

## A Contrastive Study of Morphophonology in English and Kalabari By

**Asime Beryl Okpin**

Department of English Studies  
University of Port Harcourt.  
[asimegracewealth@yahoo.com](mailto:asimegracewealth@yahoo.com)

&

**Nneka P. Umera-Okeke, PhD**  
Department of English Studies,  
University of Port Harcourt.

[nneka.umeraokeke@uniport.edu.ng](mailto:nneka.umeraokeke@uniport.edu.ng)

### ***Abstract***

*The Kalabari speakers of English as a second language are generally faced with the challenge of correct pronunciation, especially with segments, words or phenomena which do not exist within their first language. The phenomenon of morphophonology of English is the interaction/interplay of morphological and phonological rules. In Lexical Phonology model, which is the framework adopted in this paper, the attachment of Level 1 affixes triggers off both segmental and suprasegmental changes in the roots. The main thrust of this paper was to show by contrast the effects of English and Kalabari affixes on their roots. Adopting the descriptive research design, written and pronunciation tests were administered to a purposive sample of sixty teachers from six senior secondary schools in six Kalabari communities across three local government areas of the Kalabari speech community in Rivers State. Analysis of collected data from the written test showed that no significant phonological changes were caused in the roots by the attachment of Kalabari suffixes as the English Level 1 suffixes such as *-ic*, *-ion*, *-ity*, among others, do. Furthermore, the analysis of the oral test digitally*

*recorded showed that the Kalabari L<sub>2</sub> speakers of English maintained the same phonological patterns in the roots. The implications were significant pronunciation difficulties in words derived with Level 1 suffixes, wrong realization of primary stress patterns and eventual display of lack of competence in spoken English among the Kalabari L<sub>2</sub> English speakers. In conclusion, the morphophonology approach is prescribed as the best approach not only for the Kalabari L<sub>2</sub> speakers of English to overcome the challenges, but also recommended as a pedagogical approach for curriculum planners and teachers of English as a second language.*

**Key words:** Contrastive Analysis, morphophonology, Kalabari, second language (L<sub>2</sub>)

## **Introduction**

Language is an organized system of communication. In linguistics, various levels of language study- phonology, morphology, syntax, semantics and pragmatics are identifiable. These levels, though conceptualized as distinct grammatical modules and taught as separate courses, constantly intermingle with each other. No level of linguistic study dwells in isolation of others. There is a point of interaction between phonology and syntax, phonology and semantics as there are points of interaction between phonology and morphology. While these interactions of levels are common features of language in general, they vary in their degree of sophistication.

On the degree and nature of the interaction between phonology and morphology, this paper presents the main types of interactions that have been observed, without promising to cover every interesting example of morphology-phonology interaction, which has been discussed prominently in the literature. This study however aims at highlighting the main types of interaction that have been repeatedly noted in the English language and to draw out the implications they have on the Kalabari L<sub>2</sub> speaker of English.

The central concern of morphology is the morpheme - free or bound, inflectional or derivational, as the central concern of phonology is sound-segmental or suprasegmental. Word formation rules of morphology and phonological rules interact. During the word-formation process of affixation or compounding, the sound pattern of the root, that is, the underived lexical form to which the affix is attached undergoes some changes. These changes are not caused by every morpheme but morphemes described as non-neutral and classified under Level 1 morphemes in Lexical Phonology are the exponents of these phonological changes in the root in English. Kalabari morphemes - inflectional and derivational do not exert such phonological changes segmentally and supra-segmentally on their roots because they are neutral. For instance, English irregular past tense, irregular plural and some derivational morphemes *-ic*, *-ity* and *-ion* cause phonological changes to their roots. Incidentally, Kalabari morphemes are not as productive and creative as those of English and so do not trigger changes in their roots. These differences in the behaviour of morphemes between the English language and Kalabari pose some pronunciation implications on the Kalabari L<sub>2</sub> speaker of English.

