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SYLLABIFICATION, GLIDE FORMATION AND THE MORA IN EDUCATED URHOBO ENGLISH

UTULU, DON CHUKWUEMEKA (PhD)
Department of Languages and Linguistics
Faculty of Arts
Delta State University, Abraka, Delta State
EMAIL: dcutulu@delsu.edu.ngdonutulu@gmail.com

&
IVWORIN, GODWIN AVWEROSUOGHENE
Department of Languages and Linguistics
Faculty of Arts
Delta State University, Abraka, Delta State
EMAIL:ga@delsu.edu.ngrevgodwinivworin@yahoo.com

Abstract

Educated Urhobo English (EUE) is a variety of Nigerian English accent used by literate Urhobo native speakers in Delta State, southern Nigeria. Early studies have reported some EUE segmental patterns motivated by the native Urhobo sound system. However, Glide Formation (GF), which has invariably become fossilised in the accent, is yet to be studied. GF is a process whereby underlying high vowels /i/ and /u/ are realised on the surface as[j] and [w] respectively, if immediately followed by a non-high vowel. Thirty-six recorded speech samples purposively collected from 15 Urhobo native speakers of English pronunciation show a conversion of intervening /ɪ/ and /ʊ/ in Standard British English (SBE) triphthongs as /j/ and /w/, a curious type of GF. Thus, the SBE triphthongs /eɪə/, /aɪə/, /ɔɪə/, /əʊə/ and /aʊə/ in the respective items, 'layer', 'liar', 'loyal', 'lower' and 'power' are pronounced /leja/; /laja/; /loyal/; /lowa/ and /pawa/. This study, couched in Moraic theory (Hyman 1985; Hayes 1989), aims at examining the Urhobo indigenisation of SBE triphthongs and provide explanation on why the quality of the SBE vowels changed in EUE accent. The insights of the mora revealed three indigenised pronunciation patterns: (1) /ɪ/ and /ʊ/ gliding as /j/ and /w/ respectively, (2) mora reduction/deletion, and (3) adjustment of syllable count, in which the SBE one-syllable word is rendered as one with two syllables. This study argues that a transfer of the core 'weight profile' of the native Urhobo syllable structure into SBE motivates GF in the EUE accent.

Keywords: Glide formation, Educated Urhobo English, Standard British English, Triphthongs, Mora.

1. Inroduction

Urhobo Englishis an ethnic/regional English accent used in the Urhobo land. The natives who speak native Urhobo (Edoid: West Benue Congo) language are a community of people of the Niger Delta, south-south, Nigeria (§ Figure 1). Based on research information from a few existing studies on its educated accent, known as Educated Urhobo English (EUE), its

phonology exhibits a number of segmental patterns which are consonant substitutions, vowel substitutions, under-differentiation of length contrast, monophthongisation of closing diphthongs, vowel lengthening, among others (e.g., Kelly 1969, Onose 2003, Ojarikre 2007, Utulu 2014a, Utulu&Akinjobi2015, Utulu 2017). Findings of the studies show that the aforementioned phonological phenomena (specifically the former three segmental processes) are the consequences of transfer-driven effects of native Urhobo phonology on Standard British English. Standard British English (SBE) is the official language used for teaching and learning in Nigeria, and serves as second language (or lingua franca) to the Urhobo people who have acquired the language through formal education, or informally through association with educated neighbours or business acquaintances.



Figure 1: **Source: https://www.google.com/search?q=urhobo+map**

One of the interesting phonological features yet to be given research attention in EUE is, as it were, the rather fossilised phonological phenomenon in the accent called Glide Formation (GF). Generally, and from the point of view of the current investigation, GF is a process whereby one of two sequences of underlying vowels (Vs) with the following phonotactic format /CiV/ and /CuV/ are modified phonetically as [CjV] and [CwV] respectively. As shown in the phonological literature, operation of GF typically culminates in the *reduction* or *adjustment* of syllable count (Ugorji 2010, Utulu 2020).Glide formation, as will be demonstrated in this work, symptomatically leads to *morareduction*, a pattern that overwhelmingly converts the native (SBE) tautosyllabic structure to heterosyllabic shape in EUE accent.

Following from the transcribed recorded speech samples purposively collected from 15 Urhobo native speakers of English, the data show that the five Standard British English (SBE) triphthongs: **/eɪə/, /aɪə/, /ɔɪə/, /əʊə/ and /aʊə/** in the respective items, 'layer', 'liar', 'loyal', 'lower' and 'power' are pronounced **/le.ja/, /la.ja/, /loyal/, /lo.wa/** and **/pa.wa/**. In each EUE rendition, the intervening SBE high vowels /ɪ/ and /ʊ/ are glided as /j/ and /w/. This intriguing *localised* gliding effect on SBE high vowels attracts the interest of the current research(er).

