UNIVERSITY OF CAPE COAST

PROMINENCE AND RHYTHM OF GHANAIAN ENGLISH SPEECH: A

CASE STUDY OF PARLIAMENTARY DISCOURSE

BY

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THESIS PRESENTED TO THE DEPARTMENT OF ENGLISH OF THE

FACULTY OF ARTS, UNIVERSITY OF CAPE COAST, IN PARTIAL

FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A

MASTER OF PHILOSOPHY DEGREE IN ENGLISH

JULY, 2009

DECLARATION

CANDIDATE'S DECLARATION

I hereby declare that this thesis is the result of my original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature: ------------------------------- Date: -------------------

Candidate's Name: ---

SUPERVISORS' DECLARATION

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

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ABSTRACT

The main purpose of the study was to investigate the rhythm and stress used in the educated Ghanaian English speech with focus on parliamentary discourse.

Descriptive and qualitative approaches were adopted for the study. The Members of Parliament (MPs) of the 4th Republic of 2006 formed the population of the study. The number of MPs used for the study was sixty.

The instrument used for the study was a recording of the parliamentary discourse. Features of the rhythm of Ghanaian English were analysed.

The research revealed that there are several ways to achieve prominence by Ghanaians. These include using pitch and intensity and duration and intensity. It also revealed that there is a peculiar rhythm which could be said to be Ghanaian. It also found that the context of situation and the environment within which the MPs spoke also accounted for the rhythm they used.

The research had implications for the recognition and acceptance of the Ghanaian variety of English and the variety to teach in a particular environment.

It was recommended that further research be done to help in codifying the Ghanaian variety of English as well as a larger population sample be selected and more female speakers be analysed.

The researcher hopes this research serves as one of the means of codifying the Ghanaian English variety and also contributes to the debate on whether or not to accept the Ghanaian English as a variety.

ACKNOWLEDGEMENTS

DEDICATION

To my Mom, Madam Kate Yamoah; Dad, Mr. Philip Appartaim and family for

their undaunted love and devotion towards my quest for higher heights.

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CHAPTER ONE

INTRODUCTION

Background to the Study

This chapter provides the background to the research. It begins with an overview of English as a global language and how the English language was brought to Ghana. The overview helps to understand the nature of English in Ghana better. Following that, the main features related to the study which include stress, rhythm and intonation will be defined and discussed. The research problem, the purpose of the research; the objectives and the research questions are also stated in this chapter. These are followed by the significance and justification of the study.

English in the Global Village

The English language has been and is still on the move since it arrived from northern Europe into England in the 5th Century. It has been given such names as "English as a world language", "English as a global language" or simply "World English", (McArthur, 1999). It is a language which has gained reputation of being spoken throughout the world. It is more widespread than any other known language and is still spreading. Crystal (1997), comments that in many countries English has achieved a kind of special status compared to other languages. Many countries including Germany, Brazil, Japan, China and Spain

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prefer English to be taught as a foreign language in their schools. Mazrui (1975) acknowledges the status English language has gained as world language and says that by 1966, seventy percent (70%) of the world's mail was written in English while sixty-six percent (66%) of the world's broadcasts were in English. Thus, English is not seen as the sole property of the English (Britain, America, Australia and Canada) but as an international linguistic asset (Boadi, 1971). Spencer (1971) agrees to the state of English as a widespread language in that it has become relatively at home in West Africa [particularly in Ghana]. Spencer (1971) states that "…newspapers are produced in English, journals in English grow in number year by year, and parliamentary debates are for the most part held in English. English in West Africa cannot thus be seen as a temporarily borrowed language" (p. 2).

The world status of English today is ascribed to two factors which are the expansion of British colonial power particularly toward the end of the 19th Century and the emergence of the United States of America as an economic superpower of the 20th Century (Crystal, 1997). The spread of settlement areas had to do with the immense movement of the English people to areas such as America and the Caribbean. This major and significant movement, as said by Crystal, marked the turning point of the spread of English and the world. Spencer (1971) says that there was "a direct father-to-son inheritance of the settler-dominated communities in which English was carried overseas from the mother countries and implanted by native speakers" (p. 3). Today, America has the largest native English-speaking population in the world (Atechi, 2006).

The exploitation areas which included West, South East Asia and Africa were not re-populated with British settlers as was done with the settlement areas. They adopted the English language for administrative purposes while the population continued to use their local languages which resulted in a multi-lingualistic situation. In the South East Asia, the British colonised such countries as Singapore, India, Hong Kong and Malaysia. Countries like Uganda, Tanzania, Malawi, Kenya and Zimbabwe were colonised in East Africa. In West Africa, the British colonised Ghana, Gambia, Nigeria and Sierra Leone among others. By virtue of the contact the British had with such countries, English became either their official or second language.

Baugh (1962) comments, "importance of a language is largely determined by the importance of the people who speak it" (p. 169). This was the situation in the American factor. The American factor has had more influence on the spread of English in the world. Crystal (1997), comments that the United States has nearly seventy percent (70%) of all English mother-tongue speakers of English in the world. Its variety of English is also fast gaining popularity. Furthermore, the technological advancement is helping to spread the American variety of English as their artefacts of culture are spread through their travels (Finegan, 1987). Mazrui (1975) also comments that as far back as the 1960s (1966), an estimated American population of one-and-half-million were abroad on technical and business programmes while millions more toured the world (thus spreading their language). Again, the United States is spending huge amounts of money to support the teaching of its variety abroad. Thus, through economic boom and

provision of aids to others, the Americans are spreading their variety of English. Dillard (1975) supports this view and says that "American power and influence are felt through the world; and it is American English that now provides the initiatory power for the world's lingua franca" (p. 56). Thus, American pronunciation and vocabulary have also permeated the English speaking countries with such pronunciations as 'accomplish' [kɑ:mpl] for British [k mpl], 'nostril' [na:str l] for British [n st l], 'hard' [h :rd] for British [h :d], 'vase' [ve s] for British [v :z] and such vocabulary as 'trunk' for the British 'boot' of a car and 'aircraft' for British 'aeroplane'. Dillard and others such as Mazrui, thus, agree on the spread of English globally.

Another writer who accepts the global spread of English and has written much on it is Kachru, who sees the spread of English as three concentric circles representing different ways in which the language has been acquired and how it is currently used. These concentric circles are labelled as the Inner Circle, Outer Circle and Expanding Circle (Kachru, 1986). Below is a pictorial representation of the circles. It must be noted that the list of countries represented in the circles is just illustrative and does not include all the candidates which fall into the various categories.

The "Expanding Circle,"

The "Outer Circle,"

| Israel Korea | South Africa Ghana | The "Inner Circle," USA UK | Kenya Malaysia Nigeria | Nepal Saudi Arabia |
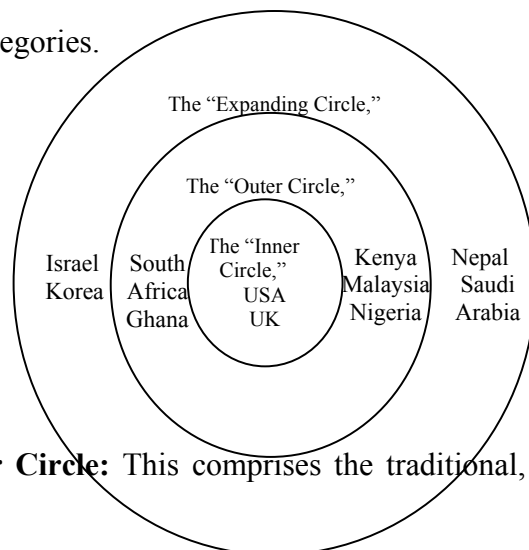
The Inner Circle: This comprises the traditional, historical and sociolinguistic

The Concentric Circles of Kachru

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bases of English in areas where it performs all functions. In these countries, English is used as a native language (ENL). The people acquire the language naturally and use it in all domains of social and personal activity. Such countries include the United Kingdom, the United States, Canada, New Zealand and Australia.

The Outer Circle (or **extended circle):** This contains countries that were colonised by Britain. The spread of English began through the colonial government when English became a part of these countries' chief institutions, and exists in a complementary fashion with other languages. Such countries use English as an official or semi-official language and is identified as an institutionalised variety. Most of the countries where English has been institutionalised have a long history of what Kachru calls acculturation. English is the language used in education, the judiciary, administration and the media. Countries in Africa where English is the official language are Ghana, Nigeria, Cameroon, the Gambia, Uganda and others.

The Expanding Circle: This involves those nations that recognise the importance of English as an international language, although they have no history of colonisation by members of the inner circle and English is not given official status. English is seen as a foreign language and is considered a performance variety largely used for international functions. English in these nations, unlike in the inner and outer circles, is almost never used for intra-national communication. Some of the countries which are in this circle are Taiwan, Saudi Arabia, Nepal, and China.

As the three concentric circles suggest, English has attained intra-national and international functions in cultures and languages and has earned a universal language status. Kachru (1986) reiterates that the numbers of foreign language and second language users together are between 300 and 400 million and it can be seen that it is the non-native users of English by their geographical distribution who have made English the 'chosen' language of the world. He explains that the contact situations are not the same for all the countries in that English which was sent to the former colonies was unrelated genetically and was widely divergent from the Asian and African communities.

English and its Use in Ghana

Ghana's contact with the English dates as far back as the second half of the 15th century, when the first English ships sailed to the Guinean coast and traded in gold dust and spices (Sey, 1973). English is, therefore, a colonial legacy. Residents (*Cudjoes*) of Cape Coast who were part of the Fante Empire were the first to learn the English language, and later taught other people in the then Gold Coast. Cape Coast had the first English school, known as Mfantsipim. This status (of their interest in learning English) endeared the Fantes to the British. Cudjoe Cabosheer, an old man and the chief of Cape Coast at the time, spoke the English language so well that it amazed the whites who could not hide their surprise and admiration for this man (Thompson, 1937 and quoted in Sackey, 1997).

The colonial government realising the interest expressed in the English

language institutionalised its use even though Christian missionaries, especially from the English Church mission, were already training local priests to use English in their sermons (and consequently in their daily lives). Sir Charles McCarthy (1822-1824) made sure that English was more properly taught in government schools. He even went to the extent of ordering for textbooks for use in the schools as well as making sure that English culture was inculcated in the local population (Sackey, 1997). Various grants, which were given to schools, were tied to the teaching of English, for a greater part of the colonial period. The teaching of English was promoted at the expense of the local languages. The fate of the local languages was not helped by the rapid growth in facilities and numbers of school attendants at both the primary and secondary school levels. Such schools which were established include Achimota College built in 1924 and the University of Ghana built in 1947 (Sackey, 1997).

However, some administrators, notably Governor Guggisberg (1919-1927), saw the need to give the colonised people an education in their mother tongue and, consequently, formulated policies in that direction. These policies notwithstanding, many educated Gold Coasters preferred the use of English as the language of instruction since they thought teaching in the local languages was a denial of access to quality education. The Gold Coasters believed that the ability to communicate in English enhanced the chance to gain entry to a prestigious life and into the government service. It is noted that this mentality of getting access to good education through English has not changed much over the years. The English language was thus elevated above the native languages from that time

until today.

This elevation has had its effects on the study of the local languages in the present day. Currently, in the junior high and senior high schools there is a general lackadaisical attitude towards the study of the local languages and students would not want to be caught speaking in their language. The school authorities also compound this problem with the emphasis on the use of English to the extent that one sees on various classroom doors and at vantage places such signs as 'Speak English always' and 'Please, speak English'. In a nation of diverse ethnic groups and languages, English serves as a bridge linking speakers of different languages. Ansah (2008), states that of these languages, Akan accounts for over 60% of the total population (both native and non-native) and Ewe, Dangme, Ga, Nzema, Dagaare, Gonja, Gurenne, Kasem and Dagbani account for about another 30%. This means that each of the remaining languages is spoken as a mother tongue by only a few people (Dolphyne, 1988).

English was and still is the language of government business, the legislature, judiciary, the military, administration and the mass media. The use of English was encouraged for economic and political benefits (Sackey, 1997). Lawyers and judges use the English language in court as opposed to the local councils' use of local languages. The military also use the English language at the administrative level and the difference in status between a general officer and a police officer was based largely on the general officer's familiarity with the English language "and was publicly symbolised by his wearing a different uniform and earning higher wages or salary" (Sackey, 1997, p. 134). Concerning

the media, the earliest newspapers, some of which were owned by Africans, were printed in English. Between 1900 and 1957, eleven eleven newspapers agencies had been set up and all of them were published in the English language. This was because the extreme diversity of the local languages limited the readership of any of the varied newspapers and that it was only in the 19th century that serious attempts were made to reduce the local languages to writing (which therefore deprived the newspapers' early practical application as information media). English was therefore used as the language of communication and of formal education. As the language of formal education, English had to be learnt in school. It was not only used between people who did not share the same linguistic background but between people who shared a common language. However, how English was taught in school did not provide a good background for the students to learn the speech or oral aspect since concentration was on the written mode. Because of that, various kinds of Englishes have been used in the country ranging from those that come closest to standard British English to those in the plains of Pidgin English.

Contemporary scholars have had little hesitation in agreeing that the legitimate area of linguistic study is the "emergence of varieties of English that are identified with and specific to particular countries from among the former British colonies" (Kirk-Greene, 1971, p. 126). Kirk-Greene confirms that "it has been claimed that 'nowadays more sophistication is creeping in', with educated West African varieties of English being deliberately adopted as models for particular teaching circumstances in Ghana and Nigeria, 'on grounds of public

interest (Strevens, 1965)" (p. 126). In essence, Ghana and other West African countries have found it necessary to use the variety they know best and trust in their daily activities. Forson (2004) agrees that Ghana has become such a stable consumer of the English language that investigation into a Ghanaian variety of English has engaged the attention of researchers since the early 1970s.

Statement of the Problem

The spread of English has ushered in a fascinating area of research of the English language in the last two decades. This is so because the spread has led to the emergence of several varieties of the language all over the world, including the Ghanaian variety and, therefore, requires attention. Like other West African forms of English, Ghanaian English has developed over time and is recognised by many of the country's scholars: Dolphyne (1995), Owusu-Ansah (1992, 1994, and 1997) and Adjaye (1987, 2005) as an acceptable form of English. However, opinion is divided on whether there is a Ghanaian variety of English with its own features and a lot of research at the syntactic, semantic and phonological levels has been done in support and against this variety.

At the phonological level, many of the research focused on the segmental features such as pronunciation and vowels. The works include Sey's (1973) exploration of Ghanaian English; Adjaye's (1987) discussion on Ghanaian pronunciation and accentuation and Simo Bobda's (2000) discussion of the distinctiveness of Ghanaian English pronunciation in the patterns of restructuring / /, / / and /ə/ involving the orthographic forms <er, or, our, ous, us, um> and

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the pronunciation of some particular words. Supra segmental phonology including pitch, intonation contours and rhythm was thus neglected. Rhythm, which is a fundamental element to the study and acquisition of language, is very often ignored in the study of English in Ghana. The descriptions on rhythm and prominence of Ghanaian English tended to focus on auditory perceptions. As a result, to date there is a dearth of research based on features of prominence and rhythm in Ghanaian English which requires a systematic analysis without which rhythm and prominence of Ghanaian English described posed a danger of not being accurate but stereotypical. This research, therefore, embarked on an investigation into the nature of features of prominence and rhythm in educated Ghanaian English using parliamentary discourse, as a way of highlighting these features.

Research Questions

The following are the research questions on which the work was based:

1. What are the phonetic features of prominence, in terms of pitch, duration and intensity, used by the Ghanaian English speaker?

2. What is the nature of the rhythm used by the Ghanaian English speaker?

3. What is the effect of context of situation on the rhythm used in Ghanaian English speech?

Purpose of the Study

Gogovi (1991) in a comparative study of university students on Illorin and

Cape Coast campuses found that, "both Ghanaian and Nigerian students learn English to communicate with their African and Asian brothers and sisters rather than with Americans and the British," (p. 12). Regardless of this, speakers of English in the higher circles indicate that their target is the standard British English. There is now a growing interest in the phonetic aspects of second language (L_2) speech (Hincks 2003), but the existing research mainly focuses on the segmental features. Systematic studies of the prosodic features of L_2 speech have been rare. The purpose of this study was, therefore, to examine the features in the Ghanaian languages which the educated Ghanaian often transfers into their English speech and to particularly see how prominence and rhythm are achieved in Ghanaian English as a result of the influence of Ghanaian English.

Objectives

The objectives of this research were to find out:

(a) the phonetic characteristics of prominence and rhythm in continuous speech in parliamentary discourse;

(b) the effect of L_1 or L_2 on the English language used in parliamentary discourse; and

(c) the extent to which the speech of parliamentarians is influenced by their environment or context of situation in parliamentary discourse.

Significance of the Study

This study discusses the English language spoken by parliamentarians of

the 4th Republic Parliament of 2006. The study explains the segmental phonetics as well as the supra segmental features of prominence and rhythm in utterance. It should be emphasised that the focus of the work is Educated Ghanaian English. It aims at contributing to an understanding of the features of prominence as well as identifying the features of the rhythmic patterning of Ghanaian English in particular and to the study of 'Englishes' round the world.

Even though the existence of a Ghanaian variety of English has long been recognised, and several, if not many, articles have been written on different aspects of it (Gyasi 1991; Ahulu 1994b; Owusu-Ansah 1994, etc.), to the best of my knowledge, no work has been done on the features of Ghanaian English speech in terms of prominence and rhythm in the speech of the educated Ghanaian's English language in the parliamentary discourse in Ghana; and this is my contribution to the research on Ghanaian English.

The research will be of great interest and use to both students of linguistics and sociolinguistics who are interested in finding out features of prominence and rhythm used by the Ghanaian speaker.

Finally, it will contribute to the ongoing discussion of the existence of a form of non-native variety of English in Ghana.

The Delimitation of the Study

First, the study focused on the parliamentary discourse of the 3rd Parliament of the 4th Republic of Ghana which uses the English language in its daily activities.

Second, the research focused on the dyadic or face-to-face encounter (Nelson, 1996) in which the respondents involved used the English language in interaction. This study attempted to examine how individuals from different ethnic backgrounds as well as gender used the English language to achieve prominence within interactions as well as in monologues. This is because some of the speeches collected for analysis were monologues while others were interactional.

Third, the study was limited to verbal behaviour. It is well-known that communication is made up of the verbal and non-verbal behaviour, or better, paralinguistic communication (Yankson, 1990). However, the present work did not concentrate on the non-verbal behaviour, but on language, because the aspects which make up the non-verbal behaviour (gestures, kinesics, facial expressions, body language, etc) could not be adequately captured in this research together with the verbal behaviour. Furthermore, that area was not the researcher's area of expertise and the data collected omitted the non-verbal aspects of communication.

Finally, the study was limited to prominence and rhythm in speech. The lexical and structural levels of the verbal behaviour were not included because the study was not lexical but investigated the nature of utterances and connected speech. In effect, it discusses the natural language used in communication, that is, language in action.

Definition of Terms

This study discussed the supra segmental features of the English language.

The term supra segmental refers to those properties of an utterance which are not properties of any single segment. The following are usually considered supra segmental properties: prominence, stress, rhythm, and tone /intonation and length. There is a general lack of clarity between stress and prominence in literature. In this research, therefore, stress is reserved for the phonological correlates while prominence is reserved for the phonetic correlates. These are discussed below.

Prominence

There is a diversity of viewpoints in defining the notion of prominence. Terken (1994) defines prominence as "words or syllables that are perceived as standing out from their environment" (p. 3662). Streefkerk et al (1999) refer to it as "the perceptual salience of a language unit" (p. 552). Matthews (2007) explains 'prominent' as something, which stands out for a reason (in terms of syllables that carry accent). He goes on to explain prominence to be a cover term for properties by which accentuation and stress are realised (p. 322). Streefkerk (1997) adds that prominence does not have a clear distinction with respect to sentence accent or pitch accent. It would have been logically possible for every syllable to have exactly the same loudness, pitch, and so on (Some early attempts at speech synthesisers sounded like this). But human languages have ways to make some syllables more prominent than others. Prominence is, thus, the distinction between syllables, that is, the differences in length, loudness and presence/absence of pitch movement in speech. Prominence or accentuation depends crucially on the speaker's ability to make certain syllables more

noticeable than others (Roach, 2002). A syllable might be more prominent by differing from the surrounding syllables in terms of loudness, pitch, length/duration and quality. Roach says that,

> An important thing about stress, at least in English, is the fact that there are many ways in which a syllable can be made prominent and experiments have shown that prominence is associated with greater length, greater loudness, pitch prominence (that is, having a pitch level or movement that makes a syllable stand out from its context) and full vowels. (p. 2)

In other words, prominence is relative to the surrounding syllables, not absolute. (A strong syllable that is nearly whispered will be quieter than a weak syllable that is shouted.) Despite the complexity of these interrelated factors, the listener simply hears syllables as more prominent or less prominent.

The phonetic realisation of prominence distinctions and exploitation of prominence for linguistic purposes is language-specific (Grabe, Kochanski & Coleman, 2003). In normal speech, words and phrases do not have little pauses between them. Prominence can help indicate where the boundaries are, making it easier for the listener to discern between words. Crystal (1995) mentions that French usually gives prominence to the syllable at the end of a word or phrase. Many other languages give prominence to the initial syllables of words (for example, Icelandic, Hungarian). There seems to be a bias for English listeners to interpret a strong syllable as the beginning of a new word.

It must be emphasised that prominence is achieved through stressing

syllables. A syllable can have a strong or weak stress. Strong syllables are usually longer and louder than weak syllables. A word or a sentence can also have more than one strong syllable. When this occurs, they are referred to as the primary and secondary stress. The primary stress is marked with a raised vertical line. The secondary (or medium) stress is marked with a lowered vertical line. Both marks come at the beginning of the strong syllables – they apply through the entire syllable, not to any single segment. Additionally, they are produced with moving pitch. The duration of a strong syllable exceeds that of weak syllables; relative intensity of strong syllables is often greater than that of weak syllables. English has stress and accent, but not all languages have a phonological concept of stress. For example, Japanese does not have such a stress concept (Grabe, Kochanski & Coleman, 2003). Someone who speaks with a particular accent pronounces the words of a language in a distinctive way that shows which country, region or social class they come from (Laver, 1994). To Dalton & Seidlhofer (1994) citing Brazil (1985b, p. 68), "prominence…is to a large extent a matter of speaker choice: it is an indication as to what the speaker wants to make salient in the ongoing discourse, a reflection of how he or she views the state of conversational play" (p. 54).

Prominence interacts very closely with such prosodic features as rhythm, lexis, syntax and context (Dalton & Seidlhofer, (1994). When combined, prominence distinctions made in a language produce an impression of speech rhythm. Strong syllables are landmarks in speech crucial to language-acquisition by infants and crucial to speech comprehension by adults (Nolan & Grabe, 1997).

Stress

Stress is a large topic and despite the fact that it has been extensively studied for a long time, there remain many areas of disagreement or lack of understanding. It is a concept that is conceived of as strong stress and weak stress. It can be defined as prominence with which one part of a word or of a longer utterance makes a distinction from other parts (Greenbaum & Quirk, 1991). Matthews (2007) defines stress as a "phonological feature by which a syllable is heard as more prominent than others" (p. 383). It is the effect on speech sounds of greater muscular effort and the building up of greater amount of air pressure by the speaker in uttering sounds than in uttering isolated letters.

Stress is closely associated with loudness or amplitude, on the one hand, and articulatory force, on the other, but other factors are involved – notable among which are *duration* and *pitch*. Pitch seems to be the most important factor when stress is final in a phrase (or when a word is spoken in isolation); stress is then associated with, or realised by pitch prominence and often with pitch movement (Tarr, 1994).

When one speaks of stress, one refers to the sound, usually perceived as greater loudness by the listener, with which one part of the word or longer utterance is distinguished from the other parts. Therefore, to Tarr, it can be said that stress is the relative degree of force used by a speaker on the various syllables he or she is uttering. It must be emphasised that since the work is about utterances much emphasis will not be laid on word stress but on sentence stress.

In a work of transcription, in agreement with Kingdon (1959), the primary stress (the strong segment also called the high level tone mark) is identified. This represents a static tone usually pitched at or near the top of the speaker's normal voice range by putting in front of the syllable carrying stress, a raised vertical stroke, for instance:

in'different   in the 'meadow

An exceptionally heavy stress can be shown by a double vertical. A heavy stress can be used to mark sharp contrasts to indicate relative stress in phrases without recourse to indicating intonation. A secondary stress or lower level stress or low level tone mark (terms used by Greenbaum & Quirk, 1991) which represents a static tone usually pitched at or near the bottom of the speaker's normal voice range, indicating a partially strong syllable, can be marked by a lower vertical stroke as in:

It is abso'lutely **in"credible**

Linguists also differentiate between pre-, post- and kinetic-stresses, full- and partial-stresses, and static-stress, and also the variants of these, but these terms go far beyond the level of the discussion here and would therefore not be elaborated.

Most sentences have two types of words. These are content words and structure words, also known as function words, (Quirk et al, 1976). Content words are the key words of a sentence. They are the important words that carry the meaning or sense. Structure words, on the other hand, are words which give grammatical meaning in utterances. They are small, simple words that make the

sentence correct grammatically. They give the sentence its correct form or "structure". If the structure words were to be removed from a sentence, one might still understand the sentence but if the content words were to be removed from a sentence, one would not understand the sentence.

There are certain rules guiding sentence stress in English. These are:

- content words are given stress

- structure words are not given stress

- the time between strong syllables is always the same (Quirk et al, 1976)

The following examples can help to identify which words are content words and which are structure words:

Content words

Main verbs	sell, give, employ
Nouns	car, music, Mary
Adjectives	red, big, interesting
Adverbs	quickly, loudly, never
"To be" as a main verb	is, are, was

Structure words

Pronouns	he, we, they
Prepositions	on, at, into
Articles	a, an, the
Conjunctions	and, but, because
Auxiliary verbs	do, be, have, can, must

The above rules are for what is called "neutral" or normal stress. There are, however, exceptions. It would be wrong to think of closed-class words as lacking content. Sometimes a word can have a strong syllable that would normally be only a structure word, for example, to correct information. For example the preposition 'into' contrasts with 'out of' in the sentence like:

'He went into the kitchen and she went out of the kitchen

The crib is for HIM. I didn't say it was for HER.

In cases where these function words do attract stress, they have special pronunciations.

It is usual to emphasise the distinction between a word said in isolation, where convention and semantic integration tend to produce a fixed stress and rhythm which the individual speaker cannot alter, and connected speech, where the position of stress is subject to the speaker's will and the meaning they wish to convey. In other words, there is some flexibility of stress in an utterance and it depends to a large extent on the individual speakers. English speakers have the possibility of placing stress freely in units larger than the word by means of contrastive stress which is capable of highlighting any word in a sentence. They can vary the accentuation to emphasise any word. In natural conversation, Dalton & Seidihofer (1994) mention that "word-class is not a reliable indicator of prominence. When speaking very quickly, people sometimes de-stress some content words because stressed syllables take more time to say" (p. 54). This is particularly striking in the case of some closed-class words which, when weak, make use of the schwa vowel or other form of phonological reduction

(Greenbaum & Quirk, 1991). Under contrastive stress, they assume the form that they have as isolated dictionary items:

but	[bət]	[b t]
not	[ṇt] [ṇ]	[n t]
he	[hə] [ə]	[hi:]
have	[av] [v] [a]	[hav]

It is noted that certain words that are distinct from each other in their strong forms may become homophones in their weak forms. Such instances that can be cited include: [n] in

> Kwame *ŋ* Kofi mast know how iz doing. (Kwame and Kofi must
>
> know how he's doing)
>
> I could *ŋ* say which *a* ðəmz fr m ðə city. (I couldn't say which
>
> of them's from the city.) (adapted from Greenbaum using the latest
>
> edition of The Concise Oxford Dictionary, 1996)

which can represent *and* and *not,* and 'a' which can represent the indefinite article *a* and *of.* Both *of* and *have* have the weak forms 'a' and 'av', a convergence that can cause the misspelling of *have* as *of* in combinations such as

> *I could have told you that.*

What's she like? is ambiguous, depending on what strong form corresponds to the [s] of *What's: What is she like?* or *What does she like?* Similarly, *He's paid today* corresponds to either *He is paid today* or *He has paid today* (Greenbaum, 1996).

Contrastive stress makes use of pitch prominence. It is observed, however, that contrastive stress is not limited to sequences longer than the word.

The normal accentuation within the word can also be distorted at the speaker's will if they have to make a contrastive point and to provide a unique rhythm (which will be discussed next).

Rhythm

A noticeable feature of English is that some of its syllables are strong and many others weak (Roach, 2000, p. 81). Rhythm represents the patterning of strong and weak syllables that normally occurs in connected speech. A syllable is a rhythmic unit of speech. It exists to make the speech flow easier for the mind to process. It comprises one or more segments (which are building blocks of syllables). It is a unit of organisation for a sequence of speech sounds. It can influence the rhythm of a language, its prosody and its stress pattern. A syllable can have a strong or weak stress. Strong syllables are associated with strong stress while weak syllables are associated with weak stress. The strong syllable has at its core one of the vowel phonemes except a schwa while a weak syllable can have the schwa as its main vowel. It is observed that the vowel in the weak syllable tends to be shorter, of lower intensity and different in quality (Ibid, 2000, p. 81). For example, in the word 'brother' [brðə] the second syllable, is weak, shorter and less loud than the first and has a vowel that cannot occur in strong syllables. The vowel schwa [ ] is associated with syllables but it does not mean that all weak syllables have schwa. For example, in a word like 'monkey' [mŋki], the first syllable which is strong contains what is normally known as a short vowel and which is sometimes replaced by the schwa when it occurs in

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weak syllables, while the second syllable also contains a short vowel which has not been reduced to a schwa.

Rhythm also involves pitch changes, including those associated with nuclear tones in tone units (Greenbaum, 1996). In ordinary speech there are various degrees of stress, varying jumps or drops in pitch, and varying durations of pitch movements in the tones. Dauer (1993) explains that "when we speak naturally, words are parts of phrases and longer sentences. What we hear is a sequence of syllables in time, like notes in music. The time relationships among syllables make up the rhythm of language (p. 83). In effect, rhythm is timing patterns among syllables. However, the timing patterns are not the same in all languages.