### **Theoretical Framework**

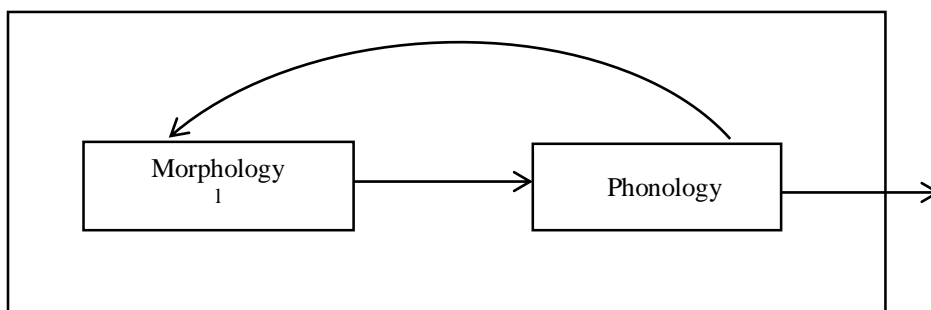
This paper adopts Lexical Phonology as a theoretical framework. Lexical Phonology (*henceforth* LP), is a major contemporary theory of phonology in which morphological and phonological rules are brought together within a single framework (Crystal 2008, p. 277). It was developed in the early 1980s by K. P. Mohanan, Paul Kiparsky and Steven Strauss. It is an offshoot of generative grammar which was first developed by Chomsky and Halle (1968). Building on this, other scholars like Kirparsky (1973), Siegel (1974), Mascaro (1976), Halle (1978), Rubach (1981) did some work in the field. However, it was in 1982 that the theory was fully developed by Mohanan when he wrote his PhD thesis on "Lexical Phonology". Strauss published "Lexicalist Phonology of English and German" while Kirparsky's ground breaking work with the title "From

Cyclic to Lexical Phonology” was also published in 1982. Before then, Kirpasky had already published a related work in 1973 titled “Abstractness, opacity and global rules” where he outlined some of the features of lexical phonology.

The reason for bringing morphological and phonological rules together within a single framework is not far-fetched – much of the phonology of words operates together with the word-formation rules in a cyclic fashion to define the category of words in a language. In this framework, both inflectional and derivational word-formation processes are capable of being displayed on a series of linked levels also called strata. Within LP model, words are likened to onions, with the root (underived form) at the core, Level 1 morphemes nearer the root as the inner layer, and Level 2 morphemes as the outer layer while post-lexical phonology as the skin on the outside of the onion. Three levels of rules are identified in LP: Level 1 rules, Level 2 rules and Post-lexical rules. Much of the morphology-phonology interplay is shown by the Level 1 morphemes because they occur nearer the root than level 2 morphemes and cause drastic changes to the phonology of the root to which they are attached either segmentally or suprasegmentally.

Pesetsky (1979) stated that phonological rules are cyclical in their application in the lexicon because each morphological operation creates a new cycle. This is in line with Mohanan’s (1982, pp. 14-15) assumption that “phonological rules apply in word formation immediately after each morphological operation, and that the output of the phonological process then becomes the input to further morphological operations.” These operations are illustrated with a diagram.

Fig. 1: Interaction between the levels of morphology and phonology



(Adapted from Mohanan 1982, p.15).

In LP, the lexicon plays a very vital role. It is assumed that the word-formation rules in morphology are paired directly with phonological rules, which are equally grouped together at various strata, such that the output of every morphological rule is cycled through the phonology thereby allowing relevant phonological rules of that level to apply to it.

Jerzy Rubach (2008, pp. 461 - 462) referred to morphological operations as word formation rules (WFRs), which precede phonological rules. He used this to account for the cyclic process in LP. For example, a morphological operation adds a suffix *-ent* to the underlying form of the word *preside* [pri'zaid] before a phonological operation applies to reduce the diphthong to a short vowel in *president* ['prezɪdənt]. Another morphological operation adds another suffix *-cy* to derive the word *presidency* ['prezɪdənsi] before another phonological operation elides the plosive [t] to a fricative [s]. Also, another morphological process adds another morpheme *-iəl* to the derived word and another phonological process changes the derived alveolar fricative to a palato-alveolar fricative [ʃ] as in *presidential* ['prezɪdənʃəl]. Yet another morphological operation equally attaches another suffix *-ity* to the derived word and the new word *presidentiality* is realised phonologically as [prezɪdən'ʃæləti].

## Conceptual Review Contrastive Analysis

Contrastive Analysis was an initial idea proposed by Benjamin Lee Whorf, however, it was to Robert Lado that we owe the theory of contrastive analysis when he published his book *Linguistics across cultures* in 1957. In this book he outlined what is known as the Contrastive Analysis Hypothesis (CAH).

Crystal (2008, p. 112) defined contrastive analysis as: “A general approach to the investigation of language... particularly as carried out in certain areas of Applied Linguistics, such as foreign – language teaching and translation”. Contrastive Analysis is applied to the study of two or more languages at most times. “Contrastive analysis or Contrastive linguistic is one of the theories of applied linguistics that analyses and describes the comparison (similarities and differences) between source language (L<sub>1</sub>) and target language (L<sub>2</sub>)” (UMMHY, 2012). The theory is clearly about comparing languages.

