

Melody in Nigerian English: A case study of students from the University of Uyo

Nkereke M. Essien & Amaitem M. Udo

Department of English

University of Uyo

nkerekemfon@yahoo.com & amaitemudo@gmail.com

<https://doi.org/10.60787/jnlp-v5-55>

Abstract

This work examined the melody of language in Nigerian English. Specifically, the study aimed at examining rhythm, isochronism, pitch and perceived stress as they pertain to Nigerian English. Twenty respondents were selected from among the students of the University of Uyo, through simple random sampling technique, with ten, tested on rhythm (with isochronism and pitch) and the other ten tested on word stress (with pitch). The subjects' performances were recorded and the data analyzed using simple percentage. The theoretical framework for the study was Metrical Phonology. The findings include: Nigerian English is mostly spoken with syllable-timed rhythm; isochronism in Nigerian English is on syllables and not just stressed syllables and there are instances of isochronous and non-isochronous rhythm; and there are words with differing stress placement in Nigerian English.

Keywords: Isochronism, Melody of Language, Pitch, Rhythm, Stress.

Introduction

English language had long moved from its native environment and has spread to many parts of the world, and Nigeria has not been left out. In every non-native environment which English has gone to, the English language there is expectedly influenced by its new environment. In the same way, English language in Nigeria has been "coloured" by the Nigerian socio-linguistic and socio-cultural environment and so, has some peculiarities which make it a variety on its own. Such peculiarities are seen in the aspects of phonology, lexis, syntax, as well as semantics. This study looks at an aspect of such peculiarities in phonology.

Phonology is a very vital aspect of language. "This is because no matter how well acquainted a person is with the syntax and vocabulary of a language, effective communication may not take place without proper pronunciation" (Udo, 2015, p1). Tsojon and Aji (2014) also establishes this point by saying that improper pronunciation distorts

effective communication. The term "pronunciation" in the context of this work is not limited to saying or articulating the sounds of words correctly but is also extended to involve every other aspect of phonology which makes for meaning and comprehension. In other words, this includes the supra-segmental features like stress, rhythm, pitch, etc., which help one to communicate.

English language has earned an enviable role in many segments of Nigerians' national life, as it has become the language of education, business, legal practice, and in many cases, the language of religion. One of the reasons for a study like this is to look at some features of the English language as it is used by non-native speakers, especially in the spoken aspect, with a focus on the realization of rhythm, the issue of isochronism, pitch and perceived stress, among some Nigerian speakers of English.

It is a fact that a good number of Nigerians understand and speak English. However, it is also a fact that there would be differences in the spoken English of native speakers and that of Nigerians who are non-native speakers. These differences are observed in aspects that concern segmental features as well as supra-segmental features. Supra-segmental features like rhythm, stress, etc., have been observed to pose some problems to the average Nigerian speakers of English. This is traced to the differences in the phonological systems of the native English and the indigenous Nigerian languages. To take the issue of rhythm, for instance, while English language has stress-timed rhythm, most, if not all Nigerian languages have syllable-timed rhythm.

Looking at such differences, it is appropriate to embark on a study like this which examines the state of some of these supra-segmental features in the English language spoken by Nigerians, with attention on the characteristic features which are peculiar to the Nigerian English, in order to support or disagree with some views already established by scholars. Researchers have worked on related areas; for example, Osifeso (2017) carried out a research on word stress among Yoruba L2 speakers of English in Lagos, using an optimality approach. However, this work is an attempt to specifically look at the melody of language with respect to rhythm, isochronism, pitch and perceived stress in Nigerian English.

This study aims at looking at the melody of language through achieving the following objectives:

- i. to examine rhythm in Nigerian English;
- ii. to look at the concept of isochronism as it pertains to Nigerian-English;
- iii. to examine pitch as perceived in Nigerian English;
- iv. to examine perceived stress in Nigerian English.

Methodology

The sample for the study comprised twenty respondents, selected from among the students of the University of Uyo, in Akwa Ibom State. The subjects for the study were obtained through the simple random sampling technique. The data comprised nine sentences and ten English words which the respondents read. For data collection, the researcher gave the

subjects these sentences and words to read/pronounce as oral tests. The tests were recorded as audio through a phone recorder and the recorded utterances of the subjects were played over and over to enable the researcher transcribe the productions as rendered by the subjects. These constituted the primary data. Secondary sources of data included library materials in the form of textbooks and internet sources. The data were presented in tables and analyzed using simple percentage. The productions on words (stress) were analyzed against the standard placement of stress on the given words in the *Cambridge English Pronouncing Dictionary, 17th Edition*, while the productions on the sentences were analyzed against the established model of stress-timed rhythm in English language (adapted from Eka, 1996) where each foot has one stressed syllable, and the different feet that make up an utterance are each realized within the same time interval, irrespective of the number of unstressed syllables in each foot. The findings are presented as outcomes with conclusion drawn thereafter.

Review of Related Literature

Melody of Language

According to Scharinger (2022), "Melody – in its basic sense – is an orderly sequence of pitches". Melody is a universal aspect of all languages and it primarily finds expression through rises and falls of pitch of a speaker's voice (Chen, No date). In a broader sense, the melody of language is what makes language musical. It encompasses everything that gives musical quality to spoken language. When a speaker of a language speaks, a number of things come to play to make the speech musical and melodious. These include pitch, stress, rhythm, isochronism, intonation, etc. These musical patterns make spoken language rich and expressive. All or some of them are used together to convey certain emotions and meanings alongside what is spoken. Utterances are not just made; they are made in certain ways, depending on the emotion of the speaker or what the speaker has in mind to emphasize. According to Chen (No date), "Melody is essential for communication...".

Rhythm

Rhythm can be said to be regular repeated sequence of movement. In this context, it is the recurring sequence of movement in speech. Anglia (2019) defines rhythm as the speed and cadence of how a sentence is said. Anonymous (No date) sees rhythm as "the sense of movement in speech". The source opines that one's speech would sound unnatural and disjointed if one is not familiar with the rhythm of the English language because rhythm makes speech flow well and aids comprehension. Wrong stress placement and incorrect rhythm may make understanding an utterance difficult. The rhythm of a sentence can depend on what is emphasized in the sentence; therefore, stress is very important to the realization of rhythm in English language. Pitch and loudness are also among what combine to make up the rhythm of a language (Nordquist, 2019).

