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INTONATIONAL STRUCTURE OF EREI SPEAKERS OF ENGLISH

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ABSTRACT: *Intonation is a feature of supra-segmental phonology which emcompasses, among others, rhythm, height, pitch range, fundamental frequency and timing, resulting in communicative intelligibility in English. But the feature has not been seriously studied in the second language situation, and it is the level where language transfer is most noticed among second language users. The study investigated the intonational structure in the speech of Erei-English biliguals, using the speech outputs of the subjects to determine their mastery of tunes (falling and rising), fundamental frequency as well as duration. It is arguably true that the incorrect production of intonational patterns on English would result to ineffective communication, different interpretations and unintelligibility, among many others. Yet, the feature has traditionally been neglected in the second language teaching even when the non-segmental features are studied. The data (four sentences) used for the study were obtained through recorded utterances that were read aloud by the subjects, and were subjected to computerised speech laboratory. Two research objectives and questions were adopted to guide the study. The findings showed that Erei-English bilinguals lack the knowledge of intonation; the falling tune is used in all utterances as compared to the native speaker's output, thereby do not observe a tone distinction between yes/no question and statement intonationally. They also exhibit a different alternation from the Standard British English (SBE), using more time to produce an utterance.The performance suggests that a majority of Erei-English bilinguals in the study were yet to meet SBE, and that intonation is the final hurdle which many speakers of English as L2 hardly could cross. The study suggested the provision of teaching materials, radio and television language programmes and technology, among others, to help improve communicative intelligibility among Erei-English users in Nigeria.*

KEYWORDS: Intonation, Fundamental Frequency, Duration, Erei-English Bilinguals

INTRODUCTION

English intonation can produce different meanings in an utterance to help speakers realise certain communicative purpose. The functions assigned to intonation such as attitudinal, accentual and grammatical, among others, play a vital role in communication (Okon, 2000). Wells (2006) reports that different patterns used in intonation are possible, but different meanings are usually intended with the different patterns of intonation.

Language and culture are mutually inclusive in the evolution of social development. It is arguably true that intonation has a common relationship between the society and language, and may therefore bring confusion to speakers and hearers if they do not share the same cultural background, and especially, when the interculators come from different speech communiuties. This process could cause problem between native and non-native interculators as they would hardly understand properly the meanings of each other intonationally.

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Writers like Atoye (2005) argue that of all the non-segmental features, intonation remains most neglected in second language (L2) acquisition. Cruz-Ferreira (1983) reports that intonation has only "recently begun to be seriously and systematically taken into account both in literature devoted to foreign language and teaching itself" (p. 24). Odlin (1989, p. 118), on his part, has also pointed out that foreign language (FL) teaching has not considered the teaching of intonation very seriously, and has especially become a crucial fort of language transfer. Intonation therefore, has been the level where communication is least welcome, especially in the teaching of English to non-native learners (Atoye, 2005, p. 30). Atoye further argues that of all the non-segmental features, intonation appears to be the area where language transfer is most noticed. According to the source, stress, rhythm and other non-segmental features have been given greater consideration when the teaching of the non-segmental features is required. The teaching would first begin with lexical stress, sentence stress/rhythm before intonation would be introduced which would rather not be tackled seriously, and learners may have felt overwhelmed and lost interest by then.

Although Ayodele (1983) reports that the non-segmental features pose difficulty to L2 learners, yet he argues further that the mastering of intonation creates greater problem to L2 learners of English:

> The major problems are in the areas of stress and intonation. Most of the individual words are correctly stressed, but in full utterance, there are occasional confusions. The speaker can now use stress for effect e.g. for emphasis, but he or [she] might occasionally have problems using the correct intonations for the desired moods e.g. for doubt, surprise, anxiety, etc. (p. 106)

In the same vein, Atoye (2005) maintains that an average non-native learner can easily perform better in the area of individual segments, stress and rhythm, but such would completely lose confidence when the teaching of intonation is introduced since the speaker has no better knowledge of the standard intonational structure of the native speaker:

> …for while the average educated non-native learner of English can attain a very high standard of grammatical accuracy in the language and master the pronunciation of its sound segments and word stress, s/he often cannot appropriately use its intonation with any reasonable degree of confidence. (p. 30)

Thus, according to Grice and Baumann (2002), intonation is particularly difficult for learners of an L2 to master, but is seldom taught systematically. They argue that even though the studies of intonation have tended to be more experimental and/or theoretically rigorous, the earlier works on intonation were didactic in nature. And despite practitioners and trainers' concern, intonation has not yet been thoroughly studied in the interpreting settings with regard to its specific influence on L2 acquisition. Researchers therefore, believe that first language (L1) intonation is learned in the first stage of language acquisition and become automatic after this period. Second language speakers would generalise L1 intonation rules over the L2 language, opening possibilities for miscommunication, misinterpretation and sometimes, unintelligibility (Verdugo, 2006). The intonation of Erei is different from English due to the fact that Erei intonation has different pitch movements as well as timing; Erei-English speaker may tend to transfer the L1 intonation contours into the target language (Ukam, 2015).

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From the pedagogical standpoint, researchers have drawn attention to the fact that transfer of L1 to target language is most noticeable among L2 users in the supra-segmentals than the segments (Derwing, Munro & Wiebe, 1988). The teaching of English at the supra-segmental phonology has received less attention in the pronunciation teaching class (Ukam, 2015), and generally speaking, more emphasis has been placed on the segmental aspects of the language. The lack of attention seems more to be due to the difficulty found in teaching some features of rhythm and, especially intonation.