The application or operation of contrastive analysis could be seen in what is known as the contrastive analysis hypothesis (*henceforth* CAH). Scholars, (Wong & Dras, 2009; Crystal, 2008; Lado, 1957) agreed that the CAH states that difficulties in acquiring a new language (second) language are derived from the differences between the new language and the native (first) language of a language user. Raji (2012) has not only made a similar explanation of the CA approach but put forward the following as the working premises of CA:

First write a description of a particular subset of each language to be compared (i.e. descriptions of the phonology, morphology or syntax). Compare the two subsets noting the differences and similarities. Predict the possible areas of difficulties or ease to be encountered by the learner.

These four processes of CA application – description, selection, contrast and prediction will be adopted in this study. Suffixation in English and Kalabari will be described, using certain selected lexical forms for contrast. Predictions of error or difficulty can then be made on the basis of the first three processes. CA has however been criticized over its weaknesses. One of the major weaknesses of CA is its reliance on prediction but that is not to say that it is no longer relevant.

### **Morphophonology**

Morphophonology, also referred to as morphophonemics, is a branch of linguistic study which studies the relationship and interaction of morphology and phonology. Within this sub-branch of linguistics, morphological rules of word-formation and relevant phonological rules that apply are brought together. In other words, morphophonology shows the link, connection or interaction between morphology and phonology. A class of morphemes is responsible for this interaction of rules. They are the Level 1 morphemes explained in LP. They cause drastic segmental and suprasegmental phonological changes to their roots. Level 2 morphemes in LP model cause no phonological changes to their roots; they have neutral effect on the phonology of their roots. In this paper, examples are drawn from the three levels of rules in LP.

### **The Concept of Second Language (L<sub>2</sub>)**

Any language that is acquired through formal education, after the acquisition of a first language, passes for a second language. In this regard, English is a second language in Nigeria which other status as an official language has also greatly enhanced its formal acquisition. On this note, Afolayan (1991, p. 125) stated that “English as a Second Language is sequentially second language of a bilingual. In this language, he conducts his everyday activities. This role is, however, shared with another language in which the speaker has greater linguistic facility and intuitive

knowledge.” A second language is referred to as the language acquired by an individual after the first. It could either be his mother tongue (MT) or a foreign language. It is called second language because it is filling the sequence of languages learned by an individual.

Ojarikre (2007, p. 72) contended that “English became a second language in Nigeria towards the end of the 19th century when the colonial masters promulgated the Education Ordinance of 1882, and other legislations to promote the English language. English became sequentially the second language after the mother tongue in Nigeria. English had to be learnt through the school system.” The learning of English in Nigeria was thus introduced and enforced by the colonial masters to facilitate their administration of the country. There is no controversy over English being a second language in Nigeria, as it is in other nations that were colonised by the British and as necessitated by their multilingual nature.

Acquiring English as a second language is not without some problems on the English language. The transfer of features of all levels of language study- phonology, lexis, syntax and semantics affects the learning of English as a second language. Transfer simply means using what is already known about a language to make for more understanding or realisation. Transfers can either play positive or negative role on a learner of English as a second language. Positively, it enhances comprehension or production while negatively; it retards the rate at which a learner grows in the knowledge and proficiency in the second language. Aside this, phonologically, and as it concerns this study, sounds that occur in the sound inventory of the learner’s natural language will be easily articulated while sounds that are absent in his mother tongue will create problems. In other words, interference results as features and patterns of the L<sub>1</sub> are transferred unconsciously into English. The consequences are a lot of varieties of the English language and the problem of mutual intelligibility among speakers of English world-wide.



## The Kalabari Language

Kalabari is a word for a people and the language they speak. As a people, the Kalabari occupy three local government areas in Rivers State, namely: Asari-toru Local Government Area (ASALGA), Akuku-toru Local Government Area (AKULGA) and Degema Local Government Area (DELGA), and live in about fifty (50) towns and settlements. They are bounded in the North by Abua and Ikwerre; in the East by Okrika and Ibani; in the South by the Atlantic Ocean and to the West by Nembe and Kugbo.

As a language, Kalabari is within the Izon linguistic group of languages in the Niger Delta region of Nigeria and is spoken in towns and settlements within the afore-mentioned local government areas. It is a descendant of the Niger-Congo phylum in the Ijoid family of the Ijo branch of languages. It is named among the Eastern Ijo languages (Ndimele, Kari & Ayuwo, 2009, pp. 72-80). As a language, Kalabari morphology shows very little and less productive morphemes. Available inflectional and derivational morphemes are less productive or less sophisticated than English. In the other words, Kalabari morphemes hardly trigger off drastic phonological changes in the roots to which they are attached as the English level 1 morphemes do. Following the stratification of morphemes in LP, the few available morphemes in Kalabari can best be classified under level morphemes, which trigger no phonological changes in the root. Phonologically, Kalabari has a few segments or patterns that are not present in English, and vice versa. For example, Kalabari lacks the English dental fricatives [θ ð], the palate-alveolar fricatives [ʃ ʒ] and the voiceless palate-alveolar affricate [tʃ]. On the other hand, Kalabari also has some sound segments that English lacks, such as the labio-velar plosives [kp gb] and the bilabial implosives [ɓ d]. There are differences in the vowel systems of these two languages as well.