Nordquist (2019) distinguishes rhythm in phonetics from rhythm in poetics. According to the source, rhythm in phonetics is "the sense of movement in speech, marked by the stress, timing, and quantity of syllables" whereas, rhythm in poetics is "the recurring alternation of strong and weak elements in the flow of sound and silence in sentences or lines

of verse". The rhythmic pattern or structure of a line of poetry is known as metre and there are five common metrical feet usually used in English poetry. They are iamb, trochee, spondee, dactyl and anapest (Blakeley & Davis, 2021). In phonology, scholars have identified two common types of rhythm as stress-timed rhythm and syllable-timed rhythm. English language uses stress-timed rhythm (Crystal, 2005; Nordquist, 2019). This takes us to the next point below – isochronism.

Isochronism

The word “isochronism” comes from two Greek words: “*ísos*” which means “equal” and “*khronos*” which means “time” (Skandera and Burleigh, 2011). Following this, the idea behind “isochronism” is the concept of equal timing. Isochronism is also known as “isochrony”. Crystal (2008, p.255) describes it as “the rhythmic characteristic of some languages”. Rhythm may be said to be isochronous in which case each of the feet is spoken with regular time interval (equal timing). In a stressed-timed rhythm, the fundamental principle is that stressed syllables are said at approximately equal time intervals, while the unstressed syllables are compressed or reduced in duration to accommodate the given interval for each stressed syllable. In cases where there are several unstressed syllables, they will be pronounced quickly to fit within the available time frame. This rhythmic pattern gives prominence to stressed syllables and allows for a more balanced and predictable pacing in spoken language. This linguistic phenomenon contributes to the distinctive rhythm of a language like English, which follows a stressed-timed rhythm pattern. Lehiste (1977) cited in Eltaif (2021, p.185) supports this by saying that “in a stressed-timed language like English, isochrony refers to the occurrence of particular phonological units such as stressed syllables at almost equal time intervals.” On the other hand, in a syllable-timed language, isochronism is observed in the equal time interval given to each syllable. Isochronism can be subjective, based on the perception of the listener. According to Anonymous (2019), the time “equality is psychological, and lies in the way in which the ear interprets the recurrence of stress in connected speech”.

Pitch

Britannica (2019) defines pitch as "the relative highness or lowness of a tone as perceived by the ear, which depends on the number of vibrations per second produced by the vocal cords". Jain et al (2017), cited in Yang (2023, p.3) further defines pitch as the "psychological association of the fundamental frequency of sounds" which "takes an important role in speech perception". Pitch is a crucial supra-segmental feature of English which affects various linguistic aspects. It is an important auditory cue in distinguishing pragmatic meanings (Yang, 2023). The source further points out that different patterns of intonation in English can be determined by pitch; for instance, to form a falling tune, the range of pitch of each syllable in an utterance successively decreases.

Scholars have established that the pitch of children is higher than the pitch of adults. Also, among adults, the pitch of the female’s voice is higher than that of the male. This is because the fundamental frequency of a sound depends on the size of the source of that sound.

Women have shorter and thinner vocal cords while men have longer and thicker vocal cords. The frequency of the vibration of the vocal cords is more in women than in men. So, women have shriller voice with higher pitch (Pernet & Belin, 2012; Debczak, 2018; Robbins, 2023).

Stress

Eka (1996) defines stress as the place which the hearer perceives prominence in a syllable or word, or even a larger utterance. According to the source, every disyllabic or polysyllabic word is usually stressed in isolation. It has a particular syllable that receives the (primary) stress. Monosyllabic words are generally stressed in connected speech if they are open class items (nouns, main verbs, adjectives or adverbs), as well as interrogative pronouns, demonstrative pronouns or relative pronouns preceded by a preposition. Other monosyllabic words in the class of pronouns (apart from the ones mentioned above), articles, conjunctions and prepositions are not stressed. However, for specific reasons, any English word can be stressed in connected speech. This could be to emphasize a particular word in the utterance and when this happens, it is known as contrastive or emphatic stress. Also, depending on the phonological environment, open class items which are generally known to be accentable can become weak or stronger. When two or three stressed syllables come together in an utterance, there is need to avoid clash and so, one of the syllables would be relatively stronger than the other(s) which would be weak, in relation to the stronger syllable (Seong-cheol, 2013; Katamba, 1994). This helps to maintain appropriate rhythmic pattern.

Theoretical Framework

The theoretical framework used for this study is Metrical Theory. This theory was propounded by Mark Liberman in 1979, in his doctoral dissertation (Eka, 1996). Metrical Theory, also known as Metrical Phonology, began as a theory of stress but was later widened to take care of other aspects of phonology.

According to Clark et al (2007), the starting point of metrical phonology is the assumption that stress patterns are a reflection of an underlying structure in which weaker and stronger constituents are brought together side by side. The source further elaborates that when a specific syllable is designated as stressed, it implies an assessment of its strength, relative to adjacent syllables.

Metrical theory holds that there are weak and strong sounds within a syllable, as well as weak and strong syllables within a word or phrase. The weak feature refers to the unstressed syllables or sounds without prominence and is indicated as "W", whereas, the strong feature refers to a stressed syllable or a sound with linguistic prominence, and is indicated as "S". Stress or linguistic prominence can be displayed on metrical tree and/or metrical grid.

