



SUPRASEGMENTAL FEATURES AND STRESS ASSIGNMENT IN NIGERIAN ENGLISH EDUCATION

Amina Zaynab Lawal

Department of English and Literary Studies Faculty of Arts Usmanu Danfodiyo University, Sokoto, Nigeria

Abstract: English in Nigeria is a second language; hence, Nigerian English can be categorized as English as a Second Language (ESL) because it is a product of colonial settlement, it is learnt through the education system, it is spoken in an environment where majority of speakers are non-native; and it has become nativized by taking some of the features of the native languages. This paper examines some aspects of the suprasegmental features of Nigerian English with emphasis on stress assignment. Vowels and consonants can be considered to be the segments of which speech is composed. Together they form syllables, which in turn make up utterances. Superimposed on the syllables, are other features that include variations in stress (accent) and pitch (tone and intonation). Variations in length are also considered to be the suprasegmental features, although they can affect single segments as well as whole syllables. All of the suprasegmental features are characterized by the fact that they must be the same utterance. Taking educated speakers of English in Nigeria as the case study, this study finds that Nigerian speakers are still struggling to attain proficiency in spoken English; a fact that should be expected considering the period at which Nigerians are introduced to the English language.

Keywords: Suprasegmental, Stress, Intonation, Nigerian English

1. Introduction

Use of English in Nigeria has attracted considerable scholarly attention from the 1950s. Most of the studies conducted have investigated all aspects of the use of English in the country and highlighted the areas in which errors occur as well as the type of errors. However, in spite of all these scholarly efforts, use of English in Nigeria is still far from proficient. This may not be unconnected with the observation of Platt, Weber and Ho (1984, p.2) about a New English variety that:

(1) It has developed through the education system. This means that it has been taught as a subject and, in many cases, also used as a medium of instruction in regions where languages other than English were the main languages. The degree to which English is used as a medium of education for other subjects varies considerably from nation to nation and from one type of school to another.

It has developed in an area where a native variety of English was not the language spoken by most of the population. For various reasons, ... pidgin and creole languages are not considered to be native varieties of English.

(2) It is used for a range of functions *among* those who speak or write it in the region where it is used. This means that the new variety is used for at least some purposes such as: in letter writing, in writing of literature, in parliament, in communication between the government and the people, in the media and sometimes for spoken communication between friends and in the family. It may be used as a lingua franca, a general language of communication among those who speak the same native language but use English because it is felt to be more appropriate for certain purposes.

(3) It has been 'localized' or 'nativised' by adopting some language features of its own such as sounds, intonation patterns, sentence structures, words, expressions. Usually, it has also developed some different rules for using language in communication.

The foregoing observations are applicable to the Nigerian English situation and may provide evidence as to the continued imperfections in the use of English in spite of years of teaching and research on the language. This is the driving force for the conduct of this study.

2. Literature Review

This section presents a brief review of literature on suprasegmental aspects of the phonology of English.

2.1 Stress

Stress, according to Hawkins (1984) is an extra force used when pronouncing a particular word or syllable. Matthew (1991) defines it as a phonological feature by which a syllable is heard or is more prominent than others. In this paper, we see stress simply as a relative degree of loudness of a syllable or word, or of a syllable within an utterance. In English, only one syllable is usually stressed in a word. In words of one syllable the stress falls on the one syllable.

To understand word stress, it helps to understand syllables. Every word is made from syllables. Each word has one, two, three or more syllables. The English language operates a syllable structure usually specified as (Co3 V Co4). This specification states that the syllable in English can have an onset made up of no consonant at all or up to three consonants, an obligatory vowel as the nucleus, and a coda made up of no consonant at all or up to four consonants. In other words, there is no English word that begins with eight consonants, nor is there one which begins with even four consonants. The limit is three, as exemplified by words such as *splash*, *stream* and *scratch*. Furthermore, the consonants which can appear in these initial clusters are highly restricted: the first one can only be *s* the second must be *p*, *t*, or *k*, and the third is constrained to *r*, *l* or *w*.

