Stress Patterning in Polysyllabic Words among Educated Yoruba Speakers of English in Lagos

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Abstract
English is an isochronous language, hence the dominance of word stress in the language. However, there is a high level of variation in the word stress patterning of the different varieties of spoken English in second-language situations, compared to native-speaker varieties. This study investigates stress patterning of polysyllabic words as used by educated Yoruba speakers of English in Lagos (henceforth referred to as EYSEL), Nigeria, using 100 undergraduate and postgraduate students in tertiary institutions across the state. The participants read 120 polysyllabic words of different syllabic counts into an audio recorder. The stress patterning of the output was analysed statistically. The result yielded seven findings. One of the findings shows that EYSEL usually realise the main stress on disyllabic common nouns, personal names, verbs and compounds on the final syllable. Another finding is that EYSEL realise the main stress of tetrasyllabic words on the final syllable. The study concludes that EYSEL have a propensity for shifting the main stress in English polysyllabic words rightwards.

***Keywords**: Nigerian-English, polysyllabic-words, stress, Yoruba Speakers of English*

1. Introduction

Nigerian English, in both its written and spoken forms, has evolved as a variety of World Englishes (Kachru, 1985). The spoken variety of Nigerian English has also produced different regional varieties such as Yoruba English, Igbo English, Hausa English, etc. Each of these regional varieties is geo-ethnic-based because it is spoken across a geographical region and predominantly among an ethnic

group in the country. Consequently, Yoruba English is largely spoken in the southwestern part of the country and predominantly by people of the Yoruba ethnic group. Lagos can be described as the melting pot of the Yoruba race, as practically every sub-tribe of the Yoruba nation is represented there.

English, being the official language of Nigeria, is widely spoken by educated Yoruba people in Lagos. However, English, the second language of most Yoruba-English bilinguals, is a stress-timed language (Gimson, 1989; Clark, Yallop & Fletcher, 2007). Meanwhile, Yoruba, their mother tongue, being a tonal language, is syllable-timed. This implies that in the English language, there is approximately equal timing between one stressed syllable and the next in a speech context, regardless of the number of intervening syllables. In Yoruba, however, every adjacent syllable is produced in the same timing regardless of whether it is stressed or not (Pike, 1945; Abercrombie, 1967; Gut, 2001). Being an isochronous language, English places a premium on stress. Given these facts, the patterning of word stress is a major distinguishing feature between spoken Nigerian (Yoruba) English (sNE) and spoken Standard British English (sSBE) (Osifeso, 2020). The tonal nature of the first language of Yoruba English speakers appears to influence the spoken form of their second language (English) and this seemingly accounts for the obvious variation between the two forms of spoken English (Atoye, 1999). This study investigates Lagos-based educated Yoruba English speakers' stress patterning in polysyllabic words.

2. Yoruba Tone System

Yoruba is a tonal language (Owolabi, 2004, p. 101). Three tones are used in the language, namely: High (´), Low (`) and Mid (Akinlabi 1985, Bamgbose 1990, p. 41), which are meant to help listeners distinguish between words with similar segments but different meanings (Bakare 1995, p. 32). However, this tone pattern is often transferred to English by Yoruba speakers of English. According to Atoye (1999), some users of the language equate the primary stress in English to the high tone and the secondary stress to the mid tone. In Nigerian English, especially among Yoruba-English bilinguals, some scholars have noted that stress is often converted to tone: primary stress becomes high tone and all others become low tone; at times, the mid tone is used for secondary and tertiary stress (Awonusi,

2004; Gut, 2001). In fact, some teachers encourage their students to follow this approximation. However, Essien (2018) reported that 'strong syllables did not necessarily correlate with high tones and weak syllables did not consistently correspond with low tones' (p. 41).