Metrical Tree

Here, syllables are described as nodes and thus, a node is either weak or strong in relation to its sister node. According to Udo (2015, p.9), "the most prominent syllable is one that does not have any weak nodes above it". The word which is most important to the intended meaning determines the strongest node. This means that a weak or strong node can be switched, depending on the aim of the speaker, within a sentence. For instance, in the sentence "Joseph bought biscuit", the strongest node will be from the word "Joseph" if the sentence is a response to a question like "Who bought biscuit?". But on the other hand, the strongest node will be from the word "biscuit" if the sentence is a response to "What did Joseph buy?". Consider the illustrations below:

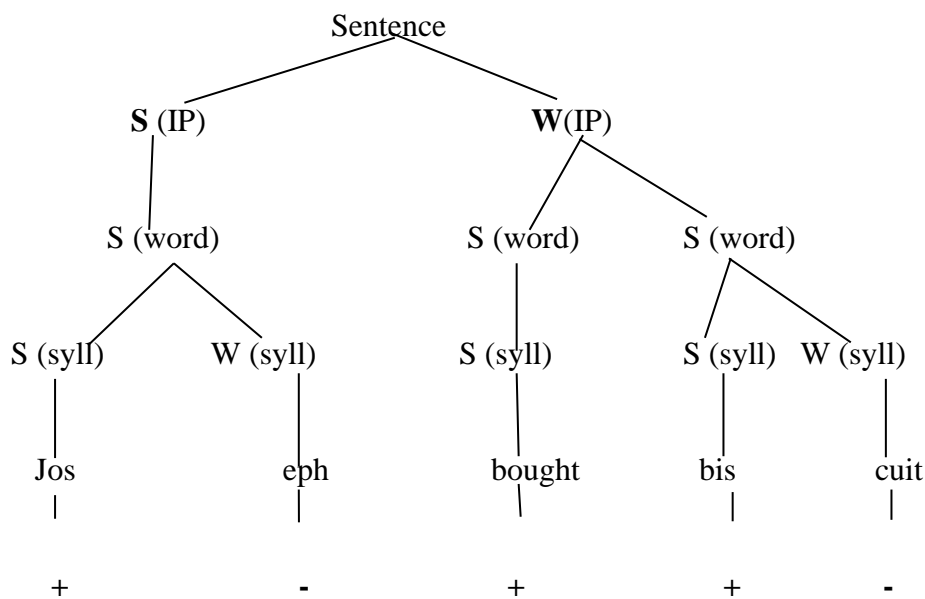


Figure 1:¹ "Joseph bought biscuit" as a response to "Who bought biscuit?"

From the above illustration, the most prominent node is "Jos".

¹ Key: IP = Intermediate Phrase, Syll = Syllable, + = Strong node, - = Weak node

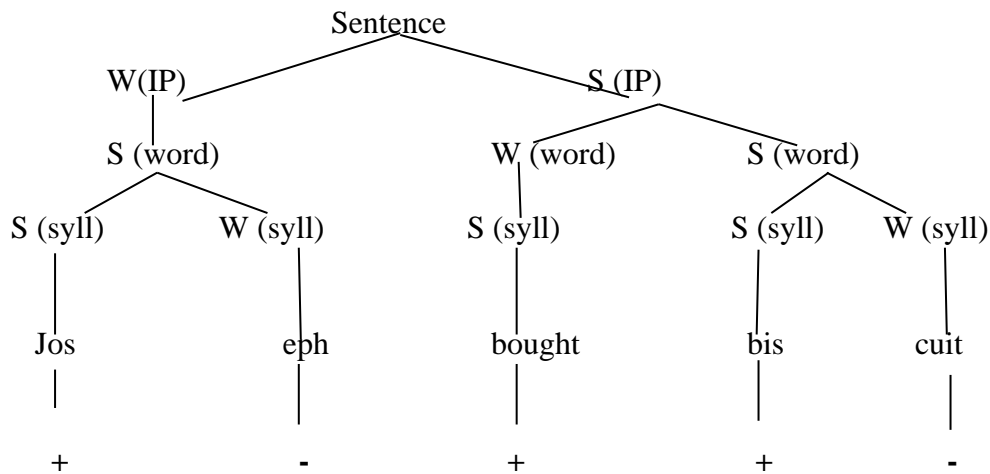


Figure 2:² "Joseph bought biscuit" as a response to "What did Joseph buy?"

In Figure 2, the most prominent node is "bis". The most prominent syllable is the one without a weak node above it.

Metrical Grid

In metrical grid, all the words in a phrase or sentence are arranged along the bottom row. Rows in the grid represent different levels of prominence. "X" is used to show the level of prominence. The higher the column of Xs above a syllable, the more prominent the syllable is. Consider the following illustrations:

Table 1: Metrical grid from Figure 1, where "Jos" is the most prominent syllable

X				
X		X	X	
X	X	X	X	X
Jos	eph	bought	Bis	cuit

² **Key:** IP = Intermediate Phrase, Syll = Syllable, + = Strong node, - = Weak node

Table 2: Metrical grid from Figure 2, where the most prominent node is "bis"

			X	
X		X	X	
X	X	X	X	X
Jos	eph	bought	Bis	Cuit

The strongest or most prominent syllable in the metrical tree or metrical grid is called designated terminal element (DTE).

This theory is suitable for this work because it is a theory of linguistic prominence. A stressed syllable is a prominent syllable. So also, where there is height of pitch, there is prominence. And also, English language, being a stress-timed language, will have a prominent syllable in every foot that makes up the rhythm.

Data Presentation

Out of the twenty respondents, ten (10) were made to read nine (9) English sentences, by which the researcher examined their rhythmic patterns and the respondents' speech. Below are the sentences with correct English rhythm pattern, and after those, are the respondents' performances in each sentence. The whole of each sentence is enclosed in slanting lines. Slanting lines are also used in-between the sentences to show each rhythmic unit or foot, in the first group of sentences (showing correct English rhythmic pattern) and to show each stretch of utterance and the breaks, in the sentences, as spoken by each respondent (to show the diverse patterns by the different Nigerian speakers).

Sentences (with correct English rhythm pattern)

1. // **This** is the / **teacher**. //
2. //**Where** is the /**baby**?//
3. //**Favour**/ **says** that he/ **wants** us to/**play**.//
4. //**What's** your/ **name**?//
5. //Did he **speak** with/ **Mary** at the/**club**?//
6. //We **think** it was a/ **wonderful** a/**ffair**.//
7. //She **stays** in/ **Lagos**.//
8. //**Kate**/ **wrote** the/ **letter** in/ **English**.//
9. //**How** did you/ **do** it?//

The emboldened syllables are those that receive prominence in each foot.