Rhythm comes from the Latin word *rhythmus*, and from the Greek word *rhuthmos* meaning *flowing*. It is a musical quality produced by the repetition of strong and weak syllables. Rhythm occurs in all forms of language, both written and spoken, but is particularly important in poetry. It can be defined as the patterned, recurring alternations of contrasting elements of sound or speech. Greenbaum (1996) indicates that in connected speech, the alternation of strong and weak syllables often conveys a rhythm, with strong syllables providing the beat. An illustration is as follows:

> E'leven 'hundred 'people in 'fifty con'stituencies were 'asked 'how they'd 'vote. (Greenbaum, 1996)

In this example, there is an almost regular pattern of weak syllables followed by strong syllables. The noticeable exception is the set of three weak syllables consisting of the two syllables of *constituencies* that follow the first syllable of

that word and the weak syllable *were*.

Some linguists have proposed that the world's languages fall into two rhythm classes. In other words, there are two types of meter in the world's languages. These are *stress-timing* and *syllable-timing*. *Stress-timing*, as said by Low & Grabe (1995), is the near-equal interval between prominent syllables while s*yllable-timing* is the equal syllable durations. Prototypical languages of the former include English, Dutch, and German while the latter include French, Spanish and many local languages in Ghana, including Akan.

The most important prominence is generally conveyed by a tone (a distinctive movement of pitch) that starts on a strong syllable—the nuclear syllable or nucleus—and may continue over several syllables. A tone unit is a segment of speech that contains a nuclear tone – intonation.

Intonation

During normal speech, it is perceived that the pitch of voice is in continual variation and this in English (Laver, 1994) constitutes the basis of intonation – pitch melody. Intonation is defined by Beckman & Pierrehumbert (1986) as, "all aspects of the perceived pitch pattern that the speaker intends for the hearer to use in understanding an utterance, or that the hearer does use whether intentionally controlled by the speaker or not" (p. 103). It is a contrastive variation in pitch level of an utterance. These pitch patterns of speech have been described by O'Connor & Arnold (1973) as *significant*, *systematic*, and *language-specific*. In traditional analyses of segmental structure, phonology has been seen as concerned

with those differences which a given language exploits to convey lexical identity, and thus to convey different meanings. Similarly, two utterances which differ solely in intonational structure can differ in meaning. Additionally, just as the segmental inventories of languages consist of a limited number of phonemes, the number of distinctive pitch patterns is limited. The third characteristic is language-specificity. Phonemic inventories vary across languages, and so do the inventories of possible pitch patterns. Two intonation systems contrasted here are the Akan and English languages.

Not all rises and falls in pitch that occur in the course of an English phrase can be attributed to stress and rhythm. The same set of segments and word stresses can occur with a number of pitch patterns.

Let us consider the difference between the following sentences:

You're going. (statement)

You're going? (question)
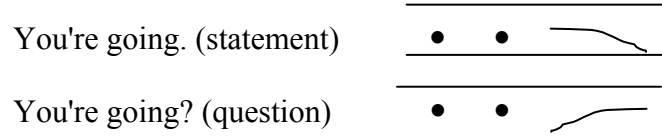
The rising intonation in one language to ask a question may be used differently in another language to make a statement. This can sometimes give rise to misunderstandings as a speaker from a different environment might misconstrue what a speaker from a different environment is saying.

The rise and fall of pitch throughout is called its intonation contour. English has a number of intonation patterns which add conventionalised meanings to the utterance: question, statement, surprise, disbelief, sarcasm, teasing.

An important feature of English intonation is the use of an intonational accent (and extra stress) to mark the focus of a sentence. Normally this focus

accent falls on the last major word of the sentence, but it can come earlier in order to emphasise one of the earlier words or to contrast it with something else. The strong syllable is known as the nuclear syllable. The nuclear syllable carries the main point the speaker wishes to make. The following sentences will better explain the point.

The initial sentence is ''Musa hadn't 'stolen that 'money'

'Musa hadn't stolen that money. (... Someone else had.)

Musa *'hadn't* stolen that money. (... You said he had.)

Musa hadn't *'stolen* that money. (... He was given the money.)

Musa hadn't stolen *'that* money. (... He had stolen some other money.)

Musa hadn't stolen that *'money*. (... He stole something else.) (adapted from Greenbaum, 1996)

In the examples, the nuclear is said louder than the rest of the sentence and has a characteristic change of pitch.

The meaning of intonation contours is as fixed as any other aspect of language. In other words, the relationship between intonation contours and their meaning is a matter of convention just like the relationship between a word form and what it refers to. Different languages can use different conventions, giving rise to the potential for cross-cultural misunderstandings.

Many languages mark contrastive emphasis, like English using an intonational accent and additional stress. These languages include Russian and Arabic. Many other languages, including Ghanaian languages and Chinese, use only syntactic devices for contrastive emphasis, for example, moving the

emphasised phrase to the beginning of the sentence. Instead of

I want a car for my birthday. (as opposed to a bike)

one would say:

A car I want for my birthday.

It's a car that I want for my birthday.

(However, it must be indicated that sometimes it is possible in English too). Listeners who speak the second type of language will not necessarily interpret extra pitch and volume as marking emphasis. Listeners who do not speak the second type of language will not necessarily interpret a different word order as marking emphasis (as opposed to assuming that the speaker doesn't know basic grammar).
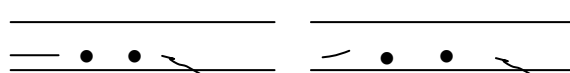
Questions

The normal intonation contours for questions in English use are:

final rising pitch or initial and final rising pitch for a Yes/No question

Are you coming today?

final falling pitch or initial rising and final falling pitch for a Wh-question

When are you coming?

Using a different pattern typically adds something extra to the question. For example, falling intonation on a Yes/No question can be interpreted as abruptness. Rising intonation on a Wh-question can imply surprise or that you did not hear the answer the first time and are asking to have it repeated. It may also depict orientation. This is a strategy for trying to suggest to someone how they should

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answer the question posed.

These patterns too can be different across languages. Even small differences can be important: reading one language with the intonation pattern appropriate to the other can give rise to entirely unintentional effects. In the Akan language, almost every syllable is strong equally. If an Akan speaker with a minimal knowledge in English is reading a sentence in English language, he or she might tend to use the intonation pattern from their language, thus emphasising what might not need emphasis.

Intonation, as said by Brown, Currie & Kenworthy (1980), is said to articulate affective meaning and, therefore, it is imperative to distinguish between affective meaning that may be derived from a particular pattern and the meaning of the lexical items chosen to illustrate the effect of the different intonation pattern. Halliday (1963) gives examples of the affective meaning of the lexical items as:

Tone 3: non-committal   —//3<u>six</u>/foot// 3 <u>I</u> don't know//

Tone 5: committed   —//I <u>cer</u>tainly/do//

However, Brown, Currie & Kenworthy (1980) contend that it is impossible to evaluate the claims made for intonation if the lexis alone implies the distinction drawn.

Parliamentary discourse

Parliamentary activity is largely linguistic in nature. It consists of MPs'

speeches, interventions (questions, replies, etc.) and dialogue with each other. Ilie (2003b) indicates that parliamentary discourse can be considered as a norm-regulated interaction, taking place among politically elected representatives to deliberate and make decisions in specific political institutional settings and which displays recurrent communication patterns. Bayley (2004) indicates that the objectives that parliamentary discourse aims to satisfy are common all over the world. These objectives are to legitimate or contest legislation, to influence opinion, to represent diverse interests, to scrutinise the activity of government and to recruit and promote political actors. However, the discourse of different national parliaments is subject to differences at all linguistic levels, based on the history, cultural specificity, and political culture in particular.

There are various genres of parliamentary discourse and these are adjusted to specific institutional goals. They include ministerial statements, parliamentary speeches, interpellations, parliamentary debates, oral/written questions and question Time, Ilie (2003b).

According to Ilie (2003b), there are three main types of institutional frames identified in parliamentary interaction. These are the spatial-temporal, participant and interaction frames. The spatial-temporal frame looks at the spatial and temporal dimensions in terms of the physical environment of parliamentary institutions, participant positioning and movement in space and time (layout and seating arrangements in different parliaments and locating the speaking MPs). The participant frame talks about the roles and identities of parliamentary agents, as well as speaker-addressee and speaker-audience relationship. The interaction

frame deals with the institutional structuring and functions of various activity types carried out in parliament (openings and closings of parliamentary sessions, parliamentary turn-taking and talk-monitoring rules, as well as parliamentary questioning/answering patterns).

Synopsis of the Study

The first chapter of the research begins with an introduction giving the background of the study, the statement of the problem and justification of the study, among others. The second chapter discusses the theoretical or conceptual framework as well as a review of works related to the current research. Chapter three explains the methodology of the study. In this chapter, the design for the collection of the data, and how the data are analysed are discussed. Chapter four analyses the data collected. Chapter five follows this section with the summary, implications, recommendations and conclusion of the thesis.

Conclusion

This chapter has looked at the introduction to the study, the statement of the problem, research questions, significance and justification of the study. It has also provided the definition of terms for the study as well as the synopses to the various chapters. The next chapter reviews literature related to this work as well as the conceptual/theoretical framework.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Introduction

This chapter discusses the theoretical framework and a review of literature related to the present study.

Research on non-native Englishes takes two main forms namely, Nativisation and Second Language Acquisition. The purpose for this research can be better appraised through a discussion of the theoretical framework on which the work is based: Nativisation and Metrical Phonology. The chapter consequently talks about the nature of Standard English and moves on to the approaches to the study of Non-native varieties of English in general and narrows in to Ghanaian English language variety to identify whether other varieties exist in English. Then it further reviews other related literature.

The second part of the chapter explains Nativisation and Metrical phonology as the theoretical framework on which this work is based. The literature review and theoretical framework give the needed backbone to the analysis to be done later.

The Notion of Standard English

In a study of this nature, there is the need to devote a little space to discuss the concept of Standard English from which the Ghanaian variety emerges because Standard English is believed to be the only variety, which should be

spoken or should be aspired to.

Strevens (1983) defines Standard English as the particular dialect of English that is the only non-localised dialect of global currency without significant variation and is universally commended to be the appropriate educational target in teaching English. It may be spoken with an unrestricted choice of accent.   This means that Standard English is also a sub-variety and is not limited to a particular locality or geological area and can be used with any accent.

Standard English was not created with a conscious effort, but it just evolved (Strevens, 1983) and became codified through printing as well as through the middle class's use as a language of instruction. It became the language of the social group with the highest degree of power, prestige and wealth and therefore many were the people who wanted to use it.

Standard English and Received Pronunciation (RP) are widely used in the media and by public figures, so they have prestige status and are regarded (especially from the British perspective) by many as the most desirable form of the language (Greenbaum, 1996). This is because of a pronunciation dictionary (2004 edition) which describes how words are pronounced in RP.   Standard English is also linked to the BBC because Lord Reith, the initiator of the BBC, maintained that newsreaders use RP in presenting the bulletin (Strevens, 1983). It is no wonder that generally RP was associated with BBC. Strevens contends that even though Standard English is independent of RP, RP is not independent of Standard English, which is more widespread than RP. It is believed that RP is

spoken by 3% to 5% of the total population of Britain (Trudgill & Hannah, 1985).

The fact that Standard English is traditionally linked to Britain has provided a yardstick for measuring the English language. This has led to a rejection of other national standard varieties to the extent that the British National Curriculum document has put forward the notion that American and Australian English are not Standard English (Trudgill, 1999). This stance has led to such negative comments about other varieties of English including the following:

1. that there is only one way of speaking or writing the English language;

2. the deviations from this norm are illiteracies or barbarisms and that non-standard forms are irregular and perversely deviant;

3. that people ought to use standard language and that it is quite right to discriminate against non-standard users, as such non-standard usage is a sign of stupidity, ignorance, perversity, moral degeneracy

(Milroy & Milroy, 2005, p. 40)

Such attacks on non-native and non-standard varieties generally assert that there is only one dialect of English that is intrinsically superior to others. However, Standard English speakers can be found in all English speaking countries who speak this variety with different non-RP accents. McMahon (2002) supports the fact that there is more than one variety of English in that on one level, there are as many Englishes as there are people who speak English— Southern Standard British English; Scottish Standard English; General American, the most frequently encountered broadcasting variety in the United States; and New Zealand English. Trudgill (1999) says that Standard English can be found in

a number of different forms including Scottish Standard English and American Standard English or English Standard English. One can say the British have their Standard English, Americans have their Standard English just as Ghanaians and Nigerians have their Standard Englishes and therefore to restrict Standard English to British Standard English is an imposition. It must, however, be mentioned that the various varieties should not be so far removed as to impede intelligibility among speakers of English as the Standard English used by both the native and non-native must be understood by all English speakers.

Standard English can thus be considered useful since it gives the grounds for which to account for the variety of identifiable distinctions and attitudes. Moreover, it provides the world a consistent paradigm of communication which is understood by almost all the speakers of English regardless of the distinctiveness in accent, dialect and usage.

Approaches to Non-Native Varieties of English

Since the 1970s, there has been increasing recognition given to varieties of English that do not fall into either the traditional mother tongue or foreign-language categories. These varieties have variously been called 'New Englishes' (Platt, Weber & Ho, 1984), 'Non-Native Institutionalised Varieties' (Kachru, 1982, 1992a) or 'Localised Forms of English' (Strevens, 1992).

An extensive literature now exists on non-native varieties of English. They are from the Caribbean (Haynes, 1982; Lawton, 1982; Görlach & Holm, 1986; Le Page, 1988), the Indian subcontinent and South East Asia (Platt, 1982;

Kachru, 1982; Platt & Ho, 1982; Foley, 1988; Gupta, 1988) and Africa (Hancock & Angogo, 1982; Todd 1982; Zuengler, 1982; Schmied, 1991; Bamgbose, 1992; Banda, 1992; Bokamba, 1992, Adjaye, 1987, 2005; Dako, 2003).

Platt, Weber and Ho (1984, p. 2) define a New English as one that has the following criteria:

i.   'It has developed through the education system'. This criterion excludes mother-tongue varieties.

ii.   'It has developed in an area where a native variety of English was *not* the language spoken by the majority of the population'.

iii. 'It has become "localised" or "nativised" by adopting some language features of its own…'

Whereas these criteria define New Englishes or non-native varieties primarily in terms of the sociolinguistic conditions in which they occur, Kachru (1992a) defines what he refers to as 'Institutionalised Varieties of English' in terms, first, of the sociolinguistic contexts in which they arise and, secondly, their linguistic characteristics. Both of these set non-native varieties, apart from 'performance varieties' (foreign language varieties such as Japanese). Like Platt et al. in relation to New Englishes, Kachru (1992a) argues that non-native varieties occur where English is accorded a role in intranational communication in one or more social institutions, (for example, parliament, law courts, secondary and tertiary education, and commerce). By contrast, performance varieties occur where English has only a highly restricted range of functions (for example, tourism, and international trade and diplomacy). Consequently, the primary

characteristic of non-native varieties, in Kachru's view, is that they have an extended range of uses in the sociolinguistic context of the nation or community in which they occur. Additionally non-native varieties exhibit the following characteristics, which are not typical of performance varieties (1992a):

i.   an extended range of registers and styles;

ii.   the registers and styles have undergone a process of nativisation affecting both their formal features as well as their adaptation to their contexts of use;

iii. the development of a body of literature, which has formal and contextual characteristics, that marks it as being localised.

Bamgbose (1995) discusses six approaches to the description of non-native varieties of English, which are characterised in relation to native varieties. These are the deviation approach, the common core approach, the register approach, the common origin approach, the comparative approach and the sociolinguistic approach. The deviation approach begins from the position that non-native varieties are "imperfect varieties" which represent stages that learners have to pass through in the process of acquiring a new language. Critics such as Platt, Weber and Ho, and Quirk as "interlanguage" and "interference" or "performance" varieties variously refer to them and that the more proficient speakers become, the more likely they are to leave behind them their errors. The common core approach recognises non-native Englishes as varieties that have much in common with native varieties. It insists that underlying all the varieties is a common core, something like "the highest common factor" which manifests

itself, particularly in syntax. Variants of non-native varieties are therefore acceptable as far as they do not deviate from the common core. Instead of saying that non-native varieties are not valid varieties, the register approach accepts them but says that they are not different from registers in a native variety. In other words, there is no need for a special category of non-native varieties of English. The common origin approach is based on the following premise: all varieties of English descend from a common node. There are no intervening nodes such that one node dominates all varieties of native Englishes, on the one hand, and another node dominates all varieties of non-native Englishes, on the other. This means there is no structural property shared by the group of non-native Englishes to the exclusion of native Englishes as a group. The comparative approach is typified by the International Corpus of English Project, which aims at collecting samples of English texts from different registers and different varieties. This project does not take any position about the status of any variety and makes available data, which can enhance codification. The sociolinguistic approach is the one which situates varieties of English within the socio-cultural context of their uses. Its emphasis is on functional uses and the adaptations that are needed for the variety to meet the demands made on it.

Bamgbose (1995) mentions that the term "nativisation," has now been generally accepted for describing the indigenisation of English in a second language environment (Kachru 1992, Bokamba 1992). The nativisation of English in Ghana is not limited to the usual features of transfer of phonological, lexical, syntactic and semantic patterns of Ghanaian languages into English. It is

also concerned with the creative development of English, including the evolution of distinctively Ghanaian usages, attitudes and pragmatic use of the language. The researcher agrees with scholars like Kachru, Bokamba and Bamgbose that different varieties must be accepted. The researcher believes that there is a variety, which is Ghanaian English.

Criticism and Defence of Nativised Varieties

Nativised varieties have come under attack from various writers around the world who see nativised varieties as a deviation and a source of worry. These criticisms have been responded to by scholars who endorse the nativised varieties. Bamgbose (1995a) outlines the various bases for the distinctions of the regional Englishes (in line with those who are against non-native varieties).

Non native Englishes differ from native ones in a number of ways which those interested in language in society will certainly regard as linguistically significant. First, all of them have developed through the imposition of English on populations that predominantly speak other languages. The result is that speakers of non-native varieties are bilingual, having acquired English through the educational system. Second, the influence of such local languages has left a permanent mark on these varieties in terms of borrowing, loan translation, code-mixing, style and register-shift, and various other processes of nativisation. Third, the new forms created as a result of the process of nativisation are creatively exploited by users to fashion out new forms of expression. Fourth, in spite of tendencies toward development of internal norms, there is still a constant

reference to external norms.

Other criticisms concerning the acceptance of nativisation or non-native varieties of English can be found in Kachru (1968)'s criticisms that he adequately refutes. Some of the criticisms were in the article, "The British heresy in TESL" in which Prator 'provides a good example of linguistic purism and linguistic intolerance' including the notion that NEs are 'L$_2$' varieties, and cannot legitimately be equated with 'mother tongue' varieties; phonological changes which take place in them can, in each case, change other parts of the language sweepingly and that they are fossilised 'interlanguages' (and therefore show 'attempted' rather than 'successful' learning) (Pride (1984) cited in Kachru, *Indian English: A Study in Contextualisation*)

Prator (1968) asserts that a second-language variety of English is a tongue caught up in a process that tends to transform it swiftly and quite predictably into an utterly dissimilar tongue.

Bamgbose (1982) argues that the points mentioned above are not true of native varieties. In the first place, speakers of native Englishes need not be bilingual. Secondly, the influences of other languages on such varieties are not predicated on any one language or languages of the area. Finally, there is no need to examine the correctness of American English by reference to British English and vice versa. Unfortunately, this comparison is often done. Bamgbose reports that Prince Charles, the Prince of Wales, in an address at the launching of the British Council's English 2000 Project in March 1995, is said to have attacked American English as "invent all sorts of new nouns and verbs and make words

that shouldn't be" and cautioned that the British should act quickly "to ensure that English – and that to my way of thinking means English English – maintains its position as the world language well into the next century" (p.100).

Quirk (1985) criticises non-native varieties as interference varieties of such long standing that some believe them stable and adequate enough to be institutionalised and hence to be regarded as varieties in their own right rather than stages on the way to a more native-like English.   He sees this position as 'liberation linguistics' ideologies which are motivated by considerations of power. The result of the ideological underpinning is that the interest in varieties of English has got out of hand and has started binding both teachers and taught to the central linguistic structure from which varieties might be seen as varying. Kachru refutes this statement and others under what he refers to as 'Fallacies about the forms and functions of World Englishes'.   Such fallacies include the idea that English is learned just so people can interact with the native speakers; English is learned to understand and teach American and British cultural values and Judeo-Christian traditions; and that Native speakers of English provide a serious input when it comes to teaching, policy formulation and the administration of the spread of English around the world. He answers these fallacies saying that in the first place there is a greater intranational rather than international use of English in various places. Furthermore, English is the major language used by people from diverse cultural and linguistic milieu. Again, English is used to recreate and embody cultural values and that there is little validity in the 'native input' during the colonial era and practically nothing in the postcolonial era but rather the

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spread is in the hands of the local people. Kachru is strongly opposed to those who consider grammatical and pragmatic differences in institutionalised non-native varieties of English to be 'errors' and 'deficiencies', to be eliminated by teachers of English as a Second Language (ESL).

Owusu-Ansah (1996) defines "nativisation" as:

> A process of linguistic and sociolinguistic change through which
>
> an external language becomes part of the culture of a community
>
> that uses it as an additional language while it still retains many
>
> features of the language as it is used by the native speakers. (p. 24)

Owusu-Ansah is of the view that the variety of English used by a non-native user veers in many ways from the variety used by a native user and yet at the same time there can be found in the non-native variety a similarity with the native variety.

The researcher agrees with Kachru, Bamgbose and all other writers who accept a variety, which can be called Ghanaian, Singaporean, Nigerian and South African. It rejects the arguments by Prator and Quirk and sees them as purist arguments rather than believing that language is in fact dynamic.

Ghanaian Variety of English

The Ghanaian variety of English is a non-native variety of English. Criper (1971) and Sey (1973) are the two major studies on the different types of English in Ghana. Both of them concur that there is a relationship between the level of

education and the type of English used. Over twenty years ago, Sey pegged his educated Ghanaian English as the English of one who had ten years of formal education, that is, six years of primary and four years of middle school education in the old system of education. Twenty years after Sey's study, the educated Ghanaian English user is pegged at a one who holds at least a General Certificate of Examination (GCE) Ordinary Level (Dolphyne, 1995). However, since there is no more Ordinary Level Certificate, the researcher pegs the educated Ghanaian speaker at the Senior High Level. That is, a person who holds a West African Secondary School Examination certificate (WASSE) (which is higher than the 'O' level).

Criper (1971) and Sey (1973) explain that there are four types or levels of English used in Ghana. The fourth level is approximated to the Standard British English, which they believe is used by people who have had higher education while at the bottom is pidgin which is spoken by those who they believe have had no formal education. Between these two levels are the other two levels of English that are difficult to explain except that they reveal various levels of education Dolphyne (1995). Owusu-Ansah (2004) provides three varieties of English in Ghana, which are native English, educated Ghanaian English and learner English. He makes it clear that educated Ghanaian English is internationally intelligible but retains a recognisable Ghanaian flavour. He also explains that there are some features identifiable in Ghanaian English such as a 9-vowel system, vowel harmony and accentuated and intonational system, which are heavily influenced by Ghanaian languages; a grammar characterised by left-dislocated construction

and odd couples and with the lexicon displaying a considerable amount of loan words and semantic modification.

For over a generation, many debates have been going on as to whether there is a Ghanaian English. There are those who oppose the idea of a Ghanaian variety of English and those who strongly believe that there is indeed a Ghanaian variety of English. The researcher will discuss the schools of thought since they are relevant to the study.

Critics of the Ghanaian Variety of English

Critics of the Ghanaian variety believe that the Ghanaian is aiming at Standard English or that popularly known as the Received Pronunciation (RP) of English. To them anything other than Standard English should be rejected because it is a deviation and an error, which should be corrected. Among such scholars are Sey (1973) and Ahulu (1994b).

Sey (1973)

Sey's Ghanaian English discusses the nature and basis of recurrent "deviant usage" in educated Ghanaian's English. He confuses the Ghanaian variety's existence with its discovery. He does not regard the Ghanaian variety because English is not used in many circumstances in Ghana. Also, he contends that only a few of the Ghanaian populace (about 30%) use English in their daily activities giving the impression that English does not have a relevant role to play in Ghana. He stresses that some of such coinages as *coal pot, small room, chewing sponge, cover-shoulder* and *pensioneer* (p. 70) are manifestations of

limitations in the proficiency of any L_2 speaker which might be due to insufficiency of the speaker's stock of vocabulary items, and the degree of failure to recall words. He advises the discontinuation of use of what is labelled Ghanaian variety since it carries a stigma and suggests that we aspire to the use of the British variety (RP) for administrative purposes as well as a medium of instruction.

Sey believes that the deviations are a stage toward achieving proficiency. He identifies four stages of formal education. At the first stage, the speaker of the English language writes and reads simple English with a fair degree of comprehension and accuracy and by the end of this stage is able, on his own, to write letters and notes and is able to read the newspaper (p. 15). At the second stage, the English spoken is quite good among some pupils and they read a variety of materials apart from their school textbooks while others, tend to write sophisticated essays with proficiency in registers associated with the subjects involved. Irregularities here are stylistic and semantic in nature as well as some errors which are carried over from the first stage. The third stage is equivalent to the university level of education and the standard of the English language spoken is high as is expected in a bilingual with several registers of various subjects at their disposal (p. 15). The irregularity here is semantic. The final stage is "ambilingualism" which "is so rare in the Ghanaian context that it is better ignored in this study" (p. 16). In this stage, the person involved speaks exactly like the native speaker with no irregularities. Sey's stages do not allow for a turn around. They suggest that one has to complete one stage before moving to the

next. In a sense, there is discontinuity in the stages since there is no turning back when one gets to a particular stage. However, he is quick to add that there are situations where even though one is not in a particular stage, say three, one is able to speak like a person from that stage.

It is interesting to note that Sey is drawing attention to the variety of English used in Ghana in that some people speak Ghanaian English even though they believe they are speaking British English and as Ofosu (2000) confirms there is a variety whose features and characteristics are encouraged by the Ghanaian sociolinguistic environment.

It is a long time since the publication of Sey's work and with the literacy rate improving over the years; many Ghanaians are making more use of the English language. Secondly, such linguistic features which Sey regards as deviants are not considered as such by current researchers including Dolphyne (1995), Owusu-Ansah (1994 and 1992) and Dako (1991). The various researches done since the time Sey wrote his book make Sey's argument less convincing in this era, and many of the forms which he considered "deviant usage" are not regarded as such by even the experts in the field of linguistics today. In addition, Sey's work is different from this research in that while it is prescriptive this work is descriptive and presents the nature of prominence in Ghanaian English.

Ahulu (1994)

Ahulu asks the question, "How Ghanaian is Ghanaian English?" He

believes that there are two viewpoints to be looked at when discussing the existence of a distinctive model of Ghanaian English. These two viewpoints are the local acceptability and uniqueness. To him, some linguists may agree on some features of Ghanaian English but as to whether the educated Ghanaian agrees with those forms is another subject. Ahulu notes that it is not only language experts and educationists who take the Ghanaian variety of English with a pinch of salt. He concurs with Gyasi (1990) that "...parents and the general public are continually expressing their views in the local papers...why should the views about the language they use... not matter in question of propriety in speech" (p. 26). In effect, Ahulu sides with Sey (1973) in that the educated Ghanaian accepts the British standard variety since the educated Ghanaian, since time immemorial, has desired only to be dexterous in the Standard British English.

Ahulu again contends that such forms labelled 'Ghanaian' may not be restricted only to educated Ghanaians. He argues that the use of loan words such as 'gari', 'kwashiorkor' from the local languages will not make the user of the language a speaker of Ghanaian English. In the same way the user of a word like 'sari' will not make the person a user of Indian English. The reason is that such words have now earned international usage and are thus to be found in the Oxford Dictionary Supplements. He explains that it is of little essence linguistically as well as educationally to mark this variety as a characteristic variety of English just because of a relatively few lexical modifications (loan translation and coinages) that come about as inventories in the catalogue of educated Ghanaians.

This claim of a relatively few lexical modification is not feasible in the

face of the theory of language variation which explains that the existence or otherwise of a variety is not considered to be based on how widely one variety differs from another. In Ghana, for instance, such regional variations of Mfantse, such as Cape Coast Mfantse, Takoradi Mfantse and the Nkusukum Mfantse exist even though the differences may not be extreme. In the same vein in the United Kingdom, regional variations such as Yorkshire and Devonshire exist but the differences are not extreme. I agree with Gramley (2001) when he contends that a language like English which has many regional and social variations will definitely include differences in word inventories between users and user groups. In essence, language (English included) varies depending on such factors as where it is spoken, on what occasion and on who is speaking it. In effect, it is the context of situation which determines the variation used. In this sense, such Ghanaian, Indonesian, Canadian, Kenyan and Guinean Englishes could be said to be authentic varieties in their own right and with their own features and style. This research, unlike Ahulu's, looks at how language should be used as opposed to his prescriptive form. The researcher agrees with Gramley since this research supports the fact that there is a variety of English which is Ghanaian.

Adherents of the Ghanaian variety of English

Norrish & Dolphyne (1974)

In a review of Sey's <u>Ghanaian English</u>, Norrish and Dolphyne agree albeit implicitly that there is a Ghanaian variety of English in that there are without doubt regional varieties of English all over the world and which need to be taken note of and explained linguistically. They also deem Sey's work important since

it admits implicitly that there is indeed a 'Ghanaian variety of English'.

They go further to take Sey to task for overlooking style and discourse (that show how language tends to be used in context). They also believe Sey is undecided when it comes to a variety of English in Ghana. Sey says some 'Ghanaianisms' need to be cultivated but believes that one way of getting rid of the Ghanaian variety of English is to point it out to the user as an error.

A study by Dolphyne (1995) also reveals that Ghanaian English shows some marks of nativisation and acculturation evidenced by innovations in the users' linguistic choices, in their tendency to show preference for using a formal register characterised by the use of, for instance, (1) deferential terms of address and (2) formal lexical choices such as 'kindly' instead of the less formal 'please'.

