CHAPTER ONE
INTRODUCTION

1.1   Background to the study

Intonation, which can be defined as variation in pitch over stretches of connected speech, is a prosodic or melodic feature of speech. It operates on the phonological units larger than the phoneme. It has as its domain the phrase, the clause or the sentence. Intonation significantly contributes to meaning in the sense that a choice of a particular intonation pitch or tune in an English utterance determines the specific meaning of that utterance which is different from the semantic import the same utterance would have with another pitch choice.

English, a stress-timed language, is predominantly intonational because a syllable is accented or stressed to render the word in which it occurs prominent within the tone unit, or to categorise the sentence in which the word containing the stressed syllable occurs in terms of sentence type. Stressing a syllable in a word may also be intended to indicate a particular meaning which the sentence in which the word occurs is meant to convey.

On the other hand, most Nigerian languages are tonal. That is, the use of a different tone on a syllable in a word brings about a change in the meaning of the word. Every syllable in a word is given equal prominence with regard to the duration of its production, thus causing a tone language to be syllable-timed. However, a language being tonal does not totally preclude the use of intonation in it, as every language is essentially melodic and there is no language that is spoken with monotone all the time (O'Connor, 1980: 108). Nevertheless, tone languages only employ a limited amount of superimposed intonation (Cruttenden, l986: l0). This limited use of intonation in Nigerian languages makes the elaborate use of the prosody in English a problem for Nigerian speakers of English as a Second Language (ESL). Hence, Banjo (l979: 12) describes the English suprasegmentals, of which intonation is a major part, as the final obstacle which most non-native speakers of English never manage to cross. Cruz-Ferreira (l989: 24) also sees intonation as the last stronghold of a non-native accent in speaking a Second Language (L2). This observation, she adds, is true even of speakers who otherwise possess a perfect or near-native competence in the phonetics of the L2.

Howbeit, intonational meanings in language are more important than the dictionary meanings of the words uttered as "we often react more violently to the intonational meanings than to the lexical ones" (Pike, 1972: 56). Gimson (1989: 269) corroborates this idea by stating that the information an English utterance conveys to a listener is not got only from the contrastive sound patterns, but also from the related pitch variation.

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As important as intonation is to the meanings of English utterances, majority of Nigerian users, nevertheless, seem to neglect the rich intonational resources of standard or native-speaker English. This neglect may imply loss of essential information in communicative situations, due to the non-competence of either the speaker or the listener in the appropriate choice of intonation tunes to convey an intended message. However, English intonation patterns are not acquired in an L2 situation as they are in the native environment. Rather, they are consciously learnt. O'Connor (l980: l08) asserts that English intonation "is not the same as the intonation of any other language". So, one must learn the shapes of the English tunes as well as their importance.

In a similar vein, but in a more specific manner, Gimson (l989: 288) advises foreign learners of English to be conscious of the attitudinal connotations of pitch variation in English. According to him, the falling-rising tunes, for instance, are very frequently used by English Received Pronunciation (RP) speakers, usually within a single word and spread over two or more words (Gimson (l989: 328). These tunes are however less commonly used in other languages. The numerous nuances of doubt, encouragement, unspoken implications, etc., which are conveyed with the falling-rising pattern in English, "might require more explicit lexical or syntactic cues" in other languages (Gimson, l989: 328). Gimson (l989: 288) further recommends the acquaintance of foreign learners with the English usage of falls and rises to indicate the speaker's mood. This acquaintance would help foreign learners avoid giving an unwitting impression of diffidence or complaint, for instance, with any over-use of rises, and prevent creating an unintentional effect of rude assertiveness with too many falls. Also, according to Cruttenden (2001: 276), an excessive use of the falling tunes will create an excessively aggressive effect while, on the other hand, an overuse of simple rising tunes (that include fall-rises which are not common in RP) will sound extremely tentative.

Clennel (1997: 118), among others working in ESL environments, cites research and anecdotal data showing the problems that intonational miscues can cause between native and non-native speakers. Clennel summarises these as follows:

1. The prepositional content (essential information) of the message may not be fully grasped.
2. The illocutionary force (pragmatic meaning) of utterances may be misunderstood.
3. Inter-speaker cooperation and conversational management may be poorly controlled.

Furthermore, Jenkins (2002: 87), in arguing what is important and peripheral in intonation for non-native speakers interacting with each other in English as a Foreign Language (EFL)

situations, says that while tones are non-vital, mistakes of prominence or "nuclear stress" are one category of phonological error which can cause breakdowns in communication.

Since the general rules of English intonation based on its scientific study are never adequate to enable foreign learners acquire native-like competence in it, Roach (2009: 121) proposes that foreign learners of English should learn its intonation as a child acquires the intonation of his/her first language through listening and speaking to native speakers. He goes further to affirm that learners who have no access to conversing with native speakers regularly, or who are unable at least to listen to colloquial English on a regular basis, "are not likely to learn English intonation, though they may learn very good pronunciation of the segments and use stress correctly".

As crucial as intonation is to native-like use of English, Atoye (2005: 27) notes with surprise that it is the most neglected in both teaching and second language acquisition study in general. This is in agreement with Chun (1998: 16) who states that intonation was ignored for several years in language teaching as a result of its inherent complexity and the resultant difficulty in learning and mastering it. Taylor (1993: 2) has earlier hinted at the widespread perception that intonation is a very difficult and complex subject which cannot be taught, and possibly, cannot be learnt. Woolard (1993: 24) subscribes to this opinion when he states that:

> The average teacher is uncomfortable with intonation, treating it as a difficult subject: difficult to isolate, difficult to describe, and difficult to formulate rules for – rules which will allow students to generate appropriate examples for themselves. As such, it tends to receive little explicit focus in the classroom.

Chun (1998: 16), however, notes that "it is slowly gaining recognition as an integral part of language fluency, competence, and proficiency". This is in line with an earlier observation by Cruz-Ferreira (l989: 24) that serious and systematic work on intonation, both in the literature of foreign language learning and its teaching, has only recently started.

Nigerian speakers of English, therefore, have to learn the English intonation patterns deliberately. This is in order to ensure mutual intelligibility among Nigerians, on the one hand, and to avoid "the misunderstanding that might be caused to a non-Nigerian listener through a Nigerian speaker's use of restricted number of intonation patterns" (Jowitt, 1991a: 100) on the other hand.

It is, nonetheless, a general notion that the suprasegmentals, particularly intonation, are difficult to teach and, consequently, difficult to learn. Hence, Nigerians attain better communicative competence in the use of the segmental phonemes than the use of the suprasegmental features (Amayo, 1981: 1). Compounding the problem is the assertion by

Cauldwell and Hewings (1996: 327) that most English Language Teaching (ELT) textbooks present only a small set of intonation rules and these same rules are simply repeated throughout the learning process (contrary to what happens in the teaching of grammar where elementary learners are taught simple grammatical rules and layers of complexity are added as the learners progress). These formalised rules, according to Cauldwell and Hewings (1996: 333), would enable us to "describe only a fraction of intonation choices made in the language as a whole". To account for the detailed intonation choices made in natural speech by native speakers of English, Cauldwell and Hewings (1996) propose the naturally-occurring speech or discourse intonation model.

The discourse intonation model, or simply Discourse Intonation (DI), is an approach in which all intonation choices are considered as being related to their context of occurrence. In line with Brazil (1985) and Coulthard (1992), Stibbard (1996) asserts that "the primary function of intonation is interactionally motivated, [with] specific situations influencing the speakers' choices". It is this natural speech or discourse intonation model (contrasted with formalised intonation rules) that forms our theoretical framework for this research.

l.2   Statement of the problem

The meaning that intonation yields superimposes on the dictionary meanings of the words uttered as words ordinarily may not be able to express the subtle shades of meanings which intonation conveys (Jones, l972). Clark, Yallop and Fletcher (2007: 359) lend credence to this idea by acknowledging Pike's (1945: 21) and O'Connor and Arnold's (1973: 2) idea of intonation as something superimposed upon the essential meaning of words themselves. Since variation in pitch is important in communicating intended meaning, Pike (l972) declares that failure to use formalised intonation patterns would instantly categorise a speaker as a foreigner with a bad accent and hinder his freedom of style.

Even in the Standard Nigerian English, which is mainly spoken by university graduates, Nigerian English intonation differs systematically from British English intonation (Jowitt, 2000). It has even been suggested that it reflects the prosodic structure of the speaker's native language in a way that stressed syllables are equated with a high tone and unstressed syllables are associated with a low tone (Wells, 1982). Proposals have, in fact, been put forward to treat Nigerian English as a tone language with tone on every syllable (Gut, 2002), though Jolayemi (2006) disagrees with Gut (2002), using acoustic evidence.

English is the official language of nearly 50 different countries and is currently spoken as a first language by over 300 million people (Crystal, 1988 cited in Hirst, 1998: 56; Gut,

2005: 159). As such, it is a world language and cannot be over-domesticated by Nigerians. Otherwise, Nigerian English stands the risk of losing intelligibility beyond the borders of the country, thus violating part of the "scholarly consensus with respect to formalising an endonormative model of Nigerian English; namely international intelligibility and social acceptance within Nigeria" (Ugorji, 2010: 47).

It then becomes necessary for Nigerian speakers of English to learn and use appropriate English intonation patterns deliberately in order to ensure mutual intelligibility in communication, especially with non-Nigerians. Nevertheless, it is generally believed that the suprasegmentals, particularly intonation, are difficult to teach and, as a result, difficult to learn. Hence, most Nigerians "acquire greater communicative competence in their use of the segmental features than their use of the supra-segmental" (Amayo, l98l: l). Most ELT textbooks still present just a small set of intonation rules which enable us to describe just a small part of intonation choices made in the language as a whole (Cauldwell and Hewings, 1996: 333) and, as such, are inadequate to reflect the detailed intonation choices made in natural speech, especially by native speakers of English.

More so, English intonation scholars have so far concentrated on its rule-governed patterns, whereas the characteristics of people's spontaneous utterance intonational choices are scantily explored. Udofot (1997; 2007), Jowitt (2000), Okon (2001), Adesina (2005), Akinjobi and Oladipupo (2005; 2010), Atoye (2005), and Melefa (2011) carried out their studies along the formalised intonation patterns while Adejuwon (2003) only gave natural speech intonation patterns a brief attention.

Language is a natural phenomenon. As a means of communication, it is dynamic and it must change in order to keep pace with the society. It can therefore not be restricted to a finite set of rules as people tend to express different shades of meanings and attitudes with varying intonation patterns understood by the interlocutors within the context of their interaction, but which are often not rule-based. It is this gap between the natural speech intonation patterns of ENSE and the formalised intonation rules that this study seeks to fill.

1.3   Aim and objectives

Drawing from the fact that the exonormative Received Pronunciation English intonation is still the model used in English intonation teaching and examinations in Nigeria (Jowitt, 1991b: 86; Gut, 2007: 355), this study aims to investigate the disparity between spontaneous speech intonation patterns of selected educated Nigerian speakers of English

(ENSE) and formalised intonation rules. In the light of this aim, the specific objectives of the study are therefore to:

(1) find out if the formalised intonation rules are adequate to reflect the intonational choices made in natural speech by ENSE;

(2) explore ENSE's awareness of the discourse intonation (DI) model;

(3) examine ENSE's use of the discourse intonation patterns;

(4) investigate ENSE's consciousness of the functions and importance of the discourse intonation tunes in communication;

(5) draw attention to the primacy of intonation meaning over lexical meaning;

(6) ascertain the effect of age, gender and educational level on intonation usage.

1.4   Research questions

On the basis of the problem as well as the aim of the study identified in 1.2 and 1.3 above, this study will attempt to answer the following questions:

(1) Are the formalised intonation rules adequate to reflect the intonational choices made in natural speech?

(2) Are ENSE aware of the discourse intonation model?

(3) Do ENSE use the discourse intonation patterns?

(4) Are ENSE conscious of the functions and importance of the discourse intonation tunes in communication?

(5) Does intonation meaning take primacy over lexical meaning?

(6) Does age, gender or educational level have any effect on intonation usage?

l.5   Research hypotheses

The Null Hypotheses for this study are as follows:

(1) There is no homogeneity in the non-conformity with DI in non-interrogative tone-unit intonational choices among ENSE.

(2) Significant difference does not exist in the conformity with DI in "wh-" interrogative tone-unit patterns among ENSE.

(3) Comparability does not exist in the non-conformity with DI in "Yes/No" interrogative tone-unit intonational choices among ENSE.

(4) There is no considerable adherence to formalised intonation rule in non-interrogative sentence-final intonation pattern of ENSE.

(5) There is no significant difference in ENSE's inconsistency with formalised intonation rule in the non-sentence-final intonation pattern.

(6) ENSE's inconsistency with the non-interrogative DI or formalised intonation rule patterns is not determined by gender, native language, age or educational level.

(7)   ENSE's prevalent conformity with the formalised intonation rule in "wh-" interrogative intonation pattern is not determined by gender, native language, age or educational level.

(8)   ENSE's predominant conformity with the rule-based polar question intonation pattern is not determined by gender, native language, age or educational level.

1.6   Scope of the study

This research was limited to the natural utterances of selected ENSE. This is because language itself is a natural phenomenon which is employed for the purpose of communication. Also, phonetically speaking, it is not what one says that matters but how he says it and this is what intonation is all about. When people speak spontaneously, they tend to express their intended messages with varying pitch heights which may not conform to any language teaching rules.

The participants under focus are educated Nigerians (civil servants, politicians, public commentators, educators, human right activists) who were expected to be proficient in their spoken English. These serve as role models to a vast majority of their compatriots who emulate their pronunciation in the belief that they must have undergone adequate training in both the grammatical and the phonological aspects of the English language. In addition, since they use English every day as their official medium of expression, it is often taken for granted that they must be conversant with the acceptable standards of the use of the language, especially the phonological aspect, and therefore must possess very good competence in the language.

It is the English intonation patterns of these people that were studied, due to the importance of intonation in communication. The number of the participants was limited to fifty purposively-selected ENSE (discussed in Chapter Three) because it is believed that any uniformity in language-use which can be observed in the utterances of fifty people from a geographical area can be said to be representative of what obtains in that area.

Also, because of the need to be thorough in the analysis of the data collected, the number of test items extracted for analysis was limited to one hundred purposively-sampled tone units, based on their structural types and centrality to the messages of the excerpts, for each of the two groups. On the basis of the data collected from the two sets of participants, generalisations were made on the natural speech intonation patterns of ENSE with regard to their conformity with Discourse Intonation or formalised intonation rules.

1.7   Significance of the study

The importance of this study stems from the fact that a person who does not make appropriate use of intonation in specific contexts is bound to be misunderstood. If a speaker is misunderstood, then there is a breakdown in communication. Relationships are initiated, built and maintained mostly via language and people cannot afford to be misunderstood. It is however the case that most Nigerians are less or not aware of the various shades of meanings which English intonation, especially the discourse patterns, can be used to convey. This is due partly to the fact that intonation is less researched and less taught. Where it is taught in Nigeria, in most cases by teachers who themselves are L2 speakers of English, it is usually restricted to the formalised rules which usually do not include those patterns that people, particularly native speakers, would normally use in actual-speech situations. As a result, a great percentage of Nigerian speakers of English often unwittingly convey unintended meanings to their listeners, especially non-Nigerians.

This study will therefore

(1)   create awareness among Nigerians on the intonation patterns that are applicable in actual-speech situations;

(2)   further raise awareness on the use of English intonation for effective communication by Nigerian users of English;

(3)   help in updating the rules that can be applied in teaching English intonation based on actual language use;

(4)   establish the common intonation patterns used by Nigerian speakers of English in similar contexts, which may be at variance with the patterns encoded in ELT textbooks;

(5)   contribute to the existing literature on the use of intonation for effective communication.

1.8   Standard native English and standard Nigerian English

1.8.1   British English versus American English

Among the numerous dialects of English spoken throughout the world, two, which are usually referred to as (Standard) British English and (Standard) American English or General American (GA), have a rather special status in that they are considered distinct standards for the teaching of English to non-native learners (Hirst, 1998: 56). For British English, the "Received Pronunciation" (RP), traditionally defined as the accent of those educated in public schools, is generally presented as a model for foreign learners as well as a standard for BBC newsreaders. O'Connor (1980: 6) interprets RP as "'accepted' pronunciation" and it forms the basis for his book *Better English Pronunciation*.

What Hirst and O'Connor simply call RP, Cruttenden (2001: 298) refers to as General RP in recognition of the fact that there are other standard English models within Britain called Regional RPs like London Regional RP (or Estuary English) and Scottish Regional RP. According to him, General RP is the best British standard to aim at if a British pronunciation model is to be used for the foreign learner. This is because General RP remains the most regionally neutral which can be an appropriate initial target for the foreign learner. Also, it is the case that the available textbooks and the standard pronouncing dictionaries are based on General RP (Cruttenden, 2001: 298). Aremo (2004: 638) lends support to Cruttenden's opinion as he considers RP to be

> the generally accepted pronunciation ... that is most widely understood, and the one that gives no indication of the regional origin of the speaker, except that he is most likely British. It is therefore the pronunciation usually described in textbooks as a norm for British English.

Jones (2011: xii) views the term RP as archaic and replaces it with the name "BBC English" which is the pronunciation of professional speakers employed by the British Broadcasting Corporation as newsreaders and announcers on the BBC network. Aremo (2004: 638) elucidates that RP no longer enjoys the unique authority it used to have because it is nowadays "used on the BBC along with others that show the speaker's regional origin", though it was "the one originally adopted by the BBC for its announcers".

It has been estimated that the proportion of the population of England that actually uses RP is as small as 3% (Hughes and Trudgill, 1979 cited in Hirst, 1998: 56). It has been suggested by Brown (1977: 12 cited in Hirst, 1998: 56) that RP today should be given a wider interpretation to include all speakers of educated Southern English. It does seem fairly safe to assume that the intonation system of RP is common to a rather wider section of the native population of (particularly Southern) Britain and it is to this system Hirst (1998: 56) refers as "British English Intonation".

General American (GA) or Standard American English (SAE) is seen as that form of American English that does not have marked regional characteristics and is thus comparable to RP. It is sometimes referred to as "Network English" in the manner that RP (though not completely justifiably these days) is sometimes referred to as "BBC English". That is, it has become widely spoken in many American films, television series, national news, commercial advertisements and American radio broadcasts. Also, General American is the accent typically taught to people learning English as a second language in the United States, as well as anyone who wishes to learn American English outside the country. According to

Cruttenden (2001: 85), GA is "the standard model for the pronunciation of English as an L2 in parts of Asia (e.g. the Philippines) and parts of Latin American [sic] (e.g. Mexico)".

Relatively limited differences exist between RP and GA (Cruttenden, 2008: 289). Most ELT textbooks describe one of these two types but, of the two, RP appears to have wider acceptability. Undoubtedly, some variety of British English is more commonly referred to in Europe, Africa, the Indian subcontinent, and increasingly in other parts of Asia and South America (Cruttenden, 2001: 81). Moreover, today's Nigerian English can be regarded as an offshoot of School English (Bamgbose, 1995: 19) which Spencer (1971: 13) calls the "English of the school primer, of the sermon, of the Bible and the hymnal". Considering the fact that most of the early educators and Christian missionaries in Nigeria were of British origin while the early English Bible and hymn books were published in British English, it would be safe then to conclude that Nigerian English has its roots in British English. This is supported by the fact that Nigeria was colonised by Britain and most of the White people who have lived in Nigeria for any length of time in the last one hundred and fifty years have been of British origin, and a large percentage of the government officials during the colonial period were from the upper or middle classes of British society (Jowitt, 1991a: 15). The English of that nation was adopted as the official language of Nigeria at independence. It is the intonation of British English that is therefore referred to as native English intonation in this work which focuses on the interactionally-motivated intonation patterns of educated Nigerian speakers of English.

1.8.2 Standard Nigerian English

According to Ugorji (2010: 48), Nigerians generally still take delight in the British English model even when they are unable to replicate the British-type pronunciation. This is an indication that the type of English spoken by most Nigerians is a different variety from that known as British English. Walsh (1967), quoted in Ogu (1992: 88), was among the first to draw attention to the existence of a variety of English known as "Nigerian English" (NE). According to him,

> The varieties of English spoken by educated Nigerians, no matter what their language, have enough features in common to mark off a general type, which may be called Nigerian English (Walsh, 1967 quoted in Ogu, 1992: 88).

Bokamba (1982; 1991) recognizes the existence of an NE and refers to it as a variety of what he calls "West African Vernacular English". Similarly, Jibril (1982) sees NE as part of the continuum of "West African English". Akere (1978) likewise has spoken of the

emergence of a "Standard Nigerian English". Odumuh (1987; 1993) recognizes NE as one of the new Englishes and goes ahead to maintain the fact of the existence, at the moment, of a single super-ordinate variety of Standard English in Nigeria capable of being regarded as "Nigerian English".

The English spoken in Nigeria is so diverse as regards its phonology and other aspects of language study, "ranging from pidgin English to a near approximation of Southern British Standard (2005: 154). Bamgbose (1995: 11) identifies three types of NE: Contact English (CE), Victorian English (VE) and School English (SE). Nigerian Pidgin English and Broken English emerged from CE. VE was an importation of the 19th century educated elites of cosmopolitan Lagos. SE was the "English of the school primer, of the sermon, of the Bible and the hymnal" (Spencer, 1971: 13). Although SE can be regarded as the direct predecessor of NE as we have it today, the three strands all contribute to what is now known as Standard Nigerian English (Bamgbose, 1995: 20).

1.9   Nigerian English intonation and British English intonation

Nigerian English is that "variety of English which has often been suggested to differ from other varieties of English, especially in the area of prosody" (Gut, 2005: 154). The intonation of Nigerian English differs systematically from that of British English (Bamgbose, 1971; 1982; Eka, 1985; Jibril, 1986; Ufomata, 1996; Udofot, 1997; Jowitt, 2000). In comparison to native varieties of English, Gut (2004: 828) sees Nigerian English intonation as that variety which seems simplified with most read and spontaneous utterances having a falling tune, and rising tunes being relatively rare. In a study conducted by Udofot (1997), she found out that pauses between intonation groups were shorter in Nigerian English than in British English. In general, the Nigerian English speaking participants divided their utterances into more intonation phrases than the control British English speaker. Moreover, a preference for "end-stress" in an intonation phrase, i.e. the placement of the nucleus on the last word has been observed. For instance, in the dialogue:

(1a) Come on, who'll volunteer.

(1b) I will, if you insist.

British English speakers put a nucleus on "I" in (1b), whereas Nigerian English speakers stressed "will" most. Udofot (1997) therefore identifies three varieties of Nigerian English: Variety I is seen as a non-standard variety as it exhibits notable prosodic differences from British English and other two Nigerian English varieties. Variety II which is spoken by university graduates and indicates vital differences from the third variety with regard to

accentuation and intonation is considered by Udofot (1997) as the Standard. Variety III, which is the sophisticated variety, is spoken by graduates of tertiary institutions or people with special speech training; it exhibits some organised differences from British English in the aspects of accentuation and intonation.

Jowitt (2000) analysed the intonation of 30 dialogues read aloud by Nigerian final-year undergraduates. It was transcribed in the system used by O'Connor and Arnold (1973) for British English. On the basis of the analysis, he proposes the following characteristics of the Nigerian English intonation system:

1. predominance of falling nuclei in statements, wh-questions and commands
2. predominance of rising nuclei in yes-no questions and tag questions
3. rare productions of complex nuclei
4. high pitch on lexical words.

On the basis of his examination of the form and the frequency of intonation patterns in educated Nigerian spoken English, Jowitt (2000: 64) concludes that "certain patterns having a high frequency constitute a system in Nigerian usage differing in important respects from native-speaker systems, though lacking stability".

Also, the findings from a research carried out by Gut (2003: 470) with three speakers of Southern British English (SBE) and five speakers of Standard Nigerian English (SNE) show the following characteristics of Nigerian English intonation in contrast to British English intonation:

1. Tone is grammatically determined with lexical words receiving high tone from the first "stressed" syllable on and non-lexical words receiving low tones
2. Two tones (i.e. High and Low) are sufficient to describe Nigerian English intonation
3. Initial raising of tone causes initial low tones to appear phonetically as a mid tone
4. Downstep lowers high tones to form the contour tones High-Low and Low-High
5. Speech tempo in Nigerian English (NE) is slower than in British English (BE)
6. Nearly every lexical word in an intonation group is perceived as stressed in NE
7. NE has pitch-accents rather than stress-accents.

On the basis of the findings enumerated above, Gut (2003: 470) concludes that Nigerian English prosody (of which intonation is a major part) is "typologically different from British English and stands 'between' a stress-timed intonation language and a tone language".

1.10   Definitions of terms

It is necessary to clarify, by way of definitions, some of the terms used in this study because they may vary in meaning and scope from the ordinary or general usage.

Native speakers of English: These are educated speakers of Southern English of England whose spoken English is akin to the kind of English used on the British Broadcasting Corporation.

Educated Nigerian speakers of English: Educated Nigerian speakers of English are Nigerian users of English who are holders of a minimum of National Certificate in Education (NCE).

Natural speech intonation: This applies to the intonation patterns that people employ in actual or conversational speech situations which may be at variance with the formalised rules of English intonation encoded in ELT textbooks.

Native language: The term native language is any language which is acquired naturally by a person (not necessarily the language of the person's parents) and in which the speaker has native accent.

1.11   Summary

In this chapter, the subject matter of this work, intonation, has been introduced. The need for the research and the salient questions it was designed to answer have also been stated. The next chapter focuses on the review of literature on phonology, intonation, empirical studies on English intonation and the formalised rules guiding the use of intonation in English as well as a discussion of the theoretical framework which informed the analysis of the data for this study.

CHAPTER TWO
LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1   Introduction

This chapter serves a dual purpose of reviewing previous works that are related to this study, and discussing the theoretical framework on which the analysis of the data for this work was based. The tunes and functions of intonation, and the principles of Discourse Intonation (DI) are given detailed attention.

2.2   Literature review

2.2.1   The place of phonology in language description

Phonology, which is a term from two Ancient Greek words: *phōnē*, meaning voice or sound, and *lógos*, meaning discourse (*The Chambers Dictionary*, 1998: 1230), is the systematic use of sound to express meaning in any spoken human language. It is the subfield of linguistics that studies how sounds are organised and used in natural languages. Its aim is to show the patterns of distinctive sounds that are present in a language, and to make likely general statements on the nature of sound systems in the languages of the world. In other words,

> … phonology is concerned with the range and function of sounds in specific languages (and often therefore referred to as 'functional phonetics'), and with the rules which can be written to show the types of phonetic relationships that relate and contrast words and other linguistic units (Crystal, 2008: 365).

Whereas phonetics is concerned with the physical production, acoustic transmission and perception of the sounds of speech, phonology describes the way sounds function within a given language or across languages to encode meaning.

According to Crystal (2008: 365), phonology is seen in linguistics from one of two main perspectives: (a) as a level of linguistic organisation, which can be contrasted with the levels of phonetics, grammar and semantics, (b) as a part of a generative grammar (the phonological component), which is contrastable with some other components like syntactic/semantic in early generative grammar and covert in the minimalist programme.

As a level of linguistic organisation which is distinct from phonetics, grammar and semantics, phonology cares about the entire sound system for a given language. The goal is to formulate a model/theory which explains not only the sound patterns found in a particular language, but the patterns found in all languages. Examples of questions which are interesting

to phonologists are: How do sounds change due to the sounds around them? (For instance, why does the plural of rat end with a /s/ sound, the plural of dog end with a /z/ sound, and the plural of dish end in /Iz/?) How do sounds combine in a particular language? (For example, English allows /t/ and /b/ to be followed by /l/ – cattle, rabble, atlas, oblate – so why then does "blick" sound like a possible word in English when "tlick" does not?)

As the phonological component of a generative grammar, phonology interprets the syntactic component phonetically, using only the surface-structure properties of the formatives involved. The surface-structure properties consist of a specification of the segmental structure of the formatives (derived from the lexicon), and a specification of the syntactic features concerned (derived from the syntactic rules). The phonological rules of the component relate to the segmental representation, applying the principle of the transformational cycle. At the end of this cycle, all the brackets marking structure are removed, stresses are assigned, and the resulting string of elements is represented as a set of phonetic segments which is defined in terms of distinctive features (Crystal, 2008: 366).

2.2.2   Branches of phonology

Two branches of study are usually recognised within phonology. These are: segmental phonology and suprasegmental phonology.

2.2.2.1 Segmental phonology

In linguistics (specifically, phonetics and phonology), the term "segment" may be defined as "any discrete unit that can be identified, either physically or auditorily, in the stream of speech" (Crystal, 2008: 426). Segments are called "discrete" because they are separate and individual, such as consonants and vowels, and occur in a distinct temporal order.

Segmental phonology is therefore concerned with phonological features: what they are, and how they are organized inside segments and between segments. That is, segmental phonology focuses on "the speech sounds, their internal composition and external interaction" (Howe, 2003: 2). Segmental phonology is, as the name suggests, concerned with the sound segments. For example, the English word "cat" consists of three segments, represented as "/k/", "/Θ/", and "/t/". Phonologists are interested in why, for example, there is an English word "cat", and another English word "act", but no "cta" or "tca".

The inventory of the English segments is composed of two main divisions: vowels and consonants. The number of the English vowels is said not to be more than twenty (Roach, 2009: 31) while the consonants of the language are twenty-four, using the British English

15

(that is, British Broadcasting Corporation – BBC) inventory (Jones, 2011: ix-x). These sound segments, which are ordinarily contrastive (that is, a segment brings about a change in word meaning if one is used instead of another), can each be pronounced in many slightly different manners, depending on the environment of occurrence. However, if a way of pronouncing a segment is substituted for another in a given word, "a change in the meaning of the word does not occur" (Adejuwon, 2006: 850). These variant realisations of the same segment are referred to as allophones.

2.2.2.2 Suprasegmental phonology

The term "suprasegmental" refers to a feature of speech which applies to more than one segment (vowel or consonant). A suprasegmental is a vocal effect that extends over more than one sound segment in an utterance (Crystal, 2008: 466). Suprasegmental (or non-segmental) phonology is concerned with other aspects of phonology, such as tone, stress, time, length, rhythm and intonation. These features, which are also referred to as prosodies, are not limited to single sounds but often extend over longer stretches of speech like syllables, words, phrases, clauses or sentences.

The suprasegmentals are an essential part of speech production and generally a wholly meaningful contribution to the message itself. It is a known fact that nobody utters stretches of English segmental sounds in an utterly even-measured monotone; "if they do, the result is perceived as highly marked speech, perhaps as a comic affectation of extreme boredom or as an imitation of a robot" (Clark et al., 2007: 327).

2.2.3 Definition of intonation

There is no definition of intonation that encompasses everything about the feature. Even Roach (2009: 119) admits that there is no completely satisfactory definition of intonation. Hence, there are as many definitions of this prosodic feature as there are authors.

Gimson (1989: 269), O'Connor and Arnold (1985: 1), Strang (1971), Jones (1972: 275), Dairo (1991: 55), Ranalli (2002: 2), Dairo (2006: 42) and Jones (2011: 567) define intonation with varying but related terms such as "rises and falls in pitch level", "the pitch patterns of spoken English", "the patterning of the pitch variable", "the variations in the pitch of the voice", "systematic variations in pitch level", "the variation in pitch movement" and "the variation in the pitch of a speaker's voice used to convey or alter meaning".

One thing that is common to the descriptive phrases above is that there is variation in voice pitch during speech. Roach (2009: 119) emphasises this importance of pitch in his assertion that any attempted definition of intonation must recognise the centrality of voice

pitch to this feature. This is because our voice pitch is rarely fixed when we speak: rather it is constantly varying. For the pitch variations to qualify as intonation however, Roach (2009: 119-120) says they must satisfy the following conditions:

One, they must be linguistically significant, that is, they must convey some linguistic information. The rises and falls in pitch level must have attached to them some linguistic information other than the overt information conveyed by the dictionary meanings of the words making up the utterance.

Two, the pitch differences should necessarily be subject to the speaker's control for them to be linguistically significant. The variation in voice pitch should be under the manipulation of the speaker, that is, it should be deliberately used by the speaker to convey his intended information.

Three, a pitch difference has to be auditorily perceptible. The variation in pitch should be prominent enough for the listener to hear to get the intended information.

Finally, the pitch variations must be contrastive to be linguistically significant, that is, they must differentiate meanings. We know any unit of phonology or grammar partly by the set of items it contrasts with. The rises and falls in voice pitch therefore have to be significant for meaning such that if a low pitch, rather than a high one, ends an utterance, the meaning changes.

Combining the definitions of intonation above and the set of criteria which the rises and falls in pitch must satisfy to qualify as intonation, Adejuwon (2011: 9) defines this suprasegmental feature as "the linguistically significant variation in voice pitch which a speaker deliberately uses during an utterance to convey a particular meaning which the listener is able to perceive".

It is clear from the foregoing that no single definition of intonation is self-sufficient. Little wonder then that Cruttenden (1986) makes no attempt at defining intonation. Notwithstanding, the definitions above have been able to underscore the significance of intonation meanings. Jones (1972) expresses this significance by declaring that intonation meanings in language are more important than the dictionary meanings of the words spoken. Words may not be able to convey the subtle shades of meanings which intonation conveys.

2.2.4 Intonation as a prosodic feature

Prosodic features of speech are the melodic features of the linguistic units that are beyond the segmental phonemes; they are therefore often referred to as suprasegmentals. The

17

prosody is an essential part of speech production and usually a completely meaningful contribution to the message itself. As a matter of fact,

> … no one utters stretches of English consonants and vowels in an
> absolutely even-measured monotone – or if they do, the result is
> perceived as highly marked speech, perhaps as a comic affectation
> of extreme boredom or as an imitation of a robot.
> (Clark and Yallop, 1995: 329)

Brazil (1997: 1) observes that there is continuous variation of pitch "from the moment anyone begins speaking to the moment they end".

Cruttenden (l986) sees the prosodic features as occurring together with sequences of sounds and even of words. He identifies intonation itself as the prime example of such features. The other prosodic features include stress and tone. While these two other features have the syllable, the morpheme or the word as their domain, intonation, which is the focus of this research work, has the phrase, the clause or the sentence as its domain (Cruttenden, l986: 1). Common to the three features however is the voice pitch, the substance through which each of them is carried out that is described in terms of high and low or which ranges from "light to heavy" (Roach, 2009: 119).

2.2.5 Intonation tunes

Intonation tunes are variously called "nuclei" (Crystal, l975), "tunes" (Cruttenden, l986), and "tones" (Roach, l991) which is a term that Atoye (2005: 27) considers "a misnomer for intonation types or tunes" because it can be confused with what obtains in many African languages that are classified as tone languages. These tunes that are represented with various symbols like dots inside two or more horizontal lines, and stress marks (called "interlinear tonetic" and "tonetic-stress marks" respectively by Cruttenden, l986: xiii) as well as arrows indicate the varying voice pitch during an utterance. Interlinear tonetic is narrow transcription; tonetic stress marks constitute broad transcription while arrows are used as ordinary representation of intonation contours.

Armstrong and Ward (1926) and Jones (1972), Clark and Yallop (1995) agree that there are two basic tunes with which English utterances are made. The first one is a falling tune (Tune 1) while the second one is a rising tune (Tune 2). The specific features of the two tunes are shown by the following graphical illustrations from Jones (l972: 280):

Tune 1

Tune 2
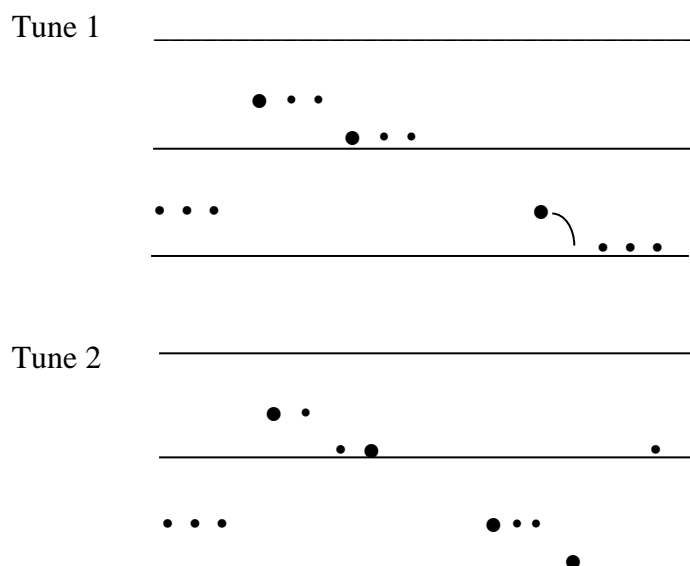
Many authors however recognise five tunes, using more specific terms, namely the Fall, the Rise, the Fall-rise, the Rise-fall and the Level tunes. Some make further distinctions in the Fall and the Rise to yield the Low-fall and the High-fall, the Low-rise and the High-rise, thus making the number of the tunes seven. A few still go ahead to make more distinctions.

Roach (2009: 123-125) recognises the earlier five tunes which he represents with the stress marks. He uses "the very limited context of the words 'yes' and 'no' said in isolation" to illustrate them. The fall is a neutral tune indicating finality. For example:

A: Have you eaten?

B: ˎyes

The rise is a prompt signifying that something is expected to follow. For instance:

A: You start off on the ring road…

B: ˌyes

A: turn left at the first roundabout…

B: ˌyes

A: and ours is the third house on the left.

The fall-rise connotes limited agreement or response with reservations or hesitation. For example:

A: It's not really an expensive record, is it?

B: ˅no

The rise-fall implies strong feelings of approval, disapproval or surprise. For instance:

A: Isn't the view lovely!

B: ˏyes

The level tune is used to express something routine, uninteresting or boring as in routine questions like:

A: Have you ever been in prison?
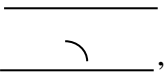
B: =no

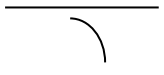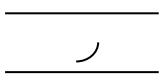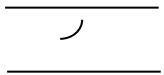A: Do you suffer from any serious illness?

B: =no

A: Is your eyesight defective?

B: =no

Roach (1991) however notes that native speakers of English rarely use level "tones" on one-syllable utterances like "yes" or "no" because the results would sound unnatural. Moving "tones" are rather very frequent.

O'Connor and Arnold (1973), Crystal (1975) and Cruttenden (1986) distinguish between the low-fall and the high-fall as well as between the low-rise and the high-rise. Crystal (1975: 34 and 38), for instance, has these four tunes as follows:

'low fall', viz. _____↘_____ ,   symbolised as   ↓ ∃

'high fall', viz. _____↘_____ ,   symbolised as   ↑ ∃

'low rise', viz. _____↗_____ ,   symbolised as   ↓ ≅

'high rise', viz. _____↗_____ ,   symbolised as   ↑ ≅

Of all the tunes above, the intonation pattern which begins at a fairly high pitch and proceeds with a gradual dropping down of pitch during the utterance is claimed by some writers to be the most basic, normal, "unmarked" intonation pattern (Roach, 2009: 140). This is equivalent to the high fall or what Roach (1991) simply calls the "fall". This descending movement of pitch during an utterance is mostly referred to as "declination" and the claim of its being universally unmarked in English, or indeed in all languages, is supported by Roach (2009: 140) to be "a strong one".

2.2.6   Tone-units

English utterances are split into blocks which House (1990: 38) calls "tone groups". Cruttenden (1990: 9) refers to the term, tone group, as "intonation group" (that is, the non-final boundary in a sentence which could be a constituent phrase or clause) while some other scholars variously refer to it as intonation phrase, phonological clause, phonological phrase, tone-unit, sense group, word group or breath group.