In English, stress can be said to be restrictively phonemic, since a shift in stress from one syllable to the other, especially in disyllabic words, can result in a change in meaning or a shift from one lexical category to another. For instance, such pairs of words as ENvelope/enVElop EScort/esCORT, EXport/exPORT, EXpress/exPRESS, IMplant/imPLANT, IMport/imPORT, INsert/inSERT, INvite/inVITE, REcord/reCORD, REfuse/reFUSE, TRANSplant/transPLANT and TRANsport/tranSPORT express changes from a noun to a verb when the stress shifts from the first to the second syllable. However, in Yoruba, tone is fully phonemic, since a change in tone usually signals a change in meaning. For example, the word 'igba' can generate as many as five different meanings depending on the tone combinations: *ìgbà* (time), *ìgbá* (garden egg), *igba* (two hundred), *igbá* (a calabash) and *igbà* (a strong cord).

3. Stress Variation in Non-Native English

Stress, which is a major component of prosody, has been identified as quite germane to intelligibility in English communication whether locally or globally (Laures & Weismer, 1999; Hahn, 2004; Field, 2005). However, word stress placement is a basis for determining similarities as well as variations among different English varieties across the globe. For example, Eka (1985) reported that a lot of lexical items that attract stress in Nigerian English do not usually do so in British English. Likewise, Udofot (1997) found that Nigerian English speakers stressed far more syllables than the British English control. Consequently, Gut (2001) concludes that "This propensity to stress more syllables in Nigerian English than in British English clearly contributes to the impression of differences in speech rhythm between the two varieties of English." Similarly, Bobda (2010) notes that the word stress pattern of Nigerian English is quite similar to that of Cameroon English. He however maintains that the similar word stress patterning of Nigerian English and Cameroon English contrasts with that of SBE. He affirms that English word stress is notoriously

complex but, to handle the situation, Nigerian speakers have devised some ingenious strategies to cope with it. He cites examples of words like multiPLY, surVEY, reconCILE; and anNEX, orCHEStra, to prove that word stress in NE relies heavily on syllable weight. He argues further that the stressed syllables in the first set of words in the examples cited contain diphthongs, while those of the second set have rhymes which contain monophthongs and a consonant cluster. Moreover, he states some characteristics of Nigerian (and Cameroon) English to include the following: final stressing of some words ending with segments like /i/ and /n/ and verbs ending with obstruents; a reassignment of stress properties to some affixes, and a well-entrenched tendency to move stress to a later syllable, which contrast with the general backward stress pattern of SBE.

Additionally, some researchers have also identified stress as a critical factor in the teaching of pronunciation to non-native learners of English language. Ying-Ying (2015), for example, conducted a study on 'Native' and 'Non-Native' perception of stress in Singapore English using two groups of participants. The first was made up of speakers of Singapore English (Group 1), while the second comprised speakers of British, American, and Australian Englishes (Group 2). His findings show that stress is perceived differently between the two sets of speakers. While the Singapore English participants perceived stress in longer syllables (suggesting that duration was a stress trigger for them), the native-speaker respondents perceived stress based on the rules of Standard English stress placement, regardless of the accompanying acoustic properties. In his conclusion, Ying-Ying queries the traditional labels of 'native' and 'non-native' speakers of English, asserting that 'nativeness' is no longer the exclusive preserve of Inner Circle English speakers, since "they are native speakers of their own varieties of English, in the same vein Singaporeans are native speakers of SgE" (p. 367).

This implies that there is no single, unified standard variety of spoken English, an idea that is also suggested by Yang and Dai (2011) with regard to features of spoken China English. They acknowledge the existence of accentual variations, based on suprasegmental features such as stress, tone and intonation, among various varieties of English across the world. They argue against use of the British accent as the sole standard and advocate 'multi-standards' of English pronunciation for other native varieties such as

American and Canadian Englishes, the Englishes in former British colonies as well as other emerging varieties in countries such as China.

4. Word Stress in Nigerian English

Scholars such as Kujore (1985), Jowitt (1991), Atoye (1999), Bobda (2010), Sunday (2010) and Simon (2016), among others, have studied word stress in Nigerian English. Kujore (1985, p. xiv) notes that Nigerian English in the spoken form is characterised by "delayed primary stress." He also identifies certain features of NE stress patterning as follows:

(a) The tendency for forward stress in disyllabic nouns;
(b) recurrence of forward stress in words whose final syllable contain [n] and/or [i];
(c) shift of stress in words with [i] in the final syllable;
(d) women's forenames with a final syllable [i] or a final [n] have their stress on the final syllable;
(e) recurrence of final stress in verbs with final obstruents.