2.2 Word Stress

Word stress is the secret key to understanding English pronunciation. Word stress can be phonetic. A good example of this is the word *record*. As a noun the word is accented on the first syllable. Here the noun RECoRD is pronounced /rekod/. As a verb the word is stressed on the second syllable. For example: You should record the minutes of the meeting. Here, the verb record is pronounced /rikod/. Two or more syllable words have their own stress systems, as follows:

- a. Two-syllable words are stressed mostly on the first syllable, e.g.: broken, handsome, curtain, picture, farmer, baby, curfew, madam, purchase, perfume, typist, dustbin, motion, etc.
- b. Two-syllable words beginning with a prefix of some kind (a-, per-, dis-, re-, com-, ex-, ab-, etc.) are usually stressed on the second syllable. Examples: away, behind, persist, dismiss, reply, commit, exceed, concern, enjoy, conceive, convey, infer, garage etc.
- c. Some three-syllable words have their stress on the middle syllable. Examples: important, receiver, approval, condition, develop, informant, consider, inherent, enjoyment, inferior, insistence, exactly, exterior, contemptuous, depression, ulterior, constant, precisely, etc.
- d. Some other three-syllable words are stressed on the first syllable. Examples: wonderful, absolute, ignorant, covering, hopefully, hooligan, educate, elevate, photograph, telephone, autograph, etc.
- e. Some other three-syllable words may have their stress on the third syllable. Examples: consignee, guarantor, addressee, decompose, refugee, nominee, understand, guarantee, personnel, etc.
- f. Four-syllable words may have their stress on the first syllable. For example:

comparable, humanism, socialism, capitalist, etc.

g. Some other four-syllable words may have their stress on the second syllable. For example: conservator, developing, experiment, intelligence, etc.

h. Some other four-syllable words are stressed on the third syllable. Examples of four-syllable words which are stressed on the fourth are few and far between, but here are two of them: Vietnamese, officialize, etc.

i. Words of five syllables: These words show a great variety in stress placement with some being stressed on the first, some on the second, some on the third and others on the fourth syllable as exemplified below:

- Stressed on the first syllable: capitalism, regionalism, etc.
- Stressed on the second syllable: comparatively, colonialism, imperialism, extraordinary, exploratory, explanatory, preparatory, irreparable, etc.
- Stressed on the third syllable: selectivity, seniority, meritocracy, mediocrity, etc.
- Stressed on the fourth syllable: cooperation, consideration, interdependent, parliamentary, reintegration, etc.

j. Words of six, seven and eight syllables. These words would be taken together because they are relatively few.

k. Words of six syllables show three different patterns of stress placement:

- Stressed on the third syllable: Constitutionalize, internationalize, indistinguishable, etc.
- Stressed on the fourth syllable: vulnerability, superiority, inferiority, etc.
- Stressed on the fifth syllable: experimentation, decolonization, etc.

l. Words of seven syllables:

- Stressed on the third syllable: irresistibility, internationalism, irresponsibility.
- Stressed on the fourth syllable: egalitarianism, etc.
- Stressed on the fifth syllable: intelligibility, irrevocability, etc.
- Stressed on the sixth syllable: industrialization, individualization, etc.

m. Combinations are treated as one word and usually have their stress on the first part. Examples: dining-room, handbag, notebook, inkpot, bookcase, classroom, football, etc.

n. Nouns modified by other words have their own normal stress patterns, as in the following groups: a stone building, a cotton shirt, a wooden door, a green bag, an old house, etc.

o. Words that function as both nouns and verbs have the stress on the first syllable when they are nouns and on the second syllable when they function as verbs. Examples: contrast, extract, increase, protest, progress, record, insult, export, import, etc.

Jowitt (2000) points out that, Nigerian speakers of English are given to assigning primary stress on second syllables of some disyllabic words, whereas in Standard British English, the stress is placed on first syllables. Examples include chaLLenge, broadCAST, fireWOOD, perFUME, saLAD, etc. instead of Challenge, BROADcast, FIREwood, PERfume and SALad.

Similarly, in words of more than two syllables, the following picture emerges from Nigerian speakers: congratuLATE, investiGATE, radiAtor, etc. as against Standard British English realizations of conGRATulate, inVESTigate, and RAdiator respectively.