Thus, the present work is an attempt to provide a description of this rather fascinating indiginised pronunciation, adopting the Moraic theory proposed by Hyman (1985), and adopted by Hayes (1989) on account of weight/moraic effects in language. Given the nature of gliding of the high vowels which interferes with weight bearing elements and syllable count in the English items in EUE, as will be demonstrated in the Section 6, the concept of mora is assumed. In the concluding comment, this study would argue that the overridden influence of the core 'weight profile' of native Urhobo prosody over SBE prosody motivates the GF process in EUE accent.

2. Literature Review

2.1 Glide Formation

Many languages often enforce their prosodic structure or phonotactic rules on non-conforming representations in harmony with their prosody or lexicon. One of the ways they do this is to engage a rule or process called Glide Formation (GF). Glide formation is a phonological phenomenon which derives a glide from high vowels when they immediately precede another vowel (Carr 1993, Casali 1995, 2011). For example, in native languages in which GF operates, e.g. Okpe (Carr 1993), Igbo (Emenanjo 1978), Ewulu-Igbo (Utulu 2006, 2020), Urhobo (Aziza 1997, 2010), all heterosyllabic vowel (V) sequences of the format /Ci.V/ and /Cu.V/ (or Ci#V and u#V) characteristically change to surface [CjV] and [CwV] respectively. For example, in (1), citing Okpe (Edoid: West Benue Congo), a closely related language to Urhobo (Carr 1993:193), the infinitive forms undergo GF subject to the constraint that high vowels /i/ and /u/ must not be followed by another high vowel:

(1) Glide Formation: The Case of Okpe (Edoid) (Carr, 1993:193)

	Root		Infinitive
a.	/ti/	'pull'	[etjo]
b.	/sĩ/	'bury'	[esjõ]
c.	/ru/	'do'	[erwo]
d.	/zũ/	'fan'	[ezwõ]

In (1) /i/ and /u/ turn to [j] and [w] respectively. The change happens once the suffixal infinitive marker/o/ is introduced. Such a process that converts high vowels to their phonetically appropriate glide is widespread; it occurs in French, as Carr shows. In the next sub-section, we show how GF in similar sequential order operates in native Urhobo phonology, which remarkably finds its way into the phonology of EUE accent.

2.2 The Urhobo Vowels and Syllable Shape

The phonological units that are at the heart of GF are vowels. Therefore, a discussion of GF, the core issue of consideration in this work cannot be insightfully examined without an outline of the organisation of the vowel inventory of native Urhobo, the substrate language. Native Urhobo phonology operates seven phonemic oral vowels and seven nasal vowels (Aziza 1997, 2008 2010, Utulu 2014a). In (2) we present only the oral vowels relevant for this investigation. They are as follows:

(2) Inventory of the Urhobo oral Vowels

/i/		/ʊ/
/e/		/o/
/ ɛ/		/ɔ/
	/a/	

As (2) indicates, diphthongs and triphthongs are not attested in the Urhobo language, as is the case in English presented in (4). Thus, sequences of vowels such as /i.e., ua, iɛ, ue, ia/, which appear to be diphthongs (or tautosyllabic vowel sequences) are not such complex units (Utulu 2014b).

The otherwise five heterosyllabic vowel sequences occurring in native Urhobo items, /miè/ 'take', /guà/ 'drive', /útiɛ́/ 'orange', /ɪ̀ɾuè/ 'liver', /àɸiá/ 'knife' respectively, though allowed at the abstract level, are prohibited on the surface. For this reason, high vowels /i/ and /u/ followed by another vowel, similar to the Okpe case exemplified in (1), are characteristically subjected to the process of GF by converting the respective high vowels to semi glides, [j] and [w], as (3) indicates:

(3) Urhobo Glide Formation (Adapted from Aziza 2010:285-6)

a.	/mi.è/	CV.V	/mjè/	CCV	'take'
b.	/gu.à/	CV.V	/gwà/	CCV	'drive'
c.	/ú.ti.ɛ́/	V.CV.V	/ú.tjɛ́/	V.CCV	'orange'
d.	/ɪ̀.ɾu.è/	V.CV.V	/ɪ̀.ɾwè/	V.CCV	'liver'
e.	/à.ɸi.á/	V.CV.V	/à.ɸjá/	V.CCV	'knife'

The examples in (3) call up two interesting phenomena: first, the number of possible input V elements in the items is reduced phonetically. Second, a hitherto input /CV/ syllable shape is adjusted to surface [CC], with the supposedly onsetless heterosyllabic final V now functioning as Tautosyllabic V, thus yielding an output [CCV] syllable structure.