Dolphyne (1995) further states that when one considers the spoken language there is a clear accent that can be identified as Ghanaian English. For instance, one can tell just by listening to the spoken English on radio without knowing who the speakers are that one of them is a Ghanaian (or must have had Ghanaian influence for a long time). Moreover, she explains that there is a standard written English which approximates to standard British written English as far as grammar and even lexis are concerned though some lexical terms or items are unique to a particular culture in which the language is used. She also believes that it is this kind of written English that is used by teachers of English at all levels, newspapers editors and journal editors. She is, however, quick to point out that sometimes the target is not achieved in terms of the use of articles and prepositions. She, in addition, contends that just as the English language in its

country of origin is spoken with clearly identifiable accents so, also, given the variety of first languages spoken by a Ghanaian of English, is there a clearly distinguishable Ghanaian accent.

In her address to the inaugural meeting of the Ghanaian English Studies Association at the then University College of Education, Winneba in 1996, Dolphyne reiterates her stance of Ghanaian English thus,

> Apart from research...as well as error analysis which is meant to help students approximate to what may be loosely referred to as 'standard English' or an internationally accepted form of the language, it is now recognised that there do exist non-native varieties of English which have to be recognised and accepted as such. For the most part one comes across a list of words or expressions that may be identified as unique to 'Nigerian English' or 'Ghanaian English' and so on, but a proper thorough description of the indices of such Englishes has so far eluded us... (p. 6)

This buttresses the fact that English in Ghana is not (and cannot) be the same as English used by a native speaker given the socio-cultural differences and the economic as well as political environments.

The researcher agrees with the view stated by Dolphyne in that there is the need for researches to identify and describe the feature of Ghanaian English in order to confirm it rather than prescribe what should be the correct English to use.

Asante (1996)

Asante's article "Nativisation of English in Ghana" presents an insight into nativisation and contributes to the on-going debate on whether there is a variety of Ghanaian English. In her article, she states emphatically that there is a Ghanaian variety of English. She supports her argument with evidence from the morphological, syntactic and phonological fields based on nativisation which characterises the Ghanaian multilingual situation.

Asante debunks Sey's and Ahulu's stance on Ghanaian English in that they base their arguments on the forms asserted to be characteristic of the Ghanaian environment but which is a common phenomenon in the West African sub-region. She contends that the method which Sey and his allies use, error analysis, just examines learners' essays and performance and identifies only the features which are deviant from standard norms. She believes that most of the forms mentioned as deviant use may be restricted to the learners whose essays were analysed and thus they cannot be generalised for the whole Ghanaian community of English users. This is because their level of education (as identified by Adjaye, 1987, 2005) could have accounted for a number of the deviant forms encountered.

Asante advises that to steer clear of assuming distinctive and idiosyncratic usage as characteristics of Ghanaian variety of English, a socio-linguistic survey utilising special statistical and sampling methods must be applied in order that forms identified can be established to be representative of Ghanaian usage.

Asante uses the nativisation model to support her view on Ghanaian

English. She cites morphological, syntactic and phonological examples from Ghanaian English. With regard to the morphological system, she uses such examples based on inflectional and derivational affixes as enskin/enstool/as used by Dagomba and Akan ethnic groups to express what the British describe as enthrone. To her, the British form 'to enthrone' "does not aptly convey the meaning expressed by enstool and enskin to mean the instating a chief on the stool or skin" (p. 135).

For syntactic system, she presents such examples (even though she concedes that there are few) as the divergence in the use of the articles the and a for which even the critics (for example, Ahulu, 1994a) agree is as a result of the inconsistency in the use of articles in the Standard language itself. Phonologically, she explains that one can recognise features whose occurrence and frequency depend on the degree of competence: syllable-timed rhythm and spelling pronunciation. She explains that syllable-timed rhythm is a transfer feature from the Ghanaian languages which referring to the production of syllables with equal prominence.

Concerning spelling pronunciation, she says it is a result of teaching English through the written medium which accounts for the pronouncing of the final letter after such words as tomb, comb, sing and bang. However, these words have been pronounced historically as such and are still pronounced this way in some varieties of native English, for example Scottish. She says to the Ghanaian English user, there is no point to show the meaning of such words as enstool and kontomire (a green vegetable from tender cocoyam leaves). However, it is

essential to explain such vocabulary items to native speakers and other non-native speakers when such words occur in Ghanaian English texts.

Asante's study suggests that insights gained through the discussion go to support the idea that nativisation is inevitable (and that critics should look at their stance). The researcher shares the same opinion with Asante's work concerning the distinctiveness of Ghanaian English and the fact that Ghanaian English has come to stay.

Owusu-Ansah (1997, 1994, 1992)

Owusu-Ansah (1997) tackles the major issues of non-native varieties of English. He establishes the differences between acceptable norm and manifestations of lowering of standards which have been the major concern of English language teachers of English speaking Africa.

He suggests a tolerability scale in identifying what is deemed acceptable and unacceptable deviations. This is because he believes that some deviations are more tolerable than others. He says that a standard Ghanaian English could be identified and used for instruction and examination purposes. He further insists that rather than a total condemnation of the variety, guiding it toward standardisation will be helpful. This, he maintains, will help to create and maintain an endonorm instead of the blind insistence on an exonorm.

Furthermore, he explains that given the long use of English in Ghana,

a. Ghanaian English is now used in a wide range of contexts including informal situations and

b. it has developed into a stable system with systematic variation according to context.

He further argues that any variety that has such qualities as have been mentioned above can be considered an institutionalised variety, not as a corrupt form of another variety. He distinguishes two main types of variations which are variation from native norms and variation within the non-native varieties.

Owusu-Ansah's (1992) article looks at what is used in signalling information which is new in non-native Englishes and Ghanaian English in particular. It is a comparative study between the British English and non-native Englishes to identify how new information is signalled in Ghanaian English. The title of the article itself is made ambiguous to reflect the problem of defining what is 'new' information and the problems of identifying what is new in an utterance.

He answers this question with an in-depth analysis concerning the theme and rheme of discourse and how new information is revealed in the rheme. He relates how new information is signalled to the linguistic features identified in the Ghanaian languages which include the isochronicity in terms of syllables, the structure of the Ghanaian English syntax, including word order and the use of clefted clauses for stressing otherwise not highlighted items. Owusu-Ansah uses spontaneous speech from lectures and a recording of an Open University lecture on television. He analyses his data at the phonetic and lexico-grammatical levels. He also uses acoustic analysis to measure the loudness and duration of the speeches he analyses.

What comes out clearly is that Ghanaian English speakers use variation in

loudness to draw attention to new information and also the fact that clefted and semi-rhetorical constructions are more frequently used to identify new information.

Based on the discussion, Owusu-Ansah identifies that there is a clear distinction between Native English and Ghanaian English in terms of the use of pitch. It is identified that "Ghanaian English speech is different in that it makes use of more sudden jumps in pitch than in normal native English" (p. 89). In effect, Owusu-Ansah distinguishes Ghanaian English from British English on the phonetic and lexico-grammatical basis as he argues that "the realisation of new information in non-native varieties of English may differ significantly from what obtains in native varieties" (p. 83).

Owusu-Ansah's articles share the same opinion with the current research in that there is a variety of English in Ghana. They are an insightful study which will help the current research. However, they differ from the current research in that unlike the 1992 article, they are comparative in nature as compared to this research which is concerned solely with Ghanaian speech. Moreover, the study is limited to Cape Coast while this study looks at speeches from a cross-section of Ghanaians. Again, Owusu-Ansah discusses both phonetic and lexico-grammatical aspects of Ghanaian English emphasising loudness as a means of identifying new information. This research looks exclusively at prominence and rhythm of Ghanaian English and thus encompasses the use of loudness in signalling information.

Adjaye (1987, 2005)

This study looked at the pronunciation of English by speakers of three of the local languages, Akan (Fante and Twi), Ewe and Ga, including not only segmental phonetics and phonology, but also the suprasegmentals of accentuation or stress, and intonation. Using empirical phonetic data collected from the 'representative' group of informants, the volume discusses segmental, contextual and supra segmental features of Ghanaian English. This entails a thorough examination of the range of variant pronunciations for each consonant and vowel phoneme and of such processes as assimilation and elision.

The comparative/contrast approach used helps identify standardised forms in Ghanaian English accent while at the same time notes regional and/or educational variation. The analysis, therefore, highlights the existence of a cline of phonological systems based on the socio-educational backgrounds of Ghanaian speakers. Adjaye's clarification of the fact that Ghanaian's English patterns is affected by their level and type of education, social and economic backgrounds, regional or geographical locations, personal motivation, and their attitude to the English language is in line with current trends in Second Language Acquisition and general Sociolinguistics.

Adjaye's work confirmed that there is a standardised variety of Ghanaian English and gave a descriptive approach rather than a prescriptive approach to the Ghanaian variety of English. Adjaye's work is similar to this research except that while her work is based at the word level the current research is concerned with the sentence and utterance as well as the rhythm in speech and not just the

isolated word. The work can thus serve as a stepping-stone on which this work can rely. Secondly, Adjaye's work is comparative as opposed to the current work which is descriptive in nature. From the reading of her book, it is realised that this is an enhanced book which will help the researcher in discussing features of prominence and rhythm in Ghanaian English.

The review above suggest that many scholars (Kachru, Bamgbose, Owusu-Ansah) have become interested in nativisation and the use of English as a whole and has also shown that English in Ghana has undergone the process of institutionalisation. This study also wishes to make the point that, indeed, there is a variety of English as will be shown in the other chapters and there is a linguistic innovation in English in Ghana.

Other related literature

Bollinger (1958)

In his article, Bollinger attempts to reverse the assumption that stress and pitch are phonemically independent. He agrees that stress depends on pitch but does not agree with the view that for pitch to serve as a cue to stress, pitch must necessarily rise. To him it is not pitch rise but pitch prominence which is of essence to what is heard as stress. Accordingly, the main correlate of stress is pitch movement and, in the absence of pitch, nothing in the speech signal indicates where stress is. Taking this a step further, he puts forward a theory of 'pitch-accent' in English which defines different kinds of accent in terms of pitch prominence of various kinds. Thus, the pitch pattern of an utterance is

characterised by various prominent pitch features ('corners') which can signal stress in different ways. He identifies three such pitch accents: Accent A, in which there is a drop in pitch either within or immediately following the accented syllable; Accent B, which involves a rise in pitch, either before or after the accented syllable and Accent C, which is a 'kind of anti-accent A', in which the accented syllable is skipped down to. Accent is here defined entirely in terms of pitch. His findings are that what is generally heard as stress is in fact pitch prominence; that intensity is seen as a negligible factor both qualitatively and quantitatively and that pitch prominence is basic but is not necessarily upward but may take other directions. This article is relevant to the study in that it helps to explain the theory of pitch. However, the researcher does not agree with the writer about the 'negligible' nature of intensity. The researcher will prove with the data that intensity is indeed an important feature in prominence and rhythm of Ghanaian English and in fact that they go hand in hand.

Dauer (1983)

Dauer attempts to bring out the differences between languages, which are said to have stress-time, and those, which have syllable-time. He does a comparison of data from continuous texts in English, Thai, Spanish, Italian and Greek and shows that inter-stress intervals in English, a stress-timed language are no more isochronous than inter-stress intervals in Spanish, a syllable-timed language or any of the other languages which he investigates. To Dauer, it is a general universal tendency for stress to recur regularly in languages and that the

difference between stress-timed and syllable-timed languages is syllable structure, vowel reduction and phonetic realisation of stress and its influence on the linguistic system. He further contends that there is likelihood for rhythmic groupings to take place even in so-called syllable-timed languages in that "it is precisely the language structure with all its language specific segmental variation that is responsible for perceived differences in language rhythm" (p. 59). The researcher supports Dauer's view in that rhythm is language specific. However, this work differs from Dauer's in that it looks at the phonetic correlates of the prosody in terms of the pitch, duration and intensity (loudness) of Ghanaian English speech.

van Heuven (1994)

van Heuven's article is an introduction and a tutorial to a book which provides a wider perspective on studies dealing with the prosody of Indonesian using phonetic research methods. He distinguishes between segmental phonetics and prosody. To him, "segmental phonetics studies the properties of utterances in so far as they can be understood from the properties of the individual segments (that is, vowels and consonants) in their linear sequence" (p. 1). In other words, segmental phonetics tackles the pattern of individual vowels and consonants which include articulatory features as place, manner and voicing. Prosody, on the other hand, has to do with "all properties of speech that cannot be understood directly from the linear sequence of segments" (p. 2). In a sense, prosody serves as an accompaniment or the music (the melody and rhythm) to speech. He explains that the linguistic structure of speech melody is a sequence of discrete

pitches which can assume only a limited number of values: high, mid-high, mid-low and low. He then discusses stress and accent in terms of their linguistic structure and moves to discuss the phonetic correlates of prosodic prominence. To him, prosodic prominence has two linguistic representations: a tonal representation of a high and low sequences and temporal representation. The former marks the focus domain (+focus), where the vocal cords vibrate slightly faster during the production of a vowel than a voiced consonant and this makes a syllable have a shallow rise-fall pitch movement. The temporal representation is concerned with a hierarchical structure of metrically strong and weak syllables whose principal correlates are temporal. Strong syllables are longer than weak ones and even when a polysyllabic word is pronounced in a less focus domain (-f), it does not bear a long pitch but a strong syllable in the same (–f) domain does. Van Heuven's work is of importance to the research in that it helps to explain the prosodic phonetics this work is dealing with.

Nihalani & Lin (1998)

Nihalani and Lin investigate the various intonation patterns employed by Singaporean radio newsreaders and attempt to develop a system of analysis particularly useful for the study of intonation at discourse level. The work was based on the framework provided by Brazil et al (1980) which discusses breaking of the passages down in tone units and using keys to mark prominence as high or low (which are indicated by H and L). The data were recordings of radio news read in English in a nativised setting. Among the findings are that, tone units are

exploited by the newsreaders for the main function of dividing an extended discourse into manageable information units for listeners and that key plays a very significant role in the sequences of tone units to mark a movement from one unit to the other. Furthermore, initial units in a sequence are indicated by high key and the closing by low key. The article is important to the study in that it helps the researcher to break the utterances into chunks with the right boundaries. It is, however, different from the research in that while it looks solely at intonation, this research investigates the rest of prosody including pitch, duration and intensity. Secondly, the article deals with read speech while this research deals with spontaneous and unread speech.

't Hart, Collier & Cohen (1990)

A collection of previously published papers with addition of new and more details concerning intonation of the Institute of Perception Research in the Netherlands. 't Hart et al concentrate on just one prosodic feature of speech – intonation. They define this as the collection of pitch variations in speech which is caused by the periodic variation of the vocal cords (p. 2). They discuss how intonation is embedded in the speech signal and how relevant information is extracted from the signal in automatic ways. To 't Hart et al, intonation manifests itself phonetically at three levels of description namely production, acoustics and perception. Since pitch is their main cue to intonation, they devote attention to the perception of pitch dealing with the psychoacoustic insights in the auditory impressions of pitch, pitch distance and pitch change in terms of absolute and differential thresholds. The basic tools for their operations are the stylisation of

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an original fundamental frequency (F_0) curve and the evaluation of the perceptual consequences. They explain how pitch movement is used in the construction of global pitch contour. They found, among others, that pitch movement is at the same time a perceptual and an acoustic unit and that difference in pitch movement from one utterance to the next correlates with changing paralinguistic factors such as the emotional state of the speaker. 't Hart et al's work is important to the research in that it helps to analyse the intonation in Ghanaian English but differs from the research in that the research deals with duration as well as intensity of the utterance.

Gut & Milde (2003)

Gut and Milde discuss the prosody and language typology of Nigerian English. They analyse the prosody of Nigerian English and compare it to the prosody of British English and three West African tone languages. They analysed read and spontaneous speech acoustically with the ESPS/waves+ and found that there were significant differences in speech rhythm of Nigerian English and other West African languages as well as the native speaker's variety. They, again, found that Nigerian English syllable structure is different from the native variety and that the tonal structure of Nigerian English is similar to a tone language more than to an intonation language. Gut and Milde's work is similar to this work in that it looks at the prosody of a non-native variety of English. The process they go through is, however, different. They use the toBI system to analyse syllables while this research uses the Metrical Theory. Again, their work deals with just

the prosody while this research deals with the prosody as well as prominence used in speech.

Udofot (2003)

Udofot looks at the disposition of stress of Nigerian users of English and the general nature of spoken Nigerian English rhythm. He uses sixty Nigerians of varied socio-economic, ethno-linguistic and educational backgrounds and a native British English speaker as his subjects for the study. He hypothetically classified his subjects as speaking three varieties of Nigerian English which are characterised by their disposition to stress and speech rhythm: the Non-standard, the Standard and the Sophisticated varieties which are individually different but collectively similar though different from the Standard British English (which he refers to as the control) represented by the speech of the native speaker. The data, a read passage and freely spoken speech, were analysed metrically and statistically using, among others, a modified version of the Metrical Theory, and the Analysis of Variance (ANOVA). His data confirmed the existence of the three varieties and that there was a tendency to stress more syllables in words than the native speaker did. He traces it to the influence of mother tongues of the Nigerians which are syllable-timed. The article is of essence to this research since it explains rhythm of a non-native variety. It is different from this research in that it concentrates more on duration of syllables of Nigerian speech while this research features duration as well as pitch and intensity syllables in Ghanaian speech.

Theoretical Framework

The Theory and Concept of Nativisation

The second part of this chapter features the theoretical framework. The first theory on which this work is based is the nativisation theory. The researcher looks at the various concepts and definitions of nativisation. The rationale behind choosing the theory of nativisation as the theoretical framework for this work is that it is the most appropriate theory among such works as variation or ethnography of communication as such scholars as Owusu-Ansah, Kachru and Bamgbose have effectively shown in their articles.

Nativisation, one aspect of institutionalisation, generally refers to the development of distinctive local 'deviations' in the use of English in response to the pressures on it to acculturate to its new socio-cultural context (Kachru, 1992a). The propounder of the theory of nativisation, Braj Kachru (1992) defines nativisation as "the processes which create a localised linguistic identity of a variety" (p. 6). He explains 'processes' or methods as the productive mechanisms that lead to the adaptation of a target language. These productive mechanisms bring about syntactic simplification, collocation innovation, native rhetorical, stylistic and over generalisation devices. Kachru (1986) explains the 'localised linguistic identity' to be the processes where "the linguistic innovations are determined by the localised functions of a second language variety, the culture of conversation and the communicative strategies in new situations and the transfer of local language" (p. 21). Kachru (1986) contends that non-native varieties are the result of the transformation of English in interaction with the life of its new

contexts, as it adapts itself to handle new objects, relationships, experiences, etc. and develops new resources to carry and express new meanings, cultures and viewpoints.

Nativisation involves two major components which are linguistic and cultural in nature (Kachru, 1992; Asante, 1996). The linguistic component deals with innovations initiated at various levels of linguistic structure which include morphology, syntax, lexico-semantics and phonetics. The cultural component on the other hand is the enculturation of English in terms of the elements of the local culture being reflected in the lexicon. In this sense the local culture has been made to reflect in the registers of the various users in their respective domains.

The nativisation model derives support from two language phenomena which are language contact and second language acquisition. To Kachru (1986), language contact is the situation where "two or more languages come into contact for political, geographical, historical or educational reasons" (p. 135). Ghanaian languages are in contact with one another as a result of migration and of trading activities (Asante, 1996). The result of such a contact is linguistic innovation. Such innovations specific to a variety are sometimes seen as a deviation in terms of the standard. It is a deviation in terms of lexis, style range, discourse and phonological strategies that provide the grounds for identifying such patterns as Indianisms, Nigerianisms and Ghanaianisms.

Two factors influence the level of nativisation of a variety. These are the range and depth of the functions of English in a non-native situation as well as the period a particular society is exposed to bilingualism in English. The range is the

extent to which English is extended into the various cultural, social, commercial and educational situations. This implies that the wider the range the bigger the variety of uses will be. The depth is the penetration of English-knowing bilingualism into various societal sectors from the educated variety to the lowest level of the variety of English in non-native communities – basilect.

To sum up, it can be said that it is only when critics have a detailed understanding through the study of the theory that they can relax their strict compliance with native stands and embrace nativisation. It is in this way that such critics can regard the non-native varieties of English as different not deficient varieties.

The explanations above show that the nativisation theory will be relevant to the study at hand in that the English language spoken by the educated Ghanaian, like all non-native varieties, exhibits some linguistic adjustment in distinctive socio-cultural context.

The Theory and Concept of Metrical Phonology

Metrical Phonology is a theory of stress or linguistic prominence. It is based on the view of rhythm propounded by Liberman (1975) and which was later developed into a theory by Liberman & Prince (1977). According to this method, syllables are presented to have strong (S) and weak (W) stresses. Stress is defined on a tree structure where the nodes divide binarily into S (strong) and W (weak) (Udofot, 2003). Each syllable is labelled either S or W: and because stress is not an absolute but a relative property of syllables (McMahon, 1992), these labels do

not mean 'strong' and 'weak', but 'Stronger than an adjacent W' and 'Weaker than an adjacent S', respectively. It must be noted that even in longer words, metrical trees can only branch in a binary way: that is, each higher S or W node can only branch into two lower-level constituents, never more. This is enough for disyllabic words such as 'mother', 'admire,' and 'Musa'. The tree construction involves two steps in such words as 'parachutes, 'register' and 'manuscripts' where initially, the first two nodes are put together; then the higher-level S node form is in turn combined with the leftover W syllable to form another binary unit. This kind of pattern can be repeated in even longer words such as 'photographic', 'academic', 'accelerate' and 'machination'. Here are some illustrations:

```
              R                                   R
            /   \                               /   \
          W       S                           W       S
         / \     / \                         / \     / \
        S   W   S   W                       S   W   S   W
       ma  chi  na tion                     ph  to  gra  phic
```
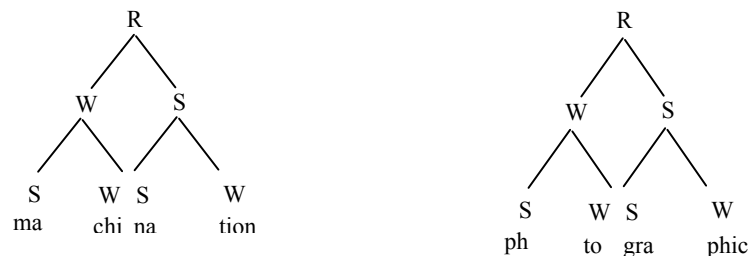
In situations involving both primary and secondary stresses, the trees are more helpful in that they show the different patterns and (that the trees) allow for easy identification of the main stress of each word, which will always be on the syllable dominated by nodes marked S all the way up the tree (Udofot, 2003).

Two rules determine the assignment of strong and weak nodes namely

i)   A Lexical Category Prominence Rule (LCPR). This operates on simple and compound words and

ii)   A Nuclear Stress Rule (NSR). This also works on phrases and sentences.

As indicated in Liberman & Prince (1977), the theory insists that the rules be used

thus for any pair of sister nodes [N1, N2]

i)   LCPR: If [N1 N2]L where L is a lexical category, then N2 is strong if N2 branches;

ii)   NSR: If [N1 N2]P where P is a phrasal category, then N2 is strong (as used in Udofot, 2003).

This will be better understood based on some illustrations (as pronounced by Ghanaians)

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```
        R               R               R
       / \             / \             / \
      W   S           W   S          S/S   W        W
    Kwa   me        ad  mires    S    mas   que      rades
                                                S
```

a)