2.3 Stress in Sentences

Apart from word stress, English also employs sentence stress (Bolinger 1972). English sentence stress is not fixed and this causes a greater problem for Nigerian speakers. Each sentence has its own stress pattern. Stress may occur on any word in the utterance depending on what we want to convey. Consider the sentence "Where did he go yesterday? The stress may be on 'he' with focus on the person, or on 'where' to show emphasis on the place, or on 'yesterday' to stress the time. Another example of contrastive stress is 'She ate five apples in the afternoon.' Thus, the speaker may stress the word 'she' to show that it was she and not he who did the eating; or he may stress the word 'five' to mean that she ate five and not three or four or two or one apple; he also may focus on the word 'afternoon' to show that the action, i.e. the eating took place in the afternoon and not in the morning.

As a general rule, the words that are stressed, in a normal sentence are adverbs, adjectives, main verbs or nouns. In contrast, articles, auxiliary verbs, pronouns, prepositions and conjunctions receive tertiary, quiet, or weak stress. However, the emphatic ‘do’ takes a primary stress.

As stated above, English sentence stress also presents problems to the average Nigerian speaker of English. Jowitt (2000) captures this in the following contrasts between Standard British English (SBE) and Popular Nigerian English (PNE):

(i) PNE: Revenue dwindled and there was nothing we could do aBOUT it.

SBE: Revenue dwindled and there was nothing we could DO about it.

(ii) PNE: Well, you can get it all neat and tidy aGAIN.

SBE: Well, you can get it all neat and TIdy again.

3. Intonation

Intonation is the name given to the rising and falling of voice as we speak. Fromkin and Rodman (1974), Akmajian, Demers and Harnish (1979), Roach (1983) and Yule, (1985). Languages in which regular sequences of different pitches characterized stretches of speech between sounds are said to be *intonation* languages, whereas languages in which pitch differentiation marks the distinction between one word and another are known as *tone* languages. English, French, German and many Indo-American languages belong to the first category, while most African languages such as Hausa, Yoruba, Igbo, Izon, Ewe, etc. belong to the second category. Thus, if we listen to the pitch of voice while someone says a sentence, we will find that it is changing continuously. The difference between speaking and singing according to experts is that in singing people hold a given note for a noticeable length of time and then jump to the pitch of the next note. However, when people are speaking, there are no steady-state pitches.

The intonation of a sentence is the pattern of pitch changes that occurs. The part of a sentence over which a particular pattern extends is called a tone group. A short sentence often forms a tone group and this is normally indicated by lines placed above the sentences.

Intonation is phonemic, as any change in the intonation pattern of the sentence may add meaning or implication to the basic meaning of the sentence. Knowledge of its use is, therefore, of primary importance in order to avoid incorrect interpretation of the speaker’s attitude or feelings.

Intonation is related to sentence stress, since the accented syllable is often spoken on the highest note. There are two important intonation patterns in English.

3.1 The Falling Pattern (Tune)

The falling intonation pattern is found under the following situations:

3.1.1 Declaratives: The intonation of declarative sentences has the same falling pattern as that of one-syllable words. For example: Bello is a good boy. We’re going home. The light is out. He is happy with us. She likes her job. This is a good studio.

3.1.2 Commands: Like declarative sentences, commands also have a falling pattern as in the following examples: Shut the window! Open your mouth! Drive carefully! Stand up! Sit down! Read the script! Come back tomorrow! Read the passage aloud! Wait a second!

3.1.3 Wh-questions: Like declaratives and commands, Wh-questions (which, who, why, when, where) also have falling patterns or tunes. For examples: What happened yesterday? What’s your name? Who’s speaking? What’s the time? Where do we go from here? Where do you come from? Which does she want? Why are we here? How on earth do you get here?

3.2 The Rising Pattern (Tune)

The rising intonation pattern is expected under the following conditions:

3.2.1 Yes/No Questions: These are questions which do not have an explicit question word in them and which may be answered by either ‘yes’ or ‘no’ or a longer utterance. Yes/No questions have a rising pattern in English and many languages. Here are some examples of some yes/no questions: Are you busy? Can I come in? Are you an announcer? Are you the Manager? Is it important? Does she know me? Did you eat it? Would you like some tea? Do you live here? Shall I call the police?

3.2.2 Incomplete Statements: Incomplete statements are in some way like questions because they require something else to complete them. A question has a rising intonation as if the rise represents a search for an answer or the expectation of one. Similarly incomplete statements have a rising intonation as if to symbolize their non-finality; their incompleteness. Some of the examples of incomplete statements are: He is a clever student, (but he is rude). If I see you tomorrow, (I'll take you to my new house). Once you tell me who you are, (I'll let you in). The man may be poor, (but he is honest). Although she is rich, (she can't afford a car).