### **Aim and Objectives**

The aim of this paper is to show the contrast in the morphophonology of English and Kalabari. To achieve this aim, the objectives are to:

- (i) Show the various levels at which English and Kalabari exhibit morphophonology.
- (ii) Draw out the similarities and differences of morphophonology of English and Kalabari.
- (iii) Draw out the implications/lessons for the Kalabari L<sub>2</sub> speakers of English.

### **Research Questions**

- i. At what levels do English and Kalabari exhibit the morphophonology interplay?
- ii. What notable similarities and differences exist between the morphophonology of English and Kalabari?
- iii. What implications/lessons do their differences pose on the Kalabari L<sub>2</sub> speakers of English?

### **Methodology**

The research method considered most appropriate for this paper is the descriptive survey. It is a type of study that describes the features of the variables as they are at any given time. Nwankwo (2011, p. 66) defined descriptive study (*survey*) as “that study in which the researcher collects data usually from a large sample drawn from a given population and describes certain attributes or features of the sample as they are and as required by the study at that particular time...”

Ordinary descriptive survey and the analytic descriptive survey are available in the literature. The former will be adopted in this study. They will be described as they are, following four processes of CA- description, selection contrast and prediction. Adopting the descriptive research design, written and pronunciation tests generated with various morphemes-

inflectional and derivational suffixes, which were written in Kalabari were administered to a purposive sample of sixty teachers who were native speakers of Kalabari from six senior secondary schools in six Kalabari communities across the three local government areas of the Kalabari speech community in Rivers State. Data were primarily collected through these written and pronunciation tests.

## Discussions and Findings

**Research Question 1:** *At what level(s) do English and Kalabari exhibit the morphophonology interplay?*

### A. Level 1 Morphemes of LP

Level 1 morphemes (suffixes) are non-neutral; their presence cause changes to the phonology of the roots they are attached. In other words, all morphemes- inflectional or derivational (suffixes in particular) that cause phonological changes in their roots belong to level 1 morphemes in LP. Four illustrative examples of derivational suffixes are taken for the purpose of this study.

**Table 1: Level 1 Strong Mode Suffix -ic**

<i>English (-ic)</i>		<i>Kalabari (-w'rari)</i>	
(a)energy ['enədʒi]	energetic [enə' dʒetik]	inyo [injɔ]	[injónjánáw'rari]
(b)terrify ['terɪfaɪ]	terrific [te'rɪfɪk]	ɓalafama [ɓáláfámá]	[ɓáláfámáw'rari]
(c)problem ['prɒbləm]	problematic [prɒblə'mætɪk]	ɓufuka [ɓúfúkā]	[ɓúfúkámáw'rari]

To make the contrast explicit, Kalabari data is placed side by side all the English data. The data above show some segments deleted in English. In (a) and (b), the final segments [i] and [aɪ] in the root give way for the suffix. In (a) and (c), the segments [et] and [æt] which are not found in the root are inserted before *-ic* is attached. In addition to this, this suffix in the English data attracts the main stress to the penultimate syllable, that is, the syllable immediately preceding the suffix. The Kalabari data, (a) and (b) show an insertion of *nyáná* [njáná] and [má] respectively before *w'rari* is attached. In terms of suprasegmental feature, this suffix wields no change in the tonal

pattern as the high tone is maintained. Forty-five out of sixty respondents to the pronunciation test generated with this suffix, which is 75% showed a lack of knowledge of the stress rule triggered by this suffix. They maintained the primary stress on the initial syllable as in the roots, which results to wrong pronunciation.

**Table 2: Level 1 Strong Mode Suffix *-ity***

<i>English (-ity)</i>		<i>Kalabari (-yè)</i>	
Adjective	Noun	Adjective	Noun
(a) serene [sə'ri:n]	serenity [sə'renəti]	dein [ dem]	deinyè [demjè]
(b) vain [vɛm]	vanity [vænəti]	papa [pàpá]	papaya [pápájè]
(c) profound [prə'faʊnd]	profundity [prə'fʌndəti]	bàkà [ðàkà]	bàkàyè [ðàkàjè]

The primary stress in these derived nouns is maintained on the second syllable. In other words, this suffix does not alter the location of the primary stress in the root. The table above shows that the attachment of *-ity* causes some phonological changes in the segments of the root in English. The long vowel becomes short in (a) and the diphthongs in (b) and (c) become short vowels, which is called **trisyllabic laxing or shortening**. This rule applies only to derived forms. In other words, underived forms to which no morphological process of suffixation has applied are exempted from this rule. Suprasegmentally, the primary stress is maintained on the same second syllable which happens to be the preceding syllable to the suffix [-əti]. In the Kalabari data, there occur neither segmental nor suprasegmental changes. The tonal patterns remain the same.