Rhythmic Performances of Respondents

Respondent 1

1. // This/ is the / teacher. //

2. //Where/ is the /baby?//
3. //Fa/vour/ says that/ he/ wants/ us to/ play.//
4. //What's your/ name?//
5. //Did/ he/ speak/ with/ Mary/ at the/club?//
6. //We think/ it was a/ wonderful/ affair.//
7. //She stays/ in Lagos.//
8. //Kate/ wrote/ the/ letter/ in/ English.//
9. //How/ did/ you/ do/ it?//

Respondent 2

1. // This/ is the / teacher. //
2. //Where is the /baby?//
3. //Fa/vour/ says/ that he/ wants us/ to play.//
4. //What's your/ name?//
5. //Did/ he/ speak/ with/ Mary/ at the/club?//
6. //We think/ it was/ a/ wonderful/ affair.//
7. //She/ stays/ in La/gos.//
8. //Kate/ wrote/ the/ letter/ in/ English.//
9. //How/ did/ you/ do/ it?//

Respondent 3

1. // This/ is the / teacher. //
2. //Where/ is the /ba/by?//
3. //Favour/ says/ that he/ wants us/ to play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Mary/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful/ a/ffair.//
7. //She/ stays/ in/ La/gos.//
8. //Kate/ wrote/ the/ le/tter/ in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Respondent 4

1. // This/ is/ the / tea/cher. //
2. //Where/ is/ the /ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Mary/ at/ the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful/ a/ffair.//
7. //She/ stays/ in/ Lagos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Respondent 5

1. // This/ is/ the / tea/cher. //
2. //Where/ is/ the /ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Mary/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful a/ffair.//
7. //She/ stays/ in/ Lagos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Respondent 6

1. // This/ is/ the / tea/cher.//
2. //Where/ is/ the /ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's your/ name?//
5. //Did/ he/ speak/ with/ Ma/ry/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful a/ffair.//
7. //She/ stays/ in/ La/gos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Respondent 7

1. // This/ is/ the / tea/cher. //
2. //Where/ is/ the /ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Ma/ry/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful a/ffair.//
7. //She/ stays/ in/ La/gos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Respondent 8

1. //This/ is/ the / tea/cher. //
2. //Where/ is/ the/ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Ma/ry/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful a/ffair.//
7. //She/ stays/ in/ La/gos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//

9. //How/ did/ you/ do/ it?//

Respondent 9

1. // This/ is/ the / tea/cher. //
2. //Where/ is/ the /ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Ma/ry/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful a/ffair.//
7. //She/ stays/ in/ La/gos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Respondent 10

1. // This/ is/ the / tea/cher. //
2. //Where/ is/ the /ba/by?//
3. //Fa/vour/ says/ that/ he/ wants/ us/ to/ play.//
4. //What's/ your/ name?//
5. //Did/ he/ speak/ with/ Ma/ry/ at the/club?//
6. //We/ think/ it/ was/ a/ won/der/ful a/ffair.//
7. //She/ stays/ in/ La/gos.//
8. //Kate/ wrote/ the/ le/tter in/ Eng/lish.//
9. //How/ did/ you/ do/ it?//

Table 3:³ Summary of Performance on Rhythm

S/N	Sentences (in correct English rhythm pattern)	Rhythm		S. T. %	Sy. T. %	Commonest Variant	Isochronism Pattern
		Stress-timed	Syllable-timed				
1	// This is the / teacher. //	0	10	0	100	//This/is/ the/teach/er.//	Isochronous
2	// Where is the /ba/by?//	1	9	10	90	//Where/is/ the/baby?//	Isochronous

³ Key: S.T. % = Stress-timed percentage (percentage of respondents who performed with stress-timed rhythm)
 Sy. T. % = Syllable-timed percentage (percentage of respondents who performed with syllable-timed rhythm)

3	//Favour/ says that he/ wants us to/ play ./	0	10	0	100	//Fa/vour/ says/that/ he/ wants/ us/ to/ play./	Isochronous
4	//What's your/ name ?//	3	7	30	70	//What's/ your/ name?//	Isochronous
5	//Did he speak with/ Mary at the/ club ?//	0	10	0	100	//Did/ he/speak/ with/ Mary/ at the/club?//; //Did/he/speak /with/ Ma/ry/at the/club?//	Non-isochronous
6	//We think it was a/ wonderful a/ ffair ./	0	10	0	100	//We/think/ it/ was/ a/ won/der/ful a/ffair./	Non-isochronous
7	//She stays in/ Lagos ./	0	10	0	100	//She/stays/in/ La/gos./	Isochronous
8	// Kate / wrote the/ letter in/ English ./	0	10	0	100	//Kate/ wrote/the/ le/tter in/ Eng/lish./	Non-isochronous
9	// How did you/ do it?//	0	10	0	100	//How/did/ you/ do it?//	Isochronous

Performance on Stress

As earlier stated, ten (10) out of the twenty (20) respondents read the sentences for rhythm. The remaining ten were made to pronounce the words which were selected to test for stress. The data is presented in the following table:

Table 4:⁴ Respondents' Performance on Stress

S/N	Words (and correct stress placement)	Proper Stress	Wrong Stress	PS %	WS %	Variant Stress Pattern(s)
1	suc C ESS	0	10	0	100	SUC c ess – 10
2	con T RIBute	0	10	0	100	contri B UTE – 10

⁴ **Key:** PS % = Proper Stress Percentage, WS% = Wrong Stress Percentage

3	contri B Ution	10	0	100	0	---
4	intro D UCE	9	1	90	10	INtroduce – 1
5	how E Ver	9	1	90	10	HOWever – 1
6	V INdicate	0	10	0	100	vindiCATE – 10
7	advice	6	4	60	40	ADvice – 4
8	ad V ISE	6	4	60	40	ADvise – 4
9	misa P PROpriate	0	10	0	100	misapproPRIate - 6 misAppropriate – 4
10	H OURly	10	0	100	0	---

Analysis of Data

Firstly, the English sentences presented were used to test for performances on rhythm and isochronism in Nigerian English; and the performances of each respondent, as analyzed perceptually, are presented. The slanting strokes are used to indicate each stretch of the utterances and where there were breaks in the performances of the respondents. The same sentences are used to examine the pitch of the respondents, as they read. The summary of the respondents' performances on rhythm and isochronism is presented in the first table.