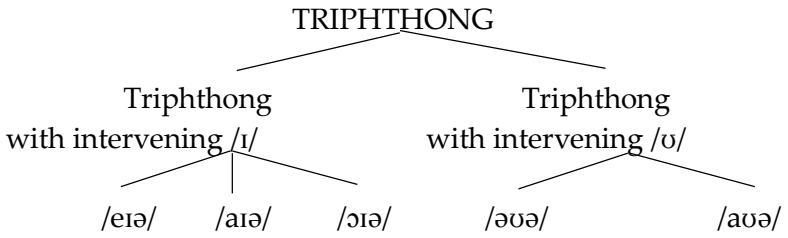
Crucially, it is interesting to note that the same pattern of adjustment of the prosody in the substrate vocabulary in (3) that is carried over into L2 superstrate phonology, as will be shown in Section 6. However, in the following section, we give an overview of the vowels, specifically the triphthongs of SBE in order to have a glimpse of the relationship that exists between the Urhobo and SBE prosodies.

2.3 Standard British English Triphthongs and Syllable Shape

The Standard British English vowel inventory is a complex one in that it consists of twenty-five vowels (Roach 2000, Davenport and Hannahs 2010). The vowels are grouped into three categories, namely monophthongs, diphthongs and triphthongs. Each category comprises twelve, eight and five vowels respectively. However, the focus of this study is on triphthongs.

Accordingly, the schema in (4) shows the five triphthongs and their pattern of realisation in SBE pronunciation.

(4) Inventory of the Standard British English Triphthongs (Roach 2000:24)



According to Roach (2000), the SBE triphthongs are the most complex English sounds of the vowel type. He defines a triphthong as '…a glide from one vowel to another and then to a third, all produced rapidly and without interruption' (p. 24).

2.4 The Standard British English /ɪ/ and /ʊ/ and the Native Urhobo /i/ and /u/

The front and back high vowels, the close approximates of the IPA vowel no. 1 /i/, and no. 8 /u/ occur in the vowel inventory of the native Urhobo language (Aziza 2008, Utulu 2014b, Utulu&Akinjobi2015), and in that of the SBE (Roca and Johnson 1999, Roach 2000). Acoustic analysis conducted by Utulu and Akinjobi showed that the Urhobo high vowels adapted into English are different from those of SBE both in quantity and in quality. Phonotactically, the two high vocoids may occur in clusters in both Englishes, as (3) and (4) indicate respectively. However, both Englishes differ in their mode of syllabification of vowel sequences, which impacts upon the phonotactic arrangement of the high vowels. In native Urhobo, as (3) illustrates, /i/ and /u/ forming a cluster with another vowel is functionally heterosyllabic, whereas in English, /ɪ and /ʊ/ forming a cluster with another vowel is functionally tautosyllabic. This, therefore, implies that the native Urhobo vowel clusters/sequences are not diphthongs, whereas the SBE sequences are, with even more complex consecutive vowels occurring in the phonology known as triphthongs.

The SBE triphthongs have received some divergent analyses in the literature. The first analysis of the vowel sequences proposes that triphthongs comprise diphthongs plus a schwa, in which the three V elements are of the format /VV.ə/ (Wells 1982). The second analysis of the complex vocoids suggests that the triphthongs are tautosyllabic vowel sequence, such that the three V elements are of the format /VVə/ (Roach 2000). According to Roach, the variation in the amount of vowel movement in triphthongs probably makes some English speakers with BBC pronunciation perceive the complex vowels to consist of only one syllable, particularly if it involved the /aɪə/ triphthong in 'fire' and /aʊə/ in 'hour', but two syllables if it involved /eɪə/ triphthong in 'player', and /əʊə/ in 'slower', a view that appears to allude to Well's description of the prosodic structure of the English triphthongs.