In terms of correct stress pattern realization, all sixty respondents realized the stress on the correct syllables. This is possibly because the stress is maintained on the same syllable as in the roots. Segmentally, there was a 100% wrong pronunciation as all sixty respondents disregarded the segmental changes caused by the trisyllable laxing rule engineered by this suffix (*-ity*).

**Table 3: Level 1 Strong Mode Suffix–ion.**

English		Kalabari	
Verb	Noun	Verb	Noun
(a) invite [m'vaɪt]	invitation[mvɪ'teɪʃn]	sìn	sìnḃìbí
(b) salvage ['sælvdʒ]	salvation[sæl'veɪʃn]	broma	broma
(c) tempt [tempt]	temptation[temp'teɪʃn]	daadiki	daadiki

The *-ion* suffix is a derivational suffix which changes a verb to a noun. Characteristically, the main stress occurs at the penultimate syllable in English. The diphthong [aɪ] in (a) is reduced to a short vowel [ɪ] while the short vowel [ɪ] in (b) is lengthened to the diphthong [eɪ]. Also, in (a) and (c) of the English data, the diphthong [eɪ] is inserted, which is what makes the words orthographically acceptable as *invitation* and *temptation*. The reason for this could be the presence of the final alveolar and palate-alveolar segments in the root in each case. Moreover, the insertion of [eɪ] plays a facilitative role to pronunciation. The Kalabari data above show that the English noun suffix *-ion* does not exist in Kalabari. There is also no equivalent for it. Thus, (b) and (c) show the phenomenon of word conversion, whereby a word changes its category without the overt addition of a suffix- a phenomenon which also exists in English. A few examples are *im'port<sub>v</sub>* → *'import*, *ex'port* → *'export* and *re'cord* → *'record*. However, (a) shows the attachment of *-bibi* which literally means *mouth, word* or *message*. In Kalabari actions expressed by words of mouth, which are turned nouns without overt suffixation, obligatorily attach *-bibi* to the root verb as in *wólō 'in'sult<sub>(v)</sub>* → *wólōbibi 'insult<sub>(n)</sub>*, *pákìrì 're'ply/ 'answer<sub>(v)</sub>* → *pákìrìbibi 're'ply/ 'answer<sub>(n)</sub>* and *ekwen 'speak<sub>(v)</sub>* → *ekwenbibi 'speech<sub>(n)</sub>*. Respondents to this set of derived words with *-ion*, have 75% wrong and 15% correct pronunciation of the derived word in stress pattern in (a), whereas the words in (b) and (c) had 100% correct stress realization but wrong segmental realization as the front English diphthong [eɪ] in all three derived forms were replaced with the Kalabari front vowel [e] which is a close sound to the English diphthong [eɪ]. The lesson there for Kalabari L2

user of English is that *-ic, -ity and -ion* change the sound pattern in their roots as well as shift stress to the immediate syllable that precede them. The next example is the derivation of nouns from adjectives by adding the suffix *-en* as in the table below.

**Table 4: Level 1 Suffix-*en*.**

	<b>English</b>	<b>Kalabari</b>
(i)	soft [sɒft] → soften[sɒfən]	lókō → lókómā
(ii)	haste [heɪst] → hasten[heɪsən]	fonya → fonyamā
(iii)	fast [fa:st] → fasten[fa:sən]	kuro → kuromā

Apocope, a type of elision occurs here. The final alveolar plosive [t] is deleted by the attachment of *-en* [ən], which has an initial weak vowel segment [ə], which is followed by [n], a consonant segment sharing the same place of articulation feature as the deleted final alveolar plosive [t]. To facilitate articulation, the consonant final in the root is deleted. This could be attributed to the fact that there is the occurrence of consonant cluster in the root with both consonants sharing the same state of the glottis. In the Kalabari data, no segment deletion occurs with the attachment of *-ma*. These deleted sound segments were pronounced by all the sixty respondents, resulting to 100% wrong pronunciation.

### B. Level 2 Morphemes of LP

The suffixes in the table below are neutral; they exert no phonological changes in the roots they are attached. They belong to Level 2 of LP.