The tone-unit has the structure (PH) (H) TS (T) where PH stands for Pre-head, H for Head, TS for Tonic Syllable and T for Tail. These are discussed as follows, according to Roach (2009: 130-132):

1.　　The pre-head (PH) is all the unstressed syllables preceding the first stressed syllable in a tone unit. For example:

(a)　　in an ˌhour

(b)　　in a ◡little ◡less than an ˌhour

In (a) above, the two grammatical items, "in an", constitute the pre-head while "in a" make up the pre-head in (b) because they are not stressed and they precede the only or the first stressed syllable in their respective phrases.

2.　　The head (H) is all the part of a tone unit, which extends from the first stressed syllable to (but excluding) the tonic syllable. In other words, it is the accented material preceding the tonic syllable. For instance:

(a)　　◡give me ˌthose

(b)　　◡Bill ◡called to ◡give me ˌthose

In example (a), the head is made up of the first two syllables while the first five syllables or words in example (b) are the head in that sentence.

3.　　The tonic syllable, that is, TS is a syllable that carries a tone or tonic stress, which makes the syllable the most prominent within its tone-unit. It is similarly labelled alternatively as the nucleus, tonic, primary stress or primary accent (Cruttenden, 1990: 9). For example:

is it ˌyou

The tonic syllable in the above example is "you". It is evident from this example that the tonic syllable is that word that is of prime importance to the meaning of the tone-unit, or that syllable that makes its word the conveyer or core of the message of the tone unit.

4.　　The tail (T) is any syllable(s) after the tonic syllable or nucleus of a tone-unit. It is the tone unit boundary. For instance:

(a)　　ˌlook at it

(b)　　　ˏwhat did you say

(c)　　　ˎboth of them were here

The words after each of the underlined words above constitute the tail in each example.

When stress is to be marked in a tail, a raised dot (•) is used. For example:

(a)　　　ˏwhat did you •say

(b)　　　ˎboth of them were •here

Only the tonic syllable is compulsory for us to have a tone unit due to its centrality to the message of the tone group, hence it is not bracketed in the tone unit structure. The underlined syllables in the examples above are the tonic syllables in those examples.

2.2.7　Functions of intonation

A speech without intonation which is uttered on the same level pitch, without pauses and changes in speed or loudness, according to Roach (l99l: l63; 2009: 146), would be like that of a "mechanical speech" device which constructs sentences by combining recordings of isolated words. The speech would sound unnatural and would signal no meaning besides the lexical sense. Intonation affords a listener the ease to understand the message a speaker is trying to pass across. Hence, Gimson (l989) notes that the information an English utterance conveys to a listener is not got only from the contrastive sound patterns, but also from the related pitch variations.

It is on the basis of the foregoing that Kurath (1964), Jones (1972), Pike (1972), Brazil et al. (1980), Gussenhoven (1984), Gimson (1989), House (1990), Roach (1991; 2009), Cauldwell and Hewings (1996), among others, propose some functions of intonation.

2.2.7.1 Accentual function

Gimson (1989) and Roach (2009) identify this function which involves the placement of the tonic stress on the nucleus or tonic syllable to render the word in which it occurs prominent within the tone unit. A number of older pronunciation handbooks call it "sentence stress" which, as Roach (2009: 153) sees it, "is not an appropriate name" because the sentence is a grammatical unit, whereas "the location of tonic stress is a matter which concerns the tone unit, a unit of phonology". According to Gimson (1989), a speaker expends great articulatory energy on those parts of an utterance (usually content or lexical words) he considers important while the remaining words or syllables (usually form or grammatical words) are unstressed.

Roach (2009: 153-154) holds that the tonic syllable is most commonly located in the last lexical word of the tone unit. For instance:

| I ∩want to ∩know ∩where hes ˎtravelling to |

Any word in the breath group may however contain the nucleus for the purpose of contrast or emphasis. For example:

(a) | I ⌒want to ⌒know ⌒where hes ⌒traveling ˎto | (contrastive)

(b) | It was ˎvery •boring | (emphatic)

Sentence (a) above is contrastive because the speaker is not interested in knowing where the person in question is travelling from; sentence (b) is emphatic because it reinforces the degree of boredom unlike if the tonic stress had been placed on the first syllable in "boring".

Clark and Yallop (1995: 361) and Clark et al. (2007: 363) are in accord with Roach (2009) in stating that the working of English intonation permits "flexible placement of the tone itself". When the final lexical item receives the tonic stress, it is taken as the normal or unmarked case. When the tonic stress is on any other word or syllable however, "the tone usually has a 'contrastive' value" (Clark and Yallop, 1995: 361). For instance:

He has ∴TWO friends in London   (not just one)

He has two /BROTHers in Toronto? (not sisters?)

He doesn't live ∴IN Auckland   (but nearby).
(Clark and Yallop, 1995: 361; Clark et al., 2007: 363)

While Gimson (1989) and Roach (2009) simply use the fall to indicate contrast and emphasis, Crystal (1975: 36) uses the high-fall. For example:

/he's HAPPY/ in fact he's ↑VÈRY happy/

2.2.7.2 Grammatical function

A grammatical sentence can be phonologically recognised as a sequence of tone groups, each having its own nucleus. According to Gimson (1989), intonation is used to signal different types of sentence. A group of words may be interpreted as either a statement or a question. Roach (1991) supports the above view in his assertion that the listener is helped to better identify the grammatical and syntactic structures of speech using the information in intonation.

For Kurath (1964: 127), the grammatical function of intonation is twofold:

1.   It signals the end, or the imminent end, of a sentence or
        of one of its constituent phrases.

2.   It serves to distinguish the "yes- or –no" question from
        all other types of sentences.

Kurath (1964) posits that the voice pitch may fall or rise at the sentence-final position while it is level at the end of the constituent phrase that is non-final. He calls the fall (indicated with falling arrow), the rise (indicated with rising arrow) and the sustain or level (represented with level or flat arrow) "the GRAMMATICAL PITCH FIGURES of English" (Kurath, 1964:128).

He further postulates that the final fall is a feature of statements, requests and specific or "wh-" questions while the final rise occurs in polar questions, that is, questions requiring affirmation or denial. For instance:

1.   He nodded his ↓ head // (statement)
2.   Don't ↓worry // (request)
3.   Where does ↓he live // (specific question)
4.   Should I ↑ask him about it // (polar question)

The sustain or level pitch, according to him, signals the end of a non-final part of a sentence. For example:

While there is →life / there is ↓hope //

The high rise, in line with Crystal (1975: 35), is used in "contrastive question, specifically echo utterance". For example:

/John's going to the OF□FICE/

/to the↑ WH□ERE/

It would be recalled, as stated earlier in this chapter (see 2.2.5), that Jones (1972: 280) recognises two basic tunes with which most English sense groups are spoken. Jones (1972: 280-284) goes on to identify some sentence types the basic tunes can be used for. Tune 1 which is a falling tune is used for statements, specific or "wh-" questions and commands:

1.   _____

_____●_____

●   ●
_____╲_____
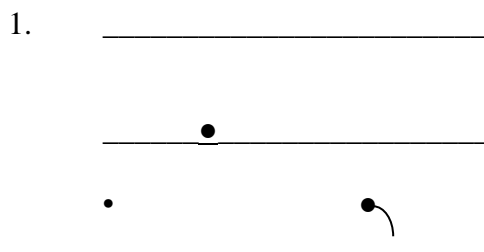
Its   ∪dZℴst ∪f□:r ↔ ∪kl□k
It's   just   four o' clock. (statement)   (Jones, 1972: 280)

2.

24
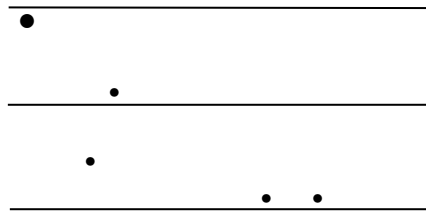
∪hu: w↔   ju: ∪t□:kIN tu?
Who were you talking to? ("wh-" question)   (Jones, 1972: 281)

3.
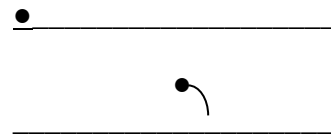
∪teIk It ↔∪weI
Take it   away! (command)   (Jones, 1972: 282)

Soars et al. (2009: 7) supports the normative use of the falling tune for "wh-" questions as he posits that "Wh-questions start high and then fall".

Tune 2, a rising tune, is used for questions requiring "yes" or "no" and incomplete sentences:

1.
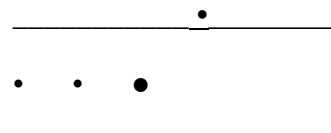
dId ju: ∪laik It?
Did you like it? ("yes/no" question)   (Jones, 1972: 283)

2.
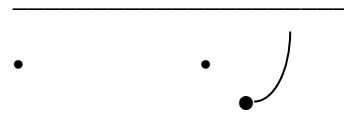
Its ∪dZ℘st ∪f□:r ↔ ∪kl□k,…
It's just four o' clock (so I think I'll be going) (incomplete sentence)
(Jones, 1972: 284)

Gimson (1989), Cunningham and Bowler (1999), Cruttenden (2008) and Roach (2009) make a distinction between the question-tag that bears the falling tune and that which carries

the rising tune. When a question-tag has a falling tune, it implies that the speaker is comparatively sure of the correctness of the information and merely expects confirmation from the listener. For instance:

| They ⌣are ⌣coming on ⌝Tuesday | ⌝arent they | (Roach, 2009: 156)

On the other hand, when a question-tag carries a rising tune, the implication is that of a lesser degree of certainty and the function of the question-tag here is that of a request for information. For example:

| They ⌣are ⌣coming on ⌝Tuesday |⌝arent they| (Roach, 2009: 156)

2.2.7.3 Attitudinal function

Intonation meanings superimpose on lexical meanings. Through intonation, we express emotions and attitudes in our speech. A special kind of "meaning" is thus added to our speech (Roach, 2009: 146). Pike (1972: 56) expressly captures this special function of intonation as follows:

> Actually, we often react more violently to the intonational meanings than to the lexical ones; if a man's tone of voice belies his words, we immediately assume that the intonation more faithfully reflects his true linguistic intentions.

To buttress the assumption that intonation truly shows the actual linguistic intention, Pike (1972: 57) states further:

> If one says something insulting, but smiles in face and voice, the utterance may be a great compliment; but if one says something very complimentary, but with an intonation of contempt, the result is an insult.

The attitude of the speaker to his message content and his audience as well as "the effect he intends to produce upon the person(s) addressed" (Kurath, 1964: 127) are marked by deviant uses of the pitch figures which reflect the speaker's feeling. These deviant uses of the pitch figures could be smooth as in polite statement or harsh as in a question used as a threat.

Kurath (1964: 130) proceeds to state that when one uses a sharp rise instead of the fall in a syntactic statement, the result is "an emotionally charged question challenging the listener to affirm or deny the statement." For example:

He did it ↑ again//

He states further on the same page that when a fall is imposed on a "yes/no" question, it changes to a request which emotional overtones could span from mildness to harshness. For instance:

Won't you↓ help me//
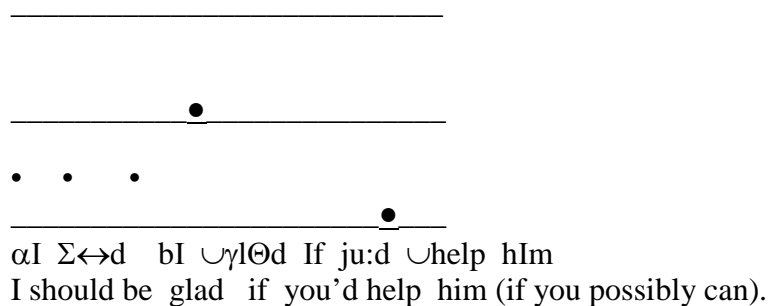
Commenting on the use of the falling tune on the polar question, Cruttenden (2008: 286) states that the high fall or low fall placed on a yes/no-interrogative "marks it as brusque and demanding". For instance:

(Tom explained it all to me.) But do you under`stand it?

Kurath (1964: 130) is also of the opinion that a gentle rise sometimes takes the place of the normal fall in statements, requests and "wh-" questions in friendly conversation. This marks an attitude of politeness:
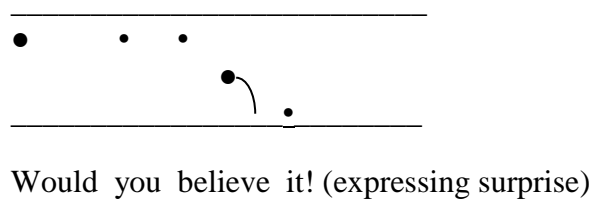
1.   It isn't too↑ bad//

2.   Please ↑ help me//

3.   Why are you ↑ angry//

Jones' second basic tune, apart from being used for polar questions and incomplete sentences, can also be used for statements with an implication. For instance, the following statement from Jones (l972: 285) shows an attitude of doubt:

αI Σ↔d   bI ∪γlΘd If ju:d ∪help hIm
I should be glad   if you'd help him (if you possibly can).

The low-fall and the high-fall, according to Cruttenden (1986: 99-100), can be used to express surprise and protest respectively:

Would you believe it! (expressing surprise)
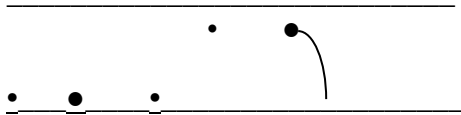
He stayed for three ∃hours (protesting)

Roach (2000: 156-157, 188-189) also finds a correlation between the fall, the rise, the fall-rise and the rise-fall tunes and some specific attitudes. The fall signals finality or definiteness:

1.　　That is the end of the ˎnews (finality)

2.　　I am absolutely ˎcertain (definiteness)　　　(Roach, 2000: 156)

The rise conveys an attitude of encouragement:

It wont ˏhurt (encouraging)　　　(Roach, 2000: 156)

The fall-rise is a marker of uncertainty or doubt:

1.　　You ／may be right

2.　　Its ／possible　　　(Roach, 2000: 156)

It also marks request:

1.　　I can ／buy it

2.　　Will you ／lend it to me　　　(Roach, 2000: 156)

The rise-fall is indicative of surprise or being impressed:

You were ˬfirst

ˬAll of them　　　(Roach, 2000: 157)

2.2.7.4 Discourse function

Many of the best-known descriptions of English intonation in the past, like O'Connor and Arnold, have regarded the attitudinal function as primary and central. According to Tench (1996: 112), they thus have an "intonational lexicon" of twenty patterns, each of which has a range of meanings that can be ascribed to statements, "wh-" questions, "yes/no" questions, commands and interjections. O'Connor (1980: 108) actually avers that the use of tunes to add different feelings like definiteness or hesitation, anger or kindness, etc., to words "is called *intonation*".

In the opinion of Roach (1996: 45) however, the claim that "… we use intonation to express our attitudes is fundamentally wrong". He then adds that work by phoneticians on

emotions and attitudes in speech has tended to have a rather simplistic view of the subject, and it has become perhaps rather commonplace among phonology teachers to quote some of the "... more speculative and unscientific statements which were made by O'Connor and Arnold" (Roach, 1996: 45). As Tench (1996) points out, many of the supposedly attitudinal functions of intonation, which have been suggested by earlier writers, are in fact better viewed as interactional.

Several researchers have in recent years turned their attention to the role of intonation in discourse. It is considered an injustice to English intonation to suggest that it only gives an overlay of emotions or feelings. Clark et al. (2007: 360) view intonation as "a crucial part of the English language, carrying important semantic and discourse and/or pragmatic functions".

Intonation in context

The primary function of intonation, according to House (1990), is to attach an utterance to its context thereby enabling the hearer to enrich his interpretation by making appropriate inferences. Based on the context or background, intonation signals what is to be considered as "new" information and what can be taken as already "given", suggests when the speaker indicates contrast or link with the content of another tone unit, and enables the listener to know the kind of response expected in conversation (Roach, 2009: 146).

Gussenhoven (1984) explores the manipulation of the focussed material in an intonational phrase with respect to the background by adding it to the background, using the falling tune (giving new information); by choosing it from the background, using the fall-rise (implying shared knowledge); or by testing how relevant it is to the background, using the simple rise (making sure or confirming the suspected). For Brazil et al. (1980: 15) also, a falling or "proclaiming" tune indicates that the matter is new while a rising or "referring" tune, which is primarily a falling tune marks the matter as part of the shared knowledge, already negotiated or common ground shared by the participants in a discourse situation.

Similarly, writers on discourse intonation, according to Roach (2009: 157-158) have suggested that "the falling tone indicates new information while rising (including falling-rising) tones indicate 'shared' or 'given' information". For instance:

⌣Since the ⁄last time we •met | ⌣when we ⌣had that ⌣huge ⁄dinner |

 Ive ⌢been on a ˎdiet | (Roach, 2009: 157)

Underhill (1994: 86) makes explicit the issue of new information/shared knowledge as he explains that the

Information which is additional to the common ground is marked by a pitch that finishes with a falling movement, and is given the name *proclaiming tone*. Information which is given as already shared and part of the common ground is marked by a pitch that finishes with a rising movement and is given the name *referring tone*, since it refers back to something already shared or negotiated.

Underhill (1994: 86) goes further to illustrate the contextual meanings of the different tunes. The fall and rise-fall are "proclaiming" tunes which add the increment of meaning "I am telling you this" to the tone-units in which they occur:

//⊆it was aROUND THEN//

//⊂⊆it was aROUND THEN//   (Underhill, 1994: 86)

The rise and fall-rise tunes are "referring" tunes which add the increment of meaning "I assume that this is part of our shared experience":

//⊂it was aROUND THEN//

//⊆⊂it was aROUND THEN//   (Underhill, 1994: 86)

The level tune opts out of the proclaiming/referring choice, and signifies that the speaker has a focus on the wording which he/she is compiling, rather than on interpersonal interactivity:

//→it was aROUND THEN//   (Underhill, 1994: 86)

Intonation in lists

Corroborating the above claims, Cauldwell and Hewings (1996: 329), using extracts from authentic recorded speech, posit that when items constituting a shared knowledge between the speaker and the hearer are listed, the speaker is likely to use a rising tune. For example:

//⊂We've got cheese //⊂tuna //⊂beef //⊂or chicken //

(Cauldwell and Hewings, 1996: 329)

The sandwich salesperson here chooses the rising tune to indicate the items as "what we always have".

However, when the list contains items that constitute news to the hearer, the speaker tends to use the falling tune:

//⊂I like to see at a glance //⊂the length //

//⊂the stanza-form //⊆and the rhyme scheme //

//⊆and I want to pick up //⊆things like punctuation //

//⊆and italics//⊆that otherwise get lost //

(Larkin, 1977 cited in Cauldwell and Hewings, 1996: 328).

"Punctuation" and "italics" are said with a falling tune here because they are new items.

Cauldwell and Hewings (1996: 329) therefore suggest that in natural speech, "all intonation choices are seen as being related to the context in which they occur", the most important aspect of which is the shared knowledge and expectations of the speaker and the hearer.

A speaker who focuses on the items in a list as linguistic forms and not on meaning communication, according to Cauldwell and Hewings (1996), uses the level tune. He sees the words as what he has to say rather than what he is communicating with the hearer; he sees them as ritualistic, routine categorisation, because he has often said them in this particular context. This occurs when a speaker wishes to dissociate himself from words as communication, either due to his repeated rehearsal of such words or because of his wish to indicate that the words were not originally his. For instance:

The train on platform three will call at

//→<u>Peter</u>borough //→<u>Ely</u> //→<u>March</u> //⊂and <u>Cam</u>bridge //

(Cauldwell and Hewings, 1996: 330).

Cauldwell and Hewings (1996: 328) acknowledge that final items in lists always have falling tune as a marker of completeness of the information being communicated. They however maintain that there are times the speaker wishes to project an item as common ground or shared knowledge; he therefore chooses a rising tune for the final item. For example:

//→<u>cri</u>ticism //→<u>jour</u> nalism //⊂re<u>view</u>ing //→what I <u>think</u>
you //→very aptly //⊂called in a letter to me <u>once</u> //⊂the light
<u>in</u>dustry of poetry // (Larkin, 1966 cited in Cauldwell and Hewings, 1996: 328)

Intonation in questions

Kurath (1964), Jones (1972) and Aremo (2001), among others, agree with the English Language Teaching (ELT) rules that polar or "yes/no" questions end with a rising tune while "wh-" questions end with a falling intonation. According to Cauldwell (2015),

We believe crazy things about speech. We believe these things because they are in our students' textbooks, and we are taught them in our teacher-training. One of these crazy beliefs is that a sentence type has a particular intonational pattern. For example, that *yes/no* questions have rising intonation, and *wh*-questions have falling intonation.

In authentic speech or discourse however, deviant instances are found. What guides the choice of intonation tune here is whether the question is asked to get information or simply to seek confirmation of what is suspected. Brazil (1994a) states that the use of falling tunes in questions (wh- or polar) is an indication that the speaker is "finding out" while the choice of rising tunes means that the speaker is "making sure". Cruttenden (2014: 335) advises learners to note that "despite what is often stated in textbooks on English language teaching, both rises ... and falls ... occur frequently on *yes/no* interrogatives and *wh-* interrogatives".

In line with Cauldwell and Hewings (1996: 332), a polar question which is asked to elicit information tends to take a falling tune. For instance:

//⊆Are you <u>hun</u>gry //   (Cauldwell and Hewings, 1996: 332)

The same question is said with a rising tune simply to confirm what the speaker already suspects, that is, that the hearer is hungry:

 //⊂Are you <u>hun</u>gry // (Cauldwell and Hewings, 1996: 332)

Cauldwell and Hewings (1996: 332) further assert that what is true for polar questions also holds for "wh-" questions. For example:

 //⊆Where are you <u>from</u> //   (Cauldwell and Hewings, 1996: 332)

indicates that the speaker is "finding out" or seeking information while

//⊂Where are you <u>from</u> //   (Cauldwell and Hewings, 1996: 332)

means that he is merely "making sure" or seeking confirmation.

Dairo (1998: 34-35) agrees with Brazil (1994a) and Cauldwell and Hewings (1996) on the possibility of using both the fall and the rise for "wh-" questions. He asserts that the falling tune is used for "wh-" questions asking for information. For instance:

⊆WHO is he? (Dairo, 1998: 35)

He states further that the rising tune is used for "wh-" questions seeking confirmation or repetition. For example:

⊂How much did you GIVE her? (i.e. I didn't get your question)   (Dairo, 1998: 35)

2.2.8   Empirical studies on English intonation

Previous studies on English intonation have concentrated on its rule-governed patterns, whereas studies on the characteristics of people's spontaneous utterance intonational choices are inadequately explored. Udofot (1997), a pioneering effort in the description of the

intonation of Nigerian English, concentrated on the Nigerian spoken English rhythm. She argues that Nigerian English speakers divide their utterances into more intonation phrases than the British English speakers. Her study revealed that, in both read and spontaneous speech, falling tune was predominant in Nigerian English (about 80.0%), rising tune was relatively rare (about 10.0%) and fall-rise was even rarer (about 9.0%), whereas rise-fall was only produced by variety III speakers who were graduates of tertiary institutions or people with special speech training. Though her work bordered on intonation, Udofot's (1997) focus was on the rhythmic patterns of Nigerian spoken English. Also, she did not spell out her method of data analysis which could enable an empirical examination of her findings in relation to the data.

Jowitt (2000) studied the systematic differences in the intonational patterns between Nigerian English and British English. Thirty dialogues, which were transcribed in the system employed by O'Connor and Arnold (1973) for British English, were read by his Nigerian undergraduate student participants. The "tone", which is considered as the specific pitch movement on a stressed syllable, was his basic unit of analysis. Based on his analysis, Jowitt (2000) asserts that a preponderance of falling nuclei in statements, "wh-" questions and commands occurs in Nigerian English intonation system. He also reports that rising nuclei in "yes/no" questions and tag questions is commonplace. He, however, states that the use of complex nuclei and high pitch on lexical words is a rarity. Though Jowitt's (2000) use of a transcription system enabled him to cater for a variety of contour tones, his conclusions, based on his data, cannot be extended to all Nigerian users of English as there are educated Nigerians who are more proficient in the use of English intonation than his participants.

Okon (2001) examined the intonational similarities and differences between spoken British English and spoken Nigerian English through the concept of convergence and divergence. Her analysis revealed that Nigerian speakers of English displayed an emerging pattern which is the constant use of the fall even when other tunes are required. She states that gender, age, educational and native language backgrounds were determining factors in the choice of intonation patterns among Nigerian speakers of English. Plausible as her findings may be, the data gathering method is a major shortcoming of the study because the researcher only mentioned that utterances were recorded without any information on whose utterances were recorded and the number of the participants for the study.

Adejuwon (2003) investigated the intonation patterns of 40 radio broadcasters in Southwestern Nigeria. His findings showed that the study participants were mainly aware of grammatical forms without being mindful of the fact that intonation can be used to pass across

other shades of meaning beyond what grammatical patterns can reveal. He argues that this awareness enabled the study population to perform well, scoring 73.0%, in the grammatical test items while they scored between 3.3% and 34.7% in the test items of other intonation functions. A major deficiency of this study is that the data were read utterances from a prepared text by the researcher which could not be devoid of affectations, especially considering the fact that the study population was composed of broadcasters who would want to protect their ego in the public. Moreover, the lengthiest of the 20 test items was made up of 21 words which any of the participants could conveniently produce with feigned finesse. Though the researcher built utterances which were meant to assess the participants' knowledge of Discourse Intonation (DI) into his test items, these were merely sandwiched in the midst of other utterances which did not give room for its in-depth study.

Adesina (2005) explored the intonation patterns in the utterances of some senior secondary school students in Ibadan North Local Government, Oyo State on accentual, grammatical and attitudinal parameters. On the accentual parameter, she found that less than 14.0% of the study population assigned stress to the words that carried the intended meaning. In her grammatical parameter-related findings, 58.0% of the student participants produced the declarative sentence appropriately while 90.0% realised the "wh-" question appropriately. Majority of the participants failed to produce the given utterances according to the rule-based patterns for the attitudinal cues provided. However, the researcher did not mention anything about DI.

Also, Akinjobi and Oladipupo (2005) examined the intonation patterns of 40 Nigerian television reporters in 8 Lagos State-based television stations (comprising 3 government and 5 private stations). Their reports were divided into five intonation groups, analogous to specific syntactic units, and tokens of the occurrence of the four basic nuclear tones (fall, rise, fall-rise and rise-fall) in the reporters' every intonation group were counted and converted into a maximum of ten marks each for uniformity of scores. Their data analysis revealed a predominance of the falling tune at the end of statements and "wh-" questions. It also showed a prevalence of the rising tune in all instances of non-sentence-final position in statements, and in polar questions. The researchers further assert that the reporters were generally deficient in the use of complex tunes. They therefore conclude that Nigerian television reporters have no challenges with the grammatical use of simple intonation tunes of Standard English; rather, their challenges lie in the use of complex tunes. A noticeable gap in this study is that the researchers also did not reckon with the possibility of the participants' use of DI in their analysis.

Atoye (2005) tested the perception and interpretation of English intonation by 120 third-year university undergraduate students by administering a set of 10 test sentences on them. His findings indicated that the study participants obtained 85.7% correct perception of changes in intonation, but recorded only 25.7% correct interpretation of the meanings normally attached to the intonation contours in the 10 sentences played back to them. He argues that the participants knew the concept of intonation well, but that the attempt to teach them English intonation via its structural analysis seemed not to be very useful. Atoye's (2005) study is evaluative, rather than descriptive, which renders it not relevant to the present study that describes the natural speech intonation patterns of educated Nigerian speakers of English.

Working on the intonational structure of Nigerian English, Udofot (2007) studied the utterances of 20 Nigerian speakers of English who were selected through a stratified random sampling technique from 11 linguistic groups in Nigeria. She used education in English as standard for stratification and ethno-linguistic grouping as intervening variable. Transcription of Dutch Intonation (ToDI) was used by her to account for the intonational structures of her participants whom she considered as speakers of standard Nigerian English. The performance of these primary participants was compared to that of a control participant, a Nigerian who was born and brought up in United States of America. She concludes that unidirectional level tones are more commonly used in Nigerian English than bidirectional (that is, contour) ones and that the high tones are not necessarily associated with stressed syllables. However, the identity and the educational level of the researcher's "speakers of standard Nigerian English" were not provided in order to determine how representative they were of those who actually speak the standard variety of Nigerian English.

Akinjobi and Oladipupo (2010) investigated the extent to which Nigerian speakers of English use intonation to express attitude as is the practice in Standard British English. Twenty-two television reporters whose professional medium of expression is English were selected as participants. They were made to read five test utterances to observe their knowledge of attitudinal function of intonation. The analysis revealed the participants' deficiency in using English intonation tunes to express attitude as they scored just 15.5% overall appropriate use of intonation tune in the administered utterances. The researchers assert that the study confirmed earlier claims that Nigerian English users make restricted use of complex intonation tunes, particularly those that reflect the speaker's attitude. Like in their earlier study (Akinjobi and Oladipupo, 2005), the researchers did not consider the possibility of the participants' use of DI, thereby making their analysis to be rule-based.

Melefa (2011) studied the rhythmic and intonational patterns of newscasting on NN24 television channel, using metrical phonology and isochrony theory as theoretical framework. His analysis revealed a departure from the earlier claim by scholars that complex tunes are rare in the intonation patterns of Nigerian speakers of English as the study showed that the intonation patterns of newscasting on NN24 was "replete with a consistent mix of level and contour tones". He observes that a predominant use of contour pitch movement like L*HL: 12%, H*L: 13%, LH: 5%, L*H: 11%, etc., occurred in the data. He therefore concludes that the type of Nigerian English used for newscasting on NN24 was the one classified by Jibril (1986) and Udofot (2003) as the sophisticated variety of Nigerian English. Melefa's (2011) study is restricted to the analysis of intonation patterns without any consideration for the communicative import of the observed patterns.

Almost all the studies reviewed above did not mention DI, probably as a result of the fact that DI is a relatively new intonation model and is yet to gain currency, particularly among Nigerian scholars. Even Adejuwon (2003) that analysed the discourse intonation patterns of his participants only included this in a larger analysis of his participants' awareness of intonation functions in general, thus giving DI only a brief attention. The present study is primarily concerned with DI and is therefore expected to be one of the pioneering elaborate works on the discourse intonation patterns of educated Nigerian speakers of English (ENSE).

2.2.9 Acoustic analysis of speech

Acoustic analysis is the examination of the physical characteristics of speech which enables the analyst to arrive at the fundamental frequency, amplitude and harmonic structure of a piece of utterance (Crystal, 2008: 7). This analysis is provided by acoustic phonetics which is a branch of phonetics that studies the physical properties of speech, as transmitted between mouth and ear. In acoustic phonetics, an instrument known as spectrograph is used to provide a visual representation of the acoustic features that constitute the sounds in an utterance. The spectrograph produces a three-dimensional visual record, or spectrogram of an utterance. In the spectrogram, time is displayed horizontally, frequency is displayed vertically and intensity is shown by the relative blackness of the marks on a sensitised sheet of paper. Nowadays, spectrographic information is capable of being generated electronically and displayed on a screen (Crystal, 2008: 445).

Due to modern technology and rigorous research in phonetics, applied sciences and engineering, many audio tools and computer programmes are now available for the

observation, measurement and interpretation of acoustic properties of the human speech (Jolayemi, 2006: 60). Some of these are Audacity (an audio sound tool which converts audio recordings to computer sound waves when audio signals are not directly recorded into a computer), Visi-Pitch Machine or VPM (a graph-looking or graph-like screen with demarcation mark across the centre of the screen which makes the measurement of wave curves in centimetres easy), PRAAT (a free speech analysis software that is used to analyse and reconstruct digitised speech signals) and SFS/WASP which is used for this study.

WASP is a free programme for the recording, display and analysis of speech. With WASP, one can record and replay speech signals, save them and reload them from disk, edit annotations and display spectrograms and fundamental frequency track. WASP is a simple application that is complete in itself but which is also designed for compatibility with the Speech Filing System (SFS) tools for speech research. It was developed by Mark Huckvale of the Informer Technologies, Incorporation. The version used for this study is 1.53. WASP can be downloaded from sfs-wasp.software.informer.com.

2.2.10 Intonation rules in some ELT textbooks

A great number of English language teaching (ELT) textbooks have discussed English intonation, but very few of them, especially those authored by Nigerians, have made any mention of Discourse Intonation (DI). This may be due to its relative novelty.

Elugbe (2000: 171-183) basically discusses English intonation on grammatical, attitudinal and accentual parameters. Mention is made of intonation tunes being used to signal statements, different types of questions, commands, incomplete statements, polite requests, encouragement, emphasis/contrast. The only place where something close to DI is mentioned, no explanation is given as regards what the tunes employed mean. This concerns intonation in lists of items. The same set of items is produced twice with the rising tune used on the non-final items in the first instance and the falling tune applied all through in the second:

Bananas⊂, mangoes⊂, oranges⊂, and pears⊆.
Bananas⊆, mangoes⊆, oranges⊆, and pears⊆. (Elugbe, 2000: 180)

The two instances are listed as mere alternatives without any distinction as to the discourse import of each.

Aremo (2001: 103-110) follows the path of Elugbe (2000) by devoting his discussion of English intonation to grammatical, attitudinal and accentual intonation. Like Elugbe, Aremo employs copious examples to demonstrate the use of intonation in statements, all

manners of questions, commands, incomplete statements, polite requests, emphasis/contrast. Unlike Elugbe however, Aremo makes no allusion to DI.

Like Elugbe (2000) and Aremo (2001), Ogbulogo (2002: 69-76) discusses grammatical, attitudinal and accentual intonation, but follows the trail of Aremo by making no reference to DI. Ogbulogo (2002) links specific intonation tunes to statements, "wh-" and polar questions, tag questions seeking confirmation and those asking for information, commands (including instructions and advice), warning/threats, normal apologies, reservations, exclamations, questions asking for repetition, polite requests, encouragement and enumeration (or listing). Ogbulogo (2002: 75) goes further to discuss intonation in greetings. According to him, greetings during the first meeting of a period take the falling tune which indicates politeness:

Good morning⊆   (Ogbulogo, 2002: 75)

In contrast, greetings at the end of a period and farewell greetings take the rising tune:

Good morning⊂   (Ogbulogo, 2002: 75)
Good bye⊂   (Ogbulogo, 2002: 75)

Dairo (2006: 42-48) explores the link between intonation tunes and expressions of different attitudes, sentence types and emphasis. He goes further than the earlier authors by specifically identifying DI as an important aspect of intonation. Quoting Dairo (2006: 48),

> Intonation helps the listener to identify what is to be taken as 'new' information and what is already 'given'…. This function also makes it possible for a speaker to know that the other person has finished speaking and that he is expected to speak and to know the particular type of response required (i.e. turn-taking). These aspects of intonation are regarded as discourse function.

Several British authors have also discussed English intonation. These include O'Connor (1980), Gimson (1989), Roach (1991), Cruttenden (2001; 2008). O'Connor (1980: 108-126) discusses the falling, the rising and the falling-rising tunes, calling the falling tune the "glide-down" and the falling-rising tune "the dive". He has two divisions of the rising tune: the first rising tune which he terms "the glide up" and the second rising tune he tags "the take-off". He highlights various ways of using the tunes. Expressing different shades of meanings (mostly attitudinal), the tunes can be used to indicate various types of statements, "wh-" questions, yes-no questions, tag-questions, commands, exclamations (including greetings and goodbyes). O'Connor (1980) mentions nothing about DI.

Gimson (1989: 269-287) discusses the accentual or emphatic, grammatical and attitudinal intonation with the appropriate tunes for emphasis or contrast, statements or assertions, questions of different kinds, commands, warning, requests, exclamations, and greetings. Gimson (1989: 287-288) makes a passing mention of DI with the footnote acknowledging that it was too large a topic for him to treat in the book and that much research was being carried out in the field by scholars like Brazil, Couper-Kuhlen, Gussenhoven, House and Ladd.

Though dedicating almost a whole chapter to attitudinal function of intonation, Roach (2009: 147) asserts that it "overlaps considerably with the discourse function". Accentual and grammatical functions are also discussed as in earlier works (Roach, 2009: 153-156). DI, which is described by Roach (1991: 176) as "A comparatively new area of study … becoming increasingly important in the description of natural speech", is however given a fuller treatment by Roach (1991: 176-178).

Cruttenden (2008: 283-287) examines the connection between intonation tunes and declaratives (major and minor), interrogatives (yes/no, wh- and tag), imperatives (abrupt and polite), exclamatives (including appreciations and greetings). The connection between these grammatical sentence types and the tunes identified with them is mostly attitudinal as issues like reservation, warning, encouragement, politeness, etc., are highlighted. Where "new information" and "old information", which are applicable terms in DI are mentioned, the tunes used for them are not specified and the terms are not linked to DI (see Cruttenden, 2008: 324). Where there is the use of the falling and the rising tunes in the examples, there is no specification of which tune is for new information and the one for old or "given" information; all that is demonstrated is the movement of the nucleus from one part of the intonational phrase to another on the basis of the most prominent syllable (Cruttenden, 2008: 280-282). The frequency of occurrence of both rises and falls on either of yes/no-interrogatives and wh-interrogatives, which is an issue in DI, is acknowledged in his advice to learners "despite what is often stated in textbooks on English language teaching" (Cruttenden, 2008: 325). It is however only linked to politeness.

2.2.11 WAEC provision for the teaching of English intonation

It is evident that DI is not expected to be taught in Nigerian and, generally, West African secondary schools as the regional examination body for the ordinary level certificate examinations, the West African Examinations Council (WAEC), only stipulates students'

awareness of grammatical, attitudinal and accentual intonation patterns in its provision for the teaching of English intonation as follows:

> Candidates should be made aware of the different forms English intonation takes in relation to the grammar of the language and the attitudes conveyed by the speaker.... They should also realize that whereas the normal place for the changing pitch in an intonation pattern is on the last stressed syllable of the utterance..., placing the changing pitch elsewhere implies a contrast to the item on which the changing pitch falls. (WAEC, 2013-2016: 210)

2.3 Theoretical framework: Discourse Intonation (DI) model

2.3.1 Origin and nature of DI

Discourse Intonation (DI) model is an approach to the teaching and analysis of everyday speech designed to best enable learners of English "to make their meanings and intentions clear to a listener" (Brazil, 1994b: 2). It was developed at The University of Birmingham (United Kingdom) in the late 1970s and early 1980s (SPARC, 2009). The originator of this approach was David Brazil (1925-1995), working with Professors John Sinclair and Malcolm Coulthard. It became influential in English Language Teaching (ELT) in the mid 1980s and 1990s, both for teacher training (language awareness) and classroom practice (pronunciation). The influence of DI continues to grow, and it is increasingly used in academic research as "increasing interest is now being focused on the relationship between intonation choices and the speaker's communicative intention" (Thompson, 1995: 235). More than a few researchers, according to Clark et al. (2007: 359), have, in recent years, "turned their attention to the role of intonation in discourse".

In line with Ranalli (2002: 9-10), DI is important because, by many accounts, it provides the most satisfactory explanation for the intonation choices speakers make. The theory is attractive because it is simple and yet has a powerful explanatory force. It is not only able to account for frequently occurring patterns in conversation, but for the exceptions to those patterns as well. It has a current appeal now because of its "top-down" and communicative orientation; it foregrounds the distinctiveness of particular speakers and contexts rather than linguistic universals. As a result of this, perhaps, it has become more and more accepted in recent years, as evidenced by the number of course books and other teaching materials incorporating it (see, for instance, Bradford, 1992; Underhill, 1994, Brazil, 1994a and b, Brazil, 1997, Cauldwell, 2015). Roach (2009: 159) identifies the emergence of the DI theory as one of the most interesting developments of recent years.