```
                         R
                        / \
                       /   S
                      /   / \
                     /   /   S
                    /   /   / \
                   W   W   S   \
                  / \ / \ / \   \
                 W  S W  S S  W   W
               Kwa me ad mires mas que  rades
```
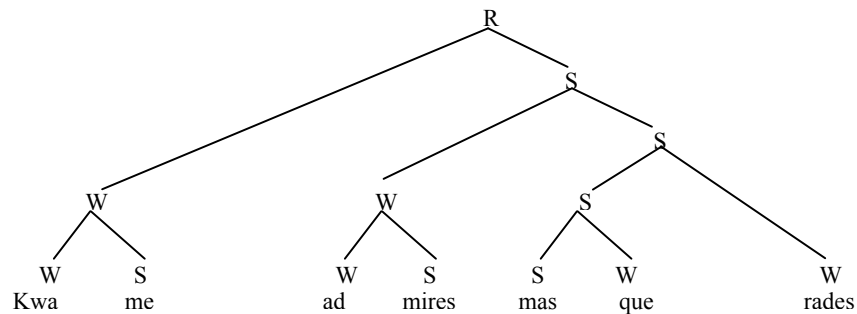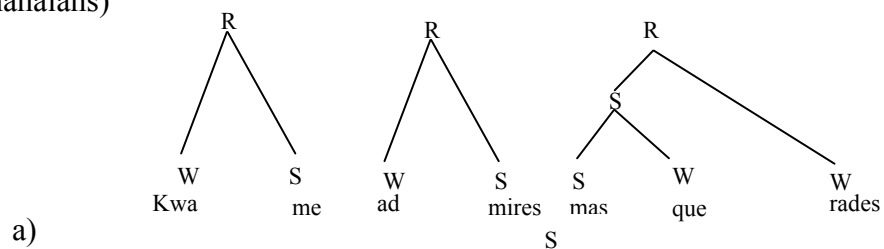
Trees of this sort allow for comparison of different words at a glance and tell whether their prominence patterns, and thus the position of stress, are the same or not. S occurs on the left branch in the lexical item 'parachutes' because the right branch does not branch by itself (LCPR); however at the predicate and sentence levels, S's occur on the right branches (NSR). The primary stress is shown to fall on the syllables that are governed by S's (that is, 'pa'- in the above example, sometimes known as the Designated Terminal Element (DTE). This is said to be the point of pitch change (Udofot, 2003).

The rule of metrical phonology states that when two strong stresses occur within the same range for example, "photo   graphic   memory" and there is a clash, the Iambic Reversal Rule is used. By this rule, the first stress moves to the left (that is, unto the first syllable) so that the stress pattern becomes "   photographic   memory" (Liberman & Prince, 1977). In this way, the metrical grids space out stress so that the notion of stress timing in English is ultimately maintained.

The theory of Metrical Phonology has seen many developments since its inception.   Schane accepts the advantage of the Metrical theory over the generative approach to the representation of rhythm, but does not subscribe to the 'hierarchically ordered binary branching structures but preserves the SW notation with added SWS (ternary system). He contends that the reason for choosing the ternary system is because the binary branching structures which are hierarchically ordered are overly complex. In this sense, the S's are allocated directly to base forms and suffixes, taking into consideration syllable structure as well as morphological information (Schane, 1979). This means that rhythm is seen as resulting mainly from the alternation between strong and weak syllables Udofot, 2003). Selkirk (1984) uses the SW notation but prefers the ternary structure and puts forward the Principle of Rhythmic Alternation (PRA) to break the monotony of arrangements such as SWWW and to maintain the appropriate rhythm. He therefore uses a grid-only representation in place of the tree structures.

This study used more of Schane's notation. The rhythm of Ghanaian English accent in the selected data was indicated using the notation S and W

where S and W are allocated directly to base forms and suffixes considering the syllable structure as well as the morphological information.

This metrical phonology theory will help to categorise the words into their various intonational as well as stress patterns.

Conclusion

This chapter has looked at what Standard English is. It has explained what is meant by non-native Englishes and has narrowed the discussion down to the issue of Ghanaian English providing the two schools of thought concerning it. Other related literature was reviewed. The theoretical framework guiding the study were discussed. These are the theories of nativisation and metrical phonology.

The next chapter will deal with the procedure of data collection as well as the instruments for gathering the data.

CHAPTER THREE

METHODOLOGY

Introduction

The focus of this chapter is the methodology employed in the collection, transcription, coding and analysis of the spoken data that formed the basis for discussing prominence and rhythm in Ghanaian English speech in Chapter four.

The methodology is a very vital constituent of the study and will thus be discussed elaborately. The research is descriptive and the analysis is based on the qualitative method. The chapter discusses the account of the data and those who provided them as well as the background to the source of data for the study. It is indispensable to present a thorough discussion of the research instruments which included acquisition of materials and tools and then the data collection procedure.

The Research design

This research followed the descriptive design. There are two main types of descriptive research. These are the quantitative and qualitative research. The current research was based on the qualitative method of research. Qualitative method is descriptive in that it is interested in assessing the process and meaning and understanding the phenomenon rather than outcomes (Creswell, 1994). Stevens (2003) adds that Qualitative methods help the researcher study the variations of complex human behaviour and behaviour changes in context. Complex behaviour is not well captured by quantitative techniques. This research was to assess features of prominence and rhythm in the speech of Ghanaian parliamentarians (with education from the 'O' Level, SSS, 'A' Level to the

university level) by recording their speech and analysing it. The qualitative research method was thus useful since the research was an observational study to help with the understanding of rhythm of Ghanaian English. The quantitative method which involves quantifying the result or the data from the participants was not used because the quantitative method has no strategy set out to deal with the accurate measurement of language (Creswell, 1994).

This study used the speech of educated Ghanaians who use the English language in their daily work. It discussed the segmental phonetics and the supra segmental features of prominence. The data collected were made up of parliamentary discourse. The selection of parliamentary discourse was influenced by the need to sample as many as possible of the various users of English in the country (Nelson, 1996).

The data were gathered using the International Corpus of English (ICE) design (Appendix A). Both males and females were included in the recording. The reason is that males and females have different pitch levels and use language differently in terms of the number of words they use in an utterance and how talkative they are. Laver (1994) and McMahon (2002), state that the average pitch of the European male is 120Hz and that of the female is 200Hz. Dehé (2002) pegs the general male pitch range at 80-200 Hz and the female's 150-350Hz. It will, therefore, serve a purpose also to calculate the pitch levels of the sexes in Ghanaian English. Furthermore, speakers come from various age groups and from different regional backgrounds and, therefore, there might be differences in the features of prominence and rhythm in their speech.

Based on the recommendations of the ICE project, permission was sought from the Public Relations Officer of the Parliament House of Ghana for the use of their recorded material. A letter of introduction was taken from the Department of English and sent to the Parliament House. The letter was accepted and the material was dubbed for the researcher.

For record keeping purposes, parliamentary proceedings are always recorded and reduced to text form. When this is done, the text is referred to as a Hansard. When the Hansard is produced, such features which mark spontaneous speech such as pause fillers, hesitations, repetitions and slips are omitted. It was suggested that the Hansard be procured rather than the natural data. This is because the Hansard had been edited to remove the grammatical errors and such reports as could not be read during a speech had been included. However, when it was explained to the official that it was the spoken data which was essential, the recordings were made available. Since most of the participants were used to being taped, they performed naturally, that is, there were no artificialities. There were such characteristics of speech as pause fillers, hesitations and repetitions. The speeches were therefore true performances of the participants involved.

The spoken texts of the ICE corpus are divided into dialogues and monologues. This distinction between monologues and dialogues is based on where the interaction takes place. In a studio, for instance, the speech is intended for others who are both present in the studio and those who are not contributing in the exchange (audience in the house). The dialogues consist of public types. The parliamentary debates and interviews provide an example of the public type of

dialogue (ICE project). The parties involved address (a chair in the form of) the Speaker of Parliament, but the exchange is meant to be heard by all present. These recordings are dated 16[th] June, 2006; 22[nd] June, 2006; 23 June, 2006, 27[th] June, 2006 and 6[th] July, 2006. They were recordings of the Second Parliament of the Fourth Republic of Ghana presenting deliberations concerning bills which had been brought before the Parliament to be enacted as laws. Others concerned congratulatory messages to the Ghana Black Stars on their win over the USA during the World Cup in 2006.

Background to Data Sources

Study Area

The research was intended to identify features of prominence and rhythm in English of the Educated Ghanaian. The subjects were selected from all over Ghana, in all types of settlements; that is, the urban, semi-urban and rural. The parliament represented all the settlements because every settlement has its representative in it.

The Target Population

The research was interested in Ghanaians who use the English language on a daily basis in their line of work aged between twenty (20) and seventy (70) in selected places within the discussion field (ICE Project). Recordings of Parliamentary proceedings were obtained at the Republic of Ghana's Parliament.

The 2006 parliament was made up of 230 members of parliament (MPs). There were 25 females and 205 males. In the recordings, sixty speakers had turns

to oppose or support an amendment, statement or a general proposition being discussed. The speeches of these speakers generally began with "Thank you, Mister Speaker. Mister Speaker, I rise to support the proposed amendment" or "Mister Speaker, I oppose the proposed amendment". For uniformity, these opening utterances were retrieved from the data and subjected to the metrical phonology and instrumental analyses for rhythm and intonation.

Background of Parliamentarians

The educational status of MPs affects the variety of English they use. Most of the speeches of MPs recorded were intelligible, because the MPs belonged to the group whose language is comprehensible (based on Owusu-Ansah's (2004) classification of English in Ghana). The addition of the MPs' educational and career backgrounds will inform on the variety of English the speaker uses during a discussion or argument.

Educational background

The educational background of the parliamentarians is necessary as it supports the use of English as a medium of expression in the parliamentary proceedings. The least on the educational ladder were two MPs who possessed a Middle School Leaving Certificate (MSLC) whilst 13 (4.7%) possessed GCE 'O' or 'A' Levels and 12 (5.2%) of the MPs had a Teachers' Certificate 'A' qualification. The majority of the MPs held a first degree (73.4%) while 52 (22.6 %) had a second degree. 13 (5.6%) of the MPs possessed a third degree. Furthermore, there were some MPs who were Associate Professors.

The late Right Honourable Peter Ala Adjetey, the Speaker of Parliament from 2001-2006, also had a first and second degree.

Career background

Some of the members of parliament were teachers or educationists. This group accounted for 23.9% of the population followed by lawyers who accounted for 14.7%. Other business or professional groups included economists/bankers who formed 7.8%. Those in the accounting sector formed 6.5% while agriculturalists/farmers constituted 6.5%. 5.6% were administrators and managers. Journalists and those in the realm of communication made up 4.7% of the population while engineers constituted 3.9% with medical doctors taking up 2.6%.

From the profile, it is evident that the majority of parliamentarians are educated Ghanaians and fit the profiles provided by Owusu-Ansah's (2004) categorisation of the varieties of English in Ghana, namely: native English, educated Ghanaian English and learner English. Owusu-Ansah (2004), mentions that the educated Ghanaian English is widely comprehensible but maintains a Ghanaian quality to it.

Analysis of the spoken data

Transcription of the recordings

The first step in analysing the data was to transcribe the recordings. The method adopted was to first make a handwritten transcription of the data through

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playing back the recording using a Panasonic Slim Line tape recorder and an Amsua Radio/Cassette/Recorder as backup player. For confidentiality, the names of the speakers were omitted; rather the initials (or sometimes the full name) of the constituency they represent were used.

The most basic type of annotation that makes a collection of speech recordings into a speech corpus is said to be an orthographic transcription (http://www.phonetik.uni-muenchen.de/). This is a verbatim record of what was actually said. In the transcription, process repetitions, hesitations and false starts were transcribed. Background noise, on the other hand, was seldom represented in the transcriptions. A full transcription of each recording had to be done because, in the first place, the research was concerned with showing supra segmental features of pitch, duration and intensity in speech. In the second place, it was deemed that the 'estrangement effect' (Stubbs 1983) that transcription necessarily involves would enable the researcher to see patterns and structures that would have been otherwise missed by simply listening to the tapes. In other words, such features which might be overlooked when listening without transcribing would have been lost.

The transcription notational symbols used in transcribing the data for this research were the Jeffersonian (2004) symbols (Appendix B) used by conversation analysts and discursive psychologists. It evolved side by side with, and was informed by the results of, interaction analysis. It highlights features of the delivery of talk (overlap, delay, emphasis and volume) that have been found to

be used in spontaneous interaction. That is, they are features of talk which characterise conversations, dialogues and discussions.

The Jeffersonian set of symbols is not the only transcription symbols available. Another well known set that could have been used was developed by Hepburn (2004) which provides a similar notational set of symbols. However, the Jeffersonian set is more widely used though it is not ideal for all kinds of analytic tasks such as a phonological analysis of speech. For instance, it does not encode the sort of features of speech delivery that a full phonetic transcription does, and so would not be suitable for studies of speech therapy or the sorts of classic sociolinguistic research on accent variation. From the point of view of Poland (2001), the reasons for using the Jefferson system include the fact that the Jeffersonian symbols attempt to capture the talk as it is heard to participants; are necessary for performing an adequate interactional analysis; and even if the analysis is concerned with features of lexical content the full transcript would most fully allow claims to be checked by other researchers. It was, therefore, preferred to Hepburn's for this research since the aim of the use of the transcription symbols was to capture the speech as it was spoken.

After the transcription had been done, some lecturers and Senior Research Assistants as well as colleagues and other MPhil students volunteered to listen to samples of the data in order to support or dispute the perceived rhythm heard by the researcher. There was a general consensus on the transcribed data and that of the volunteers and, therefore, the researcher could continue with the work.

Instrumental Analysis

After the confirmation of transcription had been done, the natural spoken data was digitalized and transferred on to a computer using an Olympus Recorder. To measure the mean pitch, loudness and duration of the various speakers which would serve as the average prominence for the data, the opening data of the speaker, which is "Thank you Mister Speaker..." was subjected to the acoustic analysis using the Speech Analyser. The Speech Analyser is provided by the Summer Institute of Linguistics (SIL at the SIL website). It is a freeware package which allows for fairly sophisticated analyses offering a user-friendly interface to solve most problems. It is a good tool for a researcher willing to perform acoustic analyses. For the programme to work properly, there is the need to have recorded the speech to be analysed in a special Windows format called WAVE. WAVE files have the extension .WAV and can take many formatting specifications. The ones used are the following: 22k sampling rate, 16 bit quantisation and Mono recording.

There were several, if not many, instruments available to the researcher for acoustic purposes. They included PRAAT, ESPS/waves+, SAMPA, WASP, the Transcriber and the Speech Analyser (SA). The researcher chose the SA for a number of reasons. The SA is very basic and provides different plates and different combinations of the various analysis including pitch and waveform, waveform, pitch, duration and intensity, formants and spectrogram. Moreover, the SA provides a section where words or orthography of sounds could be

displayed so that the reader could read the orthography as well as phonetic transcriptions of an utterance.

The rest of the analysers can do more, but at the expense of more technical knowledge. Furthermore, they need extra time to be studied in detail, a time which the researcher did not have at the time because the time for the work was limited.

The following are the terms used in the instrumental analysis.

Raw Waveform: A waveform is an audio recording and the graph of its samples. It also refers to the audio file that contains the recording. A raw waveform graph displays the unprocessed sound picked up by the microphone. Time is on the horizontal axis and air pressure variations are on the vertical axis.

Pitch: Pitch is the perceived fundamental frequency of a sound. While the actual fundamental frequency can be precisely determined through physical measurement, it may differ from the perceived pitch because of overtones, or partials, in the sound. In acoustic phonetics, absolute pitch is the fundamental frequency of voiced speech. It is the acoustic correlate of the psychoacoustic pitch. Pitch is measured in hertz and semitones. A hertz is a unit of frequency which equals one cycle per second. A semitone is a unit of frequency indicating the number of half-steps between a given frequency and a reference frequency. It represents a half step on a musical scale.

Intensity: Intensity (or physical intensity) is the instant energy delivered by a sound, relative to a fixed energy level. This is the acoustic correlate of the (psychoacoustic) loudness. Loudness is the quality of a sound that is the primary

psychological correlate of physical intensity. Intensity is measured in decibels (dB). 0 dB is defined as the threshold of hearing, and it is with reference to this quantity that decibel measurements are made. In tape recordings, a given intensity level is assigned 0 dB, and other levels are measured in negative decibels in comparison to it.

Duration: Duration is the time difference of a segment from the beginning of its boundary to the end. It is measured in milliseconds. A millisecond is one thousandth of a second.

Conclusion

This chapter has explained how the data were collected for the study and how they were analysed. The research design as well as the research instrument was discussed in this section. Finally, an account of the methodology employed in collecting the data as well as the transcription used in setting the data on paper was also discussed. The next chapter (Chapter Four) contains the analysis of the data collected to show how educated Ghanaians signal prominence and rhythm in their speech.

CHAPTER FOUR

ANALYSIS AND DISCUSSION OF DATA

Introduction

In this chapter, the researcher analyses the transcribed data. The perception of listeners of the linguistically relevant pitch-value of a given syllable on a single occasion from a particular speaker is highly relative and very far from absolute (Laver, 1994). This is because, to Laver, the listener has an inherent working hypothesis of the organic range of pitch that characterises the speaker and also must have an understanding of the current paralinguistic status of the speaker's attitudinal state, as expressed in his or her paralinguistic range of pitch.

Prominence and rhythm of speech are said to be a melody to the ear (Laver, 1994). The melody of a speaker's voice on any given occasion is not a matter of absolute values of pitch displayed by the voice from syllable to syllable (Laver, 1994). Van Heuven (1994) defines the melodic structure as the set of rules that characterise the variation of pitch over the course of utterances spoken in a given language. Again, it is known with near-certainty that no two languages have the same melodic properties. Thus, it is appropriate to say that the properties of Ghanaian English are different from that of the RP.

As mentioned in the third chapter, in analysing the data for prominence and rhythm, the recordings were played back and the segments that were given prominence were identified. The analysis of the data collected was based partly on the linguistic characteristics of Ghanaian languages. The characteristics include those identified by Owusu-Ansah (1992) when he was explaining with how new information is signalled. The analysis will be based on these broad headings: pitch, loudness, duration and intonation (bearing in mind that intonation is the rise and fall of pitch).

Pitch

Based on the transcription, what emerged most as a measure was the pitch in showing prominence. This is to say there was a relative or frequent use of pitch to vary the meaning and to give emphasis to the speech. The relative pitch is indicated with the symbol ↑. For example:

Mr. O. M.　↑mi,ster ´spea,ker **I-I-I-I-I** CANT ´sup,port the ↑amendMENT ERM ,cos ´if EH (if/it) ↑THERE ,would BE th ,the NEED ,to ↑ASSESS ´whe,ther THE (I) inforMANT no (you know) ,has ↑cause to ↑beLIEVE and EH the ↑way it is ,looked at ,like ↑he ,said is EH (.2) EH ↑it dePENDS on ERM it ,beCOMES subjectTIVE ,now ´if ,you ↑make it rea↑sonable CAUSE to (as) rea↑sonable ↑CAUSE (en) ,this beCOMES ´OBjecTIVE

Pitch and loudness were relatively frequently used. In fact, pitch change seemed to coincide with loudness. The loudness is represented with uppercase letters. The pitch began mostly at the beginning of speeches of the participants involved. For instance:

TS　↑<u>no</u> ↑right ,honoura,ble ´spea,ker ´I ,would EH ↑pro**CEED** ,to ´MOVE (.) ,that ´this ´honoura,ble ↑**HOUSE** EH ↑**adOPTS** ,an ↑amend**MENT** ,to ↑qua<u>lify</u> (2) ´cla<u>use</u> EH ´1 ,sub-↑**claUSE** ↑**1A** ↑<u>line</u> ↑delete ,that a <u>crime</u> ,and ,substiTUTE ,with ´an ↑ec<u>ono</u>mic ↑crime　↑mis,ter ´spea,ker = ↓geneRALLY ↑if ,you ↑**LOOK** ,at ,the <u>eh</u> ↑whi**STLE** ´blo,WER ,bill ,in ↑particu,lar EH ´para,GRAPH <u>3</u> ↓going ↑**THERE′S** ,a ,lot ,of emPHASIS ↑**PLACE** ,on ↑corrup**TION** <u>and</u> ↑whis**TLE** BLOWer ´geneRALLY ,has ,to ´do ´with ↑econo**MIC** ´crime

Again, when a speaker was trying to stress a point, they used pitch. For example,

TS   (.)   ↑mis,ter   ´spea,ker   I   ↑**supPORT**   ,the   ↑**proPOSED**   ,amendMENT   ,by   ↑honoura,ble   ↑**OS<u>EI</u>**   ↑**Kyei**   ↑**menSAH**   ↑**Bonsu**   ,and   ,as   ´rightly   ↑articulaTED   BY   THE   ↑deputy   majoRITY   leaDER   ,the   ↑earlier   ,proviSION   ,in   ,the   ↑bill   ,is   ,quite   subjecTIVE   ,and   **I** THINK   ,that   ´substitu,ting   ´it   ,with   ´ha,VING   ´reasona,ble   ↑cause   ,to   ´be,lief

As indicated above, stress falls on the first syllable if the word is di-syllabic and then the loudness is heard on the second syllable. Thus, the whole word sounds as if it is said with both loudness and pitch. Furthermore, when speakers used such cues as 'erm' and 'uh', what followed them had relatively high pitches of voice as in:

DL   ERM   'leGISlaTION   ,that   'TAKE   ↑CARE   ,of   EH   ,oth'er   ↑**CRIMES**   ,but   ,WE   'are   NOW   'FACE   ,with   EH   'the   ,pro'blem   ,of   'corr,up'tION   ,and   'othER   EH   ↑evil   ,prac'tiCES   'in   'the   ,in   ,in   ↑corpo,rATE   ,gov'ern,aNCE   ,and   'that   ,is   'wHY   ,this   'bILL   ,be=c↑omES   ,imp↑or,tANT   ,and   thERE↑fore

Mr. O.M.   ,if   EH   (if/it)   ↑THERE   ,would   BE   th   ,the   NEED   ,to   ↑ASSESS   ´whe,ther   THE   (I)   inforMANT   no   (you know)   ,has   ↑cause   to   ↑beLIEVE   and   EH   the   ↑way   it   is   ,looked   at   ,like   ↑he   ,said   is   EH   (.2)   EH   ↑it   dePENDS   on   ERM   it   ,beCOMES   subjectTIVE   ,now   ´if   ,you   ↑make   it   rea↑sonable   CAUSE   to   (as)   rea↑sonable   ↑CAUSE   (en)   ,this   beCOMES   ´OBjecTIVE   ,then

Such cues as 'erm' and 'uh' and 'eh' were also used when a speaker was thinking of something to say or searching for the right words to express the feeling they had at the time. For instance:

Lam   the STRUCTURE ,that 'foot,ball EH EH ,the ,other EH EH 'fool
           EH EH EH ↑play EH ,foot↑ball EH EH EH ↑foot,ballers ,have
           ,they ,they ,just 'don't ↑have ,the 'structure ,for ↑FUN ,is ,is 'being
           ↑catered ,for ,if ,you 'are ,not 'well ↑FE:D ,if ,you 'are ,not 'well
           ↑catered ,for ,and ,you ↑go ,all ,the 'time ↑exersting ,our ,energy
           CERTAINLY ,you ,will ↑shrink UPu ,then 'all 'what ,is ,in 'you
           ,and ,you'll ↑be LEAN ,and WEAK ,

Also, when participants were trying to emphasise a point, they tended to raise the pitch of their voice. For example:

AC   ↑planNING ,to ↑mur,der ,ano↑ther ↑per,son (.) ,it ↑IS IS ,a ,k ,a
           'hei,nous ↑crIME ,and ↑if ,there's ,a ↑whiSTLE ,bl ,if ↑theRE'S
           ↑whi,STLE ,blo↑WING ↑the,re's ↓life ,of ,the ↑pros,pective
           ↑vic,TIM ,will ↑be saVED ↑so ↑why ,do 'you ,di↑sABLE ,that
           EH 'whiSTLE ↑blo,WER ,from ,in↑forMING ,the ,near↑EST
           ,au↑thoRITY 'that ,some↑BODY ,is 'aboUT ,to ,be 'murDERED

TS   ↑n:o ↑right ,honoura,ble ´spea,ker ´I ,would EH ↑proCEED ,to
           ´mOVE (.) ,that ´this 'honoura,ble ↑hOUSe EH ↑adOPTS ,an
           ↑amendMENT ,to ↑qualify (.2) ´clause EH ´1 ,sub-↑claUSE ↑1A
           ↑line ↑delete ,that a crime ,and ,substiTUTE ,with ´an ↑economic
           ↑crime

Katamba (1989) explains that pitch is used (here) to refer to the perceptual movement of voiced segments and in the area pitch movements apply. Other instances of using a relatively high pitch were when the participants were

repeating themselves, listing items or when trying to bring out a point which had escaped them. This can be found in:

CW   ↑THAT **,we ,we ,we** ↑sent 'up ↑THERE ,at ,the ↑op,e'nING ↑ALL ,the ↑THAT 'app,ea'ring=,com'me,nCING ↑**AB** **(.)** ↑**C** **(.2)** ↑**D** ↑**E** ↑**F** ↑should ,be

What was, however, noted was that the same intonation was used to repeat a word many times. That is to say that when a speaker was using a falling tune and repeated the same word several times they used the same tune. The same process was used when speakers began the speech with the rising tune. Brazil (1997) claims that items in lists can be said with a falling or a rising pitch movement. Pierrehumbert & Hirschberg (1990), working within the Auto segmental Metrical framework, hold that the use of a high phrase accent (H) after each item in a list suggests that more is still to come or that the list is not yet complete. Schubiger (1953) replicated in Schubiger (1958) also sets out some of the rules governing the choice of tone on items in a list. She points out that an enumeration with a falling tone on the last member and a rise on the non-final members conveys an impression of finality. The data agree with the findings of the writers above. As the data above show, it was only when the speakers got to the end of the utterance that the tone they use change signalling finality (whether in questioning or in a statement).

