A SOCIO-PHONOLOGICAL ANALYSIS OF HAUSA ENGLISH, IGBO ENGLISH AND YORUBA ENGLISH VARIETIES IN NIGERIA

BY

BOLANLE OLUFUMBI SOGUNRO

B.A. English, M.A. English (Ilorin)

A Thesis in the Department of Linguistics and African Languages
Submitted to the Faculty of Arts
in partial fulfilment of the requirements for the Degree of

DOCTOR OF PHILOSOPHY

of the

UNIVERSITY OF IBADAN

NOVEMBER 2012

ABSTRACT

Nigerian English (NE) is the most documented variety of English in West Africa but extensive comparative studies of varieties of NE accent are scarce. Previous works categorise Igbo English (IE) and Yoruba English (YE) accents as a single regional variety distinct from Hausa English (HE) and also state that HE and IE speakers are converging towards YE accent. However, the claims lack validation and, therefore, remain impressionistic. Consequently, a comparative socio-phonological investigation on the basis of ethnicity and gender was conducted to empirically describe variations in NE accents and assess the claim of convergence to YE.

Variation and Accommodation Theories served as the theoretical framework for the study. A sample of 30 male and 30 female undergraduate students was drawn from three of the six geo-political zones in Nigeria, and they represent the three ethnic groups: Kano (Hausa), Enugu (Igbo) and Ibadan (Yoruba). A questionnaire was administered to each respondent. A word list and short passage containing tokens of 11 preselected sounds (/p, v, z, θ , δ , f, f, g:, g

Ethnicity had a significant effect on 8 out of 11 sounds as follows: $/\delta/F_{(2,57)} = 30.851$, p< 0.05; $/e/F_{(2,57)} = 21.764$, p< 0.05; $/v/F_{(2,57)} = 9.647$, p< 0.05; $/a/F_{(2,57)} = 25.346$, p< 0.05; $/a/F_{(2,57)} = 23.770$, p< 0.05; $/a/F_{(2,57)} = 6.158$, p< 0.05; $/a/F_{(2,57)} = 4.770$, p< 0.05; $/a/F_{(2,57)} = 4.512$, p< 0.05. The analysis of variation in the sounds, /a/6, /a

YE was established as 80.0% of HE respondents preferred HE; 85.0% IE respondents preferred IE, while only 45.0% of YE respondents preferred YE. Of the speaker sample, 46.6% and 16.6% preferred HE and YE accent respectively.

Ethnicity plays an important role in the variation of Hausa English, Igbo English and Yoruba English accents and prevents the convergence of HE and IE to YE. Thus, categorisation based on ethnicity rather than region provides more realistic descriptions of NE accents.

Key words: Nigerian English, Socio-phonology, Accent, Ethnolects

Word count: 499

ACKNOWLEDGEMENTS

By divine orchestration, the following people (and many more whose names are not mentioned) made it possible for me to have the benefit of writing an acknowledgement of a PhD thesis in the first place. I was connected to my supervisor, Dr. Herbert Igboanusi, through erudite Professor Francis Egbokhare, the Head of Department at the time, who assigned me to him. Dr Igboanusi, gave me room to grow, patiently allowed me to find my rhythm, provided reading materials, and always sent relevant articles on-line while he was abroad on sabbatical leave. The current Head of Department, Dr. Arinpe Adejumo, just by the few positive words she spoke to me as she signed my initial registration form when she was the Departmental adviser for PG, sowed in me, the seeds of an it's-no-big-deal mindset and a can-do spirit that enabled me to handle the intricacies of PhD research.

Other staff in the Department of Linguistics and African Languages also played key parts in ensuring that I finished the programme; not just finish but finish well: most honourable Mr Kelim Olenlua; the Heads of Department while I was a student, Professor Ogundeji, Professor Solomon Oyetade, Professor Olatunji, stood for progress in their tenures. Busy Mr Israel Fatoye and Mr Yusuf Salifu both in the language laboratory helped computerise my audio cassette tape data, while Mr Demola dr. Lewis, and Samuel Akintayo Akinbo (linguistics student) assisted with the Praat acoustic analysis. Dr Paul Oye Taiwo, Dr Georgina Maduagwu, Departmental adviser for PG in the critical final lap of the journey; Dr. Jacob Fadoro, Dr. Christine Ofulue, Aunty Funmi (former admin staff in the H.O.Ds office), and Mrs Amofe, all enhanced my academic stability.

From other Departments, I received assistance initiated by my supervisor's counsel to "Go and see..."; "Why don't you talk to...." In the process, I applied for, and received a Bashorun M.K.O. Abiola research grant from the PG school U.I, the sum of which covered the cost of the audio recorder I used to collect data; met indefatigable Dr Nike Akinjobi, who introduced me to Dr Adeniyi Sunday, who introduced me to Mr Charles Tolu Akinsete, who volunteered to assist with the field work (all of the English Department). For the sophisticated aspects of statistical analysis, my supervisor recommended a statistics pundit, Dr Gbenga Adewale, of the Institute of Education, who agreed with me that "God will use what I have for a miracle", handled the analysis,

taught me, and linked me with Dr Benson Adegoke, (statistics and research methods for behavioural and social sciences) also of the Institute, who perfected my statistical presentation.

Still following my supervisor's counsel, I met Dr Ayobami Kehinde of the Department of English, and Dr Oyebode of the Department of Communication and Language Arts, who both read and corrected the early version of my abstract. I also met Dr Akinsola Odebunmi of the Department of English and Sub-dean PG of the Faculty of Arts who nudged my brain and kept at it, till a refined abstract was produced.

Mr (Uncle Charles) Nwagwugwu of the Faculty of Arts office and Mr Olanipekun of the Post Graduate School put me through the hallowed administrative procedures of being a PhD student in U.I. In the intensity of weaving together all the thoughts, findings, reviews, and analyses, the carrel in Kenneth Dike Library (KDL) became like my second home; and Mr Vincet Agbekorode of KDL was most resourceful. Dr Funke Oni, my one time carrel mate, found time to share with me there even after her viva voce. Mummy [of] Joel and Mummy [of] Ayo were always willing to instantly format (free of charge) my self-typed work, and print drafts of the thesis at various levels of presentation. Mrs Wilson in the Department of Agric and Forestry helped tremendously in getting the formatting right for PG School specifications.

The foundation of tertiary education was set for me in the University of Ilorin, under the tutelage of amazing academics, who I pray this thesis will make proud: Professor David Cook, my supervisor at undergraduate and Master's levels, taught me to always answer the question "So what?" after any dissection of data – not a very possible task sometimes; Professor Efurosibina Adegbija always said I was brilliant and then encouraged me to be; Professor Olu Obafemi, Professor Sam Adewoye, Professor Kayode Omole, my cosupervisor at Masters level; Dr Victoria Ofuya, Dr Mary Tinuoye, Professor Beban Chumbow whose personality alone made linguistics seem like a very friendly, relevant-to-society course; and Professor Francis Oyebade who, far back in the early eighties, ignited my enthusiasm for the study of the phonology of languages.

I met some great people in Balewa Hall: Dr Segun Ajayi, Dr Stella Folasade Abayomi, jovial Mrs Titi Ojo, Dr Niyi Ojo – some of them got their PhD before me but kept calling

to ask "how far" and encouraged me to keep moving. Dr Aiyelari, Tafawa Balewa Hall warden, ensured my daughter had a place to stay with mummy when she visited in the early days. Mrs Velantia Uwakwe drove me with her mouth to get a room in Balewa in the first place and ensured that I did, – God bless His ministry in her hands.

Mrs Yemisi Egunjobi, cheered me on all through, then promptly loaned me money to pay my final PG school fees; Mr Ayo Egunjobi of NISER, edited/proofread the copy of one chapter of the thesis and practically told me to carry go; Professor Charles Uwakwe's interest always set research fire on my tail; Mrs Yemisi Adebowale spoke words of affirmation every time we met. The end of year thanksgiving fellowships Mrs Funso Adegbola hosted in her sitting room always renewed my confidence that the year will come when the PhD will be completed in the physical. I appreciate Mama Comfort Omotade (Commade Stores) for giving me loads of quality full-scape paper to transcribe my recorded data on.

The University of Ibadan Family Fellowship was like an invisible Rock of Gibraltar¹. Just knowing the fellowship was active gave me a sense of security even when I did not attend. Professor Emmanual Ajav, the fellowship leader and my sister, Dr Mrs Ronke Ajav, were used by God in more ways than they could ever imagine, in ensuring that I had peace. I acknowledge Professor Tolu Yoloye (Uncle Wale), for his research tips and constant monitoring to make sure I didn't abandon the degree programme "again"; Professor Titi Hassan, Mrs Tokunbo Olanipekun my tenaciously committed sister-in-law; Mrs. Hannah Ikime, her prayers for Fumbi are answered; Mrs. Labake Oyebade, who hosted my husband and I in Akungba, when I 'ran' there to see my phonology teacher after hitting a mental roadblock with my mass of transcribed data. Dr Mrs Stella Okonjo-Ogunyemi, my mother's great friend taught me many years ago how to write a good research essay – to her I owe any excellent and beautifully phrased writings in this thesis.

Professor Samuel Afolabi Toye, my father, wept when I abandoned my first attempt to get a PhD midway into the programme in 1991. Like the prodigal son, I came to my senses and returned to UI; he had passed on since 1994 but everyone who knew me as his

INVINCIBILITY: Despite long sieges it seemed that there was nothing that could destroy the Rock or its people. This history has inspired the saying "solid as the Rock of Gibraltar", which is used to describe a person or situation that cannot be overcome and does not fail. SOURCE: Wikipedia.

child welcomed me back to UI with open arms. I acknowledge that the good name and mark he left behind paved way for me even so many years after his demise. My mother, Beatrice Olukemi Toye neé Yoloye (1939 – 1984) spent the best years of her life working as a senior (Deputy) librarian in the University of Ibadan Library now KDL, helping researchers and doing research herself. When I was a child, she gave me a tour of KDL showed me the Reference Section, Africana section, Serials/Journals Section, carrels, and other rooms below, speaking with such gentle passion. The mental picture she drew then had no choice but find expression in my adulthood. No matter how long it took, I just had to do research, and do one in a carrel in KDL!

It is not unlikely that it is because of all the children and youths of Bambino Youth Centre at home and abroad that God further ensured I did not fail. I particularly appreciate the love and commitment of every one of the youths that constantly spared the time to do volunteer work with me, particularly, when I had to be away in UI in the course of the PhD programme. The formidable trio, Mrs Kemi Osewa, Ms Funmi Ayodele, and Mr James Silas that kept the Centre running smoothly in the last lap of the PhD programme exemplifies indeed, the phrase, "the gift of men".

My most precious brothers and sisters from the same womb, Ayo, Sade, Yinka and Ibukun, children of Toye – ever so kind and supportive, their love for me, and mine for them have been a major driving force. I started this PhD before my daughter, Ayomide became an undergraduate also in UI, and she continually prayed, cared for me in the most literal sense of the word, and seriously warned that she must not leave me behind in university O! I thank God, her prayers are answered. To my husband, Oluwatoyin Temitope, I say – THANK YOU!

I know it is because God permitted it that every person whose name has been mentioned in this acknowledgement played their part. I profoundly thank them all for working with God for my good and I pray that the Lord will forever remember them for good also.

Certification

I certify that this work was carried out by Mrs. B. O. Sogunro in the Department of Linguistics and African Languages, University of Ibadan.

Supervisor

H. Igboanusi

B.A. (Abia) M.A., Ph.D (Ibadan)

Reader, Department of Linguistics and African Languages, University of Ibadan, Nigeria

TABLE OF CONTENTS

Title page	i
Abstract	ii
Acknowledgements	iv
Certification	viii
Table of contents	ix
List of tables	xv
List of figures	xvi
Phonetic symbols, signs and abbreviations used	xix
CHAPTER ONE	
INTRODUCTION	
1.0 Introduction	1
1.1 The Hausa, Igbo and Yoruba ethnic groups	3
1.1.1a The Hausa people – facts	3
1.1.1b The Hausa people – stereotyped socio-ethnic identity	3
1.1.2a The Igbo people – facts	4
1.1.2b The Igbo people – stereotyped socio-ethnic identity	5
1.1.3a The Yoruba people – facts	6
1.1.3b The Yoruba people- stereotyped socio-ethnic identity	6
1.2 Nigeria's multilingual setting	6
1.2.1 Pidgin English in Nigeria	7
1.2.2 The English language in Nigeria	8
1.2.3 French and Arabic in Nigeria	9
1.3 History of English education in Nigeria	9
1.3.1 English education in southern Nigeria	9
1.3.2 English education in northern Nigeria	12
1.4 Describing Nigerian English	14
1.5 Sociolinguistic context of English in Nigeria	17
1.6 The cacophony of accents in NE	19
1.7 Sociolinguistics	20
1.8 Variation	20

1.9 Sociolinguistics and pronunciation	22
1.9.1 Socio-phonology	24
1.10 Ethnicity and accentual variation in NE	26
1.11 Aim of the study	28
1.12 Research questions	29
1.13 Significance of the study	29
1.14 Scope of the study	30
1.15 Limitations	31
CHAPTER TWO	
REVIEW OF RELATED LITERATURE AND THEORETICAL	FRAMEWORK
2.0 Introduction	33
2.1 Literature review	33
2.1.1 Selected related empirical studies	33
2.1.1.1 Labov's model	33
2.1.1.2 Trudgill's model	34
2.1.1.3 Milroy and Milroy's model	35
2.1.1.4 Boberg's model	36
2.1.1.5 Simo Bobda's comparative studies	37
2.1.1.6 Adjaye's study	39
2.1.1.7 Jibril's model	39
2.1.1.8 Other related works on NE	40
2.1.2 Some diagnostic features of NE accent	41
2.1.3 Overgeneralisations in NE	42
2.1.4 Convergence in NE	44
2.1.5 Classifications of NE	45
2.1.5.1 Classification based on education	45
2.1.5.2 Classification based on region	47
2.1.5.3 Classification based on linguistic features	48
2.1.6 Bilingualism	48
2.1.6.1 Additive, subtractive and productive bilingualism	50
2.1.7 Phonemic and graphemic differences in English	51

2.1.8 Ethnolects and Allophones	53
2.1.8.1 Types of ethnolects	54
2.1.8.2 Allophones	57
2.1.9 The speech community	58
2.1.10 Sociolinguistic interviews	59
2.1.10.1 Observer's paradox	60
2.2 Theoretical aspects	62
2.2.1 Variation theory	62
2.2.1.1 Linguistic variables	63
2.2.1.2 Social variables	63
2.2.1.2.1 Age	64
2.2.1.2.2 Sex	64
2.2.1.2.3 Social class	65
2.2.1.2.4 Ethnicity	66
2.2.1.2.5 Speech style	68
2.2.1.3 Stereotypes	68
2.2.1.4 Statistical analysis in variation theory	69
2.2.1.5 Concluding remarks on variation theory	69
2.2.2 Accommodation theory	70
2.2.3 Phonological framework: Generative phonology	72
2.2.3.1 Phonological rules	72
2.2.3.2 Formalisation of rules	74
2.3 Summary	76
CHAPTER THREE	
METHODOLOGY	
3.0 Introduction	77
3.1 Research design	77
3.2 Population	77
3.3 Sample size	78
3.3.1 Sampling technique	80
3.4 Instrumentation	80

83
84
84
86
86
86
87
88
89
90
90
90
ND YE
91
91
92
94
96
97
100
100
100
104
106
107
107
108
108
108

5.1.2 Voiceless dental fricative (θ)	114
5.1.2.1 Statistical analysis of (θ)	114
5.1.2.2 Perceptual analysis of (θ)	114
5.1.3 Voiced dental fricative (ð)	120
5.1.3.1 Statistical analysis of (ð)	120
5.1.3.2 Perceptual analysis of (ŏ)	123
5.1.4 Half-close central neutral vowel (a:) also known as NURSE	123
5.1.4.1 Statistical analysis of (a:)	125
5.1.4.2 Perceptual analysis of (a:)	125
5.1.4.3 Acoustic analysis of (a:)	130
5.1.5 Half-open front spread vowel (e) also known as DRESS	135
5.1.5.1 Statistical analysis of (e)	135
5.1.5.2 Perceptual analysis of (e)	135
5.1.6 Voiceless alveolar affricate (f)	139
5.1.6.1 Statistical analysis of (f)	139
5.1.6.2 Perceptual analysis of (f)	139
5.1.7 Voiced labio-dental fricative (v)	143
5.1.7.1 Statistical analysis of (v)	143
5.1.7.2 Perceptual analysis of (v)	144
5.1.8 Voiceless palato-alveolar fricative (j)	148
5.1.8.1 Statistical analysis of (f)	148
5.1.8.2 Perceptual analysis of ()	148
5.1.9 Half-open central neutral vowel (a) also known as the schwa	153
5.1.9.1 Statistical analysis of (a)	154
5.1.9.2 Perceptual analysis of (a)	154
5.1.9.3 Acoustic analysis of (a)	159
5.1.10 Voiced alveolar fricative (z)	165
5.1.10.1 Statistical analysis of (z)	165
5.1.10.2 Perceptual analysis of (z)	165
5.1.11 Open central vowel (A) also known as STRUT	174
5.1.11.1 Statistical analysis of (A)	174
5.1.11.2 Perceptual analysis of (A)	174

5.1.11.3 Acoustic analysis of (A)	178
5.2 Prosodic analysis	183
5.2.1 Prosody of develop	183
5.2.1.1 Stress placement	183
5.2.1.2 Vowel type and quality	183
5.2.2 Prosody of vegetables	186
5.2.3 Prosody of security	189
5.2.4 Prosody of gentlemen	192
5.2.5 Prosody of television	194
5.3 Affirmation of convergence or not of HE and IE accents to YE	196
5.3.1 Result of question on speech rating	196
5.3.2 Result of ability to identify ethnicity through accent	199
5.3.3 Result of preferred accent	202
5.3.4 Discussion of affirmation of convergence to YE or not	207
5.4 Effect of sex variable on linguistic variables and preferred accent	211
5.5 Summary	214
CHAPTER SIX	
SUMMARY, CONCLUSION AND RECOMMENDATIONS	
6.0 Introduction	216
6.1 Summary	216
6.1.1 Effect of ethnicity on HE, IE and YE accent	216
6.1.2 Effect of sex on HE, IE and YE accent	217
6.1.3 Ethnic variations in the prosodic features of HE, IE and YE	217
6.1.4 Most preferred accent on the basis of ethnicity	217
6.1.5 Most preferred accent on the basis of sex	218
6.2 Conclusion	218
6.3 Further research	221
REFERENCES	223
APPENDIX A	234
APPENDIX B	238
APPENDIX C	243

LIST OF TABLES

Table		Page
2.1	Some notational devices in GP and their interpretation	75
3.1	List of speakers	82
4.1	Overview of HE consonant sounds	93
4.2	Overview of HE vowel sounds	95
4.3	Overview of IE consonant sounds	98
4.4	Overview of IE vowel sounds	101
4.5	Overview of YE consonant sounds	102
4.6	Overview of YE vowel sounds	105
5.1	Result of ANOVA for (p)	109
5.2	Result of Post Hoc Test for (p)	110
5.3	Ethnic variation of (p)	111
5.4	Result of ANOVA for (θ)	115
5.5	Result of Post hoc test for (θ)	116
5.6	Ethnic variation of (θ)	117
5.7	Result of ANOVA for (ð)	121
5.8	Result of Post hoc test for (ö)	122
5.9	Ethnic variation of (5)	124
5.10	Result of ANOVA for (a:)	126
5.11	Result of Post hoc test for (a:)	127
5.12	Ethnic variation of (a:)	128
5.13	Result of ANOVA for (e)	136
5.14	Result of post-hoc test for (e)	137
5.15	Ethnic group variation of (e)	138
5.16	Result of ANOVA for (f)	140
5.17	Result of Post hoc test for (f)	141
5.18	Ethnic variation of (f)	142
5.19	Result of ANOVA for (v)	145
5.20	Result of Post-hoc test for (v)	146
5.21	Ethnic variation of (v)	147
5.22	Result of ANOVA for (j)	149

5.23	Result of Post-hoc test for (J)	150
5.24	ethnic variation of (J))	151
5.25	Pronunciation of issue in HE, IE and YE	152
5.26	Result of ANOVA result of (a)	155
5.27	Result of Post-hoc test of (a)	156
5.28	Ethnic variation of (a)	157
5.29	Result of ANOVA for (z)	166
5.30	Result of post-hoc test for (z)	167
5.31	Ethnic variation of (z)	168
5.32a	Variants of plural morpheme (-s) and percentage of respondents 145	171
5.32b	Variants of plural morpheme (-z) and percentage of respondents 146	172
5.32c	Variants of plural morpheme (-iz) and percentage of respondents 147	173
5.33	Result of ANOVA of (A)	175
5.34	Result of post-hoc test for (A)	176
5.35	Ethnic variation of (A)	177
5.36	Ethnic preference for primary stress in develop and percentage of	184
	Respondents	
5.37	Ethnic preference for 1st syllable vowel type in develop and percentage	185
	of respondents	
5.38	Ethnic preference for primary stress placement in vegetables and	188
	percentage of respondents	
5.39	Ethnic variation of the first syllable vowel in security and the	190
	percentage of respondents	
5.40	Ethnic variation of the second syllable in security	191
5.41	Rhythmic pattern of gentlemen and percentage of respondents	193
5.42	Partition in the same of the s	195
5.43	Result of ANOVA for speech rating	197
5.44	post now test for specon taking	198
5.45	to identify speaker's cumicity unough	200
5.46	Accent Result of post hos test for chility to identify at 1 to 1	201
5.47	to post the est for ability to identify entirety through accent	201
	A STATE OF THE PARTY OF THE PAR	F. S. 1640

5.48	Percentage for preferred accent	205
5.49	Result of post-hoc test for preferred accent	206
5.50	Concise view of ethnic variation of pre-selected linguistic variables	210
5.51	Result of t-test for speaker sex variable on preselected segmental	
	sounds and preferred accent	212

LIST OF FIGURES

	Figure	Page
2.1	Transformation process in GP	73
5.1	Mean normalised formant values for (a:) for 10 respondents each	131
	from the HE, IE, YE sample population	
5.2	The waveform and spectrogram of person (Hausa English accent)	132
5.3	The waveform and spectrogram of person (Igbo English accent)	133
5.4	The waveform and spectrogram of person (Yoruba English accent)	134
5.5	Mean normalised formant values for (a) for 10 respondents each	160
	from the HE, IE, YE sample population.	
5.6	The waveform and spectrogram of develop (Hausa English accent)	162
5.7	The waveform and spectrogram of develop (Igbo English accent)	163
5.8	The waveform and spectrogram of develop (Yoruba English accent)	164
5.9	Mean normalised formant values for (a) for 10 respondents each	
	from the HE, IE, YE sample population.	179
5.10	The waveform and spectrogram of buses (Hausa English accent)	181
5.11	The waveform and spectrogram of buses (Igbo English accent)	182
5.12	Mean normalised formant values for (i) for 10 respondents each	
	from the HE, IE, YE sample population.	187
5.13	Respondents' exposure outside mother-tongue area	209

LIST OF PHONETIC SYMBOLS, SIGNS AND ABBREVIATIONS USED

- i tree, machine, leaf
- e bed, head, many
- æ hand, bat, basket (British English)
- h bus, son, blood, country (British English)
- a: heart, clerk, past
- o dog, was, because
- o: born, door,
- u sugar, book, woman
- u: rude, food, move, chew (British English)
- ε eré play in Yoruba; ego money in Igbo; café (French)
- o oyin honey in Yoruba; Oyinye girl's name in Igbo
- a (also called schwa) over, woman, suppose
- a: purse, serve, bird, journey (British English)
- oi joy, choice
- b ballon
- p pillow
- d drum
- t tea, Esther, jumped
- g garden, exist
- k chemistry, chocolate, king, mosquito
- d3 jump, general, badge
- f chop, nature
- 3 measure, beige
- ð them
- θ oath
- z zoo, phase, buses
- s sleep, machine, psychology, face
- j you, onion, eucharist
- 1 laugh
- r rich write
- f laugh, face, physics
- n nose, knee, pneumonia, funny
- m meat
- w window, when, quickly
- φ bilabial fricative sometimes in HE substitution for p e.g. people

- n bring (British English)
- h hand, whole
- dental articulation (Example: 1)
- h aspirated (Example: ph)
- nasalised (Example: A)
- w labialised (Example: kw)
- high tone mi (Example: 6)
- low tone do (Example: ò)
- ø deletion
- // phonemic transcription
- [] variant of a variable sound segment
- () variable sound segment
- + has the feature of
- does not have the future of
- / in the environment of
- position of a sound
- → is realised as/becomes
- < less than
- > greater than
- % percentage
- NE Nigerian English
- HE Hausa English
- IE Igbo English
- L1 First language
- L2 Second language
- ESL English as a second language
- RP Received Pronunciation
- ANOVA analysis of variance

CHAPTER ONE INTRODUCTION

1.0 Introduction

The English language in Nigeria has strongly evolved into a home grown variety, 'nativized' (Bamgbose, 1995) to suit its socio-cultural environment in both formal and informal use. Generally referred to as Nigerian English (NE), the accent of this variety is declared to be "by far the most documented" in West Africa (Simo Bobda, 1995:268; 2000). Banjo (1995:214), assessing the extent of research carried out on NE, surmised that "more work has been done on characterising the lexico-semantic indexical markers of (standard) Nigerian English than the syntactic or phonological markers." At the time that statement was made, existing works on the phonetics and phonology of NE included, Brosnahan (1958), Tiffen (1974); Ekong (1978); Jibril (1982); Eka (1985); Awonusi (1986); Jowitt (1991); Atoye (1991); and Simo Bobda (1995). Between 1995 and now, more work has been done on NE sounds. These include Ufomata (1996); Awonusi (2009a); Simo Bobda (2000, 2007); Udofot (1997, 2000, 2003); Akinjobi (2004, 2006); Igboanusi (2006a) and Adetugbo (2009). Nonetheless, extensive comparative studies of two or more varieties of NE are "scarce" (Igboanusi, 2006a:490).

Out of the scant comparative studies available, two main claims are made. First, mostly for the sake of descriptive convenience, and sometimes due to the lack of in-depth empirical validation, NE is usually simplistically divided into north and south varieties, leading to impressionistic conclusions such as the categorisation of Igbo English (IE) and Yoruba English (YE) as a single southern region variety distinct from Hausa English (HE) in the north (Simo Bobda, 1995, 2000, 2003, 2007; Jibril, 1982, 1986; Davy, 2004; Igboanusi, 2006a). The second claim is that HE and IE accents are converging towards YE accent for sociological reasons to the extent that YE may become the national standard in Nigeria (Jibril, 1982; Simo Bobda, 1995, 2000; Davy, 2004; Igboanusi, 2006a). Diverse reasons given for the convergence include the history of education in Nigeria; the influence of Lagos as the nation's first administrative capital; the superiority/inferiority of one group over another; larger volume of documentation of the YE variety over others, and so on.

Notably, as far as we know, the two claims of a south versus north variety of NE, as well as the convergence of HE and IE to YE have either not been empirically proven or need to be empirically updated. Consequently, the present study conducted a socio-phonological investigation using both perceptual and acoustic analyses to empirically compare, capture and affirm variations in HE, IE and YE on the basis of ethnicity and sex; as well as asses the claim of convergence to YE.

Describing the NE varieties with the prefix, Hausa, Igbo and Yoruba may suggest that the indigenous languages have influenced the spoken English of their users suggestive of mother tongue interference. However, the prefixes, as used in the present study refer to the ethnic group and not the language. Jibril (1982) and Simo Bobda (2003) also deemphasise the role of interference. While Jibril (op cit.) attributes NE peculiarities more to orthography and history of education, Simo Bobda (2003:17) considers factors ranging from colonial input to psychology.

The present study in turn compares HE, IE and YE as varieties in their own right, not as errors or aberrations of RP or even native English (Kachru, 1985 quoted in Banjo, 1995:226). Second, the variations in NE are examined from the perspective of speakers using accentual variation to convey ethnolinguistic identity through the medium of a second language. In Nigeria's multilingual setting, English serves as the language of interethnic communication.

Although there is a widely held postulation that the number of accents in NE are as many as the number of Nigerian languages (Adegbija, 1998:6), this work limits its comparison to the accent of Hausa, Igbo and Yoruba speakers of English language only; the three being official major Nigerian languages. They also have the largest population of speakers and by implication, a wider possibility of influencing the NE accent of other language groups. In addition, their variety of English is the most documented. It is some of those existing documentations of HE, IE and YE that the present study seeks to empirically validate.

1.1 The Hausa, Igbo and Yoruba ethnic groups

Given that the present research is a sociolinguistic study, a brief description of the social background of the people that belong to the three ethnic groups whose variety of English is being investigated is presented. The presentation is done based on both facts (mostly as documented in Igboanusi and Peter, 2005) and common anecdotal or stereotypical information. Stereotypical investigation is considered relevant because social groups use linguistic variants as social markers to distance themselves from, or identify with other groups (Kristiansen, 2001: 130). Most times, the perceived linguistic markers are as stereotypical as the social group categorisations but remain nonetheless, very significant in social interactions.

1.1.1a The Hausa people - facts

The Hausa people have their ancestral location in Kebbi, Kano, Jigawa, Kaduna, Katsina, Sokoto, Zamfara and Bauchi states all in northern Nigeria. It is estimated that 25 million people in Nigeria speak Hausa as their first language. Although, Hausa has been studied more by foreigners than indigenes, Hausa people have contributed to the large amount of literature existing in Hausa. Unlike the Igbo people, there is greater readership among the Hausa people of newspapers and magazines published in their language. There is also a larger population of Hausa people applying to study Hausa (its language/literature and culture) even up to doctoral degree level in Nigerian universities than there are Igbo people applying to study Igbo. The domination of political power by the Hausa in northern Nigeria's history made many minority ethnic groups, willingly and, sometimes with no other choice integrate themselves into the Hausa ethnic group.

1.1.1b The Hausa people - stereotyped socio-ethnic identity

The legend behind the origin of the Hausa is that a wealthy traveller named Bayajjida came from the Middle East to Hausa-land in order to marry the queen of Daura. The marriage produced seven sons, each of who founded the seven Hausa kingdoms named after them: Kano, Katsina, Zaria, Kebbi, Rano, Gobir and Auyo. For this reason, coupled with the effect of the Fulani Conquest, the Hausa are said to have a lot in common with the Arab culture, language and way of life. Although there are also Muslims in other ethnic

groups, the Hausa people regard their practice of Islam as different and superior to the way it operates especially in southern Nigeria. In most cities, they do not worship in the same mosque as non-Hausa Muslims, not because of a language barrier, but basically because Yoruba Muslims incorporate Yoruba in their worship along with Arabic. It is subtly assumed that Islam outside the north is a corrupted/ inferior/watered down version of the original.

The Hausa are not known for encouraging inter-religious-tribal marriage but they commonly encourage marriages between other Islamic countries like Niger Republic, Mali, Burkina Fasso and of course the Middle East. Compared to other ethnic groups, the Hausa elite do not usually migrate to other states. Some aspects of their culture and misinterpretation of their religion make them appear intolerant of other ethnic groups and religions. They are regarded as very good administrators in the civil service structure and are also known to dominate the haulage sector and food and beverages production industries in Nigeria.

Arabic, considered as the language of Islam, is used among adherents in the north (Hausa) and south (Yoruba) of Nigeria but with very obvious variations particularly at the phonemic level. This variation may not be unconnected to differences in the mother tongue of both ethnic groups. The case of Islamic names for instance shows the following orthographic and phonemic differences: Hadizat (Hausa) versus Adija (Yoruba); Daud (Hausa) versus Dauda (Yoruba). Hausa people are perceived to have a positive attitude to, and a deep-rooted pride in their language, resulting in a feeling of supremacy over other languages.

1.1.2a The Igbo people - facts

The Igbo people constitute about 20 to 25 million of the Nigerian population. Their ancestral home cuts across Anambra, Imo, Ebonyi, Enugu, Delta, Abia and Rivers states. Igbo is classified as belonging to the new Benue-Congo language family. Linguistic, political and military factors are reported to have hindered the development of Igbo language even though it is one of the three officially declared major languages in Nigeria.

Due to ethnic unrest in the northern region leading to the killing of thousands of Igbo people, the Civil War ensued and a people who were once envied, admired and proud of their Igbo identity became battered, marginalised and removed from positions of authority after the war. There was no more ethnic pride in being Igbo and the effect was far-reaching on the people and their language (Igboanusi and Peter, 2005).

Compared to the teaching of Hausa and Yoruba language in institutions abroad, Igbo is the least commonly taught of Nigeria's major languages. Even at home in Nigeria, there is a steady decline in the number of applicants wanting to study Igbo in Nigerian universities. Circulation of newspapers and publication of journals and magazines in Igbo have either stopped or are being affected due to lack of readership. In recent times, efforts have been made to promote the development of Igbo language and it is hoped it would be sustained.

Unlike the Hausa and Yoruba whose languages are spoken as a first language by ethnic groups outside Nigeria (Hausa in Ghana, Togo, Mali, Niger Republic and Yoruba in Benin Republic, Togo, Brazil), Igbo are unique in that no other people in the world are known to speak Igbo as their heritage language except the Igbo of Nigeria. The language has several dialects and a subgroup of closely-related languages.