Intonation, therefore, plays an important role in L2 learning, but unfortunately little attention has been given to the feature in an L2 instruction. Intonation is not only related to rhythm of the language, it is also deeply connected to how attitude and emotion are expressed during the act of speech. According to Verdugo (2006), intonation is a powerful tool in the message of any linguistic exchange. Cruz-Ferreira (1989), on his part, observes that even L2 speakers who have perfect or near-perfect command of the phonetics of the L2, find it difficult to manifest accurately the intonational patterns in their spoken English since intonation is "the last stronghold of a foreign accent in speaking any L2" (p. 24). This is not surprising as reported by Atoye (2005), who argues that "intonation of non-native English poses serious intelligibility problem to native speakers of the language" (p. 26). Bansal (1976, cited in Atoye 2005, p. 26) on comparing the intonation of English among the Indian speakers of English, discovered that:

> The division of speech into sense groups and tone groups is sometimes faulty, and pauses are made at wrong places. The location of the intonation nucleus is not always at the place where it would be in normal English. The rising tone sometimes used at the end of statements must sound unusual to the RP-speaking listeners. (p. 21)

Adejuwo (2003) notes that majority of the radio newscasters in south-western Nigeria such as Ibadan, Oyo State neither understood the intonation tunes that were played back to them, nor did they employ such tunes in their own newscasts. Therefore, intonation, like other non-segmental features of English, is a significant aspect of communicative intelligibility and meaning bearing but has traditionally posed a lot of difficulties to non-native users which should be closely studied among the Erei people as L2 speakers of English.

Objectives of the study

1. To investigate the extent of possible problems of intonation among Erei speakers of English in Cross River State Nigeria.
2. To ascertain the degree of Erei-English bilinguals' manifestation of intonation in their spoken English.

Research questions

1. What is the nature of English and Erei intonational patterns?
2. To what extent do Erei-English bilinguals manifest intonation in their spoken English?

LITERATURE REVIEW

Intonation vs. tone

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Roach (2000) notes that "there is no completely satisfactory definition of intonation" (p. 133), but any attempt at defining the concept must recognise the fact that the pitch of the voice plays the most important part. The technical terms "tone" and "intonation" mean patterned variations in the pitch of the voice that serve to contrast and to organise words and larger utterance. But, the terms are used differently in their aspect of pitch uses. Mathews (1997) defines intonation as "a distinctive pattern of tones over a stretch of speech in principal longer than a word (p. 201), and tone language as "one in which units within words are distinguished phonologically by a distinct tone or sequence of tones (p. 409).

While intonation applies to larger utterances, tone applies to single syllables. Uzoezie (1992, p. 157) explains that some languages, especially most native Nigerian languages like Igbo, Yoruba, Efik and Erei, and many others, are called tone languages because tone does in them what intonation does in English. The English word "man", as Uzoezie further elaborates, has only one syllable, and it does not matter to native speakers of English whether it is articulated with a falling or rising tune; the meaning remains unchanged. But in a tone language, tone plays a very important semantic function since some words can have many different meanings by merely changing the tone on the syllable that makes up the word. This classification assumes intonation as the rise and fall of the voice in speaking; a pattern of distribution over a longer span which is a property of the sentence. But tone is primarily and technically defined as a localised melodic event occurring over the span of a syllable, that is, tone is a pitch melody when it is a property of the word (Okon, 2000; Roach, 2000).

Eka (1996) notes in universal terms that, "natural languages are not spoken at one level of voice pitch for a considerable length of time" (p. 81), rather when people read or speak aloud, their voice pitch is continually not the same. The pitch of the voice could be either "falling or rising, rising or falling, falling and then rising, rising and then falling and only occasionally level for a special effect" (Eka,1996, p. 81). According to the source, when the variations correlate to a sentence rather than a word, they are referred to signal intonation – that pattern which occurs at the ends of utterances, and languages with this pitch variation (like English) are regarded as intonational. But when the variation in pitch relates to the word (like Erei), it is said to be tonal.

We can therefore, traditionally define tone as pitch contour associated on a word that can differentiate lexical meaning. In Erei, for instance, the word "eko" as shown below (unless otherwise stated) has two lexical meanings (Ukam, 2015): low (ekò) and high (ekó). With a falling tune (L) on the second syllable, the word means "war"; with rising tune (H) on the same syllable, it means "snail". It is important to note that the difference between them be attributed not to stress (as done in English) but to tone. In English however, "a word can be pronounced with different pitch contours, but has the same lexical meaning" (Uzoezie, 1992, p. 157). For example, "cat" with an L signals neutral or statement; but with an H it signals question. Although the word has been assigned with both L and H tunes, its lexical meaning does not change.

At times a pair of words can be different in neutral pitch contours as in 'im-port (L) and im-'port (H), but these words differ in stress. The word class has changed from noun to verb, but the lexical meanings remain the same. In English therefore, pitch does not distinguish lexical meaning, and English is referred to as a non-tonal or intonational language (Uzoezie, 1992; Eka, 1996). Crystal (1975) demonstrates therefore that "intonation is not a single system of contours and levels, but the product of the interaction of features from different prosodic system – tone, pitch range, loudness, rhythmicality and tempo in particular" (p. 11).

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A lexical tone is a pitch contour that "is not predictable from other phonological properties, such as stress or segmental features, and can distinguish word meanings" (Uzoezie, 1992, p. 157). Pitch contours in English are not lexically contrastive, but does express other meanings such as surprise, question, affirmation, disbelief and so on, describing them as "contextual meanings" to the utterance. Okon (2000) reports that intonation is used differently and syntactically in English. These meanings are not affected by the feelings and attitudes of the speakers. Intonation can function subjectively with reference to speaker's mood, emotion and attitude. The function of intonation is clearly illustrated in the framework of communication; therefore, its function is shown in the transfer of information from the speaker to the listener. Intonation is variative, that is, it helps to eliminate monotony in an utterance. Another function of intonation is the transformation of words as appellative units into communication units, that is, into utterance (Okon, 2000; Ukam, 2015).

However, Cauldwell and Hewings (1996) provide evidence to suggest that all the rules given to intonation in English Language Teaching books are "inadequate descriptions of what occurs in naturally-occurring speech" (p. 327). They argue against Fries' (1964) analysis on yes/no questions that "there seem to be intonation sequences on questions that are not found on other types of utterances" (p. 327). They conclusion that a study of yes/no questions which shows "the relationship between intonation and question form is more complex than that suggested in textbook rules" (p. 327).

