

# THE REINTERPRETATION OF THE ENGLISH MONOPHTHONGS BY SOME YORUBA SPEAKERS OF ENGLISH: AN EXPLORATORY APPROACH

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## Abstract

*This study investigates, within the framework of Government Phonology, how Yoruba speakers of English take RP English monophthongs as inputs and reinterpret them. The researcher instantiates this by looking at the phonology of Standard Yoruba English (SYE). The study reveals, among other things, some techniques normally used in phonological reinterpretation by L2 speakers of English. It also reveals that some RP vowels which have different pronunciations in SYE may and may not be phonologically different. This perhaps strongly suggests that though there is a link between phonetics and phonology, phonetics does not necessarily motivate phonology.*

## 1.0 Introduction

This article<sup>1</sup> is an exploratory study aimed at taking steps in formulating a theory of sound change induced by language-in-contact situations. In order to do this, the study will investigate how L2 speakers of English (in this case Yoruba speakers of English, YSE) take English monophthongs as inputs and reinterpret them based on the licensing constraints they have in their mother tongue (MT). The claims upon which this study hinges are basically two. First, assume that when an SYE sound and Yoruba sound are the same, then the SYE sound and Yoruba sound correspond to the same melodic expression: My second claim is that when RP monophthongs have different phonetic realisations in SYE, such monophthongs *may* and *may not* be different phonologically in the two varieties, and my decision of this is based on phonological analyses of Yoruba and RP monophthongs.

## 1.2 On the Irrelevance of the Phonetic Definition and Classification of RP Vowels

In this section, I want to argue that the phonetic definition and classification of the English vowels as found in the works of quite a number of scholars (cf. Chomsky & Halle 1968; Lass 1976; Roach 1997) is irrelevant to the phonological descriptions of such vowels. There have been several analyses of the English vowels. Most scholars have adopted a dichotomous approach in analysing the English vowels by grouping them into two. However, there are disagreements among scholars as to whether long vowels should be grouped along with short vowels or diphthongs. So, while some

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scholars group long vowels and diphthongs together as one class and short vowels as another class (Chomsky & Halle 1968), other scholars lump short and long vowels together as one class and classify diphthongs as another class (Roach 1997).

In most of the existing works on the vowels of English, vowels are defined or described through the considerations of certain organs of speech. Such descriptions place anatomical restrictions on the production of sounds though "knowledge of these anatomical facts has played no role in our knowledge of phonology nor in the functioning of phonology itself (Kaye 1997:209). It will also be shown, first, that the contrast between long vowels and diphthongs is phonetically motivated since the distinction is usually made on the basis of the surface realisations of these vowels. I will further show that such a contrast is unimportant since the two types behave in the same way (i.e., they have the same distribution) in the phonology of English vowels.

The phonetic part of Chomsky and Halle's (1968) treatment of the English vowel system and other treatments of English vowels based on, or similar to, their phonetic analysis is not adequate enough. The underlying representations of English vowels are described in Chomsky and Halle's (ibid) work (hereafter, SPE) in- terms of five binary features [ $\pm$ high,  $\pm$  low,  $\pm$  back,  $\pm$  round,  $\pm$  tense]. The first four of these features are described by making reference to the articulatory configuration (e.g. tongue height and the frontness/backness of the tongue) of the English vowels while the final one is described in terms of the muscular effort involved in the production of these vowels.

In the early part of SPE (pg. 28), the authors identify the simple vocalic nuclei (short vowels) and the complex vocalic nuclei (long vowels and diphthongs). The simple vocalic nuclei are vowels like *i*, *e*, *æ*, *ɪ*, *ʊ*, *ʌ*, *ɑ* as found in *pit*, *pet*, *pat*, *put*, *putt*, and *analyze* respectively, while the complex vocalic nuclei are those found in such words as *fade*, *feed*, *feud*, *road*, etc. I agree with them (i.e., Chomsky and Halle) up to this point but disagree with them in the way they distinguish between lax vowels and tense ones as explained below.