However, Sunday (2010) describes Kujore's claim as highly contestable, arguing that the instances given by Kujore appear to be limited to a few NE speakers. Sunday further argues that what seems to generally apply is the avoidance of secondary stress among NE speakers, while the primary stress remains intact. Moreover, Jowitt (1991, p. 91) gives examples of hyphenated and open compounds in which the second lexical item of the compound attracts the stress. Examples include *sitting-'room*, *eye 'hospital*, *grammar 'school* (compared to RP: *'sitting-room*, *'eye hospital*, *'grammar school*).

Atoye (1999) also addresses the Nigerian English word stress system and reports that the average Nigerian speaker of English usually engages in progressive stress shifting of English words. The work cites examples such as purCHASE, triBAlism, jourNAlism, utiLISE, privaTISE, instiGATE, cultiVATE and clariFY, in contrast to SBE where the words are stressed on the first syllable. Atoye further attributes the deviant progressive stress shifting pattern of Nigerian English to the tone pattern of the Yoruba language.

Simon (2008) suggests that Nigerian English speakers apply strategies that are quite different from those employed by British English speakers in stress placement. He acknowledges that though

speakers of Nigerian English are conversant with some of the traditions in stress placement, they still apply some new *sui generis* strategies in stress placement.

Available literature shows that Nigerian English word stress patterning differs from that of SBE. However, the samples of words used in the various studies largely vary between disyllabic and trisyllabic words. In addition, the bulk of the works does not categorise the data on the basis of syllable count versus lexical category. The present study expands the data sample to range between disyllabic and pentasyllabic words, while the lexical categories of the words are nouns, verbs and adjectives.

5. Methodology

The population of this study consists of mainly educated Yoruba speakers of English in Lagos (EYSEL). The data for the study were gathered from 100 participants in five tertiary institutions in Lagos State, Nigeria: University of Lagos, Akoka; Yaba College of Technology, Yaba; Lagos State Polytechnic, Ikorodu; Lagos State University, Ojo; and Michael Otedola College of Primary Education, Epe. Twenty participants were selected from each institution through a modified proportionate stratified sampling method. The participants were undergraduate and postgraduate students. There were seventy undergraduate students, forty of whom were in their third year, while thirty were in their final year. The remaining thirty were postgraduate students, twenty of whom were Master's degree students, while ten were PhD students. Preliminary investigations showed that all the participants spoke Yoruba fluently, had lived in Lagos for at least fifteen years cumulatively and their ages ranged between twenty and thirty-five years. The sample was restricted to two Faculties (or Schools) of Humanities/Arts and Sciences across the selected institutions. The method of stress analysis was essentially perceptual but this was also complemented with pitch tract analysis, using the Speech Filing System (SFS) analyser.

6. Presentation and Analysis of Data

A list of 120 polysyllabic words of varying length was presented to the participants for them to read into an IC recorder. The words were divided into four categories: disyllabic, trisyllabic, tetrasyllabic and pentasyllabic (two-, three-, four- and five-syllable words

respectively). Each of the four categories comprises three classes of content words: noun, verb and adjective.

The analysis in this study was based on the recordings from the sample. Each variant's frequency of occurrence was enumerated and converted to a percentage, with the higher (or highest, as the case may be) percentage taken as the norm. This could be said to have followed the principle of head-counting. The stress patterning of the participants in the various words is presented and analysed in the following order: disyllabic words, trisyllabic words, tetrasyllabic words and pentasyllabic words.

6.1. Stress on Disyllabic Words

The disyllabic words that the subjects pronounced are segmented into three columns of nouns, verbs and adjectives. The number of the lexical categories is not evenly distributed. Nouns form 70% of the words, followed by verbs (20%) and adjectives (10%). Nouns take the largest portion because three types of noun were analysed: personal names (i.e. names of persons), compound nouns and other types of nouns. The analysis of the stress patterning is presented in Table 1 below:

Table 1: *Analysis of EYSEL's Stress Patterning in Disyllabic Words*

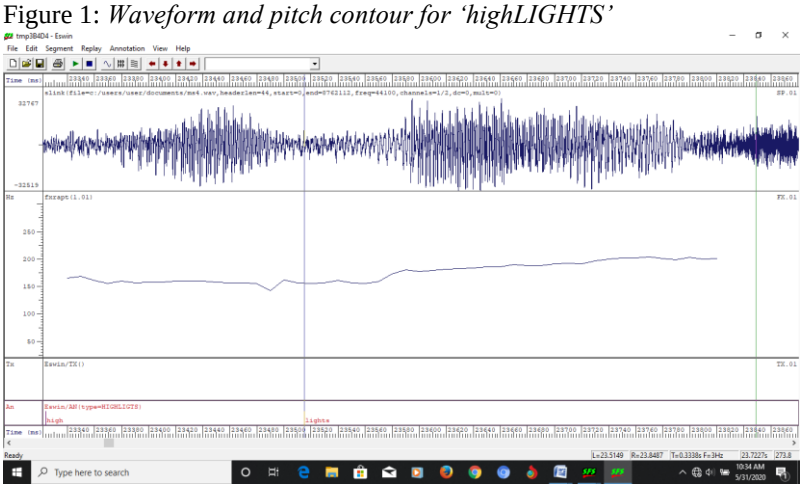
	Position of Stressed Syllable	
Type of Lexical Category	Initial	Final
Nouns	18%	82%
Personal Names	14%	86%
Compounds	19.5%	80.5%
Verbs	10%	90%
Adjectives	82.5%	17.5%

The analysis shows that 18% of nouns are stressed initially, while 82% of them attract final stress by the rule of the majority. Examples of such nouns are iDEA, adDRESS, apPROACH and misHAP. For personal names, 14% attract initial stress, while 86% of them are stressed finally. Examples of the typical stress patterns are juDITH, dorCAS, geRARD and helLEN. In compounds, 19.5% are stressed initially and 80.5% are stressed finally. Examples are school-FEES and footBALL. Only 10% of the verbs attract initial stress, while

90% are stressed finally. Adjectives are stressed inversely, compared to the other lexical category types, as they have 82.5% stressed initially and 17.5% stressed finally.

The findings suggest that disyllabic common nouns, personal names, verbs and compounds usually attract stress on the final syllable. A closer observation reveals that disyllabic words are often stressed initially when the final syllable is open, while they are stressed finally when the final syllable is checked. Examples of such words include VAry, HAPpy, NEver (the final syllables here are open) but apPROACH, misHAP, chalLENGE, highLIGHT (where the final syllables are checked). A sample of the spectrogram for a disyllabic word ('highlights') by the participants is displayed in Figure 1 below:

Figure 1: *Waveform and pitch contour for 'highLIGHTS'*



The spectrogram shows the waveform and the pitch contour for 'highlight' as produced by one of the participants. The initial (first) syllable [hɑɪ] was realised at 154.4Hz and the second **[laɪt]**at 178.9Hz. Consequently, the final syllable carries the stress.

6.2. Stress on Trisyllabic Words

The list of the trisyllabic words are also segmented into three columns of nouns, verbs and adjectives. Nouns are categorised into three types: personal names, compound nouns and other types of noun. Table 2 shows the analysis of the stress placement pattern:

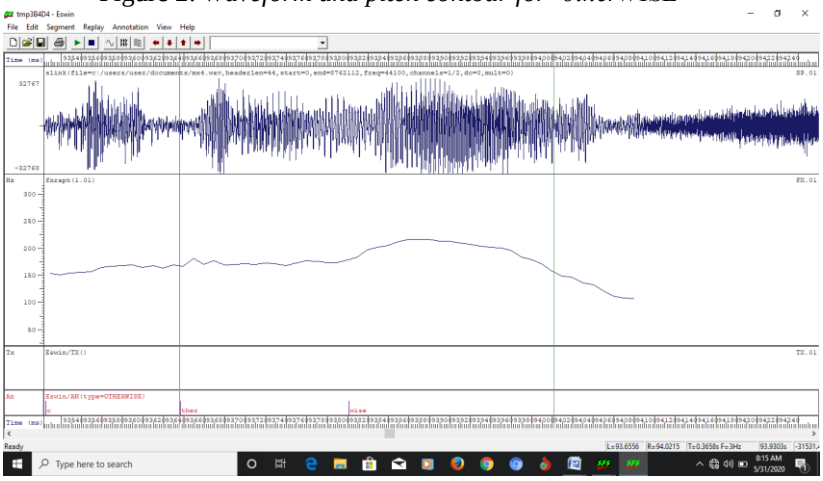
Table 2: *Analysis of EYSEL's Stress Patterning in Trisyllabic Words*