Regardless of the divergent opinions on the actual status of the English triphthongs and their appropriate syllabification, we will adopt Roach's view, based on our current theoretical approach bordering on the mora, and assume that triphthongs are tautosyllabic sequences. In this approach, we will show that the complex vowels comprise three moras /$V_{\mu}V_{\mu}ə_{\mu}$/ (see 6f) rather than two mora /$V_{\mu}V_{\mu}$.ə/, in which the schwa, as in (6e) is a mora-sharing element, sharing its mora from the second V element. Our adherence to describing the English triphthongs as tautosyllabic vowel sequences with three timing units is based on: first, the native English dictionary transcriptions of the forms in (5B) as tautosyllabic sequences (see

the e-Oxford Advanced Learner's Dictionary, 8the Edition), and second, what might appear to be a two-way 'contrast' between the following underived English items in (5) <A> and their respective derived form in <B>, as shown thus:

(5)

	<A>			<B>		
a.	lay	/leɪ/	CVV	layer	/leɪə/	CVVV
b.	fly	/flɪa/	CCVV	flier	/flɪaə/	CCVVV
c.	employ	/ɪm.plɔɪ/	VC.CCVV	employer	/ɪm.plɔɪə/	VC.CCVVV
d.	low	/ləʊ/	CVV	lower	/ləʊə/	CVVV
e.	cow	/kaʊ/	CVV	cower	/kaʊə/	CVVV

As (5) reveals, the difference in the quantity (or count) of V elements in <A> and their more complex counterparts in <B> seems to reinforce our claim of treating triphthongs as tautosyllabic vowel sequences rather than two syllables parsed into diphthong followed by /ə/, at least from a phonological (rather than a morphological) point of view, even though the morphology of the forms in (5a-d) seems to favour two-syllable division for triphthongs. Moreover, as will be shown in Section 5, the mapping insight of 'syllable weight' (and specifically, the mora) might be adequate to express the existing two-way contrast between what Hyman (1985), Hayes (1989) refers to 'heavy syllable' versus 'super heavy syllable'. Both notions are theoretical concepts used to express bimoraicity of the English /VV/, that is diphthong, and trimoraicity of /VVV/, triphthong, as advocated for in the present work.

3. Method

3.1 Data Collection Procedure

The data used for this study were purposively collected from fifteen (15) educated Urhobo native speakers of English. The instrument used to do the recording was the H2 Handy Recorder. The pronunciation samples were stratified into two categories: (1) eighteen citation words (see Table 1, Section 6). (2) eighteen simple sentences from a reading test (see Appendix). The two categories of data were therefore thirty-six. The data incorporated each of the five SBE triphthong: /eɪə/, /aɪə/, /ɔɪə/, /əʊə/ and /aʊə/. The exemplar of the respective triphthongs is 'layer', 'liar', 'loyal', 'lower' and 'power'. The Control pronunciation used to match the EUE renditions was taken from the Oxford Advanced Learner's Dictionary (e-Version, 8th edition).

3.2 Data Analysis Procedure

The present study used Hyman's (1985) theoretical assumption of Syllable Weight to explain the Urhobo English speakers'modification of SBE triphthongs. Following Hyman's and Hayes' (1989) approach, as well as the theoretical assumption pursued in the present study that triphthongs be treated as trimoraic elements, the present study assumed that each of the tripartite vowels of the triphthong is moraic. Hence, the three-vowel sequence were interpreted as 'super heavy syllable' in sharp contrast with SBE diphthongs which are 'heavy syllables', as (6c) indicates. The idea of the present study is hinged on the conception that SBE triphthongs contrast with their diphthong counterparts (see 5A &5 B), and, therefore, can only be differentiated phonologically/prosodically on the basis of the number of weight-bearing units the two categories of vowel sequences contain. Thus, rather than limiting SBE triphthong

syllables to two moras, allowing the reduced vowel, /ə/ to 'share' its mora from a preceding unit, as in (6e), (see Steriade 1991, Odden 1986), the schwa should independently acquire its own mora, given the behaviour of the SBE /ɪ/- and /ʊ/-gliding in EUE accent. The current assumption is consistent with Hayes' suggestion, which is cited in Broselow (1995:202). Hayes opines that trimoraic syllables must be allowed, if only as a marked option.

Against this backdrop, the present article's analytical procedure shall assume SBE triphthongs as trimoraic elements, in which case /eɪə/ (including other SBE triphthongs) would be treated as /eμɪμəμ/ rather than bimoraic /leμɪμ. ə/ gliding elements. On the basis of our conception, the reduced vowel is therefore viewed as an autonomous weight bearing unit rather than a 'mora-sharing' element similar to the structure schematised in (6e).

4. Theoretical Framework

5.1 Moraic Theory

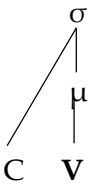
Moraic theory (MT) is a non-linear model of prosodic phonology proposed by Hyman (1985) and advanced by Hayes (1989). The theory was developed as an alternative model to Syllable theory that earlier recognised the internal structure of the syllable as one that comprises the onset and rhyme (e.g., Halle and Vergnaud 1978, Selkirk 1982), where in turn the rhyme subsumes two sub-syllabic constituents, the nucleus (the peak of sonority) and coda. MT became popular with its adequacy in accounting for stress assignment (Hayes 1995), and compensatory/rhythmic lengthening effects (Hayes 1989, Kager 1999) induced by processes such as vowel deletion, desyllabification or re-association of moraic elements operating within the rhyme projection.