Another observation made was the use of a high pitch at the beginning of statements/utterances and a low pitch at the end of statements/utterances. The

low pitch in these instances was represented with commas. Such instances included:

Example 1

Unknown ((loudly)) ,I ↑second ,the 'motion ,and ,in ↑doing ,so ,I ,would 'LIKE ,the ↑house ,to PUSH ,this E:H ,loan ↓agreement ,through. ,it ,is ,to ↑support ,the BUDGET. ,the 'terms ,for ,it ,are ↑favourable ,for ,the 'state. ,there'fore ,I ,will ↑ask ,the 'house ,to PUSH ,it ,through

Example 2

Law EH ↑thank ,you ,mis'ter ,spea'ker. ,mis'ter. ,mis'ter ,spea'ker ,I 'rise ,to ↑support ,the 'motion ,for ,this 'forth 'support ,credit ,for ↑poverty ,avia ,alle'viation ,which ,has 'been ,one ,of ,the ,very ↑central ,and ↑sheared 'develop,ment 'project ,that 'almost ,across ,the 'political ↑divide ,every'body ↑agrees ,that 'poverty ,alle,viation OR ,re'duction ,is ,an im'portant 'strategic ,initiative. ,mis'ter 'spea,ker ,I ,only 'want ,to ↑register ,very STRONGLY ,that ,our 'decentralised ,instit'utions must ,be ↑capacitated

This observation is supported by Van Heuven (1994) who explains that the more air pressure there is below the vocal cords, the faster the vocal cords vibrate and that during the production of an utterance the air that is trapped in the lungs is gradually released such that the sub-glottal air pressure which is high immediately after inhalation, gradually reduces towards the end of the utterance resulting in what he terms as a 'declination' (Van Heuven, 1994). Van Heuven contends that when a speaker wants to utter a longer sentence, they inhale more air than when they plan to produce only a short sentence. This phenomenon also explains why some Ghanaian English speakers start with a high pitch and gradually reduce the

pitch of prominence when getting to the end of the sentence. From the recording, the researcher heard inhalation before an utterance was made and those utterances which followed the inhalation were quite long.

Van Heuven (1994) states that there is only one strong syllable in a sentence. However, it was noted in the data that some speakers gave prominence to two words in an utterance. Those words are the main verb and the final content word in the sentence or utterance or even in a tone unit. This, to Van Heuven, is very rare in speech but was identified in such utterances as follows:

Example 1

CW   ,the ,a′men,d′ment ↑**which** ,was ↑**which** ,was ↑**mo,ved** ,at ′**FIRST**
                (2) but ,that ERM ,in ′pa,ra′gRAPH ↑**B** line ↑**2** ,aft′er ,ALL ,we
                ↑**IN,SERT** (2) ↑**IS** (.) ,mis′ter=,spea′ker ,a ′mi ,just ,a ↑mi,nor
                ERM ′gram,ma↑tiCAL=

Example 2

TS   ↑**ye:s** ′mis,ter ′spea,k:er ′I ↑**believe** ,this ′is ,a ′very ,**imporTANT**
                ,amend′ment ,and ,I′ll ′urge ,honou′rable ′mem,bers ,to ,**suPPORT**
                ,it ,**be↑cau:se** ↑**misappro<u>priation</u>** ,will ′broadly ↑**cap,<u>ture</u>** ′issues
                ,of ′fra:ud ,and ′embezzlem:ent ′that ,are ↑**committed** ,within ,the
                ,**work↑place** ,and ,if ,you ↑**look** ′further ,do:wn ′we ,are ′talking
                ,about ,for ′inSTANCE ↑**clause** ,tw:o ,where ′people ↑**ought ,to**
                ′**make** ′**disclosures** ,I ′think ′that ,its ,an ′impor,tant ,amend′ment
                ,and ,we ′should ,su′pport ,it ↑thank ,you ′mis,ter

People are generally also known to use a high pitch of voice to express themselves when they are excited. Thus, the first few minutes of the tape have

more of a high pitch of voice and some level of loudness to go with the pitch. For instance:

Example 1

OSM ↑**that** ,was ↑**that** ,was ,the ↑**choice** ,of ,the ↑**coach**, ,let ↑**us** ,let ↑**us** 'some,times 'give ↑**creDENCE** ,to 'those ,who 'know ,better 'a:nd 'let 'us 'be ,patient 'with 'our 'tech,ni'cal ↑**antlets** ,with 'this re'mark ,mi'ster ,spea'ker=↑**we** ↑**are** ,very HAPPY ,that ,the 'Stars have ↑**WON** 'they,ve 'victory ,to ↑us ,and 'I ,can a↑**ssure** YOU ,the e↑**cono'mic** benefits ,of ,of ,this 'vicTORY ,to ,the e'cono,my ,is 'even 'f:ar 'more ,than ,the 'so:cial ,benefits=

The house ↑**y:eah** ↑**yeah**=

OSM ↑**thank** ,y:ou ,mis'ter ,spea'ker

MS ↑**honou**,**rable** mem:BER ,for ↑**Ningo** ↑**Pram**,**pram** ,and ↑**first** ,de'PUTY ↑**chief** ↑**whip** (noise, cheering from the house (washee)) (.)

This use of pitch to show emotion is confirmed by Laver (1993). To him, a second kind of pitch-range is the speaker's current paralinguistic range, which is the adjustment, within the range of pitch that is exploited for momentary paralinguistic purposes of signalling particular attitudinal information which can include surprise, anger, sorrow, impatience and concern in any given utterance. This, he agrees, is culture-based. Roach (2000) supports this view thus, "Each speaker has his or her own normal pitch range: a top level which is the highest pitch normally used by a speaker, and a bottom level that the speaker's pitch normally does not go below" (155). To him, therefore, in ordinary speech, the intonation is bound to take place within the lower part of the speaker's pitch range

though in situations where strong feelings are expressed, it is usual to make use of extra pitch heights.

Apart from the tendency of pitch falling on the verb, it was also realised that some of the speakers used more complex verb phrases beginning with a linking verb followed by a participle or to-infinitive verb. The verb phrase had an up-and-down rhythm with 'to' receiving a low pitch while a high pitch fell on the main verb. Laver (1993) says that the melody of a speaker's voice on any given occasion is not a matter of the absolute values of pitch displayed by the voice from syllable to syllable. He believes that pitch is relative in two senses. In the first sense, the estimation of the pitch value of a single syllable as 'high' (or 'low' or 'mid' etc), is a relative perceptual judgement made by the listener in terms of a hypothesised position within the general array of pitch over which the speaker's voice is believed to move. In other words, a listener brings a number of assumptions to the assessment of the speaker's range of pitch. Therefore, where one listener hears a high pitch, another listener might hear a low pitch. The instance below shows the up-down rhythm heard on the complex verb phrase.

Example 1

EOB   'now ,the 'man ,**has ,been** ↑**sacked**. ,in ,his 'effort ,**to** ↑**help** ,the 'na ,the ,the GOVERNMENT ,**to** ↑**recover** (.) ,various 'sums ,of ↑money ,due ,to IT ,the 'man ,**is ,at** ↑**home SUFFERING** ,with ,his ↑wife ,and ↑children. IF ,the 'person ,who ↑dis,closed HIS 'identity ,**were ,to 'be** ↑**punished** 'severely ,he **'will** ↑**shudder** (.) ,at ,the THOUGHT ,of ↑dis,closing ,this ,to 'any,body. 'so ,in 'order ,that ,we ↑achieve (.) ,this ,we ↑achieve ,the 'object ,of ,the BILL ,any'body ,who ↑discloses ,the 'identity ,of ,a ,whistle

'blower ,that **'may ↑result** ,in a 'severe 'punish,ment ,to ,that 'person ,that 'person ,too **,should ,be (↑sulf) ,should ,be ↑punished** SEVERELY.

Example 2

MFE   I **'don't ,have** ,a ↑problem 'be,cause ,that ,also ↑enables (.) ,th:e JUDGE ,having ↑regard ,to ,the 'circum,stances ,of ,the 'case **,to ↑give** ,an ENHANCED 'sentence ,or ↑impose (.),an ENHANCED FINE ,but **,to ↑say** ,that ,it's ,a 'minimum ,I ↑think ,that ,that **,will 'rather ↑lead** (.) ,t:o GRAVE 'difficulties ,and **,will 'duly ↑TIE** (.) ,the 'hand ,of ,those ,who **,are 'going ,to ↑implement** ,the LAW. ,is ,for ,this ↑reason ,that **,I'm ↑opposing** ,this 'amend,ment.

After the pitch had fallen on the verb, there was a noticeable pause before the next utterance was made. These pauses are indicated with the full-stop in brackets. The duration of the various pauses (as measured by the SA) were 493.9ms, 438.9ms and 518.8ms for EOB and 440.1ms, 374.6ms, 443.0ms and 4048ms respectively which made them noticeable.

It must also be noted that the non-verbal form also had a way of impacting on stress and prominence used by a speaker. This is to say that the context of situation or the environment within which a person spoke also had an influence on the speech. Sometimes, the room became so noisy that the one who was speaking had to use a raised voice and, in effect, a high pitch to make their voices heard above the din. This also accounted for the frequent use of high pitch and loudness. Perkins et al (1991) defined the paralinguistic system as the self-expressive component of a syllable with which emotion and speaker intent are designated via pitch, loudness, duration, and quality (p. 735). It functions in both

nonverbal and verbal acts to signal a person's feelings and intent. Such noticeable

non-verbal behaviours were marked in the transcribed data. They include 'slowly

speaking', other speakers telling the active speaker to bring his voice down, etc.

The discussion above indicates that some speakers used high pitch or high

pitch and loudness to make their syllables prominent. Other speakers used

loudness and loudness and duration to make syllables prominent and to achieve

the rhythm. These are discussed below.

Loudness

What was also clearly noticeable in the transcription was the use of

loudness to make the main points clear. Apart from using pitch movement at the

beginning of their speeches, some of the participants also tended to use loudness

to mark the beginning of their speech. Loudness is indicated by the use of capital

letters. For example:

Example 1:

AAS ´MIS,ter ´SPEA,ker ´I oppOSE ,the ,amen,dment ´mis,ter ´spea,ker ,I op↑POSE ,the a,men↑dment (.3) ´be,CAUSE (.2) ´crIMES com↑mitTED ,in ´public ,sec↑TOR (.2) ARE ,not ,ONLY (.1) ↑ec,on´o,MIC ,crIMES ,and ,some↑tIMES ´soCIAL ↑crIMES ,that ARE ,com↑mitTED (.2) ,at ,the ↑end ,of ,the ↑day

AC EH 'thank ,you 'mis,ter 'spea,ker 'mis,ter 'spea,ker 'I-'I-'I ,want TO 'opp,OSE 'the a,men↑dment ,not ,in ,my ↑ca,pa'cit'y ,as EH   ERM

Example 2:

Zem   ↑thank ,you ,mis'ter 'spea,ker. ,mister ,spea'ker ,this ,is ,a VERY ,impor'tant ↑bill ,and ,I ↑believe ,that ,there ,will 'be 'no EH ↑contro,vesy ,about ,it. ,I ↑support ,the MOTION ,fo:r ,the PASSAGE ,of ,the ↑bill ,and EH ,in ↑doing ,so ,I 'want ,to ↑make ,a FEW ,re'marks. EH ,we ↑need EH QUALITY 'jour,nalism. 'what ,we 'are ↑experien,cing 'now ,is EH ,more ↑quan,tity 'jour,nalism ,than ↑quality 'jour,nalism ,and 'be,sides ,th:e ,the ↑bill SEEKS ,to ,esta'blish ,the 'insti,tute 'not ,only ,to ↑train 'jour,nalists ,but ,to ↑train ,other EH 'media RELATED EH EM ERM ↑disciplines. ,there'fore ,its EH THAT ,is ,why ,I ↑say ,it's ,a ,very ,very USEFUL.

As seen in the above, the participants used the loudness to attract attention at the beginning of their speech.

In addition to the above, there were frequent occasions when the speakers were so excited that they used both the loudness and pitch movement in their speech in explaining their point. This was found particularly in the instances when the members of parliament were discussing the world cup football match and Ghana's performance in the tournament. For instance:

Example 1:

MINO   ↑WON ,a ,his'toric 'vic,tory. ,it ,was ,their ↑debut ,in ,the 'world CUP. FIRST TIME 'we've ,ne'ver ↑been THERE BUT ,they've 'been ,able ,to ↑BE:AT ,the SECOND WORLDS BEST TEAM ,and ↑BEATEN ,also ,the FIFTH BEST TEAM ,in the WORLD ,it ,is ↑NOT ,the ,vic'tory ,by ,itself ,but 'most ,impor'tantly ,the ↑ORIENTATION
NOW ↑Ghanaians ,are ↑seeing ,them'selves NOT ,as ,from ,the ↑Centra 'region ,a FANTE ,from SWEDRU 'but 'peo,ple ,are ↑seeing ,them'selves 'first ,and ,fore'most ,as ↑Ghanaian ,and ,this

,is ,a ↑feeling ,that ,we NEED ,to ↑DEEPEN ,in ,this ,coun'try. Mis'ter

Example 2:

Lam   'Ghana 'we ,will 'be ,very ↑HAPPY. WHO SAID ,if 'net 'net,baller 'players ↑played ,very 'well ,and ↑brought ,the ,a 'trophy ,to 'Ghana ,we 'won't ,be ↑happy=OR ,athletes. 'so ,mis'ter 'spea,ker ,I ↑think ,that 'let's ,also ,not 'just ↑say ,all 'what ,we ,are ↑saying ,here 'today ,and ↑keep ,it. 'let's ↑put ,it ,into 'practice ,so ,that ↑Ghana ,will 'always 'be ↑heard

Here, the speaker is excited or has been made excited over the bill and an illustration used by an opponent to that bill. He therefore uses a high tone/pitch of voice to put across his message.

AAS   There ,is ,a 'particular 'bird ↑mentioned ,in ,that 'quotation ,and ,I ,w ,I ↑wish ,you ,should 'have ↑mentioned ,that ,bird's name. (.) ,the ((noise from the house)) 'please 'please EH ,I 'don't ↑want ,to ,you=know ,and ↑research ,well. ,there ,is ,a 'particular ↑name ,mentioned 'mentioned ,in ,that EH 'quotation ,so 'that 'bird's name ,should 'be ↑mentioned.

MS   'honou,rable 'mem,ber 'don't ,be↑distracted=

AAS
            ↑YES ,is ↑tifiri ↑akɛtɛkyi ,the 'only BIRD ,that ,can ↑fly ,without PERCHING ((more laughter from the house runs through the rest of the speaker's speech)) ,the 'name ,is ,in ,that ↑book. ↑go ,and ↑look ,for ,it

Owusu-Ansah (1992) in a research to find out how meaning is given in the Ghanaian setting found that the new information which was found in the rheme was said with relative loudness. His finding is confirmed in the data analysed.

One other reason which was identified for the use of loudness was when a series of syllables were encountered in a word. That is, when there was more than one syllable. An instance is:

TS   (.) ↑mis,ter ´spea,ker I **↑supPORT** ,the **↑proPOSED** **,a'mendMENT** ,by ↑honoura,ble ↑OS<u>EI</u> 'Kyei ,**MenSAH** ↑Bonsu ,and ,as ´rightly **↑articulaTED** BY THE ↑deputy **majoRITY** leaDER ,the ↑earlier **,pro'viSION** ,in ,the ↑bill ,is ,quite **,sub'jec,tive**

DL   ,in 'the 'soc=IETY **,un'der,MINES** **↑effi,cIENCY** **↑acc,oun'ta,biLITY** ,and **,tran'spareNCY** ,in ↑**go,verNANCE** ,in ,gu ,and,GOOD **,cor'poRATE** ↑pra,ctiCES=,mis'ter=,spea↑ker ERM ,the ↑bILL ,alSO ,in ,in ,in ,the (point) ,of 'the 'bILL ,we ↑have ↑pro,viSION FOR **,compensations** ,for ↑whiSTLE ↑blo,WERS EEH IN ↑crAUSE ↑<u>20</u> ,the THERE ,is ,es'ta,bliSHED ,by 'this ,act ,a ↑whiSTLE ↑blo,WER **,com'pen=,saTION** ,fund

It is seen here that the participants used relative loudness in uttering the disyllabic and polysyllabic words. Gut & Milde's (2003) study of the prosody of Nigerian English also identified that there was a right-hand movement of loudness and pitch in the data they analysed. In native English speech, however, weak syllables found in polysyllabic words do not often carry any loudness because such vowels as found in these weak syllables (including the schwa) are weak, short and less loud. Some weak syllables do not even have vowels at all and, therefore, there is a less likelihood of loudness occurring.

Again, there was the use of loudness to emphasise a point made. This is mostly found in speeches made to emphasise that another word should be deleted for something to be substituted or to convey a different meaning from a point that has been made. For instance:

Example 1

CW ’mis’ter=,spea’ker ,in ,the ’same ↑clause ’two ,para’graph (.) ,para’graph C ,I ’move THAT ,we DELETE ,the ’words ,there ,and ,sub’STITUTE ,b:y ,a ’per:son ,in RESPECT OF ,another ’per:son ,or ,an ↑insti,tution ,mis’ter ,spea’ker ,th:e th:e WORDS ,to ’b:e DELETED ,are ’by ,a ’person ,of ’another ’person (.) ,the ↑words ,to ,be ↑deleted ,in two

Example 2:

Lam ’he ↑tried ’ta,king ,it UP ,and STILL ,hav’ing ,the ,cou’rage ,to ,still ↑train ,the BLACK STARS ,to ’come ,out ,with ,this ,wonDERFUL ,per:for<u>mance</u> ,mis’ter ’spea,ker ,it ,is ,not ’ea:sey **,to** ’be ,a ↑coa:ch EH ,to ,a GROUP ,that ,is (I) E:H <u>hesi</u>tating ,to ↑see EH ,the ↑team BE ,on TOP ,the ,an:’xiety ,the ,the ,th:e EDGE ,makes ’peo,ple ,the ,least ,mis’take ↑peo,ple ’turn (they) ,wants ,to CHOP ,you UP ’but ,this ↑coach ,I’ve ,o’served ,him KEENLY ,and ,I ↑saw ,that HE ,ha:s ,what ,it ↑takes ,to ’be ,a COACH ,so I’ll ’say ↑congra,lations ,to ,the ↑coach ,and ,then HE ,should KEEP ,it UP ,we ’are ’also ’ve,ry PROUD ,that ,he ,is OUR COACH ,mis’ter ’spea,ker ,the ,manag’ement ,that ↑made ,it POSS↓ible ,for ,the BLACK STARS ’also ,want ,to ↑sa:y CONGRATULATIONS to THEM AND ALL

Prominence was also realised in terms of loudness for identification of new items or quotation of new items such as IN RESPECT. This was perhaps used to isolate or distinguish the new item from the rest of the statement. This is

also found in Owusu-Ansah's (1992) article. He established that, in most of the cases he analysed, the loudest element tended to occur within the rheme section of the clause though it did not mean that the entire rheme was loud. In the same vein, such new information identified in the rheme of the speaker were emphasised, leaving the surrounding speech soft, though not exceeding the softest parts of the theme segment. The introduction of new information is what Brazil et al (1980) and Nihalani & Lin (1998) refer to as the proclaiming tone. To them, the proclaiming tone is used to point to what the speaker observes as new information for the listener. Instances of such use of loudness include:

Example 1
CW   ↑yes ,mis'ter='spea,ker clause tw:o

MS   I need
CW   and <u>B</u> ,after ,the 'wo:rd ↑in 'respect ↑OF 'mis,ter=,spea'ker ↑s:o
            'two A ↑may 'read ↑dis,closure ,of ,impro'priety ↑,be ↑made ,by
            ,an 'emploYEE ,in **RESPECT OF** 'an 'emp,loyer ,and <u>B</u> ,would
            ,also ↑READ ,by ,an ,emploYEE ,in 'respect ,of ,another
            ,emp'loyee ,mis'ter 'spea,ker ,I 'beg ,to 'move

MS   ER ↑chief ,whip 'are ,you 'saying ,that ,your ,amend'ment ,is **IN
            RESPECT OF**

Example 2
TS   'mis,ter 'spea,ker ↑I 'rise ,to ,oppose ,this ,amend'ment 'be,cause
            'under ,the ↑BILL ,we ,have 'crea:ted ,a '**FUND** ,to 'reward
            ,peo:ple 'who ,want ,to 'make ,su:ch DIS,closures ,and 'those
            ,disclosures ↑once ,ma:de ,in ,the **PUBLIC INTEREST** ,is
            ,some'times (will) sa:ve ,the ↑public pur:se ,if ,a 'parTICULAR
            ↑public ,official ,wa:nts ,to ,dissiPATE ,its 'resources ,and ,I

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↑think ,that 'by ,giving ,out ,inFORMATION ,out 'to ,the 'public ,I ,can ↑**PROTECT** ,the ↑state **INTEREST** ,in ,saving 'some ,reSOURCES ,and 'make ,a ↑personal **GAIN** ,what ,is 'wrong ,with ,that ,I ,think ,that ,it ,should ,not ,be 'deleted

The participants wanted to identify what they were talking about. The next speaker, in trying to confirm what he had heard, also used loudness to confirm it. Another example is

Example 1

BC 'mis,ter 'spea,k:er ,with 'your ,indulGENCE ,I ,will 'want ,t:o ,with↑draw ,this ↑pro,posed 'amend,ment 'I ,beLIEVE ,tha:t ,the 'wo:rd ,substanTIAL 'there ,a:dds ,to ,the ↑we:ight ,of ,the 'in,forMATION ,that ,is 'likely ,to 'be ↑given ,by ↑whISTLE ,bloWER ,and 'if ,we le:ft ,it 'just ,as ↑been ↑TRUE ,that ,will 'be ↑opening ,the ↑FLOOD,gates ,so ,I ,will ,want ,to ↑stand ,down ,the 'amend,ment ,on ↑behalf ,of 'honou,rable ↑maha,ma ↑yi're,ga

Again, it was realised that loudness was used by the speakers to give emphasis to a point they felt they had already made and just wanted to re-iterate. For example, the minister, in insisting and emphasising that he had made his point already, used loudness. For instance:

Example:

MFPA 'mis,ter ,spea'ker ,th:e 'hon,ourable 'mem,ber 'is ,I ,be'lieve ,a 'mem,ber ,of ,the ↑lear,ned PROFESSION ,and ,he ↑knows ,that (in) MATTERS ,OF ,jurisDICTION ,is ,not ,ve'ry ↑easy ,to GIVE 'definitive (type) ,all (what) ,I ,can ↑say ,is ,that ,the ↑comm,ission ,has ,not 'notified ,us ,that ,it ,is ,un'able ,to ↑do ,its 'work 'be,cause ,of ,the ABSENCE ,of ,the ↑comm,issioner SHORT

↑comm,issioner SHORT ,is ,out 'temporary ,and ,as 'soon ,as ,he ↑completes ,his 'work ,he ,will come 'back ,to ,per↑form ,his DUTIES

It has been discussed already that function words are said with a relatively lower pitch than content words. However, content words tended to be loud. Here, nouns, adverbs and adjectives bore relative loudness while the main verbs carried highest pitch or stress. For instance:

DAG ,the 'law ,we ↑**put** ,in 'place ,if ,we 'want ,to ↑**give** 'infor,mation ,and ↑**give** ,their NAMES ESPECIALLY ,at 'work ↑places. ,mis'ter 'spea,ker ,the RECENT ↑happe,ning in ,this 'coun,try ,the ↑EURO 'foods ,thing EH ISSUE ,I ,was ↑**listen,ing** ,to 'some,body ,on 'radio ,who ↑**gave** ,a NAME ↑said ,that ,was 'not ,his REAL ↑name ,said ,that ,they ↑**found** ,the ,thing ,but ,every'body ,was ↑afr**a**id

Example 2:

DMinI ↑**THANK** ,you 'mis,ter ,spea'ker. ,I 'rise ,to ↑**se,cond** ,the MOTIION. ↑**thank** ,you.

MS 'honou,rable 'mem,bers ,the ↑motion ,as **SECONDED** ,is ,for ,the ↑conside,ration ,of ,the 'house ,and ,the ↑ques,tion ,is ,that ,this HOUSE DO ↑**adjourn** ,until ,next 'week ↑Tuesday ,at 10 o'clock ,in ,the ↑morning. ,as 'many ,as ,are ,in ↑FAVOUR ↑**say** AYE

House AY:E

MS ,as 'many ,as 'are ↑NOT ,in 'favour ↑**say** NO ((no response)) ,the YES ↑**have** ,it. (accordingly) **ADJOURNED** ,until 'next 'week TUESDAY ,at 10 o'clock 'mor,ning.

As exemplified above, content words bore loudness while the main verbs in the utterances were given relative pitch. This means that though the content words are given prominence in terms of loudness, stress is put on the major verbs by a

lot of the speakers analysed. This phenomenon is discussed by Trubetskoy (1958) and van Heuven (1994) as culminative accent. By culminative accent, they meant "the property by which accent is different from (lexical) tone: successions of two or more high tones within a prosodic domain" (p. 133).   This, they believe, is perfectly in place but no two accents of equal strength can coexist within a sentence. They believe therefore that the function of accent is to mark a prosodic domain for focus, that is, as important to the listener. This means that the speaker may want to put a constituent in focus especially when that constituent is newly introduced into the discourse whereas the constituents or referents which have already been established in the preceding utterance are left out of focus (p. 15).

The use of loudness is also supported by Owusu-Ansah (1992) who believes that Ghanaian English speakers use variation in loudness to a large extent in speech in highlighting new information. He observed that initial elements of clauses and words belonging to the major word classes were, also, considerably louder than other words and the fact that the loudest constituent tended to recur in the rheme segment of the clauses analysed (p. 86).

From the transcription, the researcher realised that there were significant differences between supra segmental features of the GE and the RP English or Standard English. These differences were in terms of stress isochronicity. It is, therefore, suggested (based on the above) that the educated Ghanaian uses a high pitch in speech to indicate new information.

Another item worthy of note in the rhythm is the emphasis put on the 'that' clause. The 'that' clause is a type of nominal subordinate clause introduced

by the conjunction that or Ø (zero that). The 'that' makes the clause a subordinate clause. The 'that' clause can serve as a subject, object, complement and appositive in a sentence. However, it was noticed that most of the 'that' in, the extracts below, were said with rising tune and immediately after them there was a micro-second pause before the rest of the utterance was made.

Example 1

DCWMi   ,and ,I 'think ↑**that** ,we ↑all ,should 'learn ,from ,this EHM ,expe,rience 'mis,ter ,spea'ker ,I 'also ↑note ,the ,cha'rac,teri'stically ↑high 'le,vel ,of ,pa'trotism=,love ,and ,uni'ty ↑that ,all ,of ,us 'disPLAY:ED 'since ,the ↑begi,nning ,of ,the 'match ,and ,espe'cially ,yes'terday ,and ,I 'think ,↑**that** ,we ,should 'use ,this ,oppor'tu,nity ,t:o EH ↑RE,con'cile ,this 'n:a,tion ↑re,con'ci,lia'tion ,is ,very ↑cru,cial ,for ,deve'lop,ment ,and ,I 'think ↑**that** ,all ,of ,us ↑should ↑come ,to'ge,ther BUT ,mis'ter ,spea'ker ,in 'sa,ying ,so ,I 'think ↑**that** ,the 'onus ↑lies 'more ,on ,the ,govern'ment ,of ,the ↑day
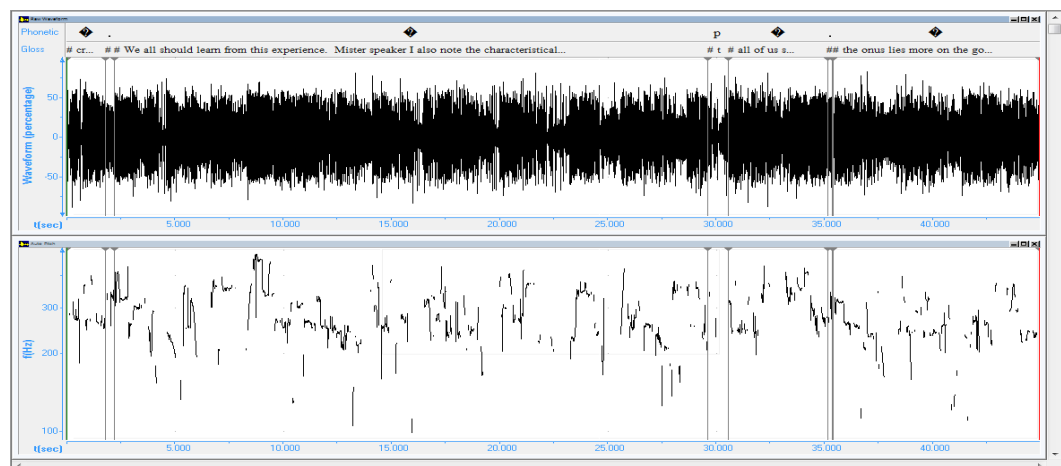
Figure 1 Pause after 'that' in DCWMi's speech

Example 2:

Lam   ,I ↑think ,**that** 'let's ,also ,not 'just ↑say ,all 'what ,we ,are ↑saying ,here 'today ,and ↑keep ,it. 'let's ↑put ,it ,into 'practice ,so ,that ↑Ghana ,will 'always 'be ↑heard 'espe,cially ,when EH ,the ,commen'tator ,was ,always ↑saying ,that ,at ,the 'end ,of ,the ↑day ,they ,will 'be ,a BIG ↑party in 'Ghana. , ai ai a a ai ,was 's:o ↑HAPPY ,and ,he ↑added ,it ,**that** EH ↑Africa ,will 'also ,be 'HAPPY
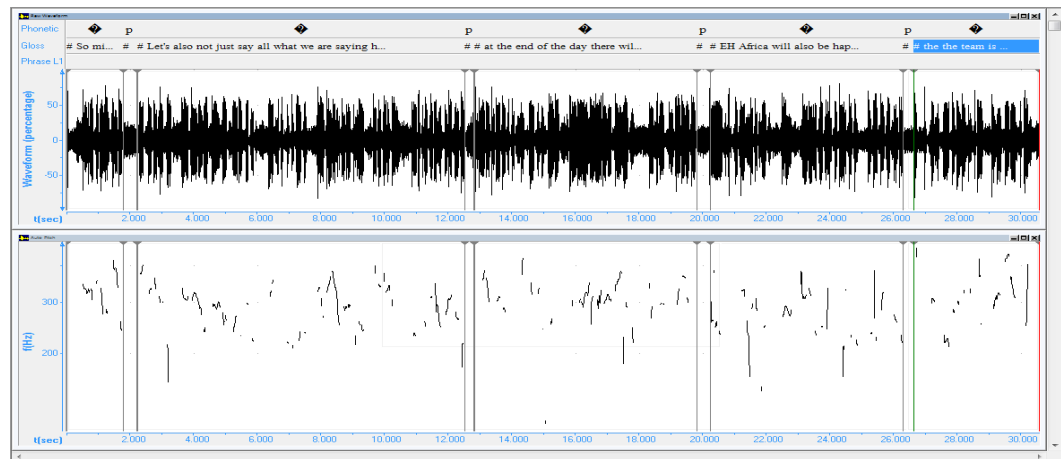
Figure 2 Pause after 'that' in DCWMi's speech

As represented with the bolded 'that', 'that' was said with a rising tune followed by a pause before the predicate ended. The pauses, as measured by the SA, have duration of between 179.3ms and 451.5ms. In the normal language code, in the sentence pattern, the subject and verb are stated followed by a little pause (a microsecond long) before the 'that' clause follows. However, how it was used by some of the speakers gave the utterance its own peculiar rhythm.

Duration

Another feature of prominence or stress is the use of duration. Duration is symbolised by colons and it shows the degree of elongation of the preceding syllable. An instance that can be cited is:

THE:E ,amENDMent ,is ,**be↑fo:re** ,the ,con↑sideRATION ,of
,the ↑hOUSe (↑chief ,whip) **ye:s**
´we ,in´tend **t:o** ,up´date
y:EE YE ((laughter))

TO ↑**pa:rTICULARISE** ,the ↑crime
CRIME ,I ´think ,that WE WILL **b:e** ,over-,simpliFYING
'honoura,ble 'mem,bers EH EH CH ↑acting 'chair,man **ye:s**
no:o
it's ,sup'posed ,to ↑**de:al** ,with ↑people

One interesting feature identified under duration and pitch was the emphasis placed on figures used. Such figures included years, numbers given to clauses, an amount being quoted, and a date being mentioned. When such figures were quoted the speakers used a high pitch and loudness and a prolonged duration. These include:

Example 1:

AS =E:H ,I′ll ,I′ll ′want ,to READ ,the ,in′troduc,tion ,and ,the ,auxilia′rations ,so ,that EH ,we ′may ,we ′may ′have ↑time ,to ′go ,and ↑watch ,the FOOTball ′match ((laughter from members of the house)) ,mis′ter ,mis′ter ,spea′ker ,in ′pur,suance ,of ↑article **on:e hun:dred and three** ,of ,the **nine:teen nine:ty two** ,con′stitution ,and ORDER **on:e ei:ghty seven** ,of ,the ↑standing ,or′ders ,of ,the ′parlia,ment ,of ′Ghana ,the ↑Ghana ,insti′tute ,of ′journ,alism BILL

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,was ↑laid ,in ,the ′house ,on ,the **seven:teen** ,of ′May 2006 ,and ,re′ferred ,to ,the ′comm,ittee ,on ,edu′cation

Example 2:

MFPA   (4)′mis,ter ,spea′ker ARTICLE ↑**TW:O one** ,of the ↑comm,ission ,on HUMAN ↑rights ADM=STRATIVE JUSTICE ACT **nine:teen nine:ty three** ,thus ACT **fo:ur fi:ve six** ↑provides ,and ,I QUOTE A ,that A a ↑comm,ission ,shall CONSIST ,of ,a ′comm,ission ,of ′human ′right ,and ,ad′ministrative ′justice B two ,de′puty ′comm,issioner ,for ′human ′rights ,adm′inistrative ,jus′tice ,unQUOTE.

In a suggestive article comparing German and English patterns, Mueller (1955) identified that English-numeral-plus-noun combination has a tendency to place the numeral on a higher pitch than the noun. This assertion is also supported by Bollinger (1958) who even generalises it to cover all quantifying modifiers, that is, modifiers which show an amount or degree of something rather than a feature which distinguishes it from other things. Again, this stance is supported by Trager & Smith (1951) who also found that in English speech, numbers tend to have the highest pitch in the phrase even though they do not bear the strongest stress.

     Duration was also used to attract attention to the rheme or new information they were trying to put across. For instance:

Mr. O.M.   at ,like ↑he ,said is EH (.2) EH it de↑PENDS on ERM it ,beCOMES subjectTIVE ,now ′if ,you ↑make it rea↑sonable CAUSE to (as) rea↑sonable ↑CAUSE (en) ,this beCOMES

´OBJECTIVE ,then ↑understanDING ,for (´declaraTION ,can ↑easily ↑ASSESS) ,whether the EH beLIEF was ↑reasonable