Simple vocalic nuclei and complex ones are distinguished by using tenseness feature. Thus, while the short vowels are regarded as lax, the long vowels and diphthongs are tense. This way, RP vowels are grouped into pairs in line with a lax/tense distinction. They believe that tense vowels are produced with greater muscular effort while lax vowels are produced with less muscular effort (p. 69). In their discussion of vowel alternations such as we have in *divine/divinity*; *extreme/extremity*; *sane/sanity*, they claim that the underlying vowels are tense. Alongside the rule that changes tense vowels

<sup>1</sup> This article was drawn from my MA dissertation at the University of the Witwatersrand in South Africa.

I would like to thank my supervisor, Doctor Stefan Ploch, and also Professor BeTtus van Rooy who read and graded the thesis.

<sup>2</sup> Melodic expressions (MEs) are phonological expressions, and these are discussed below.



in the stem to the lax vowels in the derived nouns, they also posit an exactly opposite rule in which lax vowels in the stem change to tense ones in the derived nouns (to make correct placement of stress easier) as evident in pairs like *Canada/Canadian*; *various/variety*; *manager/managerial*; *algebra/algebraic*, etc (pg. 178-181). These rules are ad hoc rules, and such; vowel alternations could be accounted for without them.<sup>3</sup> As evident from the above explanation, much of their account of the vocalic system of English is based on articulatory parameters. The distinction between the vowels in *bit/back* (short vowels) on the one hand and *beat/bark* (long vowels) on the other is accounted for in terms of length and quality while long vowels are different from diphthongs in terms of articulatory configuration.

The problem with the account above is not just that vowels are defined by using anatomical restrictions as well as duration without actually establishing that these parameters are relevant to the phonological behaviour of the vowels being described, it is also that [+tense] which they use as a specification is not verifiable. According to Lass (1976), it is not even clear whether we can regard tenseness as a feature at all. The only way through which their claim about tense vowels (i.e., that they involve greater muscular effort) could be testable is through 'instrumental verification' to determine the existence of the increased muscular effort, which they claimed, characterise tense vowels. However, there is no reference to such evidence in SPE. The following quote summarises Lass's view on this:

I conclude that [+tense] is not a specification (like [+high]) that is verifiable in phonetic outputs. Certainly Chomsky & Halle cite no such evidence, either for English or for any other language (the impressionistic descriptions they cite are obscure, and in any case irrelevant to English: the cineradiographic descriptions they cite on p. 325 are not to the point, since they depend on antecedent definitions of what is being looked at). I must add further that many of the vowel types which appear to be 'lax' by definition, like [ɛ] (= 'lax' [e] appear in dialects of English with the stigmata of phonological 'tenseness', like length: there are certainly dialects with contrasting long and short [ɛ]" (Lass, 1976: 15).

Chomsky and Halle do not show that tenseness could be established independently in the phonological descriptions of vowels and, again, their descriptions are based on articulatory parameters which are not phonologically relevant. I do not agree with Lass's view about the [+high] specification either because this specification is also not verifiable for it is only through a consideration of the phonological behavior of vowels that we can determine what can qualitatively and quantitatively count as [+high].

Roach's (1997) work is also replete with the assumptions that phonology is caused by phonetics. Following the traditions in SPE, vowels are defined by making reference to articulatory parameters such as the height and shape of the tongue, and binary features are also used in the description of vowels. How possible it is to determine in a precise manner the exact part of the tongue that is raised is subject to argument. Also, the relevance of "the shape and position of the tongue" to phonological processes seems to lack empirical support.



Roach recognizes two major classes of vowels namely pure vowels and diphthongs. His pure vowels consist of short and long vowels, which are different from each other in quality and length. Long vowels are longer in duration than short vowels when they occur in similar context. The quality differences are accounted for in terms of the differences in the shape and position of the tongue. the second class of vowels (i.e., diphthongs) is said to be different from pure vowels because they “consist of a movement of **glide** from one vowel to another” (p. 20). the problem with Roach's analysis is not just describing the RP vowels by making use of irrelevant articulatory parameters but he also makes a taxonomical error by grouping short and long vowels together, as if their phonological distributions were the same. The only scientific way vowels could be classified into natural classes is by grouping them according to how they participate in the phonological system; as I shall show in line with Gussmann's (2002) argument.