1.1.2b The Igbo people - stereotyped socio-ethnic identity

The Igbo people are one of the most migrant ethnic groups in Nigeria and the reason often given for this is that they have a very small land-base compared to their large population. Another reason given is that the Igbo person's adroit instinct for commerce will make him/her go anywhere to trade; therefore if you will find a Nigerian in the remotest part of the world, the stereotyped image is that it will be an Igbo man.

Although the Igbo are said to have a very strong sense of kinship and ties to their ethnic group, they adapt very easily to new locations, quickly picking up essentials of the language in their immediate environment and socialising as much as they can in the host community. Inter-marriage is not uncommon among the Igbo people; partners are taken from within and outside Nigeria. No matter how far the Igbo relocate from home, there is always an *Ndi Igbo* group to fellowship with and look out for one another nearby.

1.1.3a The Yoruba people - facts

Between 20 and 25 million people in Nigeria are Yoruba and speak Yoruba as their mother tongue; they have their roots in Oyo, Ogun, Ekiti, Ondo, Lagos, Osun and parts of Kwara and Kogi states. There are many dialectal but relatively mutually intelligible variations. Vibrant degree programmes up to postgraduate level in Yoruba are run in universities within and outside Nigeria. The use of Yoruba in the print media is impressive unlike the experience of poor readership recorded by the Igbo people.

Despite the seemingly enviable status of the people and consequently their language, the Yoruba language does not have as great a spread in Nigeria as Hausa does mainly because of lesser time in political control at national level and reduced regional influence due the creation of more states (Egbokhare, 2003).

1.1.3b The Yoruba people - stereotyped socio-ethnic identity

Legend has it that the Yoruba people are direct descendants of Oduduwa, the creator of humankind. He had 16 sons and crowned each one of them as heads of 16 kingdoms, one of which is the Yoruba kingdom from which indigenes from the south west of Nigeria have their root. Western education in Nigeria started in Yoruba land and this has often given the people a sense of elitist pride and cosmopolitan worldview. They are said to be the most hospitable to strangers and tolerant of other cultures.

The Yoruba have a rich cultural heritage and are very enthusiastic about their language both of which have followers in different parts of the world originating from the slave trade era.

1.2 Nigeria's multilingual setting

Delimiting the estimated total number of languages spoken in Nigeria, Adeniran (private lecture) divides them into groups of three major languages – Hausa, Igbo and Yoruba; eight medium-sized languages – Edo, Fulfude, Efik, Kanuri, Izon, Nupe, Tiv and Urhobo; followed by a third group of over 400 minority languages, some with less than 1000 speakers.

Adeniran's (ibid.) classification is different from Brann (1998:3-4) who groups Nigerian languages (400 in his article) into four, based on "their self-identification, or estimates by government workers, missionaries and linguists." The four groups are: 3 decamillionaires or demolects, 12 millionaires or choralects, about 50 centimils or ethnolects, and all the rest called minorities, local languages or chthonolects. Brann's (ibid.) demographic classification is not based on financial power as the millionaire appellations may suggest, rather demolects refer to languages with over 10million speakers; choralects to those spoken by over a million people; ethnolects have more than 100,000 speakers each; while chthnolects are often restricted to just one vicinity.

Based on socio-economic or socio-political reasons, most people from medium-sized and minority language groups learn to speak one or the other of the three major languages in addition to their mother tongue depending on the dominant ethnic group in that region. In the past, Yoruba used to be the lingua franca in the western region, Igbo was the dominant language in the eastern region, while Hausa was the lingua franca for the middle belt and northern region of Nigeria (Igboanusi and Peter, 2005). Due to "the demise of regionalism and emergence of new political structures" (Egbokhare, 2003:29), the status of lingua franca may no longer apply to Hausa, Igbo and Yoruba; however, they are still officially recognised as the three major Nigerian languages.

Hausa English, IE and YE are commonly referred to as regional varieties of NE but as rightly observed by Egbokhare (2003:30), "The creation of new political structures has weakened the power position of dominant ethnic groups and has created new nations and with them new linguistic loyalties." It is for this reason that the present study considers HE, IE and YE as ethnic varieties as opposed to regional varieties of NE.

In addition to the indigenous languages mentioned above, Nigeria's multilingual setting also includes four non-indigenous languages that have relative prominence in the country. The languages are: Pidgin English, English, French, and Arabic, discussed below.

1.2.1 Pidgin English in Nigeria

Nigerian Pidgin (NP), also referred to as Nigerian Pidgin English, is described as the language with the widest number of speakers in Nigeria (Elugbe, 1995:288). It developed

as a trade language with the coming of Portuguese traders and English speaking slave traders along the coast of Nigeria. Though the original reasons for its existence have changed, NP, over the years, now serves a wider function as the lingua franca amongst the various regions in the country. Beyond that, NP is the mother tongue of about one million Nigerians in the Niger Delta area (Egbokhare, 2001:110; 2003:21).

In the 19th century, when Christian missionaries established churches and schools in Nigeria as part of their evangelism drive, Pidgin English was regarded as the variety used by illiterates while a "prestige value" was attached to knowledge of English as a sign of "schooling and education" (Brosnahan, 1958: 99). The colonial administrators regarded NP as a corrupt version of the English language and tried hard to dissuade its use but failed; instead they were forced to learn Pidgin in order to communicate (Banjo, 1970:63).

The history, documentation and linguistic description of NE – its use, misuse and abuse (Tamuno, 2004) – usually start and stop with its comparison and relationship with British English. However, the history of language contact in Nigeria shows that Portuguese and not English was the first dominant foreign language in the country through Nigeria's coastal regions on the West Coast. By the time the British came to colonise Nigeria, NP, due to contact with English missionaries and slave traders, had already spread beyond the coast inland and had gained ground as a unifying lingua franca especially for trade and social purposes. Indeed, some peculiarities of NE today are due to contact with Pidgin and if investigated more deeply, perhaps contact with the Portuguese language itself; rather than inept teachers, mother tongue interference, English orthography/graphology conflict, psychological factors or other reasons widely given.

1.2.2 The English language in Nigeria

The coming of the missionaries marked the beginning of "institutionalised learning" (Banjo, 1995:203) of the English language in Nigeria. As Banjo (1970: 64) explains, "Nigerians themselves were enthusiastic about learning to speak standard British English, which must have quickly become the most prized status- symbol in colonial Nigeria." Although the English language in Nigeria has fewer speakers than any of the three major languages and even many minority languages (Ubahakwe, 1974:43), it is the official

language of communication in education, commerce, government administration and the mass media nationwide. Igboanusi and Peter (2005:12) contend that only between 12 and 20 percent of the over 137 million Nigerian population speak English. Yet, it holds sway practically over all the languages in the country; at least in terms of prestige and economic empowerment.

1.2.3 French and Arabic in Nigeria

In addition to English, NP and over 400 indigenous languages, two foreign languages have a marked presence in Nigeria – Arabic, which wields a large influence among the numerous Muslims in the country, and French, the nation's second official language (Igboanusi and Peter, 2005). Especially in most private schools, French is taught as a compulsory subject at primary and junior secondary levels because of its international value. Although the government policy makes it compulsory to teach at least one indigenous language, it has been observed that some private primary schools do not abide by this law but diligently teach French instead of a Nigerian language with the approval of most parents (Babajide, 2001:8). Even at the university level, more students apply to study for degrees in French or some other European language rather than any Nigerian language (Oyetade, 2001:23). Remarkably, no research we know of has revealed that the learning of French has any significant impact, if any, on the spoken English of Nigerians. It is also yet to be empirically determined, the extent to which Arabic has influenced HE pronunciation.

1.3 History of English education in Nigeria

The history of English education in Nigeria is notably different in the north and the south. This may be one of the reasons why scholars like Jibril (1982) very readily limit NE to just the two broad categories: Hausa English and Southern English. The formal presence of English in the south is at least 50 years older than its existence in the north considering that Lagos was annexed by the British in 1861 while Northern Nigeria was not declared a protectorate until 1900 (Adeniran, 1979:58).

1.3.1 English education in southern Nigeria

Formal education in English began in the south with the arrival of Christian missionaries whose two-fold objective was to evangelise and convert the natives to Christianity as well

as to foster legitimate trade for the British traders (Adetugbo, 1978:68). The missionaries, though all Christian, came from different denominations and linguistic backgrounds. Adetugbo (ibid.) reports that they set up three bases – the Church of Scotland in Calabar and neighbouring areas; Church Missionary Society, in the Niger Delta area, Onitsha and Lokoja; Methodists and Baptists in Lagos and the former Western Region of Nigeria. The result of this melange was the acquisition of different accents by Igbo and Yoruba learners of English (Awonusi, 1986:556; Simo Bobda, 1995: 252). According to Igboanusi (2006a), "while the missionaries made use of Englishmen, Germans and ex-slaves to teach English in Yorubaland, they used dominantly teachers of Irish and Scottish origins to teach the language in Igboland."

One manifestation of this different –missionaries different-English in NE pronunciation is the commonly cited example of the NURSE vowel pronounced as [ɛ] in IE words like thirty, term and learn. Awonusi (1986), Simo Bobda (2003) and Igboanusi (2006a) report this as a direct transfer of Scottish and Irish English pronunciation. Simo Bobda (ibid.) cites Wells (1982:349-376) as a source of confirmation for this realisation in many northern British accents. In YE on the other hand, the same NURSE vowel is realised as [a] due to the influence of Sierra Leonean teachers who were ex-slaves from America; that is, a feature of African-American English (Simo Bobda, 2001:18). To the eager Nigerian learners of Western education however, the origin of the teacher did not seem to matter much so long as they could learn to speak, read and write in English, the language of influence and the key to a new life.

The missionaries tied their schools to the church, and so, learning the 'white man's' language automatically meant an acceptance of his religion. Even if some natives did not absolutely accept or comprehend the white man's 'invisible' God, they were very attracted to the language and thoroughly understood the power they could wield with it and so they became converts. While the missionaries started with English as the medium of instruction because they knew no Nigerian language, and also because that was the language of the Bibles they brought, it must be admitted that they encouraged the development of orthographies for the translation of the Bible into local languages. Most of the work on the orthography of Igbo and Yoruba is credited to the Christian Missionary Society (CMS)

and Bishop Ajayi Crowther of the CMS in particular (Uwalaka, 2001:55; Igboanusi and Peter, 2005:62).

With an acceptable orthography for Yoruba and one for Igbo (though later rejected) in place, the missionaries steered the locals towards learning in their vernacular but for socio-economic reasons the move was met with displeasure by most Nigerians. The missionaries initially ran all schools exclusively, with government giving some financial assistance to help them produce more literate locals whose services were needed for colonial administration. Consequently, Nigerians literate in English were sure of well-paid government employment as clerks, messengers, bookkeepers, accounting assistants, and so on. Most parents therefore wanted their children to be educated in English and begin to speak the language at all costs because it paved way for gaining white-collar jobs.

In 1882, government intervened more directly in education with the promulgation of an Act and an adjustment of the missionaries' curriculum. The changes as listed by Awonusi (2009b:55) were: the introduction of secular education; English as the language of instruction; relegation of vernacular in schools.

Over the years, demand for education rose rapidly but the supply of certified teachers did not commensurately increase particularly at the primary school level. The outcome was that teaching was left to primary school graduates who had a minimum of three years teachers' training under non-native speakers of English. The bulk of these teachers were from Yoruba speaking areas and their skills were employed in other parts of the south and much later, the north of Nigeria. Brosnahan (1958:100) observes that the resulting primary school English, which he calls Level II, is, "From the linguistic point of view...perhaps the most interesting, since ...it is taught, learned, and maintained by Nigerians and has little contact with colloquial Standard English." It can only be assumed that the variety of English spoken at that level must have been YE since that was the model most of the teachers spoke.

In his description of the English spoken in southern Nigeria, Brosnahan (1958:101) identifies four levels based on educational attainment and observes that the superiority of secondary school level over primary school level English was only in the areas of grammar, vocabulary and usage but minimal difference at the level of pronunciation. He

further explains that the lack of development in pronunciation is due to lack of effort and lack of suitable staff to teach or set standards of spoken English at secondary school level.

The situation of oral English in Nigerian secondary schools has remained the same to date (Fakoya, 2004:227; Wolf and Igboanusi, 2004:11). One may conclude therefore, that the variety of spoken NE in Nigeria may have fossilised (Selinker, 1972) over the years with each successive generation of secondary school teachers exposed to non-native speakers of English simply building on the foundation set by mainly YE teachers (Jibril, 1982:41). Fossilisation is also implied in Banjo's statement that speakers of NE probably "attain a plateau of performance after, say, eight years of formal learning of the language" (1979; 1996:79).

1.3.2 English education in northern Nigeria

In the past, northern Nigeria referred to what used to be called the ten northern states. These were all areas above the Rivers Niger and Benue and a little below to Kwara and Benue states. In most of these areas, Hausa was spoken as a second, sometimes third language but it was the lingua franca and more importantly, the language of religion after Arabic in the predominantly Muslim region. Despite the wide area covered by Hausa in Nigeria, it has roughly the same number of speakers as the Yoruba and Igbo ethnic groups. The population of Igbo speakers as a first language is 20 to 25 million people; Yoruba, 20 to 25 million; and Hausa, 25 million people (Igboanusi and Peter, 2005: 37, 59, 77).

Literacy in English was not only slow in the north, it was restricted to minority elite who were not going to be teachers or low cadre civil servants anyway. Education in English was introduced not through Christian missionaries, as was the case in the west and east of Nigeria, but by the colonial government. This was not for lack of trying by the Christians. English was initially rejected outright by the northerners and all attempts to introduce Christianity were aggressively resisted. In Islam, Arabic is regarded as the language of God; therefore, to the Hausa, learning English meant becoming a Christian and this was forbidden by the Islamic faith. Schools already existed for teaching how to read the Koran and write in Arabic, albeit only for religious purposes, so the Europeans were not bringing anything new per se to attract the typical northerner (Adetugbo, 1978:70).

Also, whereas it was easy for English to quickly fit into the role of lingua franca in the multilingual south, Hausa was already playing that role in the multilingual north, years before the British colonisers arrived. In summary, the Fulani pursuing a holy war and imposing on the locals a more superior culture had colonised the whole of the north down to Ilorin: initiatives very similar to what the British had done in the south but much older. In 1900, about a quarter of a million pupils in about 20,000 schools in the north were receiving education in Arabic (Adeniran, 1979:64). It would be worth investigating if Arabic has had an effect on HE as claimed in the case of Lebanese English (Cox and Palethorpe, 2006).

Just like the missionaries, even the British government could not break the monolithic stronghold of Islamic administration and had to adopt a system of Indirect Rule. This meant "the British would rule, but as it were, from behind the screen through the agency of the traditional rulers and traditional institutions" (Adeniran, 1979:61). The colonial administration needed Hausa locals to carry out duties in the civil service but since they obviously had to be literate in English, there were no locals to employ. People were often brought from the south to occupy administrative positions in the north.

Over time, based on the argument that locals are needed in running the protectorate, Lord Lugard is credited for encouraging the establishment of English teaching government schools in the north. Unlike in the south, schooling was not open to the masses but restricted to the Fulani upper class. The only teachers allowed in the schools had to be British: "...no Sierra Leonean, West Indian or Southern Nigerian teachers had any influence on English pronunciation in the North" (Jibril, 1982:42).

Right from the start, Jibril (1982:43) says strict emphasis was laid on RP pronunciation in all classes no matter the subject being taught. He adds that graduates from Katsina College, the first government secondary school in the north, spoke a variety of English "which closely approximated the accent of the colonial elite (44)." It was those Katsina old boys who were later on sent to teach in other schools in the northern region. Consequently, the English pronunciation they transferred was much more native-like than what Nigerian teachers in the southern regions were passing down to the younger

generation. This is one of the major reasons for the difference in English pronunciation in the north and south of Nigeria.

Western education was however not permanently left solely in the hands of government. Christian missionaries were later allowed to establish schools in non-Muslim areas such as Zaria and the teachers there were predominantly from the south. According to Jibril, this is why some Hausa people speak English with a southern accent; a variety he labels as "Southern-influenced Hausa English" (1982:147). It is necessary to state at this point, an observation made by Simo Bobda (2003:28) about HE pronunciation sharing many similarities with east and southern African English than its counterparts in southern Nigeria. He suggests that one of the reasons may be due to the similarity in timing of the arrival of the British in the three areas.

1.4 Describing Nigerian English

Adegbija (1998:6) describes the English as spoken by Nigerians as having a "... distinct identity bound to the Nigerian soul and mind; its own unique life and internal consistency and an autonomy which qualifies it for the now popular identification, 'Nigerian English'." Indeed, NE is internationally classified as belonging to the group called New Englishes, which includes Indian English and Philippine English. In the assertion of Jenkins, the same way American English is globally accepted as a distinct variety, "New Englishes should be considered in their own right and not in terms of their differences from a standard variety" ((Jenkins, 2003:22). Describing the evolvement of English in Africa as a whole, Davy (2004:93) explains that to a substantial degree it may be "interpreted in terms of interplay between current standardising influences and older/other linguistic models that have been available at various times to the communities concerned."

In this light, the definition of Igboanusi (2002a: 34) is quite exact:

Nigerian English can be defined as all the varieties of English used in Nigeria.... It possesses certain linguistic features, which are specifically related to some aspects of the Nigerian environment, culture and indigenous languages. These features tend to nativise the use of English in Nigeria and can be identified in all registers of English language use, especially in culture-bound usage.

While not covering up errors as instances of nativisation, one agrees with the summation of Quirk and Greenbaum (1976:8) that ". . . there are interference varieties that are so widespread in a community and of such long standing that they may be thought stable and adequate enough to be regarded as varieties of English in their own right rather than stages on the way to a more native-like English."

To prove the reality of NE as a rich and distinct variety with qualities such as expressed by Adegbija (1998) and Igboanusi (2002a) above, examples abound at all levels of language structure from semantics to phonology. Documentations of these by researchers over the years include neologisms and coinages: akaraballs, bukateria, abiku, agbada, waist beads, chewing stick, and so on (Adegbija, 1998; Igboanusi, 2000). Other examples are words like jagajaga, yamayama, ojuju.

Words such as *buba* and *long legs* appear in English dictionaries such as *Encarta* and are credited as originating from Yoruba in Nigeria. The word *Jambite* in reference to a fresh university student is also recognised in global or New Englishes dictionaries like *Encarta* and credited as referring to a Nigerian concept.

A current word in NE lexicon now is gym, a noun from the word "gymnasium" but which in NE is now used as a verb resulting in expressions like "Do you gym?" and "Let's go gyming" or "I go gyming every Wednesday morning". A phrase like carry palm wine on her head originates from traditional wedding ceremony in Igbo land.

The following expressions occur at the syntactic level in NE: It is faith we are faithing it; Let us faith it; I will quickly bike to the place. The word faith is originally a noun but now in NE, especially with the entrenchment of Pentecostalism in the country, it is also used as a verb. In addition, the first example is based on the Yoruba sentence structure like Ijo lan jo (It is dance we are dancing: we are dancing), Ounje lan je (It is food we are eating: we are eating); Ise lan se (It is work we are working: we are working).

At the level of phonology, the deletion and or insertion of h- in word initial position widely mentioned concerning YE, is presently taking a new dimension among Nigerian youths particularly in higher institutions. When it comes to 'customising' (in global English this means to personalise) their T-shirts or writing their names on facebook, the

fad is that those whose names start with a vowel in the indigenous language like "Ope", "Eniola", "Akin" in Yoruba for instance, change the spelling and write "horpe", "henihola", "hakhin" with an 'h' at the beginning of the vowels. The reverse is also manifested when a name like "Hope" is spelt 'ope.

A second example in phonology to delineate the uniqueness of NE as a distinct variety is in the use of tone. Although native English is not a tone language, the meaning of some words in NE is conveyed purely by the tonemic value of the segments. Words like *sister* and *brother* for example can refer to different categories of women and men depending on the combination of tones used;

- Sístèr (HL) refers to one's sister (biological or social) as in native English; refers to any hospital nurse.
- Sìstér (LH) used to respectfully call or refer to one's elder sister (biological or social)
- Sistér (MH) refers to a nun in the Roman Catholic Church or describes a person behaving like that. The words mother and father are also pronounced with MH tone to refer to senior reverend sisters and male priests in the Roman Catholic Church.
- Sister ... (MM) used as a prefix before a woman's name amongst pentecostals or form of address by those who recognise her as such.

Except for the first meaning of sister referring to a female nurse, all the other tones and meanings apply to the use of the word brother. Another example of tonal significance in NE is observed in the use of the word, baby, where baby (HL) means a human infant and baby (LH) means a doll (child's toy).

Regional identification of a speaker can also be deduced through tone in NE. For instance, whereas a YE speaker will pronounce *aunty* with a low high (LH) accent, a Calabar person will say it with a high low (HL) accent; in YE, *brother* is low high (LH) while in IE, it is mid high (MH) as distinct from the MH used to refer to a male in the Roman Catholic seminary.

Banjo (1970:51) makes a significant observation concerning the use of RP intonation and rhythm in a simple English statement like "This is Ade." The expected RP rhythm as taught in oral English and prescribed even in very recent text books on Use of English (Sunday and Ofoegbu, 2010; Egbokhare, 2007; Osisanwo, 2009) is that the falling tone is used to end a statement. However, to utter the sentence, "This is Ade" with a falling tone instead of a rising tone by a Nigerian would be perceived as affected and pretentious except for facetious purposes. Consider also the word "long leg", which though English, is pronounced in the Nigerian way with MH tone.

For many years, any study of NE or English in Nigeria tended to lament the lack of an accepted standard and the need for one. The campaign went on for so long, but no official standard emerged and now the concept of 'standardisation' is being questioned in modern linguistic research (Milroy, 2001). The reason for this is that 'standard' of any language in use is very relative and more of a prescribed ideal than a language of the majority in practical every day use (Milroy and Milroy, 1997; Honey, 1997). The "Standard" often has no 'real' speakers. Even in native English, the prescribed standard, RP is gradually undergoing change to a broader form christened "Estuary" English by Rosewarne (1984; 1994). This variation of RP is characterised by the adoption of certain Cockney (formerly considered an inferior variety of English) influenced accents and the younger members of the Royal family, expected pacesetters of prestige forms, are also known to use this emerging variety (Honey, 1997).

Similarly, NE would continue to evolve, change and be modified by different generations of speakers as a language in active use. It is for this reason that studies such as the present one are relevant and obligatory for the description and codification of NE and its varieties at different stages of evolvement.

1.5 Sociolinguistic context of English in Nigeria

As Nigeria's official language, English is a carrier of power, prestige and elitism. Igboanusi and Peter (2005) highlight ten different domains where English dominates in Nigeria. The domains, some of which formerly belonged to indigenous languages, are:

- (a) government and administration at different levels, including national events;
- (b) education at all levels;

- (c) the print media (most Nigerians are literate only in English not their indigenous language);
- (d) electronic media;
- (e) the judiciary except Sharia and customary courts;
- (f) communicating scientific and technical information;
- (g) political discourse at regional and national levels;
- (h) creative writing;
- (i) intranational communication and
- (j) international communication.

From the above, it is obvious that English pervades the daily life of the average educated Nigerian and it is becoming increasingly so with the stronger global value of the language. Nigerians will go to any length to achieve literacy in English but as Banjo (1970:155) notes, more school graduates can read and write "fairly well" in English but articulate it "very badly" (Jibril, 1982:234).

Oke (1970:32) describes the social context of English in Nigeria as paradoxical — where the prestige language is also a cause for alienation. According to him, "The pupil or student even at [the] university level, for fear of 'sounding funny' to others around him, often resorts to the vernacular or Pidgin-English or a brand of English which is commonly used by people in the environment." This implies that there is a socially determined accent shifting in the use of different 'brands' of English in Nigeria. Simo Bobda (2000:260) confirms this style shifting for the whole of African English accents when he postulates that "each national accent in Africa has its own educational, stylistic, sex-related and ethnic variations." It can be assumed that these variations are what Oke (ibid.) refers to as brands.

Over two decades ago, the most prominent sociolinguistic marker of NE accent was ethnicity much more than social class or religion (Mazrui, 1980 cited by Jibril, 1982:221). However, Igboanusi (2006a) is of the opinion that there is a narrowing or levelling (Watt, 2002:44) of differences such that "some of the phonetic features, which were hitherto seen as characterising Igbo English, Yoruba English, etc., are now used interchangeably by various ethnic groups, particularly Igbo and Yoruba." The primary reason for this fluidity is social mobility (Chambers, 2002: 117). Igboanusi (2006a) states further that on the

whole, differences between NE accents are present more at the basilectal and mesolectal levels than at the acrolectal level. The empirical analysis in the present study seeks to verify this claim using data collected from university students as representatives of the acrolectal level.

1.6 The cacophony of accents in NE

Although there is little or no known empirical study on the social patterns of NE accents, it is observed that while most educated Nigerians will normally use ethnic accents, they sometimes switch to a foreign sounding one, approximating to what they wrongly presume is RP or General American. This happens when they perceive that the speaker is a native speaker of English or uses an accent that is considered to be refined or sophisticated. At such instances, there is a heavy manifestation of hypercorrection with the production of sounds that cannot be defined as typically NE or any other English accent in the world. Such hypercorrection occurs mostly in the speech of those who have had some level of exposure to oral English in school and want to display the fact.

The cacophony of accents is further supposedly enriched but in reality complicated by the 'What's up?' generation (Egbokhare: personal communication cited in Igboanusi 2003:660) affected by the '"Y" all syndrome' (Omoniyi, 2003:369). This accent is socially employed by the younger generation and leans greatly towards anything American (Igboanusi, 2003a:601). In addition to these 'Americanising' youths, there is another rising category of Nigerian musicians and disc jockeys who sing and speak what they think is West Indian English or patois (Omoniyi, 2003:369, 370).

An increasingly popular practice now in private primary schools is the hiring of English phonetics specialists to spend a few hours weekly teaching pupils how to enunciate words and communicate with a non-Nigerian accent. The result is that these young children can accent-switch between the school acquired version of native English and the NE accent spoken in the environment.

Finally, there is a general confusion about proper and improper accents particularly as there is no prestige or school model NE. The result is that in the attempt to use a native English accent one ends up being unintelligible to both the American or British man he is

imitating and the Nigerian he is trying to impress. When the social climbing Nigerian does get the accent fairly right, he is sadly socially off key as he often imitates the non standard or marginal variety of the native English he is aping (Omoniyi, 2003).

1.7 Sociolinguistics

Sociolinguistics, as the name implies, involves two disciplines namely, language and society. It is the study of the interaction or relationship between language and social and cultural factors. As opposed to pure linguistics, which seeks to understand how language works by studying its formal, grammatical properties, sociolinguistics recognises that language can be more profitably studied in its social context because speech is part of the human make-up. The focus of sociolinguistics is on the effect of the society on the language, rather than the effect of a language on the society, the focus of studies on the sociology of language.

William Labov is often credited with introducing the quantitative study of language variation and change, which turned sociolinguistics into a scientific discipline in the 60s (Hudson, 1980; J. and L. Milroy, 1997). Since then, language variation studies have become more popular and some linguists consider the quantitative study of speech as undertaken in the present study to be what sociolinguistics is all about.

1.8 Variation

Language variation focuses on how language varies in different contexts based on factors like socio-economic status, sex, ethnicity, geographical location, age, education, speech style and so on. The way a particular group of people speak a particular dialect has to do with a number of factors which may play a more or less significant role in any particular case. A dialect for instance is a variety of a language and a sociolinguist may decide to study the different dialects of a language e.g. Ekiti and Ijesha dialects of Yoruba. The sociolinguist may also decide to study variations within a single dialect such as which group of speakers in a particular speech community pronounce shoe as /su/ instead of /ʃu/.

Variation studies can be carried out on every aspect of a language or dialect: the phonetics, phonology, morphology, syntax, and semantics of that dialect, as well as an understanding of who speaks it. Illustrations are provided below:

Lexico-semantic Variation – Variation at the level of semantics involves an examination of the different meanings that particular words have in different varieties of a language, or the different words that are used for the same thing in different dialects. A lexico-semantic variation between native English and NE for instance, is the word wife: culturally in NE, a woman married to a man in a particular family is a wife to both the males and the females in that family, hence the expression, "our wife" in NE (Adegbija, 1989). Another example is the word abroad, which in Standard British English means anywhere away from one's country but in NE refers only to advanced countries of Europe, America, Asia; not anywhere in Africa (Fakoya, 2004:232).

Lexico-semantic variations exist among the varieties of NE itself. The word for commercial motor cycle transport for instance is called *okada* in the Yoruba speaking parts, *goyin* or *ina-aga* among the Igbo in the east and *achaba* in the Hausa speaking regions of Nigeria. If a basilectal speaker of NE buys oranges in the market, she is most likely going to ask the fruit seller for a *leder* (Oyo State), *rubber* (Adamawa State), or *lylon* (Lagos State) (i.e polythene /nylon carrier bag) to carry her purchase, depending on the regional variety she speaks. Studies on variation in American English vocabulary have been based on which people say *faucet* and which group calls the same thing a *tap* in North America.

Syntactic Variation – An example of syntactic variation is the presence/absence of is/are in African American English (AAE) and no/any in AAE and General American English. An often heard expression in YE is "They are calling you", where "they" refers to just one person (usually someone older than the speaker) – probably his/her school teacher. The use of they in this context is used to show respect, which in Yoruba is conveyed by choice of pronouns. Examples of syntactic variation between NE and native English is the use of double subjects in sentences like Me I don't have any money. (I don't have any money) and This your friend is ... (Your friend is...) (Igboanusi, 2006b).

Morphological Variation – This has to do with the study of the structure of words or word formation in different varieties of a language. For example, it is quite common in NE to hear aristo or sugar daddy referring to the same person depending on the generation of the speaker. The word "aristo" is derived from the English word, "aristocrat". Among

university students or the university community at large, one may hear Jambite/Jambito in reference to a fresher (American English) or freshman (British, New Zealand, Australian English). Some other morphological variations in NE are chieftaincy, obaship and obiship.

Phonological Variation – In the case of phonological variation, the difference is at the level of the phoneme. In Standard English for instance, the difference between long and short vowels is phonemic. The same set of sounds that contrast only in vowel length results in minimal pairs like 'bit' [bit] and 'beat' [bi:t]. Most New Englishes such as NE are not known to maintain this phonemic contrast in vowel length; the two English phonemes are merged into one, leading to variation in the phonology of the two varieties of English.

Phonetic Variation – This involves an examination of variations at the level of sounds that are not phonemic i.e.do not cause a change in meaning. For instance, Labov as reported in Hudson (1980) conducted a major study investigating the presence or absence of [r] in New York speech. In some dialects of Yoruba, the word for cough would be [huko], whereas in another, it would be [wuko]. Both initial sounds are approximants with the only difference being in their place of articulation: one is glottal, the other is labiovelar. This means exchanging one sound for the other would not result in a change of meaning; thus, the variation is phonetic, found at the allophone level rather than the phoneme level.

1.9 Sociolinguistics and pronunciation

Yule (1997) defines accent technically as "the description of aspects of pronunciation which identify where an individual speaker is from, regionally or socially." A speaker's accent is a strong clue of inclusion or exclusion in a particular group (Kachru, 1990:140), and so speakers sometimes exploit it to suit their purpose as occasion demands or to gain certain advantages in society. Honey (1997:106) illustrates with the case of some British politicians like Margaret Thatcher, Bob Hawke and others who adopted other English accents in order to gain political advantage with the public. A similar case is mentioned by Jibril (1982:148) concerning a Hausa politician from the north who adopted a southern Nigerian accent because he was a leading member of a southern based political party.

In his description of the unique social function of pronunciation compared to other linguistic items such as morphology, syntax and vocabulary, Hudson (1980:44, 48) states that:

Pronunciation reflects the permanent social group with which a speaker identifies. This reflects in a tendency for individuals to suppress alternatives, but in contrast to the tendency with syntax, different groups suppress different alternatives in order to distinguish themselves from each other, and individuals keep some alternatives 'alive' in order to be able to identify their origins even more precisely, by using them in a particular and distinctive proportion relative to other alternatives.

In the same vein, Bayard, Weatherall, Gallios and Pittam (2001:40) assert that "just one phonological feature ... or one paralinguistic feature" can have a conspicuous effect on how one is evaluated. They also rightly observe that advertisers all over the world use accent stereotypes to appeal to their target market. This means that, consciously or unconsciously, humans are aware of the ability of their accent to sway things in their favour one way or the other. The reverse also applies, that is, humans may judge, assess, accept or reject a person based on their perception of that person's accent.

Sometimes, a person's accent may be the difference between life and death as evidenced during the war between the Gileadites and the Ephriamites as recorded in the book of Judges, chapter 12, verses 5 and 6 of the Holy Bible:

Jephthah captured the shallow crossings of the Jordan River, and whenever a fugitive from Ephraim tried to go back across, the men of Gilead would challenge him. "Are you a member of the tribe of Ephraim?" they would ask. If the man said, "No, I'm not," they would tell him to say "Shibboleth." If he was from Ephraim, he would say "Sibboleth," because people from Ephraim cannot pronounce the word correctly. Then they would take him and kill him at the shallow crossings of the Jordan. In all, (NLT))

It is from this Bible record that the word 'shibboleth' entered the English lexicon. In the above account, the people of Gilead used the word *shibboleth* as a password because they knew that their enemies, the Ephraimites could not pronounce the 'sh' sound. If anyone was caught trying to cross the safety lines on the premise of being a native of Gilead, he

was told to pronounce shibboleth. Inability to articulate the initial sound properly betrayed one as an Ephraimite to be sentenced to instant death.

