constraints. Though, both candidates in (4) violated one constraint each; candidate 4a violates *MIDLOWBKNAS (a high ranked constraint); candidate 4b also violates *LOW NAS (a low ranked constraint). Despite the fact that both candidates in 4 violated a constraint each, it is candidate 4b that emerges as the optimal candidate as it only violates a constraint which is lowly ranked.

Phoneme /ã/ and /ɔ̃/ become [ɛ̃] in few words like *yen* 'that', *wɔ̃nyen* 'those' etc. in Ìkálẹ̀, Ègbá, and Ìjẹ̀bú. Tableaux 5 and 6 illustrate this.

Tableau 5—[ɛ̃] account in Ìkálẹ̀, Ègbá and Ìjẹ̀bú Dialects



/jɛ̃/ 'that'	*LOW NAS	*MIDLOWBKNAS	*MIDLOWFRNAS
a [jɔ̃]		*!	
 b [jɛ̃]			*
c [jä]	*!		

Tableau 6

/wɔ̃jɛ̃/ 'those'	*LOW NAS	*MIDLOWBKNAS	*MIDLOWFRNAS
a [wɔ̃`jɔ̃]		*!	
 b [wɔ̃`jɛ̃]			*
c [wã`jä]	*!		

In tableaux 5 and 6, *LOW NAS and *MIDLOWBKNAS constraints are highly ranked in the three dialects. In this context, any candidate that will emerge as an optimal candidate must not violate any of these highly ranked constraints. Though, the three candidates in (5 & 6) violated a constraint each; candidates a in (5 & 6) violated *MIDLOWBKNAS (a highly ranked constraint); candidates b in (5 & 6) violated *MIDLOWFRNAS (a lowly ranked constraint); candidate c in (5 & 6) violated *LOW NAS (a high ranked constraint). In spite all the candidates in tableaux 5 & 6 violated one constraint each, it's the candi-

dates b in (5 & 6) that emerged as the optimal candidates as they only violated the lowly ranked constraint.

Summary

The allophonic variation of /ã/ & /ɔ̃/ across the selected SEY dialects proves that â~ ɔ̃ alternation does not exist in the Southeast Yorùbá. With this discovery, this is to support the claims of Olumuyiwa (1994) and Ajiboye and Pulleyblank (2014) in line with the number of nasalized vowels as phonemes in the selected Yorùbá dialects and SY respectively. In all, two phonemes are treated in this paper (/ã & ɔ̃/) and each of them has two allophones across the selected SEY dialects; these allophones are related to each other phonetically.

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