#### 1.4.1 *The phonological Behaviour of RP Vowels*

In this section, I want to show the phonological behavior of short vowels on the one hand and long vowels and diphthongs on the other as presented in Ewen and Hulst (2001), Gussmann (2002) and Kaye (1997). The behavior of RP vowels show that they can be grouped into two natural classes namely the short vowels on one hand and the long vowels and diphthongs on the other.

There are a number of environments where only short vowels occur (i.e., the long vowels and diphthongs cannot occur in such environments). If we have one consonant at the end of a word, such a consonant can be preceded by any vowel (e.g., pick, peak, and pike). However, if we have two consonants at the end of a word, there are restrictions to the kinds of vowels that could precede such a consonantal cluster. While short vowels can occur before velar nasal and a cluster of labial nasal and another consonant, long vowels and diphthongs cannot. Thus, while we can have tank/tæŋk/, ring/rɪŋ/ and jump/dʒʌmp/ in English, we cannot have \*/tɛŋk/ or \*/dʒɔ:mp/. Also, short vowels can occur before coronal cluster and non-coronal cluster such as belt /belt/ (coronal cluster) and think /θɪŋk/ (non-coronal cluster) but long vowels and diphthongs can only occur before coronal cluster (with few exceptions, e.g., example /ɪgzɑ:mp/ and chamber /tʃeɪmbə/). This implies that long vowels and diphthongs have restricted distributions.

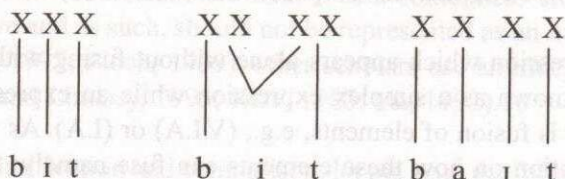
Only the long vowels and diphthongs can be stressed at the word final position (e.g., [bi:] [kraɪ]), short vowels cannot receive stress at the word final position. Such items as [\*bɪ] and [\*ka] are ruled out in English. Another way in which long vowels and diphthongs can be grouped together as a natural class on one hand and short vowels on the other is through the analysis which accounts for the above phonological behaviours.

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3 Krohn (1975) discussed these ad hoc rules extensively. He also proposed alternative ways of accounting for vowel alternations.



A long vowel or a diphthong is dominated by two skeletal points while a short vowel has only one skeletal point as shown by *bit*, *beat* and *bite* below:



This phonological behaviour of how these vowels participate systematically in English is the only empirical and scientific way through which RP vowels should be defined and classified.<sup>4</sup>

## 2.0 Theoretical Framework

The theory I am going to use in this research is Standard Government Phonology, and the component of it that will be adopted is Element Theory (ET) from Kaye, Lowenstamm and Vergnaud (1985) with a revision as set out in Cobb (1997), Kaye (1997) and Ploch (1999). Element Theory is radically different from traditional feature theory in that, first, elements are privative<sup>5</sup> and are cognitively motivated, and second, it is more restrictive than the traditional feature theories in that it assumes a smaller number of elements.

Elements are the smallest melodic units assumed by ET. These melodic units are the phonological primes, which are cognitive and not articulatory categories (Harris, 1994); they are also independently pronounceable either alone or in combination with other elements without any systematic phonetic level. ET assumes that there are three vocalic elements (neglecting tonal elements): *A*, *I* and *U*; which can combine in various ways in different languages given the licensing constraints<sup>6</sup> in these languages.

When there is an acoustic cue overlap<sup>7</sup>, an element may, cross-linguistically, within the acoustic spectrum, correspond to a range with different language-specific phonetic effects. It is from this element-specific range that each language picks the precise phonetic realisation of an element or combination of elements. This is why it is quite possible to have phonetic differences which are not phonologically relevant (Harris 1994).

The three universal, cognitively motivated vocalic elements, which ET recognises, can combine in different ways to yield the melodic expressions (i.e., phonological expressions) as we will see in (1) below. Arising from the phonological expressions in (1) are two important concepts: headedness and headlessness. We have headedness when a phonological expression has a head<sup>8</sup> as in (A), (A.I), (U.A.I). The highest number of head an expression may have is one, and when there is a fusion of elements such as we have in (V.I.A), (1.11), (A.11) etc, the other elements are regarded as



operators. On the other hand, a headless expression has no head, e.g., (A), (V.I), (I.A). A head and operator can be regarded as terms serving the purpose of identifying the elements which are inputs to the fusion operation (Cobb, 1997).