**Table 5: Level 2 Suffixes and Their Neutral Effects on Roots**

	<i>English</i>		<i>Kalabari</i>
(a) <i>-er</i>	(i) teach [ti:tʃ]	teacher [ˈti:tʃə]	yétólumá yétólumá <b>bo</b>
	(ii) dance [da:ns]	dancer [ˈda:nsə]	sɛki sɛki <b>bo</b>
(b) <i>-ful</i>	(ii) fear [fiə]	fearful [ˈfiəfl]	ɓáláfà ɓáláfámám
	(iii) shame [ʃeɪm]	shameful [ˈʃeɪmfəl]	ɓujiri ɓujirimám

(c) <i>-less</i>	(i) fear [fiə]	fearless ['fiələs]	ɓáláfà	ɓáláfàofori
	(ii) shame [ʃeɪm]	shameless ['ʃeɪmləs]	ɓɔjiri	ɓɔjiriofori
(d) <i>-ly</i>	(i) fearless ['fiələs]	fearlessly ['fiələsli]	ɓáláfàofori	ɓáláfàoforiɓra
	(ii) shameless ['ʃeɪmləs]	shamelessly ['ʃeɪmləsli]	ɓɔjiriofori	ɓɔjirioforiɓra

As shown above, the attachment of these Level 2 suffixes is inconsequential to the phonology of their roots. No phonological change of any sort occurs in the segment or stress pattern in both languages. The tables above show that Kalabari suffixes are all neutral as they do not cause any phonological changes on their roots. They all belong to Level 2 of Lexical Phonology. All sixty respondents made no pronunciation errors in words derived with these Level 2 suffixes. No implications here. English words derived with level 2 suffixes pose no pronunciation problem to the Kalabari L<sub>2</sub> speaker of English, as the language shares a similar phenomenon with English in this respect.

### C. Post-lexical Rules in LP

Lexical rules are word-formation rules, which are explained under Level 1 and Level 2 in LP. After all word-formation rules have applied, the rules in connected speeches then apply. In LP, **Post-lexical rules** are rules that effect phonological changes in words in connected speech. At the post-lexical level, word-formation rules (WFR) of levels 1 and 2 in LP no longer apply, but sounds of individual words can still be modified. Two examples each from English and Kalabari are cited below:

#### Table 6: Post-lexical Elision in English

- (a) "lots of them" [lɒts əv ðəm] → [lɒts ə ðəm] = elision  
 (b) "waste of money" [weɪst əv mʌni] → [weɪst ə mʌni] = elision  
 (c) "best man" [best mæn] → [bes mæn] = elision  
 (d) "round peg" [raʊnd peg] → [raʊn peg] → [raʊm peg] = elision/assimilation

Another example in English of assimilation in connected speech is taken from Roach (2009, p. 112):

**Table 7: Assimilation in English Connected Speech**

- (a) "I like that black dog" [aɪ laɪk ðæt blæk dɒg] → [aɪ laɪg ðæd blæg dɒg]  
 (b) "I have to" [aɪ hæv tu] → [aɪ hæf tu]  
 (c) "good night" [gʊd naɪt] → [gʊn naɪt]  
 (d) "that side" [ðæt saɪd] → [ðæs saɪd]

Assimilation here is regressive; final consonants in each connected speech take on the features of their adjacent segments and become more like them. Kalabari also has some examples of post-lexical rules in connected speech. Two examples are stated below:

**Table 8: Epenthesis in Kalabari Connected Speech**

A	B
(i) ì olò 'hold me' → ì yolo → ár' anyate	á ányáte 'she has spread'
(ii) ì oki 'take me' → ì yoki	á olò 'hold her' → ár' olò,
(iii) í aka 'your teeth' → í yaka	ò olò 'hold him' → òr' olò
(iv) í alabo 'your chief' → í yalabo	ò aka 'his teeth' → òr' aka

Written and pronunciation responses by all sixty respondents to this section of the questionnaire indicated the insertion of the palatal glide [j] and the palato-alveolar approximant [r]. The post-lexical rule of epenthesis occurs in the example in Column A above with the insertion of the palatal glide [j]. From the example in Column B, the palato/post-alveolar approximant [r] is inserted. These insertions are features, not of the individual lexical item, but of connected speech. The second example is on tonal change in noun phrase.

**Table 9: Tonal Change in Kalabari Noun Phrase**

Low tone	High tone
(i) ì dī 'my husband'	(i) í dī 'your husband'
(ii) ì dā 'my father'	(ii) í dā 'your father'
(iii) ì tà 'my wife'	(iii) í tá 'your wife'
(iv) ò dā 'his father'	(iv) á dī 'her husband'



The phonological process of assimilation occurs here. The tone of the nouns in the noun phrases are determined by the tone of the modifying possessive adjectives such that a modifier with a low tone changes the tone of the modified. All sixty respondents attested to this fact in their response to this section of both written and pronunciation tests.