In the working of MT, the sub-syllabic constituents: onset, nucleus and coda but moras are not recognised. In other words, within the rhyme projection, the units of quantity are the weight-bearing units or moras signified with the Greek symbol, **'μ'** and not the sub-syllabic constituents. In this approach, the onset lacks mora. Therefore, in the computation of mora, one short V element is conceived to have one mora and is considered light syllable. A long vowel or diphthong has two moras and is considered heavy syllable. Likewise, a rhyme projection incorporating coda and of course a preceding nucleus vowel are likewise treated as heavy syllable. However, where the coda lacks a mora of its own because it is not a unit of weight and hence shares its mora from a preceding vowel nucleus, a pattern possible due to language specific weight-by-position constraint, such syllable type is viewed as light syllable.

Consequently, the following syllable shapes are so described: CV (light syllable), CV: (heavy syllable), CVV (heavy syllable), CVC (heavy/light syllable), and CVVV (super-heavy syllable). In (6), the architecture of MT, adapting the weight schema from Hayes (1989), Kager (1999) would capture the five syllable shapes listed above thus:

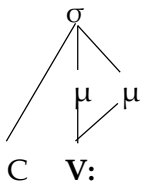
(6) Templates/Architecture of Moraic Theory/Syllable Weight

a. CV (Light syllable)



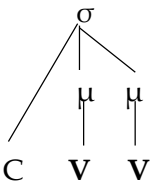
Short vowel

b.CV: (Heavy syllable)



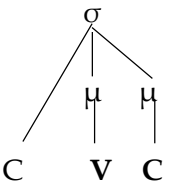
Long vowel

c. CVV (Heavy syllable)



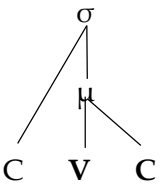
Tautosyllabic VV (diphthong)

d. CVC (Heavy syllable)



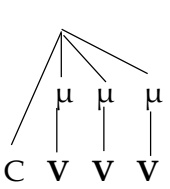
Vowel-coda sequence (branching rhyme)

e. CVC (Lightsyllable)



Mora-sharing coda

f. CVVə (Super heavy syllable)



tautosyllabic VVV (triphthong)

The three interpretations drawn from (6a-f) are: (1) light syllables (6a & e) comprise one mora. (2) heavy syllables (6b, c & d) consist of two moras, and (3) super heavy syllable (6f) comprises three moras. In the three cases, syllable onset is 'moraless'; it attaches directly to the syllable node. The implication of this approach, as it affects the native Urhobo phonology as substrate L1, is that the language, as a rule, is best described as one with monomoraic syllable, since it disallows two or more consecutive vowels belonging to the same syllable but sanctions only a singleton V element per syllable, as the forms in (3) demonstrate.

Crucially, the effect of the template in (6f) on this study is that SBE triphthongs with more than two timing slots can be accommodated in the weight/moraic theory architecture and consequently capture generalisation of GF which apply to the set of English items tested in EUE pronunciation and examined below.

5. DATA PRESENTATION

Table 1: The Control and Urhobo English Participants' Performance on SBE Triphthongs

	Control's Performance	Urhobo English Participants Performance	Gloss
a.	Performance on **/eɪə/**		
	/leɪə/	/leja/	'layer'
	/pleɪə/	/pleja/	'player'
	/su:θseɪə/	/sutseja/	'soothsayer'
	/peɪə/	/peja/	'payer'
b.	Performance on **/aɪə/**		
	/laɪə/	/laja/	'liar'
	/faɪə/	/faja/	'fire'
	/baɪə/	/baja/	'buyer'
	/taɪə/	/taja/	'tyre'
c.	Perfermance on **/ɔɪə/**		
	/lɔɪəl/	/lojal/	'loyal'
	/rɔɪəl/	/rojal/	'royal'

d.	Performance on **/əʊə/**		
	/ləʊə/	/lowa/	'lower'
	/bləʊə/	/blowa/	'(whistle) blower'
	/məʊə/	/mowa/	'mower'
	/gəʊə/	/gowa/	'goer'
	Performance on **/aʊə/**		
e.	/paʊə/	/pawa/	'power'
	/flaʊə/	/flawa/	'flower'
	/ʃaʊə/	/ʃawa/	'shower'
	/aʊə/	/awa/	'hour'

The performance of the Control and EUE Participants in the citation forms of the data are presented in Table 1, with their appropriate phonemic transcriptions indicated to capture the Participants' actual utterance. However, for want of space and ease of referencing by the reader, performance on triphthongs in simple sentence is presented in the appendix page.