A phonological expression which appears alone without fusing with another element, e.g., (A) or (A) is known as a simplex expression while an expression is said to be complex when there is fusion of elements, e.g., (V.I.A) or (I.A). As we can also see in (1), there is a restriction on how these elements can fuse namely: no element occurs more than once in a phonological expression.

(1)

( <u>A</u> )	(I. <u>A</u> )	(U. <u>A</u> )	(U.I. <u>A</u> )(A)	(I.A)	(U.I.A)
( <u>I</u> )	(A. <u>I</u> )	(U. <u>I</u> )	(U.A.I)(I)	(U.I)	( ) <sup>12</sup>
( <u>U</u> )	(A. <u>U</u> )	(I. <u>U</u> )	(A.I.U) ( <u>U</u> )	(A.U)	

(Cobb, 1997: 42)

**2.1 The RP English Monophthongs**

In this section, I will review Harris (1994) and Kaye (1997) with respect to how they treat the RP monophthongs. I am going to adopt Kaye's approach because as I shall show below, Harris' treatment of the English monophthongs is not adequate enough. However, it need be pointed out that both Harris and Kaye restrict their discussion of the English nuclear system to stressed monophthongs.

Harris' (ibid.) treatments of English stressed vowels are very similar. Like in Kaye (ibid), English monophthongs are analysed primarily through how the vocalic elements (i.e., A, I and U) are combined. However, he disagrees with Kaye on the treatment of the @-element, which is usually associated with a schwa-like auditory affect.

In Hams, there is an inclusion of a cold vowel type element @. It should be noted that Hams follows KLV (1985) who has earlier represented this cold vowel type by vo. Hams claims that @ differs from other elements in terms of phonetic interpretation. In the first place, the cold vowel or neutral element has no distinct:peak-valley pattern which A, I and U, have. Secondly, unlike other elements, this neutral element is latently present in all vocalic expressions, and it can only be audible when other elements in complex expressions are suppressed.

This neutral element @ is used by Harris (1994) to account for the distinction between tense and lax vowels. In his account, lax or non-ATR vowels are neutral headed, and this neutrality, could "be thought of as a blank canvas" represented by @. Since RP short vowels correspond to his lax/non-A TR vowels, it follows that in his account all short vowels are neutral headed (empty-headed). For him, all expressions are headed<sup>9</sup> although some are empty-headed.



Most scholars within *ET* agree that the element @ is latently present in all phonological expressions. However, as I have said above, there is no agreement on how this element should be treated. While some scholars treat it as a contentless element which is not phonologically active and as such, should not be represented as an independent element (Cobb, 1997; Kaye, 1997; Ploch, 1999), other scholars use an independent element to represent it (Harris and Lindsey, 1995; KLV, 1985; ala, 1992).<sup>10</sup>

For the purpose of clarification and comparison, let me state the following. First, Harris agrees with Kaye that short vowels are non-branching nuclei while long ones are branching. Second, he (Harris) claims that long vowels may exhibit some merger patterns. It is because of the second point that long vowels are separated here in order to show the merger patterns. There are seven neutral-headed compound vowels which this theory can generate, and these are as follows:<sup>11</sup>

(3)

(a)	BIT	I	[I,@]
(b)	BET		[A, I, @]
(c)	BAT		[I, A]
(d)	PUT	u	[U, @]
(e)	POT		[U, A] a [A]
(f)	CUT	A	[@] <sup>12</sup> [A, @]

For most<sup>13</sup> of the branching nuclei, as I have said above, Harris claims that there are mergers. For instance, he says that there is a merger between *caught* and *pot*, *caught* and *calm* etc. He uses the data below (neglecting some mergers) to show the branching nuclei in English:

(3)

(a)	MEET	I	(I)
(b)	MATE		[A, I]
(c)	BOAT		[I, U]
(d)	CAUGHT		[A,U]
(e)	CALM		[

## 2.2 Kaye's (1997) Account of English Monophthongs

Kaye (1997) analyses the English vowels on the basis of licensing constraints. He claims that the combinatorial power of A, I and U to generate various phonological expressions are constrained by certain restrictions in English. According to Kaye (1997: 216), the English nuclear system is constrained by the following parameters:

- (1) Branching nuclei are headed (i.e., all expressions associated to a branching nucleus are headed); non-branching nuclei are headless.