Moreover, DI has shown the inadequacy of intonational analysis on the basis of isolated sentences or tone-units, devoid of their linguistic and situational context (Roach, 2009: 159). It provides a clear way of observing naturally-occurring or conversational speech and it has continued to gain researchers' patronage across the globe as a current theory (Cauldwell, 2000). The present research also adopts DI as a result of its currency, wide acceptance and intimate relevance to naturally-occurring speech.

On the contrary, Systemic Intonation (SI), a model which pre-dates DI, views intonation as being grammatical in function. Halliday (1967: 10) is of the opinion that English intonation contrasts are grammatical. SI treats intonation as having a role to play in a large number of grammatical systems. Halliday (1967: 54-61) lists forty of these systems, which include information structure, information focus and commitment. SI regards the tone group as having an "unmarked" relationship with the clause, while tunes are regarded as having unmarked relationships with clause-types (Halliday, 1994: 305). For instance, the falling tune is the unmarked version for statements and "wh"-questions.

DI sees intonation as discoursal (*not* grammatical, *not* attitudinal) in function (SPARC, 2009). Intonation is significant in relation to "the function of the utterance as an existentially appropriate contribution to an interactive discourse" (Brazil, 1994b: 46). DI, as proposed by David Brazil, attempts to make the simplest possible description, and it attempts to adopt the language user's, not the linguist's, perspective: contextual factors are of paramount importance, and the speaker's perceptions are central. For Brazil (1997: 132), when a speaker makes a choice in any of the intonation systems, he or she "makes some kind of assumption about what he/she takes, for present purposes, to be the state of understanding between him/her and a hearer". Speakers thus make intonation choices according to their perception of the understandings they share with their hearers, that is, their shared biographies and the purposes of their talk in a particular context. DI does not recognise any normative stance concerning the relationship between intonation and grammar. Wells (2006: 15) supports this position by stating that there is generally "no predictable relationship between sentence type and tone choice".

2.3.2   DI systems of speaker choice

Concerned with the speakers' moment-by-moment context-referenced choices, DI recognises four systems of speaker choice: prominence, tone, key, and termination. Each of

these systems adds an increment of interpersonal meaning to the discourse between speaker and hearer(s).

2.3.2.1 Prominence

Coulthard (1985: 101) describes "prominence" as that system which distinguishes marked from unmarked syllables given to a property that is not inherent (like the word "accent") but only associated with a word by virtue of its function as a constituent part of a tone unit. Every tone unit has one or two syllables which a hearer can perceive as being more emphatic than the others. These syllables are said to have prominence, a feature which makes them distinct from all other syllables within the tone unit (Brazil, 1997: 7). The first prominent syllable in a tone unit is referred to as an onset syllable (Brazil, 1997: 11) while the last prominent syllable which is the centre of operation of the tone unit is referred to as the tonic syllable (Brazil, 1997: 9). The two are subsets of prominent syllables, though the onset syllable is complementary to the tonic syllable (Brazil, 1997: 10). A tonic syllable, for instance, is one which is prominent and on which there is also major pitch movement. The tonic syllable is indicated in transcription with underlining and an arrow symbol is placed at the beginning of the tone unit to specify the tune that is used:

> //⤩ I think on the WHOLE// ⊏that THESE ofFICials//⊆do
> a reMARKably good JOB//
> (Brazil, 1997: 9)

Whereas the prominent syllables are indicated with upper-case letters, "all non-prominent syllables are represented by lower-case letters" (Brazil, 1997: 13).

2.3.2.2 Tone

Tune, which Brazil (1997) calls tone, is described as pitch movements distinguished by their particular direction or contour (Coulthard, 1985: 101). Brazil (1997: 9-10) identifies five tunes, that is, fall, rise, fall-rise, rise-fall and level as the "complete set of possibilities". Coulthard (1985: 101) categorises these five tunes thus: two with final downward glides (fall and rise-fall), two with final rising glides (rise and fall-rise) and a non-glide (the level tune).

Central to the choice of tune is the proclaiming/referring (P/R) opposition "that is realised by the two tunes most frequently found in many kinds of discourse, the 'fall' and the 'fall-rise'" (Brazil, 1997: 68). The fall-rise depicts the tone unit it governs as "what we are talking about", while the fall portrays its tone unit as "something freshly introduced into the conversation" (Brazil, 1997: 68-69):

> //⤩WHEN i've finished MIDdlemarch//⊆i shall READ adam BEDE//

//\↗ i shall READ adam <u>BEDE</u>//⊆when i've finished <u>MID</u>dlemarch//
  (Brazil, 1997: 69)

In the examples above, the tone unit that has the fall-rise contains what has been mentioned already by the interactants while the one with a fall contains the new information. Brazil (1997: 69) calls the former a "referring tone" and the latter a "proclaiming tone". He therefore replaces the graphic symbols ⊂ and⊆ with the letters "*r*" (referring) and "*p*" (proclaiming) respectively: \

// *r* WHEN i've finished <u>MID</u>dlemarch// *p* i shall READ adam <u>BEDE</u>//
(Brazil, 1997: 69)

The choice of proclaiming or referring tune in a conversation is determined by what Brazil (1997: 70) calls "speaker-hearer convergence". If a speaker views his contribution in a conversation as a "common ground" or shared knowledge between him and the hearer, a referring tune is chosen. The speaker however chooses a proclaiming tune if his intention is to present his contribution as not yet present in the common ground. By his choice of a proclaiming tune on any part of his discourse, the speaker expects that the convergence between him and the hearer will increase as he tells the hearer something that he did not already know:

(1) // *r* the LATer novels of <u>DICK</u>ens// ...

(2) Speaker A: // *p* WHEN do they <u>CLOSE</u>//

    Speaker B: // *p* FOUR o'<u>CLOCK</u>// *r* at <u>THIS</u> time of year//

    (Brazil, 1997: 71)

(3) Speaker A: What will you do on your day off?

    Speaker B: // *r* WHEN i've prepared my <u>LEC</u>ture// *r* if there's any
    <u>TIME</u> left// *p* i shall GO into <u>TOWN</u>// *r* and AFter <u>THAT</u>// *p* it
    Will dePEND on the <u>WEATH</u>er// *p* perHAPS i shall play
    <u>TEN</u>nis// *r* if it's <u>FINE</u>// *r* and if there's anyone a<u>ROUND</u>//
    r <u>OTH</u>erwise// *p* i'll WRITE some <u>LET</u>ters//
    (Brazil, 1997: 73)

A speaker however has other tunes apart from the "fall-rise" and the "fall" for indicating a tone unit as referring or proclaiming, respectively. He has the option of choosing between a "fall-rise" and a "rise" to mark a tone unit as referring; he can, on the other hand, realise a proclaiming tone unit with either a "rise-fall" or a "fall" (Brazil, 1997: 82). While *p* and *r* are used for a "fall" and a "fall-rise" respectively, *p+* and *r+* represent the alternatives, the "rise-fall" and the "rise" respectively (Brazil, 1997: 83-84).

The decision to select *p+* rather than *p* or *r+* instead of *r* by a particular speaker in a discourse situation is determined by a factor that Brazil (1997: 84) calls "dominance". The

occupant of the dominant role is the person with a higher authority in a conversation. He decides who speaks when, and sets the limits of what is spoken about. This is the role of a teacher in a conventional school lesson, or a doctor in a doctor-patient consultation (Brazil, 1997: 84). Likewise, it is the role of an interviewer in relation to an interviewee in an interview situation:

// *r* the FIGure on the <u>LEFT</u> // *p* is a <u>TRI</u>angle //

// *r+* the FIGure on the <u>LEFT</u> // *p* is a TRIangle //

While a teacher can easily be imagined to produce either of the utterances above in the course of explaining things to his pupils, a pupil is not likely to produce the second utterance in a response to the teacher's question (Brazil, 1997: 85).

2.3.2.3 Key

Coulthard (1985: 101) sees "Key" as a relative pitch level chosen by speakers for each tone unit from three choices: low, mid and high. It is the choice which is associated with the onset syllable, that is, the first prominent syllable in a tone unit (Brazil, 1997: 11).

The choice of mid key, which is a normal or unmarked choice in conversation, indicates that "something is the case"; that of high key, which is a marked choice, has the import that "it is not the case". The choice of mid key or high key has contrastive implications. The high-key choice has the expectation that a situation should have been otherwise and therefore carries with it an implication of surprise, whereas the mid-key choice admits alternatives and simply states the case as it is:

<div align="center">LOST a <u>FOR</u>tune //</div>

(1) // he <u>GAM</u>bled // and

(2) // he <u>GAM</u>bled // and LOST a <u>FOR</u>tune // (Brazil, 1997: 45)

Example (1) implies that the gambler should have won, while example (2) has the implication that the gambler could have lost, won or broken even.

However, the choice of low key, another marked choice, projects a situation as a "forgone conclusion", that is, the situation is a necessarily expected one based on an earlier occurrence:

// he <u>GAM</u>bled // and   //   (Brazil, 1997: 50)
<div align="center">LOST a <u>FOR</u>tune</div>

In the example above, gambling necessarily entails losing; that is, gambling and losing really sum up to the same thing.

The key system enables speakers to draw a sharp contrast between a pair of possibilities and concurrently exclude one of them (Brazil, 1997: 43). In doing this on a

specific occasion, speakers may betray feelings, or anticipate feelings in their listeners to which a particular attitudinal label can be attached. However, Brazil (1997: 43) warns that questions of attitudinal labelling do "take us outside the legitimate concerns of linguistic description".

2.3.2.4 Termination

Termination is a low, mid, or high pitch-level choice made by speakers in a tone unit (Coulthard, 1985: 101). It is the choice that is associated with the tonic syllable, that is, the last prominent syllable (Brazil, 1997: 11). If there is no onset syllable however, the only prominent syllable is necessarily the first and the last; that syllable is therefore both the key and the termination (Brazil, 1997: 11-12):

```
           HAVE to re
// we                MEMber // that they're reQUIRED // by
adMINistrative PRACtice // to TAKE these deCISions // on
PAper
        //   (Brazil, 1997: 12)
```

The analysis of the extract above shows that there is high key and mid termination in the first tone unit; there is mid key and mid termination in the second to the fourth tone units (note that there is only one prominent syllable in the second tone unit); the fifth tone unit, which also has just one prominent syllable, however has a selection of the high term in both systems, that is, high key and high termination.

In a verbal interaction between speakers, a speaker's choice of key is usually influenced by the previous speaker's termination choice. By choosing high or mid termination, a speaker expects the next speaker to respond with a corresponding key:

(1) Speaker A: // DO you underSTAND //

   Speaker B: // YES //

```
                       STAND
(2) Speaker A:  // DO you under          //

            YES
   Speaker B:  //       //   (Brazil, 1997: 53-54)
```

The choice of mid termination by speaker A in example (1) above influenced the mid-key choice by Speaker B, while the high-termination choice by Speaker A in example (2) determined the choice of high key by Speaker B. In both cases, B has agreed that he understood, though example (1) indicates a simple confirmation of A's expectation while example (2) implies an emphatic assertion of concurrence of B with A. Conversely, B may not concur with A if A has wrongly assumed that B has understood:

45

Speaker A: // DO you under<u>STAND</u> //

Speaker B: //   <u>NO</u>   //

In the example above, the high-key *no* choice is a contradiction of the expectation that speaker B's response would be *yes*. This "demonstrates ... the way the constraints inherent in one speaker's termination choice may be overridden in what the next speaker actually does" (Brazil, 1997: 54).

The termination/key relationship entails the notions of "'expectation of concurrence' and 'invitation to adjudicate'" (Brazil, 1997: 56):

(1) Speaker A: // WHERE did he <u>FIND</u> it //

     Speaker B: // <u>YES</u> // (= 'I want to know that as well')

(2) Speaker A: // WHERE did he   <u>FIND</u> it   //

     Speaker B: //   <u>YES</u>   // (= 'You are right – that is what we want to know')

     (Brazil, 1997: 56)

B's response in example (1) is a straightforward agreement with A's enquiry. In contrast, B's contribution in example (2) is a judgemental response to A's invitation.

Termination choices have the communicative effect of projecting an expectation of different responses in different contexts.

(1) Speaker A: // WHERE did he <u>FIND</u> it //

    Speaker B: // in the <u>AT</u>tic //

(2) Speaker A: // WHERE did he   <u>FIND</u> it   //

    Speaker B: // in the   <u>AT</u>tic   // (Brazil, 1997: 57)

In example (1) above, A simply requests for information to which B responds by indicating the place, out of the possible places, where it was found. In example (2), A's enquiry portrays the fact that an unlikely answer is expected. The question here can be elaborated as "Where on earth did you find it?" Speaker B thus projects a binary opposition between this foremost unexpected place and all other more likely places.

There is a relation of hyponymy or entailment in the relationship between mid and low key in connection with a previous termination. The value of mid key entails or includes that of low key, though the mid-key choice would not be appropriate in all circumstances where the low-key choice would be:

46

(1) // he GAMbled // and <u>LOST</u> //

(2) // he GAMbled // and　　　　 // (Brazil, 1997: 64)
<div align="center"><u>LOST</u></div>

The correctness of utterance (2) is included in that of (1); utterance (1) would however not be appropriate in all situations that utterance (2) would be suitable. Example (1) asserts the occurrence of both events; example (2) also affirms this, besides which it also declares that both events necessarily go together (cf. 2.3.2.3).

2.3.3 DI notation

The notation of DI started (in the 1970s) as a type-writer friendly notation using upper-case letters for prominent syllables, lower-case letters for non-prominent syllables, underlining for the tonic syllable, and lines up or down for high and low key and termination (SPARC, 2009). Symbols for the tunes were given in letter form, with "*p*" for proclaiming (falling) tunes, and "*r*" for referring (rising) tunes. After the advent of the word-processor, more use was made of arrows. The example below (from Chapter 7 of the British/Irish version of Streaming Speech) is an illustration of contemporary practice:

//⊆and THAT was the WAY to do <u>WELL</u> on the course//
Θnd ΔΘt w☐z Δ↔ weI tu: du: wel ☐n Δ↔ k☐:s   (slow speech)
Θn ΔΘ? w↔z Δ↔ weI t↔ du: wel ☐n Δ↔ k☐:s   (fast speech)

The words "that", "way" and "well" are in upper-case letters to show that they are prominent, the other words are non-prominent. There is a falling (proclaiming) tune which starts on "well" and continues over the last three words "on the course". The double-slash symbols denote a tone-unit boundary. Key and termination choices are mid; if they were high or low, the prominent syllables would be preceded by up or down arrows.

2.4   Summary

In this chapter, I have done an exposition of some previous works on English intonation and its importance in communication. I have also discussed the principles of David Brazil's Discourse Intonation (DI) model, which served as the theoretical framework for this research. The next chapter focuses on the methodology adopted for the collection and analysis of the data for the study.

<div align="center">

CHAPTER THREE

METHODOLOGY

</div>

3.1   Introduction

Three major components on the methodology used for the study are discussed in this chapter. The first is the population sampled for the study; the second is the procedure employed for collecting the data for the work and the last is the method adopted for data analysis.

3.2   The study population

The participants for this study were made up of fifty educated Nigerian speakers of English (ENSE). This number was grouped into two categories of twenty-five persons each based on the mode of the data collection from them. Group A was composed of those whose utterances were recorded during the discussion programmes and within-news interview sessions on the electronic media (radio and television) while Group B was made up of those who participated in the focus group discussion (FGD) conducted by this researcher.

Membership of Group A was composed of thirteen broadcasters, three entrepreneurs, three senior government officials, two university lecturers, two public commentators, a medical doctor and a sports analyst. These categories were arrived at based on the roles the participants played during the discussions and how they were introduced. All of them obviously had educational qualifications ranging from National Certificate in Education (NCE) to university degrees. This assertion was arrived at going by the prevailing situation in Nigeria where possession of higher certificates is an important precondition for getting employment or appointment at the senior cadre and being reckoned with in the society. They were therefore considered to be educated Nigerians with high level of proficiency in the spoken English. Group B, on the other hand, was populated by university degree holders of various disciplines (English and other disciplines) who were also deemed to be educated speakers of English by the virtue of their higher learning. Educated Nigerian English which constitutes the most socially accepted is claimed to be spoken mainly by university graduates (Gut, 2005: 154). However, Adejuwon (2003: 89; 2005: 37; 2011: 51) has discovered that obtaining a university degree in English Language does not necessarily make one better in the use of English intonation than those who learn this prosodic feature of speech elsewhere. What matters is the intensity or quality of the training coupled with the training facilities as well as the readiness or interest of the learner.

The twenty-five participants in Group A were made up of fourteen males and eleven females while Group B membership comprised eighteen males and seven females. Also, the fifty participants were speakers of the three major Nigerian native languages from the three major ethno-geographical zones of the country (Yoruba from the West, Igbo from the East

and Hausa from the North). However, the native language backgrounds of Group A participants could not be definitely determined because this researcher did not have any access to them having recorded their utterances on the radio and the television. The tables below show the socio-demographic groupings of the participants in Group A, including the percentages, at a glance:

Table 3.1: Categorisation of Group A study population by profession

Profession		
Broadcasters	13	52.0%
Entrepreneurs	3	12.0%
Government Officials	3	12%
University Lecturers	2	8.0%
Public Commentators	2	8.0%
Medical Doctor	1	4.0%
Sports Analyst	1	4.0%
Total	25	100%

Source: The present study

Table 3.2: Categorisation of Group A study population by gender

Gender		
Males	14	56.0%
Females	11	44.0%
Total	25	100%

Source: The present study

The socio-demographic characteristics of the participants in Group B were obtained from the questionnaire filled by them. The following tables show the categorisations of the participants in Group B, including the percentages, at a glance:

Table 3.3: Categorisation of Group B study population by gender

Genders		
Males	18	72.0%

Females	7	28.0%
Total	25	100%

Source: The present study

Table 3.4: Categorisation of Group B study population by native language

Native languages		
Yoruba	9	36.0%
Igbo	8	32.0%
Hausa	8	32.0%
Total	25	100%

Source: The present study

Table 3.5: Categorisation of Group B study population by age bracket

Age brackets		
21-30 years	10	40.0%
31-40 years	11	44.0%
41-50 years	3	12.0%
50 years plus	1	4.0%
Total	25	100%

Source: The present study

Table 3.6: Categorisation of Group B study population by educational level

Educational levels		
Secondary	11	44.0%
University	9	36.0%
Both	5	20.0%
Total	25	100%

Source: The present study

3.3   Data collection procedure

Two major methods were used to generate the data for this study. First, audio recordings were made by this researcher during the discussion programmes and interview sessions on some Nigerian electronic media. The research population obtained through this method was tagged Group A. Second, the researcher also conducted focus group discussion (FGD) sessions at various locations in Ile-Ife in Osun State, Ibadan in Oyo State and Agege in Lagos State. The participants selected for this research from the FGD were collectively

referred to as Group B. In addition to the FGD, a questionnaire was administered to elicit socio-demographic information from the participants of the FGD.

3.3.1 Electronic media-generated data

Recordings of Group A participants' utterances were made by this researcher during the discussion programmes and interview sessions on the Nigerian Television Authority (NTA), Africa Independent Television (AIT), Channels Television and Federal Radio Corporation of Nigeria (FRCN) in the year 2012. A text containing twenty-five excerpts from the recordings was then prepared. The twenty-five excerpts were each extracted from the utterances of twenty-five speakers.

Twenty-four excerpts in the participants' text were shown interactively while only one was brought out singly from the discussion situation. The twenty-five excerpts were full utterances with the benefit of contexts of productions. One hundred tone-units were purposively selected for analysis, based on their structural types and centrality to the messages of the excerpts, from the twenty-five excerpts which actually contained one hundred and seventy-eight tone units.

For the purpose of data analysis, the punctuation marks indicating pause or stop (that is, comma, semi-colon and colon or full stop and question mark) in the utterances were replaced with the tone-unit boundary marker. This replacement or removal of the punctuation marks is consistent with the practice by Brazil (1997) and assertion of Roach (2009: 129) that punctuation is not necessary, or could even be confusing, in demarcating tone-units because "intonation and stress are the vocal equivalents of written punctuation". Other punctuation marks like the apostrophe denoting omission of certain letter(s) in some words (that is, don't, it's, isn't, and so on) and the hyphen indicating compounding were however retained for easy reading of the data. The slanting line (/) was used to indicate tone-unit boundary. While Brazil (1997) uses double slashes (//) to indicate his own tone-unit boundary, irrespective of whether it is a sentence-final boundary or not, this work employs single slash for non-sentence-final tone-unit boundary and double slashes for sentence-final tone-unit boundary.

Also, as in the early part of Brazil's work (see Brazil, 1997: 9, 14, 16), arrows were used to indicate the intonation tunes employed by the participants. The falling arrow ($\subseteq$) was used to signify falling tune, the rising arrow ($\subset$) denotes rising tune while the horizontal arrow ($\rightarrow$) shows level tune. The tone-units that were analysed in this work are shown by underlining. Both the conventionally punctuated and the modified texts of the Group A participants' utterances are attached as Appendices I(a) and I(b), respectively.

3.3.2 Focus group discussion-generated data

The utterances of the participants in Group B were recorded during focus group discussion (FGD) sessions conducted in 2014. The FGD sessions for the Yoruba and Igbo speaking participants were conducted at Obafemi Awolowo University, Ile-Ife and New Bodija, Ibadan. The Hausa-speaking participants' FGD sessions were conducted at Sabo, Ile-Ife and Agege, Lagos. The researcher purposefully limited the data collection locations to Southwestern Nigeria though he ensured that the Hausa and Igbo participants were those who had their education in their respective parts of the country and could speak only their respective native languages very fluently in addition to English. Four FGD sessions were held: two in Ile-Ife, one in Ibadan and one in Agege. Each FGD session had between eight and ten participants, and lasted between one hour and one and a half hours.

As done in the case of Group A, a text containing twenty-five excerpts from the recordings of the discussion sessions was also prepared. Likewise, the twenty-five excerpts were each extracted from the utterances of twenty-five participants in the FGD. The participants' utterances were elicited through two topics given to them to discuss. The first topic, "The Menace of Boko Haram: Causes, Effects and Solutions", was originally designed to be the only one for the FGD, and this was given to the Yoruba participants to discuss. Six questions were proposed by the researcher as guide for the discussion, though the discussants were made to understand that they were not restricted to them. The questions were as follows:

- What is Boko Haram?
- How did it start?
- Is it a recent development?
- What caused it?
- Has it any effect(s) on the nation?
- How can it be eradicated?

However, due to the observation of some of the Yoruba participants and some colleagues concerning the negative emotion that the specific mention of "Boko Haram" and reference to it as a menace may attract among the prospective participants from a part of the country, the topic was modified to read "Insurgency in Nigeria: Causes, Effects and Solutions" which sounds more general. This second topic was discussed by the Igbo and the Hausa participants. The following questions were likewise proposed as guide for the discussion:

- What is insurgency?

- Who are insurgents?
- Is it a recent development?
- What caused it?
- Has it any effect(s) on the nation?
- What are the possible solutions?

These two topics were about a generally-known national problem which had lingered for over five years. It was assumed that any educated Nigerian should be able to contribute conveniently and meaningfully to any discussion on the problem.

All the excerpts in Group B text were shown interactively in the discussion situation. The twenty-five excerpts, which were full utterances, were extracted within their contexts of productions. One hundred tone-units were equally purposively sampled for analysis, on the basis of their structural types and centrality to the messages of the excerpts, from the twenty-five excerpts which actually contained one hundred and sixty-eight tone-units.

As done in 3.3.1, various punctuation modifications were also effected in line with the practice by Brazil (1997) and Roach's (2009: 129) assertion while other punctuation marks like the apostrophe, the hyphen and the dash were also retained for easy reading of the data. The single and the double slashes (/ and //) were also employed for non-sentence-final and sentence-final tone-unit boundaries respectively.

In conformity with Brazil (1997: 9, 14, 16), arrows were also used to indicate the intonation tunes employed by the Group B participants as was done in the Group A participants' text. The participants' tone units that were analysed in this work are also shown by underlining. As done with the Group A participants' texts, the Group B participants' conventionally punctuated and modified texts are attached as Appendices II(a) and II(b), respectively.

3.3.3   The questionnaire

The questionnaire, which was designed to elicit socio-demographic information on the twenty-five participants in the FGD, had two sections, each with 10 items. Section A asked questions meant to elicit personal information like educational background, occupation, gender, age and native language of the participants. The questions in Section B focused on the participants' awareness of English intonation and their attitude towards its teaching and learning. The questionnaire administered on the participants is attached as Appendix III.

3.4   Validation of data collection procedure

The procedure for data collection was subjected to thorough scrutiny during the seminar presented by this researcher at the departmental postgraduate and staff seminar as well as during the conversion examination. The shortcomings identified at both forums were rectified while the suggestions of Professor Richard Thomas Cauldwell, a discourse intonation expert at the University of Birmingham, United Kingdom, and five other experts in the phonology of English at the University of Ibadan, Ibadan and Obafemi Awolowo University, Ile-Ife were also incorporated. The first draft of the questionnaire was shown to four senior colleagues in the Department of English at both the University of Ibadan, Ibadan and Obafemi Awolowo University, Ile-Ife who made useful suggestions that were incorporated to arrive at the final version that was administered after it had been approved by the main supervisor of this study.

3.5   Students' feedback on the teaching of English intonation in secondary schools

In order to find out if students were taught English intonation before gaining admission to higher institutions in Nigeria, the researcher conducted a survey among the pre-degree students of the Obafemi Awolowo University, Ile-Ife in the 2013/2014 session. Forty students, who were selected at random, were asked to indicate whether they were taught English intonation in their secondary schools or not by writing down the names and locations of their schools. Those that were taught were asked to indicate the class or classes in which they were taught. The majority of the respondents passed out of the secondary school between 2012 and 2014. It was discovered that 34 of them were taught while only 6 were not taught. A list of the schools and other details, as indicated by the students, is attached as Appendix IV.

3.6   Procedure for data analysis

In the light of our aim and objectives, the data collected were analysed on the basis of the identification and the quantification of the intonation tunes used by the study population. The precise intonation tunes used by the study population were identified and the frequency of their occurrence was determined. The auditory approach was the main method used to identify the intonation patterns of the participants. It was found more reliable for the analysis of the data used for this study because the recordings were not devoid of extraneous sounds (or noise) which the instrumental approach could not sieve from the actual data. The researcher played back and listened to the recorded utterances of the study population. The instrumental approach (discussed in 2.2.9) was applied only to the portions of the data that were recorded in relatively quiet environments and these were played back to the wasp

(sfs/wasp) software on the computer for acoustic analysis. Some of the visual representations or spectrograms thus generated are used in the tone-unit examples for the analysis in Chapters Four and Five. These tone-units were extracted from the excerpts.

Five tables which show the raw scores of the number of times the falling and the rising tunes were used per excerpt by the participants were thus arrived at. On the basis of the five tables, the analysis of the data was mainly anchored on five major categorisations, namely: intonation tunes used in non-interrogative tone units, intonation tunes used in "wh-" (specific) question tone units, intonation tunes used in "yes/no" (polar) question tone units, falling tune on sentence-final tone units (non-interrogative) and rising tune on non-sentence-final tone units. While the first three categorisations were meant to test the study population's knowledge and use of the natural speech or discourse intonation model, the last two were intended to examine their conformity with the formalised intonation rules encoded in ELT textbooks. The five tables are presented in Chapters Four and Five.

STATA version 11 (a statistical software package for data analysis created by Statacorp in 1985 but released for use in 2013), which allows command and minimizes error, was employed to do a univariate (descriptive/qualitative) analysis of the data. This brought out the frequencies and percentages of the occurrences of both the proclaiming and the referring tunes in the utterances of the participants. The conformity of the study population with discourse intonation model or the formalised intonation rules was thereby determined.

Also, four variables based on socio-demographic characteristics were identified for analysis. They included: gender (male versus female), native language (Yoruba, Igbo, Hausa), age bracket (21 to 30 years, 31 to 40 years, 41 to 50 years and 51 years and above) and educational level at which the participants learnt English intonation (secondary school, university and both levels). Only the first variable applied to the Group A participants because of the sourcing of their utterances on the electronic media. All the four variables were applicable to the Group B participants because the researcher was able to get all relevant information from them through the questionnaire they filled. The raw score tables for these socio-demographic characteristics are also presented in Chapters Four and Five.

The percentages of the participants' use of the proclaiming and the referring tunes (summary data) thus generated were subjected to ANOVA for inferential (quantitative) analysis. This enabled us to see the level of statistical significance in the mean among the

different groups, genders, native language backgrounds, age brackets and educational backgrounds.

The italicised symbols *p* (for proclaiming tune) and *r* (for referring tune) are used instead of the falling arrow (⊆) and the rising arrow (⊂) respectively wherever specific mention is made of any part of the data in the course of the analysis in the first three major categorisations. This is in consonance with Brazil's (1997: 69) shift from the use of the arrows to the use of the symbols *p* and *r*.

3.7   Summary

The methods used for the study were explored in this chapter. The study population, the data collection procedure and the method adopted for data analysis were all discussed. The next chapter focuses on the presentation, analysis and discussion of the data generated on the electronic media.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF RADIO AND TELEVISION-GENERATED DATA

4.1   Introduction

In the present chapter, the data collected on the electronic media are presented, analysed and discussed. The analysis and discussion are anchored on five major categorisations based on the structural patterns and sentence functions of the tone units. Also considered in the analysis and discussion is a socio-demographic characteristic. Inferences were then drawn from the findings. The participants obtained through the electronic media are labelled as Group A.

4.2   Non-interrogative tone-units

4.2.1   Participants' raw scores in non-interrogative tone-units

As indicated in 3.5, the specific intonation tunes that the study population used were identified and the frequency of occurrence of such tunes was determined. A table which shows the raw scores of the number of times the falling and the rising tunes were used per excerpt by the participants was thus arrived at. The table presents the excerpt-by-excerpt analysis of the Group A participants' non-interrogative tone units that constitute the first of the five major categorisations on which my data analysis was mainly anchored.

Table 4.1:   Raw scores of intonation tunes used in non-interrogative tone-units

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
1 (Male)	⊆	7
	⊂	1
3 (Female)	⊆	1
	⊂	0
4 (Female)	⊆	1
	⊂	3
6 (Female)	⊆	7
	⊂	3

8 (Male)	$\subseteq$	6
	$\subset$	0
9 (Male)	$\subseteq$	1
	$\subset$	0
10 (Male)	$\subseteq$	2
	$\subset$	0
11 (Female)	$\subseteq$	2
	$\subset$	2
12 (Male)	$\subseteq$	1
	$\subset$	3
14 (Male)	$\subseteq$	5
	$\subset$	1
16 (Female)	$\subseteq$	5
	$\subset$	0
18 (Male)	$\subseteq$	3
	$\subset$	1
19 (Male)	$\subseteq$	0
	$\subset$	2
20 (Male)	$\subseteq$	6
	$\subset$	1

22 (Male)	⊆	2
	⊂	4
24 (Male)	⊆	5
	⊂	5
25 (Male)	⊆	3
	⊂	2

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

As shown in Table 4.1 above, there are 17 non-interrogative tone unit excerpts. Twelve of them were uttered by male participants while the remaining 5 were uttered by female participants. It should be noted that the analysed tone units in Excerpts 2, 5, 7, 13, 15, 17, 21 and 23 are interrogative tone units which belong to other raw score tables. They are therefore not analysed in this subsection.

4.2.2 Participants' intonational choices in non-interrogative tone-units

The frequency of occurrence of the participants' use of the proclaiming and the referring tunes in the non-interrogative tone-units of 17 excerpts is discussed in this subsection. The discourse implications of the use of the two tunes will also be examined. These will be achieved through the frequency table obtained by the application of STATA version 11 to the raw score table displayed in 4.2.1. The visual representations of the intonation patterns used by the participants are shown in the example tone units.

Table 4.2:   **Percentage distribution of participants' utterances by intonation tunes in non-interrogative tone-units**

Excerpt 1	Frequency	Percentage
Falling	7	87.5
Rising	1	12.5
Total	8	100
Excerpt 3	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100

Excerpt 4	Frequency	Percentage
Falling	1	25.0
Rising	3	75.0
Total	4	100
Excerpt 6	**Frequency**	**Percentage**
Falling	7	70.0
Rising	3	30.0
Total	10	100
Excerpt 8	**Frequency**	**Percentage**
Falling	6	100
Rising	0	0
Total	6	100
Excerpt 9	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 10	**Frequency**	**Percentage**
Falling	2	100
Rising	0	0
Total	2	100
Excerpt 11	**Frequency**	**Percentage**
Falling	2	50.0
Rising	2	50.0
Total	4	100
Excerpt 12	**Frequency**	**Percentage**
Falling	1	25.0
Rising	3	75.0
Total	4	100
Excerpt 14	**Frequency**	**Percentage**
Falling	5	83.3
Rising	1	16.7
Total	6	100
Excerpt 16	**Frequency**	**Percentage**
Falling	5	100
Rising	0	0
Total	5	100
Excerpt 18	**Frequency**	**Percentage**
Falling	3	75
Rising	1	25
Total	4	100
Excerpt 19	**Frequency**	**Percentage**
Falling	0	0
Rising	2	100
Total	2	100
Excerpt 20	**Frequency**	**Percentage**
Falling	6	85.7
Rising	1	14.3
Total	7	100

Excerpt 22	Frequency	Percentage
Falling	2	33.3
Rising	4	66.7
Total	6	100
Excerpt 24	Frequency	Percentage
Falling	5	50.0
Rising	5	50.0
Total	10	100
Excerpt 25	Frequency	Percentage
Falling	3	60.0
Rising	2	40.0
Total	5	100

Source: The present study

Table 4.2 above shows percentage distribution of the Group A participants' utterances by intonation tunes in non-interrogative tone units. Going by the intonation patterns of the participants under study, it is clear that DI is yet a strange model in the English intonation of educated Nigerian speakers of English. We had complete conformity with DI in just 4 excerpts (Excerpts 3, 10, 12 and 19). The full excerpts showing Group A participants' intonation patterns are displayed in 3.2.1.2.

The proclaiming tune was employed in producing the lone non-interrogative tone unit in Excerpt 3. This non-sentence-final tone unit is obviously a prelude to a question which ordinarily should elicit information from an expert and this makes the choice of the proclaiming tune by the participant to conform to DI. Excerpt 10 contains 1 non-sentence-final and 1 sentence-final tone units which were both spoken with the proclaiming tune. The participant here was expressing a personal opinion; hence, the choice of the proclaiming tune for both tone units is in line with DI. The 4 analysed tone units in Excerpt 12 are divisible into 3 non-sentence-final and 1 sentence-final tone units. The proclaiming tune was placed on 25.0% of the tone units while 75.0% received the referring tune. The pattern here can be said to conform to DI as the tone units with the referring tune obviously establish common grounds between the speaker and his interviewer while the one bearing the proclaiming tune apparently provides information. At the same time, the excerpt complies with the grammatical intonation rules as the tone units taking the rising tune are non-sentence-final while the one with the falling tune is sentence-final. Excerpt 19 is composed of 1 non-sentence-final and 1 sentence-final tone units which were both produced with the referring tune. The 2 tone units state a fact that is known to both the speaker and his interviewee. The choice of the referring tune is therefore in line with DI.

For instance, the only tone unit in Excerpt 3 was produced with a terminal falling pitch:

Capture 4.1: SFS screen capture of "In terms of putting this together ..."

// *p* In   terms   of   putting this   together/...
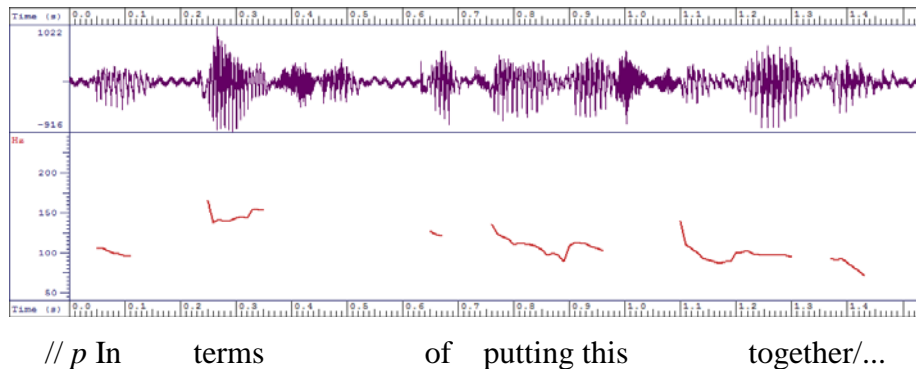
Source: The present study

The final tone unit in Excerpt 19 was produced with a rising pitch at the end:

Capture 4.2: SFS screen capture of "... and in other parts of Africa"
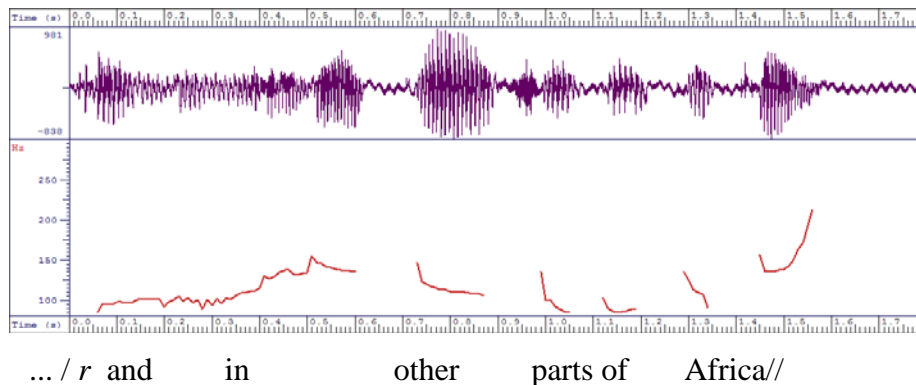
... / *r* and   in   other   parts of   Africa//

Source: The present study

Above average conformity with DI was recorded in 3 excerpts (Excerpts 8, 14 and 25). The participant who produced Excerpt 8 placed the proclaiming tune on all the 6 tone units constituting the excerpt (3 non-sentence-final and 3 sentence-final). The choice of the proclaiming tune by the participant here is largely in consonance with DI as he was apparently giving information to his interviewer. It is only the third tone unit that can be said to constitute shared knowledge because it states what people (obviously including the interviewer) used to know in the past and as such should take a referring tune, like its introductory phrase, instead of the proclaiming tune placed on it:

Capture 4.3: SFS screen capture of "... people thought it was impossible to do this in Nigeria
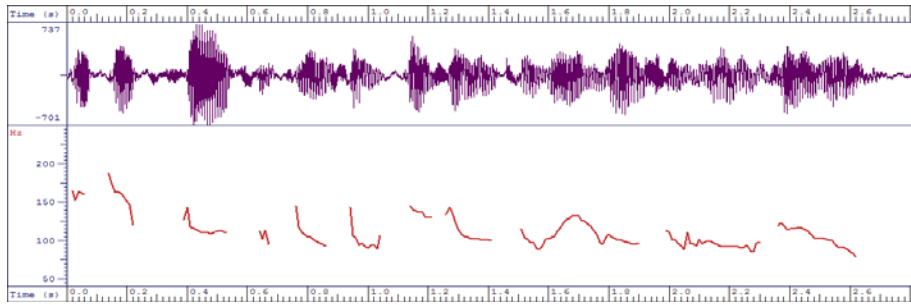
... / *p* people thought it was impossible   to do this   in   Nigeria/

Source: The present study

The 6 non-interrogative tone units in Excerpt 14 include 4 non-sentence-final and 2 sentence-final tone units. The participant, who was apparently giving information with no presumption of common grounds between him and his interviewer, rightfully used the proclaiming tune to produce 5 tone units, but placed the referring tune on the remaining 1. As a government functionary, he was privy to the fact that the President had given certain directives. His choice of the rising tune on 1 of the tone units, a non-sentence-final tone unit, is therefore grammatical rather than discoursal:

Capture 4.4: SFS screen capture of "It has been directed by the President and
**   Commander-in-Chief**
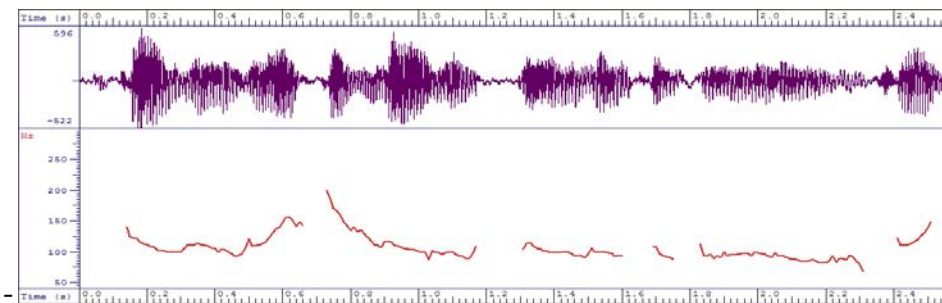
// *r* It has been directed by the President and Commander-in-Chief/...