The uses of intonation in English are more flexible and variable. Halliday (1967) proposes five tunes for intonation. He assigns: 1. Falling for statement; 2. High rising for seeking information or challenging a statement; 3. Low rising for question; 4. Rising-falling for assertion and, 5. Falling-rising for submission. On the other hand, Crystal (2003) describes up to nine types of intonation for saying "yes" which include "level, falling, high-falling, low-falling, rising, high-rising, low-rising, falling-rising and rising-falling". O'Connor and Arnold (1973) illustrate 10 patterns of intonation with contrastive examples for each pattern.

These different patterns of intonation by different authors are rather difficult to learn and acquire for L2 learners of English (Atoye, 2005). And Roach (2000) has argued that only two tones are necessary: falling and rising, a combination of which would produce other tones like fall-rise and rise-fall. The source disagrees with other authorities who include a rise-fall-rise and a fall-rise-fall, stating that these other tones are "unnecessary duplication" (p. 160), misleading L2 learners of English intonation. Like Roach, Eka (1996) is similarly of the opinion that intonation should be assigned two tones: simple or unidirectional and bidirectional. The unidirectional intonation comprises the falling and rising tunes, whereas the bidirectional intonation includes a combination of fall-rise and rise-fall.

Using a different pattern of intonation in speaking another language would be interpreted differently. For example, a falling intonation on English yes/no question can be interpreted as abruptness, or a rising intonation on a wh-question can imply surprise. Okon (2000) avers that L2 users of English do not use intonation to express attitude or emotion because intonation in their indigenous native languages, particularly among Nigerians, is restricted. She adds that the rich information of Standard British English (SBE) is neglected by Nigerian speakers because to them communication is less informative which may sound needless and unintonational, owning to the absence of the linguistic competence of the language. She concludes that intonation in Nigerian English is unifunctional because it is used mainly for permission of information, whereas intonation in SBE performs dual functions: information and grammatical

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roles. It is for this purpose why Eka (1996) describes L2 speakers' intonation as being inconsistent and unconventionally idiosyncratic:

> Various groups within L2 speakers and users of English as a foreign language are in this category; probably the most easily identifiable in this are the nonstandard speakers of the new Englishes in particular. Indeed one can see why the intonation of a large number of speakers of the new Englishes is often said to be colourless. (p. 83)

Gimson (1977) has argued that intonation tends to be situational, "depending on the attitude of the speaker to his audience, and to the general situation of utterance" (p. 52); to the speaker's general emotion and general changes which characterise situational utterances. The utterance "This is my book", according to the source, may be assigned falling tune to any of the words depending on the speaker. Vallduvi (1991), on his part, points out that "tonicity" is another area of difficuty experienced by speakers.

This difficulty could be seen in emphasis placed on structural and traditional approaches rather than communicative approach pointed out by Atoye (2005), who claims that "one of the sources of the difficulty of English intonation for the foreign learner is, no doubt, the undue emphasis placed, in teaching, on its structural analysis rather than on its communicative value in EL2 programmes" (p. 27). He further elaborates that "the notions of tonality, tonicity and the tone group" (p. 27) (Halliday, 1967; Crystal, 1975), also variously designated as intonational phrase, phonological clause or sense group (Cruttenden, 1990) are presented to L2 or FL learners of English in that structuralised order which was illustrated by Pike (1945) and other researchers (Kingdon, 1958; Abercrombie, 1964; O'Connor & Arnold, 1973). Consequently, Atoye demonstrates that the distribution of tone as "rising and falling, with many complex configurations such as 'fall-rise', 'falling to mid', and 'low-rising'…confuses the L2 learners" (p. 27) (see Halliday, 1967, p. 24), because their "primary business, like that of the non-linguist native speaker is to use intonation appropriately in every communication" (p. 27). He argues further that the idea of the tone group, foot or syllable (Halliday, 1967, p. 12) does not help the non-native users of English to understand the language better. Atoye concludes that the more worrisome and perplexing "is the demarcation of the tone group's internal structure into obligatory nucleus (the tonic or nuclear syllable) and the optional Head, Pre-head and Tail" (p. 27). In the study of Curie (1980), a great deal of misunderstanding occurs among learned phoneticians on the recognition of the nuclear or tonic syllable in the sentences recorded from Edinburgh Scottish English speakers. And Pierrehunbert (1980) and Goldsmith (1981) have both independently dismissed the theory of tonal versus non-tonal languages as they argue that even though English is grouped as an intonatonal language, it displays contours that are similar like those located in tonal languages. The researchers have considered both tonal and intonational languages as being represented with sequences of H's and L's. According to their reasoning, both tonal and non-tonal languages have tones whether or not they differentiate word meaning or sentential meaning. In summary, the approval of the structuralist framework, rather than communicative framework for teaching intonation to learners of L2 may have little success (Atoye, 2005; Ukam, 2015).

METHODOLOGY

The study was carried out in eight villages out of 17 in Erei, Biase Local Government Area of Cross River State Nigeria. The villages were Abanwan (AB), Afono (AF), Edu (ED), Egbor

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(EG), Ibini (IB), Ipene (IP), Umuolor (UM) and Urugbam (UR). These villages are located in Erei southern and northern polical wards where over 75 per cent of the entire population speak Erei. Eight subjects (four males and four females) selected from the eight villages were tested. Four sentences, read aloud by the testees, were recorded on tape in order to test the manifestation of intonation in their spoken English. The sentences were:

1. When he got there, Paul realised himself.
2. Are you comfortable?
3. Can you see him?
4. They couldn't have chosen a better time for their holiday.

The data were subjected to computerised contemporary linguistic analysis through the use of Praat software in order to show fundamental frequency (F0), measured between 75 Hertz (Hz) to 500Hz, and the duration or timing which is calculated in milliseconds (ms). Subjecting the data to computerised analysis is to reduce all elements of subjectivity and human errors since the human ear might not pick up every sound that it hears. A native British English (BE) speaker of British accent was also tested to serve as a control.