	Position of Stressed Syllable		
Type of Lexical Category	Initial	Penultimate	Final
Nouns	14%	48%	38%
Personal Names	6.7%	60%	33.3%
Compounds	10%	9.5%	80.5%
Verbs	-	6.7%	93.3%
Adjectives	22.7%	68.2%	9.1%

In trisyllabic words, as the table reveals, 14% of nouns are stressed initially, 48% of them attract penultimate stress, while 38% are stressed finally by the majority of the subjects. Examples of such nouns are umBRELla, adVERsary, hurriCANE and camouFLAGE. For personal names, 6.7% attract initial stress, 60% attract penultimate stress and 33.3% of them are stressed finally. Examples of the typical stress patterns are caroLINE, clemenTINE, boNIface and chrisTOpher. In compounds, 30% are stressed initially, 9.5% on the penultimate syllable and 60.5% are stressed finally, e.g., nightinGALE and basketBALL. The verbs here exhibit a different tendency from their disyllabic counterparts, as none of them attract initial stress; 6.7% of them are stressed in the penultimate position, while 93.3% are stressed finally. Examples are dramaTISE, jubiLATE and celebRATE. Adjectives have the highest number stressed on the penultimate syllable at 68.2% (e.g., ilLEgal and blasPHEmous) and the least number stressed finally at 9.1%, while 22.7% are stressed initially.

The analysis demonstrates that trisyllabic nouns, personal names, adjectives, verbs and compounds, as articulated by the participants, usually attract stress on either the penultimate or the final syllable. Examples include alcoHOL, camouFLAGE, amaTEUR, otherWISE. However, SBE stresses them as ALcohol, CAmouflage, Amateur and Otherwise, thus suggesting a tendency towards forward stress placement among EYSEL. Below is a sample of the spectrogram for a trisyllabic word ('otherwise') as pronounced by one of the participants.

Figure 2: *Waveform and pitch contour for 'otherWISE'*



The spectrogram shows the waveform and the pitch tract for 'otherwise' as produced by one of the participants. The initial syllable [ɔ] was realised at 158.4Hz, the second [ðɑ] at 171.1Hz and the final syllable **[wɑɪs]** at 188.3Hz; therefore, the final syllable bears the stress.

6.3. Stress on Tetrasyllabic Words

The list of the tetrasyllabic words that the participants pronounced is segmented into three columns of nouns, verbs and adjectives. The nouns in this segment are categorised into two types: single words, simply referred to as nouns, and compound nouns, which are referred to as compounds. The analysis of the stress placement pattern is presented in Table 3:

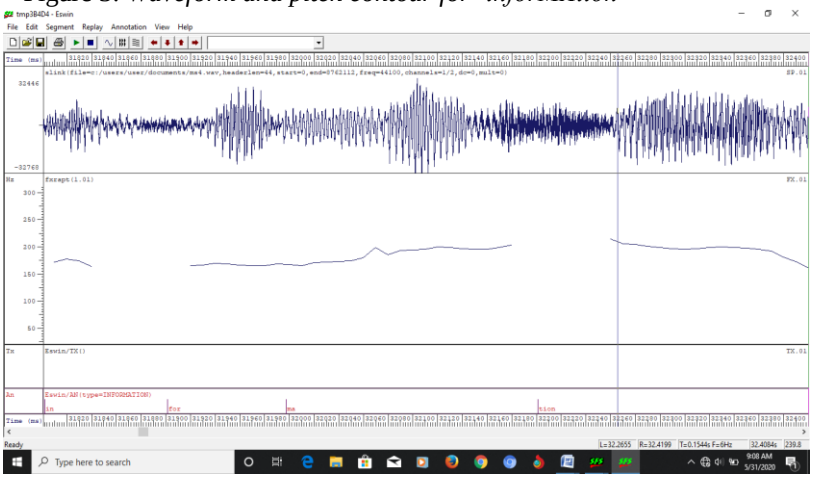
Table 3: *Analysis of EYSEL's Stress placement Pattern on Tetrasyllabic words*