**Research Question 2:** *What notable similarities and differences exist between the morphophonology of English and Kalabari?*

### **Similarities**

- ❖ Both the English language and Kalabari exhibit morphology-phonology interaction. English, at the lexical level and Kalabari at the post-lexical level.
- ❖ Both English and Kalabari show the derivation of new word by the rule of conversion without the overt attachment of affixes as shown on Table 3 above.
- ❖ Both languages show Level 2 and post-lexical rules of Lexical Phonology.

### **Differences**

- ❖ English has Level 1 inflectional and derivational suffixes which cause drastic changes in the roots to which they are attached; Kalabari does not exhibit inflectional or derivational suffixes belonging to Level 1 of Lexical Phonology as they cause little or no phonological changes to the roots they are attached.
- ❖ English allows the attachment of two or more Level 1 suffixes to a root as in '*electrification*', '*problematical*' and '*denominational*'. Kalabari has a selective application of such rule.
- ❖ English has more productive morphemes (suffixes) than Kalabari thus, many more words in Kalabari are derived through the rule of conversion by tonal reassignment than suffixation. In other words, Kalabari does more with tone what English does with affixes.

**Research Question 3:** *What implications/lessons do their differences pose on the Kalabari L<sub>2</sub> speakers of English?*

### **Implications on the Kalabari L<sub>2</sub> Speaker of English**

The differences in the morphophonological interplay of English and Kalabari have some phonological implications on the Kalabari L<sub>2</sub> speaker of English. There is a **phonological transfer** of the features of L<sub>1</sub> into the L<sub>2</sub>, thereby resulting to pronunciation error. The reason for pronunciation error is not far-fetched - Kalabari suffixes are all neutral; they exert no changes in the root to which they are attached. Thus, the Kalabari user pronounces such English words in utter disregard to the internal segmental changes and the changes in stress patterns English words undergo with the attachment of a Level 1 suffix. The segments in the root are thus maintained after the pattern in the L<sub>1</sub>. The result is wrong pronunciation and wrong use of stress patterns in English words.

Morphologically, there is a wide gap between English and Kalabari. English language is rich in derivational morphemes. This is not the case in Kalabari. Kalabari has little or no derivational morphemes as compared to English. Many of the morphemes found in English are thus copied, using their meanings to derive them in Kalabari. Where the suffix does not occur in Kalabari, conversion occurs as in *daadiki* for both 'tempt' and 'temptation', *broma* for both 'salvage' and 'salvation'.

Another implication of the lack of many derivational morphemes in Kalabari is the concept of code-switching and code-mixing. These occur especially when a speaker of an L<sub>1</sub> lacks words to express his ideas adequately. Although sometimes code-switching or code-mixing can be done to conceal information, it is also due to the gross lack of lexemes or inadequacies of the L<sub>1</sub> to capture words from the L<sub>2</sub> and vice versa.

## Lessons

- ❖ For a Kalabari L<sub>2</sub> user to correct this error in pronunciation, the internal structure of words and word-formation process of suffixation have to be studied critically as suffixes provide an easier pedagogical approach to English pronunciation/stress patterns.
- ❖ Kalabari L<sub>2</sub> users of English should learn that Level 1 English suffixes operate in a quite different manner from those of Kalabari. Kalabari suffixes have little or no effect at all on their roots. English suffixes generally cause pronunciation changes in the root to which they are attached, whether segmentally or suprasegmentally (stress).
- ❖ English suffixes are either stress neutral or non-neutral. Kalabari L<sub>2</sub> users of English have to learn that all Level 1 suffixes usually either alter the location of the primary stress or change the segments in their root.

## Conclusion, Recommendations and Contributions to Knowledge

English shows much more of the interplay and phonological alternations at the lexical level than at the post-lexical level, whereas in Kalabari, the interplay between morphology and phonology is more productive at the post-lexical level than at the lexical level. Thus lexical rules of Level 1 morphemes in LP do not apply to Kalabari. Just as an L<sub>2</sub> learner of English has to painstakingly master the production of English sound segments not found in an indigenous language sound inventory. In a similar vein, the Kalabari L<sub>2</sub> speaker of English has to study the interplay of morphology and phonology for the mastery of correct pronunciation of English words. For a Kalabari L<sub>2</sub> learner of English, the morphology-phonology interplay is thus the best approach to learning English phonology and word internal structure.