Data analysis and discussion

The results from the recorded data are analysed and presented using a graphical representation for Sentences 1 and 2, F0 readings for Sentence 3 and duration for Sentence 4 according to the research questions which guide the study.

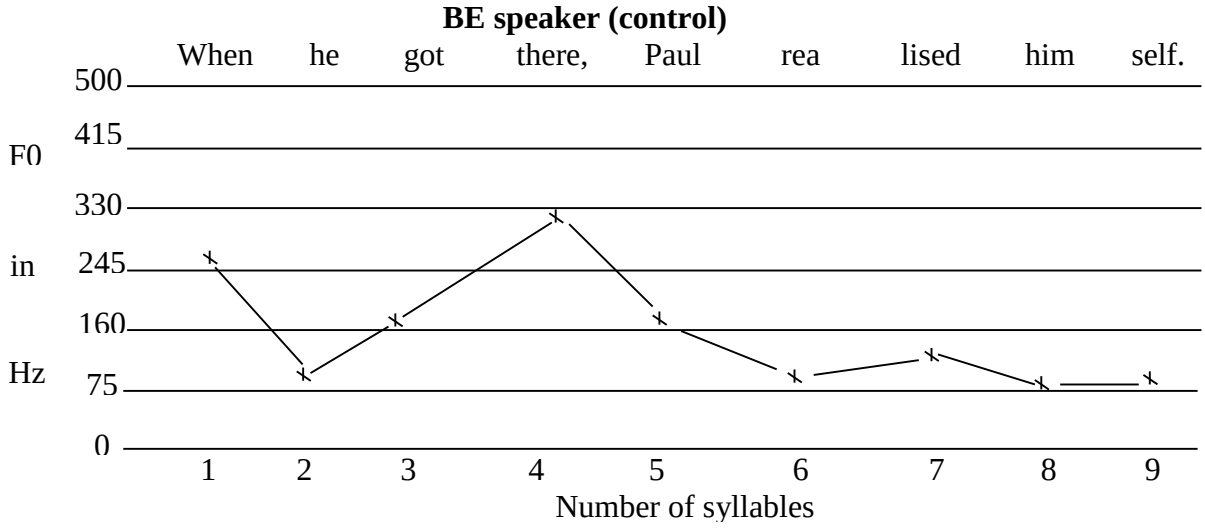
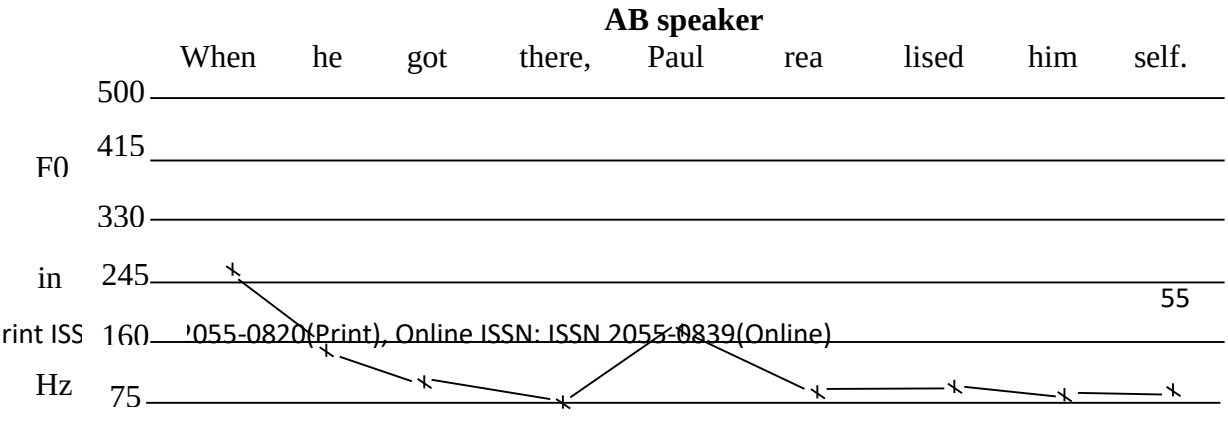


FIG. 1: Acoustic pitch contour of the sentence "When he got there, Paul realised himself" as produced by a native British speaker of English

(a)



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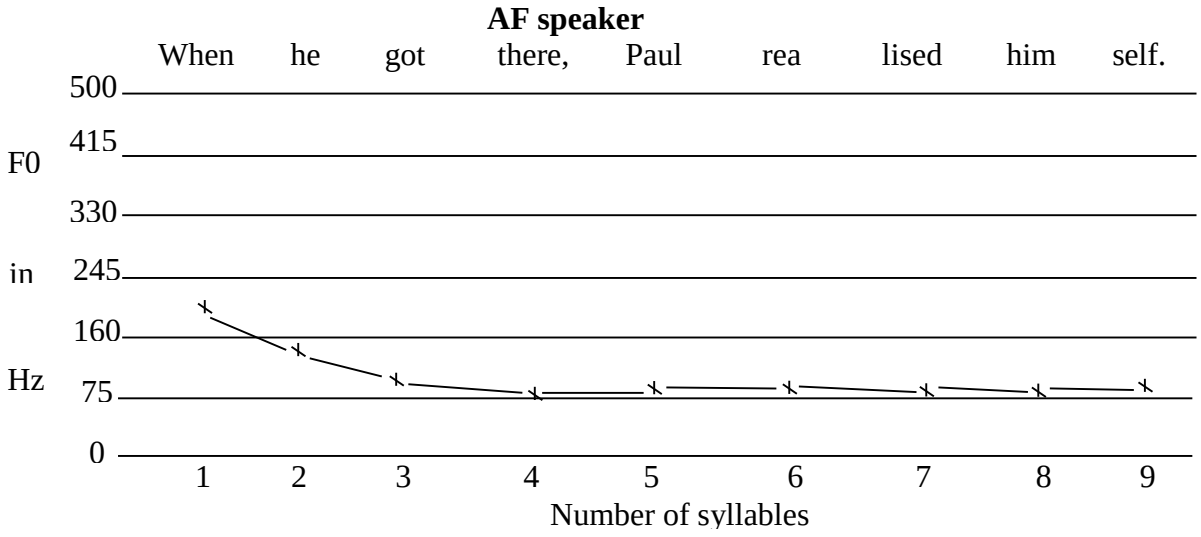

