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VOWEL DOUBLING IN URHOBO: THE CASE OF LOANWORD*

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Abstract

Across Benue Congo (BC) languages/dialects of Nigeria (e.g. Igbo, Yoruba, Edo/Bini, Emai, Ewulu-Igbo, among others), English monosyllabic CVC loans are characteristically modified, in which the singleton English /…V…/ is adapted as /…VV…/ in a process that has been tagged 'vowel doubling' (VD). Loan phonologists have suggested that the borrowing languages adopt the doubling phenomenon in (C)CVC loans in order to adapt to English neutral intonational contour H*L% (Kenstowicz, 2004; Ufomata, 1991, 2004). Specifically, the tonal template of the adapted /…V̀V̀…/ is typically high (H), low (L) tone sequence assumed to correspond to the English neutral citation F0 contour. Surprisingly, however, Urhobo, a member of BC prohibits VD. Source monosyllabic (C)CVC loan(s), e.g. /kɑ:d/ 'card', among others, is adapted as /ikádì/ rather than /èkáàdì/, /káàdì/ noted for Edo and Yoruba CVC loans respectively. The dispreference of VD in Urhobo is one case that leaves much to be curious about. Why does Urhobo prohibit VD that other members of the BC group tolerate? The central goal of this paper, employing the CV theory (Clements and Keyser, 1983), is to argue that the prohibition of VD in Urhobo monosyllabic CVC loans follows directly from the effect of the natural tone rule of native Urhobo, in which underlying grammatical heterosyllabic L tone found in the immediate environment of adjacent H tone typically deletes from the phonetic string and leaves no effect on the H, unlike in the other languages where the L would rather stay afloat and subsequently relinks with adjacent H tone to form phonetic falling contour [H-L] tone, the direct correspondence of source H*L% neutral intonational contour. Thus the paper suggests that it seems likely that these two contrasting tonal grammars explain the (dis)preference of VD in the adaptation of monosyllabic/final CVC of loans in BC loan phonologies.

Key words: Urhobo, monosyllabic (C)CVC loanwords, vowel doubling, neutral intonational contour, Benue Congo

1. Introduction

Strategies of adaptation of English loanwords in Benue Congo (BC) languages, from the Nigerian context are multidimensional. They range from the insertion of prothetic vowel /i/ or /e/, insertion of anaptyctic vowels /i/ or /u/, simplification of consonant clusters via deletion or insertion of a vowel to a total alteration of vowel (and in some specific cases consonant) quality. Studies that describe these adaptation strategies in BC loan phonologies (or basilectal Nigerian English) abound in the literature; hence they will not be explored here. For an overview of the typological segmental adaptation strategies in BC, the reader may consult (e.g. Ojo,1977; Pulleyblank, 1986; Owolabi, 1989; Bamgbose, 1990; Akinlabi, 1993, 2004; Egbokhare, 1998; Popoola 1993; Ufomata, 1991, 2004; Oyebade, 2006; Ejiofor, 2016, and others).

A larger chunk of researches on loan adaptation in the Nigerian context has been those on Yoruba loanword phonology when compared with those of other language groups, specifically, the Igbo(id) and Edo(id) groups. Regrettably only one or two accounts (e.g. Aziza and Utulu, 2006; Ugorji, 2013) have emerged on the analysis of English loanwords in Urhobo, a south-western Edoid language of the West Benue Congo branch of the Niger-Congo. However, it is interesting to

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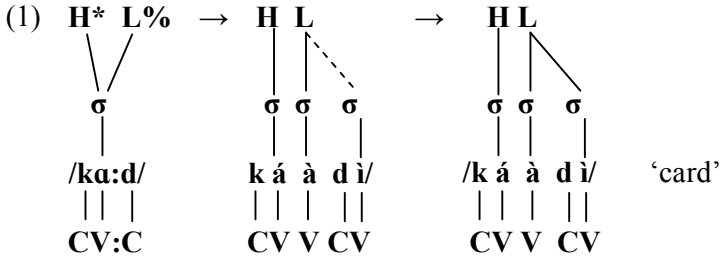
note that similar strategies adopted by the languages mentioned in the foregoing are also adopted by Urhobo in its loanwords in order to make English vocabularies conform to Urhobo native phonology. Specifically, the data used in Aziza's and Utulu's work show evidence of source (English) phonemes, syllable structures and stress altered to conform to native Urhobo morpho-phonological and prosodic structures.

One other interesting area of loan adaption that has been studied in the loan phonology literature is Vowel Doubling (VD, hereafter). The phenomenon exhibits a duplication of the singleton vowel element of monosyllable of the English **/CVC/** as /…**(V)**CVV**C**…/. For example, in Yoruba, Igbo, Edo, Igbo and Emai, the inherently stressed English monosyllabic word 'card' **/kɑ:d/** with an obvious **/CV:C/** syllable structure is normally pronounced **/káàdì/**, **/káàdì/**, **/èkáàdì/** and **/ikáàdì/** respectively, with each pronunciation assuming the same tone melodies, while the source stressed nucleus /ɑ:/ is duplicated as /áà/ and specified with high, low tone sequence.