(2) U and I cannot combine

(3) Nothing can license I (I cannot appear as an operator in a headed (expression)

He uses the words14 below to show the nuclear system which the application of the three constraints above can generate in English:

(5)

Non-branching Nuclei

- (a) pat
- (I) pit
- (U) put
- (A.I) pet
- (A.U) pot
- but

Branching Nuclei

- (A) father
- (I) pete
- (U) boot
- (A..I) bait
- (A.U) boat
- (U.A) bought

There are noticeable differences between Harris' and Kaye's explanations of the English vowel system. While Kaye has both headed and headless expressions, in Harris' account, everything is headed. What Harris regards as empty-headed is considered by Kaye to be headless. Harris' explanation is not convincing for the following reasons.

In the first place, if emptiness/neutrality is an element, then it should spread from left to right like I and U do. However, empty-headedness as displayed in ATR-harmony usually spreads from right to left (Archangeli & Pulleyblank, 1989; Cobb, 1997). Both headedness and headlessness can spread in certain variety of French as shown in Ploch (1998: 229). Secondly, Harris's claim that /re/ contains an I-element cannot be supported by any empirical evidence. More importantly, his account of the English monophthongs does not take into cognizance the lexical restriction that long vowels are tense and short vowels are lax. On the other hand, Kaye's (1997) analysis of English vowels recognises the phonological distinction between lax and tense vowels.

In view of the inadequacies in Harris (ibid.), I am going to adopt Kaye's analysis in this research. As I have hinted above, Kaye only accounts for stressed monophthongs.

**3.0 Research Methods**

The subjects who voluntarily participated in this study were four16 YSE who were graduate students at the University of the Witwatersrand (Wits for short) in South Africa. All the participants speak Yoruba natively and had been exposed to English as a medium of instruction in their country for a period not less than fourteen years. The instrument used for the study is an English text containing fifteen sentences in which all the vowels of English were present. However, my emphasis as the title of the paper suggests is on the RP monophthongs. Each of the four participants came in to read the text in the phonetic laboratory of the Department of Linguistics at Wits and their responses were recorded on tape, and these responses were transcribed and analysed.



In the analysis of the data collected, I first of **all** examine how the RP monophthongs in the text are phonetically realised in SYE. This is to show the phonetic similarities as well as differences between RP English and SYE. Having done this, I then group all the words.

(Wells 1982:xviii). I then use a Government-phonological analysis (henceforth 'GPA') to look at the melodic (i.e., phonological) expressions of the ~ phonetic realisations of the target monophthongs, and then compare them, with the melodic expressions corresponding to the phonetic realisations of RP monophthongs in SYE.

The RP and SYE monophthongs as well as their phonological expressions are grouped into three classes namely: (a) those that are phonetically and phonologically the same in the two varieties, (b) those that are phonetically different but are phonologically the same, and lastly, (c) those that are both phonetically and phonologically different. I then compare the two varieties (i.e., RP English and SYE) in order to find out if the patterns of the reinterpretations of the RP English monophthongs by L2 speakers of English (in this case, SYE ) are similar.

#### **4.0 Data Analysis and Discussion**

Here, I will first present the analysis and the discussion of the data collected, and then, explain the strategies used by SYE speakers in interpreting the English monophthongs. It is necessary, before presenting the data, to state that I assume that the phonological representation of a SYE sound is identical to the phonological representation of the same sound in Yoruba.

##### **4.1 Standard Yoruba English data: Phonetic analysis**

Now, let me provide a table that shows the phonetic realisations of the RP monophthongs by SYE speakers. Here, I will discuss the phonetic similarities and differences between RP and SYE.