A similar occurrence was recorded in Nigeria during the Civil War. The Hausa in the north at that time were eliminating the Igbo and in order to distinguish an Igbo person from other ethnic groups arrested, the captive was asked to pronounce the word toro (three pence in Yoruba). In many dialects of Igbo language, /l/ is used instead of /r/ therefore, the Hausa soldiers knew that an Igbo person would say tolo instead of toro thereby revealing his/her identity and qualifying for extermination.

Although accentual markers no longer attract such fatal repercussions in Nigeria (at least not overtly), they remain socially significant. It is on this premise that we want to examine the social patterns associated with English pronunciation in Nigeria.

1.9.1 Socio-phonology

This is the field of sociolinguistics that gives "descriptive accounts of phonetic and phonological variation in particular dialects, speech styles or speaker groups" (Foulkes, 2006:495). Although the study of phonetic/phonological variation has existed for many years, Deshaies-Lafontaine (1974) is credited as being one of the first to use the term 'sociophonetic' to describe her work. There is often no distinction made between 'phonetics' and 'phonology' as both terms are used interchangeably.

For instance, Honey (1997:92) uses the term 'sociophonology' to mean the part of sociolinguistics that is concerned only with the study of "those differences of pronunciation, which are perceived to be socially significant." According to him, sociophonology is not concerned with idiolectal differences but with accentual differences shared by "groups of speakers" irrespective of whether or not, that group also shares common grammatical, lexical or idiomatic features. In the present study, we have used the term 'sociophonology' as reflected in the title.

Over the years, the results of sociophonological studies are often used to address issues in phonetic and/or phonological theory. The field has since evolved into a major area of sociolinguistic investigations and as Foulkes (2006) notes:

Today's sociophoneticians are concerned not only with aspects of speech production but also the effects of variation on speech perception; the implications of variation for theories of language change, the lexicon, phonology, speech production and perception; how variation impacts on the process of language acquisition; and the value of understanding variation for a range of applied areas.

It is believed that individuals express their personal social identity through various shared social group norms such as dressing, language and culture. Observably, even when dressing and culture have been adapted and disguised or hidden in order to identify with some other group, one tell-tale identity carrier that is very difficult, if not impossible to hide or eradicate has been found to be speaker accent.

In variationists research, accents are generally grouped into three categories referred to as the "accent continuum" (Honey, 1997:96). The categories are:

- a) Basilect broadest form of popular speech often associated with people of very low literacy level.
- b) Mesolect the speech of the majority of the population. These speakers are educated up to at least secondary school level.
- c) Acrolect the high prestige, standard variety.

Besides these three categories, researchers at different times have added other levels in order to properly describe the accentual variations observed. Honey (1997) for instance, in examining British English accents recognises a fourth category he calls hyperlect, while Fakoya (2004) uses the term mediolect; a one-word description of the variety of NE which according to him is a mediocre variety of Standard English. The social significance of each of these categories varies and sometimes does not even exist (Honey, 1997). Labov's (1972) distinction of accentual varieties is helpful in this regard. The variants identified by Labov (excerpt in Giglioli, 1972) are:

- a) Indicators: variants with little or no significance, and which only a trained linguistic ear may recognise.
- b) Markers: variants that have social significance and are easily recognisable by anybody.

c) Stereotypes: "popular and conscious but imprecise general characteristics of the speech forms of particular social groups and at times even whole languages." (See also Honey, 1997:99)

Type (c) in the above list, known as stereotypes best describe some of what is labelled as NE accent in a large proportion of literature.

1.10 Ethnicity and accentual variation in NE

Ethnicity is often closely tied to a particular geographical area, such as the Hausa in the north, Igbo in the eastern region and Yoruba in the western parts of Nigeria. However, due to social mobility, ethnicity is no more limited to geographical boundaries and that is why it is possible to have Yoruba speakers of English in Ogbomoso, Cote d'Ivoire and Jos sharing the same accentual features. Even if they have never all lived in the same geographical space, their ethnicity can be identified simply through their accent.

Adegbija (1998) presumes theoretically that there are as many varieties of English as there are regional languages in Nigeria. Igboanusi describes the many varieties as "ethnic dialects" and asserts later that "the most obvious difference in the varieties of Nigerian English is the spoken form that is, the pronunciation" (2005:45). Accentual variation is not peculiar to NE neither is it a unique characteristic of English as a second language (ESL). On the contrary, it is a feature of every language. For various reasons of gender, age, social class, social networks, educational background and so on, no two speakers of the same language have identical accents

Referring to the use of RP in Britain by native speakers of English with "an extended education", Honey (1997: 95-96) contends that many of them retain "tiny traces of accent features characteristic of their regional background." He adds further that "differences in accent – perhaps involving simply the differential use of post-vocalic [r] or word initial [h] or [t]- glottaling have the potential to be more decisive than other dialect features such as grammar or lexis because they may be salient in every social encounter in daily life."

Just as "one or two typical sounds" exist in the speech of native speakers that cause them to be identified as coming from a particular region (Honey, 1997), so they exist in NE accents, causing speakers' ethnicity to be identifiable. Igboanusi (2006a) on the contrary

submits that "this assertion may not be true in most cases" and that is one of the concerns of the present study. Our hypothesis is that in most cases, you can identify a NE speaker's region or ethnic group through his accent especially when English is his or her second language.

In Yule's (1997:227) opinion a speaker's accent always reveals something:

Whether or not you think you speak a standard variety of English, you will certainly speak with an accent. It is a myth that some speakers have accents while others do not. Some speakers may have distinct or easily recognized types of accent while others do not, but every language—user speaks with an accent. The term accent, when used technically, is restricted to the description of aspects of pronunciation, which identify where an individual speaker is from, regionally or socially.

The question is, in cases where ethnic or regional background is deducible from speech, what are those exact, specific, precise and empirically proven pronunciation features that make it possible with reference to HE, IE and YE speakers of Nigeria?

The prevailing academic position is that the differences between IE and YE are few (Simo Bobda, 1995, 2000; Jibril, 1982, 1986; Davy, 2004; Igboanusi, 2006a). Jibril (1982:151) for instance in his description of HE and IE vowel systems maintains that, "The two kinds of English are so similar that little purpose would be served by setting up a different vowel system for each of them." Over two decades later, Igboanusi (2006a) makes claims that strongly support and even go beyond Jibril's position. In his opinion, "Education, conscious effort, exposure and other social factors have to a large extent bridged the differences [between IE and YE] especially at the acrolectal level." He goes on to say that IE speakers have lost "most of their unique pronunciation patterns in favour of other pronunciation patterns, particularly that of YE."

Ironically, the lay speakers of IE and YE themselves strongly disagree with the position of the above linguists. It is for opposing views such as these that empirical analysis is necessary to prove or disprove impressionistic conclusions such as IE and YE accents being similar and distinct from HE. Going by the assertions of Yule and Honey quoted earlier concerning varieties of English, we expect that HE, IE, YE and indeed all speakers of NE have a distinguishable sometimes mother-tongue-flavoured accent often

undisguised by education, no matter how extended. We propose that this may be due to vowel quality and prosodic features like stress, tone and intonation.

The second focus of the present study is based on the claim mentioned above by Jibril (1982); Simo Bobda (1995, 2000); Davy (2004); and Igboanusi (2006a) that YE is the most widespread variety thereby leading to changes in the former characteristic features of the other two varieties (i.e. HE and IE) especially as spoken by the younger generation. The belief is that this convergence to YE is very likely to become the national standard in Nigeria. As far back as three decades ago, Jibril (1982) in describing HE accent identified a variety he called Southern - influenced Hausa English whose vowel system is different from Southern NE. In his definition, Southern NE means, the English accents of Igbo and Yoruba speakers.

If the results of the empirical analysis done in the present study reveal overgeneralisations in the merging of IE and YE as one, then there cannot be a Southern- influenced HE, if there is nothing like a Southern NE. More essentially, how can there be a convergence towards YE if there is no appreciable difference between IE and YE? We suggest a redefinition of Southern NE to mean YE alone, and if so, then just like Jibril's identified Southern - influenced HE, there probably exists a Southern - influenced IE with its own vowel system different from YE/Southern NE. We speculate that it is this two-sided influence of YE on other major varieties that has led scholars to regard it as the emerging standard NE.

In closing the issue of ethnicity and accents, it is necessary to point out that languages can change or even cease to exist over a period of time (e.g. Latin) and in the same way, ethnicity too may change for various reasons in human history (Trudgill, 2000: 46).

1.11 Aim of the study

The broad objective of the study is to socio-phonologically analyse HE, IE and YE in Nigeria with a view to establish the differences and highlight salient aspects regarding NE accents. This is to appropriately contextualise issues in the NE varieties.

The specific aims are to:

- Empirically determine the actuality of previous descriptions of HE, IE and YE accent in available literature.
- 2. Affirm if there is a convergence or not of HE and IE to YE and if so, to determine what sounds are converging.
- 3. Ascertain the effect of gender on accentual variation.

1.12 Research questions

- Is there any significant difference in the pronunciation of /p, v, z, θ, δ, f, ∫, ə:, e, ə, Λ / among HE, IE and YE speakers on the basis of ethnicity?
- Is there any significant difference in the pronunciation of /p, v, z, θ, δ, f, ∫, a:, e, a, among HE, IE and YE speakers on the basis of gender (sex)?
- 3. Is there any difference in the prosody of lexical items among HE, IE and YE speakers on the basis of ethnicity?
- 4. Is YE the most preferred accent among HE, IE and YE speakers on the basis of ethnicity?
- 5. Is YE the most preferred accent among HE, IE and YE speakers on the basis of gender?

1.13 Significance of the study

This study should advance research in the codification and ultimate recognition of an established NE with no apologies to its British origin. Jibril (1982) claims that "As a field, Nigerian English is very long on 'reflections' and pre-analytical hunches but very short on systematic, data-based studies." Sadly, three decades after that statement was made, the situation is not much different today; causing Simo Bobda (2007:308) to assert that "Dialectological studies are awaited to determine the geographic, ethnic and educational distribution of the features [reported as characteristic of NE]."

The quantitative (empirical) study of speech, such as the present one, is described as dialectological (Hudson, 1980:139). The current research is therefore significant in that it is systematic, data-based, dialectological, and uses contemporary theories in sociolinguistics to investigate both segmental and suprasegmental features of NE.

Language variation is a political issue therefore; the expected findings from the present study should assist language policymakers and language planners. In the area of pedagogy, this study should have significant implications, specifically, in terms of setting realistic standards for teaching, and particularly for examining oral as well as written English at all levels in the educational system of Nigeria.

The identification of major ethnic NE accents is expected to come in useful also in the area of forensic investigations especially with the rising rate of mobile phone-communicated criminal acts such as ransom demands by kidnappers, and advance fee frauds. The usefulness of forensic phonetics is becoming increasingly appreciated globally in solving international crimes.

Finally, as shown by the findings of Labov, Trudgill and L. Milroy (all cited in Hudson, 1980 and Coulmas, 1997), phonological variation studies have led to greater understanding and appreciation of sociolinguistic and linguistic concerns such as the relationship between languages in contact, language and society, negotiating identity through language and the overall implications of variation for linguistic theory. The present study on phonological variation in NE attempts to make its contribution in the same regard, but in a second language context.

1.14 Scope of the study

This is a socio-phonological study focused on describing rather than explaining or prescribing pronunciation features of HE, IE and YE. In addition, the study aims to explore aspects of accent variability in NE from a variationist and sociological perspective by an empirical analysis of a set of pre-selected phonological variables in correlation with intra-linguistic factors and social variables. Accent is taken here to mean "The variety of speech differing phonetically from other varieties" (Matthews, 1997). The term is used interchangeably with "pronunciation features" in a broad sense to include consonantal and vowel features as well as stress, tone and intonation.

The scope of the present study does not extend beyond HE, IE, and YE, although it is recognised that there are other relatively large ethnic groups like Edo, Efik, Fulani, Ibibio and Tiv whose English pronunciation, even to the untrained ear, is remarkably different

from the three being studied. Also, the present study concentrates on the pronunciation features of NE alone excluding all other aspects like vocabulary, grammar, semantics and discourse.

Both perceptual and acoustic analyses are used in the present study. However, the main body of the empirical analysis of data is based on auditory perception alone, albeit by a trained ear. First, most of the preselected linguistic variables are consonants and acoustic instruments are beneficial principally for measuring vowel qualities not consonant sounds. Second, the true test of whether accentual differentiation on the basis of ethnicity is easily observable can only be confirmed in a real life situation that is, with the human ear as opposed to acoustic instruments. The acoustic analysis using the Praat speech software is therefore employed in the present study to analyse just the vowel sounds with the primary objective of corroborating the findings of the perceptual test.

By providing empirical evidence, the present study addresses issues of sociolinguistic theory and opens up wide vistas for the study of bilingualism and self-identification/portrayal in a dissimilar second language context. The focus is therefore not English per se but a study of variation and speaker identity as well as how the established concerns of sociolinguistic theories such as sex and ethnicity apply in a second language situation.

1.15 Limitations

In the course of carrying out this study, we encountered one major problem that resulted in the limitations to the work: insufficient funding. Ideally, the typical Labovian sociolinguistic interview takes up to one or two hours per respondent but due to the need to conserve funds for outside station lodging and feeding, the days spent on the field had to be reduced thereby limiting the time spent on interviewing each respondent. Data collection was handled by just one fieldworker per time, not just to reduce travelling expenses, but because only one recording apparatus was available, and also, remuneration for research assistants was limited to what we could personally afford in the absence of sponsorship or academic grants.

Getting the students to give extended periods of their time for the interviews during school hours was a challenge as they were rushing off to a lecture, going to eat or needing to complete an assignment. Visiting them in their halls of residence or off-campus locations after school hours proved impractical as it was impossible to control distractions and the environment was too noisy for any meaningful recorded dialogue to take place. Extra hands on the field, equipped with recording instruments would have made it possible to have many interviews taking place simultaneously.

Nevertheless, since our empirical analysis was based on data produced from just the word list and reading passage, the problem of insufficient time to hold extensive dialogue and record lengthy casual conversations has not detracted from the reliability of the present study.

Not wanting to sacrifice depth and quality of analysis just to amass volume, the statistical aspect of the study is limited to speech produced by only 60 speakers. While the limited number may make it difficult to generalise results, it is enough to provide academic insight for similar studies in the future.

CHAPTER TWO

REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter reviews related literature on phonological variation outside and within Nigeria. Key concepts related to investigations conducted and reported in the present study are also discussed. Furthermore, the chapter focuses on theoretical orientations of Variationist theory, Accommodation theory, and the Generative Phonology framework, as they pertain to the present study.

2.1 Literature review

Unlike theoretical linguistics, sociolinguists involved in empirical studies such as the present one are particularly concerned with methodology, at times, even more than theoretical constructs. As succinctly expressed by Coulmas (1997:8):

...sociolinguistics is preoccupied with descriptive research. Methodological questions concerning the delimitation, collection and processing of empirical data have therefore been much more in the foreground . . .

The review of related literature below therefore starts with related empirical studies from the perspective of methodology before discussing the theoretical frameworks mentioned in section 2.0.

2.1.1 Selected related empirical studies

This section examines works from across the world because language in itself is universal.

2.1.1.1 Labov's model

Labov (discussed in Hudson, 1980) conducted a unique pilot study to test his hypothesis that the pronunciation of /r/ in New Yorkers (stereotyped as speakers of an 'r-less dialect') varied according to the social class of the speakers. He also predicted that there would be more variations in the realisation of /r/ depending on the speech style, that is, careful versus casual speech. To test his hypothesis, Labov selected three multilevel departmental stores in New York that serviced the needs of high, middle and low class clientele

respectively. He expected that the social level of the shoppers would be reflected in the language of the service providers. In each of the three stores, he asked the shop assistants for where he could purchase particular items that he already knew were on the fourth floor. Labov's aim was to hear the assistants pronounce fourth floor in order to test the occurrence or otherwise of /r/ in both words. To assess the difference between speech styles, he pretended not to have heard the response of the assistant who in turn had to say the phrase, fourth floor more carefully.

Using this ingenious method, Labov proved his hypothesis correct and later on established that New York English was not entirely r-less; rather, the higher the socioeconomic status of the speaker, the higher the realisation of /r/ and the lesser the socioeconomic status the lesser the occurrence of /r/. Labov's research among other things, established that there can be no absolute distinction between one dialect and another and that no language or variety is fixed, either at idiolect or speech community level. He also nullified the theory of transformational grammar based on speaker competence as opposed to performance. Although he disagreed with Chomsky's Competence theory, Labov accepted transformational grammar's notion of rules for every linguistic variable and went on to formulate what he called the variable rules. Even he, however, had to abandon the idea after initially formulating it in the 60s (Hudson, 1980:184).

In the Nigerian context in which the present study is situated, Labov's model is not exactly reproducible. First, as Jibril (1982) rightly observes, the issue of social structure in Nigeria is not as clearly defined or laid out as it is in North America. Secondly, the present study is based on ethnic differences as opposed to socioeconomic status. Also, the present study examines much finer distinctions of linguistic variables than Labov's investigation of /r/; therefore, it would not be logical to base our observations on memory alone without the aid of a recording apparatus. We however employed his technique of "rapid anonymous observation" (Hudson, 1980: 148) for gathering the data used in our pilot study.

2.1.1.2 Trudgill's model

In his study of Norwich accent, Trudgill's (1974) approach unlike Labov's (section 2.1.1.1) was more formal; it involved more than one variable and data was collected from more speakers including children. Like Labov's full scale research; however, Trudgill

structured his interviews to capture four different styles – casual, formal, reading passage and word list. A total of 50 adults from different social classes were used to investigate 16 variables comprising three consonants and twelve vowels pre-selected from existing knowledge of variation patterns in the locale.

Being a native speaker of the Norwich dialect himself, Trudghill was able to overcome the problem of 'observer's paradox" common in eliciting speech data involving formal interviews. Even in Nigeria, Ekong (1978) admitted that "the major problem" in the course of her research was getting natural response from her informants. Milroy and Milroy (cited in 1980), as we shall see below, found a way round the problem and their method is also adapted in the present study.

The general criticism that Trudgill's conclusions on the speech pattern of nearly 200,000 Norwich inhabitants are based on too small a sample size of 60 people is nullified by Hudson (1980:152) who argues that the sample size is "statistically adequate to give a broad picture of patterns of variation." This argument supports the speaker size employed in the present study as discussed in Chapter three.

2.1.1.3 Milroy and Milroy's model

The Milroys (cited in Hudson, 1980) based their 1978 study on the framework of social networks. Data was collected by L. Milroy being introduced as a 'friend of a friend'. This way, she was able to move from household to household, recording everyday natural speech, thereby doing away with the formal interview technique, and solving the problem of "observer's paradox". As a departure from the Labovian model, the Milroys excluded the variable of social class and gathered data from people of the same socioeconomic ranking – the working class living in three different but equally low prestige communities in Belfast. Eight predetermined linguistic variables were used to test their hypothesis that speakers' use of accentual features depends on the degree of affinity or kind of relationship they had with the community. People belonging to closed networks were predicted to display little variation in their speech while those with loose networks will often not conform to the community's speech norms.

The method of the Milroys may have worked in the 70s, but it is highly improbable to find such tightly knit communities in 21st Century urban communities; especially considering the level of dialect contact (Chambers, 2002) and social mobility (Watt, 2002) in contemporary times. As Hudson (1980: 180) points out, those who stick to the same linguistic norms may be doing so not because they are members of the same closely knit community, but because the norm they are following has been standardised. Such a standardised norm is not only taught in schools, it is also readily available through books, the media, dictionaries, teaching tapes, the internet and so on.

Based on the above, it was considered inappropriate in the present study on accentual variation in HE, IE and YE to employ the method or framework of social networks. In the Nigerian context, ethnic differences and the immediate environment (locale) suggest themselves as more logical social variables to examine. The aspect of establishing "friendship" with respondents was however most helpful and valuable in the gathering of data for the present study.

2.1.1.4 Boberg's model

Boberg (2004) studied ethnophonetic variation in selected vowel sounds of Montreal English. He collected data from a total of 35 Jewish, Italian and Irish settlers in Montreal, Canada who he selected on the basis of sex, age, level of education, ethnicity and parental background. Each participant's speech was recorded in a one-hour interview divided into demographic information, reading list, minimal pairs and free conversation. Despite the fact that he collected data from different styles, Boberg limited his empirical analysis to the word list data only because he expected it to be more uniform. Another reason he gives is that participants would be very conscious and careful with word lists, therefore, any unique features that occur in that style can safely be regarded as a permanent feature of the person's pronunciation even in casual speech.

In Jibril's (1982) view; however, in second language situations, the reader is more conscious of literacy than of pronunciation accuracy, consequently, he or she is less likely to be conscious of formality; but would slip into the most comfortable style in terms of natural pronunciation. In the final analysis, both possibilities advanced by Boberg and Jibril lead to the same vital end – which is, getting the participants' true speech. In the

present study therefore, analysis of HE, IE and YE is based primarily on data collected from the word list and reading passage, supported by confirmations from casual conversation with the participants.

The results of Boberg's statistical analysis reveal that ethnicity is highly significant in the speech pattern of Irish, Jewish and Italian dwellers in Montreal. Whereas in most other cities of North America variation is based on social factors like age, gender and social class, he observed that accentual variation in Montreal was based on ethnicity. The sociohistorical reasons for the ethnophonetic peculiarity are in some respects similar to the explanations that have been given for the variation in NE.

Specifically, Boberg says, English is in every way a minority language in the city and there is a government policy to keep it so. For this reason, English-speaking ethnic groups have little or no access to interaction with native speakers of English who could influence their speech towards the more standard Canadian variety. Secondly, the three ethnic groups exist in close knit ethnic residential areas where constant contact is maintained with the first language. Even when it is not spoken, the mother tongue and its effect on the variety of English spoken by the parents or grandparents are constantly heard. A lower incidence of substratum features was observed in Jewish English compared to the Italian variety and the reason was that education was higher among the Jews than the Italians, which consequently gave the former a higher degree of exposure to native English.

The significant difference between Boberg's study in Montreal and the present one in Nigeria is that whereas his data is from three neighbourhoods in a single urban community, our comparison of ethnophonetic features is based on data collected from three regionally different urban areas. To replicate Boberg's model would mean collecting data from participants belonging to the three ethnic groups but residing in the same metropolis such as Lagos for instance. This is considered a viable path for future research on NE variation.

2.1.1.5 Simo Bobda's comparative studies

Simo Bobda (1995) compared the phonologies of Cameroon English (CamE) and Nigerian English (NigE). Both countries are in West Africa, share a common boundary and Nigeria,

along with the Anglophone part of Cameroon have a common history of past contact with British colonialism. Simo Bobda limited his investigation to sound segments and word stress and reports a lot of similarities between CamE and NigE. The similarities include mergers of RP sounds such as in beat and bit; tin and thin; dose and those. Also reported similar are the devoicing of consonants in word final position; simplification of word final alveolar consonants; and the voicing of [ks] before all vowels. Despite all the similarities even at word stress level, Simo Bobda reported enough dissimilarity to argue against the general categorisation of CamE and NigE as West African English.

Based on geographical location, the English spoken in Cameroon, Nigeria, and the rest of West Africa is given the broad name, West African English (WAE) (Davy, 2004). Yet, Simo Bobda insists that "[m]any English features generalized to West Africa are in fact Nigerian [NigE]" and suggests that "an analysis of differences between close varieties such as NigE and CamE seems more original than an analysis of similarities" (1995:259). Within NE itself, Akinjobi (2004:98; 2006:10) asserts that due consideration should be given to "geo-tribal" peculiarities in the description of NE. The observed need to investigate close language varieties, combined with the necessity for an ethnic-based account of NE, guided the approach taken in the socio-phonological analysis of HE, IE and YE in the present study. In particular, the examination of IE and YE, which are often grouped as a single variety in existing literature.

In a wider comparative study of English accents across Africa, Simo Bobda (2000) compared nine segmental features in six regional varieties: Ghanaian English (GhanE), Sierra Leonean English (SLE), Nigerian Southern English (NigSE), Nigerian Hausa English (NigHE), Cameroon English (CamE), and Kenyan English (KenE). Again, he observed enough differences to make him warn that it was "risky" to over generalise, reporting further that "[s]ome earlier writers seem to have succumbed to the temptation" to do so (Simo Bobda, 2000:264).

Simo Bobda, in both of his studies reviewed above, based his analyses on data gathered mainly through personal observation and existing literature on the varieties compared. Indeed, without empirical data and quantitative analysis such as used and carried out in the present study, overgeneralisations may be unavoidable.

2.1.1.6 Adjaye's study

Adjaye (2005) based her study of Ghanaian English pronunciation on an analysis of empirical data collected from the younger generation of educated male and female adults in the three major language groups in Ghana: Akan, Ewe and Ga. Unlike the other studies reviewed above, Adjaye did not have any preselected variables; rather, she investigated all consonants and vowels as well as non-segmental features along with their variants at word level and in connected speech. Her data gathering was however more structured than that of Simo Bobda (reviewed in section 2.1.1.5 of the present chapter) as she elicited data through word list, reading passage and sociolinguistic interviews rather than participant observation.

In the conclusion of her study, Adjaye attributes the variation in Ghanaian English to factors relating to spelling analogies, social and economic background, type and level of education, as well as substratum features from the first language, amongst others. These reasons are not unlike what is reported concerning NE accent and its varieties. Like Adjaye, the present study has also concentrated its data on the speech samples produced by the younger generation of educated male and female adults; specifically, in this case, university students in Kano, Enugu, and Ibadan.

2.1.1.7 Jibril's model

Jibril's (1982) PhD thesis on variation in NE is described by Banjo as a pioneering work (1995). It remains perhaps the most widely referenced text on NE worldwide. Jibril, like Adjaye (2005) studied speakers of English belonging to three different indigenous language backgrounds and also did not use preselected linguistic variables. According to him, not using preselected variables made his study "richer, in that [he] had an almost limitless number of phonological variables to attempt to correlate with extralinguistic variables" (36). However, the use of a "limitless" number of variables may make a study wide in scope at the expense of linguistic details.

One of the limitations that Jibril (1982) mentions in his thesis is that his recorded data is based on only one style – the formal style as spoken on national television. The study is

based on the speech of 45 educated HE, IE and YE speakers as tape-recorded on national television. Apart from being just one speech style, the data itself may not be a true representation of the linguistic behaviour of the speakers and so any conclusions drawn from it may be artificial.

This may explain why Jibril's results show that "Sophisticated Southern Nigerian speakers and most Hausa speakers (whether sophisticated or not) use the tone-patterns of English...or more precisely, a mixture of both patterns... but with English patterns dominating" (293). This statement clearly describes a highly formal style of speech.

A major reason that Jibril gives to justify his non use of pre determined variables is that it would have been "intellectually irresponsible" of him to do so considering the level of knowledge about NE and the lack of a "sufficiently defined" norm at the time (34). This explanation was given 30 years ago and a lot of work has been done on NE since then. In addition, there is now a recognisable, if not formal standardised norm.

Consequently, the present study considers it appropriate and linguistically tenable to model its methodology along the lines of the classic Labovian approach as adopted by Trudgill (1974) in the use of preselected linguistic variables. Our point of departure however, is that whereas the study of Labov (section 2.1.1.1) and that of Trudgill (section 2.1.1.2) both considered socioeconomic status as a variable, the present study, in harmony with Jibril's, replaces the variable of social class with that of ethnicity as also done by Boberg (2004) and Adjaye (2005).

2.1.1.8 Other related works on NE

Other known works on varieties of NE at the level of phonology are Jibril (1986) and more recently, Udofot (2000) but her work is restricted to an examination of NE rhythm only. Other studies like Odumuh (1993) and Gut and Milde (2002) describe NE sound features collectively, disregarding the first language backgrounds (Akinjobi, 2004). Igboanusi (2006a) whose comparative study on IE and YE, though relevant to the present study, does not include HE, discusses only segmental features, and does not provide any empirical basis for conclusions made. Simo Bobda (2007) describes NE in terms of two regions, thus classifying IE and YE as a single variety in contradistinction to HE. He then

presents segmental rules for NE phonology, but is careful to acknowledge at the conclusion of the study that some features reported as characteristic of NE are actually "sociolinguistically constrained" (308). Simo Bobda (2007) is also not based on a quantitative study of NE phonology.

2.1.2 Some diagnostic features of NE accent

In common with practically all New Englishes, NE is described as using the voiced and voiceless alveolar stops /d, t/ instead of the dental fricatives /ð, θ/ in words like though, father, thin thought. According to Awonusi (2009a:217), only very few NE speakers realise the dental fricatives and alveolar stops with phonological significance. Available literature on NE phonology reports that the voiced alveolar fricative sound /z/ tends to be realised as /s/, while the voiced labio-dental fricative sound /v/ is realised as /f/ in words like vegetable, vanguard, vanilla (Igboanusi, 2006a).

Ethnicity-related characteristics of NE accent are also mentioned in existing literature. In YE for example, the voiceless affricate in *church*, *teacher*, and *watch* is occasionally realised as a voiceless alveolar fricative /s/ or palatal fricative /ʃ/. Also connected to YE is the deletion and insertion of /h/ in word initial position. The interchange of the approximants /l/ and /r/ is reported as characteristic of IE resulting in words like *referee*, and surrounded, being pronounced as *leferee*, and sullounded, (Igboanusi, 2006a). Observed as unique to HE is the interchange of the labio-dental fricatives /f, v/ and bilabial plosives /p, b/ in words like *people* (fiful), and fish (pish); vegetable (begetable), and vendor (bendor). Consonant cluster simplification, devoicing of the plural morpheme after vowels and voiced consonants as well as the non-realisation of the past tense morpheme are also reported as characteristic of NE.

Concerning vowel segments in NE, previous works report that there are fewer vowels in NE than RP (Awonusi, 2009a). Awonusi (ibid.) also notes that the phonological distinction between long and short vowels /i:/ and /i/ in standard British English is not observed in NE except by a few acrolectal speakers. There is a profusion of strong vowels

in NE, due to the unemployment of the weak English schwa; this results in the lack of distinction between content and form words in connected speech (Sogunro, 1991).

Vowels are also reported as becoming nasalized before nasal consonants particularly in YE e.g mã, pẽ for man, pen.

In terms of prosodic characteristics, NE is observed to have utterances divided into more intonation phrases than occur in the same utterances produced by native speakers of English (Gut, 2001). The primary stress in NE lexical items tends to shift to the right (Jowitt, 1991); a characteristic referred to as "progressive stress shift" (Atoye, 1991). Nigerian English has been described as syllable-timed (Bamgbose, 1982) but Udofot (1997) would rather label it as being near-syllable-timed. Udofot also defines NE by the preponderance of prominent syllables compared to native English (Udofot, 2003). As illustrated by Sogunro (1991), in NE, a four syllable word like /ju:nivəsl/ 'universal' will take exactly twice as long as it would take to articulate a word like /ju:nit/ due to the realisation of full vowels in all syllables. A native English speaker on the other hand would weaken the unstressed vowels and utter universal and unit within the same length of time. The high volume of syllables in a regular NE accent is said to be due to lack of short vowels and none weakening or reduction of strong/long ones in unstressed contexts. These are some of the reported factors that define NE rhythm.

It is important to highlight that the majority of the works referred to in this section only examined and described NE accent in comparison with RP or native speaker accent. Some of the studies were empirical, but again, they were not all comparative in terms of ethnic variation. The present study, by its statistical approach and ethnicity perspective attempts to fill in the gaps as regards those observations.

2.1.3 Overgeneralisations in NE

Due to their different political histories before and after the 1941 amalgamation, the areas above the River Niger (northern Nigeria) and those below the Niger (southern Nigeria)

Sogunro, B.O.1991. Teaching rhythm in Nigerian English. Paper presented at the Nigeria English Studies Association XXVth Anniversary Conference. University of Ibadan. September 16 – 21, 1991.

continue to be regarded as two broad separate entities without any regard for the fact that the area broadly called south, in particular, is made up of many heterogeneous social, cultural, religious, and linguistic groups. One result of the disregard for heterogeneity is the tendency by both laymen and academics to generalise any observed difference in the way of life of people on either divide as belonging to everyone in the region. This inclination is inadvertently carried over into descriptions of NE accent and has led to some overgeneralisations in NE.

For instance, concerning the issue of vowel quality in Igbo and Yoruba, Jibril (1982:57) says, "Although /e/ and /ɛ/ and /o/ are contrastive in Igbo (western dialects) and Yoruba, we have ignored the differences between these and other pairs of vowelsInstead, we have paid more attention to vowel length than to its precise quality."

It is not clear why Jibril chooses to ignore vowel quality particularly in IE when he states its importance later in his study thus:

...[the] tense vowel quality which, because of the clustering together of such vowels in a word due to vowel harmony, spreads over the word or utterance as a whole and is an important indexical factor in identifying both Igbo as a language and Igbo speakers when they speak another language (124-125).

Not to take note of such a significant feature that obviously affects IE, and then classifying YE as being similar is one of the roots of overgeneralisations in NE. Ignoring vowel quality in the phonological description of language varieties makes any assertions on that variety incomplete. As Ash (cited in Finegar, 1997:428) observes, vowel quality is one major revealing linguistic feature that is very difficult to disguise even by those who want to change their accent for criminal purposes.