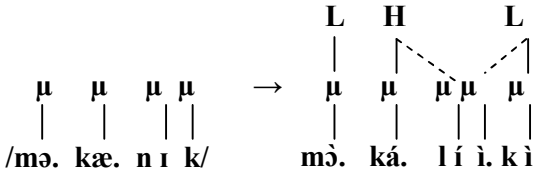
Some scholars (e.g. Ufomata, 1991, 2004; Akinlabi, 2004; Kenstowicz, 2004, among others) have proposed an interesting theory of VD. Specifically, according to Ufomata and Kenstowicz, VD, represented here as /áà/ taken from the example cited in the outset, is motivated by the perception of a stress prominence by speakers of the borrowing language, i.e., the perception of the English neutral F0 contour **(H*L%)** on CVC vocabulary, giving rise to high, low (H, L) tone sequence in corresponding loans. The generalisation characterising the tonal adaptation in loan in a language like Yoruba, see also (3) will therefore be expressed in (1) as follows:



As the structural pattern of the loan in (1) indicates, source stressed (accented) syllable represented by H* (Pierrehumbert, 1980; Goldsmith, 1981, Hayes, 1995) is adapted with H tone, while the falling pitch (L%) is adapted with L tone. According to Ufomata (2004: 587), "the template of an English CVC word would … be CVVCV in Yoruba, as the English vowel is realised as two … Even here, the tonal template is … HL." She argues that the second component of the doubled vowel by rule receives L tone which it subsequently supplies to the toneless anaptyctic vowel /i/, or /u/ as the case may be.

However, Oyebade (2006) differs in his opinion as regard the motivation of VD. He postulates prosodic structure preservation in explanation for the motivation of VD in monosyllabic or final CVC. In his work, partly anchored on the theoretical assumptions of the mora proposed by Hyman (1985) and Hayes (1989), he argues that VD applies in Yoruba monosyllabic/final loan CVC for a reason hinged on the need for Yoruba to preserve the prosodic/moraic structure of English source vocabulary. Consequently, the English singleton vowel doubles or lengthens to Yoruba VV. Moreover, he argues that the source singleton V-cum-coda are moraic and that the source of the supply of the L to the second component of the doubled vowel elements comes from the low-toned anaptyctic vowel /ì/, as the English-Yoruba example, **/mɔ̀kálíùkì/** 'mechanic' schematised autosegmentally in (2) suggests:

(2) English Yoruba Adaptation



'mechanic'

Oyebade's central claim in this regard is that the additional vowel attached to the source singleton vowel /ɪ/ in /nɪk/, becoming /íì/ in Yoruba is motivated by the need for Yoruba to 'preserve' the mora of the k-coda, which is 'ceded' to a newly created syllable as an onset via resyllabification rule. According to him, the resyllabification rule is required to convert source closed syllable to an open syllable. Oyebade's theoretical assumption therefore points to the fact that VD is nothing more than a sort of compensatory lengthening effect.

While the theoretical assumptions of the researchers mentioned in the foregoing seem quite plausible, particularly the latter which bothers on weight preservation effect, they fail to take into account the Urhobo case, in which the adaptation of the source H*L% is /H/ rather than heterosyllabic /H.L/ sequence. The obvious prohibition of VD in English (C)CVC loans in Urhobo, as the data posited in Aziza and Utulu (2006) show is one case that leaves much to be curious about. Why does Urhobo loanword phonology prohibit VD in source monosyllable CVC, yet other members of the BC group operating under the same phonological circumstance allows the doubling phenomenon?

The central goal of this paper, employing the CV theory (Clements and Keyser, 1983) is to argue that the dispreference of VD in Urhobo CVC loans follows directly from the natural tone rule of native Urhobo, in which underlying heterosyllabic L tone found in the immediate environment of adjacent H tone typically deletes from the phonetic string and leaves no effect on the H. Because the source neutral intonational H*L% contour perceptually corresponds to native Urhobo heterosyllabic/grammatical H.L sequence, uneducated Urhobo English speakers naturally carry over the tone simplification process into English by deleting the L, a situation that triggers the suspension of VD.

To this end, the current paper will argue that, though VD is driven by the English citation rise-fall intonational contour, it seems likely that specific native language tone grammar requirements conspire with the source citation F0 contour to account for the (dis)preference of VD in BC loanword phonologies.

2. Adaptation strategies of the English monosyllabic CVC loans across Benue Congo languages: perspective from the Nigerian context

This Section provides a general description of the adaptation strategies of the English monosyllabic CVC loans of a number of amply documented loans of Yoruba, Igbo/Ewulu Igbo, Edo/Bini, Emai and Urhobo in the following Sections in order to shed light on the mismatch in the of adaptation of English CVC loans in Urhobo versus Yoruba and other languages mentioned in the foregoing.