BB   AS 'very ABLY ↑art'icu,laTED BY ,the 'de,puTY ,ma,jorITY ↑lead,er ((clears throat)) ↑this bILL 'we',re 'work,ing ,on 'is ,a ↑special'iSED ↑bILL ,and 'I̲ 'bel,ieVE ,that 'if ,this ,a'mend,MENT ,is NOT ↑carrIED EERM ,it 'will 'dilUTE ,the ↑esseNCE ,of 'this 'bILL

Another noticeable pattern was making the syllable loud in emphasising a point. This is indicated in the transcription with an underlining. The underlining shows how heavy the syllable sounds (Jefferson, 2004). The extent of underlining within individual words locates emphasis and also indicates how heavy that part of the utterance is. A few instances include:

ay:e

no:o

Y:EE

SAY ´any,thing ´with<u>out</u> ↑any ,ba↑SIS

MS   ´those ´against ,the ,a´mendMENT ,say NO (´the) YES **have** ,it ´we'll ´take (↑Roman) ↑two ,and ↑clause 1 (.2) ↑honoura,ble ´mem,ber ,for ´Tama,LE ´South ´you ,have ´an ,amen´dment ,you m<u>ay</u> ´wish ,to MOVE ,it (.) OR <u>are</u> ,you ↑aban,doning ↑it

TS   ↑**<u>no</u>** ↑right ,honoura,ble ´spea,ker ↑qua<u>lify</u> (.2) ´**clause** EH ´1 ,sub-↑claUSE ↑1A ↑**line** ↑delete ,that **a crime** ,and ,substiTUTE ,with ´an ↑**eco<u>nom</u>ic** ↑crime ↑mis,ter ´spea,ker = ↓geneRALLY ↑if ,you ↑lOOK ,at ,the <u>eh</u> ↑whiSTLE ´blo,WER ,bill ,in ↑particu,lar EH ´para,GRAPH **three**

The perceived duration was subjected to instrumental analyses for verification and confirmation.

Intonation

Roach (2000) contends that one of the most important tasks in analysing intonation is to "listen to the speaker's pitch and recognise what it is doing; this is not an easy thing to do, and it seems quite a different skill from that acquired in studying segmental phonetics" (p. 150). The following deals with the perceived intonation in the spoken data.

A glaring feature in the transcription had to do with the use of intonation and tone. Katamba (1989) explains intonation as the pitch movement (or contours) that relates to an utterance as a whole and tone the pitch movement of a lexical or morphemic property such as occurs in many languages including the various languages of West Africa and China. In general, languages tend to give prominence to one or other use of pitch, giving rise to the distinction between tone languages and intonational languages such as English. Katamba, also, observes that all tone languages make limited intonational use of pitch as well. In discussing Black South African English (BSAE), he asserts that, like the West African languages, the BSAE also tends to have a tonal stress rather than a stress isochrony.

Ghanaian English intonation differs systematically from British English intonation and it has been suggested (Owusu-Ansah, 1992 and Kropp-Dakubu (1998) that it reflects the prosodic structure of the speaker's native language in a

way that strong syllables are connected to a high tone and weak syllables to a low tone.

In the transcription, the researcher came across a rhythm which is peculiar to the various backgrounds of the participants. Rhythm deals with the up and down movement of pitch and loudness as well as duration of an utterance. Intonation and tones or tunes (as used by the speakers) are indicated with the ´ and **,** symbols identified before the affected syllables. For instance:

AAS ↑thank ,you ´mis,ter ´spea,ker >´mis,ter ´spea,ker< ´I ↑also ↑sup,port ,the ´amen,dment ↑be,cause IF ´you TAKE ,THE ´earLIER RENDition ´when ,he ↑comes ,to ´tell ´you ´this ,that ,that ,and ´you ,ask ´him ↑what ARE ,the ´ba,SIS ,of ,your ´be,lief ↑he ,will ,say ´oh ,I be↑lieve ,the ,the ´the LAW ´reqUIRES ,me ,to ´be,lieve

MS those ´against ,the ,a´mendMENT ,say NO (´the) YES <u>have</u> ,it ´we'll ´take (↑Roman) ↑two ,and ↑clause 1 (.2) ↑honoura,ble ´mem,ber ,for ´Tama,LE ´South ´you ,have ´an ,amen´dment ,you m<u>ay</u> ´wish ,to MOVE ,it (.) OR <u>are</u> ,you ↑aban,doning ↑it

As was identified by Owusu-Ansah (1992) when he was dealing with how new information is signalled and by Kropp-Dakubu (1998), the Ghanaian languages from whose background the participants come are syllable-timed and they tend to have a down-step intonational pattern as has been illustrated above.

There was, again, the use of the same tune used in the previous utterance to repeat words or sometimes to begin new utterances. This is exemplified in the following:

I-I-I-I-I CANT ´sup,port the ↑amendMENT

and **I-I-I-I TOtally** ↑SUP,port ,the ´amendMENT

↑thank ,you **´mis,ter ´spea,ker >´mis,ter ´spea,ker<**

siTUATE ,the ↑crime **,the ,speci↑fic ↑crime** ,that ´we ´we ´we ´we ,in´tend **,t:o ,up´d**ate

SO TO TO TO ↑pa:rTICULARISE ,the ↑crime ,and ,say ↑ec,on,oMIC CRIME ,I ´think ,that WE WILL 'b:e **,over-,simpliFYING** ,the LAW (.)

The same tune was also used to repeat utterances with the same lexical form as in the following:

TS ↑if ,we ,do ´not quaLIFY **,it ,and** ↑LEAVE ,it ´as ↑crIME ,gene↓rALLY ↑then ,it ↑MEANS ,that any↑body ↑who ,whiSTLE ↑BLOWS **,on** ↑**steaLING ,on** ↑**murDER ,on** ↑**assAULT ,would ,want ,to** ↑**have** ↑**reCOURSe ,to** ´**this LAW ,to** ↑**ask ,us** ↑**for ,compen´SATION**

E ,1,1 ,the ´o,ther ,a↑reas ´**b** ´**c** ´**d** ´**e F** ´do ´take CARE OF ,o´ther offences

EH **'thank ,you 'mis,ter 'spea,ker 'mis,ter 'spea,ker 'I-'I-'I** ,want TO 'opp,OSE 'the a,men↑dment ,not ,in ,my ↑ca,pa'cit'y

and as can be seen, there is also rhythm in the way the Ghanaian speaks.

Furthermore, one can say that in Ghanaian languages vowel length is not phonemic as in English. This is because whereas Ghanaian languages are

syllable-timed and tend to have a down-step intonational pattern, English is a stress-timed language with a tendency to fall off gradually towards the end of statements and non-polar questions Kropp-Dakubu (1998).

It was also noted, that generally, there was no pause before an utterance of the conjunction 'that'; in fact, the previous tune, whether rising or falling, was used in mentioning the predicative part of the sentence. Gogovi et al (n.d.), identify that if what follows a verb is a 'that clause', the speaker pauses briefly before making the rest of the utterance. For instance in the sentence:

I know (.) that the boy has a dog.

there is a slight pause before the rest of the utterance is produced. In Ghanaian speech, the pause usually occurs after 'that'. Although a few speakers paused after their verb before giving the rest of the predicate, a pause before 'that' was not common in the data. What is below illustrates the few who paused before 'that'.

Example 1

MS   ,the ↑question ,is ,**THAT** ,sub 'clause ↑1 ,para'graph ↑B ,and ↑C
            ,at 'the ,be:'ginning 'dele,te ↑THAT ,and 'in ,para'graph ↑B ,line
            'two ,af:ter ↑a:ll 'in,sert IS 'those ,in 'fav 'ye:s (and then)

Example 2

TS   'mis=,spea'ker 'I 'I ↑I ,said ,**that** EH ,th:e ,the THAT ,the 'th:e
            ERM 'deletion ,of 'the 'word ↑THAT ,is 'con,se'quen,tial ,so 'it

'it ,runs 'from ↑A: ,to ↑F 'I ,think 'th:e ,the 'table (office) ERM
'rather ,didn't 'capture ,it 'well ,its 'from 'A ,to 'F

Example 3

BC   ,fo:ur 'paraGRAPH ↑B ,line 'one 'we ,delete ↑REASonably
↑beLIEFS ,and ,sub'stitute ↑has 'reaso,nable ↑cause ,to
'beLIEVE ,I ,believe **that** 'this ,will 'bring ,the 'intended
(meaning) ,with ,the 'earlier 'amend,ment ,that ,was 'made

In a study to identify pausing preceding and following 'that' in English among the native speakers and Turkish speakers, Bada (2006) found that while pauses preceding 'that' were much longer than pauses following 'that' in the production of native speakers, the pauses of Turkish speakers of English were found to be shorter before the 'that' and longer after the 'that'.

There was also a tendency to reduce the number of consonants in a cluster when the consonant was found to make the word cumbersome in pronunciation or when the speakers had more than three syllables in the word or where there was a fricative following another in the word. For example:

Example 1

'peo,ple ,the ,least ,mis'take ↑peo,ple 'turn (they) ,wants ,to CHOP
,you UP 'but ,this ↑coach ,I've **,o'served** ,him KEENLY ,and ,I
↑saw ,that HE ,ha:s ,what ,it ↑takes ,to 'be ,a COACH

KEENLY ,and ,I ↑saw ,that HE ,ha:s ,what ,it ↑takes ,to 'be ,a
COACH ,so Ill 'say ↑**congra,lations** ,to ,the ↑coach

Example 2

MINO	BUT ,for ,m:e ,mis'ter 'spea,ker ,as ,the ,mini'ster ,for ↑**infmation** ,and 'national 'orien,tation =

MINO	'mis'ter 'spea,ker ,I 'do ,not ↑believe ,we ,should ↑PREDICT ,the ,out'come ,of ↑Tuesday's 'match. ,**aftrall** OUR BLACK STARS ,are ,the ↑boys ,who ↑graduated ,from ,the ↑Starlets

As the above indicate, some of the consonants were omitted to speed up the pronunciation of the word.

The deputy speaker of parliament replaced the speaker of parliament for a day. An interesting feature about the deputy speaker of parliament was his tendency to end an utterance with a rising tune and almost always having his final word accented or said with a relatively high accent closer to the word with pitch or loudness. For instance:

Example 1

MS	MOVE ,as ↑seconded ( ) EH ,is ,for ,the 'consideration ,of ,the ↑house( ) ,th:e ↑QUESTION ,is ,that ,th:e 'motion MOVED 'b:e ↑agreed ,to. ,as 'many ,as ,are ,in ↑favour ↑say AYE( )

Example 2

MS	,the MOTION ↑moved ,and UH ↑seconded ,is ,for ,the 'consi'deration ,of ,the 'house. ,and ,the 'question ,i:s ,that ,this 'house ,thus ↑approve th::e MOTION ,that ,has 'been EH ↑moved. ,as 'many ,as ,are ,in ↑favour ↑say AYE( )

This rising tune indicated by '   ' made him sound as if he was uncertain or disinterested in what he was saying. Balasubramanian (2000) mentions that a rising tune used by a speaker suggests uncertainly, boredom or distinterest. The

use of the rising tune to sound uncertain, however, depends on the culture and context. Ending on a rising tune is a feature of speech among young Americans (especially women), the British, Australians and the Irish. This use of rising tune makes it quite difficult to know whether someone is asking a question or not unless they specifically ask a question using a modal at the beginning. For instance:

Example
MS   ,the ,reso ,re ,the RESOLUTION ,is ↑carried ,the ,the AYES ↑have
                ,it ,the 'resolution ,is ↑carried (.) UHM ,ho YES UHM ,th:e
                ,leadership(   ) **,can 'you ↑advise ,at ,this 'stage?**

McMahon (2002) says that intonation is just as subject to change over time, and under sociolinguistic pressures, as any other area of phonology. He cites a case in point where there is currently a growing trend for younger women in the south-east of England in particular to extend to statements the high rising tune characteristic of questions, so that such utterances as

                        She's going out and

                        She's going out?

have the same characteristic intonation pattern for the speakers. McMahon believes that the source of this innovation (the influence of Australian television soaps like "Neighbours", a favourite popular candidate) shows that intonation is not static, and that there is no single, necessary connection between particular patterns and particular utterance types.

        Another striking feature was the use of one form of prominence to list items. In the following examples, one identifies a prepositional phrase being

listed or repeated where the speaker has the same pitch and stress on the items he used.

Example 1

MINO   ,no 'amount ,of ↑money ,would 'have ↑gotten ,us ,what ,these 'young 'peo,ple ,have ↑done ,for ,this 'coun,try. NO ,in'vestment 'tour ,**by** ,a ↑presi,dent ,or ,**by** ,a ↑mini,ster ,or ,**by** ,the ↑Ghana ,in'vest,ment 'pro,motion 'coun,cil ,would 'have ↑gotten ,us ,the 'kind ,of ↑exposure ,that ,these 'young 'peo,ple ,have ↑managed ,to 'get ,for ,us

The same situation was also found in the listing of items of the counting off of items. For instance:

Example 1

CW   (… w   henfa no no…) ↑mis,ter 'spea,ker (…is created for) (.2) ↑IN 'clAUSe ↑1 ,sub ↑clause ↑1 ,pa'ragRAPH ↑B and ↑C (.) ERM ,we ↑should ↑delete ,the WOrd ↑THAT ,mis'ter='spea,KER ↑is ,not FOR ↑B and ↑C ↑onLY=,in='fact ↑be,cAUSe of 'the ↑ope,ra'tIVE ↑WOrd ↑THAT ,we ,we ,we ↑sent 'up ↑thERE ↑at ,the ↑op,e'nING ↑ALL ,the ↑tHAT 'app,ea'ring=,com'me,nCING ↑AB (.) ↑C (.2) ↑D ↑E ↑F ↑should ,be ↑deleTED

Example 2

MINO   'mis'ter 'spea,ker ,I 'do ,not ↑believe ,we ,should ↑PREDICT ,the ,out'come ,of ↑Tuesday's 'match. ,aftrall OUR BLACK STARS ,are ,the ↑boys ,who ↑graduated ,from ,the ↑Starlets ,that WON ,the WORLD ↑beating ,the ,**the 'Bra,zils** ,and ,**the 'Chi,nas** ,and ,**the 'Swe,dish** ,and ,**the 'Por,tuguese** ,so ,I ↑beLIEVE ,that ,the 'young 'boys ,are ↑bringing ,home ,the CUP ,to 'GHANA

Roach (1991), states that content words are relatively stressed in speech while function words are not. It is said that the Ghanaian languages are syllable timed (Ahulu, 1994a). It is also said that the function words in sentences are stressed in speech by Ghanaian English speakers. It was realised in the data that almost all of the speakers had a down tone or a low intonation or no stress when they used the articles **a/an/the** (and we must keep in mind that these speakers are coming from various ethnic backgrounds in Ghana). This observation is supported by Owusu-Ansah (1992).

Quirk et al (1976), maintain that in order to achieve an isochronous rhythm, function words used by a speaker in an utterance are not stressed. This lack of stress for function words was also identified in the work analysed. It was realised from the transcriptions that most of the function words which were used by the participants were reduced in loudness to mark rhythm. This is supported by computer analysis. The figure below shows the utterance "then you have to give you the cause". The first box indicates waveform of the speech while the second indicates pitch. Histogram indicates duration of each of the syllables with the last box indicating intensity. The second block of the histogram from the left indicates 'you'. As can be seen, it has short duration and from the intensity graph, the portion between 'then' and 'have' dips before the peak in 'have'. In the same way, the article 'the' has a smaller duration than the surrounding words 'you' and 'cause' indicating that the function words above are said with little emphasis or stress. The 'you' before the 'the' which has a longer duration indicates that the

speaker, rather than use a pause filler, stretches the 'you' while thinking of what to add next.
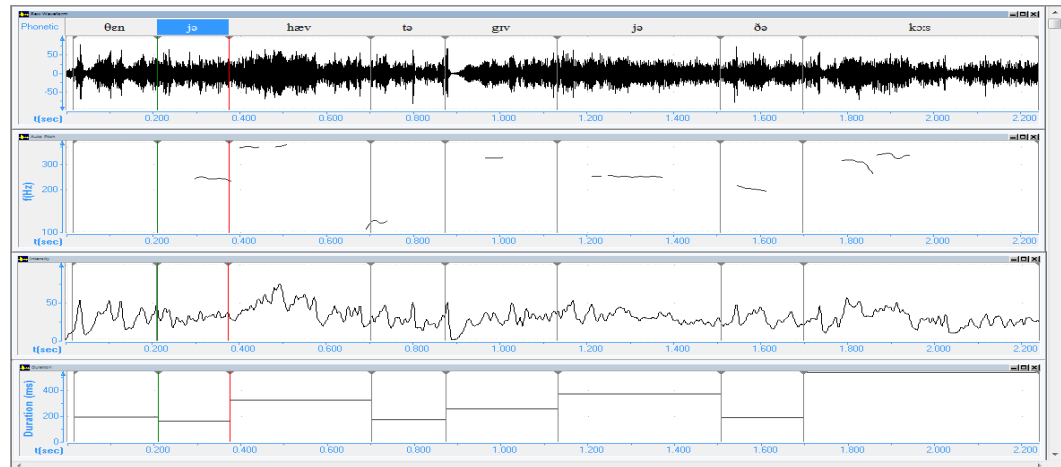
Figure 3 Duration of function words

Furthermore, there was the use of a low pitch or low intonation as opposed to the use of high or mid-high pitch to express the lexical words around 'that'. For example:

OSM　　　　　↑**that** ↑**was** ↑**that** ↑**was** ,the ↑choice ,of ,the ↑coach, ,let ↑us ,let ↑us 'some,times 'give ↑creDENCE ,to 'those ,who 'know ,better 'a:nd 'let 'us 'be ,patient 'with 'our 'tech,ni'cal ↑antlets ,with 'this re'mark ,mi'ster
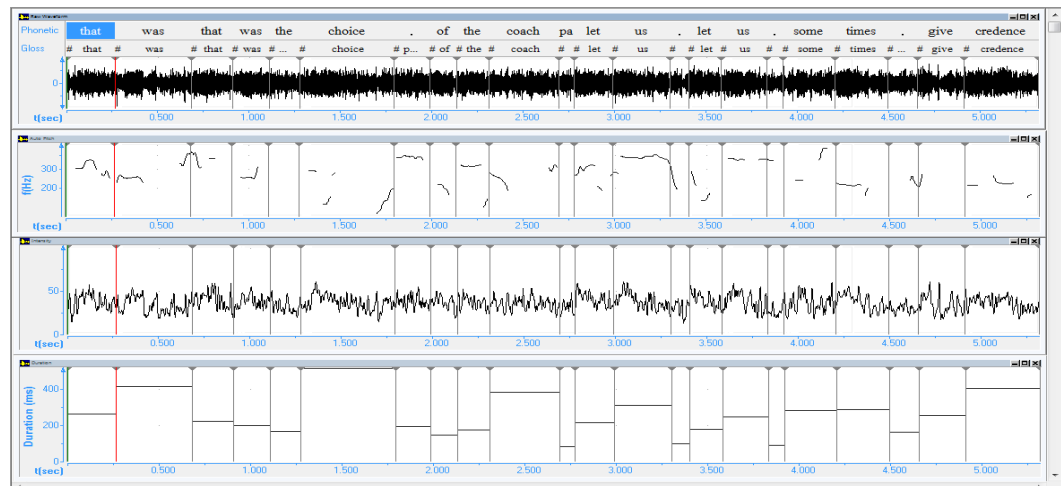
Figure 4 Pitch levels for repeated function and content words

As indicated above, it is found that the pitch levels are almost the same for 'that' and 'was' and 'let' and 'us'. The intensity graph also depicts about the same loudness for the 'that' and 'was' as well as for 'let' and 'us'. In the duration graph, however, the 'was' has a long duration of 415.37ms as opposed to the first 'that' of 256.8ms. The first 'let' also has duration of 214.51ms while the first 'us' has mean duration of 313.33ms. The pitch for the first 'that' is 64.4st (337 Hz) while the 'was' has a pitch of 59.8st (259 Hz).

The same use of low pitch or low tone was identified for pronouns except when the emphasis was on the pronoun itself. For instance, That is, where the speaker wanted to draw attention to pronouns such as 'I' or 'you' or 'we'. This is exemplified in the following:

Example 1

Lam ,I ↑saw ,that **HE** ,ha:s ,what ,it ↑takes ,to 'be ,a COACH ,so Ill 'say ↑congra,lations ,to ,the ↑coach PROUD ,that ,he ,is **OUR** COACH ,mis'ter 'spea,ker ,the ,manag'ement ,that ↑made ,it POSS↓ible ,for ,the BLACK STARS 'also ,want ,to ↑sa:y CONGRATULATIONS to **THEM** AND ALL ↑those ,that ,have CONTRIBUT:ed

Example 2

NPCW ↑**WE** ARE ↑**WE** 'are ,talking ,about ↑93 ,and ↑95 ↑group ,against you=know ↑what 'has 'haPPENED ,to ,the ↑coach ,reCENTLY ,is ,not 'new ,when ,we dɛ UH ,identified ↑APPIAH ,and ↑SULE

Example 3

CW   ´o¸ther ¸a↑reAS ´b ´c ´d ´e F̱ ´do ´take CARE OF ¸**o´ther**
               ¸ofFENCes ´so ¸mis¸ter=↑spea¸ker ¸I ¸be↑lieve ¸that **´we** ¸should
               ´siTUATe ¸the ↑crime ¸the ¸speci↑fic ↑crime ¸that **´we ´we ´we**
               ´we ¸in´tend t:o ¸up´date UH ´properLY ¸and ´I ´thiNK ¸the
               a¸mend↑ment ↑MOVed ¸by ¸my ¸col↑league ¸is ¸in or↑der ¸and
               ¸must ´be ¸su↑pPORTed

Other prepositions including 'of', 'in', 'on', 'at' and 'with' also had a down-step

pattern when used by speakers. For instance:

Example 1

NPCW   ↑honourable ↓yaw ↑osafo ↑marfo ¸**for** ¸instance ´needs ¸to ´be
               ↑COMMENDed ´because ´when ´we ´per¸formed ´badly ¸**at** ¸**th:e**
               ¸**at** ¸th:e UHM ↑afrICAN ↑cup ¸he ´called ¸me ¸and ¸we ¸we ¸we´ve
               ¸discussed ¸the ↑need ¸to ↑LOOK ¸for ´certain ´players ¸to ´bring
               ¸in ´certain ´players ´that ¸was ´when ¸they ´didn´t ´even ´want ¸to
               ´bring ¸in ¸osei ↑kuffour ¸and ¸all

Example 2

CW   ¸the ´scene ¸was ´really ↑invigoraTING ¸and ¸infec´tious ´o:ne ¸can
               ´only ↑HOPE ¸that ¸this ´UNITY ¸of ´pur:POSE ¸would ¸**from**
               ´hence ¸in FACT ¸our ´partiSAN ´politics ¸our ´chiefTAINCY ¸our
               ´reliGIOUS ´practices ¸and ´inDEED ´every ´faCET ↑OF ¸our
               ´social ¸and ´national LIFE ´mis¸ter ´spea¸ker ¸I ´tha:nk ¸yo:u **for**
               ¸the ´opporTUNITY ¸to ´assoCIATE ¸myself ¸with ¸the ´stateMENT

However, when the function words were used to attract attention to what followed

them, loudness was used to introduce them. Sometimes too, they were loudly said

or said with a high pitch to contrast what followed them with what had been or

would be said. This is confirmed by (Greenbaum, 1996). Examples are:

Example 1

CW   ↑board ,as ,the 'govern,ing 'body ↑cons,isting **OF** ,mis='spea,ker ,I
              'so ↑move

Example 2

BB   ↑peoPLE ↑who ,give ↑in,fORMation ′to **THE** ′po,LICE ↑who ,are
              ,gene′rally ,KNOWN ,as ↑in,formANTS ′**THERE** IS ↑alreADY ,a
              ↑po,liCY ,in ↑PLACE ↑WHERE ↑HOW ,th EH ′they′,re
              ↑handLED ,and EH ′giv,en ′SOME ↑com,penSATion **FOR**
              ′monIES

When the function words had an audibly long duration, it was realised that the

speaker was not sure of what to say next or was probably considering what to say

next. Instances of these included:

Example 1

TS   ′mis=,spea′ker ′I ′I ↑I ,said **,that EH ,th:e ,the** THAT ,the **′th:e**
              ERM ′deletion ,of ′the ′word ↑THAT ,is ′con,se′quen,tial ,so ′it
              ′it ,runs ′from ↑A: ,to ↑F ′I ,think **′th:e ,the ′table** (office) ERM
              ′rather ,didn't ′capture ,it ′well ,its ′from 'A ,to 'F

Example 2

NPCW   ↑honourable ↑yaw ↑osafo ↑marfo ,for ,instance ′needs ,to ′be
              ↑COMMENDed ′because ′when ′we ′performed ′badly **,at ,th:e**
              ,at ,th:e UHM ↑afrICAN ↑cup ,he ′called ,me ,and **,we ,we**
              ,we've ,discussed ,the ↑need ,to ↑LOOK ,for ′certain ′players

Here, the function words were either used in place of pause fillers or used as pause fillers.

These phenomena were also identified in a study of the "Prosody of Nigerian English" by Gut & Milde (2003). To them, articles, preposition and conjunctions were always produced with a low or a mid tone while verbs, adjectives and nouns were produced with a high (H) tone.

Even though the function words are not stressed in the speeches, 'of', 'as', 'is' etc are not reduced to mark rhythm. When 'of', 'as' and 'is' are said on their own, in RP, they are pronounced as /ɒf/ /æz/ and /ɪz/ respectively but when they are used in an utterance, they reduce into weak syllables /əv/ /əz/ /əz/ and sometimes 'is' is heard as [z]. This was, however, not the case in the speeches analysed. Though the function words were said with little stress, the vowels were not changed.

Another observation was the reduction of 'it is' to just 'is'. To maintain rhythm, native speakers reduce all function words to barely a schwa or a syllabic consonant. It is suggested that in an attempt to maintain rhythm, there was an attempt to reduce the two words 'it' and 'is' to make them sound as just 'is'. This phenomenon is found in the Fante language where the subject and verb are contracted or reduced as in 'me re ba' into 'mer ba'. In formal read speech, a speaker says [ɪt ɪz] but in spoken speech the two words are contracted to [ɪts] and in really fast speech, some speakers analysed reduced the words to [ɪs]. Here are a few examples from different speakers studied:

Example 1

Lam foot,ballers ,have ,they ,they ,just ′don′t ↑have ,the ′structure ,for ↑FUN **,is ,is** ′being ↑catered ,for ,if ,you ′are ,not ′well ↑FE:D

Example 2

CW **,is ,is** ′con,se′quen,tial ′that ,is ′for ,in ↑res,pect ,of ↑<u>B</u> ′but ,the ′oth,ers ↑con′se,quen′tIALLY ′we ,should ↑delETE ,the ↑tHAT ,com↑me,nCING ↑<u>A</u> <u>B</u> <u>C</u> ,up TO ↑F ′mis,ter ′spea,ker ,I ↑so ↑MOVE

Example 3

MFPA ,mis′ter ,spea′ker ,the ↑comm,ission ,has ,not ,in↑formed ,us ,that **is** ,not ′being ,able ,to ,per′form **is** DUTIES ,in FACT ,they ′are ,per′forming ,their ↑duties ,ve′ry ′well

This feature of reduction of certain consonants is supported by Greenbaum (1996). To him, it is noted that certain function words that are distinctive from each other in their strong forms may become homophones in their weak forms and can sometimes even cause ambiguity. However, in English, even when reduced, a weak syllable retains its syllabicity (Dauer, 1983). This is in contrast to such syllable-timed languages as French where the reduction process results in the complete elision of syllables. The elision is said to re-establish the evenness of successive syllables by eliminating an inherently short syllable (Dauer, 1983). Such eliminations are, also, found in such languages as French and Spanish.

There was a noticeable pause after a strong syllable whether it was a verb, noun or an adjective or even in a function word when it was stressed. This noticeable pause outlined a tone unit that had been used by the speaker. This is to say the little pause enabled the listener to assimilate the previous utterance and

prepare for the next tone unit which either gave further information or presented a new item. For example:

Example 1

CC   ,we ,should ↑look ,at ,th:e ,the ,th:e 'TAR,GET ,of ,the
                      'punish,ment ,we ,are ↑talking ,about ,the 'person ,to 'whom ,a
                      'disclosure ,has 'been ↑made ,and ,who 'have ↑failed ,to 'respect
                      ,the 'confiden,tiality ,of ,the ,whistle 'blower ,which ,may ↑include
                      ,an 'assembly 'mem:,ber ,in ,my 'village
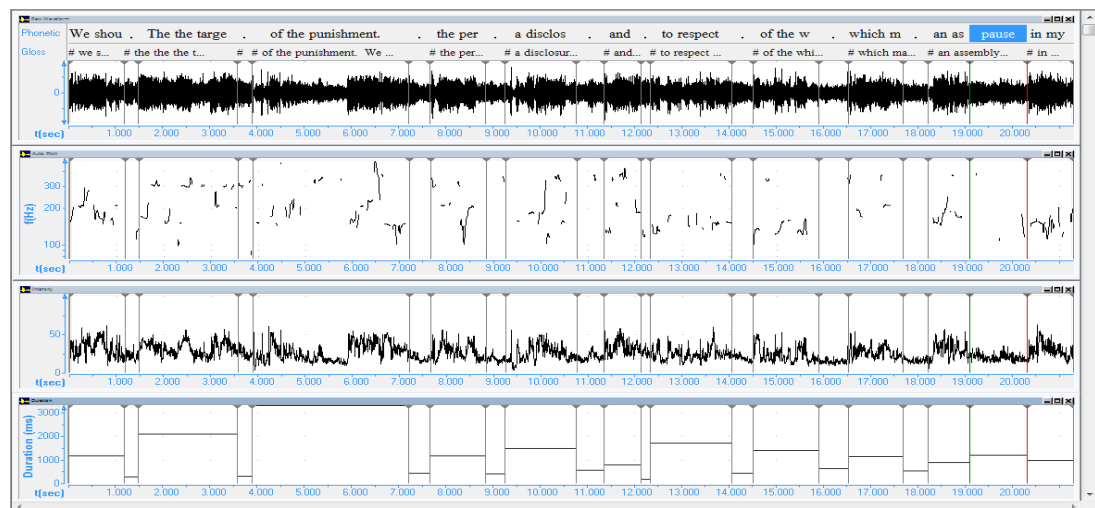
Figure 5 Pauses after a tone unit for CC

The pauses have been indicated with dots (.) in the graph above. It was noted that after every content word or function word which was made to sound loud, there was a pause.

Example 2

BC   yeh   (.) ↓mis,ter 'spea,k:er 'I ,rise 'with ,your ↑permISSION 't:o
                      ↑pro,p:ose ,an ,amend:'ment ,to 'clause ↑o:ne ,sub 'clause fo:ur
                      'filed ,b:y 'honourable ↑mohamed ↑adja,rega

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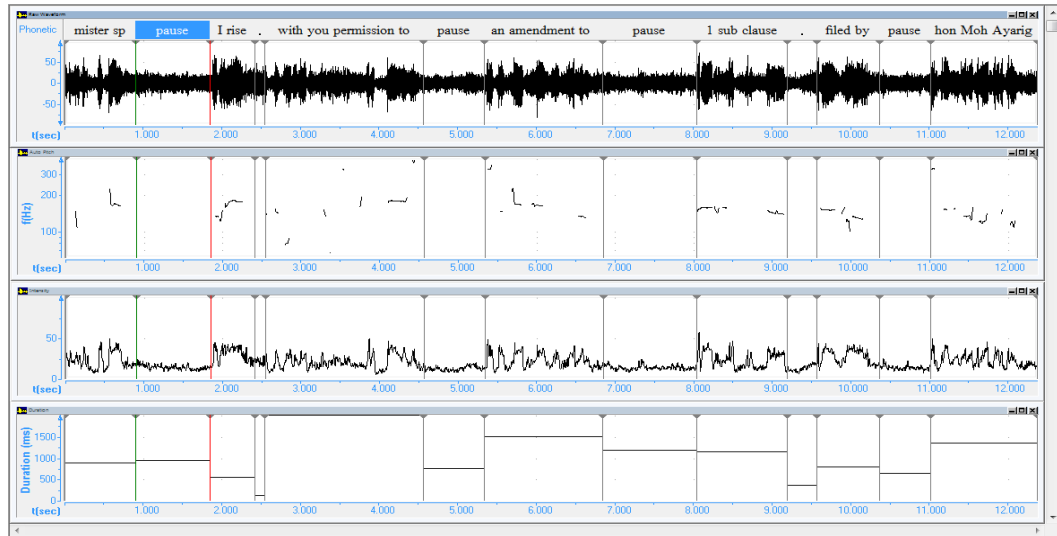
Figure 6 Pauses in tone unit for BC

The pauses have been indicated with dots as well as the word 'pause'. It was seen that there was a clear stop before the next utterance was made. This fact is supported by Halliday (1963) who claims that a unit of information is simultaneously a unit of information which is typically contained in a clause and to Crystal (1997), a tone unit may correlate with the elements of a clause such as the subject, or predicate or adjunct or a combination of adjacent clauses. Nihalani & Lin (1998) in their discussion of intonation patterns in news broadcasts, also, contend that such a tone unit is more than a phonological unit which is set up to handle the structure of pitch movements which carry contrastive significance. To them, "the tone unit by itself obviously has an important organising function which enables listeners to comprehend an extended discourse more easily" (p. 5).

There is a persistent claim that languages are ordered in terms of their rhythmic performance along a scale that runs from syllable-timed, on one hand, and stress-timed on the other (Abercrombie, 1967). In stress-timed languages, the duration of the syllables, including the strong syllables, is shorter as more

syllables are squeezed in between two stresses and it appears that syllable-timed languages typically have no vowel length contrast, have open syllables, do not allow complex consonant clusters and do not reduce vowels in weak vowels to schwa (Dauer, 1983; Van Heuven, 1994). This can account for the lack of reduction in vowel length in words which would normally contain a schwa. Dauer (1983) however contends that "it is precisely the language structure with all its language specific segmental variation that is responsible for perceived differences in language rhythm" (p. 59). Furthermore, Roach (2000) puts forward that "the 'stress-timed/syllable-timed' dichotomy is generally agreed in modern work to be an oversimplification; a more common view is that all languages display characteristics of both types of rhythm, but may be closer to one or the other" (p. 164).

Metrical Analysis of Intonation

From the documentation of the accentual patterns of the MPs, certain observations were made.

The stress pattern featured a basic similarity and a bit of difference among the speakers. What was observed was that there was an S (stronger than an adjacent W) and W (weaker than an adjacent strong) variation in the utterance of "thank you, mister speaker". Only a few speakers had a variation in the use of the utterance. The reason for the rise in the last syllable of 'speaker' was that the speakers had not finished with the utterance they were making. The utterance was part of the initial statements they were making. However, it was also observed

that some had a falling tune for the 'ker' in 'speaker' because they had finished with the opening statement of acknowledging the chance given them by the speaker to speak. After the acknowledgement, they paused for a while before making their contribution. The various intonation patterns for the speakers are as follows:

Table 1: The intonation patterns of some speakers

Speakers	Thank	you	mis	ter	spea	ker
OSM	s	w	w	s	w	s
DCM	s	w	w	s	w	s
ML	s	w	w	s	w	s
DAG	s	w	w	s	w	s
Bawku	s	w	w	s	w	s
Kai	s	w	w	s	w	s
Kum	s	w	w	s	w	s
AAS	s	w	w	s	w	s
S Ton	s	w	w	s	w	s
KraWe	s	w	w	s	w	s
VR	s	w	w	s	w	s
DCW	s	w	w	s	w	s
DMFEP	s	w	w	s	w	s
Eva We	s	w	w	s	w	s
NS	s	w	w	s	w	s
Hoh	s	w	w	s	w	s
KN	s	w	w	s	w	s
DMESS	s	w	w	s	w	s
AS	s	w	w	s	w	s
Kwaa	s	w	w	s	w	s
Jomo	s	w	w	s	w	s
Law	s	w	w	s	w	s
Akyu	s	w	w	s	w	s
Mino Lea	s	w	w	s	w	s
BN	s	w	w	s	w	s
Unknown	s	w	w	s	w	s
Okai	s	w	w	s	w	s
Gyira	s	w	w	s	w	s

Table 2: Intonation patterns of speakers varying from the general patterns

Speakers	Thank	you	mis	ter	spea	ker
CW	s	w	w	s	s	w
Lamb	s	w	w	s	s	w
MINO	s	w	w	s	s	w
EOB	s	w	w	s	s	w
Asaw	s	w	w	s	s	w
CC	s	w	w	s	s	w
Ton	s	w	w	s	s	w
Chair	s	w	w	s	s	w

In the table below, it was realised that the first syllable of the di-syllabic words were strong while the second syllables were weak.

Table 3: Strong di-syllabic syllables

Speakers	Thank	you	mis	ter	spea	ker
WW	s	w	s	w	s	w
NPCW	s	w	s	w	s	w
Zem	s	w	s	w	s	w
AC	s	w	s	w	s	w
BB	s	w	s	w	s	w
House member	s	w	s	w	s	w

Table 4 presents how some speakers expressed their gratitude for being given the opportunity to make a point. In the table, it is realised that the speakers maintained the intonation pattern used to utter the previous syllable. In other words, the speakers maintained one syllabic pattern in the speech.

Table 4: Maintenance of one syllabic pattern

Speakers	Thank	you	mis	ter	spea	ker
Bole	S	W	W	S	S	W