It is worthy of note that Igboanusi (2006a) mentioned at least six distinct features of YE pronunciation but only one distinct feature of IE; namely, the interchange of /l/ and /r/. However, if you ask a non-Igbo actor to mimic an Igbo person's acrolectal speech he or she will employ a wide range of pronunciation features associated with IE that will make the characterisation believable and also distinct from YE. Here again is an instance of overgeneralisation. In addition to the mentioned examples, it is quite probable that limiting conclusions to only observed differences at the segmental level of NE without any detailed

quantitative examination especially of suprasegmental features has been the bane of NE variety classification for years.

2.1.4 Convergence in NE

It is claimed that HE and IE are converging towards YE accent to the extent that YE may become the national standard in Nigeria (Jibril, 1982; Simo Bobda, 1995, 2000; Igboanusi, 2006a). Varied reasons are given for this perceived convergence but there is no publication we know of that has undertaken any systematic empirical investigation to support or disprove the claim.

Simo Bobda gives three reasons for YE dominance in NE namely:

- 1. The influence of Lagos, a coastal area, industrial, economic and former administrative capital of Nigeria which remains a melting pot for Nigerians nationwide to converge;
- 2. Western education started first in Yoruba land, which produced the first set of teachers who taught in other parts of the country (1995:252-253).

In line with education, he opines that the national standard of any language is usually determined by the variety used by a prestigious ethnic or social group; therefore, because Yoruba land produced the first set of schools and teachers in English, it earned a prestige status in the country and increasingly became "the model towards which other accents converged" (2003:37).

3. A third reason is what Simo Bobda refers to as "the intellectual dynamism of the Yoruba" that has made Yoruba land the "pacesetter" in NE. He however, admits the dangerous tendency in linguistic/sociolinguistic investigations to over generalise the importance of a particular variety due to its demographic weight or existence of abundant documentation. Yoruba English happens to be the most documented of the three varieties (2000: 261, 264, 265).

Unlike Simo Bobda who gives reasons external to the speakers themselves for their convergence towards YE, Igboanusi (2006a:495) states internal, psychological reasons why IE is converging towards YE. According to him, "the tendency of the Igbo to imitate other people's ways of life, including language habits can be identified as a major factor

which has compelled IE speakers to lose most of their unique pronunciation patterns in favour of other pronunciation patterns, particularly those of YE."

The above claims have not been empirically proven, therefore, socio-phonological investigation of HE, IE and YE in the present study uses both statistical analysis and sociology based theory to investigate the assertion of convergence towards YE.

2.1.5 Classifications of NE

Existing literature on NE is inclined to classify it along two major criteria – variations according to level of education and according to region.

2.1.5.1 Classification based on education

In sociolinguistics, "educatedness" has often been a factor to consider especially when it comes to discussing Standard versus nonstandard issues in variation (Honey, 1997:102). As far back as 1958, Brosnahan distinguished four main levels of NE using "the extent of education as a criterion" (100) as follows:

Level I – spoken by a very numerous class who have received practically no formal education and who speak Pidgin English.

Level II – spoken by Nigerians with some years of primary school education. It is the most widely spoken and heard form of English after Level I.

Level III – spoken by those with some years of secondary school education and it is not too far from the colloquial British Standard.

Level IV – the type spoken by those with university experience of English. According to Brosnahan, some speakers at this level approach the British Standard very closely "the great majority however, retain many features characteristic of Levels II and III (101).

Banjo (1971), critiquing Brosnahan's analysis as too simplistic, classifies NE into another four varieties based on grammatical features and degree of similarity to British English and RP. An examination of his classification however, shows that degree of education still plays a dominant part as shown below:

Variety I – it is spoken by those without formal school education just like Brosnahan's Level I. The difference is that whereas in Brosnahan's classification the people at this level speak Pidgin English, the users of this variety in Banjo's classification speak 'broken English', which Banjo stresses is "clearly distinguished from Pidgin" (Banjo, 1996:75).

Variety II – this is spoken by those with slightly above elementary (primary school) education; is locally acceptable and intelligible; and has fewer negative transfers. It also typifies the most common variety of NE speech.

Variety III – is characterised by vital phonemic distinctions and spoken by secondary school graduates and above.

Variety IV – spoken by a minority of Nigerians, particularly those who were born and bred in native-English speaking countries; they speak with the accent of that country or region.

Another classification based on educational attainment is that of Igboanusi (2006a) in his comparative study of IE and YE pronunciation features. His descriptions are based on examples from the basilectal, mesolectal and acrolectal levels; and by the very definition of these terms, the categorisation employed by Igboanusi is that of education. In his conclusion, Igboanusi reports that the differences between IE and YE exist more at the basilectal and mesolectal levels.

In the final analysis however, categorisation of NE along the line of educational level may actually be more artificial than real. This is affirmed by Jibril (1982:145) who described a situation where a man in his early fifties who had the equivalent of NCE today and had never lived or studied in an English nation abroad spoke a sophisticated (acrolectal) variety of English, while another Hausa man in his thirties with a master's degree and five years of living and studying in America still spoke with a most basic accent of Hausa English.

Jibril (1982) therefore postulates that "kind" as opposed to "level" of education should be the criteria when classifications by educational parameters are considered. Banjo (1996:78) later accedes to this reality by saying that home background and quality of education below the tertiary level are important factors to consider in the classification of NE.

2.1.5.2 Classification based on region

In his study, Jibril (1982) identifies two 'Basic systems' in NE, namely, Hausa English and Southern Nigerian English. He further subdivides the two broad regional categories into four social types – i) Basic Hausa, ii) Sophisticated Hausa, iii) Basic Southern and iv) Sophisticated Southern depending on proximity to RP. Jibril further divides his Type I, that is, Basic Hausa to describe a fifth category which he calls Southern-influenced Hausa English spoken by the younger generation of Basic Hausa speakers.

According to Banjo (1995:220), Jibril's Basic and Sophisticated varieties correspond to his (Banjo's) Varieties II and III. Whether based on regional or social categorisations, Jibril's binary division of NE into Hausa and southern appears too simplistic and may be based on over generalised criteria. As Okoro (2009:168) points out, "the western and eastern accents differ sufficiently to merit separate statuses." Akinjobi (2004) in turn contends that Jibril's presentation of IE and YE under the single umbrella of Southern English is "untenable". Indeed, there are many varieties of English in the south that cannot legitimately be described as IE or YE.

Similar to the foundation laid by Brosnahan (1958) and built upon by Jibril (1982), Simo Bobda also categorises NE into two varieties: "Northern Nigeria Hausa English" on one hand and "the greater Southern Nigerian English (2000:258). Although Simo Bobda goes on to identify what he calls "subnational accents", under this classification, he still describes the Yoruba and Igbo accents as "constituting the dominant accent of the even broader southern accent, and the Hausa accent in the north" (261). Clearly, Simo Bobda treats IE and YE more as a single variety distinct from HE, as also done by Brosnahan and Jibril.

One major argument that Akinjobi (2004) has against most studies on the phonology of NE is that the variety is treated as a homogenous one without giving due consideration to what she calls "geo-linguistic differences" (79) or "geo-tribal" peculiarities (98). In her opinion, it is "unrealistic" to collectively mark the spoken form of NE without considering

"first-language influenced differences." In this regard, one empirical study that has focused on "geo-linguistic" peculiarities, though not in Nigeria, is that of Boberg (2004). He examines the pronunciation features of English as spoken by members of three ethnic groups – Irish, Italian and Jewish in Montreal, Canada where English exists as a minority language in a French speaking community. The status of English in Montreal is similar to its status here in Nigeria, where even though it is the nation's official language, is spoken competently by a minority of the country's population (Ubahakwe, 1974).

2.1.5.3 Classification based on linguistic features

Amayo (1982) critiques previous classification parameters used for NE particularly those by Brosnahan (1958) and Banjo (1971), proposing instead that NE should be classified along purely linguistic lines. Based on this, he suggests "two related but autonomous" categories, namely: one phonologically based V(Phon) and the other based on syntax and lexico-semantics. Each of these varieties is subdivided into four different phonological and lexico semantic varieties respectively. Amayo's postulation while being innovative does not realistically delineate the character of NE and the descriptions of some of the sublevel varieties are eventually not too different from the descriptions of the other researchers he wants to depart from.

The present study is not limited to the aspects of language alone. Being a phonological research with a social base, it also focuses on the people using the language, who in the case of the present work are regarded as bilinguals. Section 2.1.6 below therefore, discusses the concept of bilingualism and related issues in the context of the present study.

2.1.6 Bilingualism

Bilingualism is defined as the practice of alternately using two or more languages and the people who do this are called bilinguals. Weinreich (cited in Dadzie, 2009) identified three types of bilinguals: co-ordinate, compound and subordinate. The co-ordinate bilingual is one who acquires two languages with native-like competence at all levels, linguistic and para-linguistic, and he or she can speak either language without a foreign accent. Such people, if they exist at all are however, very tare. Compound bilinguals on the other hand are those Weinreich describes as not having native-like competence in either of the two

languages they speak. A compound bilingual treats both languages as one and mixes up words and referents in one language with those in another; for him or her, both languages are integrated. According to Dadzie (ibid) this type of bilingualism is most common among children who are exposed to two languages at the same time right from birth. Over time however, the more frequently used language drives out the other, leading to Weinreich's third type of bilingual – the subordinate bilingual.

A subordinate bilingual speaks his first language with native-like competence and the second language, which is most commonly acquired for education or advancement reasons, is spoken with a foreign accent. This is the most common type of bilingual all over the world. Almost all educated bilinguals in Nigeria are subordinate bilinguals – their mother tongue or ancestral/heritage language is spoken with native-like competence, while English language which is acquired mainly for advancement reasons is spoken with a foreign accent at least from the perspective of an English man.

To the Nigerian, English has been so "Nigerianised", that it is no more perceived as being spoken with a foreign accent; rather, distinctions are perceived on the basis of ethnicity or region of Nigeria to which the person belongs. The term "foreign" in this case has now become relative — it is the listener/hearer not the speaker who is "foreign" where the English language is concerned, because it has more or less acquired the status of a world language, not belonging to any particular group of people. As far back as 1975, Mazrui (1975) predicted that "by the year, 2000 there will probably be more black people in the world who speak English as their native tongue than there will be British people." If the population explosion in Africa is anything to go by, coupled with the increasing number of ignorant literate and semi illiterate people who want their children to speak English right from birth instead of their mother-tongue, then Mazrui's prophecy is indeed coming to pass very fast. A tragic situation, which Kashoki (1982) refers to as an "apocalyptic prognostication" for African languages.

From the response to the question on other languages spoken in the questionnaire given out for the present study, no single respondent claimed to speak English only. All participants spoke English as a second language in addition to their mother tongue and at times (by very few), one other Nigerian language. It is however possible that many

Nigerian youths are bilingual but not bi-literate in both English and their mother-tongue. At this point, the typology of bilingualism discussed in Gao, Cheng, Zhao and Zhou (2005) is relevant to the present discussion.

2.1.6.1 Additive, subtractive and productive bilingualism

The terms additive and subtractive bilingualism are said to have been proposed by Lambert with particular regard to bilingual education (Gao, et. al., 2005). Additive bilingualism is when pupils already have a mother-tongue and culture in place, before learning a second language in addition; in other words, the first language is maintained. In the case of subtractive bilingualism, the pupil or student learner is initially instructed in both the mother tongue and the second language, however, use of the mother tongue gradually reduces until the sole medium of instruction is the second language, which at times takes over as the only language spoken by the individual in practically all contexts. The French practice of acculturation in their former colonies is an example of subtractive bilingualism.

In Nigeria, although the mother tongue ceases as a medium of instruction and English becomes the sole language of education after the first three years in public primary schools, the situation is not exactly subtractive in the sense that the English language and culture do not entirely replace that of the first language. This is obvious from the way English – both the language and culture – has been creatively adapted and positively manipulated to suit the Nigerian tongue and way of life. It was in recognition of this typology that was neither additive nor subtractive that a third type was proposed by Gao, which she called productive bilingualism (Gao, et.al, 2005). The following symbolic representations were used to delineate the three concepts:

Productive bilingualism 1+1>2

Subtractive bilingualism 1-1=1

Additive bilingualism 1 +1 =1

Productive bilingualism is defined by Gao et al. (2005:40) as the situation where "the command of the target language and that of the native language positively reinforce each

other; deeper understanding and appreciation of the target culture goes hand in hand with deeper understanding and appreciation of the native culture." Productive bilinguals are said to have a productive orientation to language learning and they are motivated by self-actualization. Prolific writers like Chinua Achebe, Wole Soyinka, Chimamanda Adiche, and Niyi Osundare are famous examples of Nigerians that fit Gao's description of productive bilinguals. Their names are mentioned here because of their international renown as prize-winning authors, but an appreciable proportion of NE speakers also qualify to be called productive bilinguals.

Productive bilingualism best describes what is practised in Nigeria and it describes the attitude the university students surveyed in the present study have towards the English language and their mother tongues.

Copious research papers have been published on issues resulting from bilingualism, most especially the subject of code switching. As observed by Foulkes (2006:496), "The phonetics and phonology of bilingualism remain, however, under-researched relative to other linguistic features." It is for this kind of reason that the present study is investigating English in Nigeria, not in comparison with traditionally held native English i.e. RP or General American, but as a second language belonging to and used by individual Nigerians to express their selves and interact with one another in their own locale without losing their ethnic identity.

2.1.7 Phonemic and graphemic differences in English

The ambivalent nature of native English spelling is often used to explain the reason for mispronunciations (to the native speaker of English) or variations (to upholders of world Englishes) by speakers of English as a second language especially. Ironically, native speakers are also reported to be, at times, confounded by English spellings (Yule, 1997:40). Folarin (1975) carried out a study on phono-graphological problems relating to the dissimilarity between English speech and writing. The data used was gathered from WAEC English language scripts and other written scripts by direct entry university students, since the focus of the study was more on tracing written errors by students to the phonological plane. He identifies four groups of errors based on examples found in the data. The four types and a few examples are listed below. The examples were originally

written out in the sentential context in which they occurred but for the present discussion, they have been isolated and the student's intended correct version is written in brackets:

- 1. Errors traceable to English homophony: e.g weak (week), plane (plain), there (their), ware (wear).
- 2. Errors arising from inaccurate listening and pronunciation skills: e.g. impact (impart), outmost (utmost), Long Tennis (lawn tennis), event (invent).
- 3. Errors due to false phonological transfer: e.g. there about (there are about), if ...abide with (if ...abided with), when the elder see... (when the elders see...), Buxton prepound that...(Buxton propounded that...).
- 4. Errors involving pronunciation spellings: e.g. huligan (hooligan), reajust (readjust), unisn (unison), suffisticated (sophisticated).

In the discussion of results and implications for teaching, Folarin (58) draws attention to the pervading argument at the time on the primacy of speaking skills over writing skills and vice-versa, then stresses that no matter the argument, the phonological is the "carrier of other planes including the graphological." He concludes his argument by emphasising that efficiency in written English is better guaranteed through inculcating efficient speech habits in students (59).

The difficulty with Folarin's position is that placing oral skills above written skills may still not solve such a multidimensional, complex and profound problem of English as a second language (ESL) in a multilingual/multicultural environment like Nigeria compounded by the inconsistencies of English spelling and pronunciation itself. Evidence abounds that even educators in native English speaking countries such as Britain, America and Anglophone Canada for example, report of such spelling errors especially the types in Groups A, B and D.

Folarin also does not consider the effect of ethnic variation in students' perception even when their listening skill is improved upon in the classroom. As observed in contemporary sociolinguistic research, there is a difference between perception and production. In other words, it is possible for a listener to hear a sound correctly but be unable to produce what was perceived. Therefore, if speech production determines written output, it follows that such a person would equally produce the wrong grapheme on paper.

Whereas Folarin treats all phono-graphological deviations from native English as errors, Soneye (2007) in a similar but inverse study of English graphemic and phonological realisations takes a different stand. Her study was based on spoken data gathered from newscasters while they read written scripts during national television broadcasts. Her conclusion was that the English spoken by educated Nigerians (as exemplified by the newscasters studied) should no longer be termed as errors but as "a variant reflecting linguistic peculiarities borne out of the inconsistencies in the sound-spelling pattern of English language" (166). Indeed, as reported in the present study, some dominant segmental variations in HE, IE and YE are directly traceable to the near amorphous nature of English spelling and pronunciation.

2.1.8 Ethnolects and Allophones

One significant aspect of the aforementioned study by Boberg (2004) that is relevant to the present study is the distinction he makes between ESL and 'ethnolects'. The use of ethnolects here is completely different from the definition of Brann (1998) mentioned earlier in section 1.2 above. Boberg defines ethnolects as the native varieties of English spoken by children and grandchildren who are born in America by immigrant (grand) parents. This group of children may start with the immigrant language of their parents at home but they are often exposed to English at an early age. The distinction between ethnolects and the native-speaker variety of the host community is that ethnolects often maintain unique features from the initial non-native variety spoken by the first generation of immigrants.

An ethnolect according to Wikipedia means "a variety of a language spoken by a certain ethnic/cultural subgroup and serves as a distinguishing mark of social identity." Carlock and Wölck (1981) were the first to use the term to describe the monolingual English of descendants of European immigrants in Buffalo, New York. Now, the word is commonly used to describe varieties of a major language that have evolved through bilingualism and language contact. Clyne (as cited in Jaspers, 2008) defines ethnolects as "varieties of a language that mark speakers as members of ethnic groups who originally used another language or distinctive variety." This definition infers that the first language or distinctive variety is no more in use. However, this is contrary to other definitions such as Danesi

(1985:118) who describes an ethnolect as "the variety of a language that results when speakers of different ethnolinguistic backgrounds attempt to speak the dominant language."

Wolck (2006) later recognises the evolution of an ethnolect into an "urban dialect", characteristic of speech patterns in metropolitan areas formerly comprising immigrant and ethnic communities. Jaspers (2008) also recognises the concepts of "urbaness" and "young people" presently being associated with the use of the term ethnolects when he says, "Ethnolect is now increasingly being applied to the linguistic practices of the urban young."

Jaspers cites the example of a study conducted on a variety of Swedish called Rinkebysvenska ('Rinkeby Swedish') spoken mainly by young people of different ethnic origins living in Rinkeby. This concept of young people in urban areas fits the description of the speakers and speech community used in the present study i.e undergraduates schooling and residing in the university campuses of Kano, Enugu and Ibadan, which are all urban centres.

To address the difficulty in determining where an ethnolect stops and recognising that the phenomenon is characteristically associated with communities comprising speakers of more than one or two ethnic groups, the term 'multiethnolect' is now being used among linguists in their literature. That term indeed succinctly describes the linguistic situation in Nigeria in relation to English and particularly the history of education in the three regions/ethnic groups being considered in the present study.

2.1.8.1 Types of ethnolects

Auer (2003) differentiated three types of ethnolects in his description of urban speech in Germany, namely: primary, secondary, and tertiary ethnolects. Primary ethnolects in the study referred to the language used mostly by young Turkish men residing in the ghettos of large urban centres. More broadly in that study it is the type spoken by immigrant bilinguals and reflects some features of their 'ethnic' languages. Being found mostly among young males, Auer's conclusion is that primary ethnolects may serve a means of self identification amongst peers.

Secondary ethnolects are media exaggerated versions of primary ethnolects. It is particularly used for facetious purposes by comedians. It is what can qualify as stereotypical versions by the general public in mimicking speakers of primary ethnolects. Igboanusi (2006a:495) refers to these media-borne varieties as "stigmatized accents". In Nigeria for instance, one of the main ways to mimic an Hausa man, irrespective of his educational status is to pronounce all /p/ sounds in the speech with /f/, which as we show in the present study is an over exaggerated characterisation of HE by comedians and the general public.

Tertiary ethnolects are the third type described by Auer and it refers to style shifts in the interactions of non-immigrant speakers, often white adolescents, who ape the pop-media versions of the secondary ethnolects.

As earlier mentioned, Auer designed the three type ethnolect model for his analysis of speech patterns in metropolitan Germany but we have adapted it in the present study to describe the sociolinguistic situation of English in Nigeria with specific reference to speakers of HE, IE and YE. Our study reveals that an appreciable part of what is labelled as regional varieties of NE actually fall in the category of Auer's secondary ethnolects not the actual language used by the speakers that is, the primary ethnolect.

Cox and Palethorpe (2006) in their study of Lebanese Australian English (LAusE) accent review previous studies on ethnic accents particularly that of Clyne, Eisikovits and Tollfree (2001), as follows. The authors:

- refer to varieties used by Australian born to mark ethnicity as "ethnolects".
- *discuss "stabilised transference" as the process of creating a new local dialect based on transfer of features from the substratum language or variety.
- *suggest that the ethnolect will contain phonemes and allophones transferred from the parents' first language giving rise to a "non-native accent."

The first point about those born in Australia of Lebanese descent using the ethnolect to mark their ethnicity simultaneously conveys the concepts of ethnic affiliation and distinctiveness. It can be argued also, that in Nigeria, people use their ethnic colouration of

the English language as a means of self-identification particularly in urban areas. The other two views of Clyne et al relate to an ethnolect being regarded as a mother-tongue influenced variety of the Standard. This is similar to Brosnahan's Variety II and Banjo's Level II or III, as well as Igboanusi's (2006a) conclusion about NE. However, from their own findings, Cox and Palethorpe (2006) disagree, pointing out that since English is the L1 of many speakers of the Australian ethnolect, they have no substratum language to transfer features from. Cox and Palethorpe argue instead that "the transfer effects present in the ethnolect are presumed to be the result of L1 to L2 feature transfers that occurred in the parents' or grandparents' generation."

Although the same argument cannot be wholly transferred to explain variations in HE, IE and YE, since majority of these speakers do not have English as their L1, it is clear that some features in each variety do not exactly correspond to any sound/feature in the L1 so the 'anomaly' could only have come from another source in a previous generation. In the case of NE varieties, substratum transfers came, not through parents or grandparents as in LAusE, but via the early generation of teachers in Nigeria like the Irish, Scottish, German missionaries and Nigerian teachers who had different accents from RP or British English (Omolewa, 1975; Jibril, 1982; Awonusi, 1986; Oyeleye, 1994).

Departing from the interpretation of ethnolects as resulting from improper L2 acquisition, or substratum influence, Hoffman and Walker (2010) propose that issues relating to ethnic identity should be considered as being the reason behind the existence of ethnolects. Their study of ethnic variation in Toronto English was based on the speech of the Chinese and Italian community in Toronto, a multilingual setting like Nigeria. While admitting the possibility of variation caused by language transfers, Hoffman and Walker say that even these should be regarded as a means of marking ethnic identity. This, according to them is because most of the observed differences between the ethnic groups they studied were "more a question of degree than of kind."

Hoffman et. al. argue further that even within the same ethnic group, variations in the rate of marked features exist depending on the degree of the individuals' ethnic orientation. Summarising their findings, they report that the results "suggest that ethnolinguistic variation in a multilingual, multiethnic community has less to do with imperfect

acquisition of the majority language and more to do with the way in which speakers actively construct and express ethnic identity." They add further that, the "speech community makes available a pool of linguistic features which are associated with (or come to be associated with) particular social distinctions and values" and that no matter how the features were introduced in the first place, speakers use them "strategically in ethnolinguistic variation."

It is generally recognised that prosodic features are the strongest defining characteristic of ethnolects (Wölck, 2006), therefore, the present study in addition to segmental features, investigates not just a comparison of stress patterns, but also the rhythm and aspects of intonation in HE, IE and YE.

Having considered some of the various definitions of ethnolects, it must be pointed out that some critics question how to distinguish between an ethnolect, a dialect and a language. A reasonable answer given by Eckert (2008) is that "just as there is no way to distinguish between a language and a dialect, there is no obvious way to distinguish between a dialect with ethnic features and an ethnolect." Indeed, as observed in Wikipedia, "Because there are no universally accepted criteria for distinguishing languages from dialects, some scholars understand the term ethnolect as language or dialect."

The classification and acceptance of ethnolects as a type of variety of a language in linguistic circles necessitated the need to define the users by name, hence the creation of the term "Allophones" (not same as allophones in linguistic register for varieties of the same phoneme). The next section discusses the term in relation to the present study.

2.1.8.2 Allophones

Allophones are those who "use English at work, and at home in addition to or instead of their ancestral language" (Boberg, 2004:543). In order to properly delineate ethnic-based speakers of English and their accents as distinct from mere speakers of ESL, the term 'Allophone' is commonly used by Montrealeans in Canada. Just as the well known terms, Anglophone and Francophone are used all over the world to describe speakers of English or French respectively as a main language, official language or lingua franca, speakers of ethnolects in Montreal call themselves Allophones.

To some Allophones, English is not just a second language; it is their second native language. It would not be incorrect to regard a second native language as meaning the same as a second mother tongue. Such, indeed is the emerging sociolinguistic status of English in Nigeria; it has been nativised by the older generation, to suit its Nigerian environment, culture and worldview. Second, an ever increasing number of children are being exposed to it right from home (Banjo, 1996; Igboanusi, 2006a) simultaneously with the indigenous, ancestral, heritage language (See also Mazrui, 1975; Kashoki, 1982). This category of Nigerian children, with simultaneous exposure to English and their mother tongue from infanthood, qualify to be called Allophones in the same sense as it is used in Montreal Canada.

The common practice in linguistics is to categorise non-native speaker English as English as a foreign language (EFL) and in places like Nigeria where it is the official language in a non-native environment, it is called English as a second language (ESL). Other labels for English include English as a lingua franca (ELF) and English as a world language (EWL). There is however, no label to describe those who speak English as a second mother tongue (EMT2). The present study proposes that EMT2 be recognised and added to the inventory of types of English language. In addition, the term Allophone should be included in the descriptive terminology for contemporary English in Nigeria.

2.1.9 The speech community

The speech community is defined as "a locus in which speakers agree on the social meanings and evaluations of the variations used" (Labov, cited in Milroy et al, 1997:51). It is the main focus of those concerned with the quantitative study of language in society. All the speech of those belonging to a speech community may not be identical but there is awareness among them that they belong to the same group and are bound together by their language.

The concept of 'community of practice' was developed by Eckert (2008) to replace the traditionally held Labovian use of 'speech community', which interprets identity as fixed in terms of social structure like social class and gender. The community of practice school of thought sees individual identities as fluid; that is, a speaker may belong to different communities at the same time depending on what social status he/she is projecting in

terms of age, gender, social class, ethnicity, and so on, thus making up simultaneous communities of practice.

Adopting the Labovian concept of 'speech community', the undergraduates schooling in the university campuses located in Kano, Enugu and Ibadan constitute the speech community of urban youths used in the present study.

2.1.10 Sociolinguistic interviews

Spontaneous, uninhibited speech, without formal restrictions on the speaker's part is considered by sociolinguists to be the most representative of natural speech. The goal of every researcher is therefore, to elicit that form for statistical analysis. However, the paradoxical situation as succinctly put by Labov (1972:209) is that though the aim of sociolinguistics is "to find out how people talk when they are not being systematically observed; . . . we can only obtain these data by systematic observation." To solve the problem, Labov developed the concept of sociolinguistic interviews, currently the most common method of data collection in studies on linguistic variation and change.

The sociolinguistic interview is a systematic method of collecting speech data from respondents. It comprises at least four parts or categories: word list, minimal pairs, reading passage, and casual conversation. The interview also includes the documentation of demographic information (age, gender, ethnicity, social class etc.) for each speaker in the sample. The purpose of the four categories is usually to test the effect of speech style or speed on the variant of a feature that is being tested. The word list and minimal pairs are regarded to be at the highest range of careful speech as speakers are more conscious, often using prestige or standard forms of the language. The reading passage is also considered formal but not as much as the word list and minimal pairs, especially if dialogue has been incorporated in the passage and the text is written in conversational style.

Those first three parts, that is, word list, minimal pairs and reading passage, are texts deliberately designed to contain multiple tokens of the linguistic variable(s) to be investigated, especially, when it is likely that those sounds may not occur as much as desired in casual conversation. The fourth speech style is casual speech, which Variationists consider to be the best, most natural speech sample. It is elicited through

informal dialogue. At this point in the interview, the researcher's aim is to get the informant to be as relaxed as possible while recording his conversation. To do this, respondents are steered by the interviewer to chat about emotional topics ranging from childhood memories to near death misses, tragic incidents they were involved in or hilarious experiences. The assumption is that, in the heat of emotion, people would forget themselves and use their most natural speech form. The aim of casual conversation is to elicit vernacular, 'natural speech' or 'in-group' use.

Generally, sociolinguistic interviews take up to one or two hours per speaker to complete. Some studies limit their data collection and or analysis to just one speech style e.g Jibril (1982) who got his data from formal television programmes, and Boberg (2004) who collected formal speech from word list readings. The present study collected data using all speech styles as done by Trudgill (1974) but limited statistical analysis to the word list and reading passage.

Using scripted texts rather than casual conversation in the present study minimises interspeaker variation. The word list is expected to be the most identical and most unaffected by idiolectal features of the respondents. The reason is that reading the word list is a very formal situation and sociolinguists commonly agree that interviewees put up their "best behaviour" at such times, "skewing their linguistic behaviour towards norms of correctness" (Cukor-Avila and Bailey, 2001:254).

A discussion on sociolinguistic interviews would be imbalanced without mentioning the issue of "observer's paradox" because it is a fundamental concern in the methodology of any sociolinguistic study.

2.1.10.1 Observer's paradox

Labov is credited with the term 'observer's paradox' (La Page, 1997). Matthews (1997) defines observer's paradox as "The problem faced by sociolinguists in particular, that, in observing or interviewing people to find out about their habits of speech, investigators will, by their own presence and participation, tend to influence the forms that are used." According to Milroy and Milroy (1997:50), "certain techniques have to be used in order to elicit casual or informal styles, which informants may tend to avoid in talking to an

outsider such as the fieldworker." Researchers, therefore, adopt various creative devices to ensure that the effect of the interviewer is non-existent or at least, minimised.

Milroy and Milroy (cited in Hudson, 1980) for example took the route of first building up friendly relationships with a group of people whose speech was to be studied. This made it possible to discard the formal interview method, as questions and interactions came out as genuine conversation between friends. The established group of friends then introduced Lesley Milroy to their own other various groups as a friend of a friend. Another ingenious approach to solve the dilemma of 'observer's paradox' is that used by Labov (cited in Hudson, 1980) himself when he conducted a pilot study for preliminary investigation into the use of /r/ in New York English. He used the method called 'rapid anonymous observation' (Hudson, 1980), discreetly writing down details about age and social class of each respondent so that no one knew what was going on.

In the present research, the problem of observer's paradox was handled by adopting three different strategies:

- 1. Familiarisation with the respondents as a fellow student before conducting the interview.
- 2. Interviewing respondents in the presence of their peers, so that they will not pretend to be what or who they are not. As Cukor-Avila and Bailey (2001:258) report, "the presence of peers has been popularly used for years as a way of controlling the 'observer's paradox". Apart from discouraging the putting on of false linguistic airs, this strategy also worked well for stimulating conversation. In Bayero University Kano, especially, the Hausa females, perhaps for religious and socio-cultural reasons, were sometimes reluctant to talk even though this researcher was a female like them. They however opened up when surrounded by their peers.
- Engaging the help of a young male postgraduate student in the same age bracket of the respondents. The obvious age gap between this researcher and the students being sampled was a potential socio-cultural hindrance especially for eliciting casual speech. The younger research assistant was able to "rap" with the students, speaking their 'language' and easily discussing topics of mutual interest such as football, girl/boyfriends, intercampus rivalry, student government politics, and so

on. It is generally accepted in sociology and in sociolinguistics in particular, that the more the familiarity established between the interviewer and the interviewee(s), the more stimulating the interview and consequently, the richer the data.

2.2 Theoretical aspects

From a selection of various sociolinguistic theories related to language varieties and variation in language such as the diglossia model of Ferguson (1959); theories on bilingualism and second language contexts such as Weinreich (1968 cited in Coulmas, 1997:2); and the ethnography of speaking/communication by Gumperz and Hymes (Hudson, 1980:109); the main theoretical framework used in the present study is the variation theory also sometimes referred to as the Labovian quantitative paradigm or the 'classical Labovian' method/approach (Hudson, 1980:143).

Two other frameworks employed are accommodation theory for an examination of the question of convergence and generative phonology to explain linguistic phenomena in the speech data.

2.2.1 Variation theory

Variation theory, being a sociolinguistic model, naturally combines aspects of language and sociology; it also typically includes elements of anthropology, psychology and statistics. Unlike a pure linguistic study as would be carried out by a phonetician in a language lab, variationists deal with language in real life situations and use. This way, the conclusions drawn are not based on the researcher's self-produced data, or personal introspection. The relevance of variation theory to the present study is its provision of a system for discovering, analysing and interpreting patterns and relationships within highly variable data. This is very essential in the study of English, which even among monolingual native speakers has a lot of variation.

In an ESL context, made more complex in a multilingual environment like Nigeria, variations are expected to be more multifaceted. Variationist study is quantitative, therefore, intrinsically empirical. It explains patterns of occurrence of linguistic features in terms of frequency per social group or category of speakers in the speech data. Put differently, variationists statistically compare linguistic variables against social variables.