	Position of Stressed Syllable			
Type of Lexical Category	Initial	Antepenultimate	Penultimate	Final
Nouns	2%	56%	42%	-
Compounds	-	45%	55%	-
Verbs	-	-	-	100%
Adjectives	-	31%	69%	-

Unlike the disyllabic and trisyllabic words that show a tendency towards the final syllable among EYSEL nouns, the tetrasyllabic nouns do not have any syllable stressed finally or initially; the stress is domiciled on the internal syllables, hence 57% and 43% were stressed on the antepenultimate and penultimate syllables respectively. Examples are aCRImony, deMOcracy, phiLOsophy (antepenultimate stress) and alliGAtor, photoGRApher, adverTIser (penultimate stress). Compounds and adjectives also receive the main stress on either the antepenultimate or the penultimate syllable, while tetrasyllabic verbs receive the main stress solely on the final syllable.

Generally speaking, in EYSEL articulation of tetrasyllabic content words (n,v,adj) there is a variation in the position of stress among the different words. There is, however, a relative correlation among different words of the same word class. The verbs 'corroborate' and 'evangelise' are stressed word-finally, while the adjectives 'vegetative' and 'repetitive' attract the main stress on the penultimate syllable. Hence, we have corroboRATE, evangeLISE, vegeTAtive, and repeTItive respectively (compare SBE's coRROborate, eVANgelise, VEgetative, rePEtitive). However, for nouns, the stressed syllable varies from the penultimate syllable to the antepenultimate syllable, as observed in the case of inforMAtion and conTROversy; meanwhile, SBE stresses the initial syllable in both instances. This shows that EYSEL have a propensity for shifting stress rightwards. Figure 3 below is a sample of the spectrogram for a tetrasyllabic word *(*'information') pronounced by one of the participants:

Figure 3: *Waveform and pitch contour for 'inforMAtion'*



The pitch tract shows that the first syllable [ɪn] was realised at 169.8Hz, the second syllable [fɔ] at 166.4Hz, the penultimate [me] at 181.5Hz and the final syllable [ʃən] at 179.9Hz. The most prominent syllable here is the penultimate.

6.4. Stress on Pentasyllabic Words

The list of the pentasyllabic words that the subjects pronounced is also segmented into three columns of nouns, verbs and adjectives. There is no sub-categorisation of nouns in this sub-section; therefore, nouns form a single unit like verbs and adjectives. The analysis of the stress placement pattern is presented in Table 4:

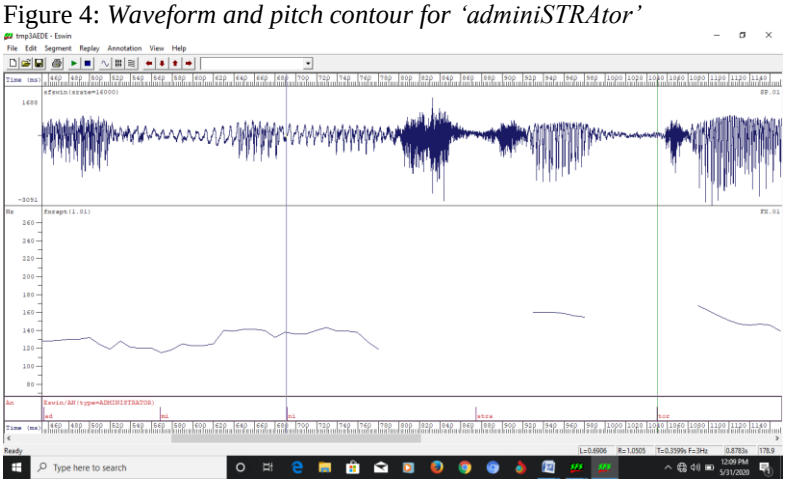
Table 4: *Analysis of EYSEL Stress Patterning in Pentasyllabic words*