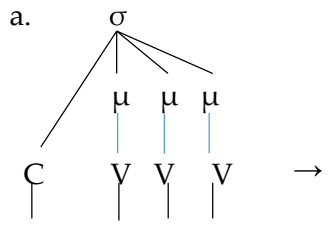
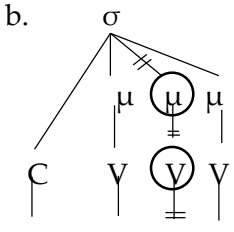
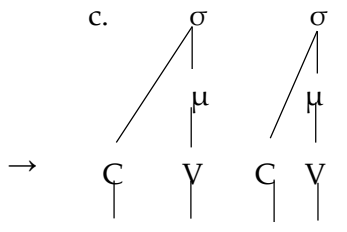
6. Results

6.1 Theoretical Description of Data

6.1.1 Moraic Analysis

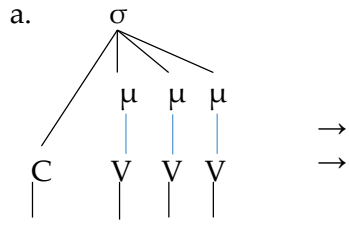
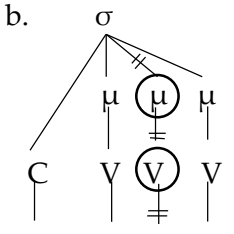
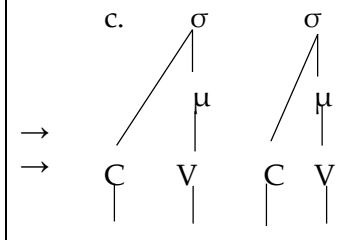
In Table 1 a., the Control's performance on /eɪə/ in the four items tested together with the ones listed in the appendix was rendered by the EUE Participants as /eja/. Moraic approach will explain the localised pattern as in (7), as follows:

(7) **A Moraic Account of SBE /eɪə/ as /eja/ in EUE: /le.ja/ 'layer' as a Model of the Forms in Table 1a**

	Control Performance	Urhobo/**ɪ/-Gliding**, Delinking and Desyllabification (Mora Reduction)	Urhobo English Glide Formation(Reduction in Mora/Syllable Count) (/j/ becomes an onset of the newly created syllable)
	a. 	b. 	c. 

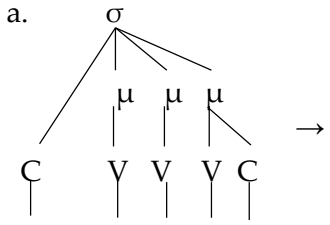
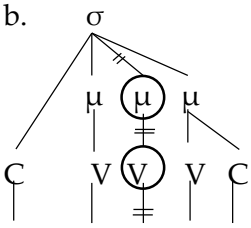
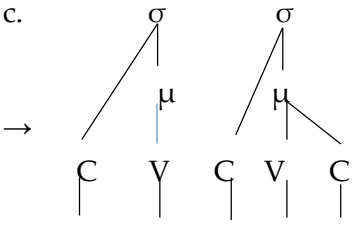
The same pattern in (7a-c) holds for SBE /aɪə/ presented in Table 1b., as shown in (8a-c):

(8) **A Moraic Account of SBE /aɪə/ as /aja/ in /la.ja/ 'liar', the Model of the Forms in Table 1b)**

	Control Performance	Urhobo **/ɪ/-Gliding**, Delinking and Desyllabification (Mora Reduction)	Urhobo English Glide Formation (Reduction in Mora/Syllable Count) (/j/ becomes an onset of the newly created syllable)
	a. 	b. 	c. 