Source: The present study

The speaker of Excerpt 25, who was obviously expressing his opinion on a national issue, uttered 60.0% of the 5 tone units (1 non-sentence-final and 4 sentence-final) with the proclaiming tune while the remaining 40.0% were said using the referring tune. The first 2 tone units and the last 1, which were produced with the proclaiming tune, are in accord with DI. Placing the referring tune on 2 of the tone units, which were also intended to pass information, renders the intonation tune choice for the affected tone units contra-DI. One of the 2 tone units with the terminal rising pitch is:

Capture 4.5: SFS screen capture of "Our foreign reserve shrinks due to importation of
**   spare parts"**
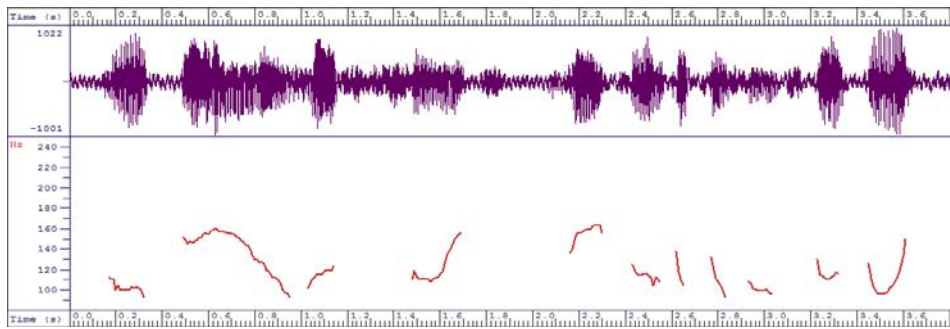
// *r* Our foreign reserve   shrinks   due to importation of spare parts//
Source: The present study

Average agreement with DI was recorded in 1 excerpt (Excerpt 18) while below average compliance with DI was the case in 1 excerpt (Excerpt 20). The choice of the proclaiming tune in the last 2 (1 non-sentence-final, 1 sentence-final) of the 4 analysed tone units in Excerpt 18 is obviously in accord with DI because these tone units are actually conveying information. There is, however, a mix-up of tunes in the remaining 2 tone units as the one that is referring to a shared knowledge (a sentence-final tone unit) was spoken with a proclaiming tune while the one that is introducing new information (a non-sentence-final tone unit) was produced with the referring tune:

Capture 4.6: SFS screen capture of "... the objective of a company is profitability"
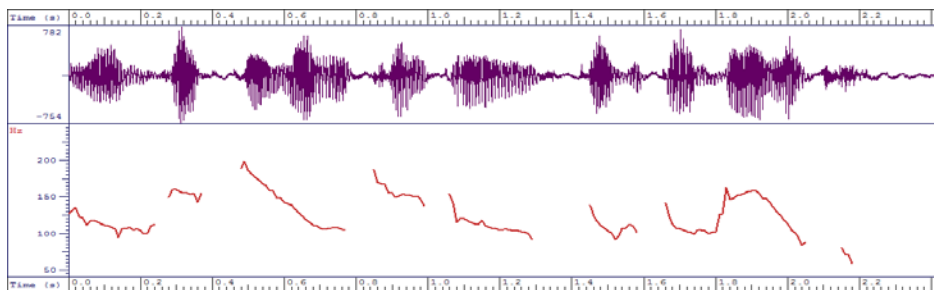
... / *p* the   objective   of a   company   is   profitability//
Source: The present study

Capture 4.7: SFS screen capture of "... the moment you begin to look at your profit"
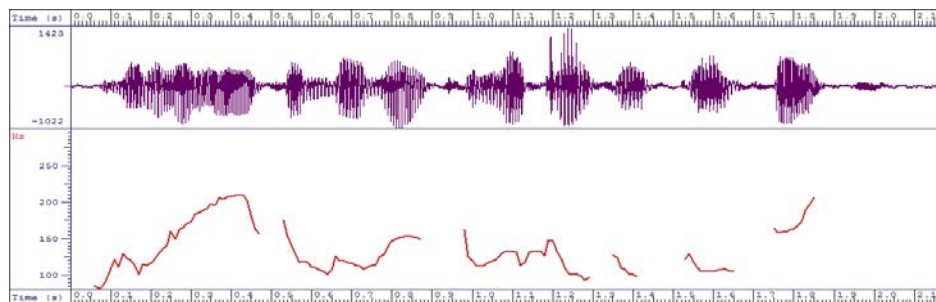
... / r the moment you begin to look at your profit/...

Source: The present study

Meanwhile, 8 out of the 17 excerpts (47.1%) were not in accord with DI (Excerpts 1, 4, 6, 9, 11, 16, 22 and 24). Only 1 of the 8 tone units in Excerpt 1 (the only one with the referring tune) conformed to DI. The speaker of Excerpt 4, who was introduced by her interviewer as a graduate of English, simply used the grammatical intonation rules set in ELT textbooks (known as Systemic Intonation or SI) to place the referring tune on the 3 non-sentence-final tone units and the proclaiming tune on the only sentence-final tone unit in the excerpt. She was however supposed to give expert information to someone who was supposedly finding out about her business with the use of the proclaiming tune all through.

As is the case in Excerpt 1, we have an indiscriminate deployment of the proclaiming and the referring tunes in Excerpt 6. The use of the referring tune on the first tone unit is apparently in agreement with DI, but this cannot be said about the proclaiming tune choice in the second tone unit. If the content of the first tone unit is a known fact, that of the second, which is the purpose of the first, should not be a secret. The third tone unit ought to take a proclaiming tune to comply with DI instead of the referring tune used by the participant because she was actually emphatically expressing her mind. The fourth, fifth, sixth and seventh tone units are apparently stating the obvious, especially with the overt use of the expressions: "as usual" and "everyone knew". They therefore ought to have been uttered with the referring tune to conform to DI instead of the proclaiming tune placed on them. The haphazard use of the two intonation tunes is further brought out in the last three tone units analysed in this excerpt. All of them are expressing common knowledge and therefore should take the referring tune to be in agreement with DI. Only the ninth tone unit bears the referring tune while the eighth (non-sentence-final) and the tenth (sentence-final) tone units were uttered with the proclaiming tune. Like Excerpt 1, the intonational choices in this excerpt are neither in agreement with DI nor rule-based intonation patterns.

Excerpt 9 is obviously referring to a common ground. From the question that follows and the answer given by the interviewee, it is apparent that the speaker here knew that his co-

65

interlocutor was aware of the fact conveyed in the only tone unit in that excerpt. To conform to DI therefore, the tone unit should have been said with the referring tune rather than the proclaiming tune employed. The speaker of Excerpt 11 was apparently giving her personal opinion, which means she was giving information, but she used the referring tune on 2 of the 4 tone units. These 2 tone units are non-sentence-final. Moreover, 1 of the 2 tone units on which she used the proclaiming tune is a sentence-final tone unit. This means that she mostly adhered to SI, instead of DI, while she inadvertently used the proclaiming tune on a non-sentence-final tone unit. From the context of interaction in Group A's text, the contribution of the speaker of Excerpt 16 constitutes shared knowledge between him and his co-interactant. The use of the proclaiming tune on the 5 tone units in the excerpt is therefore not in consonance with DI.

The participant in Excerpt 22 also mixed up the tunes in his production of the 6 tone units constituting the excerpt. The first 2 tone units are clearly stating a common ground between the speaker of the utterance and his interviewer, based on a report they saw together. The choice of the proclaiming tune for them is therefore alien to DI. The 4 tone units said with the referring tune are actually offering suggestions (information); the choice of the referring tune by the speaker is therefore out of place in DI. Only 30.0% of the 10 tone units in Excerpt 24 conform to DI in terms of intonation tune choice while 70.0% do not. From the context of this excerpt, the speaker here saw the first 2 tone units as conveying a common fact which all Nigerians knew about, especially with his overt statement that "and I know Nigerians are proud of us". His choice of the proclaiming tune is therefore not in agreement with DI. The participant's choice of the referring tune on the first of the next 2 tone units is contrary to DI, while the use of the proclaiming tune on the second one is in conformity with DI. Also, the remaining 6 tone units were employed to give specific information on the plight of the speaker's constituents (i.e. people of his constituency) as their Representative. The use of the referring tune on the first 4 of these tone units is therefore inappropriate in DI while the choice of the proclaiming tune in uttering the last 2 is in conformity with DI.

The haphazard use of intonation tunes by the participants is exemplified in the following spectrographically displayed instances from Excerpt 22:

Capture 4.8: SFS screen capture of "I think we depend on oil, from the report"
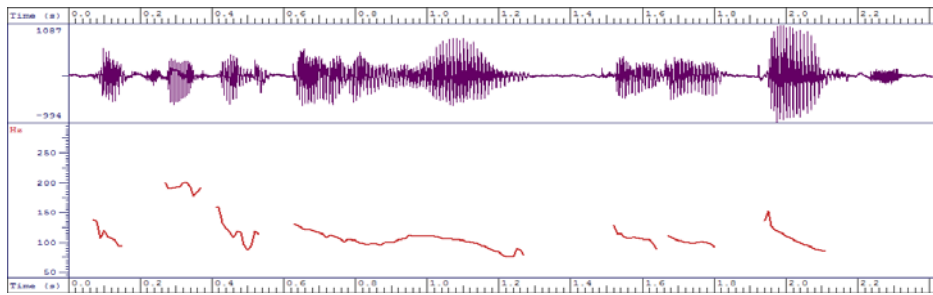
// *p* I think we depend on oil/ *p* from the report/...

Source: The present study

Capture 4.9: SFS screen capture of "... we should go into manufacturing, into agriculture"
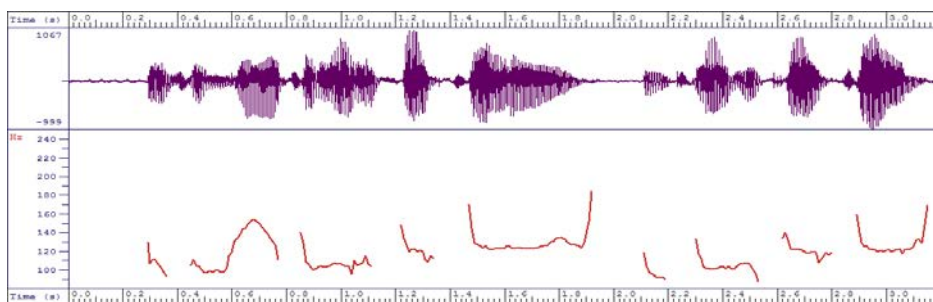
/ *r* we should go into manufacturing/ *r* into agriculture/...

Source: The present study

If we add the excerpts that are in total accord with DI and those with above average conformity with DI, we only have 7 out of 17 excerpts (41.2%) that largely subscribe to DI. It means then that a vast majority of educated Nigerians are not aware of and do not use DI, at least in the aspect of non-interrogative tone units. Our Research Questions 2 and 3 are therefore answered in the negative (see 1.4).

4.3 "Wh-" interrogative tone-units

4.3.1 Participants' raw scores in "wh-" interrogative tone-units

The table below shows the excerpt-by-excerpt analysis of the participants' "wh-" interrogative tone-units that constitute the second major categorisation on which the data analysis was mainly anchored.

Table 4.3: Raw scores of intonation tunes used in "wh-" interrogative tone units

67

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
2 (Male)	⊆	0
	⊂	1
3 (Female)	⊆	0
	⊂	1
5 (Female)	⊆	0
	⊂	1
7 (Female)	⊆	1
	⊂	0
19 (Male)	⊆	1
	⊂	0
21 (Female)	⊆	1
	⊂	0
23 (Female)	⊆	1
	⊂	0

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

As shown in Table 4.3 above, there are 7 "wh-" or specific question tone unit excerpts. Two of them were uttered by male participants while 5 were uttered by female participants.

4.3.2 Participants' intonational choices in "wh-" interrogative tone-units

In this subsection, the frequency of occurrence of the participants' use of the proclaiming and the referring tunes in the "wh-" question tone-units of 7 excerpts is

discussed. The discourse implications of the use of the two tunes will similarly be examined. These will also be achieved through the frequency table obtained by the application of STATA version 11 to the study population's raw score table displayed in 4.3.1.

Table 4.4:   Percentage distribution of participants' utterances by intonation tunes in "wh-" interrogative tone units

Excerpt 2	Frequency	Percentage
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 3	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 5	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 7	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 19	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 21	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 23	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100

Source: The present study

Table 4.4 above shows percentage distribution of the study population's utterances by intonation tunes in "wh" (specific) question tone units. The Group A study population recorded conformity with DI in 5 out of the 7 tone units (Excerpts 2, 5, 7, 19 and 21), representing 71.4%. The full excerpts which show Group A participants' intonation patterns are displayed in 3.2.1.2.

The speaker of Excerpt 2 apparently knew the university of affiliation of his interviewee, making his choice of the referring tune for asking the "wh-" question to be in accord with DI. The participant who produced Excerpt 5 was querying the preparedness of the

government to bring a disaster situation under control. Her choice of the referring tune therefore indicates that she knew the government was unprepared but only expected her co-interlocutress to confirm what she already suspected to be the case. The use of the referring tune to utter the tone unit is thus in line with DI. The participant in Excerpt 7 was truly seeking information from a medical practitioner on the latter's experience in his area of specialisation. The use of the proclaiming tune is therefore in conformity with DI. The proclaiming tune used in speaking Excerpt 19 is in line with DI because the participant was trying to find out the extent of cooperation between an expert in food security and the government. The use of the proclaiming tune by the participant who uttered Excerpt 21 also agrees with DI due to the fact that she was seeking information from her interviewee on an issue which she did not want to pretend that she knew about:

Capture 4.10: SFS screen capture of "How will diversification ensure that there are more jobs available"
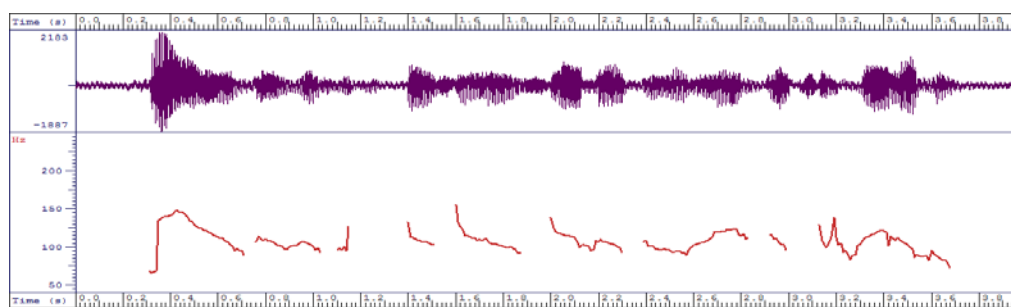
// *p* How will diversification ensure that there are more jobs available//
Source: The present study

The remaining 2 tone units (Excerpts 3 and 23), which represent 28.6%, did not subscribe to DI. The interviewer in Excerpt 3 was obviously finding out what she did not know. Hence, the choice of the referring tune for this tone unit does not conform to DI. On the contrary, within the context of this excerpt, it is apparent that the participant in Excerpt 23 had suspected that the legislature was to blame as much as the executive on the handling of the polity. Her question was therefore a leading question aimed to elicit a response to confirm the suspected. The use of the proclaiming tune is therefore not in conformity with DI. The non-conformity of the participants' choice of tunes is exemplified in Excerpt 3:

Capture 4.11: SFS screen capture of "... what are the tools you need in actually putting this together
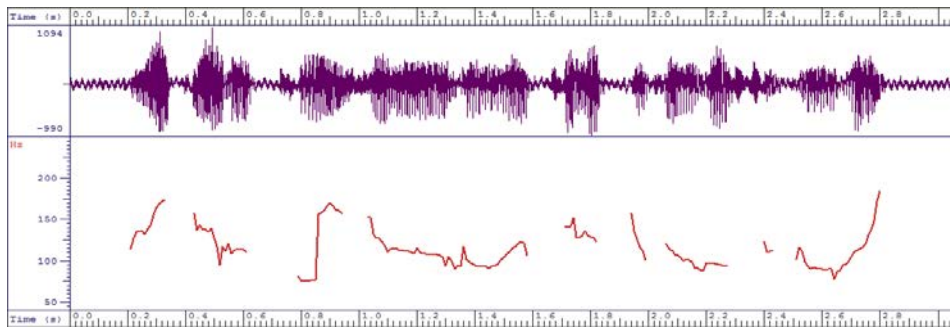
... / *r* what are the tools   you need in actually putting this together//

Source: The present study

It appears that most educated Nigerians normally consider "wh-" questions as naturally asking for information. For this reason, the Nigerian study population did not find it strange to use the proclaiming tune in saying 4 of the 7 tone units involved here. It can therefore be asserted that ENSE use the proclaiming tune to ask the "wh-" questions meant to draw out information. Also, since 2 of the 3 tone units produced with the referring tune are actually making sure or seeking confirmation of what is suspected to be the case, we can safely state that the excerpts here are DI-compliant. Our Research Questions 2 to 4 are thus positively answered in relation to the use of DI in questions that are of the "wh-" type (see 1.4).

4.4   "Yes/no" interrogative tone-units

4.4.1   Participants' raw scores in "yes/no" interrogative tone-units

The table below shows the excerpt-by-excerpt analysis of the participants' "yes/no" interrogative tone-units that form the third major categorisation on which the data analysis was mainly anchored.

Table 4.5:   Raw scores of intonation tunes used in "yes/no" interrogative tone units

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
5 (Female)	$\subseteq$	0
	$\subset$	1
9 (Male)	$\subseteq$	1
	$\subset$	0

11 (Female)	⊆	0
	⊂	1
13 (Female)	⊆	1
	⊂	0
15 (Female)	⊆	0
	⊂	1
17 (Male)	⊆	0
	⊂	1
19 (Male)	⊆	0
	⊂	1
23 (Female)	⊆	1
	⊂	0

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 4.5 above shows that there are 8 "yes/no" or polar question tone-unit excerpts. Three of them were produced by male participants while 5 were uttered by female participants.

4.4.2 Participants' intonational choices in "yes/no" interrogative tone-units

In this subsection, the frequency of occurrence of the use of the proclaiming and the referring tunes in the "yes/no" question tone-units of the 8 excerpts involved is discussed. The discourse implications of the use of the two tunes are also examined. These are done through the frequency table obtained from the application of STATA version 11 to the study

population's raw score table displayed in 4.4.1. Only one tone unit is involved in each excerpt and each of them occupies the position which is sentence-final.

Table 4.6: **Percentage distribution of participants' utterances by intonation tunes in "yes/no" (polar) question tone-units**

Excerpt 5	Frequency	Percentage
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 9	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 11	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 13	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 15	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 17	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 19	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 23	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100

Source: The present study

Table 4.6 above shows percentage distribution of participants' utterance by intonation tunes in "yes/no" (polar) interrogative tone-units. The study population recorded conformity with DI in 6 of the 8 polar question tone units (Excerpts 5, 9, 11, 13, 15 and 17), representing 75.0%, while the remaining 2 tone units (Excerpts 19 and 23), representing 25.0%, were not consistent with DI.

The study population recorded greater conformity with DI by placing the referring tune, which is the unmarked, that is, rule-based tune for grammatical intonation, on 4 out of the 6 tone units that were uttered in consonance with DI. It is for that reason inferable that the conformity of the study population with DI in 6 of the 8 excerpts was due, mainly, to their knowledge of grammatical intonation rules in ELT textbooks rather than awareness of DI on their part. The choice of the referring tune by the participant who produced Excerpt 5 suggests that she knew the government was ill-prepared, but only expected her co-interlocutress to confirm what she already suspected to be the case. Her use of the referring tune to utter the "yes/no" question thus conforms to DI. The participant in Excerpt 11 had already stated the need for all involved, including herself, to task themselves and she had assumed her co-interactant's consent. She only sought confirmation of her presumed common ground with the other party by the question, thereby making her use of the referring tune to be in conformity with DI.

Also, based on the information the speaker of Excerpt 15 had gathered, she knew that the fault was not the federal government's alone and also knew that the government official she was interacting with was aware of that fact as well. She only wanted to confirm that position from her co-interlocutress. The participant's use of the referring tune in this tone unit is, therefore, in accord with DI. Likewise, the participant in Excerpt 17 already knew that the primary motive for setting up businesses was to make profit. He merely asked the question to establish a common ground between himself and his interviewee. The choice of the referring tune to produce the tone-unit is, for that reason, consistent with DI:

Capture 4.12: SFS screen capture of "Are you any different"
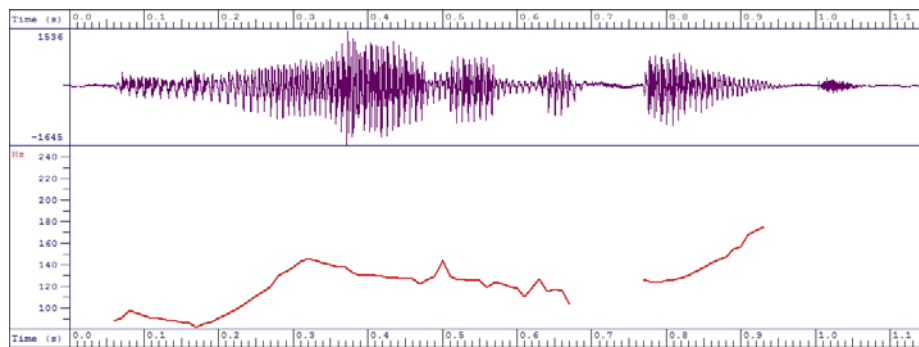
... // r Are you any different//
Source: The present study

The 2 tone units which tune assignments did not conform to DI had 1 produced with the referring tune and the other with the proclaiming tune. That is, the referring tune was used in place of the proclaiming tune in a tone unit while the proclaiming tune was applied instead of the referring tune in the other. This shows a state of inconsistency in the choice of intonation tunes by the participants. The participant in Excerpt 19 could not have been finding out with a particular question ("wh-" question in 4.3.2) and immediately be making sure with the very next question that was meant to reinforce the preceding one. This participant was definitely seeking to be informed; hence, his choice of the referring tune is inappropriate and, as such, is not in concord with DI. The polar question in Excerpt 23 was uttered as a leading question which was intended to extract a response to confirm what the speaker had suspected to be the case. A "wh-" question was actually asked to reiterate the "yes/no" interrogative. The use of the proclaiming tune to utter the polar question is therefore out of place in DI:

Capture 4.13: SFS screen capture of
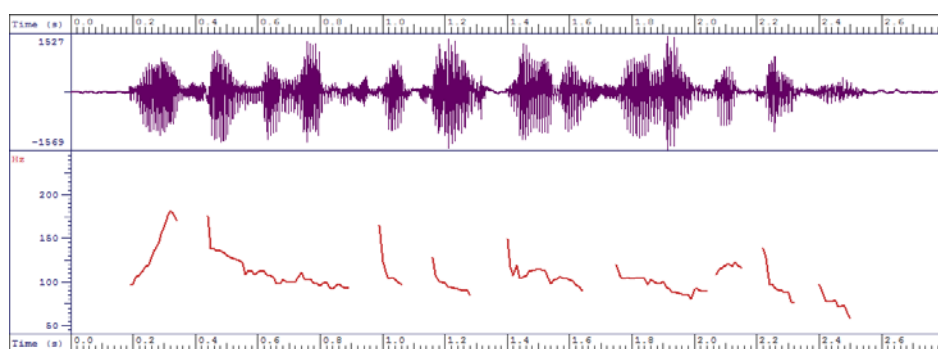
// p Do you think the legislature has played its role adequately//
Source: The present study

Consequently, in spite of the seeming conformity of the study population with DI in 6 of the 8 excerpts involved here, we cannot confidently answer our Research Questions 2 and 3 in the positive.

4.5   The use of the falling tune on non-interrogative sentence-final tone-units

4.5.1 Participants' raw scores in the use of the falling tune on non-interrogative sentence-final tone-units

The following table presents the excerpt-by-excerpt analysis of the Group A participants' use of the falling tune on non-interrogative sentence-final tone-units that constitute the fourth major categorisation on which the data analysis was mainly anchored.

Table 4.7: **Raw scores of the falling tune choice on non-interrogative sentence-final tone-units**

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
1 (Male)	⊆	3
	⊂	0
4 (Female)	⊆	1
	⊂	0
6 (Female)	⊆	3
	⊂	0
8 (Male)	⊆	3
	⊂	0
9 (Male)	⊆	1
	⊂	0
10 (Male)	⊆	1
	⊂	0
11 (Female)	⊆	1
	⊂	0

12 (Male)	$\subseteq$	1
	$\subset$	0
14 (Male)	$\subseteq$	2
	$\subset$	0
16 (Female)	$\subseteq$	4
	$\subset$	0
18 (Male)	$\subseteq$	2
	$\subset$	0
19 (Male)	$\subseteq$	0
	$\subset$	1
20 (Male)	$\subseteq$	4
	$\subset$	0
22 (Male)	$\subseteq$	0
	$\subset$	1
24 (Male)	$\subseteq$	3
	$\subset$	0
25 (Male)	$\subseteq$	3
	$\subset$	1

Key: $\subseteq$ (falling tune), $\subset$ (rising tune)
Source: The present study

As shown in Table 4.7 above, there are 16 excerpts with non-interrogative sentence-final tone-units. Twelve of them were uttered by male participants while the remaining 4 were uttered by female participants.

4.5.2 Participants' falling tune choice on non-interrogative sentence-final tone-units

As stated in 3.5, the categorisations discussed in 4.2 to 4.4 above were meant to test the study population's knowledge and use of the natural speech or discourse intonation model, whereas the present major categorisation and the next one were intended to examine their conformity with formalised intonation rules. The practice in English intonation illustrations and exercises in most ELT textbooks is to place the falling tune on the sentence-final tone units in non-interrogative sentences (see 2.2.7.2). The frequency of occurrence of the use of the falling tune in the non-interrogative sentence-final tone units of 16 excerpts is discussed in this subsection. Excerpts 2, 3, 5, 7, 13, 15, 17, 21 and 23 do not contain any analysed non-interrogative sentence-final tone unit; they are therefore omitted from the analysis here. As was the case in the previous analysis, the analysis here is done through the frequency tables obtained via the application of STATA version 11 to the raw score table displayed in 4.5.1. Unlike what obtained in the previous analysis however, the falling arrow ($\subseteq$) and the rising arrow ($\subset$) are used to indicate the voice pitch, instead of *p* and *r* that were used earlier, wherever specific mention is made of any part of the data in the course of analysis here.

Table 4.8:   Percentage distribution of participants' utterances by falling tune on non-interrogative sentence-final tone-units

Excerpt 1	Frequency	Percentage
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 4	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 6	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 8	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 9	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0

Total	1	100
Excerpt 10	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 11	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 12	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 14	**Frequency**	**Percentage**
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 16	**Frequency**	**Percentage**
Falling tune	4	100
Rising tune	0	0
Total	4	100
Excerpt 18	**Frequency**	**Percentage**
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 19	**Frequency**	**Percentage**
Falling tune	0	0
Rising tune	1	100
Total	1	100
Excerpt 20	**Frequency**	**Percentage**
Falling tune	4	100
Rising tune	0	0
Total	4	100
Excerpt 22	**Frequency**	**Percentage**
Falling tune	0	0
Rising tune	1	100
Total	1	100
Excerpt 24	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 25	**Frequency**	**Percentage**
Falling tune	3	75.0
Rising tune	1	25.0
Total	4	100

Source: The present study

Table 4.8 above shows percentage distribution of the study population's utterances by falling tune on non-interrogative sentence-final tone units. From the analysis, it is clear that the study population had 100% accord with the grammatical intonation rule of ending declarative sentences with the falling tune in 13 of their 16 excerpts (81.3%) containing non-interrogative sentence-final tone units (Excerpts 1, 4, 6, 8, 9, 10, 11, 12, 14, 16, 18, 20 and 24). It would be recalled that the use of the proclaiming tune for non-interrogative sentence-final tone units was in full conformity with DI in only 5 excerpts of the 13 with 100% use of the proclaiming tune in 4.2.2. This is an indication that the respondents mainly used the falling tune on non-interrogative sentence-final tone units based on their own knowledge of the rule-based intonation patterns rather than any knowledge of new information-shared knowledge polarity. The following non-interrogative sentence-final tone units, for instance, are from Excerpt 6:

Capture 4.14: SFS screen capture of "... looking for ways of finding a solution"
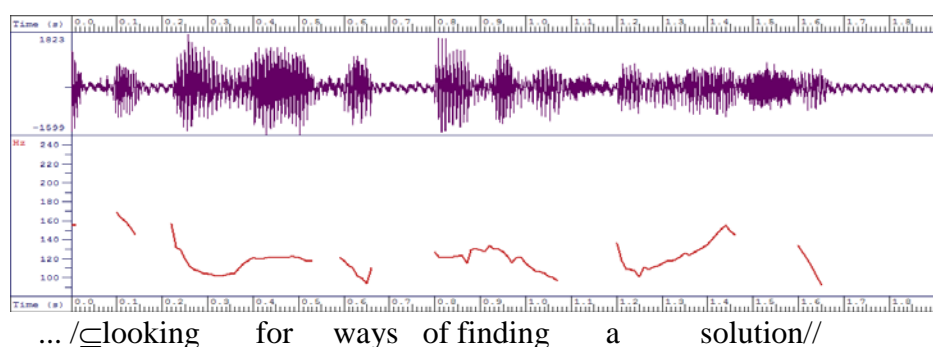
... /⊆looking   for   ways of finding   a   solution//
Source: The present study

Capture 4.15: SFS screen capture of "... especially in the northern part of the country"
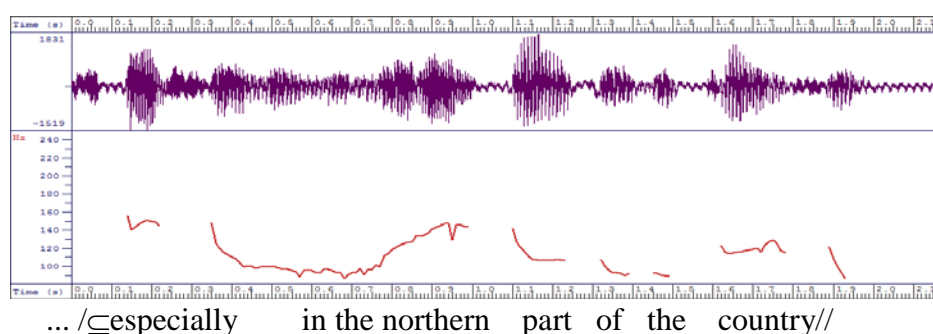
... /⊆especially   in the northern   part   of   the   country//
Source: The present study

Capture 4.16: SFS screen capture of "... houses are washed away"

... /⊂houses   are   washed   away//
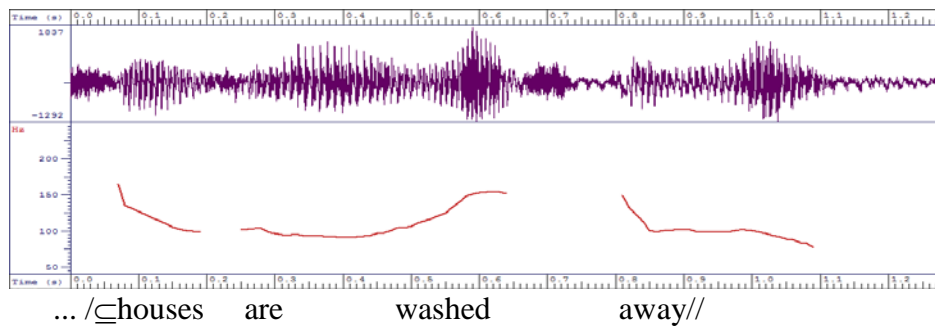
Source: The present study

It can therefore be inferred that the current formalised intonation rules are inadequate to enable one make appropriate intonational choices in natural speech. This thus answers our first research question in the negative.

4.6   The use of the rising tune in non-sentence-final tone-units

4.6.1   Participants' raw scores in the use of the rising tune on non-interrogative Non-sentence-final tone-units

Table 4.9 below presents the excerpt-by-excerpt analysis of the Group A participants' use of the rising tune on non-interrogative non-sentence-final tone units that constitute the last one of the five major categorisation on which the data analysis was mainly anchored.

Table 4.9:   Raw scores of the rising tune choice on non-interrogative non-sentence-final tone-units

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
1 (Male)	⊂	1
	⊆	4
3 (Female)	⊂	0
	⊆	1
4 (Female)	⊂	3
	⊆	0
6 (Female)	⊂	3

	$\subseteq$	4
8 (Male)	$\subset$	0
	$\subseteq$	3
10 (Male)	$\subset$	0
	$\subseteq$	1
11 (Female)	$\subset$	2
	$\subseteq$	1
12 (Male)	$\subset$	3
	$\subseteq$	0
14 (Male)	$\subset$	1
	$\subseteq$	3
16 (Female)	$\subset$	0
	$\subseteq$	1
18 (Male)	$\subset$	1
	$\subseteq$	1
19 (Male)	$\subset$	1
	$\subseteq$	0
20 (Male)	$\subset$	1
	$\subseteq$	2
22 (Male)	$\subset$	3

	⊆	2
24 (Male)	⊂	5
	⊆	2
25 (Male)	⊂	1
	⊆	0

Key: ⊂ (rising tune), ⊆ (falling tune)
Source: The present study

As shown in Table 4.9 above, there are 16 excerpts with non-interrogative non-sentence-final tone-units. Eleven of them were uttered by male participants while the remaining 5 were uttered by female participants.

4.6.2 Participants' rising tune choice in non-sentence-final tone-units

This categorisation, like the one in 4.5, was intended to examine the study population's conformity with formalised intonation rules. Non-sentence-final tone-units are usually indicated with the rising tune in the English intonation illustrations and exercises in most ELT textbooks (see 2.2.7.2). The frequency of occurrence of the use of the rising tune in the non-sentence-final tone-units of 16 excerpts is discussed in this subsection. Excerpts 2, 5, 7, 9, 13, 15, 17, 21 and 23 do not include any non-sentence-final tone unit and are thus omitted from the analysis here. Also, the analysis here will be done through the frequency table obtained via the application of STATA version 11 to the Group A participants' raw score table displayed in 4.6.1. Like what obtained in 4.5.2, the falling arrow (⊆) and the rising arrow (⊂) are used to indicate the voice pitch wherever specific mention is made of any part of the data in the course of analysis here.

Table 4.10:   Percentage distribution of participants' utterances by rising tune on non-sentence-final tone-units

Excerpt 1	Frequency	Percentage
Rising tune	1	20.0
Falling tune	4	80.0
Total	5	100
Excerpt 3	**Frequency**	**Percentage**
Rising tune	0	0
Falling tune	1	100
Total	1	100

Excerpt 4	Frequency	Percentage
Rising tune	3	100
Falling tune	0	0
Total	3	100
Excerpt 6	Frequency	Percentage
Rising tune	3	42.9
Falling tune	4	57.1
Total	7	100
Excerpt 8	Frequency	Percentage
Rising tune	0	0
Falling tune	3	100
Total	3	100
Excerpt 10	Frequency	Percentage
Rising tune	0	0
Falling tune	1	100
Total	1	100
Excerpt 11	Frequency	Percentage
Rising tune	2	66.7
Falling tune	1	33.3
Total	3	100
Excerpt 12	Frequency	Percentage
Rising tune	3	100
Falling tune	0	0
Total	3	100
Excerpt 14	Frequency	Percentage
Rising tune	1	25.0
Falling tune	3	75.0
Total	4	100
Excerpt 16	Frequency	Percentage
Rising tune	0	0
Falling tune	1	100
Total	1	100
Excerpt 18	Frequency	Percentage
Rising tune	1	50.0
Falling tune	1	50.0
Total	2	100
Excerpt 19	Frequency	Percentage
Rising tune	1	100
Falling tune	0	0
Total	1	100
Excerpt 20	Frequency	Percentage
Rising tune	1	33.3
Falling tune	2	66.7
Total	3	100
Excerpt 22	Frequency	Percentage
Rising tune	3	60.0
Falling tune	2	40.0
Total	5	100

Excerpt 24	Frequency	Percentage
Rising tune	5	71.4
Falling tune	2	28.6
Total	7	100
Excerpt 25	**Frequency**	**Percentage**
Rising tune	1	100
Falling tune	0	0
Total	1	100

Source: The present study

Table 4.10 above shows percentage distribution of the participants' utterances by rising tune on non-sentence-final tone-units. The study population recorded equal total adherence to and complete non-conformity with the rule-based pattern on the use of the rising tune to produce non-sentence-final tone-units. Four excerpts (Excerpts 4, 12, 19 and 25) were in total accord with the rule while 4 other excerpts (Excerpts 3, 8, 10 and 16) were completely non-conforming. The examples below (from Excerpt 4 and Excerpt 8 respectively) show the two categories:

Capture 4.17: SFS screen capture of "I need a hammer, I need a scissors"
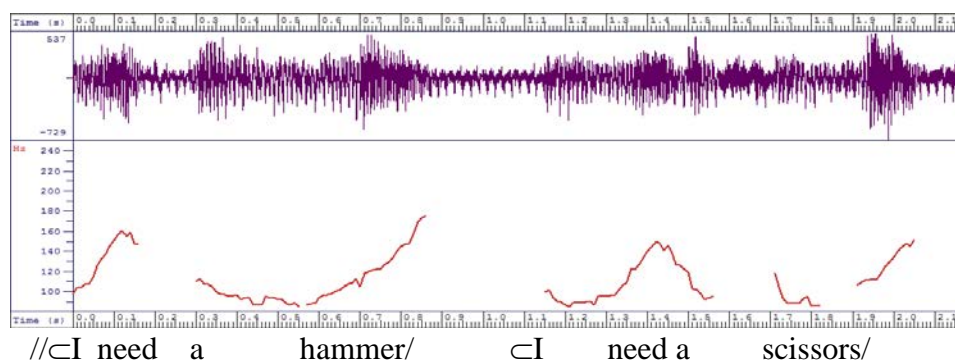
　　//⊂I　need　a　　　hammer/　　　⊂I　　need a　　scissors/
Source: The present study

Capture 4.18: SFS screen capture of "I guess it's ever increasing..., but now the belief is there"
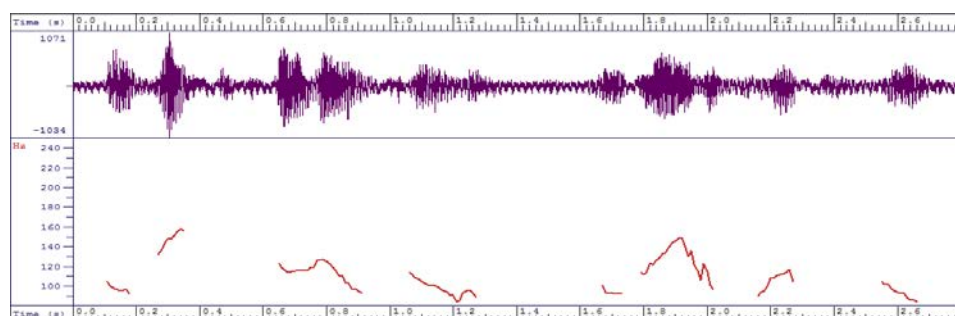
//⊆I guess   it's ever increasing/ .../⊆but now the belief   is there/...
Source: The present study

Half of the total excerpts analysed (i.e. 8 out of 16) were in consonance with the rule
only to varying degrees. While 4 excerpts (Excerpts 1, 6, 14 and 20) had below 50.0%
agreement, 50.0% rule-governed pattern was produced in 1 excerpt (Excerpt 18) and between
60.0% to 71.4% accord was recorded in the remaining 3 (Excerpts 11, 22 and 24). It would be
recalled that the intonation patterns of the study population largely ran counter to DI with
respect to their referring tune choice on the non-sentence-final tone units (see 4.2.2). One
would therefore expect their patterns to conform, mostly, to grammatical intonation rule. This,
obviously, is not the case as a combination of both the 4 excerpts that fully conform to the
rule and the 3 with above average conformity would amount to 7 out of 16 excerpts (43.8%)
largely conforming to the rule-based pattern for non-sentence-final tone units.