	Position of Stressed Syllable				
Type of Lexical Category	Initial	Post – Initial	Antepenultimate	Penultimate	Final
Nouns	-	-	46.3%	53.7%	-
Verbs	-	-	-	-	100 %
Adjectives	-	-	33.4	66.6	-

The analysis in the table suggests a similarity in word stress placement between pentasyllabic and tetrasyllabic words among EYSEL, albeit with very slight variations. Pentasyllabic nouns do not attract stress on initial, post-initial or final syllables but on either the penultimate or the antepenultimate. For example: vocaBUlary, capiTAlism (antepenultimate stress) and adminisTRAtor, refrigeRAtor (penultimate stress). However, the SBE correspondences attract stress on either the initial or post-initial syllables: CApitalism, voCAbulary, adMInistrator reFRIgerator.

EYESL pentasyllabic verbs have a high degree of stress placement correlation, as the stress usually tilts towards the final syllable. This is evident in the tested items – recapituLATE and americaNISE (SBE correspondences - recaPItulate, aMEricanise). There is no such correlation among the SBE counterparts, as the stress placement usually falls on either the post-initial or the antepenultimate syllable. However, for adjectives, EYESL pentasyllabic word stress is usually penultimate in nature, e.g., polysyLLAbic and particiPAtory. Although SBE has a similar stress position on 'polysyllabic' (polysylLAbic), it stresses the post-initial syllable of 'participatory' (parTIcipatory). Figure 4 below shows a sample of the spectrogram for a pentasyllabic word ('administrator') as pronounced by one of the participants:

Figure 4: *Waveform and pitch contour for 'adminiSTRAtor'*



The pitch tract shows that the first syllable of the word [ɑd] was realised at the pith level of 124.3Hz, the second [mi] at 126.9Hz, the third [ni] at 129.8Hz, the penultimate **[stre]** at 156.4Hz and the fifth syllable [tɔ] at 151.1Hz. The most prominent syllable here is the penultimate, just as in the case of the tetrasyllabic word.

7. Findings

The results of the analysis of the participants' stress patterning in polysyllabic words varies based on the lexical, morphological and phonological composition of the word. The following are the study's specific findings:

i. Disyllabic nouns, personal names, verbs and compounds usually attract stress on the final syllable. However, some disyllabic words are stressed initially when the final syllable is open.
ii. Trisyllabic nouns, personal names, adjectives, verbs and compounds usually attract stress on either the penultimate or the final syllable.
iii. Tetrasyllabic nouns do not usually have stress on initial or final syllables; the stress is domiciled in the internal syllables – the antepenultimate and penultimate syllables.
iv. Compounds and adjectives are often stressed on either the antepenultimate or the penultimate syllable.
v. Tetrasyllabic verbs are usually stressed on the final syllable.
vi. Pentasyllabic nouns usually do not attract stress on initial, post-initial or final syllables but on either the penultimate or antepenultimate syllable, whereas the SBE correspondences attract stress on either the initial or post-initial syllables.
vii. EYESL pentasyllabic adjectives usually attract stress on the penultimate syllable.

8. Conclusion

Nigerian English is largely an established norm-developing dialect of World English (Kachru, 1992; Jenkins, 2003; Ho, 2008). It has a number of sub-accents, one of which is Yoruba English, spoken predominantly by EYSEL. This study analysed the stress patterning of polysyllabic words in this sub-accent as used by educated speakers across tertiary institutions in Lagos State. The study shows that

EYSEL have a propensity for rightwards shifting of stress on polysyllabic words. In addition, it was discovered that pentasyllabic verbs usually tilt towards the final syllable, whereas most native-speaker varieties usually attract stress on either the post-initial or the antepenultimate syllable (Jowitt, 1991; Atoye, 1999; Bobda, 2010).

Based on the outcome of the study, it could be generalised that Nigerian English as spoken by EYSEL has a unique yet stable word stress pattern, thus corroborating the claim that Nigerian English, its parent variety, is a norm-developing dialect of English.

References

Abercrombie, D. (1967). *Elements of general phonetics*. Edinburgh: U. P.

Akinlabi, A. (1985). Tonal underspecification and Yoruba tone. PhD thesis. University of Ibadan, Nigeria.