3.2.3 Politeness/requests/encouragement: The rising pattern is also utilized in the expression of politeness. For instance, a command such as come in is normally said with a falling pattern as earlier discussed. However, if the rising pitch is used, the command is now turned in to a polite utterance. *Come on; Go on*, etc. may be used to convey a sense of encouragement when said with a rising pattern.

3.2.4 Listing items: Items may be listed by using the rising pattern in that case; the last of the items carries the falling pattern. For example: Apples, mangoes, oranges, lemons and dates. Others are: A, B, C, D, E, F, and G. Stevenson (1974) believes that "the use of inappropriate intonation patterns can cause misunderstanding" while Ibrahim (2002) posits that without appropriate intonation, a second language learner can never speak like a native speaker. He says further: "The gap between Nigerian English and British RP seems to be wider in the area of intonation..." This position is supported by the findings of Jowitt (2000) that in Nigerian English usage, the falling tune is more frequently used than in Standard British English. He equally points out that Nigerian English assigns a rising tune to questions more than is found in British English. Similarly, he says that Nigerian English does not employ the use of the rising-falling tune, though he accepts that this is rare even in British English. Finally, he asserts that in Nigerian English usage, every utterance is considered as having a constant intonation pattern. This he believes is wrong because the patterns could be varied for "contrastive purposes such as the context of utterance might require".

4. Methodology

This study centres on lexical stress. A test was administered on (48) forty-eight subjects who are university students of English Language in their third year of study. The students were randomly sampled from a population comprising 160 students. The sampling was gender sensitive as 23 subjects were male while 25 were female. They were divided into three groups and presented with the following English words:

Group A:

- | | | | |
|------------------|----------------|----------------|---------------|
| (a) Abdicate | (f) Circular | (k) Citrate | (p) Algebra |
| (b) Circumstance | (g) Disconnect | (l) Disobey | (q) Character |
| (c) Cinema | (h) Hostage | (m) Equipment | (r) Android |
| (d) Discomfiture | (i) Astonish | (n) Altruistic | (s) Charcoal |
| (e) Telephone | (j) Television | (o) Danger | (t) Image |

Group B:

- | | | | |
|-----------------|----------------|----------------|-----------------|
| (a) Adjudicate | (f) Disembark | (k) Drainage | (p) Succulent |
| (b) Equality | (g) Equation | (l) Suspicious | (q) Character |
| (c) Admission | (h) Assuage | (m) Homage | (r) Treatment |
| (d) Equate | (i) Convention | (n) Successful | (s) Communicate |
| (e) Circumspect | (j) Telecom | (o) Dangerous | (t) Discontinue |

Group C:

- | | | | |
|---------------|---------------|-------------|-------------------|
| (a) Armadillo | (f) Furniture | (k) Kickoff | (p) Perusal |
| (b) Bandicoot | (g) Guitar | (l) Lady | (q) Quadruplicate |

(c) Caffeine (h) Handkerchief (m) Medicine (r) Reconstruction
(d) Delinquent (i) Illimitable (n) Nightcap (s) Splendid
(e) Eager (j) Jawbreaker (o) October (t) Territorial

Although they were organized into groups, they were not asked to work as a group; each respondent had a copy of the list of words. they were asked to identify, by using a stroke, the syllable that bears primary stress in each word.

5. Results

The results of the exercise are as follows:

Group A:

Word	Male (9)			Female (7)			Total
	Correct	Wrong	ST	Correct	Wrong	ST	
Abdicate	3	6	9	3	4	7	16
Circumstance	3	6	9	2	5	7	16
Cinema	4	5	9	4	3	7	16
Discomfiture	0	9	9	1	6	7	16
Telephone	2	7	9	3	4	7	16
Circular	4	5	9	3	4	7	16
Disconnect	0	9	9	0	7	7	16
Hostage	4	5	9	4	3	7	16
Astonish	2	7	9	1	6	7	16
Television	1	8	9	0	7	7	16
Citrate	4	5	9	2	5	7	16
Disobey	5	4	9	6	1	7	16
Equipment	3	6	9	3	4	7	16
Altruistic	0	9	9	0	7	7	16
Danger	4	5	9	5	2	7	16
Algebra	2	7	9	1	6	7	16
Character	3	6	9	3	4	7	16
Android	1	8	9	4	3	7	16
Charcoal	4	5	9	5	2	7	16
Image	5	4	9	5	2	7	16