Fom	S	W	W	S	S	W

Tables 5 and 6 give a variety of intonation patterns as used by some speakers. From the penultimate table, it is realised that one particular speaker, (DCWMI), liked to use the rising tune to utter his statement. That is why he has more S forms than W in his speech.

Table 5: A variety of intonation patterns

Speakers	Thank	you	mis	ter	spea	ker
Ahafo	S	W	S	W	W	S
DMinI	S	W	S	W	W	S
DCWMI	S	S	S	W	S	W

Table 6: A variety of intonation patterns

Speakers	Mis	ter	spea	ker	I	thank	you
ESE	W	S	W	S	W	S	W
DL	W	S	W	S	W	S	W

It must be noted, that this study is not prescriptive but only examining the trend of the occurrence of near strong syllables in spoken Ghanaian stress pattern. From the above, there is a variation in the arrangement of S and W syllables which results in a rhythmic pattern which does not alternate consistently between strong and weak syllables, as suggested by the Metrical Phonology Theory. This suggests that the rhythmic pattern of the educated Ghanaian English cannot be said to be stress-timed like that of RP or even the native-variety.

Instrumental analysis

The instrumental analysis produced very interesting results. The pitch movement on a syllable was very rare in Ghanaian English. From the total number of sixty speakers, only nine had contour tone/pitch movement on all six syllables. Table 10 presents the contour tones in semitones of the nine speakers.

Table 7: Speakers with pitch movement (in semitones)

Speaker	Sex	Thank	You	Mis	Ter	Spea	Ker
Bulsa	M	62.6	56.9	57.0	62.3	54.9	56.4
DCWMin	F	63.0	63.2	60.9	59.6	64.8	60.6
ESekyereE	M	58.7	53.6	53.0	63.2	66.9	66.0
House member	M	58.5	57.5	45.9	54.7	52.2	64.8
Ketu North	M	56.9	57.1	65.1	53.6	55.9	56.0
Lawra	M	66.6	60.4	67.0	70.5	46.3	62.6
MINOrient	M	57.8	59.0	58.6	49.1	54.9	65.5
NingoPrampram	M	60.3	66.7	57.1	56.7	56.4	56.9
Okai Kwei	F	65.6	63.8	60.7	60.0	63.2	63.2

Table 8: Speakers with pitch movement (in hertz)

Speaker	Sex	Thank	You	Mis	Ter	Spea	Ker
Bulsa	M	304	219	220	299	195	212
DCWMin	F	312	315	276	256	345	271
ESekyereE	M	242	181	175	315	390	369
House member	M	240	226	116	193	167	345
Ketu North	M	219	221	352	181	207	208
Lawra	M	382	267	392	480	119	304
MINOrient	M	231	247	241	139	195	359
NingoPrampram	M	266	386	221	216	213	219
Okai Kwei	F	362	325	272	261	315	315

The distribution of the contour tone was not too restricted. The pitch movement on syllables occurred on the initial syllable of 'thank' and predominantly on the final syllable of 'speaker'. In other words, the pre-pausal syllable had the highest number of pitch movement.

The pitch height of syllables in Ghanaian English was also identified to be grammatically determined. In other words, the speakers had a tendency of linking different syntactic groups with particular tones. In the transcribed data, it was identified that articles, pronouns, prepositions and conjunctions were produced, most of the time, with a low tone while verbs, adjectives and nouns were produced with a high tone. In the instrumental analysis, the pronoun 'you' was identified to have the average minimum pitch (in both semitones and hertz), duration (in milliseconds) and intensity (in –decibels) among the speakers.

However, when 'you' was given emphasis by some speakers, the duration as well as the pitch movement was higher than the initial pitch used for the content word 'thank' which might not even carry a pitch as indicated in the table below

Table 9: Speakers with high pitch (in semitones and hertz) on 'you'

Speaker	Sex	Pitch st	Hz
Act Chair	M	65.2	353
Bawku	M	55.8	205
DCWMin	F	63.2	315
Ketu North	M	57.1	221
MINOrient	M	59.0	247
NingoPrampram	M	66.7	386

The table above indicates the highest pitch movement for speakers who emphasised the 'you' in 'thank you mister speaker'.

The mean pitch in hertz identified in the utterance was 398 Hz for the males while that of the females was 439 Hz. Interestingly, the average pitch height projected for the European male by McMahon (2002), Laver (1994) and Dehé (2002) was exceeded by the Ghanaian male speakers while the average pitch height for the female Ghanaian speakers was also outside of the range of the European female. The range of the Ghanaian male was 74 – 480 Hz and that of the females was 225 – 362 Hz. It must be noted that the female speakers were very few and, therefore, their range will not serve as a correct representation of the range of females of Ghanaian English female speakers.

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Furthermore, the instrumental analysis showed that not only strong syllables but weak ones were given prominence. It was observed that of the six syllables in the utterance selected for analysis, the syllable 'thank' had the highest mean duration of 385.83. This was followed by the syllable 'spea' with a mean duration of 354.47. The next with a high duration was 'you' whose mean duration was 233.21. The fourth syllable to follow was 'ter' with a mean duration of 207.16. The fifth syllable after the fourth highest was 'mis' with a mean duration of 202.19. The lowest mean duration of the six syllables was recorded for 'ker' with a mean duration of 139.26. A detailed syllable duration measurements for each of the speakers recorded in the data can be found in Appendix E.

The strong syllables in the utterance were [θæŋk] [mɪs] and [spiː] while the weak syllables were [jə] [tə] and [kə]. The speakers required a mean duration of 385.83, 354.47 and 202.19 for the strong syllables respectively. For the weak syllables of the utterance, it was realised that the speakers took a longer time than was expected to produce them. This suggests that there was a little or no effort to pronounce the weak syllables hurriedly. In other words, there was no or little attempt made to reduce the vowels in the weak syllables to the schwa as done in native English. In a research to ascertain the rhythm of Nigerian English, Udofot (2003) found that the "…syllable duration, of unstressed syllables in particular, is relatively longer than in a native variety of English. This rather long duration appears to be caused by the tendency to produce both reduced and short vowels with 'normal' duration" (p. 217).

Concerning the three strong syllables, it was found that there was no attempt on the part of the speakers to prolong the vowels. Looking at the duration measurement of the syllables [spi:] and [k∠], it was noted that the majority of the speakers prolonged the final syllable as opposed to prolonging the initial syllable which would have been the inverse for native speakers. Table 10 shows some of the speakers with a higher duration for [k∠] and lower duration for [spi:].

Table 10: Speakers with higher and lower durations

Speaker	Mis	Ter	Spea	Ker
AAS	100.63	150.11	158.80	182.00
Chair	102.72	132.20	164.94	165.53
Dep Lead	103.41	54.06	108.03	193.56
ESekyere	134.3	122.22	188.16	197.23
Jirapa	99.09	99.64	100.00	114.24
Okai Kwei	122.95	202.00	197.41	218.82

It is suggested, therefore, that in Ghanaian English rhythm, the duration of weak syllables is longer than would be expected in the native variety because of the lack of reduction in the vowel and therefore providing a tendency to have more or less even syllable duration.

It was realised that there were several ways in marking prominence. Some speakers had a high intensity measurement but a lesser duration measurement. Table 11 presents examples of speakers with high intensity but not long duration and high pitch.

Table 11: Speakers with high intensity (in decibels) and their accompanying duration measurement (ms). All this was analysed from the tape-recorded individuals.

Speaker	Intensity (in decibels)				Duration (in milliseconds)			
	Thank	You	Mis	Ter	Thank	You	Mis	Ter
Asaawase	-12.7	-10.2	-28.8	-12.4	189.93	94.01	068.11	95.42
Bole	-29.2	-10.2	-19.7	-9.4	187.63	104.90	56.24	85.80
Dag	-29.7	-13.8	-10.4	-18.6	156.72	85.76	99.14	42.27
DepCwhip	-22.0	-16.2	-8.4	-12.5	156.72	85.76	99.14	42.27
Jirapa	-29.3	-13.1	-9.9	-14.7	173.78	98.68	99.09	99.64
Housemem	-34.0	-10.1	-13.9	-13.4	124.40	63.17	58.10	65.99
Kai Kwei	-41.8	-23.7	-24.3	-25.8	177.46	118.55	99.91	100.00
Kumawu	-28.0	-8.2	-11.9	-11.8	203.55	139.18	99.37	122.13
Maj Lead	-31.0	-13.2	-13.4	-9.4	175.70	93.79	82.54	99.82
NS	-10.4	-19.5	-12.4	-12.8	180.24	99.27	99.41	99.82

As the above table shows, these speakers have a high intensity rate but a low duration rate to achieve rhythm. Almost all the speakers above did not have pitch measurement for the syllables which with high intensity. This suggests that it is not only pitch accent which is used to achieve prominence and rhythm as Bollinger (1958) claims. This observation supports Sluijter & Heuven (1996) and Fox (1990) whose research found that intensity plays a key role in making syllables prominent as opposed to Bollinger's (1958) and Turk & Sawusch's (1996) assertion that intensity is 'at best unnecessary' in prominence but is perceived integrally.

The inverse was also noted among certain speakers. This is where speakers had a low intensity but a high duration in order to achieve prominence in syllables. The table below illustrates this turn.

Table 12: Speakers with low intensity (in decibels) and their accompanying duration measurement (ms)

Speaker	Thank	You	Ter	Ker	Thank	You	Ter	Ker
Achumua	-22.1	-7.5	-14.5	-6.9	177.11	100.41	103.58	120.32
DpeminCW	-29.2	-7.9	-7.3	-8.6	184.58	135.01	99.09	98.64
ESekyereE	10.1	-10.3	-5.4	-9.2	228.34	156.19	122.22	197.23
Fomena	-17.3	-7.8	-18.5	-10.9	242.11	150.43	103.67	112.29
Jomoro	-15.8	-6.5	-13.1	-13.2	178.80	110.11	90.61	125.44
Ketu	-23.9	-7.3	-8.4	-8.7	175.10	96.96	92.79	150.34
Kumawu	-28.0	-8.2	-11.8	-8.5	203.55	139.18	122.13	178.10
Lawra	-29.5	-6.3	-10.2	-12.1	236.40	110.75	129.16	158.14
Nino Pram	-14.0	-7.4	-7.9	-7.4	223.42	109.57	119.18	148.71
Nkwanta	-10.4	-19.5	-12.8	-12.0	180.24	99.27	99.82	162.81
Okai Kwei	-5.2	-14.4	-8.1	-15.2	246.54	190.20	202.00	218.82

Table 12 shows that these speakers made syllables more prominent by the use of duration rather than intensity to achieve rhythm. Most of the speakers above did not have any pitch measurement for the syllables which they used duration to make prominent. What is found in the data supports such writers as Turk & Sawusch (1996), Silipo & Greenberg (1999, 2000) and Dyrud (2001) who assert that average F_0 (fundamental frequency = pitch) level and F_0 range play only a

minor role in identification of prosodic stress but that duration is more important cue to prominence judgement. Kochanski et al (2005) as cited in Mo (2005) also evaluated acoustic correlates of perceived prominence in varieties of British English using a prominent/non-prominent judgement as classifiers and found that prominence is coded by loudness and duration but various types of F_0-related measurements play only a minor role (p. 2).

It was also realised that to achieve prominence, some speakers used pitch and duration. Tables 13 and 14 give examples of users who used pitch and duration to identify prominent syllables.

Table 13: Speakers with high duration measurement (ms)

Speaker	Thank	You	Spea	Ker
AAS	213.63	88.75	158.80	182.00
Atwimua	177.11	100.41	120.32	120.32
Act Chair	261.00	122.59	187.21	163.27
Bawku	195.24	238.41	219.82	95.01
Bulsa	230.24	145.22	295.10	221.13
DCWMin	205.61	109.80	177.05	170.79
Dep Leader	150.39	149.30	108.03	193.56
DMinOrient	248.42	131.20	239.14	143.85
ESekyereE	228.34	156.19	188.16	197.23
Fomena	242.11	150.43	103.67	112.29
Hohoe	228.50	111.97	225.67	118.53
Lambussie	243.40	99.23	228.57	111.16

Table 14: Speakers with high pitch (in st and Hz)

Speaker	Thank	You	Spea	Ker	Thank	You	Spea	Ker
AAS	52.5			53.0	169			175
Atwimua	62.5	54.2	65.3	64.8	302	187	356	345
Act Chair		65.2		62.7		353		306
Bawku	54.7	55.8	51.8		193	205	163	
Bulsa	62.6	56.9	54.9	56.4	304	219	195	212
DCWMin	63.0	63.2	64.8	60.6	312	315	345	271
Dep Leader	65.6		51.7	50.0	361		162	147
DMinOrient	63.2	62.1		58.1	314	295		235
ESekyereE	58.7	53.6	66.9	66.0	242	181	390	369
Fomena	67.3	58.1			398	235		
Hohoe	63.3	53.5		47.9	317	180		129
Lambussie	62.3			60.0	299			261
Lawra	66.6	60.4	46.3	62.6	382	267	119	304
Okai Kwei	65.6	63.8	63.2	63.2	362	325	315	315

The table shows that the speakers marked prominence and rhythm with pitch and often duration. In table 13, one sees that the high figures assigned to duration of the syllables involved are consistent with the high figures acquired from the pitch measurement. The highest pitch, in semitones, recorded in the table was 66.6 with its equivalent hertz of 382. This corresponds to the duration mark of 236.40. This observation agrees with Bollinger's (1958) assertion that it is pitch which is the main cue to prominence and to achieving rhythm. It must, however, be noted

that the F_0 of speakers is dependent on the context in which it is used as well as on the sex of the speaker.

Just as it was observed that some speakers achieved rhythm through the use of pitch and duration prominence, it was also observed that some syllables had low duration and high pitch as exemplified in the tables below:

Table 15: Speakers with low duration (in ms)

Speaker	You	Mis	Ter	Ker
Bole	104.90	56.24	85.80	164.72
House member	63.17	58.10	65.99	113.24
Ketu North	96.96	88.03	92.79	150.34
Lawra	110.75	91.20	129.16	158.14
Majority leader	93.79	82.54	99.82	106.17
MFPresidoAff	118.70	87.30	85.49	127.66
Tamale South	98.91	98.50	92.74	113.42
Tonn	109.71	107.07	99.73	112.70
Unknown	98.19	98.87	100.05	97.01

Table 16: Speakers with high pitch (in st and Hz)

Speaker	You	Mis	Ter	Ker	You	Mis	Ter	Ker
Bole	63.4	63.4			318	318		
House member	57.5	45.9	54.7	64.8	226	116	193	345
Ketu North	57.1	65.1	53.6	56.0	221	352	181	208
Lawra	60.4	67.0	70.5	62.6	267	392	480	304
Majority leader	50.8	47.31	42.2	63.9	154	125	93	327
MFPresidoAff		45.0	45.1	63.4		110	111	318
Tamale South				64.6				342
Tonn				63.4				318
Unknown				55.4				201

Table 15 shows speakers with a rather low duration but a high pitch on syllables to mark prominence. From the table, it is found that, for some, the pitch identified (in the table) is the only one they have. This means that that particular syllable carrying the pitch is the same syllable carrying stress to mark the intonation in the utterance. This observation agrees with Bollinger's (1958) assumption that it is the pitch accent which gives a cue to stress in rhythm. This observation was also made by Dyrud (2001) when he studied the Hindi-Urdu stress and found that pitch was a correlate of stress in Hindi-Urdu.

Discussion

It must be emphasised that this research is not prescriptive but that it is only observing a tendency of the occurrence of strong syllables in spoken

Ghanaian English which makes the pattern of Ghanaian English rhythm different from a mother tongue speaker's stress pattern.

The analysis confirmed the predominance of prominent syllables and a tendency towards a syllable-timed rhythm and not syllable-timing in its pure form. It thus supports Dauer's argument that there is not an entirely stress-timed language and there is not an entirely syllable-timed language. Udofot (1997) notes that the large number of strong "syllables in the speech of Nigerians of varied socio-economic and educational backgrounds puts the situation down to a tendency to speak both long and short vowels with equal duration. The study concludes, therefore, that rhythm of spoken Nigerian English sounds more like the pulsation of an African drum, heard as rhythmic, but hardly varying its tempo" (202-203). The same phenomenon is identified in Ghanaian English speech. It was realised that even though the function words were not said with the same prominence as the content words, loudness was not too reduced. It can therefore, be concluded, that in the Ghanaian accent of English, the duration of weak syllables is long. When the predominance of prominent syllables and the tendency towards a syllable-timed rhythm are taken together, it is realised that there is an inclination towards more or less even syllable duration. This is to say that such syllables, which are not normally made prominent in a native-speaker's speech, are made prominent in the speech of the Ghanaian English speaker and thus results in an abundance of prominent syllables noted in non-native Englishes.

From the documentation of the intonation patterns of the subjects in the data, some observations have been made. In the first place, there was a persistent

occurrence of more strong syllables in the productions of the speakers. Furthermore, there was a variation in the arrangement of S and W syllables as compared to what the British Standard English accepts and, thus, results in a rhythmic pattern which does not alternate consistently between strong and weak syllables as propounded by the Metrical Phonology Theory. This indicates that the rhythmic pattern of the spoken Ghanaian English cannot be said to be stress timed.

Moreover, there was a tendency to stress most of the syllables in an utterance in the production of some speakers with a common ethnic background, which is indicative of the syllable-timing description. It must, however, be indicated that a few of the speakers were heard to speak with fewer strong syllables close to the patterns that are indicated by such phoneticians as Roach, Laver and McMahon though with identifiable differences. Such speakers include the MP for Bole Bamboi and the Speaker who replaced the Speaker of Parliament for the day.

Several types of making syllables prominent were also identified in the instrumental analysis. It was identified that some speakers used pitch and duration, intensity and pitch and duration and intensity to mark prominence. Some speakers had high pitch but low intensity on some syllables while others had low pitch and high duration on some syllables. It was, therefore, concluded that there was more than one way of making syllables prominent in Ghanaian English. This observation is held by several scholars. Dyrud (2001) confirms that stress is realized in several ways in the languages of the world in that the

physical process for creating prominence on a syllable has many variables including Fundamental frequency (F_0), duration, and intensity which are common correlates of syllable prominence. To Sluijter & van Heuven (1996), relative duration of syllables, more specifically of the rhymes of syllables, is the most consistent correlate of accent in languages such as English and Dutch. Studies of the phonetic correlates of accent in other languages have shown that the most important correlates may differ from language to language.

Findings

The research sought to provide answers to the following research questions.

1. What are the phonetic features of prominence, in terms of pitch, duration and intensity, used by the Ghanaian English speaker? It was found that there were features of prominence in Ghanaian English. The speakers used pitch and intensity, intensity and loudness, loudness and duration or all three to identify strong syllables. They also used weak pitch and low intensity as well as short duration to identify weak syllables.

2. What is the nature of the rhythm used by the Ghanaian English speaker? It was found that rhythm of Ghanaian speech leaned towards syllable timing. It was, therefore, confirmed by the research that Ghanaian English rhythm speech was influenced by the local languages and environment.

3. What is the effect of context of situation on the rhythm used in Ghanaian English speech? It was realised through the study that the context of situation indeed had effect on rhythm used in Ghanaian English speech. During a period in the discourse (in parliament) when there was

excitement over a football match between the nation's football team and Brazil's national football team in the World Cup tournament, the speakers tended to use a high pitch and loudness as opposed to when there was a normal discussion over a statement made. Secondly, when speakers tried to emphasise or reiterate a point they had made, they tended to use intensity and prominence to make their point clear. This finding indicates that when the MPs are outside the context of situation of Parliament, their speech rhythm might differ. In other words, every context will demand its own rhythm or prominence, which will be different from the one identified during statement time or question time in Parliament. Therefore, it can be said that the context of situation has an effect on rhythm used in Ghanaian English speech.

Other Finding

It was also found out in the research that the educated Ghanaian has a peculiar rhythm in using the 'that' clause. In the native speaker's use of the 'that' clause, (as explained by Bada, 2006) there is a tendency to pause briefly after the verb before the 'that' clause is uttered. However, in the rhythm of the educated Ghanaian, the pause was rather after the 'that' had been mentioned and before the remainder of the clause was uttered (which resembles the use of the demonstrative 'that' in 'I know that').

Conclusion

This chapter has analysed the data which comprised spoken discourse. The data were analysed under pitch, loudness, duration and intonation. The qualitative analysis based on the sociolinguistic approach was used. The study highlighted the common features which were unique in the rhythm of the Ghanaian English speaker (which include a tendency to stress more syllables than the native speaker). These features, which are traceable to the influence of the syllable-timed rhythm of the speakers' mother tongues, tended to characterise the Ghanaian accent of English.

The next chapter discusses the summary of the study, its implication and recommendation for future study and the conclusion to the whole study.

CHAPTER FIVE

SUMMARY, IMPLICATIONS, RECOMMENDATIONS AND

CONCLUSION

Introduction

The aim of this chapter is to briefly summarise the research, provide implications, give recommendations and draw conclusions.

Summary

The objective of the research was to describe the nature of prominence and rhythm used by the educated Ghanaian. Data for the research were gathered from the Parliament House in Accra. They were Parliamentary proceedings on bills' amendment, statements and reports. The theoretical framework used were the theories of nativisation and metrical phonology propounded by Kachru and Liberman and Prince respectively. The transcription of the data was based on the Jeffersonian (2004) transcriptional symbols.

The analysis of the research was based on the qualitative approach to describe and provide the nature of the rhythm as identified in the data. The qualitative approach was useful in that the aim of the research was not to recognise the frequencies of the occurrence of a particular rhythm but just to identify and explain the general nature of the rhythm used. To further accurately measure the sounds used, the relevant part of the data was subjected to

instrumental analysis using the Speech Analyser speech filing instrument.

Based on the research, it was identified that there was a unique rhythm used by educated Ghanaian speakers in comparison to what Jones (2004), Gimson (as revised by Cruttendon, 2001) and Abercrombie (1967) prescribe and this rhythm was between stress-timed and syllable-timed variation. In other words, the rhythm could not be said to be totally syllable-timed but was not also regarded as stress-timed. It must be noted that in the real world, the native speaker's speech can never be 100% stress-timed in just the same way that the educated Ghanaian's speech can never be 100% syllable-timed (Dauer, 1983). In the words of Udofot (2003) the rhythm is "like the pulsations of an African drum, heard as rhythmic but rarely varying its tempo" (p. 218). Secondly, it was found out in the analysis that the environment of the speaker as well as the context of situation and the subject matter can produce a different rhythm in a given situation. When the MPs were discussing just statements and reports, it was realised that there was a use of less pitch and loudness. However, when it came to supporting and opposing amendments as well as discussing matters which brought about excitement, loudness or intensity as well as pitch were used.

Furthermore, the study showed that the Ghanaian English speaker had a variety of ways of showing prominence. These included using pitch and intensity only, intensity and duration only, duration and pitch only or all three together.

From the study, it was realised that the rhythm of Ghanaian English is influenced by the background of the culture in terms of the L_1 and the environment within which the speaker was trained or brought up.

Implications

The researcher is hopeful that a discussion of the implications of the research and conclusions drawn will be of great help to both students and teachers of the English language in that the implications are related to strategies in second language teaching and learning in second language environments. Furthermore, it is hoped that this chapter will bring to the fore the distinctions identified in prominence and rhythm of Ghanaian English speakers.

Based on the study, these implications have been observed:

1) The acceptance of the rhythm of Ghanaian English.

2) The issue of which variety of the Englishes to be taught in the classroom.

The first implication has to do with the acceptance of the rhythm of Ghanaian English in particular and the non-native varieties in general. Kachru (1983) presents four phases which the non-native varieties go through and which are not restricted to one area. The first phase is the non-identification of the local range and the conscious recognition with the native speaker. In other words, there is a conscious effort to sound like or imitate the native speaker while consciously suppressing the local variety which is identified. In the second phase, an extensive diffusion of bilingualism in English is identified which little by little leads to the development of varieties within a range. The after-effect of this is that such a speaker's English is labelled Ghanaianised, Indianised or Nigerianised. Its use is also little even though it is widely used for various purposes. The third phase has the local range being slowly acknowledged and thereby creating a reduction between the linguistic norm and linguistic performance. The final

phase, as mentioned by Kachru, is divided into two, namely: attitudinal terms and teaching material. In the former, one does not establish a separation between linguistic norm and performance whereas the latter is contextualised in the native socio-cultural setting. From this, one starts to distinguish the wider and national use of English and regards its international use as marginal.

However, there is a little problem concerning the acceptance of the local range by the native speakers who turn their noses up on it by calling it all sorts of names including 'deviation' and 'error'. Also, they pass such negative comments that it will be a lowering of standards if a non-native variety is taught in schools and that inter-comprehensibility will be lost if the diverse models are opted for (Prator, 1968).

It becomes more disturbing when non-natives believe they are receiving British education and therefore are speaking British English (Bokamba, 1992). The people in the group evaluate theirs and others' English with the British standard but do not succeed to achieve the perfect model no matter how hard they try.

Owusu-Ansah (1997), Bamgbose (1982), Richards (1982) and Kachru (1976), however, have a different opinion from the native-speaker and the aspirants to the British range. Kachru (1997) believes, "that the traditional dichotomy between native and non-native is functionally uninsightful and linguistically questionable, particularly when discussing the functions of English in multilingual society" (p. 213). The scholars mentioned above believe that instead of trying to stifle the local varieties, there should be a conscious attempt at

guiding them towards the path of standardisation as the local varieties are achieving legitimacy.