An explanation of the linguistic and social variables is given in sections 2.2.1.1 and 2.2.1.2.

2.2.1.1 Linguistic variables

In the Variationist framework, linguistic variables are identified and preselected for investigation. The variables may be phonemic, lexical, morphological, syntactic or even idiomatic. The criterion for qualification as a linguistic variable is that its meaning does not change with the use any of the identified variants. For example, in his study of New York speech, Labov (cited in Hudson, 1980) focused on the (r) variable and its two variants [r] and \emptyset (i.e. presence versus absence of (r)). The way of writing a variable and its variants in the Variation model is: variable in parenthesis, followed by a colon and variant in square brackets -(r): [r].

A study may be devoted to the examination of just one or two linguistic variables in the speech community. Labov studied the changing form of (ai) and (au); just two variables in Martha's Vineyard, a small island community in the United States. On the other hand, a study may investigate as much as 16 variables as done by Trudgill (1974) in his Norwich study. Milroy and Milroy (1978) in their study of Belfast inner city speech investigated eight linguistic variables.

Due to the attention given to the speaker as part of a social group in the analysis of variants, as well as the extensive investigations correlating scores and social factors at different levels, more studies limit their investigations to in depth analysis of only one or two linguistic variables rather than large linguistic features. In the present study, 11 consonant and vowel sounds, as well as 5 lexical items have been selected for analysis.

2.2.1.2 Social variables

Evidence abounds in Variationist sociolinguistics that variation in speech production is systematically influenced by independent social aspects ranging from speakers' educational background, age, gender and social class, to ethnicity and even religion. The preselected linguistic variables are therefore examined against each of these social factors depending on the focus, research question or hypothesis of that particular study. We shall

discuss the significance of each of the social variables in the Variationist framework in the sub sections below.

2.2.1.2.1 Age

The age factor is significant in Variationist theory because of the underlying assumption that older speakers use forms closer to the original variety or the norm, while younger speakers are initiators of language change. The youth are said to initiate change as a result of wanting to differentiate themselves from the older generation. Another explanation given is that the higher social mobility of youths exposes them to other varieties that consciously or unconsciously become part of their accent and general language use.

If indeed there is a convergence of HE and IE to YE, it will be a case of change in progress and as explained by Hovarth and Hovarth (2002:319), younger speakers expectedly use the incoming variant more than older speakers. The use of undergraduates in the present study exemplifies the younger generation of NE users. Any incoming variety such as the claimed convergence is therefore expected to be present in their speech.

Age is a major aspect in the definition of the term, ethnolects as originally used to describe the speech of second and third or younger generation immigrants born in a host community. This is one of the principal reasons why young undergraduates constitute the speech community studied in the present work.

2.2.1.2.2 Sex

The term sex is used here as opposed to gender to denote the basic biological referent of male and female, biological man and woman. Gender on the other hand, which has also come under rigorous and extensive scrutiny in variationist research, refers to "a social or cultural category, influenced by stereotypes about 'female' and 'male' behaviour that exist in our attitudes and beliefs" (Goodman, 1987). This means a biological male may be socially defined as feminine and vice versa because gender is a socially constructed attribute; but sex and not gender is the focus of the present study.

Sex distinction in the Variationist theory is premised on the fact that women, being less motivated to convey social power and identity within the in-group or closed social

network, are quicker to let go of conservative identity markers than men. Research has also established that in societies operating class systems, women tend to use the prestige norms even if they are socially not members of that social class. Women are reported to do this to the point of hypercorrection (Labov, 1990).

According to Trudgill (1972:191), in his study of British English in Norwich, the women in that society were in a socially less secure position than the men. This resulted in the women having to use linguistic behaviour to project their social status. The standard variety is commonly associated with the elite, therefore; adapting the standard accent is regarded by women as an enhancement of their status. To the men on the other hand, using the standard (usually the in-coming variety) is seen as an abandonment of their own group variety. Concerning this tendency, the conclusion of J. Milroy (1981:37) is that the immediate or local society tolerates change in linguistic behaviour in women more than in men. Unwritten social rules and social peer-pressure resist change of linguistic behaviour in men.

The sex variable in Variationist theory is also important because women, as care givers in the form of mothers, nannies, nursery/kindergarten teachers, and paediatric nurses etc., are usually the first language and speech contact children have. Consequently, women inadvertently represent linguistic role models and whatever variety they use forms the speech foundation that children in that speech community build upon.

2.2.1.2.3 Social class

This is generally a phenomenon of western societies of Europe and America, where there used to be recognised, distinguishable groups and formal categorisations based on socio-economic status. Social class was often associated with social heritage, not merit. In Britain, the upper class comprised the elite and members of the Royal Family. The middle class was made up of educated, white collar jobbers, while the working class consisted of the uneducated, blue collar workers and their families. This original basic three-class structure is sometimes further sub-divided as done in Trudgill's (1974) study of Norwich speech.

Trudgill identified five socio-economic levels having broken up the traditional middle and working classes into middle-middle-class, lower-middle-class, upper-working-class, middle-working-class and lower-working-class. The upper-class was seen as norm setters, sometimes bringing about change from above that would spread down to the lower classes. At times, the change starts from below through the lower working class group as reported in London for example, with the spread of Estuary English; a variety largely characterised by Cockney English, formerly considered a low status form of English. It is reported that even British royalty, particularly the younger generation abandon RP in favour of Estuary English (Honey, 1997).

Social class is however not a variable in the present study, basically because the concept is not applicable or so clear cut in Nigeria. Also, in contemporary times, even the Western world is experiencing blurred lines and nebulousness in defining social class. As mentioned in Chapter 1, the ethnicity variable is more significant than social class in Nigeria and that is the focus of the present study.

2.2.1.2.4 Ethnicity

Fishman (1997) defines ethnicity in its non-technical sense as a term used to "signify the macro-group belongingness or identificational dimension of culture, whether that of individuals or of aggregates per se." The connection between language and ethnicity is that most of the time, human collectives are formed based on the symbol of a shared language. According to Fishman (1997:310), for some people, "language is the prime indicator and expression of their own and another's ethnicity."

Differences in the quality of vowel sounds alone have been reported as ethnic identity markers. In a study of Irish, Italian and Jewish speakers of English in Boston, U.S.A, Laferrierre (1979) observed that the three ethnic groups had different ways of maintaining phonemic opposition between two native English back vowels in the environment before /r/. In another study, Boberg (2004:541) reports that Labov, in his investigation of English in New York City, discovered that ethnicity was a more important predicator of linguistic behaviour than social class. Italians in New York raised the vowel /æ/ more than other ethnic groups, while the Jews were ahead in some other variant.

Ethnicity in the Variationist paradigm is the foundation for the existence of ethnolects. As discussed earlier, ethnolects are forms of speech, used by immigrant speakers as their means of ethnic identification and categorisation in host communities where their first language is usually a minority language in the presence of a more dominant prestigious other language. In the present study, the term ethnolect is extended to describe the variety of English spoken by younger members of the various ethnic groups in Nigeria for two reasons. First, although in terms of number of speakers, English is relatively a minority language; it has acquired dominance and prestige due to its status as the nation's official language. Second, even though our respondents do not have immigrant status, being citizens born and breed in Nigeria, they are mandatory second language users of a non-indigenous language in their own land.

The terms, "heritage language" or "ancestral language" are now being used in sociolinguistics to describe what is traditionally called the mother tongue. This is because more people are being exposed to more than one 'first' language right from birth. Unfortunately, some scholars in Nigeria still contest the fact, but the reality is that with inter ethnic marriages and increasing elitism at the expense of culture and tradition, more Nigerian children today are being brought up to speak English only, or at best as a jointly acquired first language with their "father's tongue" and, or "mother's tongue" right from birth.

Beyond being an integral social variable for the determination of ethnic variation in linguistic features, aspects of ethnicity in the present study are examined in order to answer the question of HE and IE convergence to YE. People are reported to accommodate their accent towards that of favoured ethnic groups or national varieties. This is what leads to convergence and the adoption of supra regional forms, which in turn cause the abandonment and gradual death of local variants particularly at the phonetic level depending on the degree of strength or weakness of ethnic affiliation. At times in variationist studies, sociolinguists measure the degree of ethnic affinity by using the Ethnic Orientation (EO) questionnaire developed by Keefe and Padilla or modified forms of it (Hoffman and Walker, 2010).

The present study also administered questionnaires to respondents that contained questions relating to ethnic orientation (see Appendix A).

2.2.1.2.5 Speech style

Speech style may be formal, careful, casual or spontaneous and individuals use different styles of speech in their day-to-day life. Part of the proof that variation is caused by the simultaneous interaction of many linguistic and social factors is the effect of speech style on pronunciation. Labov (1972:287) for instance, reports that "In careful speech, women use fewer stigmatized forms than men, and are more sensitive than men to the prestige pattern."

Some researchers limit their analysis to only one speech style. Boberg (2004) in his study of ethnic varieties of Canadian English analysed only data from the word list, explaining that this is expected to be the most uniform in the three ethnic groups he tested. According to him, being a more formal style, participants will be very conscious and careful; therefore, any unique feature that occurs can safely be regarded as a permanent feature of the person's pronunciation even in casual speech. On the contrary in Jibril's (1982) opinion, in second language situations, the reader is more mindful of literacy than oral accuracy and so is less likely to be conscious of the formal style; rather he will slip into what he is most comfortable with in terms of his natural pronunciation.

2.2.1.3 Stereotypes

In describing the social significance of variants, Variation theory recognises the issue of stereotypes and stereotyping. Linguistic stereotypes are defined as "popular, but imprecise characterizations of speech as used by social groups" (Honey, 1997:99). In the social sciences, it is recognised that the process of social grouping or categorisation may lead to the creation of stereotypes, including linguistic ones (Kristiansen, 2001:136). The Encarta Dictionary defines stereotype as "an oversimplified conception: an oversimplified standardized image of a person or group." Whereas the dictionary uses the term "oversimplified" Tajfel in social identity theory uses the word "exaggeration" to describe the cognitive process, believed to be utilised by all human beings in determining and categorising group membership (cited in Kristiansen, 2001: 136-137).

The empirical nature of the present study will help in determining if existing descriptions of phonological variation in NE are accurate or actually fall under the category of stereotypes; oversimplified, exaggerated descriptions of ethnic varieties. Details of statistical analysis in Variation theory are presented in the next section.

2.2.1.4 Statistical analysis in variation theory

Quantification is an essential aspect of methodology in Variation theory. This is why the field is also known as "quantitative social dialectology" (Milroy and Milroy, 1997:49). Each variable is given a score and calculations are done borrowing statistical procedures from the social sciences. Over the years, computational linguists have designed special statistical software for calculating variations. Originally called the varbrule analysis, it has been modified, improved upon, adjusted and now called the goldvarb rule.

However, the all-embracing, far reaching SPSS analysis from the social sciences fulfils the same purpose and therefore also continues to be used by sociolinguists in their research work on variation.

2.2.1.5 Concluding remarks on variation theory

The main contention against the Labovian framework particularly outside the western world is the category of social class. This is one of the reasons that Jibril (1982) adduced for not wholly following Labov's model in his study of the phonology of NE. The critique of social class being inapplicable in the Nigerian context is taken care of in the present study by replacing social class with ethnic group. This informs the reason for qualifying HE, IE and YE as ethnic rather than regional varieties as commonly used in existing literature such as Awonusi (1986), Simo Bobda (2003) among others.

Another reason Jibril gave for not totally adopting Labov's framework was that it would be "intellectually irresponsible" of him to use preselected variables because the level of knowledge of NE was low and there was no "sufficiently defined" norm at the time (34).

Considering the current extent of work and documented knowledge of an identifiable norm in NE thirty years after Jibril's study, the excuse of it not being possible to preselect variables for testing is no longer justified.

2.2.2 Accommodation theory

The present study employs accommodation theory to investigate the claim that IE and HE accents are converging towards YE. Accommodation theory, also known as communication accommodation theory (CAT) was developed in 1971 by Howard Giles. The theory, which is based on psycholinguistic assumptions, states that an individual or group of speakers adjust their speech style or form by converging towards an accent or speaker they respect, consider prestigious and beneficial or simply want to be associated with; while the reverse happens when they diverge by using linguistic features markedly different from those of speakers or varieties they want to dissociate from.

Specifically, Giles and Coupland (1991:35) define convergence as "a strategy whereby individuals adapt to each other's communicative behaviors in terms of a wide range of linguistic/prosodic/nonvocal features including speech rate, pausal phenomena and utterance length, phonological variants, smiling, gaze, and so on." Divergence, on the other hand, is defined by the same authors as "the way in which speakers accentuate speech and nonverbal differences between themselves and others" (36).

In most ESL contexts for example, speaking with a native English accent is usually perceived as phony, affected, and an abandonment of or threat to identity. For this reason, L2 speakers may deliberately refuse to learn or even use the L1 accent despite prolonged periods of classroom and language lab lessons in oral English. Convergence conveys a desire for social integration while divergence is a means of building social distance: both processes are generally subtle and most times unconscious.

According to Hudson (1980:140), ". . . individual speakers choose linguistic forms in order to locate themselves in a highly complex multi-dimensional social space." Language features such as phonetics, lexical units, syntactic structures and even personal names are said to be what link individual and social identities together (Tabouret-Keller, 1997:317).

The subject of social identity is also a concern in the social sciences and a whole theory is formulated around it. The theory of social identity is that, based on a process of social comparison, the individual categorises him or herself as belonging to part of an in-group i.e. those similar to self and categorises those different from self as belonging to the outgroup (Stets and Burke, 2000:225). Social identity includes ethnic identity, and both

accent and language are regarded as "major determinants of social identity" (Beinhoff, 2008).

The place of language in social identification and consequently, linguistic convergence and divergence in accommodation theory is described by Giles and Coupland (1991) as follows:

Given that speech style is, for many people, an important subjective and objective clue to social group membership...it can be argued that in situations when group membership is a salient issue, speech divergence may be an important strategy for making oneself psychologically and favourably distinct from out-group members.

To guard against seeking for straitjacketed in-group versus out-group memberships in linguistic analysis, Wolfram (1997) cautions that it is simplistic and not supported with evidence from actual everyday language use to assume that there are absolute boundaries between users of one variety and another. In the light of this fact, he replaces the terms, "in-group" and "out-group" with "group-preferential" and "group-exclusive usage". Group-exclusive usage means that speakers of one social variety will use a variant that those from another group will never use. This, he explains, rarely ever happens except in extreme socially stigmatised varieties. Group-preferential patterns on the other hand, imply that members of all social groups use the variant but some groups use it more than others.

The distinction between social varieties then, is more in frequency than occurrence; more of degree than of kind and more of rates of use than in linguistic conditioning (Hoffman and Walker, 2010). Therefore, while linguistic analysis in the present study may not reveal discrete, or exclusive, use or non-use of phonological forms by HE, IE and YE speakers, it is expected, from the above discussions on how social identity and group membership determine language convergence/divergence, that if indeed HE and IE speakers are converging to YE pronunciation, then it would be reflected in the speakers' positive attitude towards YE accent. To be more exact, HE and IE speakers are expected to prefer YE accent above their own.

2.2.3 Phonological framework: Generative phonology

The fore-sections in the discussion on theoretical framework have dwelt extensively on sociolinguistic and social theories. Nonetheless, because phones, phonemes and suprasegmental features are also being investigated and compared, a phonological theory is required to explain the linguistic phenomena observed in the analysis. The most suitable theory employed in the present research is Generative phonology for its simplicity, conciseness and general applicability to phonetic variation, the core of accentual variation.

Generative phonology (GP) started with Halle's Sound Pattern of Russian in 1959 but the basic tenets are presented in Chomsky and Halle's Sound Pattern of English (SPE, 1968). Chomsky's theory is not only generative, it is also transformational. The theory looks at the process involved, for instance, in transforming a statement like "She is there." into the question, "Is she there?" and writes rules on what is considered to be "the ideal speaker's knowledge".

At the level of phonology, GP postulates that there is a point at which all structures are identical and a level at which they are different. Between those two levels is a ladder, that is, a phonological rule that converts (transforms) the underlying representation to the phonetic representation. These two levels are called the phonemic and the phonetic levels. The phonemic level represents the abstract level that serves as the input to phonology, while the phonetic level is the concrete level. As said earlier, both levels are mediated by phonological rules, which imply that you cannot move from the phonemic to the phonetic level without certain rules guiding the change. The process is delineated in Figure 2.1.

2.2.3.1 Phonological rules

Phonological rules are the statements that capture all the principles that speakers of a language generally use in speech. More technically, phonological rules are defined as "directives which map underlying forms on surface forms. They show the derivational sequence or path of an item on its journey from the underlying level to the phonetic level" (Oyebade, 2008:15).

PHONEMIC LEVEL (Input)

PHONOLOGICAL RULES

PHONETIC LEVEL

(Output)

Fig. 2.1 Transformation process in GP

Phonological rules may give "directives" such as:

- i. Add a segment e.g. vowel insertion rule
- ii. Delete segment(s)
- iii. Add a feature e.g. vowel nasalization, aspiration, labialization
- iv. Re-order segments metathesis

The above are just examples, as different languages of the world operate differently. This is one major advantage of GP – the capability of generating rules for various kinds of phonological processes that occur in different languages.

2.2.3.2 Formalisation of rules

In GP, rules are formalised and presented in a scientific manner so they are easy to interpret and understand. GP employs certain notations, some of which are used in the present study, where applicable, to explain observed variation in the three ethnolects under study. Those notations and their interpretation particularly relevant for our purpose are on Table 2.1.

Table 2.1 Some notational devices in GP and their interpretation

NOTATION	INTERPRETATION	
+	Has the feature of	
	Does not have the feature of	
→	Becomes/changes to	
Ø	Deletion	
	Position of the sound	
1	In the environment of	
#	Word boundary	
С	Consonant sound	
CC	Consonant cluster	
V	Vowel sound	

In addition to notations, GP also makes use of binary distinctive features to unambiguously distinguish the segments of a language that are involved in a specific phonological rule. There are 20 distinctive features put forward by GP in sets of plus and minus. The features range from [± voice] and [± back] to [± strident]. Combining the information on notations and distinctive features above, an illustration of how GP would capture the occurrence of silent 'b' in English words like comb, lamb, tomb and thumb for instance would be:

$$/b/ \rightarrow \emptyset / [m] - \#$$

The above rule states that /b/ is deleted when it occurs after /m/ and is in word final position. The distinctive features of /b/ are: + labial, + voice, + stop.

There are more intricate details to the taxonomy of GP but they are not required for the scope of the present sociolinguistic study. The basic descriptive format of rule writing to explain phonological processes from phonemic to phonetic realisations as discussed above is adequate to fully capture any linguistic variability observed in the accentual patterns in HE, IE and YE.

2.3 Summary

This chapter has attempted, amongst other things, to review seven related empirical studies across Europe, America, Canada and Africa, especially in terms of their methodology, as this is a key concern of variationist investigations. The concepts of bilingualism, and the typology of ethnolects and Allophones as they apply to the users of English in Nigeria were also discussed. The chapter further highlighted the reported characteristics of NE accent as well as claims of convergence of HE and IE to YE. The socio-psychological reasons given by scholars for such convergence were mentioned. Finally, the chapter discussed the three theoretical frameworks used in the study and the rational for doing so: namely, Variationist theory for its system of quantitatively interpreting linguistic and social variables; accommodation theory to investigate convergence; and generative phonology to interpret phonological phenomena. Chapter Three will relate the methodology used in the present study.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter explains the methods used to collect and analyse the data used in the present study. It mentions the research design and discusses how the population and sampling of the speakers was conducted. The profile of respondents is also provided. Also contained in this chapter is a description of the instrumentation used for the study, namely, the questionnaire on Nigerian spoken English (QNSE), and the sociolinguistic interview. The approach taken for the perceptual analysis and the method of acoustic analysis using the Praat speech software is discussed. Finally, the chapter explains the statistical methods used and the assumptions for using them.

3.1 Research design

The present study was designed as a comparative empirical survey. On the one hand, linguistic variables were compared against the social variables of sex and ethnicity. Simultaneously, accentual behaviour was compared among three ethnic groups. The research design was chosen because the manifestations of the independent variables of sex and ethnicity have already occurred and they are inherently not manipulable.

3.2 Population

Sixty undergraduates (30 males and 30 females) from three out of the 26 federal universities in Nigeria participated in the study. Nigeria is divided into six geopolitical zones for administrative and political convenience. The 26 federal universities are spread over these six zones and the respondents were selected from three of the universities in three different geo-political zones. The three universities are Bayero University, Kano (BUK); University of Nigeria (UN); and University of Ibadan (UI). Each of these institutions is located in core areas of the ethnic groups being investigated.

A total of 55, 747 students in three federal universities constituted the population for this study. This total comprised 7747 students in BUK, 36000 students of the four campuses of

UN and 12 000 students of UI. (Source: Wikipedia, 2012). These figures represent the population of youths in urban areas for whom English was a second language. Kano, Enugu, and Ibadan are urban areas where core Hausa, Igbo, and Yoruba are spoken respectively.

In all Nigerian universities, both public (federal) and private today, the Use of English is a compulsory subject for all undergraduates in their first year nationwide. This comes despite the fact that all undergraduates have taken the compulsory Test of Orals training at the secondary school level. It was therefore safe to assume that the output of 200 level students and above in any Nigerian university today represents a stable and viable accentual pattern representative of NE. More importantly, any emerging change such as HE and IE accents converging towards YE as reported by Jibril as far back as 1982, is expected to be confirmed by now among this younger generation of speakers.

Other factors considered in the choice of speaker sample was that apart from being university students residing in the three locations, respondents' State of origin must be from the university state or a similar ethnic group state. For example, for IE data, respondents were either from Enugu State, where the University of Nigeria is located or they came from Abia, Imo or Anambra States. These are all core Igbo speaking areas, and formerly all constituted what used to be known as the Eastern Region before being divided into smaller administrative units over the past three decades of Nigeria's history. For HE data, respondents' speech were admitted only if they speaker came from Kano State, where Bayero University is located, or from Katsina State. For YE data, only respondents from Oyo State, host city of the University of Ibadan along with those from Osun, Ekiti, Ondo and Ogun States were accepted as being from bona fide Yoruba speaking areas.

3.3 Sample size

The sample population of 60 university students were randomly selected among the Hausa, Igbo and Yoruba speakers of English. Twenty subjects, each made up of 10 males and 10 females, per ethnic group were selected for the study. Sixty respondents were considered an appropriate sample size for the following reasons.

First, large linguistic samples tend to be redundant (Sankoff, 1974:22-23). David Sankoff, who in conjunction with Henrietta Cedergreen created the varbrule analysis, a software package for mathematical computation of variation theory results, categorically asserts that samples for linguistic studies are generally much smaller than what is required for other types of investigations because compared to other types of social behaviour, language use is more homogeneous. Large samples are therefore generally superfluous.

Second, sociolinguistic investigations such as done in the present study typically range from 48 to 120 respondents per community (Wolfram and Fasold, 1974). A third explanation is given by Hudson, another authority on sociolinguistic investigations, who states that the "rule of thumb" is to have at least 5 people in each social category to get a broad picture of variation patterns in the community (1980:153). It is no wonder then that Labov's (cited in Hudson, 1980) groundbreaking sociolinguistic study based on the investigation of /r/ in New York urban speech involved only 88 speakers comprising male, female, three age groups and four social classes.

Finally, it is a general fact, even for salary-earning sociolinguists equipped with generous research grants and easy access to students as volunteer research assistants (all of which the present researcher lacked), that the extraction of linguistic data from recorded interviews is laborious and time-consuming. Therefore, based on the justifications of Sankoff, Hudson, and others discussed above, analysing a large speaker sample just for the sake of quoting high volumes in the research work would have been an extravagant intellectual waste. In addition, considering the number of linguistic and social variables investigated in the present study, some proportion of analytical depth would have been lost just for the sake of citing large figures.

There was no financial or material reward given to the respondents for participating in the research and all willingly cooperated with the researcher except students in University of Nigeria who initially demanded for monetary reward before participating. However, by the time the voluntary post graduate research assistant sent to do the recording fell in student camaraderie with them, all monetary requests were set aside and helpful academic fellowship took over. Amongst all the ethnic groups in Nigeria, the Igbo are acclaimed for their high commercial sense of purpose and money-making drive: the initial demand for

monetary reward in exchange for speech data is a healthy manifestation of this ethnic tendency.

3.3.1 Sampling technique

The study adopted a stratified sampling technique of federal universities in three out of the six geo-political zones in Nigeria, namely: North Central (Kano), South East (Enugu), and South West (Ibadan). The three selected institutions of higher learning have the peculiar characteristics of the other geo-political zones in Nigeria, and are therefore representative of the country.

3.4 Instrumentation

Data for the study was collected through primary sources using the questionnaire on Nigerian spoken English (QNSE). The structured questionnaire was divided into three parts.

QNSE Part One - Respondents were required to provide demographic information in this segment. The profile of respondents is presented in detail in section 3.4.1.

QNSE Part Two - This section of the questionnaire contained three closed questions, and four open-ended questions. The inquiry sought to know the place of residence in the last five years; type of educational background (from primary to university level), whether public or private; self-assessment of spoken English; travelling history outside Nigeria; spoken English role model; ability to identify speaker's ethnic identity through accentual cues only; and preferred accent (HE, IE or YE).

QNSE Part Three – This part of the questionnaire was designed to record respondents' speech on audio tape for auditory analysis. The section was sub-divided into (a) word list (b) reading passage (c) casual conversation. The word list comprised 16 lexical items deliberately chosen to contain tokens of the 11 preselected linguistic variables being tested. The reading passage was also designed to contain tokens of the linguistic variables being investigated. The section on casual conversation was handled by first creating rapport between the researcher and the respondent and then finding a topic of interest to engage the latter's emotional involvement to the point of laughter, anger (at the issue not

the researcher) or sadness – all this to elicit 'natural' or 'in-group' accent as the respondent forgets the formality of the interview situation and slips into colloquial speech.

Although three speech styles were recorded, empirical analysis was based on only the word list and reading passage data. The principal reason for this was to ensure uniformity in the tokens of each respondent being analysed. The scripted readings were expected to be the most identical and most unaffected by idiolectal features of the respondents. The data collected from casual speech was however not discarded rather it was used to confirm the regularity of observed manifestations in the more formal styles. For instance, some speakers of HE consistently used /p/ with no (p): [f] variation in the more formal contexts. However, when asked to talk about "football" or their "favourite source of protein: meat or fish?" the /p/ and /f/ sounds occurred markedly in free variation. Similarly, in all three ethnic varieties, some speakers were able to maintain the /t/ versus /θ/ distinction in formal reading contexts but failed to consistently do so in casual speech.

Parts One and Two of the questionnaire were filled in by each respondent after which he or she was recorded on audiotape reading the items in Part Three. This had the dual advantage of ensuring that all questionnaires were filled in, and returned on the spot and secondly, that voices were instantly matched to the written information since names were not requested in the questionnaire to assure the anonymity of respondents. Each respondent was called "Voice" (V) and given a number from 1 to 50; for example, V1, V2. Out of a total of 137 recorded voices, 20 voices were selected from each ethnic group as presented on Table 3.1.

Table 3.1 List of speakers

HE	IE	VE	
371		YE	SEX
V1	V3	V1	MALE
V2	V4	V4	MALE
V3	V8	V5	MALE
V5	V10	V6	MALE
V18	V18	V7	MALE
V19	V21	V23	MALE
V20	V23	V25	MALE
V21	V27	V28	MALE
V25	V29	V30	MALE
V12	V30	V31	MALE
V8	V7	V15	FEMALE
V9	V11	V16	FEMALE
V22	V12	V20	FEMALE
V23	V5	V33	FEMALE
V24	V14	V36	FEMALE
V26	V16	V37	FEMALE
V27	V22	V39	FEMALE
V29	V25	V40	FEMALE
V30	V32	V35	FEMALE
V31	V35	V41	FEMALE

3.4.1 Profile of respondents

A total of 60 respondents were used for this study. Fifty percent of them were female and 50% were male. All respondents were aged 18 and above and a large number of them were between the ages of 21 and 30 (65% in HE, 95% in IE and 95% in YE). Most of the respondents spoke no other language fluently apart from their mother tongue and English (80% in HE, 90% in IE and 95% in YE). Among those who spoke other languages fluently, 10% in the HE speaker sample spoke Fulani, another 10% spoke Bajju and 5% spoke Arabic; in the IE speaker sample, 5% spoke Yoruba, while 5% spoke Yoruba and French; within the YE speaker sample, 5% spoke French. Christianity was the religion of all the IE (100%) and most of the YE (75%) respondents, while Islam dominated in the HE speaker sample (65%).

The survey selected students randomly, irrespective of their course of study, as they were all deemed to have achieved at least 6 years of study in English at secondary school level. All had, expectedly, also passed English language as this is a prerequisite for admission into any federal university in Nigeria. In addition, all the respondents had expectedly gone through at least one compulsory first year of the Use of English course demanded in all Nigerian universities irrespective of basic course of study. In BUK representing the HE speech community, 25% of the respondents were in the Arts, 55% in the Social Sciences, 10% in Technology, and 10% in the Sciences. The UN speaker sample consisted of 15% in the Arts, 5% in the Social Sciences, 35% in Technology and 50% in the Sciences, while the UI speaker sample comprised 35% in the Arts, 5% in Social Sciences, 15% in Technology and 45% in the Sciences.

In the HE speaking region, more of the respondents (65%) went to public and not private primary schools. A similar pattern was observed in the IE speaker sample with 60% having a public primary school foundation. Among YE respondents, the opposite was the case with a 70% majority having private primary school background. With respect to travelling out of their mother tongue territory, none of the HE respondents had ever left the core northern axis, while 25% of the IE respondents and just 15% of YE respondents had travelled outside the Igbo or Yoruba speaking regions respectively. In other words, an average of 86.6% of all the respondents had not travelled out of their ethnic base.

3.5 Validity and reliability of the instrument

Both face and content validity were employed to determine the degree to which the instrument used in the present study was an appropriate measuring tool. Experts were also consulted for both the face and content validity of the QNSE used. Reliability tests were conducted on the questionnaire to ensure the consistency of the instrument used.

Administration of research instruments – the researcher and one trained research assistant administered the instrument to the respondents. The purpose of the study was stressed in order to ensure objective responses. Respondents were also assured of the confidentiality of the information given and anonymousness was secured as names were not requested in the questionnaire.

3.5.1 Selecting the linguistic variables

The segmental sounds subjected to empirical analysis were selected on the basis of reported diagnostic features of NE varieties in existing literature, societal stereotypes, as well as personal direct observation. Out of a larger portion, the following 11 segmental features were selected:

- 1. Voiceless bilabial plosive /p/, which is said to often vary in HE as [f] but not in IE and YE in words such as people, party, programme, etc.
- Voiceless dental fricative /θ/, which in general descriptions of NE has the variable
 in worth, truth, throat, etc.
- 3. Voiced dental fricative /o/. Like its voiceless counterpart, the variation of this sound as [d] is also generally used to categorise NE in words such as other, weather, though, brother, etc.
- 4. Half-close central neutral vowel /o:/ (NURSE), which is said to rarely occur in NE and is realised as [e], [o], [a] in examples like person, purse, firm, etc.
- Half-open front spread vowel /e/ (DRESS), which is described as being lowered in IE to [ε] in words such as develop, elements, etc.
- 6. Voiceless alveolar affricate /ff/ with the variant [f] particularly associated with YE speakers in words like witch, church, chicken.

- 7. Voiced labio-dental fricative /v/ in words such as have, heavy, view, vanity is reported to be realised as [f] at the basilectal level in NE generally and as [b] at the basilectal level in HE.
- 8. Voiceless palato-alveolar fricative /ʃ/ commonly associated with YE as being realised as [s] in examples like shoe, cushion, wash.
- 9. Half-open central neutral vowel /ə/ (schwa) said to have a very close realisation in HE but with significant variation in IE and YE as [a], [ɔ], [ε], [u] in words such as about, campus, other.
- 10. Voiced alveolar fricative /z/. In descriptions of NE accent, variation usually manifests when the plural morpheme 's' is joined to a content word as in shoes, vegetables, teachers, cars, etc.
- 11. Open central vowel /A/ (STRUT) described as sometimes present in acrolectal HE in words such as *luck*, government, above but has variants such as [o], [o] more often in IE and YE.

The five lexical items selected from the reading passage for prosodic analysis in terms of stress, rhythm and intonation are:

- 1. Develop
- 2. Vegetables
- 3. Security
- 4. Gentlemen
- 5. Television

Selection of the five words for prosodic analysis was based on public feedback. Thirty randomly selected people (13 males, 17 females) were told to listen to the audio tape recordings of the respondents and asked to identify the ethnic group of the speaker as well as list any five words that gave them a clue to the speaker's ethnicity. The 30 people were not seated together rather the tapes were played to different people at different times until a round figure of thirty was achieved. The 30 listeners comprised secondary school students, university lecturers, undergraduate and postgraduate students, clergy men, junior and senior civil servants, and entrepreneurs. These 30 cut across different ethnic groups in Nigeria – Edo, Baseyi (Adamawa State), Ebirra, Igbo, Hausa, and Yoruba, and their ages

ranged from 17 to 54 years old. The most cited five lexical items are listed above and formed the data for prosodic analysis in the present study.