2.1 English CVC loans in Yoruba

As a body of English CVC loan data in Yoruba shows, following Owolabi, 1989; Bamgbose, 1990; Akinlabi, 1993; 2004; Popoola, 1993; Ufomata, 2004; Kenstowicz, 2004 and Oyebade, 2006, the template of an English monosyllabic CVC words, typically nouns, would be CVVCV. In the recipient structure, the source singleton vowel is 'doubled', following the theoretical assumptions of the

scholars mentioned above. The forms illustrated in (3) are taken from among the works of the scholars mentioned above as follows:

Vowel Doubling: English CVC loans in Yoruba

(3)	English	Yoruba	Gloss
a	**/bed/**	**/bɛ́ɛ̀dì/**	'bed'
b	**/pæk/**	**/páàkì/**	'park'
c	**/kəʊm/**	**/kóòmù/**	'comb'
d	**/fɔ:m/**	**/fɔ́ɔ̀mù/**	'form'
e	**/ʤem/**	**/ʤɛ́ɛ̀mù/**	'gem'
f	**/bleɪd/**	**/búléèdì/**	'blade'
g	**/gləʊb/**	**/gílóòbù/**	'globe'
h	**/glæs/**	**/gíláàsì/**	'glass'
i	**/breɪk/**	**/búréèkì/**	'break'
j	**/skɜ:t/**	**/síkɛ́ɛ̀tì/**	'skirt'

NB: CCVC loans in (f - j) and elsewhere in this work are included, since they assume the same structural pattern that reflects the doubling phenomenon.

As the tonal template shows, the source accented vowels surface with a high (H) tone. Likewise, the derived/epenthetic vowels preceding the corresponding source basic vowels surface with H, as in (f) to (j). However, final anaptyctic vowels surface with low (L) tone. According to Akinlabi (1993) and others, final anaptyctic vowels are toneless, copying their tone from that of adjacent syllable. Accordingly, Ufomata (2004:589) shows that the source of the L supplied to anaptyctic vowel /i/ or /u/ comes from the low-toned doubled vowel. Of interest however in the current investigation is the behaviour of the source singleton vowel and its tonal template in Urhobo monosyllabic (C)CVC loanwords.

2.2 English CVC loans in Igbo and Ewulu-Igbo

English CVC loans in Igbo and Ewulu-Igbo assume similar patterns with the ones illustrated in (3). Examples taken from Popoola (1993) and Utulu (2009) respectively are presented in (4) as follows:

Vowel Doubling: English CVC loans in Igbo and Èwùlù-Igbo

(4)	English	Igbo	Ewulu-Igbo	Gloss
a	**/bed/**	**/bɛ́ɛ̀dì/**	**/bɛ́ɛ̀dì/**	'bed'
b	**/pæk/**	**/páàkì/**	**/báàkì/**	'park'
c	**/kəʊm/**	**/kóòm̀bù/**	**/kóòm̀bù/**	'comb'
d	**/fɔ:m/**	**/fɔ́ɔ̀mò/**	**/fɔ́ɔ̀mò/**	'form'
e	**/ʤem/**	**/ʤɛ́ɛ̀mò/**	**/ʤɛ́ɛ̀mò/**	'gem'
f	**/bleɪd/**	**/búréèdì/**	**/búléèdì/**	'blade'
g	**/gləʊb/**	**/gúróòbù/**	**/gúlóòbù/**	'globe'
h	**/glæs/**	**/gíráàsì/**	**/gíláàsì/**	'glass'

i	**/breɪk/**	**/búréekì/**	**/búléekì/**	'break'
j	**/skɜ:t/**	**/síkɛ́ɛ̀tì/**	**/síkɛ́ɛ̀tì/**	'skirt'

As can be seen in (4), a prominent feature in the examples here are VD and Advanced Tongue Root (ATR) harmony employed in the adaptation process. The anaptyctic /ɪ/ and /ʊ/ are introduced as replacements for /i/ and /u/, subject to the harmony rule. The ATR status of the inserted vowels is governed by the vowel quality/ATR status of the source singleton vowel which spreads in a rather bidirectional fashion. However, like the Yoruba forms in (3), it is interesting to note that the Igbo forms characteristically turns English /…V…/ to /…VV…/ while the mode of adaptation of the suprasegmental feature of stress as tone remains the same: the first V element receives H tone while the second V element receives L tone.

2.3 English CVC loans in Edo/Bini

In Edo/Bini, the same structural cause takes effect. Like Yoruba and Igbo, segments take on the same tone melodies, accepting that the strict ATR harmony of the kind found in Igbo loans are assumed differently, though quite similar to that in Yoruba. Moreover, there is an insertion of a low-toned prothetic vowel /è/, unlike in Emai and Urhobo (see Sections 2.4-2.5: (5), (6) and (7) respectively) where a low-toned /ì/ rather serves as the prothetic vowel. The Edo/Bini examples taken from Popoola (1993) and Abiodun (2010) are presented in (5) as follows:

Vowel Doubling: English CVC loans in Edo/Bini

(5)		English	Edo/Bini	Gloss
	a	**/bed/**	**/èbɛ́ɛ̀dì/**	'bed'
	b	**/bæg/**	**/èbáàgì/**	'bag'
	c	**/fɔ:m/**	**/èfɔ́ɔ̀mù/**	'form'
	d	**/kʌp/**	**/èkɔ́ɔ̀pù/**	'cup'
	e	**/bleɪd/**	**/èbiléèdì/**	'blade'
	f	**/glæs/**	**/ègíláàsì/**	'glass'
	g	**/ʃɜ:t/**	**/èʃɛ́ɛ̀ti/**	'skirt'
	h	**/kɔ:t/**	**/èkɔ́ɔ̀tù/**	'court'
	i	**/kəʊm/**	**/èkóòmù/**	'comb'

As shown in (5) the adaptation strategies are quite the same with the ones exemplified in (3) and (4). The source H* (stressed syllable) is adapted as H tone while other syllables surfacing from null under resyllabification rule attract L tone. The difference however is Edo/Bini introduction of low-toned prothetic vowel /è/. Anaptyctic vowels however remain /ì/ and /ù/ in restricted phonological contexts.