**Table 1: The Phonetic Realizations of RP Monophthongs by SYE and GE Speakers.**

S/N.	Target Word	RP Symbol	SYE1	SYE2	SYE3	SYE4
8	rid	I	i	i	i	i
9	weaknesses	I	i	i	i	i
2	will	I	i	i	i	i
4	feelings	i:	i	i	i	i
6	defeated	i:	i	i	i	i
8	dreamers	i:	i	i	i	i
11	peace	i:	i	i	i	i



7	pack	æ	a	a	a	a
7	happier	æ	a	a	a	a
13	father	ɑ:	ɑ:	ɑ:	ɑ:	ɑ:
2	office	ɔ	ɔ	ɔ	ɔ	ɔ
7	cost	ɔ	ɔ	ɔ	ɔ	ɔ
5	god	ɒ <sup>17</sup>	ɔ	ɔ	ɔ	ɔ
13	walked	ɔ:	ɔ	ɔ	ɔ:	ɔ
3	bought	ɔ:	ɔ:	ɔ:	ɔ:	ɔ:
10	laws	ɔ:	ɔ:	ɔ:	ɔ:	ɔ:
4	making	eɪ				
8	nation	eɪ	e:	e:	e:	e:
8	better	ɛ	ɛ	ɛ	ɛ	ɛ
8	get	ɛ	ɛ	ɛ	ɛ	ɛ
11	rest	ɛ	ɛ	ɛ	ɛ	ɛ
2	go	əʊ	o:	o:	o:	o:
2	look	ʊ	u	u	u	u
5	good	ʊ	u	u	u	u
12	through	u:	u:	u:	u:	u:
1	must	ʌ	ɔ	ɔ	ɔ	ɔ
1	come	ʌ	ɔ	ɔ	ɔ	ɔ
9	love	ʌ	ɔ	ɔ	ɔ	ɔ

The data<sup>18</sup> above show the phonetic similarities and differences between RP English and SYE. In SYE, unlike in RP English, there is no distinction between lexica /i/ vs /ɪ/ on the one hand, and /u/ vs /ʊ/ on the other. This means that in SYE, there is no /ɪ/ or /ʊ/. Thus, in SYE, the only differences between the vowels in *rid/read* and *good/through* is not a quality difference but a durational one as the monophthongs in each pair of the words have about the same quality. Also, the front vowel /æ/ in RP English is a bit more back and open in its realization in SYE (i.e., [a], while the central vowel /ʌ/ is also pronounced as a back vowel [ɔ]. There is also the phonetic shortening of long vowels as evident in the way *walked*<sup>19</sup> is pronounced by three of the participants. Another interesting phonetic difference between RP English and SYE is that the pseudodiphthongs<sup>20</sup> /eɪ/ and /əʊ/ are pronounced as [e:] and [o:] respectively; this phenomenon, the monophthongisation of diphthongs, is a prominent feature of Yoruba English (Akade, in preparation). The data above, however, show that some RP monophthongs have about the same pronunciations in SYE. Examples of these include /i:, ɒ, ɛ, ɑ:/. This will not however be stressed here.

#### 4.2 Government-phonological Analysis of the SYE Data

Now, let me provide a Government-phonological analysis 21 of the SYE data in table 1.



For reasons already explained, I will ignore the analysis of the vowels before /r/ as well as the analysis of the real diphthongs. I will provide the GPA of SYE in table 2. In table 2 (and subsequent tables) below,<sup>22</sup> I have adopted Well's (1982) approach by grouping words that have the same RP monophthongs into a lexical set. For instance, Group 1 words are all the words in Table 1 that have the RP symbol /ɪ/.

