

Phonetics, Phonology **and** Sociolinguistics **in the Nigerian Context**

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Tone in Nigerian and Cameroonian Accents of English

Inyang Udofot

Introduction

The English Language came to West African countries such as Nigeria, Ghana, and Cameroon through trade, colonialism and missionary activities. The arrival of English in Sierra Leone and the Gambia was mainly after the abolition of slave trade when the freed slaves were settled in Freetown in Sierra Leone and Monrovia in Liberia. These West African countries had their indigenous languages which were mostly tonal. The coexistence of English with the tonal languages spoken across West Africa has given birth to a West African accent. Writing about Cameroon English for instance Simo Bobda (2008) notes that:

The CamE (Cameroon English) though still intelligible to mother tongue accents to a large extent is markedly different from several points of view. In fact it has reached a very high degree of autonomy. This autonomy ... is seen in the restructuring of the sound system of the mother tongue English. This restructuring results in the numerous and major splits and mergers of Wells (1982) lexical sets. Autonomy is also seen in the way CamE applies existing phonological rules... (p. 131).

The above observation can also be made of English in Nigeria, Ghana and even Gambia. Also Gut (2008, p. 50) writing about Nigerian English claims that "There seems to be an intricate relationship between accents and tone not only because accents are very often produced with a phonetically high pitch. It has been suggested that Nigerian English accents are produced primarily with tone". This assertion is corroborated by Udofot (2011, p. 16) who observed that "the Nigerian English speaker hardly uses stress the way it is understood by speakers of Germanic

languages but more or less uses tone the way it is used in Nigerian languages". Criper-Friedman (1990) had earlier noted that:

There is some general relationship between the tone system of WACE (West African Coastal English) varieties and the mother tongues. For example, most Ghanaian languages have a two tone system which corresponds to the two tone system of GhCE, and Yoruba has a three tone system of YCE and there is downdrift in many West African Languages (p. 76).

At the segmental level, the West African Accent has much in common in terms of vowel quality, vowel epenthesis, substitution of indigenous sound phonemes for English phonemes and reduction of vowel length, monophthongisation of diphthongs and formation of glides from diphthongs and triphthongs. Certain consonant processes are seen to be common across the West African region while some are peculiar to certain countries. Huber (2008), for instance, notes that "most West African Languages do not have central vowel phonemes. Speakers of West African English accordingly replace RP /ɜ: ə, ʌ/ with front or back vowels" (p. 76) but that "the... substitution of the front vowel /e/ for RP /ɜ:/ in all contexts is one of the main characteristics that sets GhE, apart from other West African Englishes" (p.76.) Another peculiarity of GhE according to the same source, is that "RP /u/ is rendered as /iu/ rather than /u/ in words with orthographic *u ue, eu, or, ew* as in *blew* [bliu]" (p. 82). Simo Bobda (2000) also observes that "the replacement of /æ/ by /a/ is a feature common to all African Englishes: east, west and south" (p. 77).

Many of the peculiar differences between West African Englishes and RP are traceable to the indigenous languages spoken in West Africa which are mainly tonal. For instance, of the almost 500 languages in Nigeria, only Fulfulde is not a tonal language. Many of these languages are also descended from the same origin. The differences between the segmental and supra segmental processes of English and the West African languages are largely responsible for these general tendencies

It is my aim in this paper to examine actual utterances from educated Nigerians and Cameroonians to analyse some of them perceptually and acoustically to examine the role of tone in these West African accents of English and determine to what extent it can be used to characterise the West African accents. The basic assumption is that West African accents have syllabic tone: every syllable has a specification. Since the tonal specifications are provided by word melodies, there is no reason to assume that any syllables are phonologically privileged and thus phonetically more salient than others unlike British English which has intonational pitch accents. Also, it has been shown that the syllables heard as stressed are not actually stressed in terms of the pitch accents of Germanic languages but in terms of using the syllabic tone and word

tone patterns of West African languages on English words and syllables causing the English listeners to interpret the pattern as if the stress comes on the wrong word.