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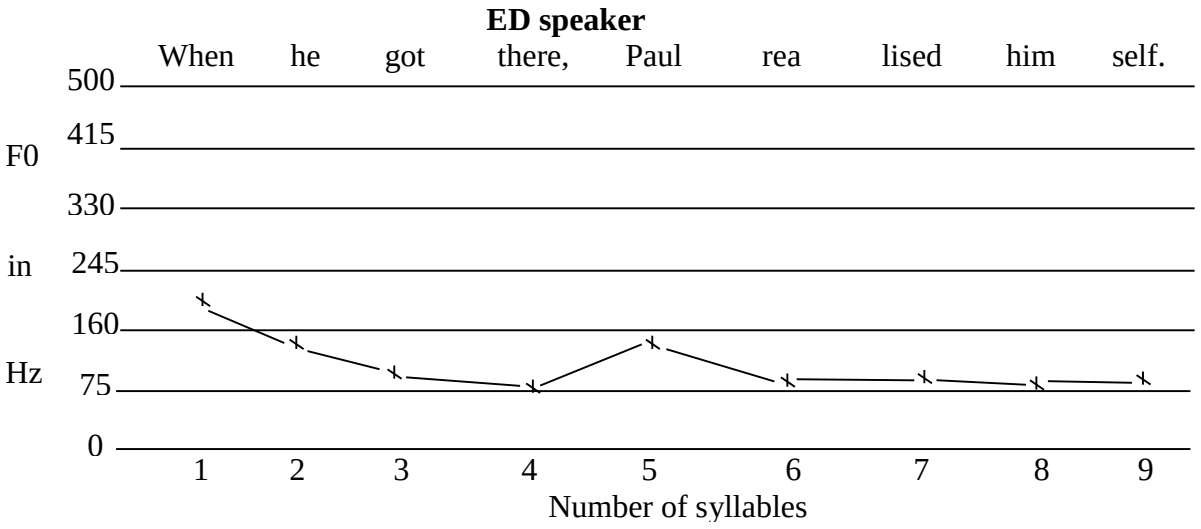

FIG. 2: Acoustic pitch contours of the sentence "When he got there, Paul realised himself" as produced by Erei-English bilinguals

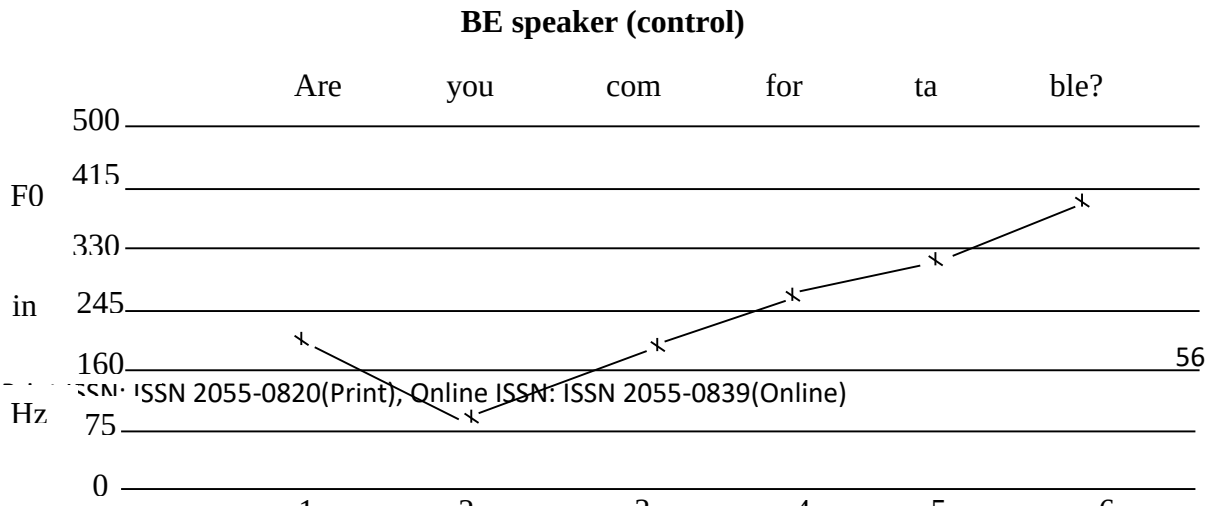

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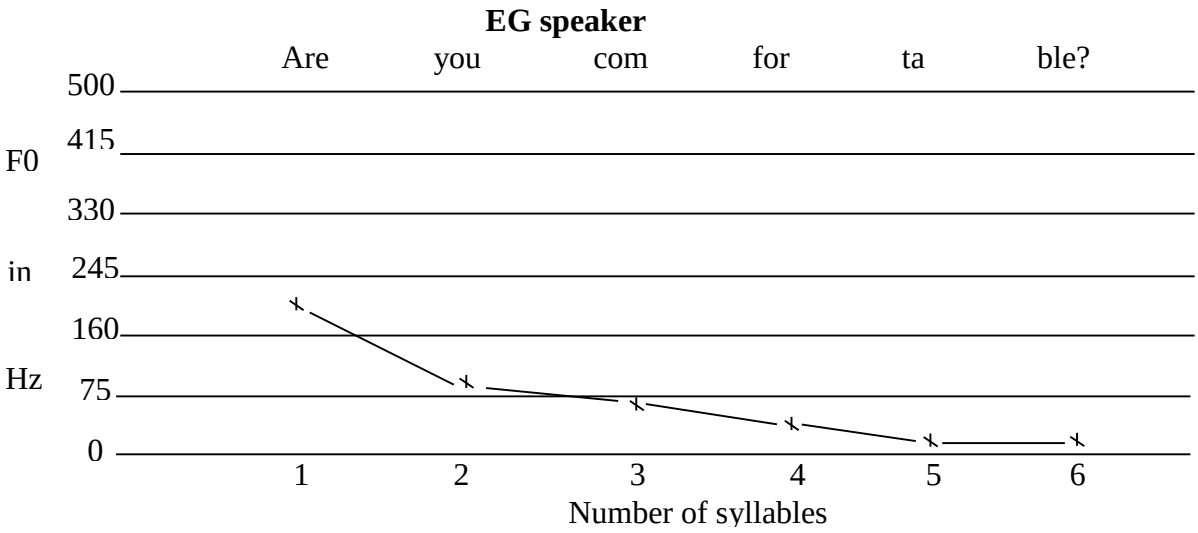
FIG. 3: Acoustic pitch contour of the sentence "Are you comfortable?" as rendered by a native British speaker of English