**Table 2: The GPA of SYE**

Group	Word	RP	RP	SYE	SYE
		symbol	expression	symbol	expression
1	rid	ɪ	(I)	i	(I)
2	defeated	i	(I)	i:	(I)
3	pack	æ	(A)	a	(A)
4	father	ɑ	(A)	ɑ:	(A)
5	get	ɛ	(A.I)	ɛ	(A.I)
6	making	eɪ	(A.I)	e:	(A.I)
7	cost	ɔ	(A.U)	ɔ	(A.U)
8	go	əʊ	(A.U)	o:	(A.U)
9	bought	ɔ:	(U.A)	ɔ:	(A.U)
10	good	ʊ	(U)	u	(U)
11	through	u:	(U)	u:	(U)
12	must	ʌ	Ø	ɔ	(A.U)

The data in table 2 show that some RP monophthongs that are phonetically realised differently in SYE are in the lexicon phonologically the same. For instance, the RP /æ, eɪ, əʊ/ which are, in SYE, pronounced as [a, e:, o:] are in both languages melodically represented as (A), (A.I), (A.U), respectively. This means that, in spite of the phonetic differences in the realizations of the monophthongs involved, each pair of the monophthongs is phonologically the same.

Another kind of phonological reinterpretation is evident in table 2 above. The RP vowel in *bought* is phonologically (V.A) whereas in SYE it is (A. V). While the melodic expression (i.e., for the vowel in *bought*) in RP is headed by A (cf. Kaye 1997, and Table 2 above), in SYE, the phonological expression<sup>23</sup> for the same vowel is headless, and this could be accounted for in terms of the licensing constraint in Yoruba that: *A cannot be a head*. The point being made here is that there is a kind of reinterpretation going on; the surface (i.e. the phonetic) realisation of two different phonological expressions is the same. As we can also see from the table, two phonetically different monophthongs may be phonologically the same (e.g., RP [re] and SYE [a] are phonologically (A)). This is an indication that phonetic differences *may or may not* be phonologically relevant, which means that a phonological analysis must be established phonologically, not phonetically (cf. Kaye, 1989; Ploch, 1999).



The phonological expressions for [ɪ] versus [i:] on the one hand, and [ʊ] versus [u] on the other, show that as the members of each pair are phonetically different, and based on the phonological analysis above, they are also phonologically different. The headless expressions (U)/(I) in RP (i.e., the traditional lax vowels [ʊ/ɪ]), as in *good/rid*, are identical to the pronunciations of the headed Yoruba expressions (ill/ill. Similarly, the traditionally RP tense vowels in *through/read* (i.e., [u:/i:]) are melodically represented as (U) and (I) respectively, in SYE. This means that SYE does not make a phonological distinction between laxness and tenseness with respect to high vowels, and consequently; both the traditional lax and tense high vowels (i.e., headless and headed expressions respectively) are made to become headed (i.e. tense) in SYE.

Of particular interest is the phonologically empty nucleus (i.e.,  $\emptyset$ ) in Group 12 in Table 2 above. This phonologically empty nucleus, which is pronounced as [ʌ] in RP is not phonologically empty in SYE; it is melodically represented as (A.U) i.e., pronounced as [ɔ] in SYE). This follows from the fact that Yoruba does not allow a lexically empty nucleus. Given the analysis above, we can at this stage set the following parameter for SYE.

1. There is no (phonetically) empty nucleus in SYE.

This is yet another kind of phonological reinterpretation at play; SYE takes the acoustic cue of an empty nucleus in RP as an input and phonologically reinterprets it.

Based on the SYE data above, I think it is instructive at this stage to show those SYE monophthongs that occur in Yoruba and also show those monophthongs present in SYE but which do not occur in Yoruba. I should therefore, for the sake of clarity, like to provide a table that shows this.

**Table 3: Phonetic Occurrence and Absence of SYE Monophthongs in Yoruba**

SYE sounds in Yoruba	Present in SYE but not in Yoruba
a	-
-	ɒ
i	-
-	i:
ɛ	-
e	-
-	-
u	u:
ɔ	ɔ
o:	-



Table 3 shows that some SYE vowels are present in Yoruba while some are not. Examples of SYE sounds which also occur in Yoruba include [a, i, e, u] while such SYE vowels as [ɑ:, i:, u:, ɔ:] are not found in Yoruba. Since a discussion of data such as we have in Table 4 can only be phonetic, and since the major aim of this study is not an investigation of the phonetic features or differences, I shall not discuss this further.