Research Methodology

Data Collection Procedure

The data for this study were extracted from the speech samples of the interactive CD-ROM accompanying *Varieties of English 4* focusing on Africa, South and South East Asia. In the online-version the programme exhibits:

- 600 HTML/PHP documents
- 288 graphic files
- 2841 soundfiles (stream data)
- 346 soundfiles > 30 secs
- 24 interactive maps
- 76 varieties/speakers with audio data
- 58 PDF-files ready for printout

The entire site, including all multimedia technologies, was developed at the University of Marburg (Germany) within 12 months (multimedia programming and interactive elements by Jürgen Handke).

Twelve words were selected from the lexical sets for each of the two West African Countries studied, namely: Nigeria and Cameroon for analysis. The productions of two speakers: one male and one female from each of the two West African countries were selected from the list of recordings. The productions of two subjects in the reading passage titled *The north wind and the sun* were also selected for analysis. Only two subjects: one male and one female were recorded for Nigeria so both of them were taken. The same random sampling was used to select two from the six recordings for Cameroon. In addition, one male and one female subject from Nigeria and Cameroon were recorded for acoustic analysis. There were no recordings for the other West African countries. The intention was to compare the performance of speakers of the west African countries studied in the suprasegmental phenomena with the view of identifying the role of tone.

Analytical Procedure

The performance of all the subjects as regards the production of stress and tone was observed. The stress pattern was marked on all the syllables. The distribution of tones of each subject was indicated using a modified form of the ToDI system of transcription which focuses on the transcription of tones and decomposes pitch movements into two pitch levels High (H) and Low (L). Based on Gussenhoven's

(1984) account of Standard British English, the ToDI System combines insights from the British School with the two-tone approach: H(igh) and L(ow) proposed by Pierrehumbert (1980) and later adopted and incorporated into the ToBI System.

ToDI is based on ToBI but the conventions are fewer and less abstract. In the ToDI System, the falling accent is represented as H*L; the steeply falling as H*+L; the rising accent as L*H; the rise fall as L*HL while the boundary tones are H%, L%, %, %H and %L. ToDI differs from ToBI in that it has no phrase tone, one intonation phrase, a single boundary and no Break Indices but the system can account for the full range of nuclear and pre-nuclear tones in Standard British English (Gussenhoven, Rietveld and Terken 1999). In addition, H and L tones are linked to stressed syllables and intonation phrase between the speakers' choice of intonation units from an intonation lexicon and the acoustic-phonetic implementation of those choices, making it possible for transcription to be compared across dialects of one language and across languages. The ToDI System is therefore very suitable for the analysis of the west African accents of English which are varieties of Standard British English. The ToDI system is however modified slightly. The two tones H and L were used to mark the stressed and unstressed syllables. The boundary tone is dispensed with so also are the pitch accents (H*L, L*H and L*HL) as the study is more interested in tone and its operation on the West African Accents of English. Moreover, many west African languages operate a two-tone system (cf Criper-Friedman, 1990).

For the acoustic analysis, one utterance: "The north wind and the sun were disputing which was the stronger" was selected from the productions of four subjects: two Nigerians and two Cameroonians. The syllabic tone, and pitch of the utterances were extracted by building textgrids using the PRAAT Speech Analysis Software. This was to show the relationship between stress, tone and pitch in the West African Accents of English.

Presentation of Data

The CD-ROM was played on a computer and selected excerpts were acoustically analysed using the PRAAT Analysis Software. A summary of the performance of the subjects in the selected excerpts is presented in Table 2 below:

Table 1: Performance in the Supra segmental Features: A Tonal Analysis

	The	'north	wind	and	the	'sun			
BrE	L	H	H	L	L	H			
Nig E	L	H	H	L	L	L			
Cam E	L	H	H	L	L	H			