(a)



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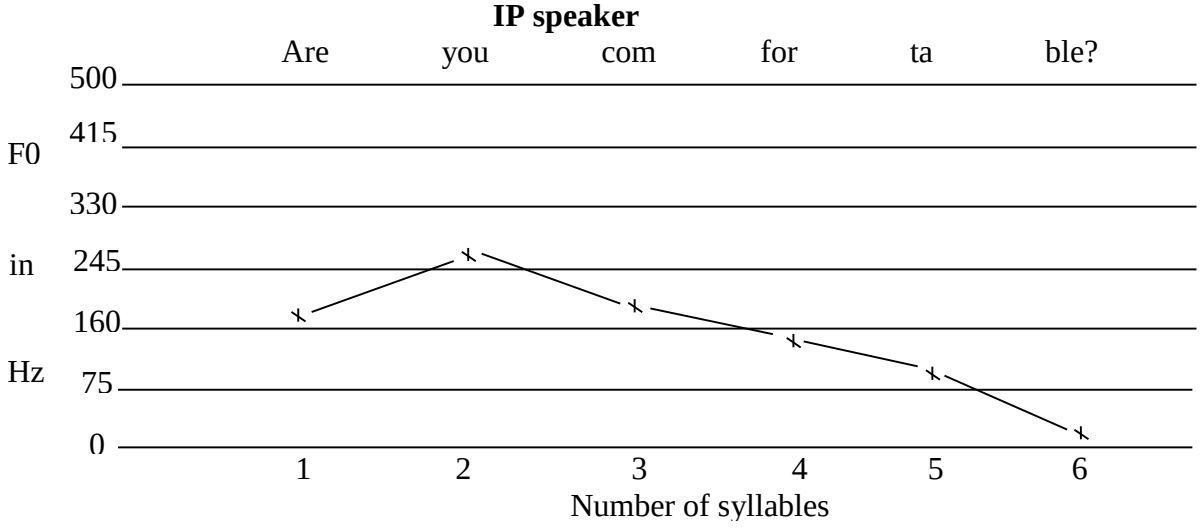

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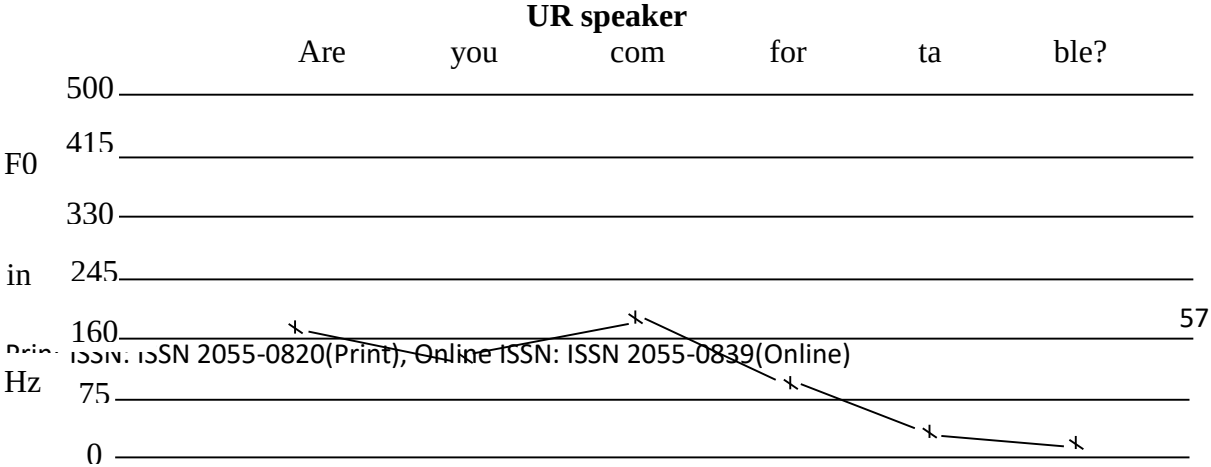

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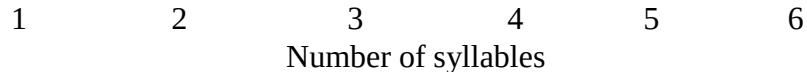

FIG. 4: Acoustic pitch contours of the sentence "Are you comfortable?" as rendered by Erei-English bilinguals

A look at the intonational pattern of the Erei speakers of English shown in FIGs. 2 and 4, indicates that the intonational contours displayed by Erei-English bilinguals differ considerably from the control's output. There is a variation and/or deviation in the intonational utterance of Erei speakers of English. In English, intonation, like stress, is used in terms of the expression of meaning as discussed earlier in the literature review. But from the contours displayed in FIGs. 2 and 4, it was observed that Erei speakers as L2 users of Erei are yet to term with this aspect of spoken English. In FIG. 2, for instance, we notice that the subordinate clause (known also as the continuation clause) (Ladefoged, 2006), "When he got there…" is often wrongly assigned Tune 1 (falling tune) by Erei-English bilinguals, instead of Tune 11 (rising tune) to indicate that more is expected from the speaker as shown in the control's output in FIG. 1. In the utterance of the control, we discover that the head of the continuation utterance is the word "when", rendered with 260Hz which is where the first stressed syllable begins. The pitch falls down on the weak syllable "he" and rises again to the next stressed syllable "got". The tune does not fall down again to the next weak syllable "there", instead, rises to show that the utterance is not completed, and that the listeners are expecting more from the speaker, giving rise to Tune 11. And in the next intonational utterance, "…Paul realised himself", the main message is delivered. The control's utterance falls gradually, beginning from the first stressed syllable "Paul" to the tonic "self", giving rise to statement. But in the pitch outputs of Erei speakers, the reverse is the case; their contours are completely different. Erei-English bilinguals manifest falling tune throughout the utterances without a distinction of the two tunes as it is usually obtainable in English language.