The next table shows the performances of the respondents in word stress. The first column shows the words used for the test and capital letters are used to indicate where the primary stress (as seen in *Cambridge English Pronouncing Dictionary, 17th Edition*) falls in each word. "Proper Stress" column is used to indicate the number of respondents who gave correct stress patterns to the words. "Wrong Stress" column is used to indicate the number of respondents who gave stress patterns that are different from what we have in RP (Received Pronunciation) to the words. "PS%" shows the percentage of the respondents who correctly realized stress in each word. "WS%" shows the percentage of respondents who wrongly realized stress for each word. "Variant Stress Patterns" column shows the different realizations of stress in the words, which vary from the RP stress pattern for the words, and the number of respondents who realized each.

Performance on Rhythm

It was observed that the respondents' performances on rhythm were mostly different from the established rhythmic patterns of RP. In most of the cases, each syllable in the sentences was produced with equal time interval, making their rhythm syllable-timed. This can be traced to the fact that most Nigerian languages are syllable-timed and not stress-timed like the RP English.

It was also observed that in some other cases, the respondents read the sentences in stretch of words or phrases, some, giving equal time interval to some single syllables and some two or more syllables, together as in the following examples:

- i. //This/ is the/ teacher.// (Respondents 1, 2 and 3, sentence 1.)

- ii. //Kate/ wrote/ the/ letter/ in/ English.// (Respondents 1 and 2, sentence 8.)
- iii. //Did/ you/ speak/ with/ Mary/ at the/club?// (Respondents 1, 2, 3 and 5, sentence 5.)

There are a number of other examples of such patterns in the data. These were non-isochronous because in such cases, neither stressed syllables nor every single syllable was said with regular time interval.

It was also observed, from the data gathered, that sentence 2 -- "Where is the baby?" -- was given appropriate rhythm pattern by respondent 2, as follows: //Where is the/ baby?//. Sentence 4 -- "What's your name?" -- was also given appropriate rhythm pattern by respondents 1, 2 and 6 as follows://What's your/ name?//. Those were the only cases of exact RP rhythm pattern (which is stressed-timed).

Isochronism

In this context, the term "isochronism" is used to describe the regularity of rhythm. Rhythm is said to be isochronous if there is equal time interval between stressed syllables, irrespective of the number of unstressed syllables in-between (in the case of stress-timed rhythm), or if there is equal time interval in the realization of syllables (in the case of syllable-timed rhythm).

From the data analyzed, isochronism in Nigerian English is on the syllables, as the researcher found that in most of the cases, the respondents gave equal time to the realization of each syllable in the sentence. Examples of this are found in Table 3 (summary of performance on rhythm). However, few cases of non-isochronous rhythm were observed, as earlier pointed out that in some cases, the time interval given to some single syllables were equally given to some two or more syllables. Example: //We think/ it was/ a/ wonderful/ affair.// (Respondent 2, sentence 6), where the same time interval was given to the realization of the two syllables: "We think", "it was", "affair"; the single syllable "a" and the three syllables "wonderful". Few other examples are highlighted in (i), (ii), and (iii) under performance on rhythm. The general performance of respondents on sentences 5, 6 and 8 could be said to be non-isochronous.

Performance on Pitch

From the data, it was perceived that the female respondents generally had higher pitch than the male respondents. This confirms what scholars (Pernet and Belin, 2012; Debczak, 2018; Robbins, 2023) have said about the females' pitch being higher than that of the males. It was also observed that Wh- question words like "Where" (in sentence 2), "What" (in sentence 4) and "How" (in sentence 9) were said with higher pitch than some other words.

Furthermore, it was observed that the syllables that were stressed by the respondents were generally realized with higher pitch than the syllables that were not stressed.

Perceived Stress

Ten English words were given to ten out of the twenty respondents to pronounce. It was generally noticed that the respondents confused "advice" (noun) with "advise" (verb). The

words are both stressed on the second syllable. Only one of the respondents stressed both words on their second syllables. All the others stressed either the noun on the first and the verb on the second syllable, or vice versa. The performance on stress in each word is presented below:

Performance on "success"

It was observed that all the ten respondents who were tested on stress gave stress to the first syllable instead of the second in the word. This represents 100% of those tested, meaning that the word "success" generally receives wrong word stress placement in Nigerian English.

Performance on "contribute"

As in the case of "success", 100% of the respondents who were tested on stress wrongly stressed the word as "contriBUTE", instead of "conTRIBute". This also means that the word "contribute" generally receives wrong stress placement in Nigerian-English.

Performance on "contribution"

All 100% respondents tested on stress gave correct stress placement to this word, as "contriBUtion". This means that this word generally receives correct stress in Nigerian-English.

Performance on "introduce"

90% of the respondents tested on stress correctly stressed the word as "introDUCE". 10% wrongly stressed the word as "INtroduce". From this result, we can say that the word "introduce" generally receives correct stress placement in Nigerian-English.

Performance on "however"

It was observed, surprisingly, that 90% of the respondents tested on stress correctly stressed the word as "howEVer". 10% wrongly stressed it as "HOWever". This performance was surprising to the researcher because the performance far contradicted the assumption of the researcher before embarking on the study, that Nigerian-English bilinguals would mostly stress the word as "HOWever". This assumption was due to the way the researcher had been hearing the word generally stressed around her. From the result, it means the word "however" generally receives correct stress placement in Nigerian English.

Performance on "vindicate"

All 100% of the respondents who were tested on stress were not able to place stress on the correct syllable on this word as "VINdicate". They all produced it as "vindiCATE". This means that the word "vindicate" generally receives wrong stress placement in Nigerian-English.

Performance on "advice" and "advise"

60% of the respondents tested on stress rightly placed stress on the second syllable of "advice" as "adVICE". The other 40% wrongly stressed the first syllable as "ADvice". On the other hand, too, 60% rightly stressed "advise" as "adVISE". As earlier stated, a general confusion was noticed among the respondents between those two English words. This shows that there are many Nigerian-English bilinguals who do not know that the two words are stressed the same way. Probably, too, many do not know what makes the difference between the two words. As a matter of fact, "advice" and "advise" are equally stressed on the second syllable and asides the difference in their meanings, the only phonological difference between them is their last phonemes. While "advice" /əd'vaɪs/ ends with the voiceless alveolar fricative /s/, "advise" /əd'vaɪz/ ends with the voiced alveolar fricative /z/. The researcher rates the performance on these two words by Nigerian-English bilinguals as fair.