	were	dis'putti ng	'which	was	the	'strong er			
BrE	L	L H L	H	L	L	H L			
Nig E	L	L H H	H	L	L	!H L			
Cam E	L	L H H	H	L	L	!H L			
	when	a	'traveller	'came	'wrapp ed	In	a	'warm	'cloa k
BrE	L	L	H*L L L	L	H	L	L	H	H*L
Nig E	H	L	H H H	H	H	L	L	H	!H
Cam E	L	L	H H H	H	H	L	L	H	!H
	They	a'greed	that	the	'one	who	first	suc'ceed ed	
BrE	L	L H	L	L	H	L	H	L H L	
Nig E	L	L H	L	L	H	H	H	L H H	
Cam E	L	L H	L	L	L	H	H	L H H	
	In	'making	the	'other	'take	off	his	'cloak	
BrE	L	H L	L	H L	H	H	L	L*H	
Nig E	L	H H	L	H L	H	H	L	L*H	
Cam E	L	H H	L	H L	H	H	L	L*H	
	shoul d	Be	con'sider ed	'strong er	than	the	'other		
BrE	L	L	L H L	H L	L	L	H L		
Nig E	L	L	L H H	H H	L	L	H L		
Cam E	L	L	L H H	H H	L	L	H L		
	then	The	'sun	shone	'out	'warml y			
BrE	L	L	H	H	L	H*L			
Nig E	L	L	H	H	H	H L			
Cam E	L	L	H	H	H	H L			
	and	im'medi ately	the	'travell er	'took	off	his	'cloak	
BrE	L	L H H L	L	H L L	H	L	L	H*L	
Nig E	L	L H L L	L	H H H	H	H	L	!H	
Cam E	L	L H H H	L	H H H	H	H	L	!H	

As earlier observed, it is at the supra segmental level that the West African accents of English are most noticeable. The above tonal analysis confirms Udofot's (2007) observation about Nigerian English which is also applicable to other West African accents that the high tones do not correlate consistently with stressed syllables and the low tones with unstressed syllables maybe because West Africans only use tone to signal emphasis; that is, what is interpreted as stress. Intonation also can be seen from the point of view of tone. The tonal structure of African languages are brought to bear on English (cf Gut, 2002).