2.4 English CVC loans in Emai

Being an Edoid language, the adaptation strategies in English CVC loans in Emai are loosely the same with the strategies in Edo/Bini. The examples in (6), some of which are taken from Egbokhare (1990, 1998), corroborate this observation:

Vowel Doubling: English CVC loans in Emai

(6)		English	Edo/Bini	Output form	Gloss
	a	**/bed/**	**/ibɛ́ɛ̀dì/**	**[ibɛ̂dì]**	'bed'
	b	**/nɜ:s**	**/ìnɔ́ɔ̀sì/**	**[ìnɔ̂sì]**	'nurse'
	c	**/bæg/**	**/ìbáàgì/**	**[ìbâgì]**	'bag'
	d	**/fɔ:m/**	**/ìfɔ́ɔ̀mù/**	**[ìfɔ̂mù]**	'form'
	e	**/kʌp/**	**/ìkɔ́ɔ̀pù/**	**[ìkɔ̂pù]**	'cup'
	f	**/ʃɜ:t/**	**/ìʃɛ́ɛ̀tì/**	**[ìʃɛ̂tì]**	'skirt'
	g	**/kɔ:t/**	**/ìkɔ́ɔ̀tù/**	**[ìkɔ̂tù]**	'court'
	h	**/kəʊm/**	**/ìkóòmù/**	**[ìkômù]**	'comb'
	i	**/skɜ:t/**	**/ìsíkɛ́ɛ̀tì/**	**[ìsíkɛ̂tì]**	'skirt'
	j	**/glæs/**	**/ìgíláàsì/**	**[ìgílâsì]**	'glass'

As the forms in (6) show, Emai also turns the source /…V…/ to /…VV…/. Even when the low-toned member of the vowel sequence is effaced from the string as the output forms show, its tone stays afloat and subsequently relinks to the preceding H tone to form a falling contour tone. However, the difference in the adaptation strategy is the vowel quality supplied as the prothetic vowel. Here /i/ rather than /e/ as is the case with Edo/Bini is supplied in Emai.

2.5 English CVC loans in Urhobo

In (7) the English loanwords in Urhobo present a rather puzzling format. The English singleton vowel element is not duplicated as is the case with loans of the sister languages presented in (1) through (6). Evidence of prohibition of VD in Urhobo (C)CVC loans is shown in (7), taking examples not limited to the ones exemplified in Aziza and Utulu (2006):

Vowel Doubling: English CVC loans in Urhobo

(7)		English	Edo/Bini	Gloss
	a	**/bed/**	**/ibɛ́dì/**	'bed'
	b	**/nɜ:s**	**/ìnɔ́sì/**	'nurse'
	c	**/bæg/**	**/ìbágì/**	'bag'
	d	**/fɔ:m/**	**/ìfɔ́mù/**	'form'
	e	**/kʌp/**	**/ìkɔ́pù/**	'cup'
	f	**/ʃɜ:t/**	**/ìʃɛ́tì/**	'skirt'
	g	**/kɔ:t/**	**/ìkɔ́tù/**	'court'
	h	**/kəʊm/**	**/ìkómù/**	'comb'
	i	**/skɜ:t/**	**/ìsìkɛ́tì/**	'skirt'
	j	**/glæs/**	**/ìgìnásì/**	'glass'

As the forms in (7) show, Urhobo loans unequivocally 'shed' the additional vowel required by BC loan phonologies to adapt the source (English) L%. The compelling question therefore is: why does loanword phonology of Urhobo employ (prothetic) and anaptyctic vowels in loan phonology to correct deviant structures like in Yoruba, Igbo and its Edoid counterparts, yet fail to employ VD in its adaptation process? The answer to this question will be provided in the Sections that follow.

3. Typological patterns of heterosyllabic high, low tone sequence in grammatical constructions: Yoruba, Igbo, Ewulu-Igbo, Emai and Urhobo as case studies

This Section briefly examines the typological pattern of heterosyllabic /H.L/ tone sequence which is the exact phonetic equivalence of source H*L% intonational contour in Yoruba, Igbo, Ewulu-Igbo, Emai and Urhobo. Below juncture H.L sequence in phrasal or clausal strings in the afore-mentioned BC languages is explored. The tone sequence is explored because the common and unique grammatical tone rule of each of the languages, as will be theoretically demonstrated in (Section 4), have a profound link to the motivation of vowel doubling in English CVC loanwords.