Performance on "misappropriate"

All 100% of the respondents tested on stress wrongly stressed the word. 60% of them stressed it on the penultimate syllable as "misappropRIate" while 40% stressed it on the syllable before the antepenultimate syllable as "misAppropriate", instead of correctly stressing it on the antepenultimate syllable as "misaPPROpRIate". From the result, we can say that the word "misappropriate" generally has wrong stress placement in Nigerian-English.

Performance on "hourly"

It was observed that all 100% of the respondents tested on stress could properly stress the word as "HOURLy". This means that this word generally receives correct stress placement in Nigerian-English.

Application of Metrical Theory

Metrical Theory is a theory of linguistic prominence. This work looked at rhythm, isochronism, pitch and perceived stress in Nigerian-English, all which go into making the language melodious. These terms relate with and depend on one another. For instance, pitch can be high or low. High pitch is more prominent than low pitch. It is this prominence that reveals where stress is placed. For stress-timed rhythm, it is the stressed syllables that determine rhythmic breaks and feet. Then, isochronism (in the context of this study) relies on rhythm, since it has to do with regularity of time interval between syllables or stressed syllables. Every rhythmic unit has a point of prominence. In the data, this was evident in the high pitch used in pronouncing some words such as the wh- question words, and the syllables which were stressed in the words that were tested for stress, as they naturally received more prominence than the unstressed syllables. Few examples are presented below in metrical trees and some in grids too:

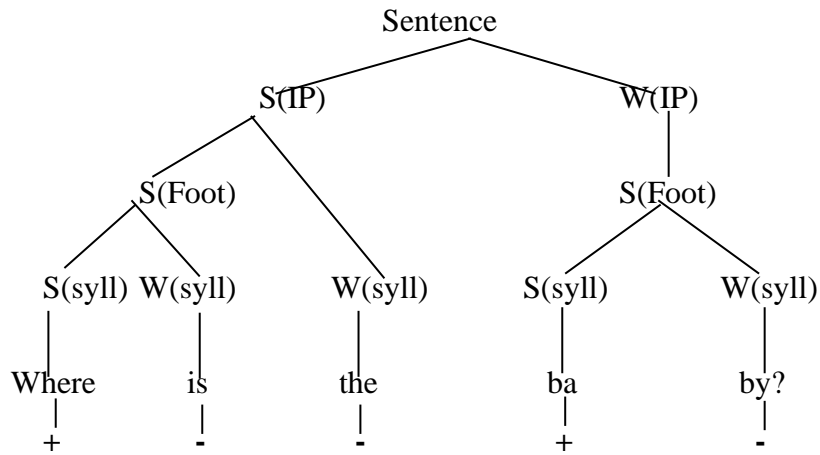


Figure 3:⁵ Metrical Tree for Sentence 2: Where is the baby?

“Where” and “ba” are strong syllables but in relation to each other, “ba” is weak. The DTE is “Where” because it has no weak node above it and that is where the highest pitch is.

Table 5: Metrical Grid for Sentence 2: Where is the baby?

X				
X			X	
X	X	X	X	X
Where	is	the	ba	by?

⁵ Key: IP = Intermediate Phrase, Syll = Syllable, + = Strong node or strong syllable, - = Weak node or weak syllable. (The key remains same in all other metrical trees, except otherwise stated).

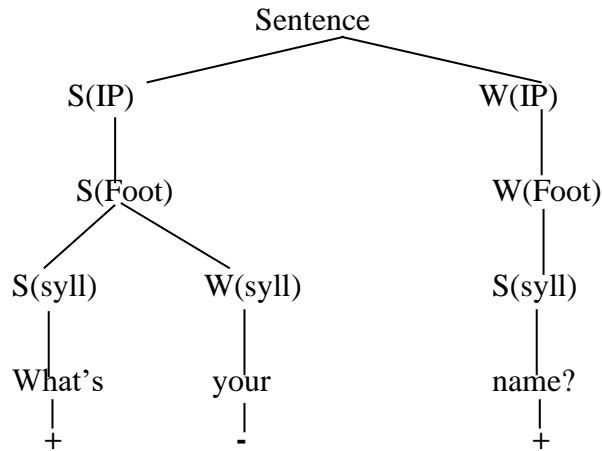


Figure 4: Metrical Tree for Sentence 4: What's your name?

“What’s” and “name?” are strong syllables but in relation to each other, “What’s” is the strongest. This is where the respondents’ pitch raised as they read the sentence.

Table 6: Metrical Grid for Sentence 4: What's your name?

X		
X		X
X	X	X
What's	your	name?

The DTE is “What’s”.

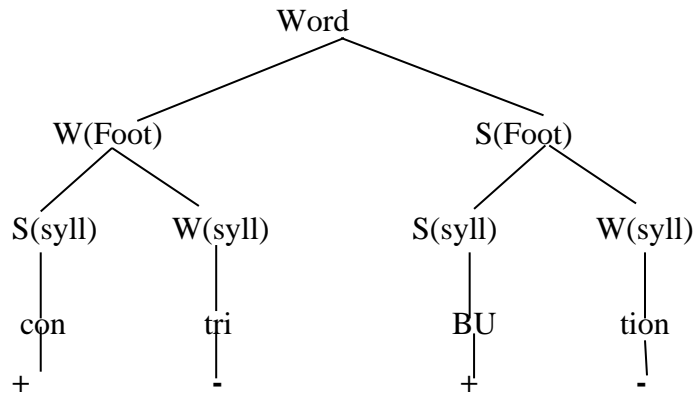


Figure 5: Metrical Tree for the Word “Contribution”.

In relation to the syllables “tri” and “tion”, “con” is a strong syllable but in its relation to “bu”, “con” becomes weak. The DTE is “bu”. In the respondents’ performances on this word, all of them duly stressed the word as found in the dictionary and as presented above.