The data above show the performance of Group A subjects with respect to the assignment of primary stress. The data reveals the deficiency the respondents have with respect to syllabification in particular and the knowledge of the phonology of English. The overall picture is not encouraging but there are a few extreme cases. The male respondents scored zero against 1 correct score for female respondents for the word “discomfiture”, all the respondents scored zero for the word “disconnect”; and for “television”, the score was 1 for male and zero for female respondents. The word “altruistic” also attracted zero scores for both sides.

Group B:

Word	Male (8)			Female (8)			Total
	Correct	Wrong	ST	Correct	Wrong	ST	
Adjudicate	2	6	8	0	8	8	16
Equality	6	2	8	4	4	8	16
Admission	3	5	8	4	4	8	16
Equate	4	4	8	4	4	8	16
Circumspect	2	6	8	2	6	8	16
Disembark	3	5	8	4	4	8	16
Equation	3	5	8	6	2	8	16
Assuage	2	6	8	2	6	8	16
Convention	5	3	8	6	2	8	16
Telecom	3	5	8	5	3	8	16
Drainage	4	4	8	4	4	8	16
Suspicious	0	8	8	0	8	8	16
Homage	1	7	8	6	2	8	16
Successful	4	4	8	3	5	8	16
Dangerous	4	4	8	2	6	8	16
Succulent	1	6	8	4	4	8	16
Character	3	5	8	3	5	8	16
Treatment	5	3	8	5	3	8	16
Communicate	1	7	8	1	7	8	16
Discontinue	2	6	8	5	3	8	16

The data in the above table show the performance of Group B which is not significantly different from the performance of Group A. The Group equally scored unimpressive results. The extreme cases are seen in the words “adjudicate” for which the male subjects scored 2 while the females scored zero, “suspicious” for which all the subjects scored zero; and “communicate” which recorded one correct score on both sides.

Group C:

Word	Male (6)			Female (10)			Total
	Correct	Wrong	ST	Correct	Wrong	ST	
Armadillo	5	1	6	3	7	10	16
Bandicoot	1	5	6	3	7	10	16
Caffeine	2	4	6	3	7	10	16
Delinquent	2	4	6	5	5	10	16
Eager	2	4	6	7	3	10	16
Furniture	1	5	6	5	5	10	16
Guitar	2	4	6	4	6	10	16
Handkerchief	1	5	6	5	5	10	16
Illimitable	0	6	6	1	9	10	16
Jawbreaker	0	6	6	2	8	10	16
Kickoff	1	5	6	2	8	10	16
Lady	2	4	6	7	3	10	16
Medicine	1	5	6	5	5	10	16
Nightcap	1	5	6	5	5	10	16
October	6	0	6	6	4	10	16
Perusal	1	5	6	1	9	10	16
Quadruplicate	1	5	6	3	7	10	16
Reconstruction	2	4	6	6	4	10	16
Splendid	1	5	6	4	6	10	16
Territorial	3	3	6	7	3	10	16

Group C has a similar performance. The words “illimitable”, “jawbreaker”, “kickoff”; and “perusal” were the extreme cases with the poorest scores. The scores generally show that gender is not an important variable as neither group outperformed the other looking at the overall results.

6. Discussion

Stress assignment in English follows a given pattern that makes it relatively easy to identify a syllable that should bear primary stress in a word. According to Roach (2009, p.74): All stressed syllables in words have one characteristic in common, and that is prominence. Prominence is produced by four main factors: (i) loudness (intensity), (ii) length, (iii) pitch (Fundamental Frequency/FO), (iv) quality. Generally, these four factors work together in combination, but experimental work has shown that these factors are not equally important; the strongest effect is produced by pitch, and length is also a powerful factor. Loudness and quality have much less effect.

The foregoing quotation indicates that stressed syllables stand out by being produced with higher pitch, they are longer and loud compared to other syllables in words. This suggests that syllables with long vowels, diphthongs, and branching rhymes should be stressed because English is a Quantity-Sensitive language (Gordon 2002, p.55).