The intonation patterns of the study population in the non-sentence-final tone units can
consequently be said to be inconsistent with either the formalised rules or DI, thus leaving one
wondering about their sentence structure and true linguistic intention. This is a further pointer
to the fact that ENSE are largely not conscious of the functions and importance of not only the
discourse intonation tunes but also English intonation generally in communication. They are
thus not aware of the extent to which intonation meaning takes primacy over lexical meaning.
Our Research Question 4 is therefore not positively answered while our fifth research
question is affirmatively answered.

**4.7   Analysis of overall use of intonation tunes in major tone-unit types by
         gender**

**4.7.1   Participants' raw scores of overall use of intonation tunes in major tone-unit
         types by gender**

Table 4.11 below presents the overall analysis of the Group A participants' use of
intonation tunes on gender basis. This is the only socio-demographic variable that applies to
the Group A participants due to the non-availability of any reliable means of ascertaining the
other variables pertaining to this set of participants, but which apply to the participants in
Group B.

**Table 4.11:   Analysis of overall use of intonation tunes in major tone-unit types by
              gender**

Gender	Non-interrogative tone units	"Wh-" question	"Yes/no" question

	Total number of occurrence: 61		Total number of occurrence: 2		Total number of occurrence: 3	
Male	⊆	⊂	⊆	⊂	⊆	⊂
	41	20	1	1	1	2
Female	Total number of occurrence: 24		Total number of occurrence: 5		Total number of occurrence: 5	
	⊆	⊂	⊆	⊂	⊆	⊂
	16	8	3	2	2	3

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 4.11 above shows that the Group A male participants produced 61 non-interrogative tone-units with 41 of them being uttered with the falling tune and 20 being spoken with the rising tune. Their "wh-" or specific question tone units are 2 in number with 1 said using the fall and another 1 employing the rise. The "yes/no" questions produced by the male participants are 3, 1 of them was produced with the falling tune and the other 2 were uttered with the rising tune. The female participants uttered a total of 24 non-interrogative tone units, 16 of which received the fall and the remaining 8 got the rise. The female participants' "wh-" questions are 5 with 3 having the falling tune and 2 receiving the rising tune. Their "yes/no" questions are also 5, but 2 were produced with the falling tune and 3 were uttered with the rising tune.

4.7.2   Participants' overall use of intonation tunes in major tone-unit types by gender

In this section, we discuss the frequency of occurrence of the use of the falling and the rising tunes in the major tone-unit types on gender basis. The pragmatic implications of the use of the two tunes will also be examined. This is done through the frequency table obtained via the application of STATA version 11 to the raw scores on the gender variable of socio-demographic characteristics displayed in Table 4.11. Excerpts 1, 2, 8, 9, 10, 12, 14, 17, 18, 19, 20, 22, 24 and 25 were produced by male participants while Excerpts 3, 4, 5, 6, 7, 11, 13, 15, 16, 21 and 23 were uttered by female participants.

Table 4.12:   Percentage distribution of overall use of intonation tunes in major tone-unit types by gender

	Non-interrogative	**Frequency of**	**Percentage**

		tone-units	occurrence	
Male		Falling tunes	41	67.2
		Rising	20	32.8
		Total	**61**	**100**
Female		Falling tunes	16	66.7
		Rising tunes	8	33.3
		Total	**24**	**100**
		Wh question		
Male		Falling tunes	1	50.0
		Rising tunes	1	50.0
		Total	**2**	**100**
Female		Falling tunes	3	60.0
		Rising tunes	2	40.0
		Total	**5**	**100**
		Yes/no question		
Male		Falling tunes	1	33.3
		Rising tunes	2	66.7
		Total	**3**	**100**
Female		Falling tunes	2	40.0
		Rising tunes	3	60.0
		Total	**5**	**100**

Sources: The present study

Table 4.12 above shows the percentage distribution of overall use of intonation tunes in tone units by gender. Educated male Nigerian speakers of English do not often follow the rule-based patterns in their choice of intonation tunes for non-interrogative tone units. Twenty-six of the 61 tone units spoken by them are sentence-final tone units while 35 are non-sentence-final tone units. The males however uttered 41 (67.2%) tone units with the fall while producing only 20 (32.8%) using the rise. Like their male counterparts, educated female Nigerians seldom adhere to the rule-based intonation patterns of non-interrogative tone units. Out of the 24 tone units produced by them, 9 are sentence-final and 15 are non-sentence-final. Nevertheless, the female participants uttered 16 (66.7%) tone units with the falling tune and said just 8 (33.3%) with the rising tune.

The inference that can be drawn from the participants' productions of the "wh-" question is the same as what I have in the non-interrogative tone units, that is, educated Nigerians do not observe a one-to-one correspondence between the rule-based intonation patterns and intonational choices, though the female Nigerians tend to conform more to the rule-based patterns than their male counterparts. While the male participants had 50.0% use of "wh-" question falling tune and rising tune respectively, 60.0% use of the falling tune and 40.0% application of the rising tune were recorded by their female counterparts. Whereas the 2 "wh-" question tone units uttered by the male participants were produced with the falling

tune on 1 tone unit and the rising tune on the other tone unit, the female participants said 3 of their 5 "wh-" question tone units with the falling tune and the remaining 2 with the rising tune.

Educated male Nigerians favour the use of the rule-based pattern more in their choice of intonation tunes with regard to polar questions. They placed the falling tune on 1 (33.3%) of their 3 "yes/no" questions and used the rising tune in saying 2 (66.7%). Similar to their male counterparts, educated female Nigerians also align with the rule-based intonation pattern concerning "yes/no" questions. Two (40.0%) of the 5 polar question tone units uttered by the female participants had the falling tune placed on them while 3 (60.0%) got the rising tune.

4.8   Summary

The data that were generated on the electronic media were presented, analysed and discussed in this chapter. On the basis of the findings, inferences were drawn and some research questions were answered. The next chapter likewise deals with data presentation, analysis and discussion of the data that were collected during the focus group discussion sessions. Analysis of variance are also applied to the results in order to find out the level of statistical significance of the results from the different groups, genders, native language backgrounds, etc., identified in the study.

<div align="center">

CHAPTER FIVE

PRESENTATION, ANALYSIS AND DISCUSSION OF FOCUS GROUP DISCUSSION-GENEARATED DATA

</div>

5.1   Introduction

The data collected through focus group discussion are presented, analysed and discussed in this chapter. The presentation, analysis and discussion of the data are, as done in Chapter Four, also focussed on five major categorisations based on the structural patterns and sentence functions of the tone-units. Four socio-demographic characteristics of the

participants are used as basis of analysis. The research questions are definitely answered on the basis of the major categorisations and the socio-demographic characteristics. Analysis of variance, meant to find out the level of significance of the results from the different groups, genders, native languages, age brackets and educational backgrounds, is also employed. On the basis of this, the research hypotheses are either confirmed or negated. The participants in the focus group discussion are labelled as Group B.

5.2   Non-interrogative tone-units

5.2.1 Participants' raw scores in non-interrogative tone-units

The table below presents the excerpt-by-excerpt analysis of the Group B participants' non-interrogative tone-units. As observed in 4.2.1, the table is an analysis of the first of the five major categorisations on which our data analysis was mainly anchored.

Table 5.1:   Raw scores of intonation tunes used in non-interrogative tone-units

Excerpt Numbers/Genders	Intonation Tunes	Group B Participants' Utterances
2 (Male)	⊆	2
	⊂	0
3 (Female)	⊆	6
	⊂	3
5 (Male)	⊆	4
	⊂	5
7 (Female)	⊆	3
	⊂	2
9 (Male)	⊆	6
	⊂	1

11 (Female)	$\subseteq$	1
	$\subset$	1
13 (Male)	$\subseteq$	4
	$\subset$	3
14 (Female)	$\subseteq$	1
	$\subset$	0
15 (Male)	$\subseteq$	3
	$\subset$	0
17 (Male)	$\subseteq$	5
	$\subset$	2
19 (Male)	$\subseteq$	3
	$\subset$	2
21 (Male)	$\subseteq$	5
	$\subset$	2
23 (Male)	$\subseteq$	1
	$\subset$	9
24 (Male)	$\subseteq$	2
	$\subset$	0
25 (Male)	$\subseteq$	3
	$\subset$	1

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 5.1 above shows 15 non-interrogative tone-unit excerpts: 11 were produced by male participants while 4 were uttered by female participants. The table also shows the number of times the falling and the rising tunes were used by the participants.

5.2.2   Participants' intonational choices in non-interrogative tone-units

The frequency of occurrence of the participants' use of the proclaiming and the referring tunes on the non-interrogative tone-units of fifteen excerpts is discussed in this subsection. The discourse implications of the use of the two tunes will also be examined. These will be achieved through the frequency table obtained by the application of STATA version 11 to the raw score table displayed in 4.5.1. It should be noted that the analysed tone-units in Excerpts 1, 4, 6, 8, 10, 12, 16, 18, 20 and 22 are interrogative tone-units which belong to other raw score tables. They are therefore not analysed in this subsection.

Table 5.2(a): Percentage distribution of participants' utterances by intonation tunes in non-interrogative tone-units

Excerpt 2	Frequency	Percentage
Falling	2	100
Rising	0	0
Total	2	100
Excerpt 3	**Frequency**	**Percentage**
Falling	6	66.7
Rising	3	33.3
Total	9	100
Excerpt 5	**Frequency**	**Percentage**
Falling	4	44.4
Rising	5	55.6
Total	9	100
Excerpt 7	**Frequency**	**Percentage**
Falling	3	60.0
Rising	2	40.0
Total	5	100
Excerpt 9	**Frequency**	**Percentage**
Falling	6	85.7
Rising	1	14.3
Total	7	100
Excerpt 11	**Frequency**	**Percentage**
Falling	1	50.0
Rising	1	50.0
Total	2	100
Excerpt 13	**Frequency**	**Percentage**
Falling	4	57.1

Rising	3	42.9
Total	7	100
Excerpt 14	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 15	**Frequency**	**Percentage**
Falling	3	100
Rising	0	0
Total	3	100
Excerpt 17	**Frequency**	**Percentage**
Falling	5	71.4
Rising	2	28.6
Total	7	100
Excerpt 19	**Frequency**	**Percentage**
Falling	3	60.0
Rising	2	40.0
Total	5	100
Excerpt 21	**Frequency**	**Percentage**
Falling	5	71.4
Rising	2	28.6
Total	7	100
Excerpt 23	**Frequency**	**Percentage**
Falling	1	10.0
Rising	9	90.0
Total	10	100
Excerpt 24	**Frequency**	**Percentage**
Falling	2	100
Rising	0	0
Total	2	100
Excerpt 25	**Frequency**	**Percentage**
Falling	3	75.0
Rising	1	25.0
Total	4	100

Source: The present study

Table 5.2(a) above shows percentage distribution of Group B participants' utterances by intonation tunes in non-interrogative tone-units. It is clear that DI is thus far a strange model in the English intonation of educated Nigerian speakers of English (ENSE). Complete conformity with DI was recorded in just 2 of the 15 excerpts involved (Excerpts 15 and 24). The choice of the proclaiming tune by the participant to produce all the 3 (1 non-sentence-final and 2 sentence-final) analysed tone-units in Excerpt 15 subscribes to the DI model as the participant obviously saw his contribution as an informative response to the request for information in the preceding excerpt. This is made glaring in the participant's conclusion of the excerpt as his own view. The participant in Excerpt 24 uttered his 2 non-interrogative

tone-units with the proclaiming tune, though 1 is sentence-final and the other is non-sentence-final. He was explaining his earlier question in order to disambiguate it, thereby giving information. His choice of the proclaiming tune is therefore in consonance with DI:

Capture 5.1: SFS screen capture of "When I say government, I'm talking about federal and the state levels"
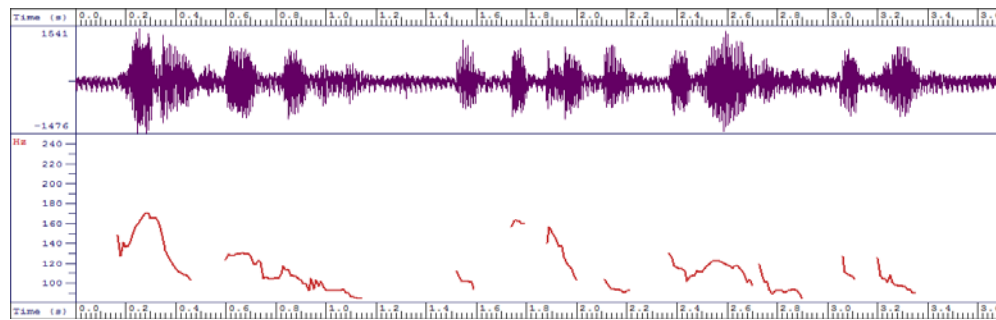
//*p* When I say government/   *p* I'm talking about federal and the state levels//
Source: The present study

Above average conformity with DI was recorded in 3 excerpts (Excerpts 9, 21 and 23) while below average compliance with DI was the case in 4 excerpts (Excerpts 3, 5, 13 and 17). The production of 6 out of the 7 tone units in this excerpt (representing 85.7%) with the proclaiming tune, irrespective of the sentence-final (3) or non-sentence-final (4) status of the tone-units, makes Excerpt 9 to be mostly in tune with DI. Having been asked for his opinion on how Boko Haram could be eradicated, the contribution of the participant here could be considered as information-giving. This view is reinforced by the participant's use of expressions such as "I don't think..." and "I think...".

The choice of tunes in Excerpt 21, which comprises 7 tone-units, mainly agrees with the DI model as the 5 tone-units with the proclaiming tune are actually seen to be giving information. This was also lexically indicated by the participant with his introductory tone-unit "To me...". The Hausa-speaker participant here saw the FGD as an opportunity to inform the public that Boko Haram was not an Islamic sect, contrary to the belief of many Nigerians. The participant in Excerpt 23 was obviously drawing from some common ground between him and his interviewer who was a fellow Hausa speaker. He therefore spoke almost all his tone units, including 3 sentence-final tone units, with the referring tune in a manner of "I'm just confirming what you know":

Capture 5.2: SFS screen capture of "... people lost their jobs; people lost their family, their places"

94
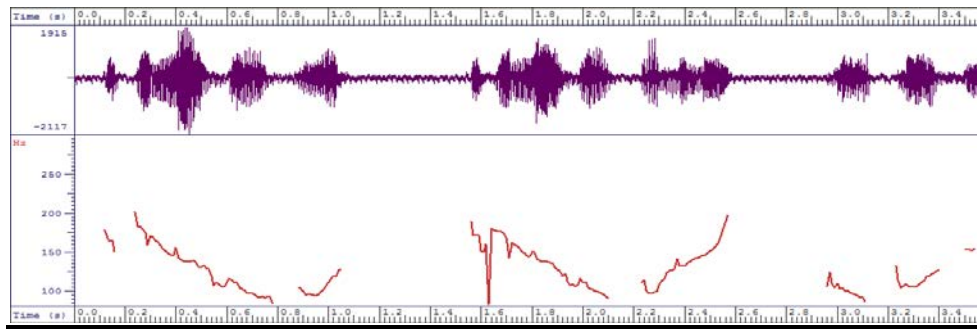
/ *r* people lost their job/　　　*r* people lost their family/ *r* their　places//

Source: The present study

The participant who produced Excerpt 3 (one of the below-average conformity excerpts) chose the proclaiming tune to say 6 analysed tone-units (out of 9) which were meant to confirm some common grounds. The excerpt is, as a result, largely contrary to DI as 66.7% of the tone units in the excerpt run counter to DI with respect to the tune placed on them. The first of the 6 tone-units, for instance, merely echoes what has been stated by a previous discussant in Excerpt 2. Yet, it was ended with a falling pitch:

Capture 5.3: SFS screen capture of "... which means Boko Haram is against western education"
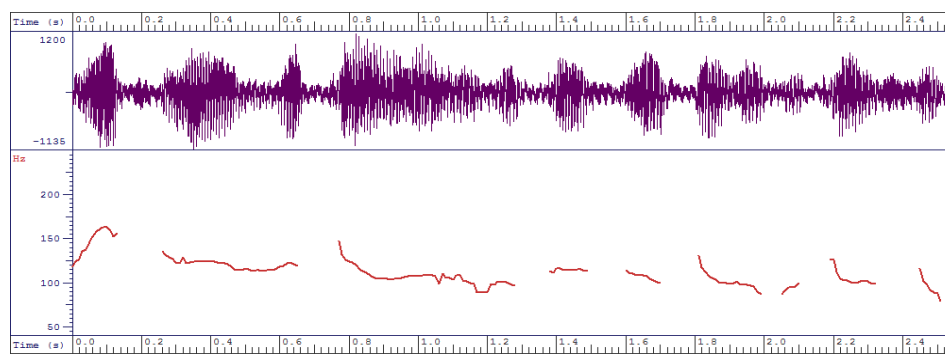
.../ *p* which　means　　　Boko Haram　　　is against western education//

Source: The present study

Six out of the 15 excerpts (40.0%) are completely not in accord with DI (Excerpts 2, 7, 11, 14, 19 and 25). For instance, the analysed tone-unit in Excerpt 14 had the proclaiming tune placed on it by the participant. Being a tone-unit which merely summarises the contents

of Excerpt 13, the participant's use of the proclaiming tune to produce it renders this tone-unit not conforming to DI. A preceding tone-unit to the analysed non-interrogative tone-unit which bears the referring tune lends credence to this claim:

Capture 5.4: SFS screen capture of "Okay, it causes unrest in the society"
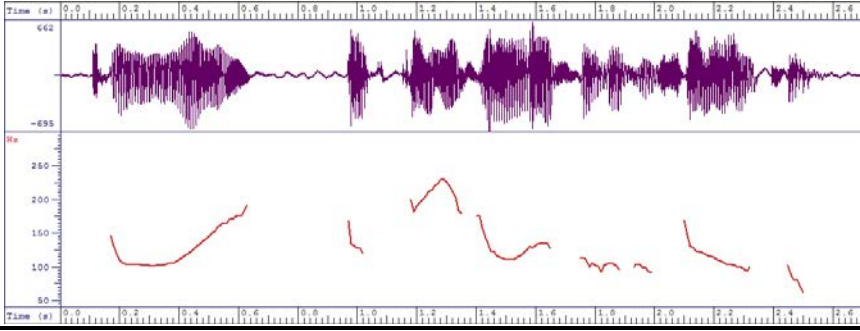
        // *r* Okay/   *p* it causes unrest in the society//

Source: The present study

An addition of the excerpts that are in total accord with DI and those with above average conformity with DI would give us only 5 out of 15 excerpts (33.3%) that largely subscribe to DI. Relating this to the findings in 4.2.2, it is emphatically clear that a vast majority of ENSE are not aware of, and do not use DI, especially in the aspect of non-interrogative tone units with only 37.5% of a total of 32 non-interrogative tone unit excerpts for both groups conforming to DI. Our Research Questions 2 and 3 are therefore further answered in the negative.

5.2.3 Analysis of variance of the overall study population's non-interrogative tone-unit intonational choices

It would be recalled that the Group A participants largely conformed to DI in the intonational choices of 7 out of their 17 (41.2%) non-interrogative tone-unit excerpts (see 4.2.2) whereas the participants in Group B recorded considerable conformity with DI in the intonation patterns of 5 out of their 15 (33.3%) non-interrogative tone unit excerpts (see 5.2.2). The table below shows the analysis of variance (ANOVA) indicating the level of statistical significance in the mean between the two groups.

Table 5.2(b): Analysis of variance of Groups A and B

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.051	1	0.051	0.221	0.642

Within	6.934	30	0.231	
Total	6.985	31		

P = 0.05
Source: The present study

We can see from Table 5.2(b) above that the significance level is 0.642 ($p = .642$), which is above 0.05. Therefore, there is no statistically significant difference in the mean between Groups A and B. This indicates that domain of interaction, whether on the electronic media or in ordinary face-to-face interaction, does not effect any significant difference among educated Nigerian speakers of English in terms of their conformity with DI in non-interrogative tone unit patterns. ENSE are therefore basically the same in their non-conformity with DI in non-interrogative tone unit intonational choices. This invalidates our Null Hypothesis 1 (see 1.5)

5.3 "Wh-" interrogative tone-units

5.3.1 Participants' raw scores in "wh-" interrogative tone-units

The following table shows the excerpt-by-excerpt analysis of the Group B participants' "wh-" interrogative tone-units that constitute the second major categorisation on which the data analysis was mainly based.

Table 5.3: **Raw scores of intonation tunes used in "wh-" interrogative tone-units**

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
1 (Female)	⊆	2
	⊂	0
8 (Male)	⊆	2
	⊂	0
10 (Male)	⊆	1

	$\subset$	0
12 (Female)	$\subseteq$	2
	$\subset$	0
13 (Male)	$\subseteq$	1
	$\subset$	0
18 (Male)	$\subseteq$	1
	$\subset$	0
20 (Male)	$\subseteq$	1
	$\subset$	0

Key: $\subseteq$ (falling or proclaiming tune), $\subset$ (rising or referring tune)
Source: The present study

As shown in Table 5.3 above, there are 7 "wh-" or specific question tone unit excerpts. Five of them were produced by the male participants while 2 were uttered by the female participants.

5.3.2   Participants' intonational choices in "wh-" interrogative tone-units

The frequency of occurrence of the use of the intonation tunes in the "wh-" question interrogative tone-units of the 7 excerpts involved is discussed in this subsection. The discourse implications of the use of the two tunes will also be examined. These will be done through the frequency table obtained via the application of STATA version 11 to the raw score table displayed in 5.3.1.

Table 5.4(a): Percentage distribution of participants' utterances by intonation tunes in "wh-" interrogative tone-units

Excerpt 1	Frequency	Percentage
Falling	2	100
Rising	0	0
Total	2	100
Excerpt 8	**Frequency**	**Percentage**
Falling	2	100
Rising	0	0

Total	2	100
Excerpt 10	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 12	**Frequency**	**Percentage**
Falling	2	100
Rising	0	0
Total	2	100
Excerpt 13	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 18	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 20	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100

Source: The present study

Table 5.4(a) above shows percentage distribution of Group B participants' utterances by intonation tunes in "wh" (specific) question tone-units. The Group B study population had conformity with DI in 2 out of the 7 excerpts in which the "wh-" interrogative tone-units occur (Excerpts 8 and 20), representing 28.6%. The speaker of Excerpt 8 asked both "wh-" question tone-units in the excerpt with the proclaiming tune. This was aimed to genuinely elicit information. Through the questions, the participant sought to hear the opinion of his interviewees on how to eradicate the menace called Boko Haram. This makes his pattern to conform to the DI model. The "wh-" question tone unit in Excerpt 20 was also said with the proclaiming tune. The question here is an open-ended one. Between the interlocutors, one insurgent group was well known because they were both from Northern Nigeria where Boko Haram was on the rampage. However, the speaker of Excerpt 20 did not limit the interviewee on how to answer the question. He asked his question without anything to specify his expectation. In essence, the participant wanted his interviewee to express his own opinion which he did not presume would entirely tally with his own view. The conformity of the participants with DI is exemplified with the following extract from Excerpt 8:

Capture 5.5: SFS screen capture of "How can Boko Haram be eradicated"
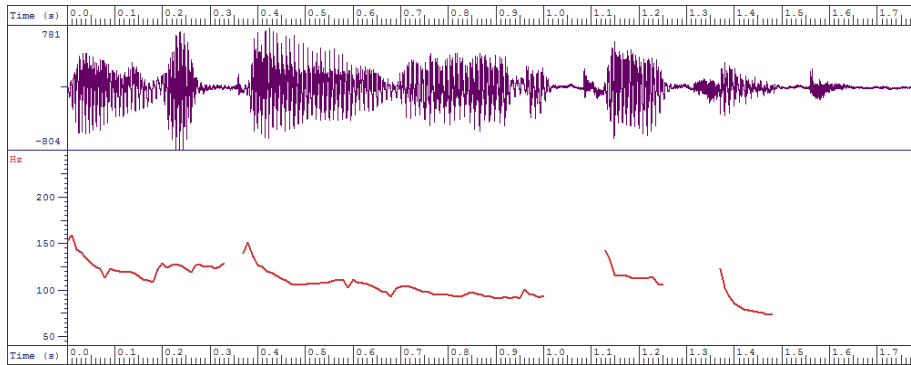
// *p* How can   Boko   Haram   be   eradicated//
Source: The present study

The remaining 5 excerpts (Excerpts 1, 10, 12, 13 and 18), which represent 71.4%, did not subscribe to DI. For instance, the 2 "wh-" question tone-units in Excerpt 1 were produced with the proclaiming tune. The topic for discussion being well-known to all the FGD session participants, the participant merely asked the questions to confirm what he already knew to be the case by requesting the interviewee to define Boko Haram. The participant's choice of the proclaiming tune to ask the questions is therefore not in line with DI. The interviewer simply applied the formalised intonation rule stipulated for "wh-" questions in most ELT textbooks. Also, the use of the proclaiming tune in Excerpt 13 is not in line with the DI model because the participant merely echoed the question posed by the speaker of Excerpt 12, that is, the question is not new, but confirmatory. Moreover, the participant indicated in the excerpt that he had mentioned the answer to the question earlier:

Capture 5.6: SFS screen capture of "Who are insurgents? Like I once mentioned before"
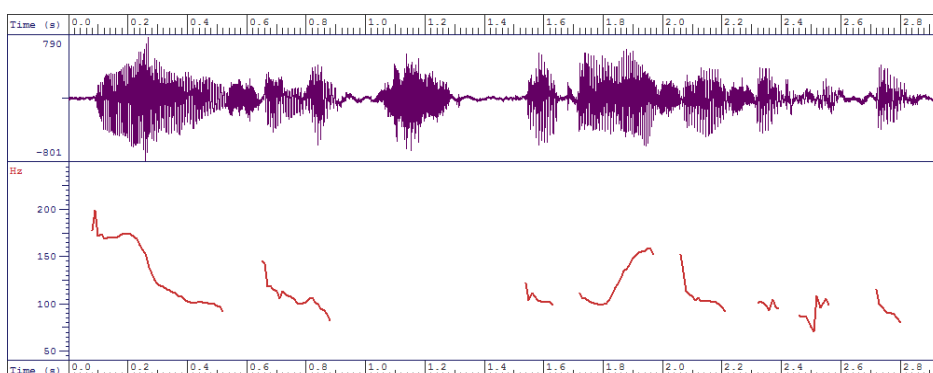
// *p* <u>Who are   insurgents</u>//   *p* Like I once mentioned before/...
Source: The present study

It is noteworthy that all the tone-units discussed here were produced with the proclaiming tune. As observed in 4.3.2, it seems that most educated Nigerians generally consider "wh-" questions as naturally asking for information in line with grammatical

intonation rule concerning "wh-" questions. For this reason, the Group B study population simply used the fall in saying all the tone units involved here. It can therefore be asserted that though ENSE use the proclaiming tune to seek information with the "wh-" questions, many do not know that the referring tune can also be used to ask the same type of question with the intention of seeking confirmation of what is already suspected to be the case. Our Research Questions 1 to 4 are thus, to a large extent, answered in the negative with regard to the use of DI in "wh-" questions.

In spite of the obvious difference between the Group A participants' conformity with DI (71.4%) and the Group B study population's consistency with DI (28.6%), it can still be said that ENSE tend to see the relationship of "wh-" questions and intonation as rather grammatical than discoursal as 11 out of the 14 (representing 78.6%) combined excerpts with the "wh-" questions for both groups were produced using the falling tune which is the unmarked grammatical intonation tune for specific questions. We can therefore state that our Research Question 1 has largely been answered in the negative, as far as "wh-" questions are concerned.

5.3.3 Analysis of variance of the overall study population's "wh-" interrogative tone-unit intonational choices

Group A participants had 71.4% conformity with DI as the intonational choices of 5 out of their 7 "wh-" interrogative tone-unit excerpts were in accord with DI (see 4.3.2). The participants in Group B, on their own part, recorded 28.6% conformity with DI with the intonation patterns of 2 out of their 7 "wh-" interrogative tone-unit excerpts being in consonance with DI (see 5.3.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two groups.

Table 5.4(b): Analysis of variance of Groups A and B

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.617	1	0.617	3.049	0.106
Within	2.430	12	0.203		
Total	3.047	13			

P = 0.05

Source: The present study

It is seen in Table 5.4(b) above that the significance level is 0.106 ($p = .106$), which is above 0.05. There is therefore no statistically significant difference in the mean between Groups A and B. Like we observed in 5.2.3, this is an indication that domain of interaction does not bring about any significant difference among educated Nigerian speakers of English in terms of their conformity with DI in "wh-" interrogative tone unit patterns. ENSE are therefore basically alike in their non-conformity with DI in "wh-" interrogative tone unit intonational choices. This confirms our Null Hypothesis 2.

5.4 "Yes/no" interrogative tone-units

5.4.1 Participants' raw scores in "yes/no" interrogative tone-units

Table 5.5 below shows the excerpt-by-excerpt analysis of the participants' "yes/no" interrogative tone-units that form the third major categorisation on which the data analysis was mainly anchored.

Table 5.5:   Raw scores of intonation tunes used in "yes/no" interrogative tone-units

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
3 (Female)	⊆	0
	⊂	1
4 (Female)	⊆	1
	⊂	1
6 (Male)	⊆	1
	⊂	1
14 (Female)	⊆	1

	⊂	0
15 (Male)	⊆	1
	⊂	0
16 (Male)	⊆	1
	⊂	0
22 (Male)	⊆	0
	⊂	1
24 (Male)	⊆	1
	⊂	0

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 5.5 above shows that there are 8 "yes/no" or polar question tone unit excerpts. Five of them were produced by the male participants while 3 were uttered by the female participants.

5.4.2 Participants' intonational choices in "yes/no" interrogative tone-units

The frequency of occurrence of the use of the proclaiming and the referring tunes in the "yes/no" or polar interrogative tone-units of the 8 excerpts involved is discussed in this subsection. The discourse implications of the use of the two tunes will also be considered. These will be done through the frequency table got from the application of STATA version 11 to the raw score table displayed in 5.4.1.

Table 5.6(a): Percentage distribution of participants' utterances by intonation tunes in "yes/no" (polar) interrogative tone-units

Excerpt 3	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 4	**Frequency**	**Percentage**
Falling	1	50.0

Rising	1	50.0
Total	2	100
Excerpt 6	**Frequency**	**Percentage**
Falling	1	50.0
Rising	1	50.0
Total	2	100
Excerpt 14	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 15	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 16	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100
Excerpt 22	**Frequency**	**Percentage**
Falling	0	0
Rising	1	100
Total	1	100
Excerpt 24	**Frequency**	**Percentage**
Falling	1	100
Rising	0	0
Total	1	100

Source: The present study

Table 5.6(a) above shows percentage distribution of Group B participants' utterances by intonation tunes in "yes/no" (polar) question tone units. The Group B study population recorded conformity with DI in 4 of the 8 Excerpts (Excerpts 3, 14, 22 and 24), that is 50.0%, while the participants' placement of intonation tunes on the remaining 4 (Excerpts 4, 6, 15 and 16), representing 50.0%, was not consistent with DI. On the one hand, the choice of the referring tune to ask the polar question in Excerpt 3 falls within the purview of DI. Certain information had earlier been provided and the question was only meant to confirm the suspected agreement of the other parties in the conversation with the speaker's position. The speaker in Excerpt 14 chose the proclaiming tune as a signal to the interviewee that she wanted to be informed by him on how long insurgency had existed in Nigeria. The choice of the proclaiming tune here is thus in line with the DI model. The referring tune was applied by the participant in Excerpt 22 to signal some common ground between himself and his fellow Hausa interlocutor; hence his choice of the referring tune here is in line with the DI model. The speaker of Excerpt 24 also placed the proclaiming tune on his polar question as a signal

to the interviewee that he was seeking information. This claim is supported by the subsequent tone units, also produced with the proclaiming tune, which the participant employed to explain his question in order to make it clear. The conformity of the participants with DI is illustrated with Excerpts 3 and 24 respectively:

Capture 5.7: SFS screen capture of "... can we really say only the educated have been attacked?"
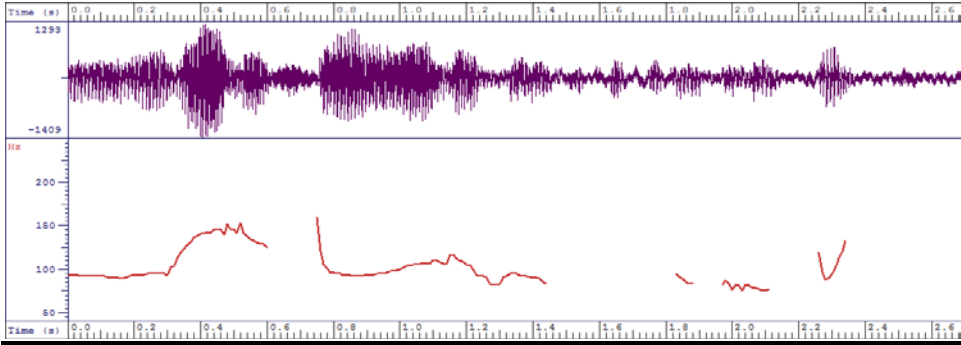
... / *r* can we really say   only the educated   have been attacked//
Source: The present study

Capture 5.8: SFS screen capture of "Is the government sincere in their fighting against insurgency?"
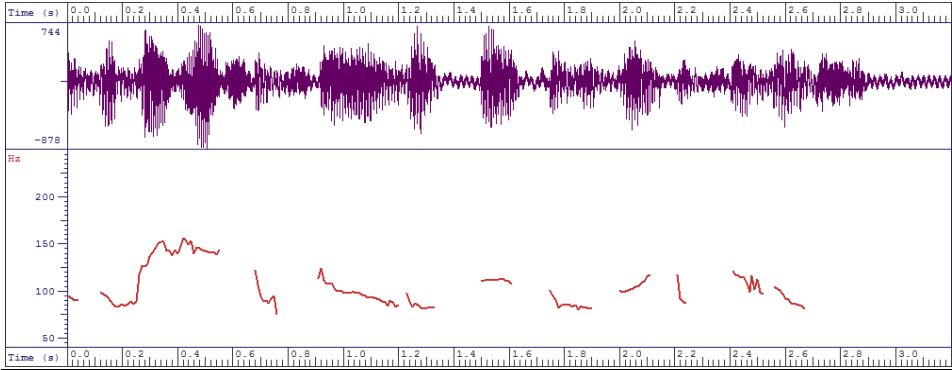
// *p* Is the government sincere in their fighting against insurgency//
Source: The present study

On the other hand, the choice of the proclaiming and the referring tunes respectively to ask two successive polar questions in Excerpts 4 and 6 meant to draw out just a response (the latter being intended to emphasise the former) shows that the participants were not sure about which one should be used in these contexts. The polar questions are obviously those that expect confirmation, going by the fact that the nefarious activities of Boko Haram were common knowledge. Also, the use of the proclaiming tune in Excerpt 15 does not conform to the DI model because it was an echo question which the participant asked to make sure that he heard his interviewer correctly, and not to find out anything new. The interviewer in Excerpt

16 asked the question to get someone among his interviewees to confirm what all of them in the group already knew as the meaning of insurgency and specific examples of insurgent groups had earlier been discussed by them. The participant's choice of the proclaiming tune to ask the question is therefore inconsistent with DI:

Capture 5.9: SFS screen capture of "Has it any effect on the nation?"
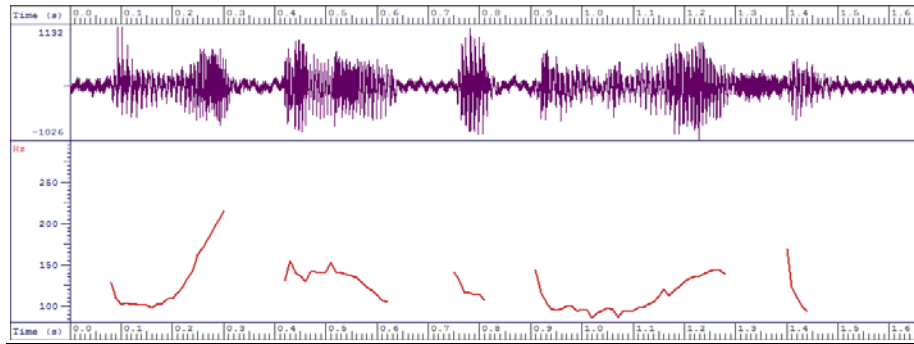
... / *p* Has it   any effect on the   nation//
Source: The present study

Like the Group A participants, the Group B study population also used both the referring and the proclaiming tunes to produce "yes/no questions", but not with the same level of conformity. While the Group A participants used the referring tune with greater DI conformity (in 4 out of the 6 tone units/Excerpts that were uttered in consonance with DI), the Group B study population recorded equal conformity using both tunes (in 2 tone units/Excerpts apiece). Sixty percent of the total DI-compliant excerpts (6 out of 10 excerpts for both Groups A and B) were produced with the referring tune. This implies that the conformity of the participants with DI in polar questions was due mainly to their knowledge of the rule-based pattern for "yes/no" questions rather than any awareness of DI or proficiency in its application. The assertion, in 4.4.2, that we cannot confidently answer Research Questions 2 and 3 in the positive is consequently reinforced.

5.4.3 Analysis of variance of the overall study population's "yes/no" interrogative tone-unit intonational choices

The participants in Group A recorded 75.0% conformity with DI as the intonational choices of 6 out of their 8 "yes/no" interrogative tone-unit excerpts were in accord with DI (see 4.4.2). The Group B participants had 50.0% conformity with DI with the intonation patterns of 4 out of their 8 "yes/no" interrogative tone-unit excerpts being in agreement with DI (see 5.4.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two groups.

Table 5.6(b): Analysis of variance of Groups A and B's "yes/no" questions

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.250	1	0.250	1.000	0.334
Within	3.500	14	0.250		
Total	3.750	15			

P = 0.05
Source: The present study

Table 5.6(b) above shows that the significance level is 0.334 (*p* = .334), which is above 0.05. There is therefore no statistically significant difference in the mean between Groups A and B. Like we observed in 5.2.3 and 5.3.3, this suggests that domain of interaction does not result in any significance difference among educated Nigerian speakers of English in terms of their conformity with DI in "yes/no" interrogative tone-unit patterns. ENSE are therefore basically comparable in their non-conformity with DI in "yes/no" interrogative tone unit intonational choices. This negates our Null Hypothesis 3 (see 1.5).