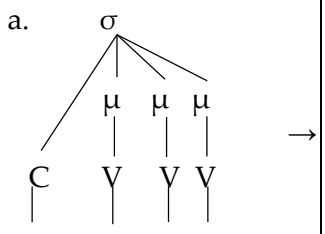
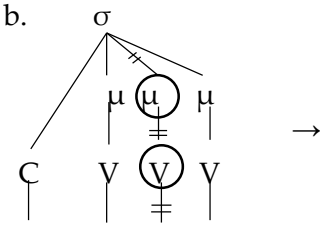
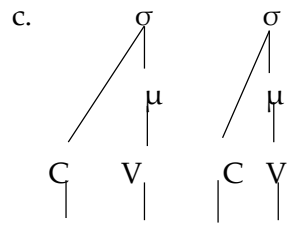
Like the pattern in (7a-c) and (8a-c), that in (9a-c) undergoes adjustment of mora/syllable count. The process affects the forms in (Table 1c) analysed theoretically as follows:

(9) **A Moraic Account of SBE /ɔɪə/ as /ɔja/ in /lo.jal/ 'loyal', the First of the Two Examples in Table 1c**

	Control Performance	Urhobo/**ɪ/-Gliding**, Delinking and Desyllabification (Mora Reduction)	Urhobo English Glide Formation (Reduction in Mora/Syllable Count) (/j/ becomes an onset of the newly created syllable)
	a.  /l ɔ ɪ ə l/	b.  /l o j a l/	c.  /l o j a l/ 'loyal'

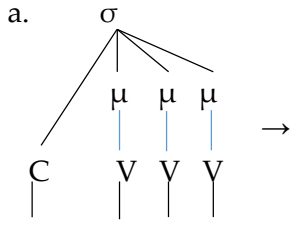
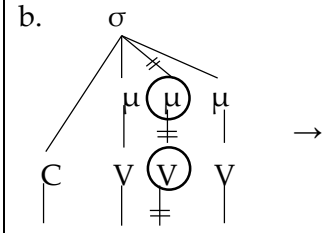
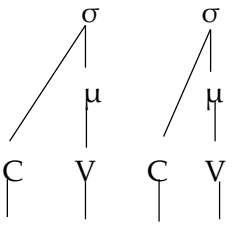
The *adjustment* process in (10a-c) takes similar gliding pattern as that exemplified in (7a-c) through (9a-c). The form /lowa/ 'lower' illustrated in (Table 1d) is taken for analysis, as follows:

(10) **A Moraic Account of SBE /əʊə/ as /owa/ in EUE: /lo.wa/ 'lower' as a Model of the Forms in Table 1d**

	Control Performance	Urhobo **/ʊ/-Gliding**, Delinking and Desyllabification (Mora Reduction)	Urhobo English Glide Formation (Reduction in Mora/Syllable Count) (/w/ becomes an onset of the newly created syllable)
	a.  / l ə ʊ ə /	b.  /l o w a /	c.  /l o w a / 'lower'

Like in (11a-c), similar /ʊ/-gliding as /w/ applies. The first data in (Table 1e) is schematised in moraic template as follows:

(11) **A Moraic Account of SBE /aʊə/ as /awa/ in EUE: /pa.wa/ 'power' as a Model of the Forms in (Table 1e):**

	ControlPerformance	Urhobo **/ʊ/-Gliding**, Delinking and Desyllabification (Mora Reduction)	Urhobo English Glide Formation (Reduction in Mora/Syllable Count) (/w/ becomes an onset of the newly created syllable)
	a. 	b. 	c.  'power'

7. Findings and Discussion

Two categories of SBE triphthongs have been explored in this work: first, that is, the ones with an intervening front high unrounded vowel /ɪ/, which are three: /eɪə/,/aɪə/ and /ɔɪə/, and second, the ones with an intervening back high rounded vowel /ʊ/, which are two: /əʊə/ and /aʊə/, as depicted in the diagram in (4). The insights of Moraic theory/MT in the analysis of Urhobo English/EUE accent in (7) through (11) reveal the following patterns:

i. In the analysis in (7) through (11), the **mora 'μ'** subsumed all mora-bound elements (i.e., vowels, the syllable peaks), leaving out marginal elements (onset, and coda in one instance). Consequently, the phonological weight of SBE prosody and that EUE could be computed on the algorithm of *syllable weight* based on the principle of **super heavy** syllable versus **light** syllable.
ii. The number of moras in SBE, which is three /$V_{\mu}V_{\mu}V_{\mu}$/ as opposed to EUE, one /V_{μ}/ transparently mirrors two Englishes (native English versus indigenised English) that operate different phonological weight profiles, *super heavy* and *light* syllables respectively.
iii. The SBE intervening moraic /ɪ/ was altered as non-moraic semi glide /j/ in EUE, as shown in the third column of (7), (8) and (9). Likewise, its back counterpart, moraic /ʊ/ changed to EUE non-moraic /w/, as shown in the third column of (10) and (11). The two processes are formally described as Glide Formation (Ugorji 2010), or less formally as de-syllabification.
iv. The implication of GF, following from the theoretical stand point pursued in this study, is that the conversion of vowels to consonants adversely affected the mora or syllable count in EUE. The mora subsuming the high vowels was lost, in what is presumed in this study as **morareduction**.
v. Unlike in some languages where deletion, or **desyllabification** of a moraic element of this sort apparently triggers compensatory lengthening (Hayes 1989), EUE in this case simply motivates mora deletion or reduction, a fact substantiated by a straightforward division of the source (English) tautosyllabic vowel sequences in the middle point between the high

vowel /ɪ/ or /ʊ/ and the final reduced vowel /ə/ to generate two separate **mono-moraic** syllables (see third column, (7) through (11)).