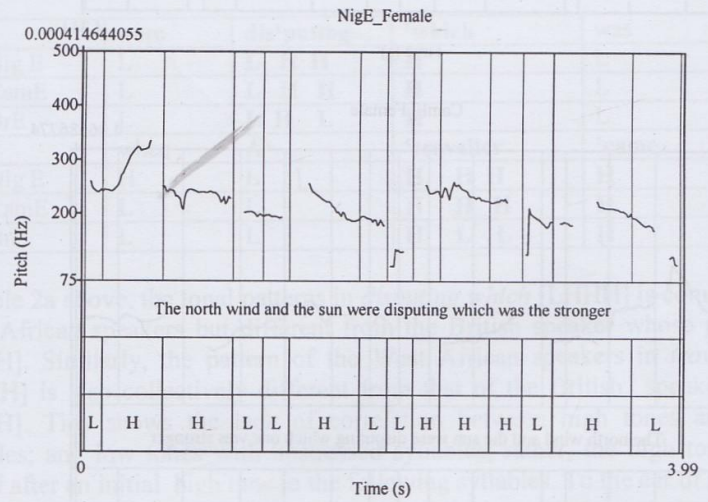
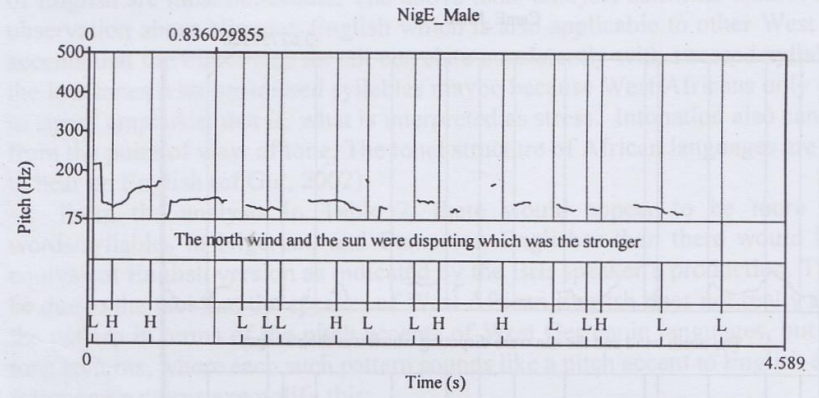
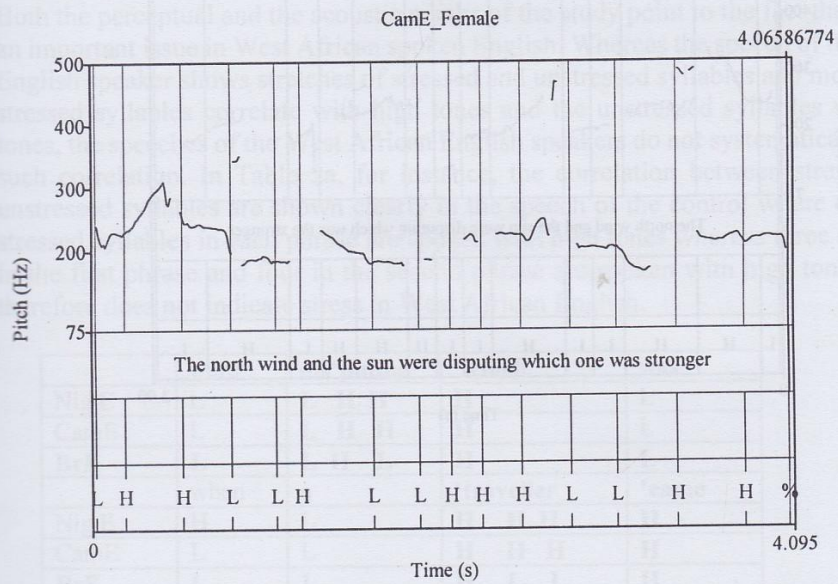
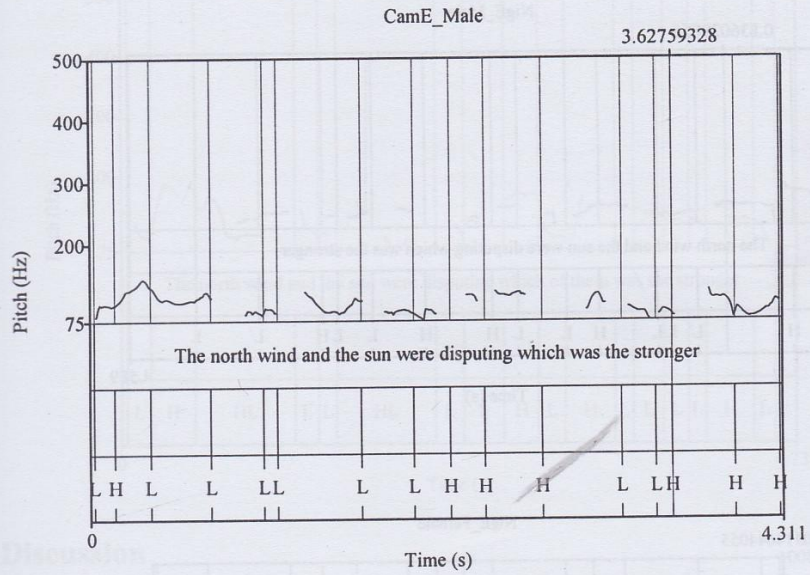
From the analysis in Table 2, there would appear to be more stressed words/syllables in Nigerian, and Cameroon Englishes than there would be in an equivalent English version as indicated by the BrE speaker's production. This must be due to the fact that the speaker of West African English does not really represent the pattern in terms of the pitch accents of West Germanic languages, but in word tone patterns, where each such pattern sounds like a pitch accent to English ears. The following patterns exemplify this:

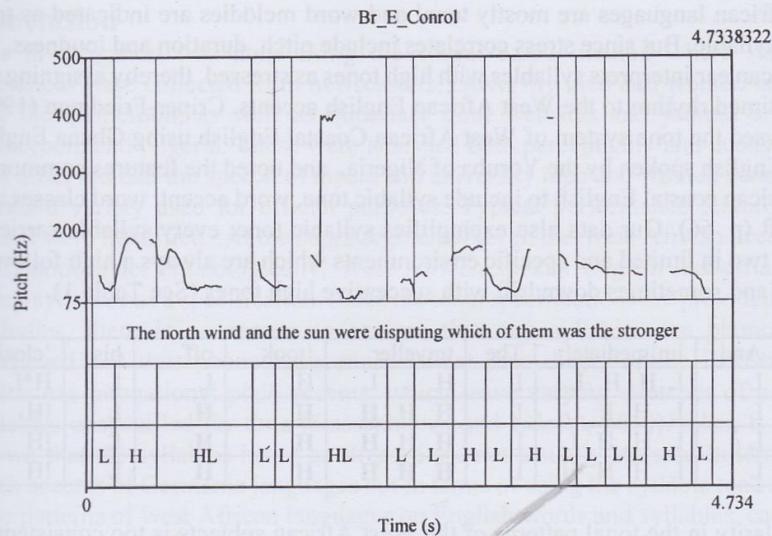
Table 2a: Typical Tonal Patterns

	were	dis'puting	'which	was
Nig E	L	L H H	H	L
Cam E	L	L H H	H	L
BrE	L	L H L	H	L
	when	'traveller	'came	
Nig E	H	L	H H H	H
Cam E	L	L	H H H	H
BrE	L	L	H L L	H

In Table 2a above, the tonal patterns in *disputing which* [LHHH] is common to the West African speakers but different from the British speaker whose pattern was [LHLH]. Similarly, the pattern of the West African speakers in *traveller came* [HHHH] is also collectively different from that of the British speaker which is [HLLH]. This shows the lack of correlation between high tones and stressed syllables; and low tones with unstressed syllables; rather, the high tone tends to spread after an initial high tone to the following syllables. To the ear of a Germanic language speaker, this suggests that more syllables are stressed than necessary whereas, since each syllable has a tonal specification, they have tones whether high or low depending on the position of the syllables and at word boundaries where they can be raised, lowered or downstepped.

Acoustic Analys





Discussion

Both the perceptual and the acoustic results of the study point to the fact that tone is an important issue in West African spoken English. Whereas the speech of the native English speaker shows stretches of stressed and unstressed syllables and most of the stressed syllables correlate with high tones and the unstressed syllables with low tones, the speeches of the West African English speakers do not systematically show such correlation. In Table 2a, for instance, the correlation between stressed and unstressed syllables are shown clearly in the speech of the control where only two stressed syllables in each phrase are spoken with high tones whereas three syllables in the first phrase and four in the second phrase are spoken with high tones. Tone therefore does not indicate stress in West African English.

	were	dis'puting	'which	was
Nig E	L	L H H	H	L
CamE	L	L H H	H	L
BrE	L	L H L	H	L
	when	a	'traveller	'came
Nig E	H	L	H H H	H
CamE	L	L	H H H	H
BrE	L	L	H L L	H

West African languages are mostly tonal and word melodies are indicated as tone on each syllable. But since stress correlates include pitch, duration and loudness, the non-African ear interprets syllables with high tones as stressed, thereby assigning the syllable timed rhythm to the West African English accents. Criper-Friedman (1990) has analysed the tone system of West African Coastal English using Ghana English and the English spoken by the Yoruba of Nigeria, and noted the features common to West African coastal English to include syllabic tone, word accent, word classes and downdrift (p. 66). Our data also exemplifies syllabic tone; every syllable carries a tone and two in limited and specific environments which are always a high followed by a low and sometimes downdrift with successive high tones (See Table 1).

	And	im'mediately	The	traveller	'took	off	his	'cloak
BrE	L	L H H L	L	H L L	H	L	L	H*L
NigE	L	L H L L	L	H H H	H	H	L	!H
GhE	L	L H H L	L	H H H	H	H	L	!H
CamE	L	L H H H	L	H H H	H	H	L	!H