3.5.1.1 Lexical sets

The descriptive terminology of lexical sets that were introduced by Wells² (1982) has been adopted in the present study. The use of lexical sets is a concise way of referring to large groups of words that share the same vowel. The concept involves the use of a standard keyword to represent a vowel phoneme and all the words that are realised with it. Each keyword is written in small capital letters and its use is common practice in language research publications worldwide, particularly in describing English sounds.

Examples of lexical sets are KIT, DRESS, TRAP, STRUT, FOOT, and GOAT. The DRESS vowel for instance represents all the words that have /e/ in RP. The list of lexical sets is presented in Appendix B.

3.6 Method of data analysis

The data recorded on audio tape was first transcribed and then subjected to auditory analysis. Acoustic analysis was carried out on four vowels – three preselected ones: /ə:, ə, \wedge and one other /i/ using the Praat analysis software. Quantitative data from both the audio recordings and the questionnaire were then analysed using simple percentages, t-test and ANOVA, while qualitative data was subjected to content analysis.

3.6.1 Transcription

The word list, reading passage and portions of the casual conversation spoken and recorded on audio tape by each of the 60 respondents was transcribed using the International Phonetic Association (IPA) symbols. The symbols for transcribing English vowels differ but for the present study, the vowel representations of Gimson's (1977) revision of Daniel Jones' English Pronouncing Dictionary 14th ed. (EPD) are used. Two other symbols were introduced to capture NE vowel sounds that had no close approximation or correlation in the established English sound system.

² Professor John C. Wells of the University Collage London is described as "the leading authority on contemporary English pronunciation in all its forms – British, American and other variants of the world-wide language" (Ladefoged, 1993;76).

In the words of Ladefoged (1993:77), "There is no such thing as a single correct form of transcription of English; different styles are appropriate for different purposes. But it is of course essential to keep within one style of transcription on any one occasion. It is important to be consistent." In accordance with Ladefoged's caution therefore, all phonetic symbols and diacritics as consistently used in the present study are contained in the list of phonetic symbols, signs, and abbreviations presented on page xix of the current work.

Recordings were listened to repeatedly, particularly portions containing sound segments that were initially difficult to categorise in any particular respondent's speech. To handle the issue of subjectivity in auditory analysis, the recordings were also played back to other phoneticians to verify the sounds transcribed.

3.6.2 Perceptual analysis

The focus of auditory analysis in the present study was twofold. First, was to determine the number of times each preselected variable occurred per ethnic group. Secondly, the focus was to identify all the variants of each of the variables and the number of times each occurred in the corpus per ethnic group. No traditional assumptions of binary alternations were made; hence, every single alternate form of each variable was noted and counted. The tokens of occurrences were converted to simple percentages and used to determine the status of both the variable and its variants in each of the ethnic groups.

As discussed in Chapter two, there are usually no absolute boundaries between users of one social variety or the other rather, variations occur more in terms of frequency of occurrence. In other words, all social groups may use a particular variant, but some use it more than the others. Therefore, in order to empirically determine the degree of occurrence of variables and variants in each of the ethnic groups, three categories were identified: High, Average and Low frequencies of occurrence.

A sound variant was considered High if over 50% of respondents used it over 50% the number of times the token occurred in the data. If less than 50% but above 25% of respondents used the variant less than 50% but above 25% of the number of tokens of that variant, it was considered Average. If below 25% the number of respondents used a

variant below 25% times the number of token's occurrence, then it was considered Low in that ethnolect.

EXAMPLE:

A variable sound (y) occurs 12 times in the data and it has variants [y1], [y2], [y3], [y4]. If 54% of speakers use variant [y2] 58% of the time; 30% speakers use [y1] 28% of the time; 12% use [y3] 10% of the time; and 4% of speakers use [y4] 4% of the time, then it will be interpreted as follows:

HIGH
$$(> 50\%) = [y2]$$

AVERAGE
$$(>25\% < 50\%) = [y1]$$

LOW
$$(<25\%) = [y3, y4]$$

The method of analysis indicated clearly which variants occurred more highly or lower than others in each ethnolect. It showed when a High frequency variant in one ethnolect was used just averagely or below average in another ethnolect; yet the same variant may have been described in existing literature as a general characteristic of NE. Occasionally, a dominant, High frequency variant or norm in one variety may be completely absent in one or both of the other ethnolects. This statistical application to perceptual analysis proved generally useful in showing up overgeneralisations in NE by pinpointing the particular ethnolect where that variant is most prevalent.

The principal discussions in the present study were primarily based on the results of the auditory, perceptual analysis alone; the results of the acoustic analysis were used basically to validate the findings.

3.6.3 Acoustic analysis (Praat)

The apparatus used for acoustic analysis was the Praat speech analyser. Praat, meaning "talk" in Dutch, is a linguistic instrument for studying sounds. It reads recorded speech and generates wave graphs, called spectrograms to show the pitch, loudness and quality of vowel sounds in particular.

The sociolinguistic interviews recorded on audio cassette tape for the present study were converted to wave sound files in a language laboratory and then transferred to the Praat speech analyser on a laptop for acoustic analysis. Because the instrumental techniques involved in acoustic analysis are limited to variations in vowel sounds only, consonant sounds had to be excluded from the acoustic analysis. However, preselected consonantal variables were simple and straightforward enough to identify perceptually hence, there was no need for acoustic analysis.

Just one word per sound was chosen for the acoustic analysis of /ə:, e, ə, ʌ/, namely, person, buses, and develop for the NURSE, STRUT, DRESS and schwa vowels. The three vowel sounds in develop were analysed; although /i/ in the first syllable of develop was not a preselected variable, it was analysed for its distinction as an ethnic marker in the prosodic analysis. In addition, /i/ being a high, front occurring vowel made it possible to visualise the relative qualities of the other vowels on the formant frequency charts. The speech samples of five males and five females each from the HE, IE and YE respondents were used to produce spectrograms from which formant frequencies were determined in terms of height, formant one (F1); and advancement, formant two (F2).

The frequency of the formants were measured and graphically presented on formant charts. The mean formant values for variations of NURSE, STRUT, KIT and the schwa as produced by the respondents were compared. Calculations of mean for each sound and ethnic group are contained in Appendix C.

3.6.4 Assumptions for using t-test

The t-test is useful only when there are not more than two groups. "Theoretically, the t-test can be used even if the sample sizes are very small (e.g., as small as 10; some researchers claim that even smaller n's are possible), as long as the variables are normally distributed within each group and the variation of scores in the two groups is not reliably different" (StatSoft Electronics Statistics). The t-test was therefore used in the present study to investigate the effect of sex on phonological variation in HE, IE and YE.

3.6.5 Assumptions for using ANOVA

In order to effectively compare phonological variations in HE, IE and YE, it was necessary to use another statistical tool apart from the t-test that was limited to handling not more than two groups. Analysis of variance (ANOVA) was found most suitable. Among the benefits of ANOVA, Kerlinger (1986:280) mentions the following:

...analysis of variance has wide practical applicability. It takes many forms that are applicable in [many diverse fields]. It frees us from working with only one independent variable at a time and gives us a powerful lever for solving measurement problems. It increases the possibilities of making experiments exact and precise.

In the present study, ANOVA was used to test for significant differences between the means of variations in HE, IE and YE accents. A level of less than 0.05 indicated significantly different group means.

3.6.6 Post-hoc test

When ANOVA is significant, i.e. <0.05, a post-hoc test is conducted to compare pairs, in order to determine/test the degree of variation between groups of pairs. The present study used post-hoc tests to investigate the question of convergence of the pair of HE and IE accents to that of YE.

3.7 Summary

In this chapter, the research methodology was discussed in detail along with justifications for the approaches taken in the study such as the choice of speaker sample and size comprising 60 undergraduates (30 male, 30 female) from Hausa, Igbo, and Yoruba ethnic groups; use of sociolinguistic interviews with preselected linguistic variables placed in a word list and short passage for reading on audio tape; method of perceptual analysis and choice of Praat for auditory analysis; and finally, the assumptions for using the statistical assessment tools of t-test, and ANOVA.

The next chapter gives an overview of the comparisons of the segmental features in NE generally, and their variants in HE, IE and YE.

CHAPTER FOUR

COMPARISONS OF THE SEGMENTAL FEATURES OF HE, IE AND YE

4.0 Introduction

This chapter presents a broad comparison of the segmental variation observed in the HE, IE and YE data collected for the present study. The discussion is based on the empirical analysis of only the sound segments available in the word list and reading passage. Tokens of occurrence of each consonant and vowel sound as well its variants were counted and converted to simple percentages. As pointed out in Chapter one, there is a dearth of quantitative comparative studies of NE varieties, as well as the need to conduct more sociolinguistic investigations along such lines as ethnicity (Akinjobi, 2006; Igboanusi, 2006a; Simo Bobda, 2007).

In the light of this, the sound segments and their variants are tabulated for each ethnic variety. Both variables and variants have been categorised according to their frequency of occurrence thus: High (used in >50% of available number of tokens of the sound by > 50% of respondents; Average (used in >25% <50% of available number of tokens by >25% <50% of respondents); Low (used in <25% of available number of tokens by <25% of respondents). Only the sounds that are not part of the preselected variables are discussed in detail in this chapter; detailed discussions of any of the preselected variables have been left to Chapter Five. It is expected that this attempt to quantitatively compare ethnic variations in NE will update the existing body of knowledge and make salient contributions to the issues of variation in NE accent.

4.1 HE sound system

In this section, the HE consonant and vowel sounds as used by the sample population of BUK undergraduate students are described. The data was obtained from the recorded sociolinguistic interviews comprising a word list, short passage and an average of ten minutes casual conversation with each respondent.

4.1.1 HE consonant sounds

Table 4.1 shows that the only consonant sounds without variation in the HE sample are /b, h, d3, n, m, r, /; in other words, only 6 out of a total of 24 English consonant sounds have no perceptual variation in the HE data. Out of the 18 consonantal variations, 3 of them have a High level of occurrence, while 6 occur at an Average frequency. The first dominantly occurring variant on Table 4.1 is (d): ø due to the deletion of the voiced alveolar stop when it occurs in word final position in examples like told, child, should.

Deletion of (d) as a past tense morpheme also occurs in examples like preserved, observed, determined; and in word medial position in words /woz/. The examples show that (d): [ø] occurs in consonant cluster environments, suggesting a process of consonant simplification in HE:

$$d \rightarrow \emptyset/C - C$$

$$d \rightarrow \varnothing / - \#$$

The second dominant variant in the HE corpus was (z): [s] both in single words like phrase, observe, was and as a plural morpheme in examples like negotiations, shoes, vegetables. Since /z/ is one of the preselected variables for investigation, the discussion of this sound segment is given in detail in Chapter Five.

Another observation concerning the labiodentals /f, /v/ as revealed in Table 4.1 is that whereas /p/, the substitute for /f/ has two variants [f] and $[p^h]$ not counting \emptyset , its voiced counterpart /b/, the substitute for /v/ has no single variant. The stereotyped assumption is that the Hausa pronounce the English letter 'p' as /f/ but not the other way round, that is letter 'f' as /p/. The result of the perceptual analysis presented in Table 4.1 shows; however, that letter 'f' for phoneme sound /f/ has more variants than letter 'p' for phoneme sound /p/ (one of the variants is /p/ itself). Examples where the $[\phi, p^h, p, f, hw]$ substitutes for /f/ occurred in the HE data are:

Table 4.1 Overview of HE consonant sounds

		SOUND STA	TUS		VARI	ANTS IN HE
	High	Average	Low	High	Average	Low
p	p					[f], [ph], Ø
b	b					
t	t				Ø	[r], ø, [s], [th]
d	d			Ø		Ø
k	k					ø,[kw], [kh]
g	g					Ø
f	f					[φ],[pʰ],[p],[fw],[ʰw]
v	v				[f]	[w],[b],[\phi],\phi,[f]
θ	θ				[t]	[th],[ts],[z],[s],[f],ø,[ð]
5	ð				[d]	[z]
3	S					[z],ø
Z	z			[s]		ø, [s],[θ]
	ſ					[s],[z],[3]
5	3					[门,[母],
1	h					
	g					[s], [ʃ]
3	d3					
n	m					
E	n					
			ŋ	n	ŋg	ŋ, ø
7	w				Ø	[hw]
	1					Ø
	r					
	j					Ø

(f): [φ] e.g. /φiφtiθri/ fifty-three

(f): [ph] e.g. /prit phul/ fruitful

(f): [p] e.g. /pes/ phase

(f): [fw] e.g. / fwifwtiri/ fifty-three

(f): [hw] e.g /hwia/ fear

The above examples were given to show that in HE, variations of (f) occur richly yet they are not as mediatised, parodied or mimicked as the (p): [f] variation in the stereotyping of HE speakers by the general public in Nigeria. This proves that stereotyping is not always based on facts but on social attitudes and impressions made popular usually with the help of various forms of the media, in particular, the entertainment media.

The velar nasal /n/ was the only English consonant sound that did not have a High occurrence in the HE data sampled: it was used by just 15% of the respondents in words like bring, anything, surrounding. Awonusi (2009a:217) reports the voiced labial-velar approximant /w/ as being realised as /hw/ in IE. Table 4.1 however shows an occurrence of /hw/ though with Low occurrence also in HE, where one respondent (5%) pronounced /hwaz/ was. Common to all three ethnolects in Tables 4.1, 4.3 and 4.5 was the occurrence of ø as a Low variant of /w/. Specifically,

$$W \rightarrow \emptyset / C - C$$

The voiced labial-velar approximant was deleted in the middle of consonant clusters. An example in the HE data was /ikipment/ equipment. On the other hand, labialisation of the voiceless velar stop is observed in Table for 4.1 for HE but not in the other two ethnolects. Illustrations of its occurrence in HE are / kwikli/ quickly, / kwoliti/ quality.

4.1.2 HE vowel sounds

Table 4.2 represents a summary of vowel sounds and their variants in the HE data.

Table 4.2 Overview of HE vowel sounds

_		SOUND S	STATUS		VARIA	NTS IN HE
	High	Average	Low	High	Average	Low
i				[i]		[u],[e],ø,[ə],[ɛ]
е	е					[a],ø,[ə],[i]
æ			æ	[a]		[a:],[e],[ə]
0	0				[a]	[o],[a:],[A]
٨		Λ		[0]		[ɔ:],[o],[a]
u	u					
9		9		[a],[o],[[a:],[ie],[iə],
				u],[e]		ø,[ia],[ε], [λ],[i],[o],
i:				[i]		
ə:		ə:		[a, a:]	[0, 0:]	[e],[u],
						[:0],[0],[0],[0:]
a:				[a]		
0:				[0]		
u:				[u]		
ei		ei		[ε]	[e]	[i],[a],[j],ø
ai	ai					[aji]
oi	ic					
ou			ou		[0],[0]	[ou],[au],[eu],[A]
au	au				[a:]	[aw],[a],[o]
iə			iə	ia	-	[ea],[i],
еә			еә			[a,a:],[ia],[ehə],[iə]
uə			uə		[၁],[၁:]	[uo],[u],[ua]

Unlike the English consonant sounds that all had dominant frequency of occurrence in the HE data, Table 4.2 shows that only 6 out of 20 English vowels had a High occurrence in HE: /e, o, u, ai, oi, au/. Available literature on NE accent reports that the schwa /a/ is more present in HE than it is in IE or YE; nevertheless, Table 4.2 reveals that in the present data of HE, the schwa is not dominant, its rate of occurrence is just average, used by less than 50% of the respondents in less than 50% of the available number of token occurrences. Four variants of the schwa had a High rate of use in the HE corpus; they are [a, u, e, o]. The contexts in which they occurred showed that variation was due to incongruence of English spelling and phonemic representation. Further discussion of the schwa along with the results of its acoustic analysis is contained in section 5.1.9.

In the discussion of HE consonants in section 4.1.1, it was mentioned that /d/ and /w/ were deleted in the environment of consonant clusters (CC), seeming to imply that HE disfavoured CC environments; however, the analysis of vowel sounds in the HE data showed the deletion of /e/, /i/, /ə/ and /ei/ in certain words, resulting in the existence of CC sequences such as:

/skjuriti/ 'security'
/divlop/ 'develop'
/govment/ 'government'
/relfonsip/ 'relationship'

The CC structures resulting from the vowel deletions illustrated above all contain a fricative sound, [+ cont] either as C1 or C2. This suggests that certain types of CC structures are permitted in HE or universally occur more naturally.

4.2 IE sound system

In this section, the IE consonant and vowel sounds as used by the sample population of UN undergraduate students are described. The data was obtained from the recorded sociolinguistic interviews comprising a word list, short passage and an average of ten minutes of casual conversation with each respondent.

4.2.1 IE consonant sounds

All the English consonant sounds in the analysed corpus occur at a High level in Table 4.3 except the voiced dental fricative /o/ and velar nasal /n/ that are classified in the column of Low frequency occurring sounds. Less than 25% of the respondents used /o/. A comparison of the HE, IE and YE data showed that the use of /n/ was Low in all three ethnolects. HE, IE, and YE also had the same variations of /n/ except for IE speakers that realised the variant [nk] in /brink/ bring.

Although the English voiceless dental fricative /θ/ is presented as a dominant feature in the IE data, it had an equally dominant variant /t/ as shown in Table 4.3. Over 50% of IE respondents regularly interchanged /θ/ and /t/ in the three speech styles recorded. When the dental fricative did occur, it was dentalised by a few respondents as shown in the column for Low occurrence variants in Table 4.3.

Two other variations classified as High occurring in Table 4.3 are /s/ as a variant of /z/ and /ʃ/ as a variant of /ʒ/. The instances of (z): [s] in the data include / ʃus/ shoes, and /negosiɛʃo(n)s/ negotiations. Sixty-five percent of the IE respondents consistently devoiced the voiced alveolar fricative in the position of a plural morpheme. The voiced palato-alveolar fricative was devoiced in IE examples like television and pleasurable. Again, the variations of /z/ and /ʒ/ may be rooted in the inconsistent nature of English spelling and speech sounds.

Similar to the observation made about the voiced alveolar stop in the HE data, /d/ and /s/ were also deleted by over 25% of the IE respondents in the same lexical items as observed in HE. The deletion of plural marker /z/ gave rise to examples such as /hamletø/ hamletø, /viledø/ villages, /negosiesonø/ negotiations in the IE speech sample. The difference between the manifestation of consonant deletion in HE and IE is that the rate of use in IE is higher than in HE (cf. Tables 4.1 and 4.3).

cable 4.3 Overview of IE consonant sounds

P b t d	Average	Low	High	Average	Low
p b t					
b t					Ø
t					Ø
					[r], ø, [d]
u				Ø	Ø
					Ø
					Ø
					[v]
				[f]	ø,[f]
			[t]		[d],[t],[β],[ŏ]
		d			
S				Ø	
			[s]		ø, [s]
					[s],[f],[3]
			rn		27.0037.003
			01		Ø
					ø, [ʃ]
					[3]
					151
					Ø
n			. 1	result.	[ŋk], [ŋ],
		[ט]	[n]	[1]9]	
W.					Ø
1				Ø	[r]
r					
					Ø
	k g f v θ s z J 3 h f ds m n	g f v θ s z f d d m n	f v θ d s z J J d d s m n [ŋ] w l r	f f v θ (t) d (d) s z z (s) f (s) f (d) f	f v (f) θ (t) d (d) s σ (s) Γ (s) Γ (n) (n) (n) (n) w 1 σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ

Unique to the IE respondents investigated in the present study is the allophonic relationship between /l/ and /r/, which has a Low occurrence in Table 4.3. Examples in the data are /porisi/ (policy), /prezurebul/ (pleasurable), /kwikri/ (quickly). The other variant of /l/ is deletion. In the IE data, /l/ is deleted when it occurs in word final position or is part of a CC sequence e.g. /pipu/ people and /vedzitebus/ vegetables. Simo Bobda (2007:289-290) refers to this phenomenon as Post-Vocalic /l/ Deletion, characteristic of NE and writes the phonological rule as follows:

$$/V \rightarrow \emptyset / V$$
 (C) \$ (\$ being a syllable boundary)

A comparison of the results of the statistical analysis in the present study shows indeed that (1): Ø was present in the HE speech sample; however, it was most dominant in the YE data.

Table 4.3 shows that (f): [s] variation is also present in IE. The Yoruba speakers of English, particularly those from Ibadan and Ogbomoso axis in Oyo State are often caricatured by the general public as replacing /f/ with /s/. The variation has also been reported in academic literature without any mention of it occurring in other varieties of NE; making it appear exclusive to YE (Igboanusi, 2006a; Awonusi, 2009a:214). On the other hand, Simo Bobda (2007:285) delimits (f): [s] in NE to "some northern accents" without any reference to YE or southern Nigeria. Indeed, (f): [s] variation also occurs in HE as shown on Table 4.1. Without considering the contexts in which the similarities occurred, a conclusion of evidence of convergence to YE would have been drawn; however the contexts show that (f): [s] occurred in the HE, IE and YE data due to problems of orthography. The words involved were negotiations and issue.

In Table 4.3, /w/ has an entry indicating (w): Ø. The deletion of the voiced labial-velar arose in examples like /ekupment/ equipment and /skue/square. Awonusi (2009a) reports the existence of w-devoicing in IE, but it is not clear if it is the same phenomenon reported in the present study as w-deletion.

4.2.2 IE vowel sounds

Table 4.4 shows the categorisation of IE vowel sounds and their variations based on their frequency of occurrence. Six out of the 20 English vowel sounds in the collected data for IE respondents had a High rate presence: / e, ɔ, u, ai, ɔi, au/. Again, similar to what was observed in the HE speech sample, the greatest number of variations in vowel sounds was at a Low rate of occurrence. A sound such as the schwa, /ə/ had as much as seven different realisations all basically due to the problem of inconsistent spelling and pronunciation in English.

4.3 YE sound system

In this section, the YE consonant and vowel sounds as used by the sample population of UI undergraduate students are described. The data was obtained from the recorded sociolinguistic interviews comprising a word list, short passage and an average of ten minutes of casual conversation with each respondent.

4.3.1 YE consonant sounds

Table 4.5 presents the YE consonants and their variations according to High, Average and Low levels of use by the YE speaking respondents. All the English consonant sounds are used at a High rate in YE except /ŋ/ and /h/, the velar nasal and the voiced glottal fricative; both shown on Table 4.5 as Low frequency occurring sounds. The status of /ŋ/, as reported earlier, is similar in the three ethnolects: spelling related issues may be the reason for the confusion. Hausa, Igbo and Yoruba languages have the velar nasal in their sound systems, therefore ability to articulate /ŋ/ is not in doubt.

The non-occurrence of /h/ as a dominant sound is unique to YE; available literature describes (h): Ø as being present even in acrolectal speech. Sixty percent of the YE respondents pronounced "hamlet" as /amle(t)s/. During the field trip to the north to collect data for the present study, many of BUK students guessed the researcher's ethnic group correctly even though she was dressed like a typical Hausa woman. When asked what exactly gave her identity away, most of the respondents said it was the way she pronounced 'h'. This was a great surprise because being a trained linguist, a teacher of oral

Table 4.4 Overview of IE vowel sounds

1		SOU	NDS		VARIA	NTS IN IE
	High	Average	Low	High	Average	Low
i				[i]	[ε],[e],	[iu],[u],[ə],
e	е				[ε]	Ø,[ə]
æ			æ	[a]		[e],[ə]
0	0					[o],[a]
٨				[0]	[o]	[u],[uo],[a],[b]
u	u					2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
ə			ə	[a],[o],[u]	[8]	[5],[e],[ia],ø,[ea],
						[ia],[i]
i:				[i]		5.3. 15.0
ə:			ə:	[a, a:]	[o],[e]	[u],[ei],[ai] [A],[ə]
a:				[a]		
o:				[0]		
u:				[u]		
ei				[ε]		[i],[e],[a],[ei]
ai	ai					[a],[au]
oi	oi					
ou			ou	[0]		[ou],[ə],[eu],[ɔ]
au	au				[a:]	[aw],[a]
iə			iə		[ia]	[ea],[e],[eə]
еэ			eə	[ia]		[a,a:],[uə],[iə],[aə]
uə				[u], [uɔ]		[0],[0]

Table 4.5 Overview of YE consonant sounds

		SOUND			VARIANTS	INVE
	High	Average	Low	High	Average	Low
p	p			STATE OF THE PARTY		Ø
b	b					
T	t				Ø	[r], ø,[t]
d	d			Ø		ø,[t]
k	k					Ø
g	g					Ø
F	f				[v]	
v	v			[f]	1.3	ø,[f]
θ	θ				[t]	ø, [t]
ð	ð				[d]	Ø, W
S	S				Ø	
Z	z			[s]	[s]	Ø
ſ	ſ			رما	[9]	[s],[3]
3	3				ហ	[0],[0]
h	3		h	Ø	נט	וטינט
y .	f					[t],[ʃ],ø
dg dg						(-1)(1)-
m	d3					
	m					Ø
n	n			[m]	[99]	Ø
ŋ w			[ŋ]	[n]	[98]	[sw],ø
w L	w					[r]
	1				Ø	ø,[j]
R	r					5,01
	j		THE COLUMN			

English at various levels and the product of an elite primary school she had always assumed a perfect pronunciation of 'h'.

Based on this feedback, the researcher, on returning to the western region (Yoruba land) became more conscious of her speech and extra sensitive to that of other YE speakers in the environment. Personal observation revealed that for most YE speakers, the place of articulation for /h/ is not the glottis but somewhere closely above it and in some cases, far from the glottal region.

Descriptions of the Yoruba consonant sound system however include /h/ thus nullifying the initial assumption of mother interference. Oyebade (2010) in an academic conversation, explained that /h/ appears to have three variants in NE –

- 1. (h):ø
- 2. (h): [h approximant]
- 3. (h): [h glottal fricative]

In Yoruba, /h/ is an approximant not a glottal fricative which explains the exchange by YE speakers. Secondly, although /h/ is present in the Yoruba consonant system, it occurs in free variation with /w/; hence the dominant tendency to delete it in YE. Awonusi (2009a:34-35) explains further in what he calls "the story of aitch /h/". According to him, the sound has four forms in native English, one of which is called /h/ dropping – similar to what happens in YE. Quoting Wells, Awonusi reveals further that /h/ dropping is "fast becoming a shibboleth in English schools and teachers work extra hard to ensure that such /h/s are pronounced."

Evidence of /h/ dropping in the HE and IE data would have served as strong linguistic evidence of convergence to YE but no trace of it was observed in the data provided by HE and IE respondents. Among the YE speakers themselves, it would be useful to know the attitude they have towards /h/ dropping: indifference, stigmatisation, ethnic pride or something else. Investigating the attitude other ethnic groups have towards /h/ dropping by YE speakers would also be of great benefit to sociolinguistic research on varieties of NE.

Two other dominant consonant variations in the YE corpus were (v): [f] and (z): [s]. The variations in the voiced and voiceless labiodental fricatives occurred mainly due to confusion between spelling and pronunciation. In a word like of, over 70% of the YE respondents used /f/ instead of /v/. Other examples of (v): [f] in the data are /0atifaif/ thirty-five, /haf/ have, /abof/ above. The occurrence of (z): [s] was also connected to confusion between orthography and pronunciation. As reported concerning the HE and IE data, the plural morpheme was devoiced after vowels and voiced consonants also in YE. Examples of words where this occurred include /fus/ shoes and /bosis/ buses. Other words without the plural morpheme also had (z): [s] variation whenever the /z/ phoneme was spelt with the s grapheme. Examples are: /prisa:vd/ preserved, /obsa:v/ observe and /wos/ was. The letter s in those words was realised as /s/ irrespective of its place of occurrence in a word - medial, intervocalic or word final position.

In the column for Low frequency occurring sounds on Table 4.5, /l/ is shown to have a variant ø and this has been discussed in section 4.3 as a common phenomenon in the three ethnolects. The other variant for /l/ is [r] as also observed in IE; however, in YE it was used once by just one respondent in just one word. Simo Bobda (2007:285) asserts concerning /l/ versus /r/ variation in NE that there is an "Overwhelming frequency of confusion in the south [IE and YE]." The data has not revealed any overwhelming confusion between /l/ and /r/ at least not in the speech sample of the younger generation of speakers being examined in the present study; even in the IE data, occurrence is below 25%.

One distinct character of /l/ in YE accent from personal observation is its insertion in connected speech between two vowels at word boundary, functioning like the native English linking -r. Its occurrence is Low in YE speech and is observed also in the acrolectal variety. Examples are: /ifulof/ issue of, /tulendyoi/ to enjoy, / givulakses/ give you access. The YE data in the present study also revealed "intrusive -l" but it was used by just one respondent.

4.3.2 YE vowel sounds

In this section, the YE vowel sounds and their variants in the YE respondents' recorded speech are presented in Table 4.6 in terms of frequency of use in the data.

Table 4.6. Overview of YE vowel sounds

	SOU	SOUNDS		VARIANTS IN YE		
	High	Average	Low	High	Average	Low
i				[i]		[u],[e],[iu],[ε]
е	е					[8]
æ				[a]		[ɔ],[e],[ə]
)	0					[o],[a:],[u]
٨				[0]		[5],[0],[a],[u],[_A]
ш	u				u:	
9			э	[a],[o],[u],		[ha],ø,[wa],[ε]
				[i],[e],[ia]		
i:				[i]		
):		ə:		[a, a:], [o]	[e]	[A],[ə]
a;				[a]		
):				[0]		
u:				[u]		
ei			ei	[ε]		[e],[i]
ai	ai					[a]
oi	oi					
Du				[0]		[o],[ou],[eu]
au	au				[a:]	[ha],[a],[aw], [a]
9			iə		[ia]	[ea],[ie],[e],[ae]
eə			eə		[ia]	[a,a:],[e],[ə],[ie]
uə			uə	[o],[uo]		[ci],[u],[cwu]

Table 4.6 shows that /oi/ is the only English vowel sound that has no variation in YE. The same was observed concerning HE and IE vowel sounds on Tables 4.2 and 4.4. Notably, Awonusi (2009a) maintains that the "second element is phonetically more frontal" than it is in RP.

It is only in the YE corpus that /h/ insertion is observed; although, it is present at an infrequent level. The glottal fricative /h/ is present in Yoruba language but occurs as an approximant in free variation with /w/. Examples are 'húkô' and 'wúkô' which both mean to cough; 'awôn' and 'ahôn' which both mean tongue. Awonusi (2009a:215) observes that most people who delete the glottal fricative are those who insert it before a vowel; a case of "hypercorrection". The report was not confirmed in the perceptual analysis of the YE data used in the present study. What was observed in the present sample is that every speaker who inserted /h/ before a vowel in word initial position also deleted /h/; however, not every speaker that deleted /h/ automatically inserted it before a vowel. Sixty percent of the respondents deleted /h/ but only 15% of that number inserted /h/ before a vowel.

4.4 Summary

This chapter presented a broad picture of segmental variations in the audio tape recorded HE, IE and YE data used in the present study. The corpus was perceptually analysed by counting tokens of occurrences of each English sound and its variants if any. Based on the conversion of figures to simple percentages, variants were classified according to frequency of occurrence and tabulated. The comparison of tables showed among other things that consonantal variation was more widespread in HE accent than in IE and YE accents. Available literature reports that IE accent has the least variation in its consonant system (Jibril, 1982; Igboanusi, 2006a) and this was confirmed with statistical evidence. Also confirmed was the uniqueness of /h/ deletion to YE accent. The possibility of a diachronic change in HE was suggested based on the low occurrence of (p): [f] realisations compared to Jibril's (1982) report three decades ago.

The next chapter presents the results and discussion of statistical analysis of 11 preselected linguistic variables and five lexical items as they relate to the social variables of sex and ethnicity.

CHAPTER FIVE RESULTS AND DISCUSSION

5.0 Introduction

This chapter presents and discusses the results of the quantitative analysis of the following 11 preselected segmental sounds: /p, v, z, θ , δ , f, f, f, g:, g:,

The goal of the analyses is to investigate the relationship, if any, between each linguistic variable and the independent social variables of ethnicity and sex. The results of the questionnaire survey are also discussed as they relate to the question of accentual convergence in NE.

5.1 Pre-selected segmental features

Much of the existing literature on NE accents has been based on impressionistic conclusions. Others like Jibril (1982), though empirical, need to be reviewed considering that language in itself is dynamic. The 11 segmental features discussed in this section were selected primarily because they are widely reported as deviant or unique to at least one of the three ethnic groups being investigated in the present study.

Consistent with the practice in the variationist model, described in section 2.2.1.1, the linguistic variables are hereafter represented in parenthesis thus: (p), (v), (z), (θ), (θ

(f), (o:), (e), (a), (a). The variant or variants of each variable is denoted in square brackets after a colon e.g. (d): [t]; (o:):[a], [o].

5.1.1 Voiceless bilabial plosive (p)

This sound was selected as a variable because it is the most often used feature to mimic the Hausa speakers of English. It is not regarded as a shibboleth in IE and YE. The layman's interpretation of the phenomenon is simply that /p/ is articulated as /f/ in HE. Academic literature describes it as a case of mother tongue interference because most Hausa dialects do not have /p/ in their sound system (Dunstan, 1969; Jibril, 1982). For the present study, the variable (p) was tested in the following words: person, develop, preserved, relationship, people, purchase, campus, policy, special, equipment, preserved, approve, pleasurable.