The second implication is that, as mentioned by Sackey (1997), the initial establishments of schools was to train personnel to assist in the trading activities and later to educate the people about God as well as to communicate with the native speakers. This idea of learning the language in order to communicate with the native speaker no longer holds water as Gogovi (1991) has established. The teachers of English in the local setting must, therefore, be careful with what to teach since even though English is of global importance, it is still just one language among many in a learner's collection and thereby the influence of the learner's local language(s) is to be expected. In such a situation, it will be unrealistic to emphasise a total native-like competence together with register and domain styles in the Ghanaian school system as this emphasis will also contradict the dynamics of multilingualism and the use of varieties of English around the world. As Kachru (1997), believes approaches to the study of world Englishes, therefore, "have to be interdisciplinary and integrative approaches and capture identities of different Englishes and to examine critically the implications of such identities in cross-cultural communication and creativity" (p. 212).

Furthermore, the planners of the educational curriculum in Ghana should be made conscious of the new trend so they can adapt the curriculum to suit the current situation. They should be able to expose the learner as well as the instructor to the international as well as nativised varieties. This is because the student will first and foremost use the language in the local environment before

moving to the international scene. Therefore, in order for the student not to be unintelligible, there is the need to learn both rhythms so they can fit in both the local and international environments. In order to achieve this, the up-and-coming teachers must be taught both rhythms. The teacher training colleges must integrate such courses as Contrastive and Error Analysis, Stylistics and Sociolinguistics as well as Multilingualism in their curriculum to help trainee teachers in their understanding of the bilingual and multilingual nature of our present society.

It is non-native speakers who teach English in Ghana and who were also taught by non-native speakers (Gogovi, 1991). To insist on a native-like competence of the non-native speaker is not feasible. It is not possible for native-like competence to be expected of non-native speakers in their own environment. It would be like finding a needle in a haystack. As Gogovi (1991) notes, "English is taught in an environment which is entirely foreign by local teachers…" (p. 5).

To find out which variety to teach, Schon (1987) proposes four criteria:

a) Choose the model of English most admired in your part of the world;

b) Find out from your students the use they will make of their English. In other words, try to find their motivation for learning English;

c) Consider the model the school administration wants you to teach;

d) Make use of textbooks, tapes and other teaching materials in the model you want to teach (p. 26).

It is realised after a critical examination of Schon's work that it is a bit too theoretical because the problem of the model to teach does not rest on an

individual teacher. Secondly, it is not practicable for a class three pupil, for instance, to come up to a teacher and say 'I want/would like you to use this model to teach the class'.

What should be done to help situations is for there to be a combined attempt between the curriculum planners, parents, teachers as well as students and the Ministry of Education. They should all come together to provide a curriculum which would encompass both varieties alongside each other.

Based on the discussion above, one can say that more needs to be done concerning the local varieties. The more is in terms of providing sufficient and detailed description and codification. It is for this reason that this research has been done to add to the work of describing the educated Ghanaian English particularly in terms of the rhythm used by the Ghanaian.

Recommendations

The implications raised afford the opportunity for further research. The following recommendations therefore would not be out of place:

This work was time bound, that is, done in a limited time structure. It was also limited to the parliamentary proceedings. It will be worthy if the data are expanded to cover more parliamentary proceedings such that all parliamentarians' speeches will be captured. It was realised in the collection of the data that some MPs were fond of contributing to debates, reports, statements and bills while others were not so talkative. Getting all the MPs on tape will be time-consuming and expensive but then the findings based on such a research will be more comprehensive.

Secondly, it was realised that females constituted just about 10% of the total population of the MPs recorded. In this regard, out of the total number of sixty (60) MPs recorded, only four were females. It will, therefore, be useful if further research is conducted using data from the females to provide a better generalisation for the female population.

Furthermore, this research used the formal discourse in Parliament based on the ICE project. It will be interesting to conduct another research based on the ICE project but this time in the informal domain to find out whether there will be any difference in prominence and rhythm used in the informal situations.

Also, the work was based on spontaneous speech. It is possible that there might be a different rhythm used during a rehearsed speech such as that found in read items or scripts. It will be interesting and worthwhile for a study to be done on a scripted speech such as formal speeches given during seminars, workshops and conferences.

Lastly, this research was done based on the principles of nativisation without any comparison with/to the target language. Further research could therefore be conducted with a comparison done between the rhythm of the educated Ghanaian and the native speaker in order to measure accurately the similarities and differences between these two rhythms.

Conclusion

The purpose of the research was to identify the features of prominence and rhythm as used by Education Ghanaians with the parliamentary discourse as the

data.   The study was based on the qualitative approach which describes the features as they are used.   The theories of nativisation and metrical phonology were the framework of the study.   Nativisation proposes that the socio-linguistic and cultural environment have brought about modifications to the L_2 or English. The metrical phonology helped to identify the syllable pattern in terms of strong or weak as used in the parliamentary discourse.

The data analysis proved that prominence and rhythm used by parliamentarians in the parliamentary discourse reflect the use of Ghanaian English.   This variety of English used in Ghana is different from that of the British or American or even Canadian.   This is because the Ghanaian variety exhibits all the features of non-native varieties in terms of its long tradition of use and the emotional attachment to the language which is not an indigenous language (Kachru, 1992a).   Based on the features identified, the Ghanaian variety is considered an emerging endonorm.   It is an emerging endonorm in that it has its own internal standards which are localised.

The research is one of the many and varied research in nativisation and the effort to codify Ghanaian English as a standard in its own right. It confirms the earlier works, and attempts at codification, of scholars such as Owusu-Ansah, Asante Yeboah and Adjaye among others that there is a variety of English which must be recognised as a legitimate non-native variety of English.   Bamgbose (1997) stresses that, "…unless and until there is adequate codification of usages in NNE's, legitimate variants that have even attained the status of indexical markers of certain varieties will continue to be labelled as 'errors'!" (p. 206).   It is the

hope of the researcher that this work will serve as a form of codification and a starting point for further investigation into the nature of the rhythm of the Educated Ghanaian English.

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APPENDICES

APPENDIX A

Design of the ICE corpus as cited in Nelson (1996)

Spoken Text (300)
- Dialogue (180)
  - Private (100)
    - direct conversations (90)
    - distanced conversations (10)
  - Public (80)
    - class lessons (20)
    - broadcast discussions (20)
    - broadcast interviews (10)
    - parliamentary debates (10)
    - legal cross-examinations (10)
    - business transactions (10)
- Monologue (120)
  - Unscripted (100)
    - spontaneous commentaries (20)
    - unscripted speeches (30)
    - demonstration (10)
    - legal presentations (10)
  - Scripted (80)
    - broadcast news (20)
    - broadcast talks (20)
    - speeches (not broadcast) (10)

APPENDIX B

Jefferson's Transcriptional Symbols

The following are the symbols as presented by Jefferson

[ ]	Square brackets mark the start and end of overlapping speech. They are aligned to mark the precise position of overlap as in the example below.
↓	Vertical arrows precede marked pitch movement, over and above normal rhythms of speech. They are used for notable changes in pitch beyond those represented by stops, commas and question marks.
→	Side arrows are used to draw attention to features of talk that are relevant to the current analysis.
Under<u>lin</u>ing	indicates emphasis; the extent of underlining within individual words locates emphasis and also indicates how heavy it is.
CAPITALS	mark speech that is audibly louder than surrounding speech. This is beyond the increase in volume that comes as a by-product of emphasis.
°I know it,°	'degree' signs enclose audibly quieter speech.
that's r*ight.	Asterisks precede a 'squeaky' vocal delivery.
(0.4)	Numbers in round brackets measure pauses in seconds (in this case, 4 tenths of a second). If they are not part of a particular speaker's talk they should be on a new line. If in doubt use a new line.
(.)	A micro pause, audible but too short to measure.
((staccato))	Additional comments from the transcriber, as for example, about features of context or delivery.
She wa::nted	Colons show degrees of elongation of the prior sound; the more colons, the more elongation.

hhh	Aspiration (out-breaths); proportionally as for colons.
.hhh	Inspiration (in-breaths); proportionally as for colons.
Yeh,	'Continuation' marker, speaker has not finished; marked by fall-rise or weak rising intonation, as when delivering a list.
y'know?	Question marks signal stronger, 'questioning' intonation, irrespective of grammar.
Yeh.	Full stops mark falling, stopping intonation ('final contour'), irrespective of grammar, and not necessarily followed by a pause.
bu-u-	hyphens mark a cut-off of the preceding sound.
>he said<	'greater than' and 'lesser than' signs enclose speeded-up talk. Occasionally they are used the other way round for slower talk.
solid.= =We had	'Equals' signs mark the immediate 'latching' of successive talk, whether of one or more speakers, with no interval.
heh heh	Voiced laughter. Can have other symbols added, such as underlining, pitch movement, extra aspiration, etc.
sto(h)p i(h)t	Laughter within speech is signalled by h's in round brackets.

The use of comma (,) and apostrophe (') in the data is to show the up and down intonation of the Ghanaian speaker. However, when the pitch was too high or too low the up↑ and down↓ arrows were used respectively.

TRANSCRIBED DATA

Third Tape Transcription

The third tape opens with a member of parliament already on the floor moving a motion. The speaker Ala Adjetey seems to be absent on that day and therefore a different speaker is heard steering the affairs of the house. An interesting feature about this new speaker of parliament is his tendency to end an utterance with a rising tune and almost always having his final word accented or said with a relatively high accent closer to the word with pitch or loudness. Because there is no symbol to establish this rise in the transcription symbols provided by Jefferson (2004), a question the glottal stop (a question mark without a dot at the end:) is used to identify his rising tune. The house is discussing approving a motion of going for a loan to enhance the health sector.

The second side of the tape deals with making of statements and one statement was put on the board which was discussed throughout. This was the issue of security in the secondary schools and what should be done to protect the lands of the secondary schools. The speaker monitoring the affairs is Mr. Ala Adjetey.

Unknown	=	Unknown speaker
MS	=	Mister Speaker (Speaker of Parliament)
Tam	=	Tamale
House	=	Members of the House of Parliament
CC	=	Chairman of the Committee
DMFEP	=	Deputy Minister for Economic Planning
Eva whe	=	Evawhedwiram
MFE	=	Minister for Energy
MPA	=	Minister for Parliamentary Affairs
ESE	=	Effigyira Sekyere East
Kwaa	=	Kwaadaso
Akyu	=	Akyunua Mponua
Mino Les	=	Minority Leader
Okai	=	Okai Kwei North
NS	=	Nkwanta South
BN	=	Bulsa North
Fom	=	Fomena
DMaL	=	Deputy Majority Leader
DMiL	=	Deputy Minority Leader

Unknown ,I 'rise ,to ↑move ,the 'motion ↑numbered ,tw:o ,on 'today's 'ordered ,paper 'adendum. ,I 'so ↓move

(2)

MS ↓yes 'honou,rable ,mem'ber ,fo:r ↑Tamale=

Tam ='mis,ter ,spea'ker ,I ↑second ,the 'motion

TAPE SIDE B

MS – Mister Speaker or Speaker of Parliament
TS – Tamale South
AAS – Ahafo Ano South
CW – Chief Whip
AC – Acting Chairman
EO – Essikuma Odobeng and Brakwa
DL – Deputy Leader
BB – Bole Bamboi
BC – Bawku Central
DAG – Deputy Attorney General
Zem – Zembilla
Chair – Chairman of the committee
Asaw – Asaawaase
LN – Lawra Nandom
Ashi – Ashiaman
MFPA – Minister for Presidential Affairs
House – Members of the House of Parliament
KraWe – Krachi West
VR – Volta Region
NS – Nkwanta South
Hoh – Hohoe

Mr. O. M.　↑mi,ster ´spea,ker **I-I-I-I-I** CANT ´SU′PPORT the ↑amendMENT ERM ,cos ´if EH (if/it) ↑THERE ,would BE th ,the NEED ,to ↑ASSESS ´WHE,THER THE (I) inforMANT no (you know) ,has ↑cause to ↑beLIEVE and EH the ↑way it is ,looked at ,like ↑he ,said is EH (2) EH ↑it dePENDS on ERM it ,beCOMES subjectTIVE ,now ´if ,you ↑make it rea↑sonable CAUSE to (as) rea↑sonable ↑CAUSE (en) ,this beCOMES ´OBjecTIVE ,then ↑understanDING ,for (´declaraTION ,can ↑easily ↑ASSESS) ,whether the EH beLIEF was ↑reasonable ↑DEpenDING on THE ↑CAUSE THAT ↑inFORMed ,the ↑beLIEF and **I-I-I-I** TOtally ↑SUp,port ,the ´amendMENT

MS　(.) YES ´honoura,ble ´mem,ber ´for ↑Tama,le ↑South

TS　(.) ↑mis,ter ´spea,ker I ↑supPORT ,the ↑proPOSED ,amendMENT ,by ↑honoura,ble ↑OS<u>EI</u> ,Kyei ,MenSAH ↑Bonsu ,and ,as ´rightly ↑articulaTED BY THE ↑deputy majoRITY leaDER ,the ↑earlier ,proviSION ,in ,the ↑bill ,is ,quite subjecTIVE ,and **I** THINK ,that ´substitu,ting ´it ,with ´ha,VING ´reasona,ble ↑cause ,to ´be,lief ,is ( ) ´which ↑gives ,the ´baSIS ,is ↑what ,this ´HOUSE ,should ´go ,with ,in ,that ´direc,tion ´Id URGE ´honoura,ble ´mem,bers ,to ´supPORT ,the ´PROpo,sed ´amend,ment ↑thank ,you.

MS　↑honoura,ble ´mem,ber ´for ´Ahafo ´A,no SOUTH

TAPE SIDE A

This tape begins with a discussion on the Black Stars′ performance in the World Cup 2006 after beating Czech and USA and going to face Brazil in the Quarter Finals. It is possible to conclude that because football is an exciting game everyone was talking excitedly and enthusiastically about the wins. People are generally also known to use a high pitch of voice to express themselves when they are excited. Thus the first few minutes of the tape have more of a high pitch of voice and some level of loudness to go with the pitch.

OSM	=	Osafo Marfo
NPCW	=	Ningo Prampram Chief Whip
DCWMI	=	Deputy Chief Whip for Minority
Lam	=	Lambussie
MINO	=	Minister for Information and National Orientation
MMYE	=	Minister for Manpower, Youth and Employment
WW	=	Wa West
DMinI	=	Deputy Minister for Empowerment, Youth and Employment
DAG	=	Deputy Attorney General
Kai	=	Kai Kwei
Esua	=	Esuagyaman
ACC	=	Acting Chairman of the Committee
EOB	=	Essikuma Odobin Brakwa
AE	=	Amenfi East
MFE	=	Minister for Education
Kum	=	Kumawu
CC	=	Chairman of the Committee
DME	=	Deputy Minister for Energy
Ton	=	Tonu
S Ton	=	South Tonu
Ashi	=	Ashiaman

OSM	to say that ↑in ,which ↑we ↑are ,not ′one ,of ,the ↑first, ,we′ll ′be ,the ′first ,in ,the (noise and cheering from the house)
MS	↑or:<u>der</u>
OSM	↑that ↑was ↑that ↑was ,the ↑choice ,of ,the ↑coach, ,let ↑us ,let ↑us ′some,times ′give ↑creDENCE ,to ′those ,who ′know ,better ′a:nd ′let ′us ′be ,patient ′with ′our ′tech,ni′cal ↑antlets ,with ′this re′mark ,mi′ster ,spea′ker=↑we ↑are ,very HAPPY ,that ,the ′Stars have ↑WON ′they,ve ′victory ,to ↑us ,and ′I ,can a↑ssure YOU ,the e↑cono′mic benefits ,of ,ofthis ′vicTORY ,to ,the e′cono,my ,is ′even ′f:ar ′more ,than ,the ′so:cial ,benefits=
The house	↑y:eah ↑yeah=
OSM	↑thank ,y:ou ,mis′ter ,spea′ker

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Intonation Patterns Based on Metrical Phonology

OSM   ↑thank ,y:ou ,mis′ter ,spea′ker
           s   w   w   s   w   s

DCM   ′thank ,you ,mis′ter ,spea′ker
           s   w   w   s   w   s

ML   ↑thank ,you ,mis'ter ,spea'ker.
           s   w   w   s   w   s

DAG   ↑thank ,you ,mis'ter ,spea'ker
           s   w   w   s   w   s

Bawku ↑thank ,you (,mis'ter) ,spea'ker
           s   w   w   s   w   s

Kai   ↑thank ,you ,mis'ter ,spea'ker
           s   w   w   s   w   s

Kum   ↑thank ,you ,mis'ter ,spea'ker
           s   w   w   s   w   s

AAS   ↑thank ,you ,mis'ter ,spea'ker
           s   w   w   s   w   s

S Ton ↑thank ,you ,mis'ter ,spea'ker
           s   w   w   s   w   s

KraWe ↑thank ,you ,mis′ter ,spea′ker.
           s   w   w   s   w   s

VR   ↑Thank ,you ,mis′ter ,spea′ker.
            s   w   w   s   w   s

DCW   ↑thank ,you ,mis′ter ,spea′ker
           s   w   w   s   w   s

DMFEP ↑thank ,you ,mis'ter ,spea'ker.
            s   w   w   s   w   s

Eva We ↑thank ,you ,mis'ter ,spea'ker
            s   w   w   s   w   s

NS   ↑thank ,y:ou ,mis′ter ,spea′ker.
        s   w   w   s   w   s

Hoh   ↑thank ,you ,mis′ter ,spea′ker
        s   w   w   s   w   s

KN   ↑thank ,you ,mis′ter ,spea′ker
        s   w   w   s   w   s

DMESS ↑thank ,you ,mis′ter ,spea′ker
         s   w   w   s   w   s

AS   ↑thank ,you ,mis′ter ,spea′ker
        s   w   w   s   w   s

Kwaa   ↑thank ,you ,mis′ter ,spea'ker
        s   w   w   s   w   s

Jomo   ↑thank ,you ,mis'ter ,spea'ker
        s   w   w   s   w   s

Law   ↑thank ,you ,mis'ter ,spea'ker
        s   w   w   s   w   s

Akyu   ↑thank ,you ,mis'ter ,spea'ker
        s   w   w   s   w   s

Mino Lea   ↑thank ,you ,mis'ter ,spea'ker
         s   w   w   s   w   s

BN   ↑thank ,you ,mis'ter ,spea'ker
        s   w   w   s   w   s

Unknown   ↑thank ,you ,mis'ter ,spea'ker
         s   w   w   s   w   s

Okai ↑thank ,you ,mis'ter ,spea'ker
       s   w   w   s   w   s

Gyira   ↑thank ,you ,mis'ter ,spea'ker
        s   w   w   s   w   s

CW   ↑thank ,you ,miʹster ʹspea,ker
       s   w   w   s   s   w

Lamb   ↑thank ,you ,misʹter ʹspea,ker
       s   w   w   s   s   w

MINO   ↑thank ,you ,mis'ter 'spea,ker
       s   w   w   s   s   w

EOB   ↑thank ,you ,mis'ter 'spea,ker
       s   w   w   s   s   w

Asaw   ʹmis,ter ,speaʹker ʹthank ,you
       s   w   w   s   s   w

CC   ↑thank ,you ,mis'ter 'spea,ker
       s   w   w   s   s   w

Ton   ↑thank ,you ,mis'ter 'spea,ker
       s   w   w   s   s   w

Chair ʹthank ,you ,misʹter ↑chairman
       s   w   w   s   s   w

WW   ↑thank ,you 'mis,ter 'spea,ker
       s   w   s   w   s   w

NPCW   ʹthank ,you ↑mis,ter 'spea,ker
       s   w   s   w   s   w

Zem ↑thank ,you ʹmis,ter ʹspea,ker
       s   w   s   w   s   w

AC   ʹthank ,you ʹmis,ter ʹspea,ker
       s   w   s   w   s   w

BB   ↑thank ,you ʹmis,ter
       s   w   s   w

House member ↑thank ,you 'mis,ter 'spea,ker
                 s   w   s   w   s   w

Bole   ↑thank ,you ,mis′ter ′spea,ker
         s   w   w   s   s   w

Fom   ↑thank ,you ,mis'ter 'spea,ker
         s   w   w   s   s   w

Ahafo ↑thank ,you 'mis'ter ,spea'ker
         s   w   s   w   w   s

DMinI ↑THANK ,you 'mis,ter ,spea'ker.
         s   w   s   w   w   s

DCWMI ↑thank ′you ′mis,ter ′spea,ker
         s   s   s   w   s   w

ESE   ,mis'ter ,spea'ker ,I ↑thank ,you
         w   s   w   s   w   s   w

DL   ′mis,ter=,spea,KER ,I ′THANK ,you
         s   w   w   s   w   s   w

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APPENDIX E

Duration measurement for Thank you mister speaker in milliseconds (ms)

Sex	No	Speaker	Thank	You	Mis	Ter	Spea	ker
M	1	AASouth	213.63	88.75	100.63	150.11	158.80	182.00
M	2	Act Chair	261.00	122.59	98.68	100.73	187.21	163.27
M	3	Asawaase	189.93	94.01	068.11	95.42	99.32	99.55
M	4	Ashiaman	172.00	99.95	105.94	100.05	150.88	132.52
M	5	Bawku	195.24	238.41	100.36	101.36	219.82	95.01
M	6	Bole	187.63	104.90	56.24	85.80	165.94	164.72
M	7	Atwimua	177.11	100.41	100.91	103.58	120.32	120.32
M	8	Bulsa	230.24	145.22	128.93	135.06	295.10	221.13
M	9	Chairman	154.63	94.42	102.72	132.20	164.94	165.53
M	10	DAG	156.72	85.76	99.14	42.27	140.14	97.64
F	11	DCWMin	205.61	109.80	108.66	145.40	177.05	170.79
F	12	DepCwhip	159.94	097.23	107.44	127.35	174.83	128.03
M	13	DepLeader	150.39	149.30	103.41	54.06	108.03	193.56
M	14	DepminCW	184.58	135.01	76.28	99.09	164.49	98.64
M	15	DMEduScisport	270.85	197.28	179.05	97.05	203.36	204.31
M	16	DMFEPlanning	149.70	99.64	99.86	20.82	122.27	98.32
M	17	DMINOrient	248.42	131.20	160.00	139.46	239.14	143.85
M	18	ESekyereE	228.34	156.19	134.3	122.22	188.16	197.23
M	19	Fomena	242.11	150.43	116.46	103.67	103.67	112.29
M	20	Jirapa	173.78	98.68	99.09	99.64	100.00	114.24
M	21	Hohoe	228.50	111.97	161.90	165.85	225.67	118.53
M	22	House member	124.40	63.17	58.10	65.99	128.75	113.24
M	23	Jomoro	178.80	110.11	97.78	90.61	145.08	125.44
M	24	Kai Kwei	177.46	118.55	99.91	100.00	138.73	95.92
M	25	Ketu North	175.10	96.96	88.03	92.79	222.81	150.34
M	26	Krachi West	168.70	122.44	100.32	99.32	209.25	161.72
M	27	Kumawu	203.55	139.18	99.37	122.13	216.37	178.10
M	28	Kwaadaso	230.28	99.64	99.27	100.05	303.36	129.98
F	29	Lambussie	243.40	99.23	115.06	128.48	228.57	111.16
M	30	Lawra	236.40	110.75	91.20	129.16	204.76	158.14
M	31	Majority leader	175.70	93.79	82.54	99.82	181.41	106.17
M	32	MFPresidoAff	151.90	118.70	87.30	85.49	154.15	127.66
M	33	MINOrient	237.70	109.12	101.00	119.09	287.44	148.66
M	34	Minority leader	202.90	112.06	89.16	99.27	196.24	162.86
M	35	NingoPrampram	223.42	109.57	103.17	119.18	181.54	148.71
M	36	Nkwanta South	180.24	99.27	99.41	99.82	235.96	162.81
F	37	Okai Kwei	246.54	190.20	122.95	202.00	197.41	218.82
M	38	South Ton	186.32	107.76	96.78	99.09	203.49	142.95
M	39	Tamale South	192.76	98.91	98.50	92.74	127.44	113.42
M	40	Tonn	198.00	109.71	107.07	99.73	175.83	112.70
M	41	Unknown	182.90	98.19	98.87	100.05	168.80	97.01

Sex	No	Speaker						
M	42	Volta	210.32	218.05	99.32	99.37	210.29	121.22
M	43	Wa West	168.82	106.67	99.91	78.55	140.05	98.28
M	44	Zembilla	205.17	103.99	106.12	117.19	208.62	120.86
Total			8681.13	5247.17	4549.25	4661.11	7975.49	6127.65
Mean			385.83	233.21	202.19	207.16	354.47	139.26

Intensity measurement for Thank you mister speaker in decibels (db)

Sex	No	Speaker	Thank	You	Mis	Ter	Spea	Ker
M	1	AASouth	-17.9	-11.0	-9.3	-13.2	-13.6	-16.2
M	2	Act Chair	-15.7	-9.2	-8.5	-10.0	-15.0	-17.7
M	3	Asawaase	-12.7	-10.2	-28.8	-12.4	-13.3	-17.9
M	4	Ashiaman	-26.0	-15.6	-17.3	-19.6	-22.1	-15.6
M	5	Bawku	-22.33	-10.22	-13.62	-15	-17.94	-12.6
M	6	Bole	-29.2	-10.2	-19.7	-9.4	-17.0	-18.0
M	7	Atwimua	-22.1	-7.5	-10.0	-14.5	-11.1	-6.9
M	8	Bulsa	-30.1	-10.6	-8.3	-19.7	-12.1	-15.8
M	9	Chairman	-24.0	-10.0	-11.0	-20.2	-11.7	-16.9
M	10	DAG	-29.7	-13.8	-10.4	-18.6	-13.9	-13.0
F	11	DCWMin	-10.0	-7.5	-12.3	-8.4	-10.5	10.9
F	12	DepCwhip	-22.0	-16.2	-8.4	-12.5	-15.5	-13.4
M	13	DepLeader	-10.5	-8.7	-24.5	-14.5	-9.6	-7.6
M	14	DpeminCW	-29.2	-7.9	-9.3	-7.3	-12.9	-8.6
M	15	DMEduScisport	-28.1	-8.9	-12.4	-10.7	-11.5	-17.8
M	16	DMFEPlanning	-23.3	-8.7	-12.0	-15.7	-14.2	-18.6
M	17	DMINOrient	-11.0	-9.4	-13.0	-8.9	-15.4	-15.5
M	18	ESekyereE	10.1	-10.3	-11.9	-5.4	-12.7	-9.2
M	19	Fomena	-17.3	-7.8	-15.5	-18.5	-13.7	-10.9
M	20	Jirapa	-29.3	-13.1	-9.9	-14.7	-10.9	-13.1
M	21	Hohoe	-19.3	-10.9	-10.7	-19.1	-14.6	-18.5
M	22	House member	-34.0	-10.1	-13.9	-13.4	-13.4	-16.4
M	23	Jomoro	-15.8	-6.5	-14.1	-13.1	-12.6	-13.2
M	24	Kai Kwei	-41.8	-23.7	-24.3	-25.8	-27.0	-23.3
M	25	Ketu North	-23.9	-7.3	-8.4	-8.4	-15.0	-8.7
M	26	Krachi West	-18.7	-8.4	-11.7	-10.1	-23.0	-18.1
M	27	Kumawu	-28.0	-8.2	-11.9	-11.8	-19.7	-8.5
M	28	Kwaadaso	-25.3	-13.9	-10.8	-16.9	-17.7	-10.8
F	29	Lambussie	-23.3	-9.6	-11.3	-15.4	-16.9	-14.2
M	30	Lawra	-29.5	-6.3	-12.6	-10.2	-10.8	-12.1
M	31	Majority leader	-31.0	-13.2	-13.4	-9.4	-17.2	-7.3
M	32	MFPresidoAff	-21.0	-10.2	-10.5	-11.4	-18.1	-25.0
M	33	MINOrient	19.9	-10.9	-9.0	-13.5	-8.7	-10.6
M	34	Minority leader	-13.5	-7.9	-8.6	-9.6	-12.7	-13.8

M	35	NingoPrampram	-14.0	-7.4	-7.0	-7.9	-7.4	-7.4
M	36	Nkwanta South	-10.4	-19.5	-12.4	-12.8	-14.4	-12.0
F	37	Okai Kwei	-5.2	-14.4	-9.5	-8.1	-11.9	-15.2
M	38	South Ton	-17.7	-9.7	-11.0	-9.8	-13.5	-12.0
M	39	Tamale South	-25.2	-23.9	-16.7	-18.9	-17.2	-18.9
M	40	Tonn	-27.9	-12.3	-11.6	-12.9	-15.1	-12.5
M	41	Unknown	15.5	-4.9	-11.6	-12.5	-18.2	-13.7
M	42	Volta	-23.8	-20.1	-17.3	-21.5	-24.5	-9.7
M	43	Wa West	-22.0	-9.8	-10.7	-11.9	-11.7	-21.5
M	44	Zembilla	-20.0	-8.6	-9.9	-11.7	-11.3	-17.2

Pitch measurement for thank you mister speaker in semitones (st)

Sex	No	Speaker	Thank	You	Mis	Ter	Spea	Ker
M	1	AASouth	52.5		51.0	50.6		53.0
M	2	Act Chair		65.2		51.7		62.7
M	3	Asawaase			66.8			49.3
M	4	Ashiaman			46.69			
M	5	Bawku	54.7	55.8	51.2	52.1	51.8	
M	6	Bole		63.4	63.4			
M	7	Atwimua	62.5	54.2	55.5		65.3	64.8
M	8	Bulsa	62.6	56.9	57.0	62.3	54.9	56.4
M	9	Chairman		47.2	46.9			63.4
M	10	DAG	53.0					47.8
F	11	DCWMin	63.0	63.2	60.9	59.6	64.8	60.6
F	12	DepCwhip	62.7		57.4	57.7	62.7	58.4
M	13	DepLeader	65.6		53.7		51.7	50.0
M	14	DepminCW	55.7	50.3	51.0	52.9		63.1
M	15	DMEduScisport	55.6	45.4		48.5		44.0
M	16	DMFEPlanning						
M	17	DMINOrient	63.2	62.1	47.9	58.9		58.1
M	18	ESekyereE	58.7	53.6	53.0	63.2	66.9	66.0
M	19	Fomena	67.3	58.1				
M	20	Jirapa	55.7					49.3
M	21	Hohoe	63.3	53.5	52.8	52.6		47.9
M	22	House member	58.5	57.5	45.9	54.7	52.2	64.8
M	23	Jomoro	57.8			63.3	53.3	49.4
M	24	Kai Kwei	52.5					52.0
M	25	Ketu North	56.9	57.1	65.1	53.6	55.9	56.0
M	26	Krachi West		50.7	51.3		52.4	50.2
M	27	Kumawu	52.5	49.7		46.8		59.6
M	28	Kwaadaso	62.9					52.3
F	29	Lambussie	62.3			58.5		60.0
M	30	Lawra	66.6	60.4	67.0	70.5	46.3	62.6
M	31	Majority leader	52.1	50.8	47.31	42.2		63.9

Sex	No	Speaker						
M	32	MFPresidoAff	49.4		45.0	45.1		63.4
M	33	MINOrient	57.8	59.0	58.6	49.1	54.9	65.5
M	34	Minority leader	52.1				42.2	49.4
M	35	NingoPrampram	60.3	66.7	57.1	56.7	56.4	56.9
M	36	Nkwanta South				44.8		38.2
F	37	Okai Kwei	65.6	63.8	60.7	60.0	63.2	63.2
M	38	South Ton	48.9			46.9		
M	39	Tamale South	46.7					64.6
M	40	Tonn	57.5					63.4
M	41	Unknown						55.4
M	42	Volta	49.9	48.6	45.3		48.8	
M	43	Wa West	50.7					
M	44	Zembilla	50.6	47.3	47.2			

Pitch measurement for thank you mister speaker in hertz (hz)

Sex	No	Speaker	Thank	You	Mis	Ter	Spea	Ker
M	1	AASouth	169		156	152		175
M	2	Act Chair		353		162		306
M	3	Asawaase			388			141
M	4	Ashiaman			121			
M	5	Bawku	193	205	157	166	163	
M	6	Bole		318	318			
M	7	Atwimua	302	187	202		356	345
M	8	Bulsa	304	219	220	299	195	212
M	9	Chairman		125	123			318
M	10	DAG	175					129
F	11	DCWMin	312	315	276	256	345	271
F	12	DepCwhip	305		225	229	305	238
M	13	DepLeader	361		182		162	147
M	14	DepminCW	204	149	156	174		313
M	15	DMEduScisport	203	112		134		104
M	16	DMFEPlanning						
M	17	DMINOrient	314	295	130	245		235
M	18	ESekyereE	242	181	175	315	390	369
M	19	Fomena	398	235				
M	20	Jirapa	204					140
M	21	Hohoe	317	180	173	171		129
M	22	House member	240	226	116	193	167	345
M	23	Jomoro	231			317	178	141
M	24	Kai Kwei	170					165
M	25	Ketu North	219	221	352	181	207	208
M	26	Krachi West		153	158		169	148
M	27	Kumawu	170	144		122		255

M	28	Kwaadaso	309					168
F	29	Lambussie	299			240		261
M	30	Lawra	382	267	392	480	119	304
M	31	Majority leader	166	154	125	93		327
M	32	MFPresidoAff	141		110	111		318
M	33	MINOrient	231	247	241	139	195	359
M	34	Minority leader	166				93	142
M	35	NingoPrampram	266	386	221	216	213	219
M	36	Nkwanta South				109		74
F	37	Okai Kwei	362	325	272	261	315	315
M	38	South Ton	138			123		
M	39	Tamale South	121					342
M	40	Tonn	227					318
M	41	Unknown						201
M	42	Volta	146	135	112		136	
M	43	Wa West	153					
M	44	Zembilla	152	126	125			