In our second example, we also notice that the utterance in Sentence 2 "Are you comforted?" as displayed in FIGs. 3 and 4 respectively, shows that it is a question, and what should be required is Tune 11 not Tune 1. In the control's output, the first syllable "are" is given prominent but not as high as the tonic syllable "com", which receives the most emphasis. From the control's output, we discover that the pitch of the voice does not fall in the remaining three weak syllables: -for-, -ta- and -able. Rather the pitch is kept high throughout the utterance beginning from the tonic syllable "com-", indicating Tune 11 and question utterance. But in the utterance of Erei-English bilinguals in FIG. 4, we notice that the subjects manifest falling tune instead, disregarding the function of the rising tune in the production of English sentences.

The statistics confirm that Erei speakers of English do not appear to elevate their mastery of the spoken English above the segmental level. The explanation, as noted by Ukam (2015), is that Erei language in particular does not observe a tune distinction in an utterance between yes-no questions and statements intonationally. This may be as a result of the fact that Erei is a tonal language, where the variation of the voice is not used contextually as does in English. But the variation of voice is applied on a single syllable of the same word to derive another

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lexical word (Ukam, 2015), and as such Erei speakers may not know the difference between the falling and rising intonations as they are noticeable characteristics of English.

Erei speakers of English in the study therefore, transferred the pitch patterns of Erei in speaking English, where all utterances irrespective of statements or questions are rendered using only the falling tune or Tune 1, disregarding the rising tune or Tune 11, making their speech colourless (see Eka, 1996). The situation might affect the intended message conveyed by Erei speakers, and may be interpreted differently.

To show the F0 readings of the subjects using Sentence 3, "Can you see him?", the native speaker shows a pattern of strong weak strong weak with the following readings: 171Hz, 160Hz, 210Hz and 134Hz. The F0 of 210Hz is on the most accented syllable "see", and the F0 of 171Hz is the next accented, while others are unaccented. This pattern shows the stress-timed pattern of SBE where the stressed and weak syllables alternate with each other to give SBE its peculiar rhythm.

A look at the testees below shows further the difference in the deployment of the intonational contours of Erei-English speakers and the control on one hand, and the F0 of male and female speakers tested on the other:

AB (female speaker)	204Hz	235Hz	223Hz and	168Hz
AF (male speaker)	142Hz	166Hz	163Hz and	145Hz
ED (female speaker)	237Hz	283Hz	249Hz and	197Hz
EG (male speaker)	132Hz	283Hz	149Hz and	197Hz
IB (female speaker)	199Hz	255Hz	226Hz and	181Hz
IP (male speaker)	137Hz	159Hz	147Hz and	121Hz
UM (female speaker)	208Hz	267Hz	252Hz and	191Hz
UR (male speaker)	115Hz	132Hz	132Hz and	131Hz

The waveforms of the F0 readings of the subjects in Sentence 3 illustrate that one ED female speaker displayed the highest F0 of 283Hz, an unaccented syllable in the control's output, and one UR male rendered the least F0 of 115Hz, an accented syllable in the native speaker utterance. Although both speakers were presented with the same sentences for production using identical recording equipment and environment, their F0 were not the same. Other respondents who produced high F0 were one UM female with 267Hz, and one 1B female with 255Hz. At the same time, the male speakers (one 1P male with 121Hz and one EG male with 132Hz) also rendered the least F0 respectively. This implies that although equal opportunities may have been given to both sexes for their mastery of English prosody, the females, as their F0s have shown, might perform better and fluently in spoken language than the males since F0 by definition means the behaviour and movement of the vocal cords in the production of utterances in a language. The vocal cords determine how better one produces the sound systems (both the segments and supra-segments) to give a particular language its characteristic rhythm and peculiarity.

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The F0s in all the females are higher than their male counterparts in all ramifications, indicating that they (females) may perform better and sound more rhythmic in spoken language than their male counterparts (Okon, 2000). Similarly, while the native speaker of English displayed the most accented syllable in "see", 80 per cent of Erei-English speakers, using the F0 tracings, had the most accented syllable in the second syllable "you" (an unaccented syllable in the control's output) in the same sentence.

The waveform F0 tracings of Erei-English bilinguals do not therefore, correspond in any way with that of the native speaker of English. We can, therefore, deduce that the rhythm of the control's output is characterised by stressed and unstressed syllables but which is not the case with the speech of Erei-English speakers whose rhythm is syllable-timed (Ukam, 2015, p. 102). This observation correlates with the findings of Eka (1985), Amayo (1986), Udofot (1997), Udoh (1998), Okon (2000), and Dadzie and Awonusi (2004) who had done similar findings on the intonational structure of Nigerian speakers of English.