5.5 The use of the falling tune on non-interrogative sentence-final tone-units

5.5.1 Participants' raw scores in the use of the falling tune on non-interrogative sentence-final tone-units

The next table presents the excerpt-by-excerpt analysis of the Group B participants' use of the falling tune on non-interrogative sentence-final tone-units that constitute the fourth major categorisation on which the data analysis was mainly anchored.

Table 5.7:   Raw scores of the falling tune choice on non-interrogative sentence-final tone-units

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
2 (Male)	⊆	2
	⊂	0
3 (Female)	⊆	3

	$\subset$	0
5 (Male)	$\subseteq$	3
	$\subset$	1
7 (Female)	$\subseteq$	2
	$\subset$	0
9 (Male)	$\subseteq$	3
	$\subset$	0
11 (Female)	$\subseteq$	1
	$\subset$	0
13 (Male)	$\subseteq$	2
	$\subset$	0
14 (Female)	$\subseteq$	1
	$\subset$	0
15 (Male)	$\subseteq$	2
	$\subset$	0
17 (Male)	$\subseteq$	3
	$\subset$	0
19 (Male)	$\subseteq$	2
	$\subset$	0
21 (Male)	$\subseteq$	4

	⊂	0
23 (Male)	⊆	1
	⊂	3
24 (Male)	⊆	1
	⊂	0
25 (Male)	⊆	3
	⊂	0

Key:　⊆ (falling tune), ⊂ (rising tune)
Source: The present study

Table 5.7 above shows that there are 15 excerpts with non-interrogative sentence-final tone-units. Eleven of them were uttered by male participants while the remaining 4 were produced by female participants.

5.5.2　Participants' falling tune choice on non-interrogative sentence-final tone-units

As it has been indicated in 3.5 and applied in Chapter Four, the categorisations discussed in 5.2 to 5.4 above were meant to test the Group B study populations' knowledge and use of the natural speech or DI model, whereas the two that are to be discussed in a while were intended to examine their conformity with grammatical intonation rules. The practice in English intonation illustrations and exercises in ELT textbooks is to place the falling tune on the sentence-final tone units in non-interrogative sentences (see 2.2.7.2). The frequency of occurrence of the use of the falling tune in the non-interrogative sentence-final tone units of 15 excerpts is discussed in this subsection. Excerpts 1, 4, 6, 8, 10, 12, 16, 18, 20 and 25 do not contain analysed non-interrogative sentence-final tone units; hence, they are omitted from the analysis here. As was the case in the previous analysis, the analysis here will be done through the frequency tables obtained via the application of STATA version 11 to the Group B participants' part of the fourth raw score table displayed in 3.4. As done in Chapter Four (4.5 and 4.6), the falling arrow (⊆) and the rising arrow (⊂) are used to indicate the falling and the rising tunes respectively wherever specific mention is made of any part of the data in the course of analysis here.

Table 5.8(a): Percentage distribution of participants' utterances by falling tune on non-interrogative sentence-final tone-units

Excerpt 2	Frequency	Percentage
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 3	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 5	**Frequency**	**Percentage**
Falling tune	3	75.0
Rising tune	1	25.0
Total	4	100
Excerpt 7	**Frequency**	**Percentage**
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 9	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 11	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 13	**Frequency**	**Percentage**
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 14	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 15	**Frequency**	**Percentage**
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 17	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100
Excerpt 19	**Frequency**	**Percentage**
Falling tune	2	100
Rising tune	0	0
Total	2	100
Excerpt 21	**Frequency**	**Percentage**
Falling tune	4	100

Rising tune	0	0
Total	4	100
Excerpt 23	**Frequency**	**Percentage**
Falling tune	1	25.0
Rising tune	3	75.0
Total	4	100
Excerpt 24	**Frequency**	**Percentage**
Falling tune	1	100
Rising tune	0	0
Total	1	100
Excerpt 25	**Frequency**	**Percentage**
Falling tune	3	100
Rising tune	0	0
Total	3	100

Source: The present study

Table 5.8(a) above shows percentage distribution of the Group B participants' utterances by the use of the falling tune on non-interrogative sentence-final tone-units. It is obvious that the Group B study population, like their counterparts in Group A, observed the grammatical intonation rule of placing the falling tune on non-interrogative sentence-final tone units. While the Group A study population had 100% accord with this intonation rule in 13 of their 16 non-interrogative sentence-final tone-units (81.3%), the Group B participants recorded 100% adherence to the rule in 13 of their own 15 excerpts containing non-interrogative sentence-final tone-units (86.7%). As is observable from Table 4.8(a), only Excerpts 5 (with 75.0%) and 23 (with 25.0%) do not have full agreement with the formalised rule. For example, the 3 analysed non-interrogative sentence-final tone-units in Excerpt 3 were all produced using the falling tune:

Capture 5.10: SFS screen capture of "... which means Boko Haram is against western education"
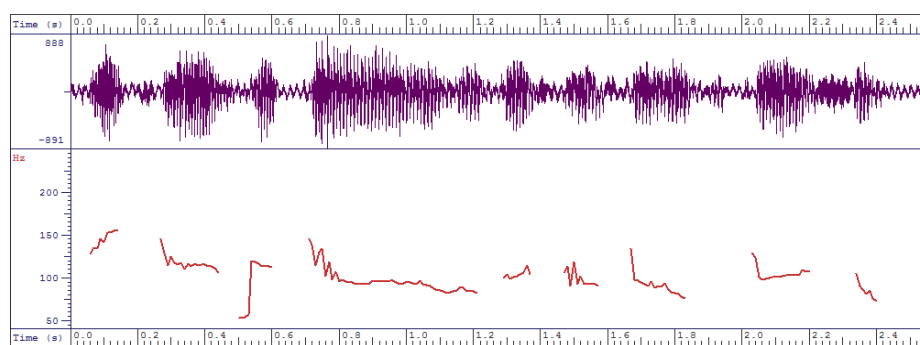
... /⊆which means Boko Haram is against western education//
Source: The present study

Capture 5.11: SFS screen capture of "... they go to different locations"
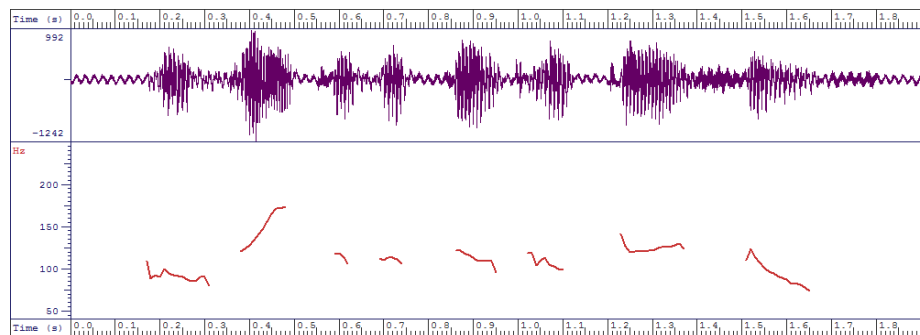
... /⊆they go to different locations//
Source: The present study

Capture 5.12: SFS screen capture of "... but we cannot say only the educated have been attacked"
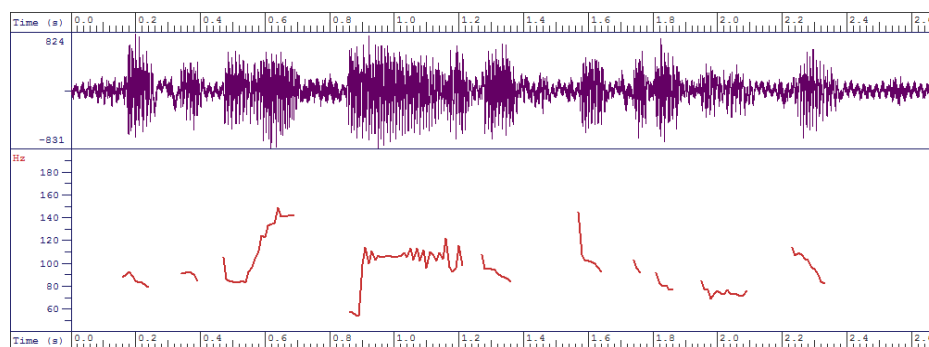
... /⊆but we cannot say only the educated have been attacked//
Source: The present study

Recalling the findings in 4.2.2 and 5.2.2 that a vast majority of educated Nigerians are not aware of and do not use DI, especially in the aspect of non-interrogative tone-units, the high adherence of the study population to the formalised rule relating to non-interrogative sentence-final tone-units shows that ENSE are mostly guided by the rule-based pattern in uttering their non-interrogative sentence-final tone-units. This is an indication that formalised intonation rules are inadequate to reflect the intonational choices made in natural speech. Hence, like the finding in 4.5.2, our first research question is further answered in the negative.

5.5.3   Analysis of variance of the overall study population's use of the falling tune on non-interrogative sentence-final tone-units

Group A participants recorded 81.3% conformity with the formalised rule as 13 out of their 16 non-interrogative sentence-final tone-units were produced with the falling tune (see 4.5.2) while Group B participants had 86.7% accord with the rule-based pattern in that 13 out of their 15 non-interrogative sentence-final tone units were uttered with the falling tune (see 5.5.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two groups.

Table 5.8(b): Analysis of variance of Groups A and B

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.025	1	0.025	0.122	0.729
Within	5.963	29	0.206		
Total	5.988	30			

P = 0.05

Source: The present study

Table 5.8(b) above shows that the significance level is 0.729 (*p* = 0.729), which is above 0.05. There is therefore no statistically significant difference in the mean between Groups A and B. Like we observed in 5.1.3, 5.2.3 and 5.3.3, this indicates that domain of interaction does not cause any significant difference among educated Nigerian speakers of English in terms of their conformity with the rule-based pattern in non-interrogative sentence-final tone units. ENSE are therefore basically the same in their considerable adherence to formalised intonation rule in producing non-interrogative sentence-final tone-units. This nullifies our Null Hypothesis 4.

5.6   The use of the rising tune on non-sentence-final tone-units

5.6.1   Participants' raw scores in the use of the rising tune on non-interrogative non-sentence-final tone-units

Table 5.9 below presents the excerpt-by-excerpt analysis of the Group B participants' use of the rising tune on non-interrogative non-sentence-final tone-units that constitute the last of the five major categorisation on which the data analysis was mainly based.

Table 5.9:   Raw scores of the rising tune choice on non-interrogative non-sentence-final tone-units

Excerpt Numbers/Genders	Intonation Tunes	Group A Participants' Utterances
3 (Female)	⊂	3
	⊆	3
5 (Male)	⊂	4
	⊆	1

7 (Female)	⊂	2
	⊆	1
9 (Male)	⊂	`1
	⊆	3
11 (Female)	⊂	1
	⊆	0
13 (Male)	⊂	3
	⊆	2
15 (Male)	⊂	0
	⊆	1
17 (Male)	⊂	2
	⊆	2
19 (Male)	⊂	2
	⊆	1
21 (Male)	⊂	2
	⊆	1
23 (Male)	⊂	6
	⊆	0
24 (Male)	⊂	0
	⊆	1

| 25 (Male) | ⊂ | 1 |
| | ⊆ | 0 |

Key: ⊂ (rising tune), ⊆ (falling tune)
Source: The present study

As shown in Table 5.9 above, there are 13 excerpts with non-interrogative non-sentence-final tone-unit. Ten of them were produced by male participants while the remaining 3 were uttered by female participants.

5.6.2 Participants' rising tune choice on non-sentence-final tone-units

This categorisation, like the one in 4.6.2, was intended to examine the Group B study population's conformity with grammatical intonation rules. Non-sentence-final tone-units are usually indicated with the rising tune in the English intonation illustrations and exercises in most ELT textbooks (see 2.2.7.2). The frequency of occurrence of the use of the rising tune in the non-sentence-final tone units of 13 excerpts is discussed in this subsection. Excerpts 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 and 22 do not include any analysed non-sentence-final tone unit; for this reason, they are omitted from the analysis here. As we did in the previous analysis, the analysis here will be done through the frequency tables obtained via the application of STATA version 11 to the Group B participants' raw score table displayed in 5.6.1. Like what obtained in 4.5.2 and 5.5.2, the falling arrow (⊆) and the rising arrow (⊂) are used to indicate the falling and the rising tunes correspondingly wherever specific mention is made of any part of the data during the analysis here.

Table 5.10(a): **Percentage distribution of participants' utterances by rising tune on non-sentence-final tone-units**

Excerpt 3	Frequency	Percentage
Rising tune	3	50.0
Falling tune	3	50.0
Total	6	100
Excerpt 5	**Frequency**	**Percentage**
Rising tune	4	80.0
Falling tune	1	20.0
Total	5	100
Excerpt 7	**Frequency**	**Percentage**
Rising tune	2	66.7
Falling tune	1	33.3
Total	3	100
Excerpt 9	**Frequency**	**Percentage**
Rising tune	1	25.0

Falling tune	3	75.0
Total	4	100
Excerpt 11	**Frequency**	**Percentage**
Rising tune	1	100
Falling tune	0	0
Total	1	100
Excerpt 13	**Frequency**	**Percentage**
Rising tune	3	60.0
Falling tune	2	40.0
Total	5	100
Excerpt 15	**Frequency**	**Percentage**
Rising	0	0
Falling tune	1	100
Total	1	100
Excerpt 17	**Frequency**	**Percentage**
Rising tune	2	50.0
Falling tune	2	50.0
Total	4	100
Excerpt 19	**Frequency**	**Percentage**
Rising tune	2	66.7
Falling tune	1	33.3
Total	3	100
Excerpt 21	**Frequency**	**Percentage**
Rising tune	2	66.7
Falling tune	1	33.3
Total	3	100
Excerpt 23	**Frequency**	**Percentage**
Rising tune	6	100
Falling tune	0	0
Total	6	100
Excerpt 24	**Frequency**	**Percentage**
Rising tune	0	0
Falling tune	1	100
Total	1	100
Excerpt 25	**Frequency**	**Percentage**
Rising tune	1	100
Falling tune	0	0
Total	1	100

Source: The present study

Table 5.10(a) above shows percentage distribution of the Group B participants' utterances by rising tune in non-sentence-final tone-units. As can be observed from the analysis of the production of the non-sentence-final tone-units by the Group B study population, they had 0% adherence to grammatical intonation rule with regard to the production of the non-sentence-final tone units in 2 excerpts. The analysed single non-sentence-final tone unit in either of Excerpts 15 and 24 was not produced with the rising tune

by the respective participants. While only 1 excerpt (Excerpt 9) had 25.0% use of the rising tune in its non-sentence-final tone units, 2 excerpts (Excerpts 3 and 17) got 50.0% adherence to grammatical intonation rule on the use of the rising tune in non-sentence-final tone units and 3 excerpts (Excerpts 11, 23 and 25) had 100% agreement with SI recorded in them. There are 5 excerpts where the participants recorded above average (ranging from 60.0% to 80.0%) agreement with grammatical intonation rule (Excerpts 5, 7, 13, 19 and 21). Combining the 5 excerpts with above average adherence to SI and the 3 that have complete conformity, it means we have most of the excerpts (8 out of 13, representing 61.5%) conforming mainly to grammatical intonation. The general conformity of the Group B participants with the rule-based pattern in the non-sentence-final tone-units is illustrated with the following tone-units from Excerpt 5:

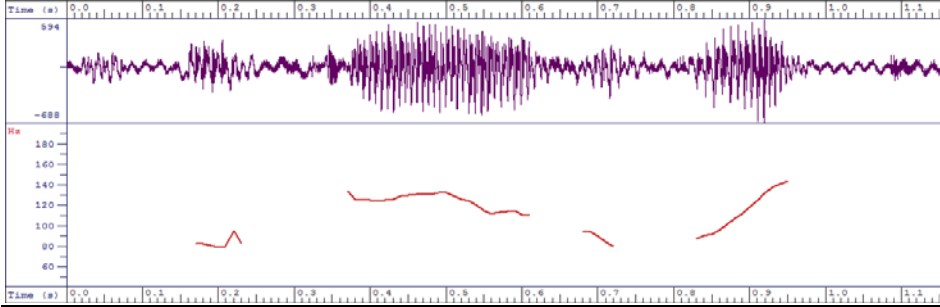**Capture 5.13: SFS screen capture of "But if you check the history of Boko Haram"**
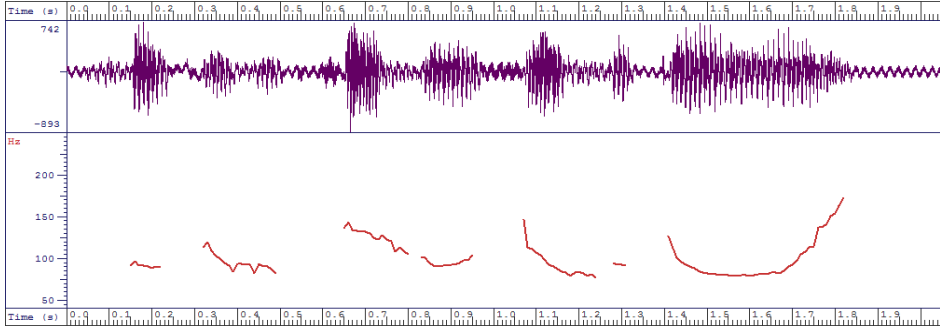
        //⊂But   if you   check   the   history of   Boko Haram/...

Source: The present study

Capture 5.14: SFS screen capture of "... it has always evolved"

      ... /⊂it has   always   evolved/....

Source: The present study

Capture 5.15: SFS screen capture of "The name Boko Haram may be recent"
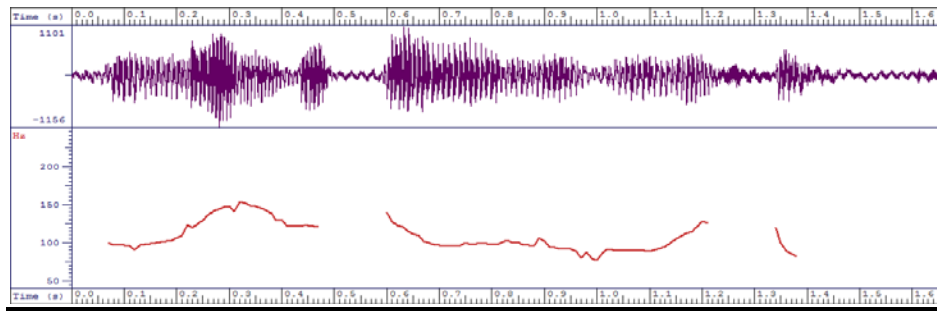
//⊆The name Boko Haram may be recent/...

Source: The present study

It would be recalled that the intonation patterns of the Group B study population largely ran counter to DI in the non-interrogative tone-units (see 5.2.2). It is not surprising then that their patterns mostly conform to grammatical intonation rules. The intonation patterns of the Group A study population in the non-sentence-final tone-units were, however, found to be inconsistent with either SI or DI (see 4.2.2 and 4.6.2).

Also, combining the Group A excerpts that largely conform to the rule (7 out of 16) and those of Group B (8 out of 13), we have 15 out of 29 overall excerpts (representing 51.7%) mainly conforming to the formalised intonation rule for non-sentence-final tone-units. It is, for that reason, inferable that a large percentage of ENSE are inconsistent in the use of DI and formalised intonation rules with regard to their non-sentence-final tone-unit intonational choices. Our Research Questions 2, 3 and 4 are therefore answered in the negative while the fifth research question is affirmatively answered

5.6.3 Analysis of variance of the overall study population's use of the rising tune on non-sentence-final tone units

The participants in Group A had 43.8% conformity with the rule-based pattern as 7 out of their 16 excerpts conformed to the formalised rule in the production of the non-interrogative non-sentence-final tone-units with the rising tune (see 4.6.2) while Group B participants had 61.5% accord with the rule-based pattern in that 8 out of their 13 excerpts were produced in accordance with the grammatical intonation rule guiding non-interrogative non-sentence-final tone-units (see 5.5.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two groups.

Table 5.10(b):   Analysis of variance of Groups A and B

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value

Between	0.232	1	0.232	2.012	0.168
Within	3.119	27	0.116		
Total	3.352	28			

P = 0.05
Source: The present study

It is clear from Table 5.10(b) above that the significance level is 0.168 ($p = 0.168$), which is above 0.05. There is therefore no statistically significant difference in the mean between Groups A and B. Like we observed in 5.2.3, 5.3.3, 5.4.3 and 5.5.3, this indicates that domain of interaction does not result in any significant difference among educated Nigerian speakers of English with respect to their conformity with the rule-based pattern in non-sentence-final tone-units. ENSE are therefore basically the same in their inconsistency in the use of formalised intonation rule to produce non-sentence-final tone units. This confirms Null Hypothesis 5 (see 1.5).

5.7   Overall use of intonation tunes in major tone-unit types by gender

5.7.1   Participants' raw scores of overall use of intonation tunes in major tone-unit types by gender

Table 5.11 below shows the overall analysis of the Group B participants' use of intonation tunes on gender basis. This is the first of the four socio-demographic variables that apply to the Group B participants.

Table 5.11:   Analysis of overall use of intonation tunes in major tone-unit types by gender

Gender	Non-interrogative tone units		"Wh-" question		"Yes/No" question	
Male	Total number of occurrence: 63		Total number of occurrence: 6		Total number of occurrence: 6	
	⊆	⊂	⊆	⊂	⊆	⊂
	38	25	6	0	4	2
Female	Total number of occurrence: 17		Total number of occurrence: 4		Total number of occurrence: 4	
	⊆	⊂	⊆	⊂	⊆	⊂
	11	6	4	0	2	2

119

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

From Table 5.11 above, it is observable that the Group B male participants produced 63 non-interrogative tone-units with 38 of them uttered with the falling tune and 25 spoken with the rising tune. Their "wh-" or specific question tone-units are 6 in number, which were all uttered with the fall. The "yes/no" questions produced by the male participants are also 6: 4 of them were produced with the falling tune and the other 2 were uttered with the rising tune. The female participants produced a total of 17 non-interrogative tone-units, 11 of which received the fall and the remaining 6 got the rise. The female participants' "wh-" questions are 4 and all had the falling tune placed on them. Their "yes/no" questions are also 4, but 2 were produced with the falling tune and 2 were uttered with the rising tune.

5.7.2 Descriptive analysis of the overall use of intonation tunes in major tone-unit types by gender

In this section, we discuss the frequency of occurrence of the use of the falling and the rising tunes in the major tone-unit types on gender basis. The pragmatic implications of the use of the two tunes are also examined. These are done through the frequency table obtained via the application of STATA version 11 to the raw score table on socio-demographic characteristics displayed in 5.7.1. Excerpts 2, 5, 6, 8, 9, 10, 13, 15 to 25 were produced by male participants while Excerpts 1, 3, 4, 7, 11, 12 and 14 were produced by female participants.

Table 5.12(a): **Percentage distribution of overall use of intonation tunes in major tone-unit types by gender**

Group B	Gender	Non-interrogative	Frequency	Percentage
	Male	Falling tune	38	60.3
		Rising tune	25	39.7
		Total	**63**	**100**
	Female	Falling tune	11	64.7
		Rising tune	6	35.3
		Total	**17**	**100**
		Wh question		
	Male	Falling tune	6	100
		Rising tune	0	0
		Total	**6**	**100**
	Female	Falling tune	4	100
		Rising tune	0	0
		Total	**4**	**100**
		Yes/no question		
	Male	Falling tune	4	66.7

		Rising tune	2	33.3
		Total	**6**	**100**
	Female	Falling tune	2	50.0
		Rising tune	2	50.0
		Total	**4**	**100**

Sources: The present study

Table 5.12(a) above shows the percentage distribution of overall use of intonation tunes in tone-units by gender. A total of 60.3% of the Group B male participants used the falling tune on non-interrogative tone-units while 39.7% used the rising tune. Thirty of the 63 (47.6%) tone-units involved here are sentence-final non-interrogative tone-units while the larger portion, that is 33 (52.4%), is composed of non-sentence-final tone-units. Going by the formalised rules which favour grammatical intonation, one would expect a greater percentage of the tone-units to be produced with the rising tune, due to the preponderance of the non-sentence-final tone-units. The contrary is however the case as 38 of the 63 tone units were said using the falling tune while 25 were uttered with the rising tune. It then means that the Group B male participants, like their Group A counterparts (see 4.7), did not necessarily obey grammatical intonation rules in their intonational choices for non-interrogative tone units.

Also, 64.7% of the Group B female study population used the falling tune to produce the non-interrogative tone-units while 35.3% used the rising tune. The 17 non-interrogative tone-units uttered by the Group B female participants are divisible into 7 (41.2%) sentence-final and 10 (58.8%) non-sentence-final tone-units. One would therefore expect a greater use of the rising tune than the falling tune in accordance with the rule-based intonation patterns. Like their male counterparts however, the female participants placed the falling tune on majority (11) of their non-interrogative tone-units while they said just 6 with the rising tune, though the female participants violated the formalised rules more than their male counterparts as they used the falling tune more than the males even when they had less sentence-final tone-units than the males. Recalling that none of the female participants in Group B conformed to DI in their non-interrogative tone unit excerpts (see 5.2.2), the female participants here are therefore more inconsistent in their conformity with both DI and rule-based intonation than their male counterparts. Like we observed in the case of the male participants and the Group A female study population, it is obvious that the Group B female participants also did not automatically comply with formalised intonation rules. We can therefore infer that educated Nigerian speakers of English generally do not always follow the formalised intonation rules set out in most ELT textbooks regarding the use of the rising and the falling tunes to say the

121

non-sentence-final and the sentence-final tone-units respectively, even when their intonational choices do not conform to DI.

Both the male and the female participants in Group B produced their respective "wh-" question tone-units with 100% falling tune. While the male participants said their 6 "wh-" question tone-units with the fall, their female counterparts also uttered their own 4 with the same tune. This indicates, like the finding in 5.3.2, that educated Nigerian speakers of English, irrespective of gender, tend to use this type of question to ask for specific information. Besides, the intonation tune choice here conforms to grammatical intonation practice in ELT textbooks, though only 20.0% of the male participants and 0% of the female participants conformed to DI (see 5.3.2).

Comparing the findings in 4.7.2 and 5.7.2 however, we would observe that the Group A research population did not record total adherence to grammatical intonation rules as the Group B study population. While the Group A male participants had 50.0% use of "wh-" question falling tune, their Group B counterparts recorded 100% use of the falling tune. Whereas the Group A female study population asked their "wh-" questions with 60.0% use of the falling tune, the Group B female participants produced their own with 100% application of the falling tune. Nevertheless, the Group A participants had majority (4 of 7) of their "wh-" questions produced with the falling tune. The inference that can be drawn from this is that ENSE often observe a one-to-one correspondence between formalised (grammatical) intonation rules and intonational choices, especially the use of the falling tune to ask "wh-" question, even though such observance is not always in conformity with DI.

The Group B male participants produced 66.7% of their "yes/no" question tone-units with the falling tune while they placed the rising tune on 33.3%. They spoke 4 of their 6 polar-question tone-units with the fall and uttered 2 using the rise. This, to a large extent, contrasts their intonational choices with the rule-based pattern for "yes/no" question.

On the other hand, their female counterparts said 50.0% of their own "yes/no" questions with the falling tune and uttered the remaining 50.0% with the rising tune. Out of their 4 "yes/no" questions, they placed the falling tune on 2 and the rising tune on the remaining 2.

Recalling that the Group A male participants uttered 66.7% of their "yes/no" questions using the rising tune contrary to the 33.3% rising tune production of the polar questions by their Group B counterparts, and the female participants in Group A placed the rising tune on 60.0% of their polar questions while their Group B counterparts had 50.0%, it is inferable that there seems not to be a particular convention among educated Nigerians,

especially between the two genders, with regard to the tune choice in "yes/no" questions. This is brought out more clearly in 4.4.2 and 5.4.2 where non-total conformity with either DI or SI was reported. However, educated female Nigerians were found to adhere more to DI than their male compatriots in terms of tune choice for polar questions as 4 of the 6 (66.7%) excerpts that were uttered in conformity with DI by Group A and 2 of the 4 (50.0) by Group B were produced by female participants.

Going by the findings in this sub-section, we can assert that gender, to some extent, influences intonational choices as differences were found between the males and the females in the non-interrogative tone-units, the "wh-" interrogative tone-units and the polar question tone-units. Our Research Question 6 is therefore answered in the affirmative with regard to gender.

5.7.3 Analysis of variance of the overall use of intonation tunes in major tone-unit types by gender

The male participants in Group A produced 41 of their 61 (67.2%) non-interrogative tone-units with the falling tune while their female counterparts uttered 16 of their own 24 (66.7%) with the same tune (see 4.7.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two genders.

Table 5.12(b):   **Analysis of variance of Group A male and female participants (non-interrogative tone-units)**

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.000	1	0.000	0.000	1.000
Within	18.335	83	0. 221		
Total	18.335	84			

P = 0.05
Source: The present study

It is obvious from Table 5.12(b) above that the significance level is 1.000 ($p = 1.000$), which is above 0.05. There is therefore no statistically significant difference in the mean between the male and the female participants in Group A. This shows that gender does not have any statistically significant impact on the choice of tunes for non-interrogative tone units among educated Nigerian speakers of English. ENSE, irrespective of gender, are therefore basically the same in their inconsistency in the use of DI and formalised intonation rules to

produce non-interrogative tone-units. This affirms the gender aspect of Null Hypothesis 6 (see 1.5).

Thirty-eight out of the 63 (60.3%) non-interrogative tone-units produced by the Group B male participants were uttered with the fall while 11 of the 17 (64.7%) similar tone-units uttered by their female counterparts received the same tune (see 5.6.1). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two genders.

Table 5.12(c):Analysis of variance of Group B male and female participants (non-interrogative tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.033	1	0.033	0.145	0.704
Within	17.971	78	0.230		
Total	18.005	79			

P = 0.05
Source: The present study

As can be seen in Table 5.12(c) above, the significance level is 0.704 ($p = 0.704$), which is above 0.05. Therefore, there is no statistically significant difference in the mean between the male and the female participants in Group B. This shows that gender does not have any statistically significant effect on the choice of tunes for non-interrogative tone-units among educated Nigerian speakers of English. ENSE, irrespective of gender, are therefore basically the same in their inconsistency in the use of DI and formalised intonation rules to produce non-interrogative tone-units. This further confirms the gender aspect of Null Hypothesis 6.

One of the 2 (50.0%) "wh-" interrogative tone-units produced by the Group A male participants was uttered with the falling tune while 3 of the 5 (60.0%) similar tone-units uttered by their female counterparts were produced using the same tune (see 4.7.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two genders.

Table 5.12(d):   Analysis of variance of Group A male and female participants ("wh-" interrogative tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.014	1	0.014	0.059	0.818
Within	1.210	5	0.242		
Total	1.225	6			

P = 0.05
Source: The present study

As is observable in Table 5.12(d) above, the significance level is 0.818 ($p = 0.818$), which is above 0.05. Therefore, there is no statistically significant difference in the mean between the male and the female participants in Group A. This shows that gender does not have any statistically significant effect on the prevalent choice of the falling tune for "wh-" interrogative tone-units among educated Nigerian speakers of English. ENSE are therefore basically the same in their preponderant use of the formalised intonation pattern to produce "wh-" interrogative tone-units. The gender aspect of Null Hypothesis 7 is thus confirmed (see 1.5).

All the participants in Group B placed the falling tune on all their "wh-" interrogative tone-units, thereby scoring 100%. There is therefore no basis for testing significance level because their standard deviation is equal to zero. This emphatically supports the fact that ENSE are generally the same in their prevalent use of the formalised intonation pattern to produce "wh-" interrogative tone-units. The confirmation of the seventh null hypothesis is therefore reiterated as far as gender is concerned.

The male participants in Group A produced 2 of their 3 (66.7%) polar question tone-units with the rising tune while their female counterparts uttered 3 of their own 5 (60.0%) with the same tune (see 4.7.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two genders.

Table 5.12(e): Analysis of variance of Group A male and female participants (polar question tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.009	1	0.009	0.039	0.849
Within	1.402	6	0.234		

Total	1.411	7	

P = 0.05
Source: The present study

It is obvious from Table 5.12(e) above that the significance level is 0.849 ($p = 0.849$), which is above 0.05. There is therefore no statistically significant difference in the mean between the male and the female participants in Group A. This shows that gender does not have any statistically significant impact on the choice of tunes for polar question tone-units among educated Nigerian speakers of English. ENSE are therefore basically the same in their predominant conformity with the rule-based pattern and display of ignorance of DI in producing polar question tone-units. This confirms the gender aspect of Null Hypothesis 8.

Two out of the 6 (33.3%) polar question tone-units produced by the Group B male participants were uttered with the rise while 2 of the 4 (50.0%) similar tone-units uttered by their female counterparts received the same tune (see 5.7.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two genders.

Table 5.12(f): Analysis of variance of Group B male and female participants (polar question tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.069	1	0.069	0.299	0.599
Within	1.855	8	0.232		
Total	1.924	9			

P = 0.05
Source: The present study

As can be seen in Table 5.12(f) above, the significance level is 0.599 ($p = 0.599$), which is above 0.05. Therefore, there is no statistically significant difference in the mean between the male and the female participants in Group B. This shows that gender does not have any statistically significant effect on the choice of tunes for polar question tone-units among educated Nigerian speakers of English. ENSE are therefore basically the same in their non-total conformity with either DI or rule-based intonation pattern to produce "yes/no" interrogative tone-units. This further confirms the gender aspect of Null Hypothesis 8.

5.8   Overall use of intonation tunes in major tone-unit types by native language

5.8.1 Participants' raw scores of overall use of intonation tunes in major tone-unit types by native language

Table 5.13 below presents the overall analysis of the Group B participants' use of intonation tunes on native language basis. This socio-demographic variable, as well as the subsequent ones, applies only to the Group B participants.

Table 5.13: **Analysis of overall use of intonation tunes in major tone-unit types by native language**

Native Language	Non-interrogative tone units		"Wh-" question		"Yes/no" question	
Yoruba	Total number of occurrence: 32		Total number of occurrence: 4		Total number of occurrence: 5	
	⊆	⊂	⊆	⊂	⊆	⊂
	21	11	4	0	2	3
Igbo	Total number of occurrence: 20		Total number of occurrence: 4		Total number of occurrence: 3	
	⊆	⊂	⊆	⊂	⊆	⊂
	14	6	4	0	3	0
Hausa	Total number of occurrence: 28		Total number of occurrence: 2		Total number of occurrence: 2	
	⊆	⊂	⊆	⊂	⊆	⊂
	14	14	2	0	1	1

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 5.13 above shows that the Yoruba participants produced 32 non-interrogative tone-units: 21 were uttered with the falling tune and 11 were spoken with the rising tune. Their "wh-" question tone-units are 4 in number and all were uttered with the falling tune. The "yes/no" questions produced by the Yoruba participants are also 5, with 2 of them produced using the falling tune and 3 were uttered with the rising tune. The Igbo participants produced a total of 20 non-interrogative tone-units, 14 of which received the fall and the

127

remaining 6 got the rise. Their "wh-" questions are 4 and, similar to their Yoruba counterparts', all had the falling tune placed on them. The "yes/no" questions for the Igbo participants are 3 and the whole 3 were also produced with the falling tune. The Hausa segment of the study population had 28 non-interrogative tone-units in which 14 were spoken with the fall and the remaining half (i.e. 14) were said with the rise. The Hausa participants' "wh-" questions were 2, and both were produced with the falling tune. They produced their 2 polar questions with the falling tune on 1 and the rising tune on the other 1.

5.8.2 Descriptive analysis of the overall use of intonation tunes in major tone-unit types by native language

In this subsection, we discuss the frequency of occurrence of the use of the falling and the rising tunes in the major tone-unit types on native language basis. The pragmatic implications of the use of the two tunes will also be examined. These will be done through the frequency table obtained via the application of STATA version 11 to the raw score table on socio-demographic characteristics displayed in 5.8.1. It is pertinent to recall that native language has been defined for the purpose of this work as any language which is acquired naturally by a person (not necessarily the language of the person's parents) and in which the speaker has native accent (see 1.9). Excerpts 1 to 9 were produced by the participants who indicated Yoruba as their native language; Excerpts 10 to 17 were uttered by Igbo English bilingual participants; Excerpts 18 to 25 were spoken by the participants who indicated Hausa as their native language.

Table 5.14(a):   **Percentage distribution of overall use of intonation tunes in major tone-unit types by native language**

Native language	Non-interrogative	Frequency	Percentage
Yoruba	Falling tune	21	65.6
	Rising tune	11	34.4
	Total	**32**	**100**
Igbo	Falling tune	14	70.0
	Rising tune	6	30.0
	Total	**20**	**100**
Hausa	Falling tune	14	50.0
	Rising tune	14	50.0
	Total	**28**	**100**
	'Wh-' question		
Yoruba	Falling tune	4	100
	Rising tune	0	0
	Total	**4**	**100**
Igbo	Falling tune	4	100
	Rising tune	0	0
	Total	**4**	**100**

128

Hausa	Falling tune	2	100
	Rising tune	0	0
	Total	**2**	**100**
	Yes/no question		
Yoruba	Falling tune	2	40.0
	Rising tune	3	60.0
	Total	**5**	**100**
Igbo	Falling tune	3	100
	Rising tune	0	0
	Total	**3**	**100**
Hausa	Falling tune	1	50.0
	Rising tune	1	50.0
	Total	**2**	**100**

Source: The present study

Table 5.14(a) above shows percentage distribution of overall use of intonation tunes in tone-unit types by native language. From the table, the Yoruba English speaker participants placed the falling tune on 65.6% of their non-interrogative tone-units while they said the rest 34.4% using the rising tune. Though there are 14 sentence-final and 18 non-sentence-final tone-units in the analysed non-interrogative tone units of the Yoruba participants, they however produced 21 of their 32 non-interrogative tone-units with the falling tune while they spoke the remaining 11 with the rising tune. This means that the Yoruba English bilingual participants did not obey the formalised intonation rules in this tone-unit type.

The Igbo English speaker participants produced 70.0% of their non-interrogative tone-units with the falling tune while they spoke the rest 30.0% using the rising tune. Nine sentence-final and 11 non-sentence-final tone-units were produced by them. They nonetheless produced 14 non-interrogative tone-units with the falling tune and 6 with the rising tune. Like the Yoruba participants, the choice of tunes for the non-interrogative tone-units by the Igbo participants also run counter to the rule-based intonation patterns.

The Hausa English speaker participants uttered 50.0% of their non-interrogative tone-units with the falling tune and spoke the other 50.0% using the rising tune. Fourteen of their non-interrogative tone-units are sentence-final and the remaining 14 are non-sentence-final. This, however, does not mean they were consistent in their application of the formalised intonation rules as some of the tone-units on which they placed the fall are non-sentence-final and a number of their tone-units which received the rise are sentence-final.

It would be recalled that 3 of the 5 analysed excerpts (i.e. Excerpts 21, 23 and 24) representing the Hausa participants either totally conformed or largely conformed to DI (see 5.2.2). On the contrary, only 1 of the 5 analysed excerpts (i.e. Excerpt 9) representing the

Yoruba participants mostly conformed to DI and just 1 out of the 5 excerpts (i.e. Excerpt 15) analysed for the Igbo participants was in agreement with DI (see 5.2.2). This shows that the Hausa participants used DI, to a large extent, while they did not necessarily follow the rule-based patterns with regard to their choice of tunes in producing non-interrogative tone-units, whereas the Yoruba participants and their Igbo counterparts were inconsistent with either DI or grammatical intonation with respect to their tune choice for non-interrogative tone-units.