3.1 Phrasal/clausal level heterosyllabic /H.L/ sequence: A typological description

(I) **The Yoruba example**: In Yoruba, according to Akinlabi (2004:280-1), 'when an object noun follows a verb, the two words are combined phonologically by deleting either the final vowel of the verb or the initial vowel of the object. Any H or L tones of the deleted vowel are retained in the result.' A crucial case of Akinlabi's observation is exemplified in (8) as follows:

(8)	a.	**wá**	**ɔ̀nɔ̀**	→	**wɔ́nɔ̀**
		'look (for)'	'way'		'look for a way'
	b.	**wá**	**ìmɔ̀**	→	**wámɔ̀**
		'look (for)'	'knowledge'		'look for knowledge'
	c.	**wá**	**èkɔ́**	→	**wɛ́kɔ̌**
		'look (for)'	'education'		'look for education'
	d.	**mú**	**ìwé**	→	**múwě**
		'take	'book'		'take a book'

As can be seen in all cases presented in (8), the Yoruba tones borne by deleted vowels (in non-bold print) are not deleted but are retained in such that an output HL or H L-H melody comparable to the English H*L% pitch accent is realised.

(II) **The Igbo example**: The behaviour of Igbo /H.L/ tone sequence is similar to the Yoruba case presented in (8). The following examples in (9), extracted from multiple, varied tone behaviours in Igbo associative construction (Obianika, 2006:263-4) illustrate this:

(9)	a.	**èf**é	**ụ̀wà**	→	**èf**é **ụ̀wà**
		'dress'	'world'		'worldly dress'
	b.	**ụ̀d**á	**ìgbà**	→	**ụ̀d**á **ìgbà**
		'sound'	'drum'		'sound of drum'
	c.	**íh**ú	**ènyò**	→	**íh**ú **ènyò**
		'face'	'mirror		'face of mirror'

In (9), it will be observed that the underived juncture tones, H and L (in non-bold face print) are retained in the output. Even if the left juncture tone-bearing units were deleted (as in Ewulu-Igbo below) to resolve hiatus, a phenomenon Obianika ignored in her analysis, the individual tone they bear would as a rule stay afloat

and subsequently segmentalise to yield surface H-L contour tone structure that also corresponds to the English H*L% pitch accent.

(III) **The Èwùlú-Ìgbò example**: In Èwùlú-Ìgbò (Énúànì: Delta State Nigeria; Utulu, 2018:153), agentive morphemes (the leftward elements) in (10) display the same H.L tone sequence, where the juncture tone sequence segmentalises to form phonetic falling tone via V^1 sequel to the operation of deletion or glide formation rules required to resolve hiatus:

(10)	a.	**ògb**úù	**èbùnù**	→	**ògb(w)êbùnù**
		'killer'	'ram'		'native doctor/killer of ram'
	b.	**òch**éè	**ụ́nọ̀**	→	**òchûnọ̀**
		'guard'	'house'		'wall gecko'
	c.	**ògb**úù	**ánụ́**	→	**ògbwânụ̀**
		'killer'	'meat'		'bucher'
	d.	**òr**íì	**ǹgwélè**	→	**òrîngwēlē**
		'eater'	'lizard'		'a kind of hawk'

As the Ewulu examples show, regardless of the desyllabification or disappearance of the doubled vowels of agentives (except for that in (10d) followed by a nasal consonant), their tones, like those shown in (8) and (9), are retained on the initial vowels of the following nouns, a pitch melody that quite resembles the English neutral F0 contours.

(IV) **The Emai example**: The surface realisation of abstract grammatical H.L tone sequence, given additional evidence from Emai, seems to be widespread in BC. In Emai, a north central Edoid language (Elugbe, 1989; Egbokhare, 1990) input H.L tone sequence typically changes to output H-L contour. The following examples from Egbokhare (1990: 254) illustrate this fact:

(11)	a.	**ɔ̀ gb**é **ɔ̀sà**		→	**ɔ̀ gbɔ̂sà**
		'he/she kill gorilla'			'he/she has killed a gorilla'
	b.	**ɔ̀ d**ɛ́ **ùgì**		→	**ɔ̀ dûgì**
		'he/she buy basket'			'he/she has bought a basket'
	c.	**ɔ̀kp**áɔ̀**kpá**		→	**ɔ̀kpɔ̂kpá**
		'one by one'			'one by one'
	d.	**È**váè**vá**		→	**èvêvá**
		'two by two'			'two by two'

Given the typological patterns of heterosyllabic grammatical /H.L/ tone sequence explored so far, it could be presumed that BC languages as a rule preserve the rise, fall melody regardless of the operation of deletion or glide formation rule that normally would erode tone bearing units (i.e. vowels) with which the tone melody is specified. While this presumption is not entirely incorrect, it is an oversimplification when a language like Urhobo is brought to the fore, as the forms in (12) suggest.