Atoye, R. (1999). Word stress in Nigerian English. *World Englishes 10*, 1-6.

Awonusi, S. (1999). *Coping with English pronunciation.* Lagos: O.O.P.

Awonusi, S. (2004). Some Characteristics of Nigerian English Phonology.Dadzie, A.B.K. and S. Awonusi (eds.)*Nigerian English Influences and Characteristics*. Lagos: Concept, pp 203-225.

Bakare, C. (1995). Discrimination and identification of Yoruba tones: perception experiment and acoustic analysis. In K. Owolabi (ed.) *Languages in Nigeria* (pp. 33-67). Ibadan: Group Publishers.

Bamgbose, A. (1990). *Fonoloji ati girama Yoruba.* Ibadan: University Press PLC.

Bobda, A. (2010). Word Stress in Cameroon and Nigerian Englishes. *The Author(s) Journal Compilation*. Oxford: Blackwell.

Clark, J., Yallop, C. & J. Fletcher (2007). *An introduction to phonetics and phonology*. Malden, MA: Blackwell.

Eka, D. (1985). A Phonological Study of Standard Nigerian English. PhD thesis, Ahmadu Bello University, Zaria.

Essien, N. (2018). Stress and rhythm in the educated Nigerian accent of English. *Research on Humanities and Social Sciences* 8 (10), 30-42.

Field, J. (2005). Intelligibility and the listener: the role of lexical stress. *TESOL Quarterly 39* (3), 399-423.

Gimson, A. (1989). *An introduction to the pronunciation of English* (4th ed.). London: Edward Arnold.

Gorlach, M. (1988). English as a world language – the state of the art. *English World-Wide*, 10, 279-313.

Gut, U. (2001). Prosodic aspects of Standard Nigerian English. In *Typology of African Prosodic Systems Workshop* Bielefeld University, Germany May 18-20, 2001.

Hahn, L. (2004). Primary stress and intelligibility: research to motivate the teaching of suprasegmentals. *TESOL Quaterly 38* (2), 201-223.

Ho, D. (2008) English in the Expanding Circle – a third diaspora? *Asian Englishes 11* (1), 36-51.

Jenkins, J. (2003). *World Englishes: A Resource Book for Students*. London: Routledge.

Jowitt, D. (1991). *Nigerian English Usage: An introduction.* Lagos: Longman.

Kachru, B. (1992) World Englishes: approaches, issues and resources. *Language Teaching*, 25, 1–14.

Kujore, O. (1985). *English usage: Some notable Nigerian variations.* Ibadan: Evans.

Laurels, J. & G. Weismer (1999). The effects of flattened fundamental frequency on intelligibility at the sentence level. *Journal of Speech, Hearing Research 42* (5), 1148-1156.

Osifeso, E. (2020). A non-taxonomic study of word stress among Yoruba-English bilinguals in tertiary institutions within the Lagos metropolis, Nigeria. PhD thesis. University of Lagos, Nigeria.

Owolabi, K. (2004). *Ijinle itupale ede Yoruba(1): fonetiiki ati fonoloji*. Ibadan: Onibonoje.

Pike, K. (1945). *The intonation of American English, Vol*. 1. Ann Arbor: University of Michigan Press.

Simon, B. (2008). Predictability of word stress in African English: Evidence from Cameroon English and Nigerian English. In: S. Bobda (ed.), Explorations into Language Use in Africa (pp.

161– 81), Frankfurt: Peter Lang.
Sunday, B. A. (2010).The suprasegmentals of bilingual Nigerian adult aphasics. *SKASE Journal of Theoretical Linguistics* [online], Volume *7* (2) from http://www.skase.sk/Volumes/JTL16/pdf_doc/03.pdf.
Udofot, I. (1997). The rhythm of spoken Nigerian English. PhD thesis, University of Uyo, Nigeria.
Yang, W. & Dai, W. (2011). China English: Its distinctive features. *Higher Education Studies1*(2) Retrieved July 31, 2019 from http://dx.doi.org/10.5539/hes.v1n2p8.
Ying-Ying, T. (2015). 'Native' and 'Native perception of in Singapore English. *World Englishes 34* (3).