The "wh-" question tone-units produced by all the participants were said with 100% falling tune. While the Yoruba participants and their Igbo counterparts produced all their respective 4 "wh-" questions with the falling tune, the Hausa study population used the falling tune on their own 2 "wh-" questions. It means that all the participants recorded full conformity with grammatical intonation rule on specific questions. This implies then that educated Nigerians, irrespective of their native language background, tend to ask questions requiring specific explicit answers with the falling tune which is the rule-based tune for "wh-" question. However, only 1 of the 2 excerpts (i.e. Excerpt 8) produced by the Yoruba participants, 1 of the 2 (i.e. Excerpt 20) by the Hausa participants and none of the 3 by the Igbo participants were in agreement with DI (see 5.3.2).

With regard to the "yes/no" question tone-units, the Yoruba English bilingual participants asked their "yes/no" question tone-units with 40.0% falling tune and 60.0% rising tune by placing the falling tune on 2 of their 5 polar questions and uttering the majority (i.e. 3) with the rising tune. This is an indication that educated Yoruba speakers of English favour the grammatical rule on "yes/no" questions to a large extent. This claim is supported by the finding in 5.4.2 where only 1 of the 3 excerpts (Excerpt 3) in which the Yoruba participants used polar questions conformed to DI.

The whole 100% of the polar questions produced by the Igbo participants were said with the falling tune. Their 3 "yes/no" questions were all uttered using the falling tune. This shows that educated Igbo speakers of English sound very assertive even when asking questions that take "yes" or "no" as answer. Recalling that, like their Yoruba counterparts, just 1 of their 3 polar question excerpts (Excerpt 14) agreed with DI (see 5.4.2), their choice of tune for this kind of question can therefore be said to be neither consistent with grammatical intonation nor DI.

Fifty percent of the polar questions uttered by the Hausa participants got the fall, with the remaining 50.0% being said using the rise. Excerpt 22 was said with the rising tune while

the polar question in Excerpt 24 was produced with the falling tune. With the finding in 5.4.2 where the 2 polar questions uttered by the Hausa participants adhered to DI, it implies that the educated Hausa speakers of English have equal chances of producing the polar question with either the fall or the rise while maintaining DI conformity.

5.8.3 Analysis of variance of the overall use of intonation tunes in major tone-unit types by native language

Twenty-one out of the 32 (65.6%) non-interrogative tone-units produced by the Yoruba speaker participants were uttered with the fall; 14 of the 20 (70.0%) similar tone-units produced by the Igbo speaker participants were spoken with the fall and 14 of the 28 (50.0%) tone units in that category uttered by the Hausa speaker participants received the same tune (see 5.8.2). The table below shows the ANOVA indicating the level of statistical significance in the mean among the three native languages.

Table 5.14(b): **Analysis of variance of participants on native language basis (non-interrogative tone-units)**

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.580	2	0.290	1.266	0.288
Within	17.618	77	0.229		
Total	18.198	79			

P = 0.05
Source: The present study

As can be seen in Table 5.14(b) above, the significance level is 0.288 ($p = 0.288$), which is above 0.05. Therefore, there is no statistically significant difference in the mean among the participants from the three native language backgrounds. This shows that native language does not have any significant effect on the choice of English intonation tunes for non-interrogative tone-units among educated Nigerian speakers of English. ENSE are therefore basically the same in their inconsistency in the use of DI and formalised intonation rules to produce non-interrogative tone-units. This affirms the native language aspect of Null Hypothesis 6 (see 1.5).

All Group B participants, irrespective of native language background, produced all their "wh-" interrogative tone-units with the falling tune (100%). Hence, there is no basis for testing significance level because their standard deviation is equal to zero. This indicates that

ENSE are generally the same in their habitual use of the formalised intonation pattern to produce "wh-" interrogative tone-units. This confirms the native language aspect of the seventh null hypothesis (see 1.5).

Three out of the 5 (60.0%) polar question tone-units produced by the Yoruba English bilingual participants were uttered with the rise; none of the 3 "yes/no" interrogative tone-units (0%) uttered by the participants of Igbo native language background was produced with the rise while 1 of the 2 (50.0%) similar tone-units uttered by their Hausa English bilingual counterparts received the rise (see 5.7.1). The table below shows the ANOVA indicating the level of statistical significance in the mean between the three native languages.

Table 5.14(c):   Analysis of variance of participants on native language basis (polar question tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.700	2	0.350	2.024	0.202
Within	1.210	7	0.173		
Total	1.910	9			

P = 0.05
Source: The present study

As can be seen in Table 5.14(c) above, the significance level is 0.202 ($p = 0.202$), which is above 0.05. Therefore, there is no statistically significant difference in the mean among the participants from the three native language backgrounds. This shows that native language does not have any statistically significant effect on the choice of tunes for polar question tone units among educated Nigerian speakers of English. ENSE are therefore basically the same in their inconsistency in conforming to either DI or rule-based intonation pattern to produce "yes/no" interrogative tone-units. This confirms the native language aspect of Null Hypothesis 8.

5.9   Overall use of intonation tunes in major tone unit types by age bracket

5.9.1   Participants' raw scores of overall use of intonation tunes in major tone-unit types by age bracket

The following table presents the overall analysis of the Group B participants' use of intonation tunes on the basis of age bracket. This constitutes another socio-demographic variable that applies only to the Group B participants.

Table 5.15: **Analysis of overall use of intonation tunes in major tone-unit types by age bracket**

Age bracket	Non-interrogative tone units		"Wh-" question		"Yes/no" question	
21-30 years (10 Participants)	Total number of occurrence: 28		Total number of occurrence: 5		Total number of occurrence: 4	
	⊆	⊂	⊆	⊂	⊆	⊂
	20	8	5	0	2	2
31-40 years (11 Participants)	Total number of occurrence: 43		Total number of occurrence: 1		Total number of occurrence: 6	
	⊆	⊂	⊆	⊂	⊆	⊂
	23	20	1	0	4	2
41-50 years (3 Participants)	Total number of occurrence: 9		Total number of occurrence: 2		Total number of occurrence: 0	
	⊆	⊂	⊆	⊂	⊆	⊂
	6	3	2	0	0	0
51 years plus (1 Participant)	Total number of occurrence: 0		Total number of occurrence: 2		Total number of occurrence: 0	
	⊆	⊂	⊆	⊂	⊆	⊂
	0	0	2	0	0	0

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 5.15 above shows that the participants within the age bracket of 21 to 30 years produced 28 non-interrogative tone-units: 20 were spoken with the falling tune while 8 were uttered with the rising tune. Their 5 "wh-" question tone-units were all uttered with the falling

tune. Two of the 4 "yes/no" questions produced by them received the falling tune and 2 were uttered with the rising tune. The 31 to 40 years age-bracket participants produced a total of 43 non-interrogative tone-units, 23 of which received the fall and the remaining 20 got the rise. They had only 1 "wh-" question and it had the falling tune placed on it. The polar questions for the 31 to 40 years participants are 6 and 4 of them were produced with the falling tune while 2 had the rising tune placed on them. The 41 to 50 years old study population had 9 non-interrogative tone-units, 6 of which were spoken with the falling tune and the rest 3 were said with the rising tune. The participants in this age bracket produced their 2 "wh-" questions with the falling tune while none of them produced the polar question. The only participant whose age was within the range of 51 years and above produced only the "wh-" question. His 2 specific questions were both uttered with the falling tune.

5.9.2 Descriptive analysis of the overall use of intonation tunes in major tone-unit types by age bracket

In this section, I discuss the frequency of occurrence of the use of the falling and the rising tunes in the major tone-unit types on the basis of age brackets. The pragmatic implications of the use of the two tunes will also be examined. These will be done through the frequency table obtained via the application of STATA version 11 to the raw score table on socio-demographic characteristics displayed in 5.9.1.

Table 5.16(a):   **Percentage distribution of overall use of intonation tunes in major tone-unit types by age bracket**

Age bracket	Non-interrogative	Frequency	Percentage
21-30 years	Falling tune	20	71.4
	Rising tune	8	28.6
	Total	**28**	**100**
31-40 years	Falling tune	23	53.5
	Rising tune	20	46.5
	Total	**43**	**100**
41-50 years	Falling tune	6	66.7
	Rising tune	3	33.3
	Total	**9**	**100**
51 years plus	Falling tune	0	0
	Rising tune	0	0
	Total	**0**	**0**
	'Wh-' question		
21-30 years	Falling tune	6	100
	Rising tune	0	0
	Total	**6**	**100**
31-40 years	Falling tune	1	100
	Rising tune	0	0

	Total	**1**	**100**
41-50 years	Falling tune	1	100
	Rising tune	0	0
	Total	**1**	**100**
51 years plus	Falling tune	2	100
	Rising tune	0	0
	Total	**2**	**100**
	Yes/no question		
20 – 30 years	Falling tune	2	50.0
	Rising tune	2	50.0
	Total	**4**	**100**
31 – 40 years	Falling tune	4	66.7
	Rising tune	2	33.3
	Total	**6**	**100**
41 – 50 years	Falling tune	0	0
	Rising tune	0	0
	Total	**0**	**0**
51 years plus	Falling tune	0	0
	Rising tune	0	0
	Total	**0**	**0**

Source: The present study

Table 5.16(a) above shows the percentage distribution of overall use of intonation tunes in tone-units by age bracket. Ten of the 25 participants in Group B were within the age bracket of 21 to 30 years (Excerpts 1, 3, 9, 10, 11, 12, 13, 14, 22 and 24); 11 were within 31 to 40 years (Excerpts 2, 4, 5, 6, 7, 15, 16, 17, 20, 21 and 23); 3 were in the 41 to 50 years bracket (Excerpts 18, 19 and 25) while only 1 was 51 years or above (Excerpt 8). The participants within the age bracket of 21 to 30 years were categorised as youths or being young. *The new international Webster's comprehensive dictionary of the English language* defines "youth" as "that part of life between childhood and manhood"; in Nigeria, the National Youth Service Corp (NYSC) admits Nigerian graduates who are not beyond thirty years of age into compulsory one-year national service; hence, this work categorises the participants within the age bracket of 21 to 30 years as young people.

The 21 to 30 years participants placed the falling tune on 71.4% of their non-interrogative tone-units while they said the rest 28.6% with the rising tune. Eleven of the 28 tone-units involved here are sentence-final non-interrogative tone-units while 17 are non-sentence-final tone-units. The participants here produced most of their non-interrogative tone-units (i.e. 20 out of 28) with the falling tune, thereby portraying their patterns as contrary to the formalised intonation rules. Having found out that a vast majority of educated Nigerians are not aware of and do not use DI (see 5.2.2), one would expect these participants to obey

grammatical intonation rules in their intonational choices; the contrary is however proved to be the case.

The participants of 31 to 40 years used the falling tune to produce 53.5% of their non-interrogative tone-units while they spoke 46.5% using the rising tune. The 43 non-interrogative tone-units uttered by these participants are divisible into 21 sentence-final and 22 non-sentence-final tone-units. One would therefore expect a little higher use of the rising tune in accordance with grammatical intonation rules. Like their 21 to 30 years counterparts however, the 31 to 40 year old participants placed the falling tune on majority (23) of their non-interrogative tone-units while they said the remaining 20 with the rising tune. Like we observed in the case of the 21 to 30 years participants, it is obvious that the 31 to 40 year old participants were also inconsistent with both grammatical intonation and DI in their intonation tune choice in non-interrogative tone-units.

The table above further shows that while the 51 years plus age bracket had no non-interrogative tone-unit for analysis, the 41 to 50 years age bracket participants used the falling tune on 66.7% of their non-interrogative tone-units and produced the remaining 33.3% with the rising tune. Unlike the earlier age brackets, majority (i.e. 5) of the 9 non-interrogative tone-units spoken by these participants are sentence-final tone-units while 4 are non-sentence-final tone-units. In accordance with the majority of the tone-units involved here being sentence-final, the 41 to 50 year old participants uttered 6 tone-units with the fall while producing only 3 using the rise. These participants therefore largely followed grammatical intonation in their choice of intonation tunes for non-interrogative tone-units, though their excerpts (Excerpts 19 and 25) had earlier been found to run counter to DI (see 5.2.2). The reason for this disparity between the young and the older Nigerians may be attributable to the early exposure of the younger generation of educated Nigerians to foreign media like BBC, CNN, VOA, etc., which was a luxury for the older generation in their own time. It would be recalled that the 2 excerpts that were produced in complete conformity with DI (Excerpts 15 and 24) and the 3 excerpts which conformity with DI was above average (Excerpts 9, 21 and 23) out of the 15 excerpts in which non-interrogative tone units were analysed were uttered by the participants within the youthful age bracket of 21 to 30 and the immediate senior age bracket of 31 to 40 (see 5.2.2).

The foregoing further proves that a vast majority of educated Nigerians are not aware of and do not use DI, especially in the aspect of non-interrogative tone units, while very few even obey the formalised rules of intonation. Our Research Questions 2 to 4 are therefore

further answered in the negative, whereas our sixth research question is affirmatively answered as the 41 to 50 years bracket participants obeyed the grammatical rules of intonation while the younger age brackets did not.

All the age brackets produced their respective "wh-" question tone units with 100% falling tune. The 21 to 30 year old participants said their 6 "wh-" question tone units with the fall; the only participant in each of the 31 to 40 years bracket (Excerpt 20) and 41 to 50 years bracket (Excerpt 18) asked his lone "wh-" question with the fall; the 51 years plus participant also uttered his own 2 with the same tune. This reiterates the finding in 5.3.2 that educated Nigerian speakers of English see the relationship between "wh-" questions and intonation as rather grammatical than discoursal because the intonation tune choice by all the participants here conforms to the rule-based grammatical intonation pattern.

Only the 21 to 30 years and the 31 to 40 years age brackets have the "yes/no" question tone units for analysis. While the participants in the first age bracket produced 50.0% of their "yes/no" question tone units with the falling tune and placed the rising tune on the rest 50.0%, the second age bracket participants uttered 66.7% of their own polar question with the falling tune and said the rest 33.3% using the rising tune. The 21 to 30 years age bracket participants used the falling tune and the rising tune to produce 2 tone units apiece. On the other hand, the 31 to 40 years age bracket participants asked 4 of their 6 polar questions with the falling tune and said the remaining 2 with the rising tune. Recalling that Excerpts 3, 14, 22 and 24, which conformed to DI, were uttered by the participants within 21 to 30 years age bracket, whereas Excerpts 4, 6, 15 and 16, which were contra-DI, were produced by the 31 to 40 years age bracket participants (see 5.4.2), the finding here supports the assertion made earlier in this section that early exposure of the younger age bracket to foreign electronic media contributed to their better performance in the use of DI than the older participants. Our Research question 6 is therefore further answered in the affirmative with regard to age.

5.9.3 Analysis of variance of the overall use of intonation tunes in major tone-unit types by age bracket

The 21 to 30 year old participants produced 20 of their 28 (71.4%) non-interrogative tone-units with the fall; 23 of the 43 (53.5%) related tone-units produced by the 31 to 40 year old participants were spoken with the fall and 6 of the 9 (66.7%) tone-units in that category uttered by the 41 to 50 year old participants received the same tune (see 5.9.2). The table below shows the ANOVA indicating the level of statistical significance in the mean among the three age brackets.

Table 5.16(b): **Analysis of variance of participants on age bracket basis (non-interrogative tone-units)**

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.587	2	0.294	1.194	0.309
Within	18.944	77	0.246		
Total	19.532	79			

P = 0.05

Source: The present study

As can be seen in Table 5.16(b) above, the significance level is 0.309 (*p* = .309), which is above 0.05. There is therefore no statistically significant difference in the mean among the participants of the three age brackets. This shows that age does not have any statistically significant effect on the choice of English intonation tunes for non-interrogative tone-units among educated Nigerian speakers of English. ENSE are therefore basically the same in their inconsistency in the use of DI and formalised intonation rules to produce non-interrogative tone-units. This confirms the age aspect of Null Hypothesis 6 (see 1.5).

As was the case in 5.8.3, all the participants in Group B, age bracket notwithstanding, produced all their "wh-" interrogative tone units with the falling tune (100%). Consequently, there is no basis for testing significance level because their standard deviation is equal to zero. This shows that ENSE are generally the same in their habitual use of the rule-based intonation pattern to produce "wh-" interrogative tone-units. This further confirms Null Hypothesis 7.

As noted in 5.9.2 only the 21 to 30 years and the 31 to 40 years age brackets have the "yes/no" question tone-units for analysis. Two out of the 4 (50.0%) polar question tone-units produced by the 21 to 30 years age bracket participants were uttered with the rise while 2 of the 6 "yes/no" interrogative tone-units (33.3%) uttered by the 31 to 40 years age bracket participants were produced with the rise (see 5.9.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the two age brackets.

Table 5.16(c):Analysis of variance of participants on age bracket basis (polar question tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.069	1	0.069	0.299	0.599
Within	1.855	8	0.232		
Total	1.924	9			

P = 0.05
Source: The present study

As shown in Table 5.16(c) above, the significance level is 0.599 ($p = .599$), which is above 0.05. Therefore, there is no statistically significant difference in the mean between the participants of the two age brackets. This shows that age does not have any significant effect on the choice of tunes for polar question tone units among educated Nigerian speakers of English. ENSE are therefore basically the same in their inconsistency in conforming to either DI or rule-based intonation pattern to produce "yes/no" interrogative tone-units. This further confirms Null Hypothesis 8.

5.10   Overall use of intonation tunes in major tone unit types by educational level

5.10.1 Participants' raw scores of overall use of intonation tunes in major tone-unit types by educational level

The following table presents the overall analysis of the Group B participants' use of intonation tunes on the basis of the educational level at which they learnt English intonation. This is the last socio-demographic variable on which the analysis of the Group B participants' intonation patterns is anchored.

Table 5.17:   Analysis of overall use of intonation tunes in major tone-unit types by educational level

Educational Level	Non-interrogative tone units	"Wh-" question	"Yes/No" question
Secondary (11 Participants)	Total number of occurrence:	Total number of occurrence:	Total number of occurrence:

	52		4		1	
	⊆	⊂	⊆	⊂	⊆	⊂
	27	25	4	0	1	0
University (9 Participants)	Total number of occurrence: 23		Total number of occurrence: 4		Total number of occurrence: 6	
	⊆	⊂	⊆	⊂	⊆	⊂
	17	6	4	0	3	3
Both (5 Participants)	Total number of occurrence: 5		Total number of occurrence: 2		Total number of occurrence: 3	
	⊆	⊂	⊆	⊂	⊆	⊂
	5	0	2	0	2	1

Key: ⊆ (falling or proclaiming tune), ⊂ (rising or referring tune)
Source: The present study

Table 5.17 above shows that the participants who learnt English intonation only in the secondary school produced 52 non-interrogative tone-units, 27 of which were uttered with the falling tune while 25 were spoken with the rising tune. The 4 "wh-" question tone-units of these participants were all produced with the falling tune, while the only "yes/no" question produced by the secondary school segment of the participants received the falling tune. The participants who were taught English intonation in the university produced a total of 23 non-interrogative tone-units: 17 of them had the falling tune placed on them and the 6 got the rising tune. They uttered 4 "wh-" questions which were all spoken using the falling tune. Their polar questions are 6 and 3 of these were produced with the falling tune while 3 had the rising tune placed on them. The participants who learnt English intonation at both levels had 5 non-interrogative tone-units which were all produced with the falling tune. Their 2 "wh-" questions were also uttered with the falling tune, and the 3 polar questions produced by them are divisible into 2 with the falling tune and 1 with the rising tune.

5.10.2 Descriptive analysis of the overall use of intonation tunes in major tone-unit types by educational level

In this subsection, we discuss the frequency of occurrence of the use of the falling and the rising tunes in the major tone unit types on the basis of the educational level at which the participants learnt English intonation. The pragmatic implications of the use of the two tunes

will also be examined. These will be done through the frequency table obtained via the application of STATA version 11 to the raw score table on socio-demographic characteristics displayed in 5.10.1.

Table 5.18(a):   **Percentage distribution of overall use of intonation tunes in major tone-unit types by educational level**

Educational level	Non-interrogative	Frequency	Percentage
Secondary school	Falling tune	27	51.9
	Rising tune	25	48.1
	Total	**52**	**100**
University	Falling tune	17	73.9
	Rising tune	6	26.1
	Total	**23**	**100**
Both	Falling tune	5	100
	Rising tune	0	0
	Total	**5**	**100**
	'Wh-' question		
Secondary school	Falling tune	4	100
	Rising tune	0	0
	Total	**4**	**100**
University	Falling tune	4	100
	Rising tune	0	0
	Total	**4**	**100**
Both	Falling tune	2	100
	Rising tune	0	0
	Total	**2**	**100**
	Yes/no question		
Secondary school	Falling tune	1	100
	Rising tune	0	0
	Total	**1**	**100**
University	Falling tune	2	40.0
	Rising tune	3	60.0
	Total	**5**	**100**
Both	Falling tune	3	75.0
	Rising tune	1	25.0
	Total	**4**	**100**

Source: The present study

Table 5.18(a) above shows percentage distribution of overall use of intonation tunes in tone-unit types on the basis of the educational level at which the study population learnt English intonation. All the participants had a minimum educational qualification of first degree, but they learnt English intonation at different levels of education. Eleven of them learnt English intonation in the secondary school and produced 52 non-interrogative tone units, 4 "wh-" questions and 1 polar question; 9 learnt English intonation in the university and produced 23 non-interrogative tone units, 4 "wh-" questions and 3 "yes/no" questions; the

remaining 5 participants, who produced 5 non-interrogative tone units, 2 "wh-" questions and 3 "yes/no" questions, were taught English intonation in both the secondary school and the university. Excerpts 5, 7, 10, 13, 17 to 21, 23 and 24 represent those who were taught English intonation only in the secondary school; Excerpts 3, 4, 8, 9, 11, 12, 14, 22 and 25 represent the participants who learnt English intonation only in the university while those who were instructed on English intonation at both levels are represented in Excerpts 1, 2, 6, 15 and 16.

From the table, the participants who were taught English intonation in the secondary school placed the falling tune on 51.9% of their non-interrogative tone-units while they said the rest 48.1% using the rising tune. Though there are 22 sentence-final and 30 non-sentence-final tone-units in the analysed non-interrogative tone-units of these participants, they however produced 27 of their 52 non-interrogative tone-units with the falling tune while they said the remaining 25 with the rising tune. This means that the members of the study population who were taught English intonation only in the secondary did not obey grammatical intonation rules in their non-interrogative tone-units.

The participants who learnt English intonation in the university spoke 73.9% of their non-interrogative tone-units with the falling tune while they said the rest 26.1% using the rising tune. Eleven sentence-final and 12 non-sentence-final tone-units were produced by them. They nonetheless produced 17 non-interrogative tone-units with the falling tune and 6 with the rising tune. Like the secondary school-tutored participants, the choice of tunes for the non-interrogative tone-units by those who were taught English intonation only in the university also ran counter to formalised (i.e. grammatical) English intonation rules.

The participants who had instructions on English intonation at both levels of education (i.e. secondary school and university) uttered their own non-interrogative tone-units with 100% falling tune. Four of their 5 non-interrogative tone-units are sentence-final while only 1 is non-sentence-final. It therefore becomes obvious that these participants who were exposed to English intonation in the secondary school and learnt it up to the university level were 80.0% consistent in their application of grammatical intonation rules, placing the falling tune on all the 5 tone-units though 1 is a non-sentence-final tone-unit.

It has been observed in 4.2.2 and 5.2.2 that the whole study population mostly ran counter to DI in their non-interrogative tone-unit intonation patterns. The findings in this subsection further show that most educated Nigerians are neither consistent with DI nor grammatical intonation in their use of English intonation with regard to non-interrogative tone-units. Our Research Questions 1 to 4 are therefore further answered in the negative while

our fifth research question and the educational level part of our sixth research question are affirmatively answered.

All the 3 groups recorded 100% production of the "wh-" question tone-units with the falling tune. The secondary school participants said their 4 specific questions with the falling tune; the university participants likewise asked their own 4 "wh-" questions with the falling tune and the secondary cum university participants uttered their 2 "wh-" question tone-units also using the falling tune. Bearing in mind the finding in 5.3.2 that the study population had conformity with DI in only 28.6% of their "wh-" question tone units, the finding in this subsection indicates that the level of education at which they were taught English intonation notwithstanding, educated Nigerian speakers of English generally apply the formalised rule of English intonation to their "wh-" questions, irrespective of whether they are seeking information or confirmation. This further reiterates the negative answering of our Research Questions 1 to 4, confirms the answering of our fifth Research Question in the affirmative and answers the educational level part of our sixth research question in the negative with respect to "wh-" question tone units.

Concerning the "yes/no" question tone-units, the participant who was taught English intonation in the secondary school (Excerpt 24) used the falling tune on his lone "yes/no" question tone-unit. It would be recalled that this participant's choice of tune for his polar question conformed to DI (see 5.4.2). This is an indication that he asked the question to get information, hence his use of the falling tune which is contrary to the default or rule-based tune for "yes/no" questions.

Forty percent of the polar questions produced by the university-tutored participants (Excerpts 3, 4, 14 and 22) were said with the falling tune while the remaining 60.0% received the rise. Two of the 5 polar questions produced by these participants were said with the falling tune while the remaining 3 were uttered with the rising tune. Though the tune choice by these participants appear to be majorly in consonance with the rule-based (i.e. grammatical) intonation pattern, the fact that 3 of their 4 excerpts (Excerpts 3, 14 and 22) agreed with DI (see 5.4.2) makes the polar question intonation patterns of the participants who learnt English intonation in the university to conform more to DI than grammatical intonation.

The participants who learnt English intonation in both the secondary school and the university produced 75.0% of their polar question tone units with the falling tune and uttered the remaining 25.0% using the rise. Three of the 4 tone units were produced with the falling tune while the remaining 1 was said with the rising tune. The analysis in 5.4.2 shows that the

participants involved here did not conform to DI in their tune choice for the "yes/no" questions (Excerpts 6, 15 and 16). Likewise, their intonation patterns mostly ran counter to the formalised intonation rule. This means that these participants neither followed DI nor grammatical intonation in their tune choice for polar questions.

While the intonation tune choice of the participants who learnt English intonation in the secondary school was found to be in agreement with DI and the intonation patterns of those who were taught in the university conformed to both DI and grammatical intonation, it is surprising to discover that those who were taught at both levels, and should be presumed to be the most proficient of the 3 sets due to the length of their learning, failed to conform to either DI or grammatical intonation in their tune choice for polar questions. It is more surprising to know that 2 of the 3 participants involved here (Excerpts 15 and 16) had Bachelor of Education (English) and Bachelor of Arts (English) respectively. It then means that the length of training as well as the area of study may not bring about any significant learning. What is important is the intensity or quality of the training coupled with the training facilities as well as the readiness or interest of the learner. This supports the finding of Adejuwon (2003: 89; 2005: 37; 2011: 51) that "obtaining a degree in English Language does not necessarily make one better in the use of English intonation than those who learn this prosodic feature of speech elsewhere".

Moreover, the findings from the "yes/no" question intonation patterns of the participants who learnt English intonation in the secondary school and those who were taught in the university, being the majority, further answer our Research Questions 2 to 5 in the affirmative. The findings from the polar question intonation patterns of all the participants however answer our sixth research question in the negative.

5.10.3 Analysis of variance of the overall use of intonation tunes in major tone-unit types by educational level

Twenty-seven out of the 52 (59.1%) non-interrogative tone-units produced by the participants who learnt English intonation only in the secondary school were uttered with the fall; 17 of the 23 (73.9%) similar tone-units produced by the university-tutored participants were spoken with the fall and the whole 5 (100%) tone-units in that category uttered by the participants who were taught English intonation at both levels of education received the same tune (see 5.10.2). The table below shows the ANOVA indicating the level of statistical significance in the mean among the three categories of participants.

Table 5.18(b):　　　　**Analysis of variance of participants on educational level basis (non-interrogative tone-units)**

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	1.570	2	0.785	3.553	0.033
Within	17.009	77	0.221		
Total	18.579	79			

P = 0.05
Source: The present study

As can be seen in Table 5.18(b) above, the significance level is 0.033 (p = .033), which is below 0.05. Therefore, there is a statistically significant difference in the mean among the participants from the three educational backgrounds. This shows that educational level has a significant effect on the choice of English intonation tunes for non-interrogative tone units among educated Nigerian speakers of English as only the participants who were exposed to English intonation from the secondary school up to the university level were mostly consistent in their application of the formalised intonation rules (see 5.10.2). The length of training in English intonation therefore plays a significant role in the mastery and use of the rule-based patterns of this prosody among ENSE with regard to non-interrogative tone-units, though this has not translated to their conformity with DI. This is contrary to Null Hypothesis 6.

All Group B participants, educational level notwithstanding, produced all their "wh-" interrogative tone-units with the falling tune (100%). There is therefore no basis for testing significance level because their standard deviation is equal to zero. This shows that ENSE are, by and large, the same in their habitual use of the formalised intonation pattern to produce "wh-" interrogative tone-units. This emphasises the confirmation of Null Hypothesis 7.

The single secondary-school-tutored participant who used the polar question produced his 1 "yes/no" question tone-unit with the fall; 3 of the 5 (60.0%) polar question tone units uttered by the participants who learnt English intonation in the university were produced with the rise while 1 of the 4 (25.0%) similar tone units uttered by their counterparts who were

taught this suprasegmental feature of speech from the secondary school to the university received the rise (see 5.10.2). The table below shows the ANOVA indicating the level of statistical significance in the mean between the three categories of participants.

Table 5.18(c):Analysis of variance of participants on educational level basis (polar question tone-units)

Analysis of variance					
Sources	Sum of square	Degree of freedom	Mean of square	F-cal	P-Value
Between	0.550	2	0.275	1.271	0.338
Within	1.515	7	0.216		
Total	2.065	9			

P = 0.05
Source: The present study

As can be seen in Table 5.18(c) above, the significance level is 0.338 ($p = .338$), which is above 0.05. Therefore, there is no statistically significant difference in the mean among the participants from the three educational backgrounds. This shows that, in spite of the seeming descriptive differences in the adherence of the three categories of participants to either DI or systemic intonation (see 5.10.2), the educational level at which one learns English intonation does not have any statistically significant effect on the choice of tunes for polar question tone-units among educated Nigerian speakers of English. ENSE are therefore basically the same in their inconsistency with either DI or rule-based intonation pattern to produce "yes/no" interrogative tone-units. This finally confirms Null Hypothesis 8.

5.11 Summary

This chapter has concentrated on the analysis and discussion of the data that were collected via the focus group discussion sessions. The results of the analysis of intonation patterns of the different groups and socio-demographic characteristics have also been subjected to quantitative analysis through which the levels of statistical significance of the results were tested. On the basis of the findings, inferences were drawn, the research questions were answered and the research hypothesis were confirmed or negated. The next chapter focuses on the summary of the findings in this research, the conclusion that derived from the findings as well as recommendations towards proficient use of English intonation.

CHAPTER SIX
SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1   Introduction

This chapter aims to achieve a triple purpose. One, it gives a summary of this research. Two, it draws conclusions as deducible from the findings in the study. Three, in view of the findings, it makes some recommendations aimed at improving the use of English intonation for effective communication among second language speakers of English, especially educated Nigerians.

6.2 Summary

The importance of this study has been pointed out earlier (see 1.3) as arising from the need to investigate the disparity between natural or spontaneous speech intonation patterns of selected educated Nigerian speakers of English (ENSE) and formalised intonation rules. In the light of this need, the specific objectives of this work were to (1) find out if the formalised intonation rules are adequate to reflect the intonational choices made in natural speech by ENSE; (2) explore ENSE's awareness of the discourse intonation (DI) model; (3) examine ENSE's use of the discourse intonation patterns; (4) investigate ENSE's consciousness of the functions and importance of the discourse intonation tunes in communication; (5) draw attention to the primacy of intonational meaning over lexical meaning; and (6) ascertain the effects of age, gender and educational level on intonation usage.

The population for the study comprised fifty educated Nigerian speakers of English. The utterances of twenty-five of these participants were recorded during English medium discussion programmes and interview sessions on radio and television (Nigerian Television Authority (NTA), Africa Independent Television (AIT), Channels Television and Federal Radio Corporation of Nigeria (FRCN)). The utterances of the remaining twenty-five participants were sourced from focus group discussion sessions which were also recorded. Two texts, containing twenty-five excerpts each, from the two sets of recordings were then prepared.

In pursuance of our aim and objectives, the data collected were subjected to both qualitative and quantitative analysis through the application of STATA version 11 and

ANOVA to carry out descriptive and inferential statistical analysis of the data. The analysis of the data was primarily anchored on five major categorisations: intonation tunes used in non-interrogative tone-units, intonation tunes used in "wh-" (specific) question tone-units, intonation tunes used in "yes/no" (polar) question tone-units, falling tune on sentence-final tone-units (non-interrogative) and rising tune on non-sentence-final tone-units. The first three categorisations tested the study populations' knowledge and use of the natural speech or discourse intonation model and the last two examined their conformity with the formalised intonation rules encoded in most ELT textbooks.

Four socio-demographic characteristics which included gender (male versus female), native language (Yoruba, Igbo, Hausa), age bracket (21 to 30 years, 31 to 40 years, 41 to 50 years and 51 years and above) and educational level at which the participants learnt English intonation (secondary school, university and both levels) were also used as parameters for analysis. Only the first variable applied to the Group A participants while the remaining three did not because information on their native language, age and education was not available to this researcher due to the sourcing of their utterances on the electronic media. All the four variables were however applicable to the Group B participants because the researcher was able to get all the relevant information from them through the questionnaire they filled.

The instances of conformity of the study population with the discourse intonation model or the formalised intonation rules were determined and explained through the use of STATA version 11 which was employed to analyse the tables based on the major categorisations and the socio-demographic characteristics. This descriptive statistical analysis software brought out the frequencies and percentages of the occurrences of both the proclaiming (i.e. falling) and the referring (i.e. rising) tunes in the utterances of the participants. The percentages of the participants' use of the proclaiming and the referring tunes thus generated were subjected to ANOVA for quantitative (inferential) analysis. Acoustic analysis was done to capture the visual representations of the intonation contours of the tone units extracted from the participants' utterances in the course of the discussion of the research data.

6.3   Highlights of findings

From the data analysed in the two previous chapters, it has been found out that there is no marked difference between the two groups' (i.e. Groups A and B) intonation patterns (see 5.2.3, 5.3.3 and 5.4.3). The intonation patterns of both groups of participants in the non-

interrogative tone-units largely ran counter to DI, even when they did not necessarily obey formalised rules (4.2.2 and 5.2.2).

The youthful participants did not observe the grammatical rules of intonation in their non-interrogative tone-units while they recorded insignificant DI conformity. Their immediate senior age category also recorded similar findings. The 41 to 50 years category however used the rule-based patterns to a large extent, though they had no conformity with DI (see 5.2.2).

The Group A participants conformed to DI in 5 of their 7 "wh-" question tone-unit excerpts though only 4 appeared to obey grammatical rule (4.3.2). Conversely, the Group B participants recorded conformity with DI in just 2 of their own 7 specific question tone unit-bearing excerpts but obeyed grammatical rule in all 7 (5.3.2).

The participants' conformity with DI in most of their polar questions was apparently as a result of their knowledge of grammatical intonation rules rather than awareness of DI (4.4.2 and 5.4.2). Their familiarity with the rule-based polar-question pattern resulted in 75.0% DI conformity for Group A and 50.0% for Group B while 60.0% of the overall DI-compliant excerpts were produced with the referring tune. It is noteworthy however that the four DI-compliant polar question-bearing excerpts (Excerpts 3, 14, 22 and 24) produced by Group B were all uttered by participants of the youthful age category (ages 21 to 30).

While the participants generally adhered to formalised intonation rule with respect to "wh-" question, the analysis on gender basis reveals that there is no convention among educated male and female Nigerians on the tune choice for polar questions. Neither of them recorded total conformity with DI or grammatical intonation.

The results of the analysis in 5.8 show that the participants with Yoruba and Igbo as native languages respectively exhibited inconsistency with either grammatical intonation rules or DI with regard to non-interrogative tone-units. The participants with Hausa as their native language generally conformed to DI in their non-interrogative tone unit intonational choices, but only appear to adhere to grammatical intonation rules.

The participants, irrespective of their native languages, uttered all their "wh-" questions with the falling tune. The differences between the participants based on their native languages however came out more clearly in their polar questions. It was found out in 5.8 that the Yoruba participants produced most of their polar question tone-units with the rising tune. The Igbo participants produced all their polar questions using the falling tune. The Hausa participants had equal adherence to both DI and formalised rule.

The participants within the 21 to 30 years age bracket went contrary to both DI and grammatical intonation rules in uttering their non-interrogative tone-units. The 31 to 40 years age bracket participants also towed the line of their younger counterparts, whereas the participants within 41 to 50 years largely conformed to grammatical rules in producing their non-interrogative tone-units. All the "wh-" questions produced by the participants across the age brackets were spoken with the falling tune. In uttering the polar questions, the participants within the age bracket 21 to 30 years used the two tunes appropriately, whereas the 31 to 40 years age bracket participants complied with neither DI nor the rule-based polar-question pattern in their intonational choices.

While the participants who learnt English intonation in the secondary school and the ones who were taught English intonation in the university did not adhere to both DI and Systemic Intonation (SI) in their non-interrogative tone-units, the segment of the study population who were taught this prosodic feature at both levels of education conformed almost totally to SI. All the participants applied the grammatical intonation rule to their "wh-" questions while they had little conformity with DI. The participant who learnt English intonation in the secondary school conformed to DI in his polar question; those who learnt it in the university adhered to both DI and SI; those who learnt English intonation at both levels of education however did not conform to either DI or SI.

6.4   Conclusions

Based on the data analysed in the two previous chapters, it may be logical to conclude that there exists a remarkable gap between the natural speech intonation patterns of educated Nigerian speakers of English and formalised intonation rules. They do not conform to either DI or grammatical intonation (more technically known as Systemic Intonation, i.e. SI) in their production of non-interrogative tone-units. Therefore, educated Nigerian speakers of English (ENSE), males and females from different language and educational backgrounds, generally lack consistency in their natural speech intonational choices with regard to non-interrogative tone-units, though educated Hausa English speakers tend more towards using DI than educated Yoruba and educated Igbo speakers of English.

The findings in the analysis of the non-interrogative tone-units depict the intonation patterns of the younger generation of educated Nigerians as lacking consistency with any rules, though their conformity with DI may occur in no distant time as they are continually influenced by the patterns they hear on the foreign electronic media. The adherence of the older ENSE (ages 41 and above) to the grammatical intonation patterns may persist in view of

the overwhelming conformity of the participants in this category to formalised intonation rules; conforming to DI may therefore not be feasible for them as people tend to get more conservative with age.

Combining the "wh-" question excerpts in which the entire study population adhered to grammatical intonation rule, it is clear that ENSE generally consider "wh-" questions as normally asking for information. Gender, language background, age and educational background notwithstanding, they see the relationship between "wh-" interrogatives and intonation as rather grammatical than discoursal, hence their preponderant use of the falling tune for "wh-" questions.

With regard to polar questions, it is obvious that how long one learns English intonation may not make any significant impact on how proficient one becomes in its use. The learner has to be interested in learning it and the teaching has to be robust.

Educated Yoruba speakers of English favour grammatical intonation rule for "yes/no" questions. Educated Igbo speakers of English prefer to sound forceful even with the "yes/no" questions. Educated Hausa speakers of English, on their own part, use both DI and grammatical intonation equally to produce polar questions.

Unlike their older compatriots, educated younger Nigerians use the proclaiming and the referring tunes with both DI conformity and formalised rule adherence with respect to polar questions. This may not be unconnected with the early exposure of the youthful age group to foreign electronic media which was a luxury in the times of the older generation.