(V) **The Urhobo example**: Urhobo presents a rather interesting contrasting scenario with respect to how it handles H.L tone sequence in its tonal grammar vis-à-vis the cases presented in Yoruba, Igbo, Ewulu-Igbo and Emai. In Urhobo, the H.L sequence is normally simplified to H, as the L is completely elided from

the derivation. The fascinating pattern is illustrated in (12) as follows, following Aziza (2007:471-2). Note AM (=associative marker):

(12)

a.	**àɣa̋**	**ɔ̀ròdè**	→	**àɣa̋ròdè**
	'broom'	'big'		'a big broom'
b.	**ègó**	**ì**rìdɛ̀	→	**ègórìdɛ̀**
	'bottles'	'big'		'big bottles'
c.	**úk**kó	**ɔ̀vò**	→	**úkɔ́vò**
	'cup'	'one'		'one/a cup'
d.	**ɔ́sɛ̀**	**r**ɛ́ **è**ʃɔ̀	→	**ɔ́s**éʃɔ̀
	'father AM	juju'		'juju chief priest'

As the examples in (12) show, the H.L sequence simplifies to surface H once deletion rule had applied, unlike in Yoruba, Igbo, Ewulu-Igbo and Emai where the same sequence changes to surface H-L under the operation of the same segmental rule.

Given the observation of the unique grammatical tone rule of Urhobo, it will be argued that the preference or dispreference of VD in the adaptation of English monosyllabic CVC vocabulary in the languages explored in the foregoing follows directly from how each of the languages explored above treats the L in /H.L/ tone melody, the direct correspondence of the English L% in citation H*L% neutral pitch contour.

4. Analysis

This Section analyses the strategies Urhobo loan phonology employs in adapting to the English monosyllable (C)CVC words, employing the multi-tiered framework of the CV phonology proposed by Clements and Keyser (1983) to deal with the syllable.

4.1 Adaption of English monosyllable (C)CVC vocabulary in Urhobo

Aside the canonical substitution of vowel feature/quality in loan vocabulary, the Urhobo loans exemplified in (7a-j) posit the following adaptation strategies of English monosyllable (C)CVC consistent with those documented in the literature earlier mentioned in Section 1. The adaptation strategies are:

(13)

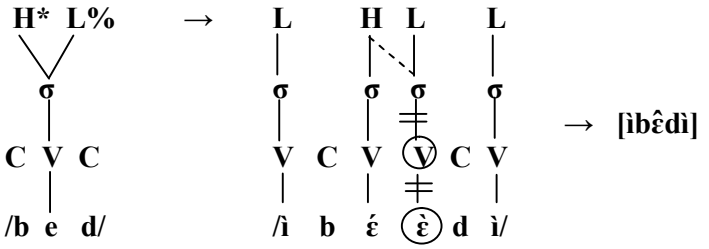
a) resyllabification of CVC to VCVCV by insertion of prothetic vowel /i/ and anaptyctic vowel /i/ or u/ to align with the permissible morpho-syllabic structure of Urhobo (Aziza and Utulu, 2006).
b) retention of the source singleton vowel, where loans of other languages
would rather double the unitary vowel (see forms in (3) through ((6) versus the Urhobo forms in (7))
c) assignment of high (H) tone to the source accented/head syllable
d) placement of low (L) tone on epenthetic (prothetic and anaptyctic) vowels.

The adaption strategies in (13 a–d) are illustrated in (14) as follows, taken the form /bed/ 'bed' in (7a) with the same structural pattern with the forms in (7b-j):

(14) English word (citation form) (input) **Urhobo** Loan adaption (output)

As the multi-tiered representation in (14) shows, first, one-syllable English word is turned to three-syllable word in the Urhobo version, suggested by the number of V elements in CV node in each column in (14). Second, in the intonational node, the English source citation F0 contour, H*L% attached to the nucleus of the monosyllable is adapted with H tone in Urhobo. Whereas in languages like Yoruba, Igbo, Ewulu-Igbo and Emai, (see 3 through 6) it is adapted with /H.L/ tone sequence, or with phonetic [H-L] falling contour tone, as (Egbokhare, 1990; 1998) shows in his descriptive analysis of English CVC loans in Emai. The autosegmental schema in (15) alludes to Egbokhare's (1990) account:

(15) English word (citation form) (input) **Emai** Loan adaption (output)

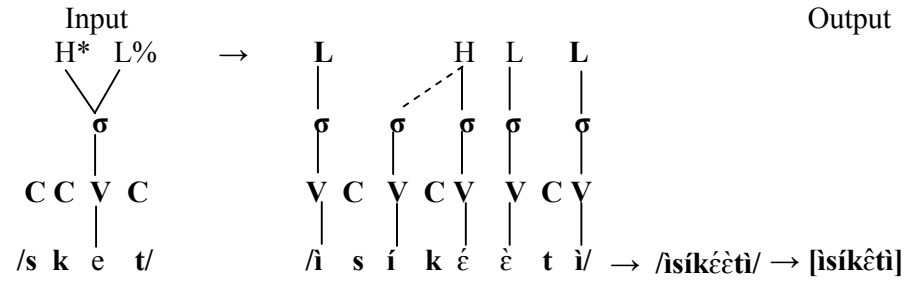


As mentioned earlier, prothetic and final anaptyctic vowels (see particularly CCVC loans) are adapted with L tone across the board. Ufomata (2004:586) suggests that these extra vowels are inherently toneless. However, the current researcher argues, as shown in (16a & b) that her claim only accounts for interconsonantal anaptyctic vowel(s) (IAV) which receives it tone from adjacent tone. The IAV H tone in Emai (16a) is supplied from the head syllable /ɛ́/ the direct correspondence of the English stressed nucleus /e/, while IAV L tone in Urhobo (16b) is supplied from the prothetic L tone. By default, prothetic vowel **/ì/** or **/e/** together with word final anaptyctic vowel **/ì/** or **/ù/** is inherently low-toned. This is so because the two vowel types occupy non-head position that bars H tone assignment. Likewise, the second heterosyllabic component of VD is inherently low-toned which reflects the acoustic image of the English source citation falling pitch (L%).