In addition to the question of prominence, most English nouns are particularly noted to be extrametrical ((Hayes 1980, p.271)); i.e. their final syllables are not stressed. Knowledge of these proposals will aid in the identification of stressed syllables.

The results of the exercises presented above show at least four things. The first is that spelling pronunciation is still prevalent in the English of Nigerian speakers. The stressing of “adjudicate” as ad’judicate by most of the respondents implies that they pronounce the word as */əd’dʒu:dɪkeɪt/ rather than /ə’dʒu:dɪkeɪt/. In the same vein, stressing “success” as su’ccess instead of suc’cess means that the word is realised as */sʌsses/ instead of /sʌk’ses/. Similarly, the word “image” was stressed by most of the respondents as i’mage in place of ‘image because apparently, it is pronounced as */ɪ’meidʒ/ instead of /’ɪmɪdʒ/.

Another reason for the wrong assignment of stress by the respondents is the lack of knowledge of the Principle of Onset Maximisation. This principle requires that as many consonants as possible should be in the onset of the following syllable rather than in the coda of the preceding one (where such sequences do not violate sonority sequencing generalisation). Knowledge of this principle will make the subjects to stress “discomfiture”, “astonish”, “reconstruction”, and “suspicious” as di’scomfiture”, “a’stonish”, “recon’struction”, and “su’spicious” instead of dis’comfiture”, “as’tonish”, “recons’tuction”, and “sus’picious” as most of the respondents did.

It has equally been noted that most of the subjects are oblivious of the extrametrical property of most English nouns; hence, they assigned stress to the final syllables of some nouns which should be stressed on their penultimate or antepenultimate syllables. For example, the words

“armadillo”, “delinquent” and “telephone” were stressed as “armadi’llo”, “delin’quent” and “tele’phone”, instead of “arma’dillo”, “de’linquent” and “‘telephone” ostensibly because their final syllables either contain diphthongs or branching rhymes which make them heavy; hence stress-attracting. The extrametricality of such nouns makes their final syllables invisible to stress assignment rules.

Finally, the contention of Jowitt (2000) that Nigerian speakers are given to assigning stress on the second syllables of some disyllabic and trisyllabic words where British speakers would stress the first syllable is upheld by the respondents. The words “nightcap”, “jawbreaker” and

“handkerchief” were stressed as “nightCAP”, “jawBREAKer” and “handKERchief” respectively instead of “NIGHTcap”, “JAWbreaker” and “HANDkerchief”.

7. Conclusion

This paper began with an explanation of the concept of suprasegmentals and went on to discuss the notion of stress and its implication to spoken English. An examination of the phenomenon of intonation and its phonemic functions in the English language is also undertaken while the empirical part of the paper shows that stress assignment still presents a challenge to Nigerian speakers of English and should be addressed by curriculum designers.

References

Akmajian, A., Demers, R. A., & Harnish, R. M. (1979). *Linguistics: An introduction to language and communication*. MIT Press.

Bolinger, D. L. (1972). *Intonation*. Harmondsworth: Penguin.

Egbokhare, F. O. (2003). *Introductory phonetics: A course book on articulatory phonetics*. E-Watch Print Media.

Fromkin, V., & Rodman, R. (1974). *An introduction to language* (2nd ed.). Holt, Rinehart, and Winston.

Hawkins, P. (1984). *Introducing phonology*. Routledge.

Hayes, B. (1980). *A metrical theory of stress rules* (PhD dissertation). MIT.

- Ibrahim, S. S. (2002). The intonation patterns of educated Nigerian English (Unpublished doctoral thesis). Bayero University, Kano.
- Jowitt, D. (2000). Nigerian English usage: An introduction. Longman.
- Matthews, P. H. (1991). Morphology. Cambridge University Press.
- Platt, J., Weber, H., & Ho, M. L. (1984). The new Englishes. Routledge and Kegan Paul.
- Roach, P. (1991). English phonetics and phonology (2nd ed.). Cambridge University Press.
- Roach, P. (2009). English phonetics and phonology: A practical course. Cambridge University Press.
- Stevenson, K. J. (1974). Teaching of spoken English. JNESA, 6(1).
- Yule, G. (1985). The study of language (2nd ed.). Cambridge University Press.