5.1.1.1 Statistical analysis of (p)

The result of ANOVA for (p) is given in Table 5.1. There is no significant variation in the ANOVA analysis of (p); however, as observed in Table 5.2, pairs comparison shows an obvious difference in the result of means for the three ethnic varieties: IE and YE are identical with 14.95 out of 15 tokens. HE comes behind with 14.50 scores, because of (p):[f] variation by the HE respondents. The reason why IE and YE have not recorded the entire available scores is due to the variation of (p): ø where

$$/p/ \rightarrow \varnothing/- C$$

5.1.1.2 Perceptual analysis of (p)

Table 5.3 shows the result of auditory analysis of (p) across the three ethnolects. Of the three ethnolects, Table 5.3 reveals that HE alone has more than one variant of (p), while IE and YE have one and the same variant, which is not a phonetic sound substitution but a deletion in the environment of a consonant cluster (CC) also present in HE.

- ult of	ANOVA	for (p)
- ault of	WIACA	detected to	400

Table 5.1 Result		Sum of Squares	df	Mean Square	F	Sig.
P	Between Groups	2.700	2	1.350	1.574	.216
	Within Groups	48.900	57	.858		
	Total	51.600	59			

Table 5.2 Result of Post Hoc Test

0	<u>al</u>	24	
		ec.	8
Sci	he	He	

Scheffe		
Ethnic		Subset for alpha = 0.05
Group	N	1
1 Hausa	20	14.50
2 Igbo	20	14.95
3 Yoruba	20	14.95
Sig.		.315

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

Table 5.3. Ethnic variation of (p)

ETHNIC		SOUND		VARIANTS			
GROUP	High	Average	Low	High	Average	Low	
HE	р					f, p ^h , φ, ø	
IE	р					Ø	
YE	р					Ø	

The ø variation in HE, IE and YE involved only one speaker each (5%) and the same word affected in the three ethnolects was equipment pronounced /ikwiment/ in YE and /ekwiment/ in IE; both respondents were female. The HE output was /ikment/ by a male speaker: two consonants and one vowel sound have been deleted in this utterance. The process of language simplification also known as ease of utterance may be responsible for this manifestation in the specific speakers not a general articulation in HE, IE, and YE accents per se.

It is only HE that Table 5.3 shows to have other variants of (p). Indeed, the stereotypical or secondary ethnolect representation of HE speakers is that they exchange (p) with [f] when they use English words, for example, /fiarufi/ PRP (name of a political party that once wielded strong influence in the northern region) and /fiful/ people. Examples such as /pij/ fish, /pεθ / faith, /pεs/ phase, /piptiθri/ fifty-three also showed up in the HE data. Hausa does not have labio-dental fricatives in its sound system and Dunstan (1969) reports that /p/ does not occur in most dialects of Hausa, hence the recurring variation observed in this sound even at acrolectal level.

Jibril (1982:83) diagnoses the criss-crossing of [p] and [f] as a case of "hypercorrection". The HE speaker, conscious of the fact that he has to make extra effort to pronounce the labiodentals which are absent in Hausa, overextends the effort and articulates [f] and [p] as allophones of the same phoneme in free variation. Jibril's report three decades ago is, "So widespread is the difficulty of Hausa speakers with English /f/ and /v/ that only two of the fifteen Hausa speakers in the corpus do not substitute bilabials for them" (1982:83). The quantitative investigation of speech produced by the HE respondents in the present study yielded a different result. Allophonic variation of /p, f/ occurred at a Low level in the speech sample of the younger generation of HE speakers investigated. Just 5 (25%) out of 20 respondents substituted /p/ with /f/ even in their casual conversation and the substitutions were random occurrences. This difference in results within a 30 year span is indicative of a diachronic change in HE.

Jibril (1982:95) states that /p/ is usually replaced by [kp] in "uneducated Yoruba speech and in English loan words generally." Awonusi (2009a:211, 224) invariably agrees with Jibril's view by saying that [kp] occurs in "uneducated or basilectal Yoruba English". The

term "uneducated" as used by Jibril and Awonusi if taken to mean those who are illiterate cannot read or write English – then a close scrutiny of the speech of such uneducated people in this millennium shows differently. For instance, unschooled adolescent males and females taken from the village to the city to work as house helps were observed to articulate English /p/ and not [kp] even when speaking Yoruba. Examples are:

/ jé kin mú panti è wa/ 'Should I bring his [the baby's] pant?'

/mo ti be potato náà tã/ 'I have finished peeling the potatoes.'

The above illustrations of English words in the utterance of an educated Yoruba maid indicate that where accentual features are concerned, the environment has a strong, if not much stronger effect on the acquisition or learning of a second language than classroom instruction. Evidence is clear, even in the acquisition of L1, that, barring physiological hindrances, it is the exact output in the child's immediate environment that the child inputs and ultimately reproduces as articulatory ability naturally develops.

In L2 acquisition therefore, it makes no difference if the learner was educated or not; an absolutely illiterate person, even an adult would likely pick the accent in his or her immediate environment be it RP, American, Scottish, Irish, French, Australian or Nigerian English. The terms, basilectal, acrolectal and so on are more or less, not true or factual descriptions of many, if any, human language in active use; the dividing lines are too blurred to be realistic anymore, if they ever were.

The existence of the /p/ sound in Hausa language is controversial (Dunstan, 1969) but there is no controversy about the facts that it exists in Igbo and absolutely does not exist in Yoruba or any of its dialects. However, unlike some of the HE respondents in the present study, all those of YE were able to articulate the sound without any mother tongue interference. The Igbo consonant system has the voiced and voiceless bilabial stops as well as the voiced and voiceless labiodentals. No variation was observed in the IE corpus.

Lack of significant variation among the three ethnolects as indicated in the ANOVA results in Table 5.1 also implies that (p) is a norm in HE, IE and YE. More importantly, the results prove empirically that stereotyping of HE speakers as pronouncing /f/ for /p/ is

an exaggeration, and therefore a secondary ethnolect, not a preponderant feature in the primary ethnolect of HE. The broader implication is that the ethnic marker in HE accent is much more than the interchange of or presence/absence of [f] or [p].

5.1.2 Voiceless dental fricative (θ)

Virtually all existing literature on NE accent reports that (θ) is replaced with the voiceless alveolar stop [t] in NE because of its absence in indigenous Nigerian languages. The following words in the word list and reading passage were used to quantitatively determine its status in HE, IE and YE: worth, faith, birthday, thought, fifty-three, thirty-five, through, nothing, month, anything.

5.1.2.1 Statistical analysis of (θ)

The result of ANOVA as presented in Table 5.4 for $/\theta$ / revealed a significant difference of $/\theta$ / F $_{(2, 57)} = 4.770$, p< 0.05 in the three groups. The post-hoc, pair comparison test confirms the degree of variation in Table 5.5 and shows IE as having the highest level of variation; therefore, it is the main source of significance with a score of 2.70.

5.1.2.2 Perceptual analysis of (θ)

The result of the auditory analysis is presented in Table 5.6. The auditory analysis showed that (θ) is used at a High frequency in the three ethnic varieties. All the same, it is not sufficient enough proof to say that previous studies which say that $/\theta$ / is marginal in NE are incorrect. The High occurrence of (θ) in the present study may be because data was based on the word list and reading passage. In variation theory, reading styles are judged to be careful speech. In essence, respondents in the present study may have been conscious of their pronunciation and therefore made extra effort to use proper enunciation. Nevertheless, the fact that (θ) :[θ] is a dominant feature at all in the corpus suggests that previous reports on the status of $/\theta$ / in NE and its varieties may be changing, at least among the younger generation.

Table 5.4. Result of ANOVA for (0)

		Sum of Squares	df	Mean Square	F	Sig.
θ	Between Groups	34.300	2	17.150	4.770	.012
	Within Groups	204.950	57	3.596		
	Total	239.250	59			

Scheffe			et for alpha = 0.05		
Ethnic Group	N	1			
2 Igbo	20	2.70			
Hausa	20	4.10	4.10		
Yoruba	20		4.45		
ig.		.074	.844		

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 20,000.

Table 5.6. Ethnic variation of (0)

Table		SOUND		VARIANTS			
ETHNIC GROUP	High	Average	Low	High	Average	Low	
HE	θ				t	th, ts, ð, z, s, f, d,	
Œ	θ			t		ø, ę, d	
YE	θ				t	ø, ţ	

on Table 5.6, [t] occurs as a dominant variant in IE but not in YE and HE, where it is categorised as Average; in other words, it was used by less than 50% of the speaker sample in less than 50% of the tokens. This means that there is a greater possibility of hearing [t] instead of (θ) among IE speakers than the HE and YE speakers. The similarity between HE and YE to the exclusion of IE in the use of (θ): [θ] may appear to support the claim made by Jibril (ibid) that there is a Southern-(meaning a YE) influenced variety of HE; however that would be a faulty assumption. That both HE and YE are similar in the use of a global standard form is an indication of a British/RP- influenced variety of both HE and YE. If YE had a distinctive variant, unique to its speakers, which is observed in other ethnolects and varieties of NE, then a description such as Southern-influenced would be applicable.

Apart from (θ): [t], the three ethnolects also have in common (θ): \emptyset variation, which occurred in the same word birthday. In the HE data, four respondents (20%) comprising three males and one female used the \emptyset variant resulting in /ba:de/. In IE, five respondents (25%) – three males and one female deleted the voiceless dental fricative to produce /ba(ei)de/. In YE, two respondents (10%) – one male, one female deleted (θ) to realise /bede/. In the three ethnolects, the overall rate of occurrence of (θ): \emptyset variation was Low and going by the CC environment in which it occurred, one may infer that it was due to a consonant cluster simplification process.

The word birthday was the only word carrying the token of (θ) that was most consistently well pronounced. For some respondents, it was the only token of (θ) that had no variation all through their interview, word list and reading passage inclusive. The interpretation in the present study is that different words in a speech community have certain social power values attached to them. Among the youths, the word birthday carries with it a bundle of messages to the pocket, stomach, emotions, wardrobe, and hormones of the hearer; it can determine overall social status and even spiritual affiliations among peers of the immediate and extended social group. Such a social power word in that speech community is typically articulated with the highest possible form of fineness; meeting the standard of the most elite variety possible.

Examples of other words and phrases carrying social power that usually have standard enunciation or westernised accent among the youth in NE include: Hello, Hi, what's up, Calch you later. Personal observation reveals that though the /h/ is most of the time absent in YE accent, the first time youths are introduced to one another, in particular those of the opposite sex, the glottal fricative comes out loud and clear as the hands shake or fingers snap in articulating the social greetings Hello and Hi. Not too long however, the rest of the conversation is evidenced with h-droppings (Awonusi, 2009a) as the effort, and need to make a first impression wear off.

In the example of what's up, the attention of the present study is not on the aspect of Americanism (Igboanusi, 2003a), but on contraction resulting in vowel weakening/elision, common and expected in acclaimed standard varieties of English. Contractions of sentences and phrases are not common in NE, but a social power carrying phrase like what's up is always contracted in the speech of the youths. It would sound like a social blunder to say what is up. The possibility that the full meaning of what's up is actually not known to some of the users cannot be ruled out. This is because the next sentence after what's up may be a casual comment like, Why did you not call when you were not sure if he will make it? If the speaker were used to contractions as part of connected speech, the second question, in the absence of the need for emphasis, should have been, why didn't you call, when you weren't sure if he'll make it? Sentences such as this that have no contractions and weak vowels are part of what give NE its full vowel/syllable-timed rhythm.

The connection that these examples of social power carrying expressions have with the present study is that variations in NE accent are due to more than history, mother tongue, level of education, region or even ethnicity being investigated in the present study. There is a social load that certain words carry in a speech community, which determines the accentuation of those words.

Another observation in Table 5.4 is that the HE data has many more variants of (θ) than IE and YE. It is only in HE that (θ) : [z] is present. Yoruba does not have the voiced alveolar fricative but Hausa and Igbo do, yet it is only in the HE data that it was used. A male HE respondent produced /feiz/ faith, replacing (θ) with [z]. The (θ) : [d] variation is common to

HE and IE but absent in YE; providing evidence of similarity between HE and IE as opposed to IE and YE.

Apart from the fact that /0/ is absent in many L1s, the regularity with which [t] is realised as a variant of (0) in so many varieties of English across the world indicates that it is probably more natural and spontaneous for the human articulatory organs to produce an alveolar stop than a dental fricative. Studies of language acquisition in childhood indicate that babies learn to articulate stops before fricatives and bilabial and alveolar stops before velar stops. Even for native speakers of English, "fricatives constitute the largest area of difficulty for native learners in the area of consonant acquisition" (Cruttenden, 2008:191).

5,1.3 Voiced dental fricative (ŏ)

The voiced dental fricative is one of the most used sounds in English, considering the obligatory use of articles and pronouns required in English and the fact that most of these grammatical forms (including adverbs and adjectives) start with $/\delta$ / e.g. this, that, these, them, those, the, their, that etc. Like its voiceless counterpart discussed in section 5.1.2, this is another sound that does not exist in Hausa, Igbo or Yoruba. Available literature on NE accent reports that it is usually replaced with [d]. The following words (each occurred at least twice in the data) were used to empirically determine its status and variations in HE, IE and YE: other (x2), there, their, them, that (x3), they, this, the (x10).

5.1.3.1 Statistical analysis of (8)

ANOVA result showed a significant variance in the group scores as presented in Table 5.7 to be $F_{(2, 57)} = 30.851$, p< 0.05. The pair comparison analysis shows the extent of the variation in Table 5.8.

Out of the total of 20 token occurrences, Table 5.8 indicates that HE respondents had 16.40 while IE respondents had the lowest figure of 1.75. YE respondents had a little below the border line with a figure of 9.75. The post hoc test indicates that IE is the main source of significance as also corroborated in the result of the perceptual analysis.

	**	-0	ANO	VA	for	(A)
- 4	Result	OI	ALTO	تنكارا	TOL	(0)

Table 5.7.		Sum of Squares	df	Mean Square	F	Sig.
181	Between Groups	2152.300	2	1076.150	30.851	.000
	Within Groups	1988.300	57	34.882		
	Total	4140.600	59			

Table 5.8. Result of Post hoc test for (5)

Scheffe"	_	Subset for alpha = 0.05					
Ethnic Group N		1	2	3			
Igbo 20)	1.75					
Yoruba 20)		9.75				
Hausa 20)			16.40			
		1.000	1.000	1.000			
Sig.							

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

5.1.3.2 Perceptual analysis of (ŏ)

The result of the perceptual analysis is presented in Table 5.9 and the most obvious picture is that unlike the YE and HE respondents who used the voiced dental fricative as a norm, its occurrence in IE was Low. Only 30% of the IE sample population used (ŏ) even in formal speech style. The majority (>50%) in the IE sample habitually used [d], whereas the use of [d] in the HE and YE data was Average (>25% <50%). This confirms the post hoc result in Table 5.8 that showed IE as the cause of significant variation. Of the six IE speakers in the sample who used (ŏ), only one of them, a female used it consistently; the other 5 speakers (four males, one female) used [ŏ] and [d] in free variation all through the sociolinguistic interview. This sample shows that the females are leading in the use of the prestige or standard/norm variety of (ŏ). Although this population is a very small number to base general statements upon, the results confirm the assumption in Variation theory that females are more inclined than males to use the elite variety of a language.

It is only in the HE data that [z] occurs as a variant of (δ); however, as shown in Table 5.9, its rate of occurrence is Low (<25%). Examples of (δ): [d] in the HE corpus are /zat/ that, /zis/ this by 5% of the male population; no female was observed to use this deviant form. French and German learners of English are also reported as replacing (θ, δ) with [s, z] (Cruttenden, 2008:196). The comparison of the quantitative presence of (δ) in the HE, IE and YE corpora used in the present study indicates that it is least present in IE. It may be inaccurate to say that (δ) does not occur in NE; however, it is certainly not phonologically significant. Awonusi (2009a:217) classifies it as a marginal consonant in NE.

5.1.4 Half-close central neutral vowel (a:) also known as NURSE

This vowel sound does not exist in Hausa, Igbo or Yoruba. As Egbokhare (2007:55) points out, "the central tongue position is not exploited by most Nigerian languages." In the available literature on NE accent, (a:) is rarely included in the general phoneme inventory. Awonusi (2009a) for instance, does not discuss it as one of the regular vowels in NE, neither does he mention it among what he calls "marginal vowels" in NE. In the present study, the following words containing tokens of (a:) were examined: person, observe, birthday, preserved, worth, purchase, thirty-five, determined.

Table 5.9 Et	hnic varia	tion of (ö)				
		SOUND			VARIANTS	Halai I
ETHNIC GROUP	High	Average	Low	High	Average	Low
HE	ð				d	Z
IE			ð	d		
YE	ð				d	Ø

5.1.4.1 Statistical analysis of (9:) 5.1.4.1 Shows a significant difference of $F_{(2,57)} = 6.158$, p< 0.05 the ANO process of the result of the post hoc test in Table 5.11 reveals that the IE output in the reason for the significance. This is the third variable for which IE is associated with being the source of significant variation in NE (cf. Sections 5.1.2.1 and 5.1.3.2). Out of a total of 5 points, IE speakers scored the lowest with 0.25; HE speakers scored the highest, followed by YE. It is important to note that all three ethnolects recorded below half of the available token occurrences of (a:), confirming as also observed in the perceptual analysis presented in Table 5.12 that (a:) is not a norm in NE.

5.1.4.2 Perceptual analysis of (a:)

Table 5.12 shows that in line with existing literature on NE, (a:) is not a norm in any of the three ethnic varieties investigated. In the HE and YE corpora, the frequency of occurrence of NURSE is Average (>25% <50%), while in IE it is Low (<25%).

The result of the post hoc test in Table 5.11 shows that even though perceptual analysis (Table 5.12) places the use of (a:) in the same column for HE and YE, the HE respondents had a more frequent use of (a:) than the YE respondents. The HE data had a higher number probably because of the existence in Hausa of the schwa, a central vowel like the NURSE; thus making it easier for HE speakers to articulate compared to the IE and YE respondents who had no central vowel in their L1 to approximate towards (cf. Egbokhare, 2007: 55).

An explanation for why the YE respondents had as much as Average use of NURSE may be due to the formal speech style from which the analysed data was extracted. In the Variationist framework, the word list and reading passage are judged to elicit careful "correct" speech. Jibril (1982) argues that on the contrary, in L2 contexts, the reading Passage style does not provoke careful speech; rather, the speaker is more concerned with the task of reading and about what he/ she is reading than how it is pronounced.

Posult 0	AI	NOV	Af	or (a:)
- DOSLIAN V	Contraction of the Contraction o				and the same

Table 5.10. Retail		Sum of Squares	df	Mean Square	F	Sig.
1	Between Groups	15.233	2	7.617	6.158	.004
	Within Groups	70.500	57	1.237		
	Total	85.733	59			

Table 5.11 Result of Post hoc test for (a:)

Scheffe*

300			the state of the s
/		Subset f	or alpha =
Ethnic	N	1	2
group 2 Igbo	20	.25	
3 Yoruba	20	1.10	1.10
1 Hausa	20		1.45
Sig.		.062	.612

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

a:	n/a.
ə:	ə: a
a e, o e, a	

while acknowledging Jibril's (ibid.) view about reading and careful/carefree speech, the opinion in the present study is that the use of the tape recorder (as done on television when interviewing stars and VIPs) may have stirred up a degree of self-consciousness that resulted in the delivery of careful speech by the respondents. Secondly, Jibril's comment about reading was made in 1982, thirty years ago, and literacy level has risen much higher since then. There is certainly much more cause to read in Nigeria now than in the past, especially with the need to communicate via text messages and receive information online—a lot of which students do now as a daily routine. The reason why the same effect of careful speech did not produce the higher use of (a:) by the IE respondents as it did for the YE speakers may be due to a higher degree of linguistic ethnic loyalty present in IE respondents than their YE counterparts. This is explained later in the present study.

Still on the matter of speech style, it is necessary to report that although the use of (a:) was present in the read data, it was only very minimally present in the casual conversation conducted with any of the speakers in the three ethnic groups. The dominant variation of (a:) in the three ethnolects was [a], randomly pronounced long and short by the same respondents particularly in the HE data. Vowel length has phonological significance in Hausa; for example, the only difference in /dama:/ opportunity and /dama/ right side is in the length of /a/. The same phonemic distinction; however, is not applied in HE.

All three ethnolects have (a:): [A] in common in the column for Low frequency variants in Table 5.12, yet the STRUT is not a regular sound in NE, neither does it exist in Hausa, Igbo or Yoruba. Its use may be due to hypercorrection. All the respondents have been exposed to oral English and phonetics, if not in secondary school, then, definitely in their first year in university during the compulsory Use of English course mandatory in all universities nationwide

The most used variants of (a:) in the three ethnolect samples are [a, e, o] as shown under High and Average frequency variants in Table 5.12. The contexts in which the variants occur confirm Simo Bobda's summation that in NE the realisation of the NURSE vowel is "orthographically, geographically, ethnically and lexically determined" (2007:284). To illustrate, 'o' and 'u' spellings of (a:) in worth and purchase were predominantly realised as [o] in the three ethnolects. The breakdown of respondents who pronounced /woo(t) / is

as follows: HE 80%, IE 85%, YE 100%. Respondents who pronounced /poffes/ are: HE 60%, IE 80%, YE 90%.

Ethnic variation was observed in 'er' spellings of (a:). Both person and preserved have the same spelling for (a:) but whereas the majority in the three ethnolects used [a, a:] in preserved /priza(a:)vd/ (HE 80%, IE 75%, YE 60%), there was obvious ethnic variation in realising the same sound in person. The word was realised as /pa:sin/ by 40% HE, 10% IE and 10% YE respondents. On the other hand, 15% HE, 55% IE and 45% YE respondents pronounced /pesin/. The [o] variant was not highly favoured in any of the three ethnolect samples as /posin/ was said by 5% HE, 10% IE and 5% YE respondents only.

In the word birthday, the 'ir' spelling of (a:) produced /baθde/ and /beθde/ with [a] and [e] showing different rates of use in the speech samples of the three ethnolects. In the HE data, 60% used [a], 15% used [e]; in IE, 35% used [a] and 60% used [e], while in the YE data, 30% used [a] and 55% used [e]. A comparison of these simple percentages based on perceptual analysis indicate that (a:): [a] is dominant among HE respondents, [e] is dominant among IE respondents, while YE respondents vacillate between [a] and [e].

5.1.4.3 Acoustic analysis of (a:)

Using the Praat speech analyser software, acoustic analysis of (a:) was carried out in the word person as pronounced by ten respondents (five males and five females) each from the HE, IE and YE sample. Details of the qualities of the NURSE vowel as realised by the respondents in pronouncing person are presented in the formant chart in Figure 5.1.

The formant values in Figure 5.1 show that IE respondents have the lowest F1 but the highest F2 indicating that their realisation of (2:) is lower but further forward than for HE and YE speakers. Compared to YE, HE and IE were more alike in their F1 and F2 values in the production of variants for the NURSE vowel. The YE realisation of (2:) is a high F1 but a low F2. Figures 5.2, 5.3 and 5.4 show waveforms and spectrograms of the word Person in the pronunciation of one randomly selected respondent each from the HE, IE and YE sample population.

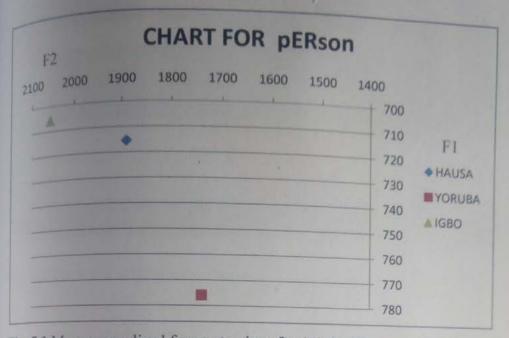


Fig. 5.1 Mean normalised formant values for (a:) for 10 respondents each from the HE, IE, YE sample population

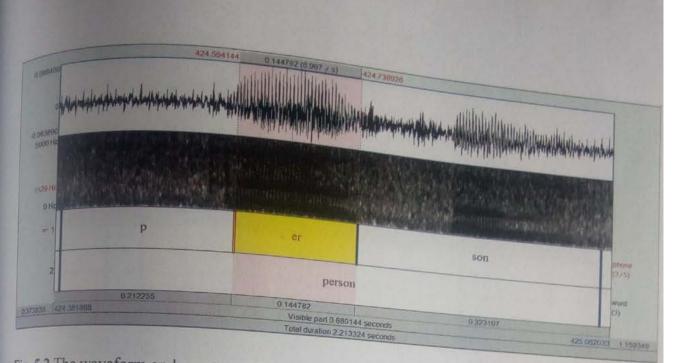


Fig. 5.2 The waveform and spectrogram of person (Hausa English accent)

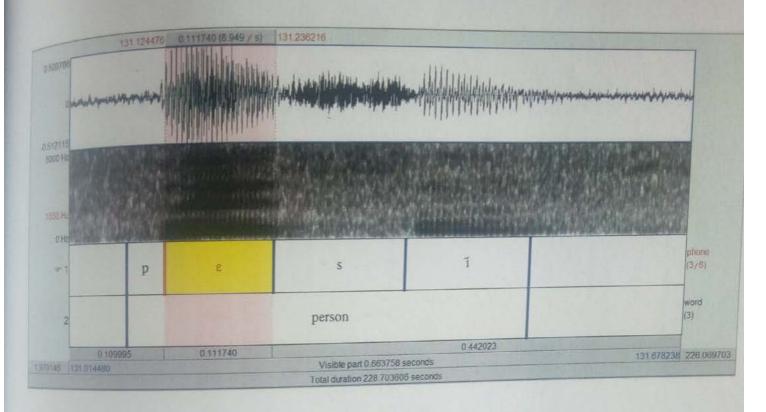


Fig. 5.3 The waveform and spectrogram of person (Igbo English accent)

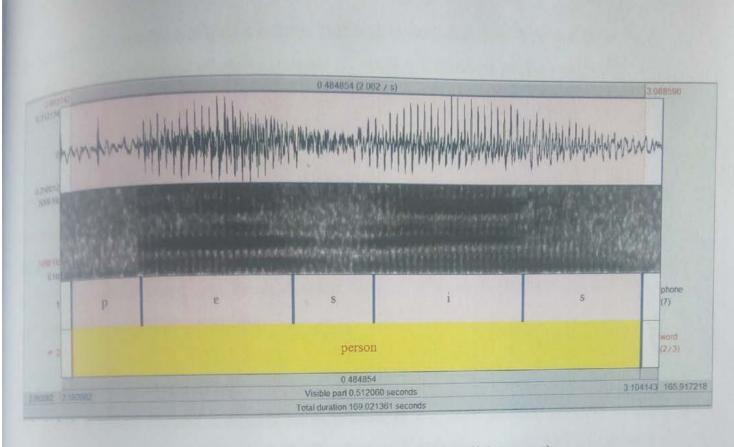


Fig. 5.4 The waveform and spectrogram of person (Yoruba English accent)

The result of the acoustic analysis confirms findings in both the ANOVA and perceptual analyses, that there is indeed ethnicity induced significant difference in the status of (a:) in HE, IE and YE.

5,1.5 Half-open front spread vowel (e) also known as DRESS

This sound is present in Hausa, Igbo and Yoruba languages, yet it has variations in NE that are specific to the three ethnic groups. The sound was tested with tokens distributed in the following words: enter, any, extra, develop, special, element, vegetables, pleasurable, said, gentlemen, television, yesterday.

5,1.5.1 Statistical analysis of (e)

The ANOVA result showed a significant difference of F $_{(2, 57)}$ = 21.764, p< 0.05 in the three varieties as presented in Table 5.13. The degree of variation among the three groups and the source of variation are revealed in the result of post-hoc test given in Table 5.14. Post hoc indicates that IE is the cause of significant variation in the realisation of (e). Table 5.14 shows that IE had the lowest figure of 10.20 out of 12 available token counts and YE had the highest. The presentation of results of the perceptual analysis in Table 5.15 gives an indication of the dominant variants in each ethnic variety.

5.1.52 Perceptual analysis of (e)

The result of the perceptual analysis of (e) shows that IE alone has a variant occurring above 25% use as shown in the column for variants with Average frequency of occurrence in Table 5.15. The [ɛ] variant was also present in the HE and YE data but at a Low frequency of use. Examples observed in the IE data are: /divɛlo(ɔ)p/ develop, /sɛd/ said, /vedʒitɛbu(l)s/ vegetables, /jɛstidɛ/ yesterday. Ninety-five percent (95%) of the IE respondents (55% males, 45% females) had (e): [ɛ] variation at least once in the data. In the YE data, 5% used [ɛ] and this occurred in only one word by one person, suggesting that it might have been a slip. The HE data had 40% of the respondents (20% males, 20% females) using (e): [ɛ] in similar contexts as the IE respondents.

esult of ANOVA for (e)	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	33.600	2	16.800	21.764	.000
Within Groups	44.000	57	.772		
Total	77.600	59			

Table 5.14. Result of post-hoc test for (e)

Scheffe^a

	Subset for	alpha =
	0.05	
N	1	2
20	10.20	
20		11.40
20		12.00
	1.000	.106
	20	N 1 20 10.20 20 20

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 20.000.

Table 5.15. I	thnic gro	SOUND	f (e)			
ETHNIC GROUP	High	Average	Low	High	VARIANTS Average	Low
E E	е					ε, a, ə, i, ø
3	е				ε	Ø, ə
E	е					ε

The highest number of variants – as many as five – was observed in the HE data, albeit all all by frequency as shown in Table 5.15. The variants [ϵ , a, i, ϵ] in the HE data include (e): [ϵ] in /divelop/ develop, /sed/ said; (e): [a] in /alement/ element; (e): [i] in /vidgitebuls/ regelables, /dgintulmen/ gentlemen; (e): [ϵ] in /sed/ said, /spefial/ special. The (e): ϵ 0 variation was common to the HE and IE respondents but in the YE data, there was no realisation of ϵ 0 at all. In HE and IE, /e/ ϵ 0 in develop. The word was pronounced as /divlop/ by one (5%) male respondent in HE; two (10%) IE respondents (one male, one female) pronounced the word as /devlop/. Igbo English and HE are similar in the existence of two variants in common, namely and [ϵ 0, ϵ 0], which are not variants at all in YE.

5,1,6 Voiceless alveolar affricate (f)

Hausa and Igbo languages have the voiceless alveolar affricate in their inventory, while Yoruba, except for most Ekiti dialects, does not. The sound is often classified as a shibboleth in YE and the explanation is that of mother tongue interference. In secondary ethnolects of YE, speakers are often mimicked as replacing (1) with [s]. The variable was tested using the following words: purchase, children, child, witch, coach, chew, each.

5.1.6.1 Statistical analysis of (f)

The ANOVA result on Table 5.16 showed no significant variation in the three groups. Nevertheless, the post-hoc test was still conducted to verify the degree of variation. Table 5.17 presents YE respondents as having the lowest occurrence of (t) with 6.10 scores, and HE respondents as having the highest with 6.85.

5.1.6.2 Perceptual analysis of (5)

The result of the perceptual analysis provided in Table 5.18 shows that (f) is dominant in the three ethnolects, including YE, whose speakers are usually parodied as using [f] for (f). In actual fact, Table 5.18 shows that (f) is a variant of (f) in all three ethnolects. It was observed in the speech of two (10%) HE respondents and seven (35%) respondents each in IE and YE varieties. The single instance of (f): [f] variation in the HE data was /pofes/

Table 5.16 Result of ANOVA for (1)

		Sum of Squares	df	Mean Square	F	Sig.
1	Between Groups	6.300	2	3.150	2.187	.122
	Within Groups	82.100	57	1.440		
	Total	88.400	59			

Table 5.17	Result	of Post	hoc	test	for (1)	
dable -					2.97	

Scheffe		Subset for alpha = 0.05		
Ethnic group	N	1		
3 Yoruba	20	6.10		
2 Igbo	20	6.25		
I Hausa	20	6.85		
Sig.		.151		

Means for groups in homogeneous subsets are displayed.

		SOUND Average	Low	Tr.	VARIANTS	
			High	Average	Low	
IE	f					ſ, s
Е	y					J, s
Е	g					J, Ø

the examples recorded in the IE and YE data in addition to purchase as illustrated in HE include: Aviji wish. Jai(Dd/ child, /Juldren/ children, /iji each. Each of the seven respondents (four males, three females) that used the (f): [f] variation pronounced it at least thrice in the reading passage.

personal observation of YE accent in the immediate environment reveals that the use of (f): [f] occurs predominantly in the speech of the older generation of YE speakers, about 45 years old and above; graduates and university professors inclusive — in other words, educational attainment was irrelevant. Some examples gathered from public speeches of both males and females include, /opofuniti/ opportunity, /wof/ watch, /wif/ which.

Although it is now three decades since Jibril (1982) reported that there was a variety of HE called Sophisticated Hausa, closer to native English than any other variety of NE, the post hoc test result presented in Table 5.17 still holds that assertion true concerning the pronunciation of (f) in the present study. HE speakers, with a score of 6.85 out of 7 available points, rank closest, among the three ethnic groups, to the native English norm in the pronunciation of (f). Simo Bobda's summation that (f) is realised as "[f] in many southern accents" is also confirmed valid (2007:285).