vi. The effect of the finding (v.) reinforces the current claim of light syllable in EUE (compare the first column in SBE rendition and EUE realisation in third column in (7) through (11)).

vii. The autosegmental notations, the upper and lower rings 'O' and double horizontal line '=' in the moraic templates in (7) through (11) (see second column) encoded, first, mora reduction/desyllabification. Second, delinking. Following Utulu (2014a) the SPE feature changing rule mode, as it were, converting /ɪ/ [+sonorant, +syllabic] to /j/, [-sonorant, -syllabic] and /ʊ/ with the same featural specification to /w/ was able to be captured transparently from a non-linear, moraic perspective.

8. Conclusion

From the phonological weight/moraic perspective, this study has examined Glide Formation (GF) in Urhobo English (EUE), a process in which the SBE /ɪ/ and /ʊ/ are changed to /j/ and /w/ respectively, and has invariably become fossilised in the domesticated English accent. The approach of syllable weight employed in this work has demonstrated that GF occurred in a three-way process based on the insights of the mora. First, the process changed the intervening /ɪ/ and /ʊ/ to semi glides /j/ and /w/ respectively. Second, the process deleted the mora subsuming the respective desyllabified element, i.e., /ɪ/ and /ʊ/. Third, it motivated the creation of two separate monosyllabic structures from the source tautosyllabic vowel sequences, each of the syllable having one mora, as encoded in the moraic templates in Section 6. The encoding revealed that /ɪ/- and /ʊ/-gliding, like what obtains in the parent variety, Nigerian English (see Ugorji 2010) are sheer adjustment phenomenon required by the EUE prosody to preserve the native Urhobo core CV syllable structure, in which only a maximal of one vowel element per syllable is allowed, a fact the current non-linear approach insightfully captured in Section 6. With the approach, the paper was able to draw a clear distinction between the syllable structure cum weight profile of English and that of EUE which the latter accent is licensed by native Urhobo prosody. Moreover, the moraic approach lent credence to native Urhobo phonology preference for light syllable (i.e., syllable with one mora) over super heavy syllable noted for English, as the analysis in (3), (5), (7) through (11) reveals. This study,therefore, suggests that GF is implemented inthe Urhobo Englishphonology due to Urhobo speakers of English transfer of the core 'weight profile' of their native Urhobo syllable structure into English.

List of Abbreviations/Conventions

SBE	Standard British English
EUE	Educated Urhobo English
σ	Syllable
μ	Mora (unit of quantity)
C	Consonant
V	Vowel
/ /	Phonemic transcription
→	realised as
|	Association line
○	Delete mora node from the syllable node
=	Delink non-moraic element from the mora node
/V_{μ}/	Monomoraic (light syllable) monosyllabics

/$V_\mu V_\mu$/ Bimoraic (heavy syllable) diphthongs
/$V_\mu V_\mu V_\mu$/ Trimoraic (super heavy syllable) triphthongs

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Appendix

Reading Test

Eighteen simple sentences administered to fifteen Urhobo English Participants to test for the five Standard British English triphthongs are presented below.

Test for/eɪə/

1. The**layer** seems to be crumbling.
2. He is a talented **player**.
3. The man is a **soothsayer**.
4. Only a tax **payer** will be allowed.

Test for /aɪə/

5. She is a **liar**!
6. **Fire** spread fast in the winter.
7. We are looking for a **buyer**.
8. The back **tyre** went off on transit.

Test for /ɔɪə/

9. Her personal assistant is **loyal** to her.
10. The lawyer is from a **royal** family.

Test for /əʊə/

11. The company does not need a **lower** degree.
12. The life of the whistle **blower** is threatened.
13. This grass-cutting machine is called a **mower**.
14. That woman is a **goer,** in fact,a whore!

Test for /aʊə/

15. He is a man with absolute **power**.
16. The **flower**might be poisonous.
17. The bad **shower** waists a lot of water.
18. The examination shall last an **hour**.