The speech duration of the control and the informants using Sentence 4, "They 'couldn't have 'chosen a 'better 'time for their 'holiday", demonstrates that the time taken by the native speaker of English to produce the sentence is 2.773290ms, while one IP male (4.51962ms), one AF speaker (4.423911ms), one ED female (4.23069ms) and one EG male (4.04780ms) rendered much times for the same sentence. The duration for each of the respondents is given below:

Native British speaker	2.773290ms
AB (female speaker)	2.99567ms
AF (male speaker)	4.423911ms
ED (female speaker)	4.230696ms
EG (male speaker)	4.047801ms
IB (female speaker)	3.394520ms
IP (male speaker)	4.51962ms
UM (female speaker)	3.48094ms
UR (male speaker)	3.849184ms

The duration of the respondents means that Erei-English speakers exhibit different alternation rhythm from the native speaker of English. Because of the rhythmic rule applied by the control in his output, the time he used to produce the sentence was obviously different from that used by Erei respondents except AB female who with 2.995698ms tended to be closer to the control's output. But others like, IP male, AF male, ED female and EG male respondents, rendered respectively, 4.51962ms, 4.423911, 4.230696ms and 4.047801ms much times than the control in that same utterance due to the influence of strong syllables occurring in their outputs. In his empirical study, Ukam (2015) discovers that there is a characteristic stringing of series of strong syllables in the speech of Erei speakers, resulting in their "taking more time to produce a sentence which varies from the SBE, indicating also a characteristic of Standard Nigerian English" (p. 110). This observation correlates with the findings of Udofot (1997), Okon (2000) and Dadzie and Awonusi (2004).

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According to Udofot (1997), for instance, in spoken Nigerian English, there is a preponderance of prominent syllables caused partly by lack of reduction of vowels, and that with the non-application of vowel reductions, Standard Nigerian English (SNE) should be described as a full vowel-timed system (syllable-timed). In 1998, Udoh, adding to Udofot's (1997) finding, demonstrated that there is some rhythmic alternation surrounding stressed syllables in the native British speaker's output which is absent among Anaang speakers of English. Therefore, Erei-English speakers lack reduction of vowels as well as unstressed syllables in their outputs; they use much time to produce an utterance than their native English counterparts.

In the native speaker's output therefore, Sentence 4 has five stressed syllables and 10 unstressed syllables, giving 2.773290ms to produce the utterance since the time between a stressed syllable and another in SBE is roughly the same no matter how many intervening unstressed syllables there may be (Pike, 1945; Abercrombie, 1967). But this is not the case for Erei-English speakers, particularly, IP male and AF male, who also produced the same utterance using 4.51962ms and 4.423911ms respectively. In the speech of Erei-English bilinguals, for example, it is the number of syllables rather than stressed syllables that determines the duration of an utterance (Ukam, 2015). This observation correlates with Dadzie and Awonusi (2004, p. 189) who report that this "weakness" can easily be traceable to the tonal nature of indigenous Nigerian languages where each syllable, irrespective of strong or weak, is given the same time lapse as any other so that the tonal pattern can come out clearly. Adding to the investigation, Dadzie and Awonusi (2004) explain further that "in our pronunciation of English... stress is realized largely by pitch, in keeping with our inherent tonal pattern, and by amplitude and rarely by length" (p. 189), maintaining therefore that "our sentence intonation gives fairly equal spacing to every syllable" (p. 189).

Erei-English speakers therefore, transfer the tonal pattern of Erei which gives prominence to every syllable (a characteristic of SNE) in speaking English, resulting in taking much time to produce a sentence than we can observe in the speech of native English speakers.

CONCLUSION

The representation of the sentences above shows a true intonational picture of English spoken by Erei speakers in the Nigerian environment. From the performances of the subjects under study,we agree with Okon (2000), who cited Crystal (1999), that there are dialects of English language with its different regional accents. This is true because the performance of the subjects is an evidence that English spoken by Nigerians is syllable-timed and tonal since they render all the syllables in a word or sentence with equal amount of energy. The respondents find it difficult to distinguish between falling and rising intonations in their spoken English; they show a consistent use of falling tune even when a rising tune is required. There is completely no reduction of vowel in their outputs, resulting in taking much time to produce an utterance than their British counterparts. Erei-English users have shown clearly that native Nigerian speakers have a different peculiar characteristic in producing the English language which is an L2 in Nigerian environment, due to influence of indigenous Nigerian languages (Okon, 2000).

If we also agree with Amayo (1980), who asserts that Edo speakers' problem with English pronunciation are traceable to the phonological interference of Edo with English, we would like to state that the outputs of the subjects clearly establish the intonational patterns of Nigerian English (Okon, 2000). An analysis of the use of intonation, especially in measuring the F0 of female and male respondents showed a significant difference in the choice of intonational patterns of English. This observation correlates with Okon's (2000) finding of the intonation

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patterns of Nigerian English. According to the source, the females exhibit higher F0 of 410Hz against F0 of 365Hz for the males, even though both sexes may have been given equal opportunity for educational development in spoken English.

In other words, the intonational patterns of Erei-English bilinguals varies from their British counterparts, and these variations are powerful evidence of regional identity of Nigerian English, that is, the variations move from regional to national. The application of deploying falling tune in all utterances like statement, question, surprise and list of items, among many others, as well as the influence of strong stressed syllables confirm a geographical defined group of speakers in Nigeria which serves to strengthen our findings. Our findings therefore, show that L1 influences the target language in a number of ways, and this has conditioned English spoken by Erei speakers in the Nigerian environment to have its own peculiar characteristic.

RECOMMENDATIONS

1. Provision of local teaching materials that are culturally and experimentally appropriate for L2 speakers in non-native countries.

2. Government should set up effective radio and television language programmes in the villages to help assist L2 speakers in their choice of intonation.

3. The teaching of intonation in L2 teaching class should be taught together whenever the word or sentence is introduced to the learners rather than separately.

4. Effective language learning should not be separate from technology if there should be uniformity in spoken English; technologies such as computerised speech equipment and well-equipped language laboratory, among others, have become backbone of contemporary language teaching in spoken English, and should be introduced in Nigeria if we are to promote international intelligibility.

5. Teaching English prosody to speakers of such syllable-timed like Erei would seen to be difficult if they are expected to sound neutral. Therefore, constant oral practice and drilling should always be carried out in the L2 learning environment to assist learners' efforts toward attaining a good command in spoken English.

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