To oversimplify the current theoretical standpoint, all inserted vowels (with the exclusion of interconsonantal vowel in Yoruba, Edo/Bini, Emai) receive L tone by default as they occupy non-head position that is exclusively the domain of unstressed/unaccented syllable(s) in English. Accordingly, the tonal templates of

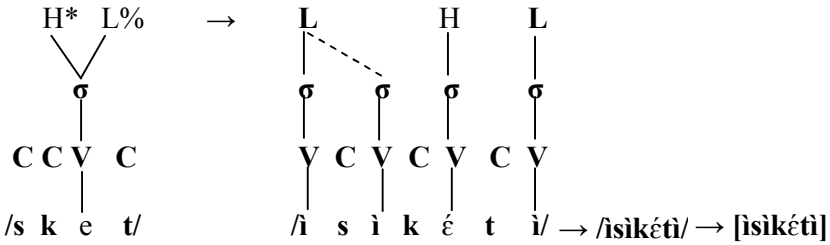
the extra vowels are illustrated in (16a & b), taking the adaptation of the form, 'skirt' in Emai and Urhobo respectively:

(16a) English word (citation form) **Emai** Loan adaption



The tonal template of the Urhobo version takes a rather different structure, as (16b) demonstrates:

(16b) English word (citation form) **Urhobo** Loan adaption Output



Accordingly, the multitiered template in (16a) vis-á-visa that in (16b) clearly suggests the following facts:

i. prothetic vowel /ì/ and its final counterpart are assigned the L tone by a constraint that licenses L in non-head syllable(s) (Hayes, 1995; De Lacy, 1999).
ii. second, interconsonantal anaptyctic high-toned /í/ receives its tone regressively from the prominent syllable /ké/ in Emai, whereas in Urhobo (see 16b) it receives its tone (a low tone to be precise) progressively from the licensed non-head L tone, as depicted by the respective broken association lines.
iii. third, the head syllable /ké/ in both languages receives H tone, the acoustic image of source H*, and
iv. lastly, the terminal component of Emai VD /è/ (which is conspicuously void in Urhobo for some reason that will be explained in Section 4.2) is adapted with L tone, the equivalent melody of the source L%.

As Kenstowicz (2004: 137) remarks, H.L tonal template is 'an adaptation strategy [required] to realize both components of the falling F0 contour of the stressed syllable of the English source'.

4.2 The phonological status of the low tone in vowel doubling

Based on its structural cause, segmentally, vowel doubling (VD) is purely a duplication process whereby the second component of VD is a 'copy' of the vowel quality that perceptually approximates the source 'mono' nucleus. The autosegmental schema in (14) as opposed to the ones in (15) and (16a & b) elucidates the variance in the mode of adaptation of the 'mono' nucleus quite clearly in the Benue Congo (BC) languages explored above. In (14) Urhobo disallows VD which is sanctioned in the loan phonology of the afore-mentioned languages.

Thus why does Urhobo loanword phonology prohibit VD in this same context in loans?

The current researcher's observation of the behaviour of the native Urhobo L tone in heterosyllabic /H.L/ tone sequence, as shown in (12) leads to the postulation of '/H.L/ tone simplification rule' which preserves the /H/ tone but deletes the L tone as the motivation for Urhobo prohibition of VD in CVC loans. The peculiarity in the licensing of /H.L/ tone sequence culminating in surface H-L falling contour tone in the natural grammatical tone rules in Yoruba, Igbo, Ewulu-Igbo, Edo and Emai seems likely to reinforce this claim. If not, why would Urhobo loan phonology adapt source prosody in a rather different fashion from the other languages operating under the same phonological circumstance?

Based on Silverman's (1992) analytical procedure in the explanation of adjustment processes in loanwords, the ordered rules (or parsing) that help elucidate the dispreference of VD in Urhobo loanwords are presented in (17) as follows, taking the form, /bed/ illustrated in (12):

Urhobo English CVC loan adaptation strategy

/bed/ → /ìbɛ́dì/ 'bed'

(17)