## **Recommendations**

This study makes the following recommendations:

1. The English language curriculum planners in Nigeria should incorporate the concept of morphophonology in the secondary school curriculum. This will early teach L<sub>2</sub> learners of English lots more about phonology (segmental and suprasegmental) and morphology than being taught separately.
2. To solve or at least minimize the problem of mutual intelligible speech among L<sub>2</sub> speakers of English, the study of the morphology-phonology interplay is a key. English pronunciation/stress patterns can be easily mastered using the morphology-phonology interplay approach.
3. More studies on the morphology-phonology interplay between English and indigenous languages should be encouraged as this will help tackle the difficulties of acquiring English as a second language.

## **Contributions to Knowledge**

This study makes the following contributions to knowledge:

- It exposes the Kalabari L<sub>2</sub> user of English to the intricacies of English words and also helps to improve his or her spoken English.
- It instills the knowledge and consciousness of correct pronunciation, using correct stress patterns.
- It also explains why sound segments change with suffixation and therefore equips the Kalabari L<sub>2</sub> learner with a deeper knowledge of English phonology.
- It also gives a pedagogical insight into the teaching and learning of stress in English, as it is a grey area among the Kalabari L<sub>2</sub> users of English. This study is therefore meant for teachers and the Kalabari L<sub>2</sub> learner/user in particular.
- Finally, this study contributes to the literature of Kalabari and promotes the Kalabari language.

## References

- Afolayan, A. (1991). The concept of English as a second language. *Journal of English as a Second Language* 3. Ife: Obafemi Awolowo University Press.
- Chomsky, N. & Halle, M. (1968). *The sound pattern of English*. New York: Harper.
- Crystal, D. (2008). *A dictionary of linguistics and phonetics* (6th ed.). Oxford: Blackwell Publishing.
- Halle, M. (1978). *Formal versus functional considerations in phonology*. Bloomington, IN: Indiana University Linguistics Club.
- Kirparsky, P. (1973). Abstractness, opacity and global rules. *Three dimensions in phonological theory*, ed. Osamu Fujimura (57 - 86). Tokyo: TEC Company.
- Dordrecht: Fortis Publications.
- Kirparsky, P. (1982). From cyclic to lexical phonology. *The structure of phonological representations*, vol. 1, ed. Harry van der Hulst & Norval smith (131-175). Dordrecht: Fortis Publications.
- Lado, R. (1957). *Linguistics across cultures*. Michigan: University of Michigan.
- Mascaro, J. (1976). *Catalan phonology and phonological cycle*. Cambridge, MA: MIT dissertation.
- Mohanan, K.P. (1982). *Lexical phonology*. Cambridge, MA: MLT dissertation.
- Ndimele, O-M., Kari, E. E., & Ayuwo, J. G. I. (2009). Language: Some historical implications. In E. J. Alagoa, T. N. Tamuno, & J. P. Clark (Eds.), *The Izon of the Niger Delta* (pp. 69 – 89). Port Harcourt: Onyoma Research Publications.
- Nwankwo, O.C (2011). *A practical guide to research writing* (4th ed). Choba, Port Harcourt: Pam unique Publishers Co. Ltd.
- Ojarikre, A. (2007). Aspects of the segmental phonology of Urhobo English: A variety of Nigerian English. In O-M. Ndimele (ed.), *Convergence: English and Nigerian languages. A festschrift for Munzali A. Jibril* (pp.

- 71-82). Port Harcourt: M & J. Grand Orbit Communication Limited and Emhai Press.
- Pesetsky, D. (1979). *Russian morphology and lexical theory*. Unpublished dissertation of the Massachusetts Institute of Technology (MIT).
- Raji, O. W. (2012). A syntactic contrastive analysis of English and Yoruba language: A re-examination. *Journal of Qualitative Education*, vol. 8 (1). Retrieved from <http://www.wesoeduonline.com/journals/assequen/A/>
- Rubach, J. (1981). *Cyclic phonology and palatalization in Polish and English*. Warszawa: University of Warsaw Press.
- Rubach, J. (2008). An overview of lexical phonology. *Language and linguistics compass* 2/3 (456 – 477). Oxford: Blackwell Publishing Ltd.
- Siegel, D. (1974). *Topics in English morphology*. Cambridge, MA: MIT dissertation.
- Strauss, S. L. (1982). *Lexical phonology of English and German*. Dordrecht: Foris.
- UMMHY (2012). *The application of contrastive analysis in the classroom*. Retrieved from <http://www.ummisangpemimpi.wordpress.com/.../the-application-of-contr/>
- Wong, S. M. J., & Dras, M. (2009). *Contrastive analysis and second language identification*. Retrieved from <http://www.aclweb.org/anthology-new/U/U09-1008pdf/>