From the foregoing, it has been established that there is disparity between the natural or spontaneous speech intonation patterns of the selected educated Nigerian speakers of English and formalised intonation rules. The aim of this study has therefore been realised while its initial four specific objectives have been met, albeit with mostly negative results (see 1.3). The fifth objective was met, with positive result, as this study has confirmed the primacy of intonational meaning over lexical meaning. Concerning the sixth objective, it is evident in the analyses and findings that the differences noticed in the conformity of the participants with either DI or rule-based patterns due to age, gender, native language and educational training on intonation were not significant. It is noteworthy that educated Nigerians appear to have consensus in their "wh-" questions with regard to intonation tune choice, whereas one cannot categorically state the principle that guides intonation tune choice among educated Nigerians in the other sentence types and sentence parts. It may however be safe to subscribe

to Gut's (2003) tentative proposal concerning Nigerian English intonational phonology that "two tones are sufficient to describe NigE intonation: H [i.e. high] and L [i.e. low]". This is because of the habitual use of these two tunes by educated Nigerians (and their very rare use of complex tunes), a fact which is evident even in this work. The teaching of English intonation in Nigeria, especially at the elementary and the secondary school levels, may therefore be streamlined and intensified along the use of the falling and the rising tunes.

Furthermore, our research questions (1.4) have been answered. While the answers to questions 1 to 4 are mostly negative, the responses to questions 5 and 6 are largely positive. It is now clear that the formalised intonation rules currently encoded in most ELT textbooks are not adequate to reflect the intonational choices made in natural speech. It has also been found out that educated Nigerian speakers of English, on the whole, lack the knowledge pertaining to the use of the discourse intonation model in English, even when there is disparity between their natural speech intonation patterns and the formalised intonation rules. This claim is supported by the findings from the Analysis of Variance in which the null hypotheses for this study were tested. Five of the eight hypotheses were confirmed while three were proved wrong. Both the descriptive and the inferential analyses used for this study have revealed that ENSE generally lack consistency in their natural speech intonational choices as they follow no specific set of rules in their utterances to pass messages across.

The findings of this research lend support to those in an earlier effort by Udofot (1997) as regards the predominant use of the falling tune in Nigerian English. They also lend credence to Gut's (2004: 828) position that in comparison to native varieties of English, "NigE [that is, Nigerian English] intonation seems simplified". She supports her position by expatiating that most read and spontaneous utterances have a falling tune; rising tune, which occurs mostly in yes/no questions and tag questions, is relatively rare while complex tunes like fall-rises and rise-falls are even rarer. The participants in this study exhibited a preponderance of the falling tune choice in their non-interrogative tone-units (though they produced more non-sentence-final tone units than sentence-final) and "wh-" question tone-units while they placed the falling and the rising tunes equally on their polar question tone units. This reinforces Jowitt's (2000: 64) assertion that "certain patterns having a high frequency constitute a system in Nigerian usage differing in important respects from native-speaker systems, though lacking stability". In addition, ENSE have also been seen as being not conscious of the functions and importance of the discourse intonation tunes in

communication. Finally, this study has further established the fact that intonational meaning takes primacy over lexical meaning.

6.5   Recommendations

As it is evident in this study that educated Nigerian speakers of English are not quite proficient in the use of intonation tunes to convey their intended messages in the language, we proffer the following suggestions towards improving the use of English intonation by Nigerian speakers and learners of English to deliberately convey intended messages with little or no chances of being misunderstood:

1.   Adequate training and re-training of teachers of English

It is a clear fact that most teachers of English in Nigeria today are themselves L2 speakers of the language. Most of them were in turn taught by Nigerian teachers. Also, many teachers of English have never had the opportunity of interacting with native speakers of the language and all they know about English has been limited to what they were taught at school. Moreover, as English functions as an L2 and official language in Nigeria, teachers are needed to teach all aspects of the language. Since the spoken form is used more than the written form in interpersonal communication, special attention needs to be paid to the phonology of English, especially intonation, in order to enhance effective communication. Learners of English naturally see their teachers as models with regard to the use of English in all its aspects. It is therefore necessary that teachers of English impact positively on the English usage of their pupils. It is in the light of the foregoing that we suggest adequate training on the appropriate use of English intonation for would-be teachers of English and regular re-training for those who are already on the job. Since language is dynamic, teachers need to undergo in-service training or re-training from time to time. This training/re-training could be in the form of remedial course, seminar or workshop where experts in English phonology would train them on the use of English intonation, especially recent findings concerning the choice of intonation tunes in actual speech situations.

The proficiency of the teachers of English should be beyond the classroom. They should be seen to practise what they teach because learners tend to emulate their speech while most learners see what is taught in class as materials meant only for examination purposes. Psycholinguistics experts have proved that one learns a second language, in all its ramifications, with ease up till about twelve years of age. After this, maturation sets in to render second language learning, especially pronunciation which is a motor skill, somewhat difficult (Steinberg, 1993). Twelve years is the age most Nigerian children leave the primary

153

school to proceed to the secondary school. It then means that one can learn any aspect of the L2 with relative ease within the nursery/primary school stage. Future teachers definitely pass through this stage. It is therefore advocated that lessons on English intonation, especially intonation tunes and their specific meanings (including discourse meanings), should be incorporated in the nursery/primary school syllabi for it to be taught in a simple but practical form by specialist teachers of English with a good knowledge of English phonology. The teaching of English intonation should continue through the secondary school to the tertiary level of education. Those who learn this prosodic feature of speech throughout these stages and eventually decide to be teachers of English would most likely be proficient in the deliberate use of English intonation to convey their intended messages.

There is no amount of investment in the training of skilled teachers that is in vain because the eventual contribution of such teachers to the production of efficient speakers of English, which is ultimately a contribution to nation building, would definitely justify the investment. To produce teachers who would be able to use English intonation with a near-native competence, it takes more than theoretical training. Every higher institution that runs an English Language programme should have a functional phonetics laboratory for the practical aspect of its phonology courses, especially the part on English intonation. The teachers-in-training would be able to listen to themselves the way they would sound to a listener and, through the aid of machine and skilled instructors, see how conformed their intonation patterns are to what they have learnt and read in textbooks.

Bearing in mind the assertion of Roach (1991: 135; 2009: 121) that foreign learners of English should learn its intonation "the way a child acquires the intonation of its first language" through conversing with native speakers, we recommend that employers of teachers send them to first language communities of English for further studies of its intonation. These first language communities do not have to be Britain or the United States. There is a French Village in Badagry, Western Nigeria; something similar could be established for Nigerian teachers and learners of English. This English Language Village whose native English teaching staff would be resident would afford the Nigerian teachers/learners the opportunity of firsthand interaction with and learning from native speakers. Appropriate use of English intonation amongst educated Nigerians would thus be enhanced.

The recommended training and re-training of teachers of English on English intonation should however be devoid of mimicry. Nigerian teachers should not attempt to

154

speak English with British accent because their speech would sound affected. They should only strive to use English intonation tunes to convey their intended meanings effectively. Their thorough training would give them confidence to teach spoken English, especially intonation, with ease contrary to the present situation in which teachers of English, especially in the primary and secondary schools, mostly shy away from or simply gloss over the teaching of spoken English.

2.   Updating of oral English/phonology courses syllabi

The English intonation content of oral English in the secondary school and phonology courses in the higher institutions should be more detailed than what it is at present. As reflected in our findings, it seems English intonation is taught along grammatical, accentual and attitudinal patterns in Nigeria, with the greatest emphasis on grammatical intonation. Learners are mostly drilled on intonation patterns for various types of sentence performing functions such as statement, command, "wh-" and polar questions, exclamation, incomplete sentence. This is attested to by the WAEC provision for the teaching of English intonation mentioned in 2.4.8 and the English intonation contents of the phonology courses in most Nigerian higher institutions of learning. English intonation patterns reflecting actual or spontaneous speech situations (otherwise known as DI) in which people, especially native speakers, often deviate from the grammatical, accentual and attitudinal norms purposely to convey specific messages beyond the purview of grammar, emphasis/contrast and attitude are generally left untreated. Such patterns should be given equal prominence in the teaching of intonation to give learners a broader knowledge of the possibilities that are available in terms of intonation tune choice for effective communication. In the light of our finding that educated Nigerian speakers of English are not consistent even in their use of grammatical intonation, the teaching of this prosody should be made more intensive and deliberate with regard to appropriate use of specific intonation tunes for various communicative contexts and intents.

3.   Provision of learning facilities and self development

In addition to the provision of functional phonetics laboratory for the practical aspect of phonology courses suggested in 6.3.1, every school should have a library that is well stuffed with up-to-date books, audio and video tapes as well as other materials on English phonetics and phonology for the teachers and learners to consult. Satellite television with channels like BBC and CNN as well as internet facilities should also be provided in each

school. These facilities would go a long way in enhancing the teaching and learning of English phonology, especially English intonation, through their guided use by the learners.

On their own part, the learners should build on what is taught by the teachers by making judicious use of anything that may enhance their performance in English intonation. In essence, they should strive to develop themselves with every available opportunity. They should read any book and make use of materials within their reach that could aid their effective use of English intonation. Besides, Nigerian learners of English should make listening to BBC, CNN and VOA a habit, not only to get acquainted with happenings around the world but also to learn appropriate use of English intonation for effective communication from the native speakers of English. Newscasters, reporters and programme presenters who use English as their medium of communication on Nigerian electronic media should also be adequately trained in the appropriate use of English intonation because they are the broadcasters that Nigerians interact with on daily basis.

4.   Professionalization and specialisation

Considering the importance of English intonation in communication, one would realise that its teaching is not a job for just anybody who speaks English but a task that requires specialised training. This is true of the teaching of English phonology as a whole. It is not enough that someone speaks English or even studied English; it is more important that he is an expert in English phonology and he is able to impart the knowledge to others. Teachers of English in the primary and secondary schools should be professional teachers with requisite skills to teach learners at these formative stages English intonation in a manner that would bring the knowledge down to their level. Such teachers should also be specialists in English phonology who would be able to improve on their own through private study, in addition to any in-service training that their employers may give them. The practice of an omniscient teacher who teaches all subjects in the primary school should be discouraged. These professional and specialist teachers would be able to make the learners know that English intonation is not the same as the intonation of their native languages. Since English is highly intonational and the assumption is that the intonation pattern one uses in a particular context "more faithfully reflects his true linguistic intentions" (Pike, 1972: 56), it would be inappropriate and counterproductive to have people without expertise in English phonology to teach English intonation at any level of education.

5.   The need for a model

In order to ensure uniformity and consistency in the teaching of English intonation in Nigeria, we suggest that the English intonation patterns used by broadcasters on BBC should be the model, at least for now. This is partly because BBC English is taken to be the most socially acceptable worldwide. Also, it has been revealed by this study that English intonation as presently used by educated Nigerian speakers of English is replete with the preponderant use of the falling or proclaiming tune. This may not be unconnected with the syllable-timed nature of Nigerian native languages, whereas English is stress-timed resulting in a different rhythm and intonation system. The various native languages of the country influence the intonation patterns of ENSE, hence they are "unable to… speak intonation along the pattern laid down by the native speakers" (Akindele and Adegbite, 1999: 156). Though there have been arguments for the existence of a Nigerian model of English, we however concur with Jowitt (2000: 64) that the English intonation of Nigerian speakers of the language is a system whose patterns lack stability. Moreover, since educated Nigerians are bound to interact with Nigerians of various ethnic nationalities and non-Nigerians alike, the intonation patterns of most Educated Nigerian speakers of English may fail the test of acceptability and intelligibility if a uniform English-relevant model is not adopted.

Alongside the BBC model, the teaching of English intonation in Nigeria, especially at the elementary and the secondary school levels, may be streamlined and intensified along the use of the falling and the rising tunes due to the habitual use of these two tunes by ENSE. The complex tunes may however be introduced, with intensive drills, at the tertiary level in the general study and the core English phonology/spoken English courses.

6. Suggestions for further studies

This study has been limited to educated Nigerian speakers of English whose native languages are from the three major geo-ethnic regions of Nigeria. It would be noticed that Yoruba language belongs to the Southwest and Igbo is spoken in the Southeast while Hausa is the dominant language in the North. Nigerians from the South-south zone of the country may be different in their knowledge and use of English intonation while the North can further be broken into three (North-central, North-east and North-west) with various native languages. We therefore suggest that other interested researchers may base their studies on Nigerians in the South-south and concentrate on a particular part of the North. Since we have seen in this research that Nigerians are generally unaware of DI and their use of the formalised intonation rules mostly lacks consistency, future researchers may focus attention on the improvement of Nigerians in the consistent use of rule-based intonation patterns and possible awareness of DI,

especially in the contexts that are not accommodated in this work (for instance, the use of non-interrogative tone units by Nigerians of 51 years plus and the use of polar questions by Nigerians of 41 to 50 years and 51 years plus), as the main concerns of their works. Finally, interested future researchers may endeavour to collect their data in the natural domains of the Nigerian native languages (that is, Igbo land and Hausa native environments in Northern Nigeria), when the security challenges have been put under control, in order to find out if the report would remain the same or be different from the findings in this study. These would enhance in-depth and ongoing studies of English intonation which has generally been the most neglected in the research of second language learning and further contribute to arriving at a definitive and robust Nigerian English intonation which is socially acceptable within Nigeria and internationally intelligible.

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The Text for Group A Participants

1. A: Nigeria is very much a transitional society. We are moving towards modernity; we are not yet there. We are a very traditional society. We are trying what I think Jonathan got his finger on it by saying his was a transformational leadership. I've not seen enough transformation, but it's an aspiration, a transit from what used to be, to where we are today. The Nigerian universities are in various stages of lack of preparedness, but there are some high quality institutions like the one I'm associated with now.

2. B: Which one of them?

3. A: In terms of putting this together, what are the materials, what are the tools you need in actually putting this together?

4. B: I need a hammer, I need a scissors, I need a screw driver, I need chemical glue. This is what does the wrapping.

5. A: The question is: Are they prepared? Which way to go? Are they prepared?

6. B: NEMA and the Federal Government have met, time and time, and time again, looking for ways of finding a solution. But I dare say, as usual, not much has been done so far because everyone knew that there was going to be flooding, especially in the northern part of the country. We seem to know what to do, but how to enforce, or implement whatever we decide to do, is always the problem. It's not enough to continue to sit down: people are losing property, children are being washed away, houses are washed away. And it's unfortunate that it is at this point in time we are still meeting and talking when the disaster is already here and another one is looming.

7. A: In your experience as a fertility doctor, what would you say the demand is like?

8. B: I guess it's ever increasing, and majorly, it's because of awareness. A few years ago, people thought it was impossible to do this in Nigeria, but now the belief is there, that we do it here. Therefore, the patronage also is ever increasing.

9. A: Dynamo Kiev have somehow threatened the other teams in Europe. Do you think people expect anything good from Dynamo Kiev this time around?

10. B: I think the only positive thing we can expect from Dynamo Kiev, perhaps, is for them to rack up as many points as possible.

11. A: I think the reason why there is a bottleneck in the way African theatre, or Nigerian theatre, isn't advancing to that Broadway level is because we don't have a model that works, and we haven't figured out how to create value. I think we need to find a way to create value. It may not happen overnight, but we need to task ourselves. Don't you think we need to task ourselves?

12. B: Yes, but all the groups, the producers, the theatre practitioners, the venue builders, must take off at the same time.

13. A: Do the various government agencies involved in the assessment tour work in harmony to ensure the success of the presidential assignment?

14. B: The collaboration here is to highlight the role that even the military can play this time, given the national emergency. It has been directed by the President and Commander-in-Chief, that all efforts must be made to be able to cover this area in a specific time period, and the best crop of logistics for this type of operation, when it comes to the nitty-gritty, is the military.

15. A: Stakeholders say tackling environmental challenges is all encompassing. Should the fault stop on the federal government table alone?

16. B: The issues remain community-based, to a large extent. Federal government does not go to allocate land in states. It doesn't. It is the state governments that do that. The state governments do not go to communities to generate the trash. It is these communities that have the duty to ensure that they take charge of their environment.

17. A: The motive for most people in business is to make profit at the end of the day. Are you any different?

18. B: Yes. Ultimately, the objective of a company is profitability. But you see, in business, the moment you begin to look at your profit without looking at the good of your stakeholders, there would be discord.

19. A: You are trying to create food security in Nigeria, and in other parts of Africa. But these are roles that some people think can best be secured by the government of the day. Are you working in tandem, in partnership with the government to ensure that things are better agriculturally for Nigeria and Nigerians, and Africans? And what is the level of cooperation? Does the government truly understand what partnership should be   with the private players?

20. B: First of all, in the part of Nigeria I come from, they say: "a hungry man is an angry man". The moment you are able to ensure that your people are fed, fifty to seventy percent of the problems are solved. And in feeding the people, you would be solving a whole lot of problems. You would be solving quite a significant portion of unemployment. You would be solving the problem of malnutrition. Several things are interwoven in the issue of food security. Don't forget, the moment your next door neighbour is unable to feed, you have a security issue. Coming to the involvement of the government, I haven't seen a much more concerned government, in trying to get food security for our people, than this current government.

21. A: How will diversification ensure that there are more jobs available?

22. B: I think we depend on oil, from the report, we depend on oil basically. So, we should go into manufacturing, into agriculture, into other areas, so we would be able to make sure that we also earn income from them. And also encourage the youth and the women to be involved in the economy.

23. A: Do you think the legislature has played its role adequately? Because you seem to be

putting all the blame on the executive. How about the legislature and the roles they are supposed to play for the Nigerian polity? Have they been able to play their role adequately?

24. B: At House of Representatives, we have done our part. We have done it well, and I know Nigerians are proud of us. For you to know that we have done our own part, we go to the constituencies through the committees. My people are not having food, roads are not good, hospital not working, educational system in shambles, power is not okay, and we keep on having crimes here and there.

25. Mr President should stop the importation of any spare part. Save our foreign exchange. Our foreign reserves shrinks due to importation of spare parts. This will create job for our people, and also will create capacities all over the country.

Group A Participants' Intonation Patterns

1. A: //⊂Nigeria is very much a transitional society//⊂We are moving towards modernity/ ⊂we are not yet there// ⊂We are a very traditional society//⊂We are trying/⊂what I think Jonathan got his finger on it by saying/⊂his was a transformational leadership//⊂I've not seen enough transformation/⊂but it's an aspiration/⊂a transit/ ⊂from what used to be/ ⊂to where we are today//⊂The Nigerian universities are in various stages of lack of preparedness/⊂but there are some high quality institutions like the one I'm associated with now//

2. B: //⊂Which one of them//

3. A: //⊂In terms of putting this together/⊂what are the materials/⊂what are the tools you need in actually putting this together//

4. B: //⊂I need a hammer/⊂I need a scissors/⊂I need a screw driver/ ⊂I need chemical glue// ⊂This is what does the wrapping//

5. A: //⊂The question is/⊂Are they prepared//⊂Which way to go//⊂Are they prepared//

6. B: //⊂NEMA and the Federal Government have met/⊂time and time/⊂and time again/ ⊂looking for ways of finding a solution//⊂But I dare say/⊂as usual/⊂not much has been done so far/⊂because everyone knew that there was going to be flooding/ ⊂especially in the northern part of the country//⊂We seem to know what to do/⊂but how to enforce/⊂or implement/⊂whatever we decide to do/⊂ is always the problem//⊂It's not enough to continue to sit down/⊂people are losing property/ ⊂children are being washed away/⊂houses are washed away//⊂And it's unfortunate/⊂that it is at this point in time/⊂we are still meeting/⊂and talking/⊂when the disaster is already here/⊂and another one is looming//

7. A: //⊂In your experience as a fertility doctor/⊂what would you say the demand is like//

8. B: **//**⊂I guess it's ever increasing/⊂ and majorly/⊂it's because of awareness//⊂A few years ago/⊂people thought it was impossible to do this in Nigeria/⊂but now the belief is there/⊂that we do it here//⊂Therefore/⊂the patronage also is ever increasing//

9. A: //⊂Dynamo Kiev have somehow threatened the other teams in Europe//⊂Do you think people expect anything good from Dynamo Kiev this time around//

10. B: //⊂I think the only positive thing we can expect from Dynamo Kiev/⊂perhaps/⊂is for them to rack up as many points as possible//

11. A: //⊂I think the reason why there is a bottleneck in the way African theatre/⊂or Nigerian theatre/⊂isn't advancing to that Broadway level/⊂is because we don't have a model

that works/⊑and we haven't figured out how to create value//⊑I think we need to find a way to create value//⊑It may not happen overnight/⊑but we need to task ourselves//⊑Don't you think we need to task ourselves//

12. B: //⊑Yes/⊑but all the groups/⊑the producers/⊑the theatre practitioners/⊑the venue builders/⊑must take off at the same time//

13. A: //⊑Do the various government agencies involved in the assessment tour work in harmony to ensure the success of the presidential assignment//

14. B: //⊑The collaboration here is to highlight the role that even the military can play this time/⊑given the national emergency//⊑It has been directed by the President and Commander-in-Chief/⊑that all efforts must be made/⊑to be able to cover this area in a specific time period/⊑and the best crop of logistics for this type of operation/ ⊑when it comes to the nitty-gritty/⊑is the military//

15. A: //⊑Stakeholders say/⊑tackling environmental challenges is all encompassing// ⊑Should the fault stop on the federal government table alone//

16. B: //⊑The issues remain community-based/⊑to a large extent//⊑Federal government does not go to allocate land in states//⊑It doesn't//⊑It is the state governments that do that//⊑The state governments do not go to communities to generate the trash//⊑It is these communities that have the duty/⊑to ensure that they take charge of their environment//

17. A: //⊑The motive for most people in business/⊑is to make profit at the end of the day// ⊑Are you any different//

18. B: //⊑Yes//⊑Ultimately/⊑the objective of a company is profitability//⊑But you see/ ⊑in business/⊑the moment you begin to look at your profit/⊑without looking at the good of your stakeholders/⊑there would be discord//

19. A: //⊑You are trying to create food security in Nigeria/⊑and in other parts of Africa// ⊑But these are roles/⊑that some people think/⊑can best be secured/⊑by the government of the day//⊑Are you working in tandem/⊑in partnership with the government/⊑to ensure that things are better agriculturally/⊑for Nigeria/⊑and Nigerians/⊑and Africans//⊑And what is the level of cooperation//⊑Does the government truly understand what partnership should be with the private players//

20. B: //⊑First of all/⊑in the part of Nigeria I come from/⊑they say/⊑a hungry man is an angry man//⊑The moment you are able to ensure that your people are fed/⊑fifty to seventy percent of the problems are solved//⊑And in feeding the people/⊑you would be solving a whole lot of problems//⊑You would be solving quite a significant portion of unemployment//⊑You would be solving the problem of malnutrition// ⊑Several things are interwoven/⊑in the issue of food security//⊑Don't forget/⊑the moment your next door neighbour is unable to feed/⊑you have a security issue// ⊑Coming to the involvement of the government/⊑I haven't seen a much more concerned government/⊑in trying to get food security for our people/⊑than this current government//

21. A: //⊑How will diversification ensure that there are more jobs available//

22. B: //⊆I think we depend on oil/⊆from the report/⊆we depend on oil basically//⊆So/
/⊆we should go into manufacturing/⊆into agriculture/⊆into other areas/⊆so we
would be able to make sure that we also earn income from them//⊆And also
encourage the youth/⊆and the women/⊆to be involved in the economy//

23. A: //⊆Do you think the legislature has played its role adequately//⊆Because you seem to
be putting all the blame on the executive//⊆How about the legislature and the roles
they are supposed to play for the Nigerian polity//⊆Have they been able to play their
role adequately//

24. B: //⊆At House of Representatives/⊆we have done our part//⊂We have done it well/
⊆and I know Nigerians are proud of us//⊆For you to know that we have done our
own part/⊆we go to   the constituencies through the committees//⊆My people are not
having food/⊆roads are not good/⊆hospital not working/⊆educational system in
shamble/⊆power is not okay/⊆and we keep on having crimes here and there//

25.   //⊆Mr President should stop the importation of any spare part//⊆Save our foreign
exchange//⊆Our foreign reserve shrinks due to importation of spare parts//⊂This will
create job for our people/⊆and also will create capacities all over the country//

APPENDIX II(a)

The Text for Group B Participants

1. A: What is Boko Haram? Or how can we define Boko Haram?

2. B: Boko Haram simply means, if you want to put it literally, we can say it's anti-book.
But the main idea of Boko Haram is anti-western education.

170

3. C: What I'll like to say, though the meaning of Boko Haram is book is forbidden, or book is bad, which means Boko Haram is against western education. But looking at those that have been attacked by these people, this sect called Boko Haram, can we really say only the educated have been attacked? They go to parks, they bomb people, they go to different locations, though they go to schools as well; but we cannot only say only the educated have been attacked. So, I don't see Boko Haram in Nigeria as against western education alone.

4. A: Can we say Boko Haram is a recent development then? Can we say it is recent?

5. B: It's a recent development. But if you check the history of Boko Haram, you'll know that everything, from the Maitatsine of those days, it has always evolved, because they have leaders. The government will capture one, and they keep succeeding and it's now what it is. The name Boko Haram may be recent, but the history has been a long thing coming.

6. A: Has Boko Haram had any effect on Nigeria? Or are they still having effect?

7. B: To me, I'll say this is just the beginning, if care is not taken. There are innocent lives that have really gone for this: just like the students that were kidnapped, then the recent bombing that happened in Abuja. We can see that so many people lost their lives, and the issue of the vehicles that were burnt, people that were selling, so many things. Even economically, we are down. The more they are destroying, the more the economy of Nigeria is going down.

8. A: Let's look at the last question. How can Boko Haram be eradicated? How will Boko Haram become a thing of the past?

9. B: To stop Boko Haram in the country, government should engage in dialogue and negotiation. I don't think it's by military might, because when you are physical with them, I think there'll be a lot of casualties and mayhem in the country. So, government should try and negotiate and dialogue with the Boko Haram sect to know exactly what they are actually fighting for, because it's really denting the image of the country. So, the solution lies in the hands of the government. They should wake up. They know what to do; I don't need to tell the government what to do. They all know what to do. So, they need to wake up.

10. A: Our topic is "Insurgency in Nigeria: Causes, Effect and Solution". The first question is "What is insurgency?"

11. B: Insurgency is a rebellious act against the government. It is a rebellious act against the government, and also a pessimistic way of intruding and breaking the economy of the government.

12. A: Who are insurgents? Probably, we want to get examples of insurgents, looking at Nigeria now. Who are insurgents?

13. B: Who are insurgents? Like I once mentioned before, we have militants from Niger Delta; we have OPC from western part of Nigeria; we have Boko from northern side of Nigeria and the Ibos who are the Biafrans. It's like I said, anybody who has decided to rebel against a constituted authority is an insurgent.

14. A: Okay, it causes unrest in the society. Is it a recent development?

15. B: Well, insurgency in Nigeria, to me is, if we say "Is it a recent development?" Yes, because we are known to be the happiest people on earth. Insurgency in Nigeria is just developing recently, and what is causing it is probably some linkage with some Islamic ideology. That's my own point of view.

16. A: The next question is, 'Has it any effect on the nation?

17. B: Sure. To me, number one effect is reduction in population in the northern part of the country. In economics, under investment, I was made to understand that population has a role to play in a community's GDP. Number two, the economy of the country is fluctuating. God has blessed us with a lot of natural resources, not only oil. We have timber; we have tin, farm products. Most of these things come from the North.

18. A: What do you understand by insurgency?

19. B: To the best of my understanding, insurgency is any rebellion against the authority or against the state, that is, against the government. Any act of aggression against the people, against the authority, it is an insurgency.

20. A: Who are insurgents?

21. B: To me, insurgents are not Muslims; they are not Christians. These are the people who have no fear of God. These are the people who are enemies of this country. These are the people who are enemies of the northern part of the country. These are the people who are sponsored by some people, who are outside the North, who are outside the country, who are all-out to destroy the progress of the northern part of the country.

22. A: Has it any effect on the nation?

23. B: Yes, it has a lot of effect – economically, social life, in every aspect of life. It has affected people's life. It caused death; people lost their job; people lost their family, their places. They lost everything. They became refugees in their own country. So, it's a great tragedy in the country.

24. A: Is the government sincere in their fighting against insurgency? When I say government, I'm talking about federal and the state levels.

25. B: The federal government, actually, based on how I look at everything, they are not putting enough resources. Even if they are doing that, I think they are not doing well. We are still expecting more from them. We need more than hundred percent from them.

APPENDIX II(b)

Group B Participants' Intonation Patterns

1. A: //⊆What is Boko Haram//⊆Or how can we define Boko Haram//

2. B: //⊆Boko Haram simply means/⊆if you want to put it literally/⊆we can say it's anti-book//⊆But the main idea of Boko Haram is anti-western education//

3. C: //⊆What I'll like to say/⊆though the meaning of Boko Haram is book is forbidden/⊆or book is bad/⊆which means Boko Haram is against western education//⊆But looking at those that have been attacked by these people/⊆this sect called Boko Haram/⊆can we really say only the educated have been attacked//⊆They go to parks/⊆they bomb people/⊆they go to different locations//⊆Though they go to schools as well/⊆but we cannot say only the educated have been attacked// →So, ⊆I don't see Boko Haram in Nigeria as against western education alone//

4. A: //⊆Can we say Boko Haram is a recent development then//⊆Can we say it is recent//

5. B: //⊆It's a recent development//⊆But if you check the history of Boko Haram/⊆you'll know that everything/⊆from the Maitatsine of those days/⊆it has always evolved/⊆because they have leaders//⊆The government will capture one/⊆and they keep succeeding/⊆and it's now what it is//⊆The name Boko Haram may be recent/⊆but the history has been a long thing coming//

6. A: //⊆Has Boko Haram had any effect on Nigeria// ⊆Or are they still having effect//

7. B: //⊆To me/⊆I'll say this is just the beginning/⊆if care is not taken//⊆There are innocent lives that have really gone for this/⊆just like the students that were kidnapped/⊆then the recent bombing that happened in Abuja//⊆We can see that so many people lost their lives/⊆and the issue of the vehicles that were burnt/⊆people that were selling/⊆so many things//⊆Even economically/⊆we are down//⊆The more they are destroying/⊆the more the economy of Nigeria is going down//

8. A: //⊆Let's look at the last question//⊆How can Boko Haram be eradicated//⊆How will Boko Haram become a thing of the past//

9. B: //⊆To stop Boko Haram in the country/⊆government should engage in dialogue/⊆and negotiation//⊆I don't think it's by military might/⊆because when you are physical with them/⊆I think there'll be a lot of casualties/⊆and mayhem in the country//↓⇑So, ⊆government should try and negotiate and dialogue with the Boko Haram sect/⊆to know exactly what they are actually fighting for/⊆because it's really denting the image of the country//↓⇑So/⊆the solution lies in the hands of the government//⊆They should wake up//⊆They know what to do/⊆I don't need to tell the government what to do// They all know what to do//↓⇑So, ⊆they need to wake up//

10. A: //↓⇑Our topic is/⊆Insurgency in Nigeria/⊆Causes/⊆Effect/⊆and Solution//↓⇑The first question is/⊆"What is insurgency//

11. B: //⊆Insurgency is a rebellious act against the government//⊆It is a rebellious act against the government/⊆and also a pessimistic way of intruding/⊆and breaking the economy of the government//

12. A: //⊆Who are insurgents//⊆Probably/⊆we want to get examples of insurgents/⊆looking at Nigeria now/⊆Who are insurgents//

13. B: **//**⊆Who are insurgents//⊆Like I once mentioned before/⊆we have militants from Niger Delta/⊆we have OPC from western part of Nigeria/⊆we have Boko from northern side of Nigeria/⊆and the Ibos who are the Biafrans//⊆It's like I

said/⊂anybody who has decided to rebel against a constituted authority is an insurgent//

14. A: //⊂Okay/⊆it causes unrest in the society//⊆Is it a recent development//

15. B: //⊂Well/⊆insurgency in Nigeria/⊆to me is/⊆if we say/⊆Is it a recent development//⊆Yes/⊆because we are known to be the happiest people on earth//⊆Insurgency in Nigeria is just developing recently/⊆and what is causing it is probably some linkage with some Islamic ideology//⊆That's my own point of view//

16. A: //⊆The next question is/⊆Has it any effect on the nation//

17. B: //⊆Sure//⊆To me/⊆number one effect is reduction in population in the northern part of the country//⊂In economics/⊆under investment/⊂I was made to understand that population has a role to play in a community's GDP//⊆Number two/⊆the economy of the country is fluctuating//⊆God has blessed us with a lot of natural resources/⊆not only oil//⊆We have timber/⊆we have tin/⊆farm products//⊆Most of these things come from the North//

18. A: //⊆What do you understand by insurgency//

19. B: //⊂To the best of my understanding/⊂insurgency is any rebellion against the authority/⊂or against the state/↓⇑that is/⊂against the government//⊂Any act of aggression against the people/⊂against the authority/⊆it is an insurgency//

20. A: //⊆Who are insurgents//

21. B: //⊂To me/⊆insurgents are not Muslims/⊆they are not Christians//⊂These are the people who have no fear of God//⊆These are the people who are enemies of this country//⊆These are the people who are enemies of the northern part of the country//⊆These are the people who are sponsored by some people who are outside the North/⊆who are outside the country/⊆who are all-out to destroy the progress of the northern part of the country//

22. A: //⊆Has it any effect on the nation//

23. B: //⊂Yes/⊆it has a lot of effect/⊆economically/⊆social life/⊆in every aspect of life//⊆It has affected people's life//⊆It caused death/⊆people lost their job/⊆people lost their family/⊂their places//⊆They lost everything//⊆They became refugees in their own country//⊆So/⊆it's a great tragedy in the country//

24. A: //⊆Is the government sincere in their fighting against insurgency//⊆When I say government/⊆I'm talking about federal and the state levels//

25. B: //⊂The federal government/⊂actually/⊂based on how I look at everything/⊂they are not putting enough resources//⊂Even if they are doing that/⊆I think they are not doing well//⊆We are still expecting more from them//⊆We need more than hundred percent from them//

Questionnaire for Educated Nigerian Speakers of English

This questionnaire is strictly for research purpose and respondents are assured that all information provided shall be treated with utmost confidentiality.

Please respond to the following:

SECTION A

1. Highest educational qualification and date ....
   ....

2. Occupation ....

3. Gender: Male ⬭ Female ⬭

4. Age Bracket: 21 – 30 ⬭ 31 – 40 ⬭ 41 – 50 ⬭ 51 and above ⬭

5. Which of these is your native language? Yoruba ⬭ Igbo ⬭ Hausa ⬭
   Other(s)...

⬭ ⬭

6. What type of secondary school did you attend?   Public   Private

7. In which environment did you attend the school?   Rural ☐   Urban ☐

8. What type of tertiary institution did you attend?   College of Education ☐
    Polytechnic ☐   University ☐

9. Were you ever taught by British native speaker(s) of English?   Yes ☐   No ☐

10. If yes, at what level of education and for how long?   ....
    ....

SECTION B

11. Were you ever taught English intonation and its functions?
    Yes ☐   No ☐

12. If yes, at what level of education?   ....

13. Which of these functions of intonation have you ever heard of?
    Accentual ☐   Grammatical ☐   Attitudinal ☐   Discourse ☐

14. How and when did you hear about it/them? ....
    ....
    ....

15. Which foreign broadcast station(s) do you watch or listen to?   BBC ☐ CNN ☐
    Other(s) ....

16. How often?   Very often ☐   Often ☐   Sometimes ☐   Rarely ☐

17. Which Nigerian television or radio station(s) do you watch or listen to?   NTA ☐
    FRCN ☐   AIT ☐   Channels ☐   Other(s) ....

18. How often?   Very often ☐   Often ☐   Sometimes ☐   Rarely ☐

19. Do you think it is necessary to teach appropriate use of English intonation to Nigerian
    speakers of English?   Yes ☐   No ☐

20. If yes, how do you think it could be done?
    (i)   ....
    (ii)   ....
    (iii)   ....
    (iv)   ....
    (v)   ....

Appendix IV

Students' Feedback on the Teaching of English Intonation in Secondary Schools from 2012 to 2014

Forty pre-degree students of the Obafemi Awolowo University, Ile-Ife in the 2013/2014 session, who were selected at random, were asked to indicate whether they were taught English intonation in their secondary schools or not, and those that were taught were asked to indicate the class(es) in which they were taught. Majority of the respondents passed out of the secondary school between 2012 and 2014. The schools numbered 1 to 34 below represent those who were taught while schools 35 to 40 show those who were not taught.

1. Stars Comprehensive College, Sawmill, Ibadan, Oyo State – JSS 2 to SSS 1
2. De-Ayo International College, Alakia, Ibadan, oyo State – JSS 2 to SSS 2
3. Sanmori College, Ifako-Ijaye, Lagos – SSS 3
4. Regina Mundi Girls Secondary School, Iwo, Osun State – SSS 2 to SSS 3
5. Oladimeji International School, Mokuro Road, Ile-Ife, Osun State – JSS 2 to SSS 3

6. Ambassadors College, Iloromu Quarters, Ile-Ife – JSS 3 to SSS 2

7. Aunty Ayo International School, Ikoyi, Lagos – SSS 1 to SSS 3

8. Rose Valley High School, Agege, Lagos – JSS 3

9. Epitome Academy, Odeomu, Osun State – JSS 3 to SSS 1

10. Airforce Comprehensive School, Ibadan Oyo State – SSS 1

11. St John's Comprehensive Academy, Ilesa, Osun State – SSS 3

12. Fountain International High School, Ado-Ekiti, Ekiti State – SSS 2

13. The International School, Ibadan, Oyo State – JSS 3

14. Federal Government College, Ikirun, Osun State – JSS 3

15. Hebron College, Mowe, Ogun State – SSS 2

16. St Peter's Secondary School, Akure, Ondo State –SSS 1 to SSS 3

17. Abeokuta Girls' Grammar School, Abeokuta, Ogun State – SSS1 to SSS 2

18. Oyemekun Grammar School, Akure, Ondo State – JSS 3

19. Faith Academy, Canaanland, Ota, Ogun State – SSS 2

20. Anglican Mission Grammar School, Ota, Ogun State – SSS 2

21. Ewutuntun Senior Grammar School, Osodi, Lagos – JSS 2 to SSS 2

22. Adventist High School, Osogbo, Osun State – SSS 2

23. Our Lady of Grace International School, Onitsha, Anambra State – SSS 3

24. National Comprehensive Secondary School, Awka, Anambra State – SSS 3

25. Uniben Demonstration Secondary School, Benin, Edo State – JSS 3

26. College of Commerce, Senior Senior Secondary School, Warri, Delta State – SSS 1 to SSS 2

27. Air Force Secondary School, Port-Harcourt, River State – JSS 2 to SSS 3

28. Command Day Secondary School, Maitama, Abuja – SSS 1 to SSS 3

29. Mayor International College, Kano – JSS 3 to SSS 1

30. Federal Airport Authority of Nigeria Secondary School, Kano – JSS 2 to SSS 1

31. St Mry's Catholic College, Suleja, Niger State – JSS 3 to SSS 2

32. Federal Government Girls College, Bwari, Abuja – SSS 2

33. Command Day Secondary School, Jos – SSS1

34. Government Secodary School, Jikwoyi, Abuja – SSS 1 to SSS 3

35. St Thomas Aquinas College, Akure, Ondo State

36. Divine Grace High School, Ilesa, Osun State

37. Unity High School, Ijoko-Ota, Ogun State

38. JUNACAD High School, Ilogbo Road, Ojo, Lagos

39. Community High School, Ilara-Yewa, Ogun State

40. Comprehensive Secondary School, Ahiaba, Aba, Abia State