**Table 4: Phonetic and Phonological Differences Between RP & SYE**

RP	GPA	SYE	GPA
ɪ	(I)	i	(I)
æ	(A)	a	(A)
eɪ	(A.I)	e:	(A.I)
əʊ	(A.U)	o:	(A.U)
ʊ	(U)	u	(U)
ʌ	(Ø)	ɔ	(A.U)

In Table 4, the differences between the first and second member of [ɪ/i], [ʊ/u] and [ʌ/ɔ] are both phonetic and phonological. The RP /ɪ/ and /ʊ/ (i.e., (I) and (U) respectively) are underlyingly headless whereas in SYE, these phonologically-headless expressions are reinterpreted as headed expressions as (I) and (U) in RP become SYE ill and (ill) respectively. Similarly, the phonologically-empty nucleus in RP (i.e., Ø) is not empty in SYE; it is in the lexicon realised as (A.V) in SYE. Though the RP [eɪ] and [əʊ] are [e:] and [o:] in SYE respectively, these phonetic differences do not matter as [eɪ]/[e:] and [əʊ]/[o:] are phonologically (A.I) and (A.U) respectively.

As I have demonstrated, two sounds that are phonetically different may be phonologically the same. However, when there is no acoustic cue overlap (i.e., when an element corresponds to certain ranges and, when cross-linguistically speaking, these ranges do not overlap) as shown above, the pronunciations are fairly the same, and in such a case, there will be no mis-match between phonetics and phonology. Since acoustic cues are cognitively dealt with, and since it is these acoustic cues that lead to phonetic differences, it makes sense to say that it is phonology that motivates phonetics, and not the other way round.

#### **4.6 A Word on Reinterpretation and Licensing Constraints**

There is no doubt that the kind of reinterpretations discussed above are governed by certain language-specific licensing constraints that exist in every language. Simply put, while there are universal rules (principles), these universal rules are restricted by certain constraints (parameters). This becomes apparent when we compare the data here with the German English data found in Akande (2004). For example, while in Yoruba "A cannot be the head" is the licensing constraint (LC) that rules out the possibility of



having (A. U) as the melodic expression for the vowel in bought, in certain dialects of German<sup>24</sup>, the LC is that: U must be the head. Thus, this LC in German makes the vowel in bought to be phonologically represented as (A:U).

## 5.0 Conclusions

We have shown in this article how Yoruba speakers of English normally reinterpret the RP English monophthongs. The strategies include, among others, the following:

- (a) taking what is phonologically headless in RP and transforming it into headed expressions (e.g. (I) and (U) change to ill and M respectively).
- (b) taking what is phonologically headed in RP and changing it to headless expressions in SYE (e.g. the /ɔ:/) in bought is phonologically headed in RP but headless in SYE).
- (c) and most importantly, reinterpreting what is phonologically empty in RP as an expression in SYE.

We have also demonstrated in this article that, though there are phonetic differences between RP English and SYE, some of these phonetic differences are phonologically irrelevant as some RP monophthongs, which are pronounced differently by SYE speakers, are underlying the same in spite of these phonetic differences. We would like to caution that this study is an exploratory one, and that the account of the reinterpretation of RP monophthongs presented here is not meant to be an exhaustive account for some obvious reasons; the most important of which is the fact that we use just one variety of L2 English (i.e. SYE) to instantiate my claims.

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### Appendix A

1. You must come and buy tomato from me *tomorrow*.
2. John will look after the boys, you will pack *those things* and tidy the office and Ade will go home before noon.
3. My teacher has just bought a new car and we shall *celebrate* it next week.
4. *Speech* sounds are described by making a recourse to physiological *variables*.
5. So far so good, the journey has been successful with god on our side.
6. The fear of being defeated is *clearly* written on his face.
7. The louder you sing, the happier you are. Therefore~ the song as if you have never sung before.
8. All of us are mere dreamers. Nothing can *change* for better in this nation un 11. Our ancestors have left and gone, ~ their souls rest in perfect peace.
12. *Amendment* to registration can only be done through the signing of the amendment form by the *relevant academic staff*.
13. He walked in sluggishly and hardly has he spent five *minutes* than he started disturbing *everybody*.
14. The *election* was declared null and void and people have begun to voice out their *opinions*.
15. The tour will cost the poor boy a fortune.