The similarity in the tonal patterns of the West African subjects is too consistent to be dismissed. We therefore submit that West African spoken English has features which identify it at the supra segmental level. There are some individual peculiarities however. In our data, both the male and female subjects from Cameroon use HH for the word *stronger* while the Nigerian subjects had HL. The pitch patterns of the speeches of the Cam.E Male and Cam.E Female show this (See pitch patterns on Textgrid 1 & 2). From the data, there is also evidence to suggest that West Africans do not use the feature stress; rather, they apply syllabic tone on every syllable as obtains in their mother tongues. This justifies Gut's (2008) observation about Nigerian English "that Nigerian English accents are produced primarily with tone" (p.50). With evidence from our data, we extend this observation to other West African varieties of English and conclude that West African English is better analysed from the point of view of tone and word melodies rather than intonational pitch accents of Germanic languages. Also, since West African speakers use tone rather than stress, the concept of stress timing does not apply to the West African accents of English. Udofot (2003) had suggested an alternative description of the rhythm of Nigerian English, and Udofot (2011) suggested tone-timing as a more realistic description of Nigerian English. We go further to suggest that this description be extended to the description of the other West African Varieties of English.

Conclusion

Our investigation was done using the corpus-based method where samples of utterances were collected from newscasters, university men and women in Nigeria, and the Cameroon, as well as materials from websites and journal articles on Cameroon, and Nigeria. These were analysed both perceptually and acoustically. It was observed that the speech of media and university men and women constitute the standard variety used for official purposes. Typical performance features of this accent were identified. At the supra segmental level, the West African accents were most noticeable. Phonologically, West African spoken English has syllabic tone: every syllable has a specification. Since the tonal specifications are provided by word melodies, there is no reason to assume that any syllables are phonologically privileged and thus phonetically more salient than others unlike British English which has intonational pitch accents, which leave varying stretches of unstressed syllables unspecified for tone (Gussenhoven and Udofot, 2010). Also, it has been shown that the syllables heard as stressed are not actually stressed in terms of the pitch accents of Germanic languages but in terms of using the syllabic tone and word tone patterns of west African languages on English words and syllables, causing the English listeners to interpret the pattern as if the stress comes on the wrong word. The traditional description of West African Spoken English Rhythm is disputed and tone timing is suggested as an alternative description of spoken West African English Rhythm exemplified by Nigerian and Cameroonian speakers.

References

- Boersma, P., & Weenik, D (2003). The Praat Homepage. Retrieved from <http://www.fon.hum.uva.nl/praat/> Downloaded
- Criper-Friedman, L. (1990). The tone system of west African coastal English. *World Englishes*, 9(1), 61- 77.
- Gussenhoven, Carlos and Inyang Udofot. (2010). Word melodies vs pitch accents: A perceptual evaluation of terracing contours in British and Nigerian English. *Proceedings of Speech Prosody*, Chicago.
- Gussenhoven, C., Rietveld, T, & Terken, J. (1999). The TODI System. In E. Grabbe (2001) 9th European Summer School on Language and Speech Communication: Prosodic Annotation. Retrieved from <http://ufal.ms.mff.cuni.cz/~ess2001/doc/grabe/Grabe4.ppt>
- Gut, U. (2002). Nigerian English – a typical West African language? *Proceedings of TAPS*, Bielefeld, 56-67.
- Gut, U. (2008). Nigerian English: phonology. In Rajend Mesthrie (Ed.), *Varieties of English 4: Africa, South and South East Asia* (pp. 35-54). Mouton de Gruyter,
- Huber, M. (2008). Ghanaian English phonology. In R. Mesthrie (Ed.), *Varieties of English 4: Africa, South and South East Asia* (pp. 67-92). Mouton de Gruyter.
- Simo Bobda, A. (2000). Comparing some phonological features across African accents of English. *English Studies*, 81, 249-266.
- Udofot, I. (2003). Stress and rhythm in the Nigerian accent of English: A preliminary investigation. *English Worldwide*, 24(2), 201-220.
- Udofot, I. (2007). A tonal analysis of Standard Nigerian English. *Journal of the Nigeria English Studies Association*, 12(1), 58-68.
- Udofot, I. (2011). The rhythm of Standard Nigerian English. In A. Akande and A. Odeunmi (Eds), *The sociology of English in Nigeria* (pp. 77-98). Saarbrücken: Lambert Academic Publishers.