Table 7: Metrical Grid for the Word “Contribution”

		X	
X		X	
X	X	X	X
con	tri	BU	tion

Metrical Tree(s) for the Word “Contribute”

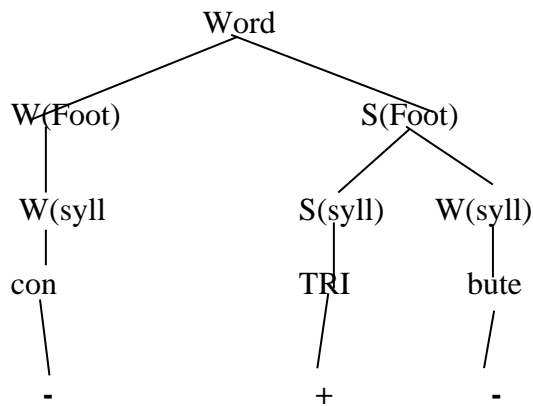


Figure 6: Dictionary Stress Pattern

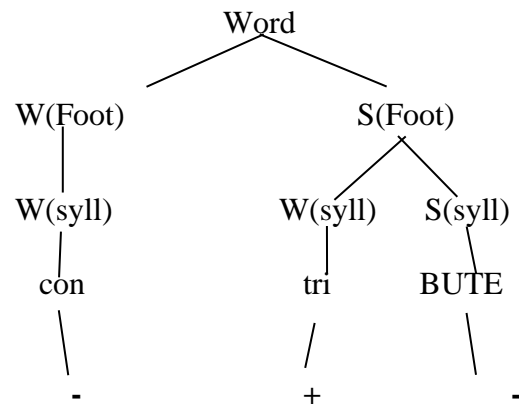


Figure 7: Respondents’ Performance

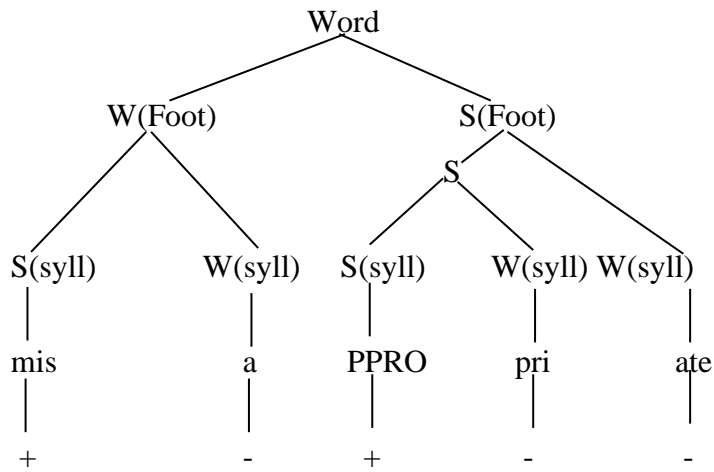
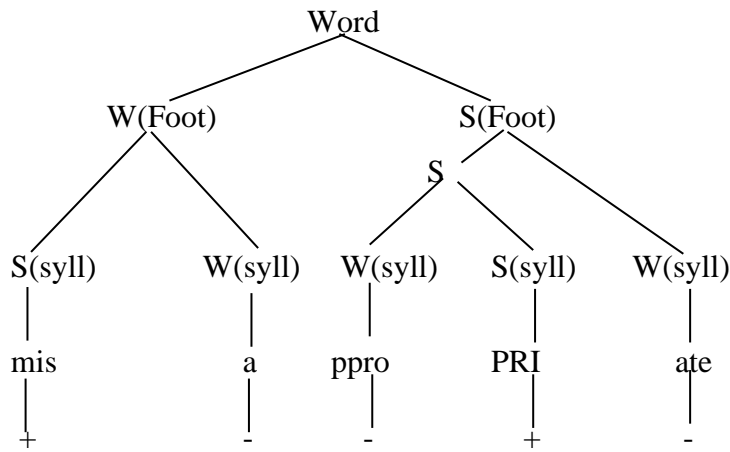
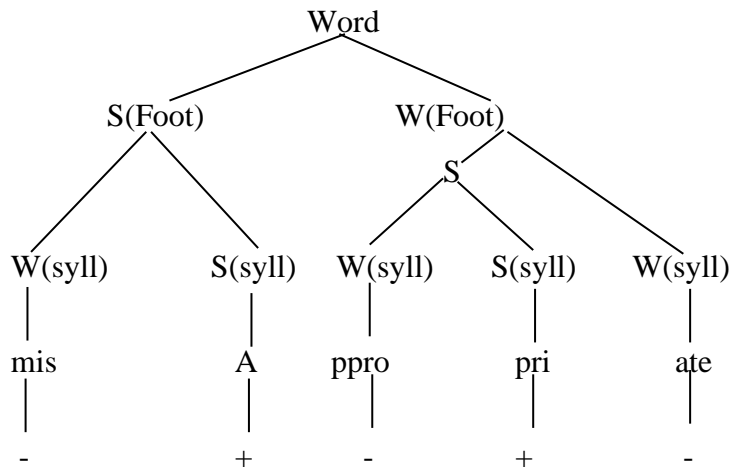


Figure 8: Metrical Tree for the Word “Misappropriate” (Showing Dictionary Stress Pattern)

Respondent’s Performances on “Misappropriate”



A-- Figure 9: misapproPRIate



B – Figure 10: misAppropriate

Those who stressed the word as represented in A above simply shifted the primary stress from “ppro” to “pri”; whereas, those who stressed it as represented in B gave the primary stressed to the syllable “a” and in order to avoid stress clash with the secondary stress in “mis”, which is just before the syllable “a”, the secondary stress naturally moved to the syllable “pri”. The points where the respondents placed primary stress were the points that had the most prominence in their performances.

Since the performances of the respondents on rhythm were mostly syllable-time, giving equal time to the realization of each syllable in the sentences, it is necessary to also represent a syllable in the metrical tree. This is done below with the syllable “won” from the word “wonderful” in sentence 6 (We think it was a wonderful affair). Apart from the idea of weak and strong syllables in a word or phrase, Metrical Theory also holds that there are weak and strong sounds within a syllable. When a syllable is realized, there is more prominence at the vowel because the vowel is the peak of a syllable as seen below:

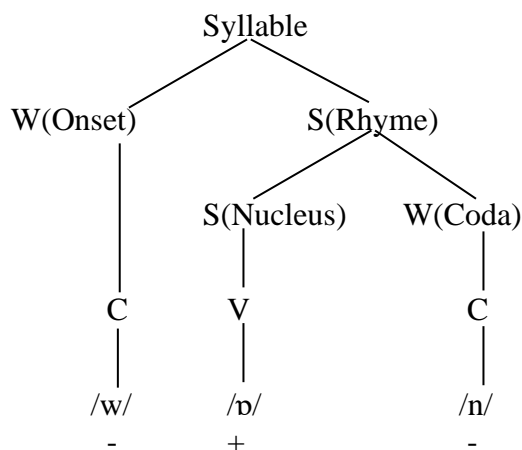


Figure 11: Metrical Tree for the Syllable “won” in “wonderful”