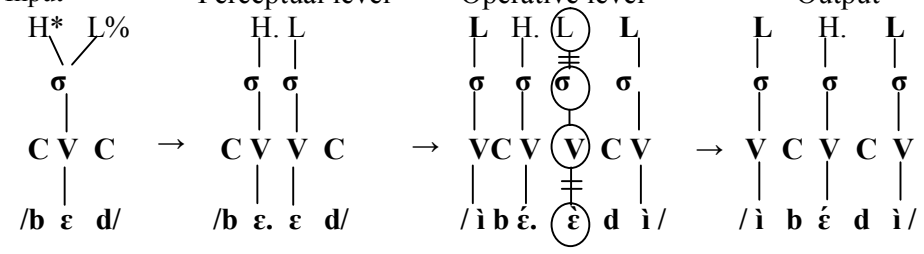
Input		Perceptual level		Operative level		Output
bêd	→	**bɛ́ɛ̀d**	→	**ì.bɛ́.ø.dì**	→	**ì.bɛ́.dì**

In (17) the input assumes a falling contour tone, the phonetic equivalence of the English citation F0 contour H*L%. At the perceptual level, the acoustic image which the Urhobo speaker(s) has of the English H* L% is interpreted as heterosyllabic H.L tone sequence similar to the one illustrated in (12). The autosegmental representation in (18) insightfully sheds light on the process that suspends VD in English (C)CVC loans in Urhobo thus:

Urhobo English CVC loan adaptation strategy: prohibition of vowel doubling

/bed/ → /ìbɛ́dì/ 'bed'

(18)



As the autosegmental analysis of (17) in (18) shows, it will be observed that, at the operative level which expresses the 'actual' utterance as opposed to the 'intended' utterance, the third syllable and its sub-constituents (/ɛ̀/ and the L tone) are completely effaced from the derivation, while the H tone and the left and the right edge L tones are retained. Essentially, the operative level functions to make

the perceived source H*L% conform to the tonal constraint on native Urhobo tone grammar demonstrated in (12), which erodes the L tone and conserves the adjacent H tone, the acoustic input Urhobo speakers have of the English H*. Consequently, it is argued in the present paper that a translation of the native Urhobo tonal grammar into foreign vocabulary is plausibly the motivation for the dispreference of VD in Urhobo loan phonology.

Evidence of the demotivation of VD in Urhobo loan phonology as demonstrated in (17) and (18) as well as a survey on the behaviour of the L tone in heterosyllabic H.L tone sequence in Yoruba, Igbo, Ewulu-Igbo and Emai in (8), (9), (10) and (11) respectively unequivocally sheds light on the precise motivation for VD in BC CVC loans. More generally, in Emai (Edo/Bini inclusive), a sister language to Urhobo, H.L tone sequence as illustrated in (11) is normally segmentalised to H-L falling contour tone, which is then translated into the adaptation process in English CVC vocabulary, yielding the form, such as **/ìbɛ́ɛ̀dì/** 'bed'.

5. Conclusion

The main goal of this article was to provide explanation to why the English CVC or CCVC vocabulary adapted by Urhobo speakers prohibit vowel doubling, a phenomenon whereby the singleton English vowel is doubled as /…VV../. For example, the English word, /bed/ 'bed', among other similar words with the same syllable structure, is adapted as **/ìbɛ́dì/** in Urhobo, while in Emai and Edo/Bini, closely related Edoid languages; it is adapted as **/ìbɛ́ɛ̀dì/** and **/èbɛ́ɛ̀dì/** respectively. The vowel reduplication process as it were is widespread and is attested in the (C)CVC loans of many Benue Congo languages, like Yoruba, Igbo, Ewulu-Igbo, Edo/Bini, Emai, among others. In the analysis, the paper has demonstrated with fairly ample loanword data in the aforementioned languages that the dispreference or preference for VD in Benue Congo loan phonologies is principally motivated by the tonal grammar of the borrowing language. A case in point: a language like Urhobo does not allow heterosyllabic /H.L/ tone sequence. For this reason, Urhobo typically simplifies the sequence to /H/, whereas languages like Yoruba, Igbo, Ewulu-Igbo, Edo/Bini, Emai etc, allow H.L tone sequence which yield phonetic falling contour tone, [H-L].

Thus the occurrence or suppression of VD in Benue Congo loan phonologies is subject to how the L, the acoustic image of source L% which is specified for the second component of the English H* in neutral intonational contour is treated in their respective tonal grammar. Accordingly, because a language (e.g. Urhobo) dispenses with heterosyllabic L tone in its tonal grammar, VD is highly likely to be suppressed in CVC loans as demonstrated with relevant data. However, because languages (e.g. Yoruba, Igbo, Emai, Edo/Bini) rank the heterosyllabic L tone quite highly in its tonal grammar, VD is inevitably operational in their CVC loans.

Abbreviations/conventions

C	Consonant
V	Vowel
V.V	Heterosyllabic vowel sequence
CC	Onset/Consonant cluster
(C)CVC	monosyllabic word
H	High tone [ˊ]
H*	Pitch of stressed/accented syllable
L	Low tone [ˋ]
H-L	Falling tone [ˆ]
H*L%	Neutral intonation contour
VD	Vowel Doubling

σ	Syllable node
H | V	Vowel linked to a high tone
L | V	Vowel linked to a low tone
L ǂ V	Delink low tone from vowel
H ¦ V	Establish a link between vowel and tone
Ⓥ	Free vowel slot (deleted vowel)
/ /	Phonemic units
→	Becomes
IAV	Interconsonantal anaptyctic vowel
BC	Benue Congo

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