Conclusion

In terms of rhythm, the work has shown that in Nigerian-English, there is a general transfer of the syllable-timed pattern of Nigerian indigenous languages into the spoken Nigerian English, thus, making Nigerian-English rhythm mostly syllable-timed. This confirms what has already been established by scholars like Wells (1982) cited in Gut (No date) that Nigerian English has syllable-timed rhythm and that Nigerian English generally "reflects the prosodic structure of the speaker's native language...". This study also revealed that isochronism in Nigerian-English is based on the equal time interval given to each syllable (stressed or unstressed) and not to stressed syllables. In other words, isochrony in Nigerian-English is on syllables because there is uniformity in the duration used in realizing most syllables within a stretch of utterance. Furthermore, through the study, the already established fact that the females generally have higher pitch than the males was confirmed. Finally, the study established that a good number of English words receive wrong stress placement in Nigerian-English.

References

- Anglia, N. (2019). Stress, rhythm and intonation in phonetics. Retrieved 23rd August, 2023 from www.nordangliaeducation.com
- Anonymous (2009). The rhythm of English. Retrieved 12th September, 2023 from <https://www.studentwritingcenter.us/poetic-language/the-rhythm-of-english.html>

- Anonymous (No date). Rhythm: Meaning, examples & types. Retrieved 23rd August, 2023 from www.studysmarter.co.uk.
- Blakeley, S. and Davis, R. (2021). Metrical feet: Types & examples. Retrieved 29th August, 2023 from <https://study.com/academy/lesson/metrical-feet-characteristics-lesson-quiz.html>.
- Britannica (2019). Pitch speech. Retrieved 10th December, 2019 from www.britannica.com
- Chen, Y. (No date). Melody in speech. Retrieved 29th August, 2023 from <https://www.universiteitleiden.nl/en/research-projectys/humanities/melody-in-speech>
- Clark, J., Yallop, C. & Fletcher J. (2007). *An Introduction to Phonetics and Phonology*. UK: Blackwell
- Crystal, D. (2005). *How Language Works*. United Kingdom: Penguin Books.
- Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics, 6th Edition*. UK: Blackwell Publishers.
- Debczak, M. (2018). Why are girls' voices usually higher than boys' voices? Retrieved 12th September, 2023 from <https://www.mentalfloss.com/article/72393/why-are-girls-voices-usually-higher-boys-voices>
- Eka, D. (1996). *Phonological Foundations: English*. Uyo: Scholars Press (Nig) Ltd.
- Eltaif, S. A. (2021). Phonological analysis of isochrony in English speech. *Journal of Language Studies* 4 (4): 183-194. Retrieved 12th September, 2023 from <https://www.iasj.net/iasj/download/73e012ab68c3cd4d>
- Gut, U. (No date). The prosody of Nigerian English. Retrieved 29th August, 2023 from http://www.homes.uni-bielefeld.de/gibbon/Dafydd_Gibbon_Publication_PDFs/TAPS/Gut.html
- Katamba, F (1994). *English words*. New York: Routledge.
- Nordquist, R. (2019). Rhythm in phonetics, poetics and style. Retrieved 23rd August, 2023 from <https://www.thoughtco.com/rhythm-phonetics-poetics-and-style-1692065>
- Osifeso, E.A. (2017). Word stress among Yoruba L2 Speakers of English in Lagos – An optimality approach, pp19-28. *Madonna Journal of English & Literary Studies*, 2(10).
- Pernet, C. R. and Belin, P. (2012). The role of pitch and timbre in voice gender categorization. Retrieved 12th September, 2023 from <https://doi.org/10.3389/fpsyg.2012.00023>

- Robbins, K. (2023). The female voice and how to describe it. Retrieved 12th September, 2023 from <https://www.voices.com/blog/the-female-voice/>
- Scharinger, M. (2022). Melody in speech and music. Retrieved 13th September, 2023 from <https://doi.org/10.1515/9783110770186-003>
- Seong-cheol, O. (2013). The rhythm of English: Stress clash and stress shift. Master's Thesis, Graduate School of Jeju National University. Retrieved 4th June, 2024, from <https://oak.jejunu.ac.kr/bitstream/2020.oak/20625/2/The%20Rhythm%20of%20English%3A%20Stress%20Clash%20and%20Stress%20Shift.pdf>
- Skandera, P. and Burleigh, P. (2011). *A Manuel of English Phonetics and Phonology*. Tübingen: Gunter Narr Verlag. Retrieved 12th September, 2023 from <https://books.google.com.ng/books?id=LzWa5TgCJiQC&pg=PA87&lpg=PA87&dq=isochronism+in+phonology&...>
- Tsojon, I. Y. and Aji, Y. N. (2014). Pronunciation problems among Jukun (Wapan) English speakers, pp6-12. *European Journal of Research and Reflection in Arts and Humanities*, 2 (1). Retrieved 15th December, 2014 from www.idpublications.org.
- Udo, A. M. (2015). Problems with the pronunciation of long English vowels: A study of Ibibio-English bilinguals. BA Project, University of Uyo, Uyo.
- Yang, Y. (2023). The importance of pitch in conveying meaning in English. Retrieved 29th August, 2023 from <https://doi.org/10.1051/shsconf/202316802002>

Appendix

The following sentences and words are intended for a study on the melody of language, with focus on Nigerian-English. Please do read them for recording and analysis.

Sentences

1. This is the teacher.
2. Where is the baby?
3. Favour says that he wants us to play.
4. What's your name?
5. Did he speak with Mary at the/club?
6. We think it was a wonderful affair.
7. She stays in Lagos.
8. Kate wrote the letter in English.
9. How did you do it?

Words

1. Success
2. Contribute
3. Contribution
4. Introduce
5. However
6. Vindicate
7. Advice
8. Advise
9. Misappropriate
10. Hourly