5.1.7 Voiced labio-dental fricative (v)

Only very few dialects of Hausa have labiodentals in their consonant inventory. For this reason, HE speakers are said to replace (v) with [b] in their speech. YE speakers are also said to replace (v) with [f] because Yoruba does not contain (v) in its sound system. Of the three ethnic varieties under investigation, IE alone has a first language, Igbo, in which /f,v/ are present. The words used to collect data for the empirical analysis of the voiced labiodental fricative are: develop, government, observe, preserved, have, veer, villages, vegetables, approve, television, gave, thirty-five.

5.1.7.1 Statistical analysis of (v)

The ANOVA result shows in Table 5.19 that the voiced labio-dental fricative has a significant difference of $F_{(2,57)} = 9.647$, p< 0.05 in the three groups. The cause of variation

among the three ethnic groups is the YE group as revealed by the result of the pair

5,1.7.2 Perceptual analysis of (v)

Following the explanation of mother tongue interference given for the variation of (v) in HE and YE, it would be expected that IE would be free of variation; however, the results of the perceptual analysis in Table 5.21 show differently.

In Table 5.21, the voiced labio-dental fricative is categorised as a norm, a High occurring variable in HE, IE and YE. The [f] variant has a High frequency of occurrence in YE alone i.e. over 50% of the YE speaker sample replaced (v) with [f] in over 50% of the tokens. In HE and IE, (v): [f] variation was also observed but at a Low (<25%) level of use. Table 5.21 also shows that in the categorisation of variants of (v) in the YE accent, [f] is again included in the column for Low frequency occurring variants. The dominant [f] in YE is a result of grapheme/phoneme discrepancy; specifically, the spelling of the preposition of. Compared with the majority of YE respondents that habitually pronounced /əv/ as /of/, very few HE and IE respondents did.

The [f] variant recorded as Low for the three ethnolects were obvious cases of letter 'v' in orthography being pronounced as /f/. In other words, the occurrences captured as Low were not related to problems of orthography; examples in the different ethnolects include:

HE data - /apruf/ approve, /haf/ have

Edata -/gif/ give, /diflopment/ develop

YE data - /θatifaif/ thirty-five, /af/ have, /abof/ above

h is only in HE that (v): [b] was observed in the corpora. Some examples are /priza:b/ preserve, /aprub/ approve, /obza:b/ observe, /biledzis/ villages. Four (20%) HE respondents were involved, and it is noteworthy that they were all male. From the examples, variation in this sound is not context sensitive as it occurs in word initial, word final, intervocalic and word medial positions.

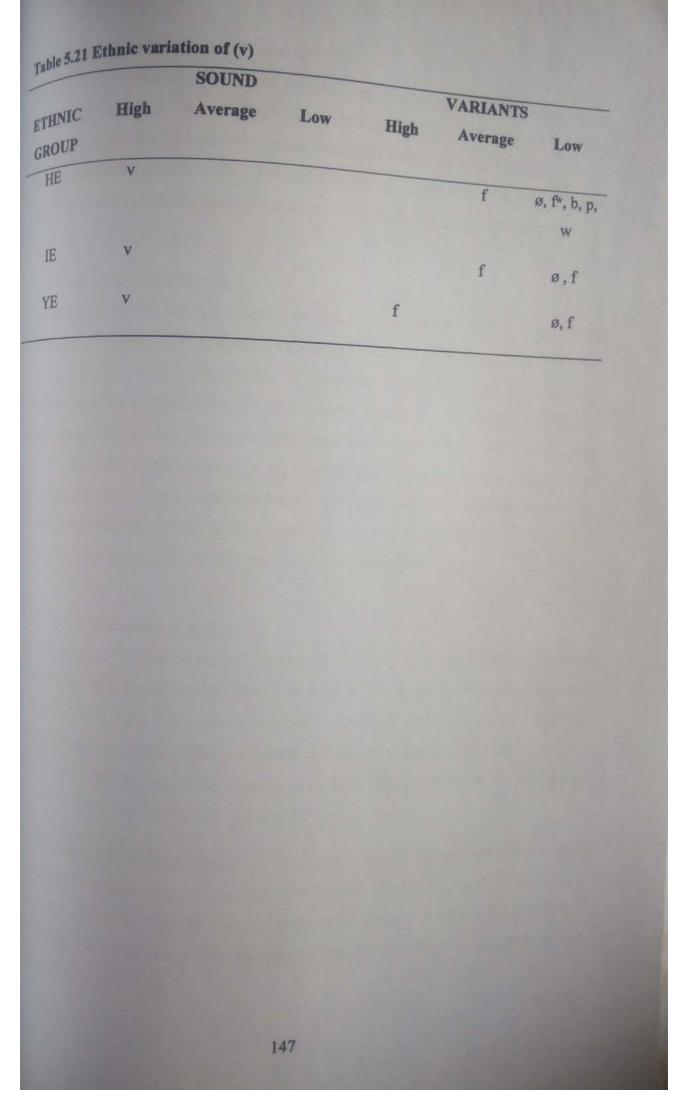
Table 5.19. Result of ANOVA for (v)

		Sum of Squares	df	Mean Square	F	Sig.
٧	Between Groups	25.200	2	12.600	9.647	.000
	Within Groups	74.450	57	1.306		
	Total	99.650	59			

Table 5.20 Result of Post-hoc test for (v) Scheffe^a Subset for alpha = 0.05 Ethnic N Group 20 11.25 1 Hausa 20 11.55 2 Igbo 20 3 Yoruba 12.75 .710 1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20,000.



5.1.8 Voiceless palato-alveolar fricative ()

yoruba people, especially those from Ibadan/Ogbomoso axis are usually caricatured as using [s] instead of (f) when speaking English or using English lexical items in a Yoruba conversation. The (f): [s] variation cuts across all lects as it is heard even at the acrolectal level on an almost routine basis. The variable (f) was tested in the following words: assure, sure, wish, should, special, shoe, shoes, issue, negotiations, information.

5.1.8.1 Statistical analysis of ()

Twelve tokens in the reading passage were used to statistically test the occurrence of (f) in the three ethnolects. The ANOVA as given in Table 5.22 shows significant difference of $F_{(2,57)} = 4.512$, p< 0.05. The post-hoc test conducted showed the YE accent as the main source of variation in Table 5.23. With 10.80 scores compared to 11.05 and 11.40 for HE and IE groups respectively, YE respondents are the main cause of variation of (f). Indeed, the post hoc result confirms why (f): [s] is considered in the Nigerian society to be an ethnic identity marker for YE speakers but not those of HE or IE. Nonetheless, because the YE speakers sampled got very close enough to the full 12 available scores, it shows that (f): [s] is not a primary ethnolect feature of YE; it is a secondary one.

5.1.8.2 Perceptual analysis of ()

The comparison of (f) and its variants in terms of their frequency of occurrence in each of the three ethnolects is presented in Table 5.24. Each of HE, IE and YE have (f) categorised as High in Table 5.24. The variants observed in the three ethnolects are also similarly categorised as Low that is <25% respondents and tokens of occurrence. Two of the Low frequency variants, [s] and [3] are common to the three ethnic groups and occurred in the same two words in the data – issue and negotiations.

An examination of the pronunciation of issue showed ethnic preferences and also shed some light on the sociolinguistic inclination of the HE, IE and YE respondents towards and American English accents. Table 5.25 gives a picture of the different pronunciations of issue observed in the corpora and the percentage of respondents that used them in each others.

Table 5.22. Result of ANOVA for (1)

		Sum of Squares	df	Mean Square	F	Sig.
ſ	Between Groups	3.633	2	1.817	4.512	.015
	Within Groups	22.950	57	.403		
	Total	26.583	59	.103		

Table 5.23. Result of Post-hoc test for (1)

Scheffe"		Subset for alpha = 0.05				
Ethnic group	N	1	2			
3 Yoruba	20	10.80				
[Hausa	20	11.05	11.05			
2 Igbo	20		11.40			
		.465	.227			
Sig.						

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

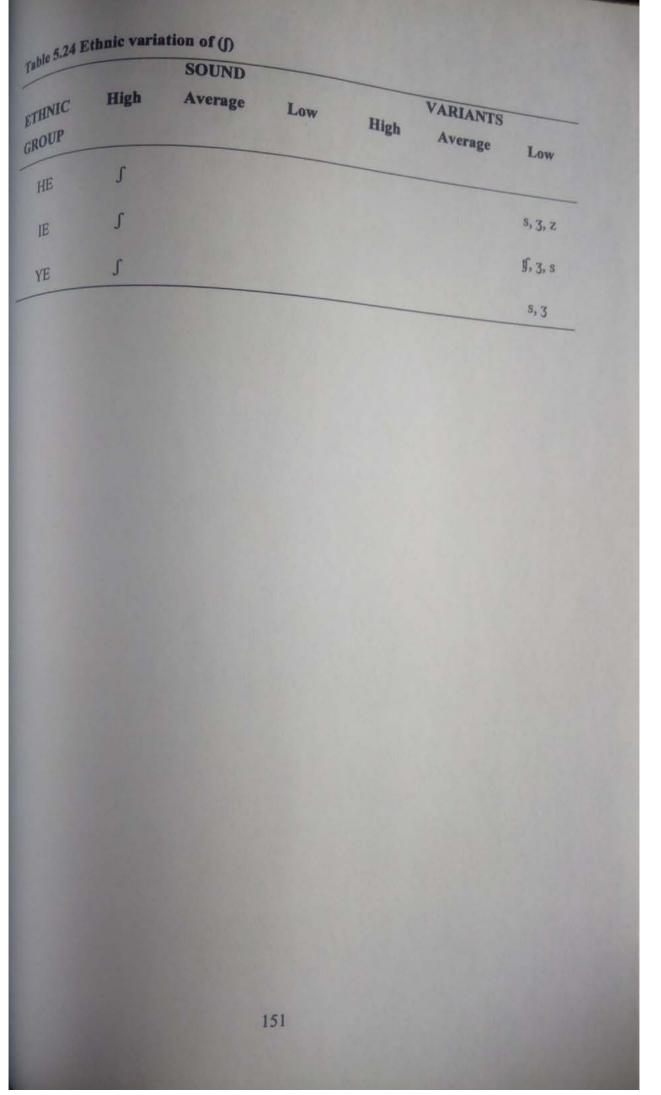


Table 5.25. Pronunciation of issue in HE, IE and YE

	iʃu	isju	
	000	7.	izu
HE	90%	5%	5%
IE	90%	5%	
			5%
YE	45%	0	55%

The word issue is pronounced as /iʃu:/ in British English and /isju:/ in General American English. Ninety percent each of HE and IE respondents were identical in their preference for the British pronunciation. The 5% of respondents in both ethnolects (HE and IE) who used the American accent were both females. The unusual variant [3] was favoured by 55% of the YE respondents, comprising 25% males and 30% females. Only 5% each of respondents in HE and IE used [3] in the pronunciation of issue; both were females. The use of [3] in YE may be an overgeneralisation of the voicing rule to compensate for the absence of (f) in Yoruba language. The paradox here is that the deviant accent is used more prominently than the original British pronunciation; no YE respondent used the American accent.

In all, the most popular pronunciation of issue in the data from HE, IE and YE respondents was the British variant. This preference shows that the influence of the British accent still permeates the sociolinguistic scene in Nigeria. Despite their adoption of American fashion and media over the more conservative British mode, the younger generation of Nigerians have maintained the British English accent as passed down from generation to generation. This fact further confirms the ethnolectal status of NE varieties; a marker of ethnic identity in a complex multilingual society.

As indicated above, two words in the data were responsible for the classification of [s] as a variant of (f) in Table 5.24. The first word, issue has been discussed. The second word is negotiations which has two tokens of (f); however, the first of the two tokens was pronounced as [s] by 65% of respondents in HE, 40% of respondents in IE, and 85% of respondents in YE. The realisations of (f) as [s] in negotiations may be due to the non-correlation of English phonemes and graphemes. The higher incidence in YE of $f \to s$ in the pronouncing of negotiations may be additionally due to the initial accent of the first generation missionaries and teachers that continues to be passed down in Yoruba land. The possibility of each English lexical item having a personal history in NE cannot be discountenanced

5.1.9 Half-open central neutral vowel (2) also known as the schwa

The schwa is considered to be the most used vowel sound in native English (Akinjobi, 2006:10). The schwa determines the rhythm, intonation, stress and overall accentual

pattern of native English. In Allen's view, "we can replace our 20 (twenty) English vowels by the single vowel /ə/ in any utterance and still, if the rhythmic pattern is kept, retain a high degree of intelligibility" (1961:xiv). This all important English sound is absent in most Nigerian languages including Igbo and Yoruba. The sound system of Hausa contains (a) but it does not function the same way as it does in British English. Whereas in the latter it is weakened to give native English its stress timed quality, in Hausa, the schwa carries stress thus maintaining the syllable timed nature of Hausa.

The variable (a) was examined in HE, IE and YE with tokens in the following words: pleasurable, government, develop, campus, surrounding, television, information, relationship, element, gentlemen, children, assure, other, special, about, extra, above, approve, order, yesterday.

5.1.9.1 Statistical analysis of (a)

Analysis of variance within the three ethnolects showed significant difference of F $_{(2, 57)}$ = 23.770, p< 0.05 as presented in Table 5.26. The post-hoc test was carried out to determine the degree of variation between the three groups and the result given in Table 5.27 reveals that all three ethnolects scored very low marks in the articulation of (a) compared to the other preselected linguistic variables so far examined. Out of a total of 30 tokens no ethnic group scored up to 50%. HE with a highest score of 7.65 still falls below 25%. YE speakers scored the lowest point of 1.95, exhibiting that /a/ is barely present in the YE sound inventory.

5.1.9.2 Perceptual analysis of (a)

Table 5.28. Just like the NURSE, vowel /ə:/ discussed in section 5.1.4, the schwa /ə/ does not occur as a dominant feature in any of the three ethnolects, not even the HE respondents who have /ə/ in their mother tongue used the schwa at a High level (>50%) in their speech. Table 5.28 shows (ə) in the column for Average variants in HE (>25%<50%), while it occurs in the column for Low variants (<25%) in IE and YE.

10 5.26. Result of ANOVA	of (a)	
--------------------------	--------	--

	Determine	Sum of Squares	df	Mean Square	F	Sig.
2	Between Groups	425.733	2	212.867	23.770	.000
	Within Groups	510.450	57	8.955		
	Total	936.183	59			

Table 5.27 Result of Post-hoc test of (a)

Scheffe				
	Subset for alpha 0.05			
Ethnic Group	N	1	2	
3 Yoruba	20	1.95		
2 Igbo	20	2.05		
1 Hausa	20		7.65	
Sig.		.994	1.000	

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 20.000.

au.		SOUND				
THNIC	High	Average	Low	High	VARIANT: Average	Low
		9				
HE				a, o, e, u		a:, ia, ε, Λ,
IE			Э	a, o, u	ε	i, o, ie, ø o, ea, ia, e,
YE						i, iə, ø
			Э	a, u, ɔ, i, e, ia		ε, ha, wa,
			157			

Of all the linguistic variables examined in this study, /ə/ has the highest number of variants at a High level in HE, IE and YE. This high occurrence is primarily due to the English orthography which, unlike Hausa, Igbo, and Yoruba is not based on a phonetic correspondence between sound segments and letters. A 'ch' spelling in English may represent [k] e.g. chemistry; [t] e.g. chalk, or [] e.g. machine. To compound the situation, most Nigerians come in contact with English words through the written medium, with the possibility of never hearing a native speaker model.

Despite the discrepancy in native English graphemes and phonemes, there are observable variant preferences unique to HE, IE and YE. An example is the pronunciation of (a) in campus. The dominant variant in IE was [u] resulting in /kampus/ by 70% of the IE respondents. While this pronunciation had zero occurrence in YE, with 85% using [o] resulting in /kampos/, [u] was observed in just 25% of the HE speaker sample while 55% of the remaining HE respondents the favoured YE variant [o]. The similarity between HE and YE in the use of [o] in campus is an example of closer affinity between HE and YE, while the use of [u] by the majority of IE speakers is indicative of the dissimilarity between IE and YE; yet linguists continue to classify IE and YE as being closely similar enough to be called a regional variety distinct from HE (Jibril, 1982; Simo Bobda, 1995; 2007).

An apparent relationship between IE and HE, to the exclusion of YE, as shown in Table 5.28 is (a): [o]. The HE and IE data contained examples like /divelop/ develop and /obza:v/observe. The YE respondents used [o] instead, thus producing /divelop/ and /obzo:v/. For the 'er' spellings like enter, government, order, other, yesterday, an average of 90% of the respondents in each of the three ethnolects favoured the use of variant [a] or [a:] at word endings. In the HE data, 95% deletion of the schwa was observed in government; 85% deletion in the IE and YE data in the same word was also observed. The variant [a] was used in the 'er' spelling in government by 10% of the respondents in IE, 5% in YE and none in HE. For 'er' in yesterday, 45% of the HE respondents used [i] while the others used the schwa; in IE, 75% used [i], 10% used [a] and 15% used the schwa. In the YE data, 'er' in yesterday was pronounced as [i] by 85% of the respondents, while the remaining 15% used the schwa. These results suggest that for 'er' spellings, there is a near uniformity in the realisation of (a) in HE, IE and YE.

It is noteworthy that in British and American English dictionaries, the letter (grapheme) 'a' at the end of Yoruba and Hausa are transcribed with a schwa sound; suggesting that this is what is perceived in the western ear. The variation of (a): [a] in NE accent may therefore be more of an academic controversy than an obstacle to communication in real terms.

Table 5.28 presents IE alone with a variant in the column for Average frequency variants. The sound is [ɛ] and it occurs in examples like /ɛbaut/ about, /ɛbove/ above, and /pleʒrebul/ pleasurable. This variant, which sounded almost nearly like the KIT vowel was also observed in Table 5.15 as a variant of (e). The (ə): [ɛ] variation is often used to caricature the Igbo ethnic group when they speak English or use English words in Igbo speech.

It is only in the YE data that the [h] insertion variable was observed although at a Low frequency, used by 15% of the YE respondents in the word assure, pronounced /haʃuɔ/ The h-factor in YE has been discussed in chapter four.

There was no perceptual significant presence of (a) in the casual conversation of over 90% of the respondents, not even by the few that pronounced (a) in the word list and reading passage. This observation confirms Awonusi's assessment that the usage of (a) in NE is usually for most speakers, style specific, i.e. in isolated words or word-list style" (2009a:2222).

5.1.9.3 Acoustic analysis of (a)

Using the Praat speech analyser software, acoustic analysis of (a) was carried out in the word develop as pronounced by ten respondents (five males and five females) each from the HE, IE and YE sample. Details of the qualities of the schwa vowel as realised by the respondents in pronouncing the vowel in the third syllable of develop are presented in the formant chart in Figure 5.5

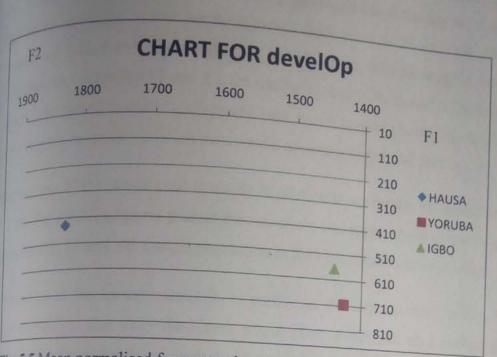


Fig. 5.5 Mean normalised formant values for (ə) for 10 respondents each from the HE, IE, YE sample population.

Figure 5.5 in showing the mean of formant values of (a) as pronounced by the selected HE, IE and YE respondents, presents the HE pronunciation as having the lowest F1 but the highest F2 and these values are far removed from those of IE and YE. The IE and YE variants are indeed very close in their F1 and F2 values; thus seeming to provide evidence for those who claim that IE and YE are similar enough to be described as a single regional accent. The prosodic analysis discussed later in the present chapter shows; however, that there is more to ethnic variation than similar sounding segmental features.

The variants of the schwa used in the three ethnolects are further illustrated in Fig 5.6, Fig 5.7 and Fig 5.8. The figures present the waveform and spectrogram of one respondent each from the HE, IE and YE sample population in their pronunciation of develop.

The results of the acoustic analysis, in particular, the formant chart in Fig. 5.5 reveals a high probability that even the Hausa sound often mentioned as a central vowel in the sound system may not be as centralised as the English schwa when subjected to acoustic analysis.

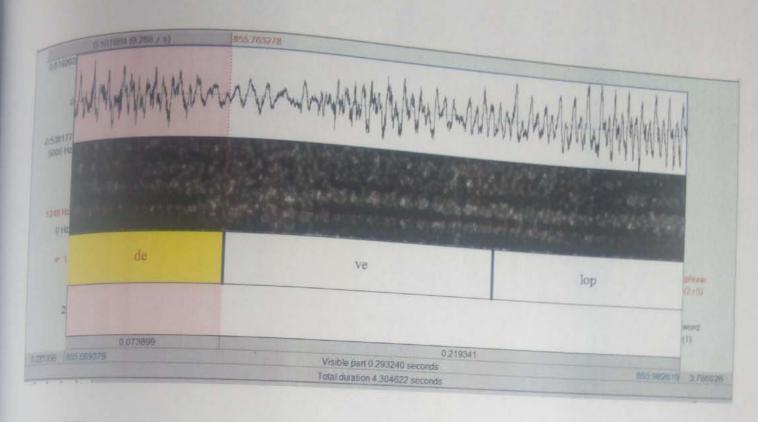


Fig. 5.6 The waveform and spectrogram of develop (Hausa English accent)

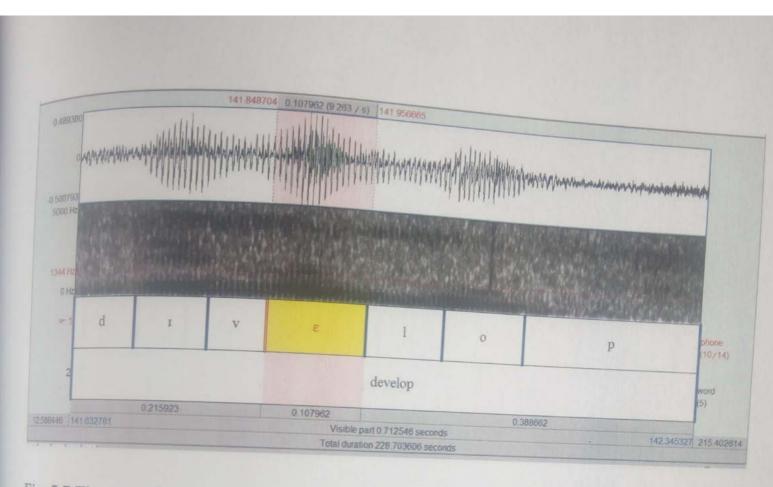


Fig. 5.7 The waveform and spectrogram of develop (Igbo English accent)

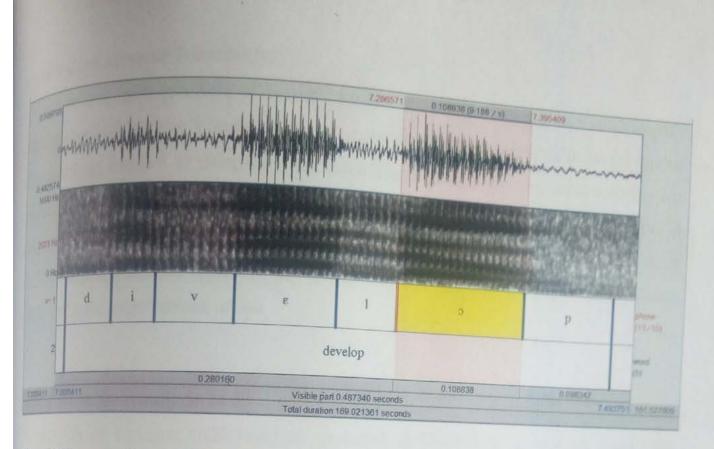


Fig. 5.8 The waveform and spectrogram of develop (Yoruba English accent)

5,1,10 Voiced alveolar fricative (z)

The Hausa and Igbo speakers of English are not known to have any variation in their articulation of (z) but the Yoruba ethnic group are usually caricatured as using [s] instead when speaking English or using English lexical items in their Yoruba conversations. The voiced alveolar fricative exists in Hausa and Igbo but is not present in Yoruba. A comparison of the frequency of use of (z) in the three ethnic groups was carried out using the following words with tokens of (z): preserved, phrase, business, observe, was, buses, words, villages, negotiations, shoes.

5.1.10.1 Statistical analysis of (z)

The analysis of variance (ANOVA) as presented in Table 5.29 showed no significant difference in the realisation of (z) in HE, IE and YE. Although there was no significant difference, post-hoc pair comparison was carried out to determine if there was any slight but observable degree of variation in the three ethnic groups. The result as presented in Table 5.30 shows that all the three ethnic groups fall under the same single subset, HE has the highest score of 5.05 out of the 8 counts available, followed by IE and then YE with the lowest score of 4.65, which is still slightly above 50%.

5.1.10.2 Perceptual analysis of (z)

The perceptual analysis of (z) is given in Table 5.31. The voiced alveolar fricative has a High rate of occurrence in HE, IE and YE. The three ethnolects also have a second High occurring variant [s]. An examination of the dominant contexts in which (z): [s] occurs showed that it is plural morphemes, which should change to [z] or [iz] when preceded by a voiced consonant in native English that fail to heed this rule in HE, IE and YE. The plural marker is spelt with an 's' or 'es' after the noun in writing. The underlying phonological rule is that /s/ becomes /z/ after a vowel or voiced consonant stop and it becomes /iz/ through a vowel insertion process when it occurs after a voiced or voiceless fricative or affricate

Table 5.29. Result of ANOVA for (z)

		Sum of Squares	df	Mean Square	F	Sig.
Z	Between Groups	1.633	2	.817	.618	.542
	Within Groups	75.300	57	1.321		
	Total	76.933	59			

Table 5.30. Result of post-hoc test for (z)

Ethnic	Subset for alpha = 0.05	
Group	N	1
1 Hausa	20	4.65
2 Igbo	20	4.90
3 Yoruba	20	5.05
Sig.		.549

Die		SOUND				
THNIC	High	Average	Low	High	VARIANTS Average	Low
HE	Z			S		s, ø, θ
IE	Z			s		S, Ø
YE	z			S	S	Ø

The plural forms in the reading passage data were elements, words, hamlets, buses, segulables, villages, shoes, baskets, negotiations. Table 5.32a shows the words and plural marker options used in each ethnic group as well as the percentage of respondents that used each option. No single speaker in the three regions used [s] and [z] in free variation, white what occurred due to hypercorrection in the YE interchange of [f] for (v) and the HE exchange of (p): [f] and (f): [p]. This is an indication that /s/ is the underlying plural morpheme in all three ethnolects. Alternatively, the plural marker -s may have had such a high degree of occurrence in the three ethnolects simply as a result of the confusion with the graphological representation.

pespite the fact that the letter 's' was present at the end of pluralised lexical items, the ø variant for the plural morpheme was observed in the word list, reading passage and even casual conversation, indicating that neither the written form or the speech style had any effect on whether respondents articulated the plural morpheme or not. In Table 5.32a, the figures show that the YE respondents deleted the plural marker more than the HE and IE speakers did. An explanation for plural morpheme deletion in HE, IE and YE may lie in the fact that for most Nigerian languages, including Hausa, Igbo and Yoruba, plural formation is lexical and not morphemic.

The HE respondents observed the voicing rule for plural formation in English by a very narrow margin above IE and YE respondents. Table 5.32b reveals that words consistently had the highest number of correct articulations across the three ethnolects. All IE respondents (100%) were perceived as using [z] in the pronunciation of words.

In Table 5.32c, the plural morpheme (-iz) is not dominant in any of the three varieties, indicating that it may also not be a norm in NE. In pronouncing buses, all the respondents (100%) in HE, IE and YE said /bosis/. In contrast, voicing occurred in the pronunciation of villages as also reported present in words. This may be an indication that /z/ comes more naturally as a plural morpheme when the singular form of a word ends with a voiced stop or affricate.

5,31 1		sound				
IC P	High	Average	Low	High	VARIANTS Average	Low
	z			3		1, 8, (
	z			ś		1, 0
	Z			S	5	8

- 278	Variants of	f plural mor	pheme (-s) ar	ld non-		
Table 5.324	HE	f plural mor	IE	% percentage	e of responde	ents
	8	Ø	8	8	YE	9/0
		4007			8	Ø
Elements	60%	40%	50%	50%	55%	45%
Baskets	75%	25%	75%	25%	60%	40%
Hamlets	70%	30%	80%	20%	70%	30%

Tuble 5.32b. V		HE			IE	-6	or resp		
	5	Ø	Z	8	ø	Z	S	YE	
_	0	10%	90%	0	_		,	8	Z
words	U	1070	2070	0	0	100%	5%	15%	80%
	35%	20%	45%	80%	15%	5%	60%	5%	35%
egetables								370	3370
hoes	25%	10%	65%	10%	0	90%	15%	5%	80%
	70%	30%	0	600/	100				0079
negotiations	1070	3076	U	60%	40%	0	80%	20%	0

-		HE%		rpheme	IE%		age of re		s
	is	ø	iz	is	0	-		YE%	
	13					iz	is	Ø	iz
	100%	0	0	100%	0	0	100%	0	0
3	50%	30%	20%	70%	5%	25%	65%	0	35%

doing back to Table 5.31, it will be observed that YE has the [s] variant recorded again in the column for Average (>25%<50%) occurring sounds; HE and IE also have [s] again an entered in the column for Low occurring variants. This second entry of [s] in the three ethnic varieties is for (z): [s] variations that are not tied to the plural marker. In YE, 70% of the respondents had pronunciations like /prisavd/ preserved, /fres/ phrase, /obsav/ observe, /wos/ was; six males and eight females were involved. The only example in IE was /bisnes/ business by a female respondent. In the HE data, the (z): [s] variation was observed in use by 70% of the respondents but unlike the YE data that involved six lexical liems, only two words were affected in HE: as follows: /fres/ phrase and /wos/ was. While the HE and IE use of [s] may have been caused by problems resulting from confusion with orthography in the two words concerned, the probability is high that YE speakers were more susceptible to replacing (z) with [s] because the voiced alveolar fricative does not occur in Yoruba whereas it occurs in Igbo and Hausa.

5.1.11 Open central vowel (A) also known as STRUT

This sound is said to exist in NE mainly at the acrolectal level and among many speakers of HE (Egbokhare, 2007:61; Awonusi, 2009a:221). Generally, STRUT is described as a problematic sound for most NE speakers. To quantitatively determine the frequency of use of (A) and its variants in HE, IE and YE, the following words containing tokens of (A) were examined: government, come, buses, one, month, nothing, other, above.

5.1.11.1 Statistical analysis of (A)

The analysis of variance presented in Table 5.33 shows that within the three ethnic groups, ethnicity had a significant effect on (Λ) as follows: F (2, 57) = 25.346, p< 0.05. Post hoc analysis was conducted to determine the main cause of variation. The result as given in Table 5.34 identifies HE as the variety with the greater occurrence of (Λ) compared with E and YE.

5.1.11.2 Perceptual analysis of (A)

The result of perceptual analysis to ascertain the status and frequency of occurrence of (A) in the HE, IE and YE data as given in Table 5.35 reveals that (A) is not a norm in HE, IE, and YE.

a Resu	It of ANOVA of (A)				
Table 5.33.	It of ANOVA of (A) Sum of Squares	Df	Mean Square		
/	CT 500		oquare	F	Sig.
Between Groups	67.500	2	33.750	25.346	000
Within Groups	75.900	57	1.332		.000
	143.400	59			
Total					

		it-hoc test fo	
Ethnic	N	1	2
	20	.15	
lgbo Yoruba	20	.15	
	20		2.40
Hausa Sig.	20	1.000	1.00

. 35, I	thnic vari	SOUND	W. F. W.			
Table 5.35 ETHNIC GROUP	High	SOUND Average	Low	***	VARIANTS	
GROU	High		LIOW	High	Average	Low
HE		٨		0	٨	a:, o, o
IE			Λ	0	0	u, ou, a, 5,
						٨
YE			٨	0		a, o, u, 5,

HE data alone that (A) is present at the frequency of Average (>25%<50%). The significant presence of (A) in the HE data as confirmed also by ANOVA and hoc tests earlier on in Tables 5.33 and 5.34 may be because Hausa itself also has a central vowel. Being already familiar with utilising the central part of the tongue in their mother tongue, HE speakers have less difficulty in articulating (A) compared with IE and yE respondents who have no central vowels in their mother tongues. In the IE sample, three respondents (15%) were perceived to use (A) in the same lexical item, one. The three IE respondents comprised two females and one male. In the YE data just one male respondent was perceived to use (A) in three lexical items.

The highest occurring variant in the HE, IE, and YE data was (A): [5]. Most of the 'o' spellings were pronounced as [5] in examples like one, come, month, above. The 'u' spelling in bus was also commonly realised as [5] as indeed many other 'u' spellings in the data e.g. security, assure, sure, purchase. Apart from the obvious conflict between graphological and phonemic representations in the English language, there is the additional possibility of "error-recycling" (Oyeleye, 1994:107) whereby teachers' errors are inadvertently passed down from generation to generation.

5.1.11.3 Acoustic analysis of (A)

The Praat speech analyser software was used to carry out acoustic analysis of (A) in the word buses as pronounced by ten respondents (five males and five females) each from the HE, IE and YE sample. Details of the qualities of the STRUT vowel as articulated by the respondents are presented in the formant chart in Figure 5.9.

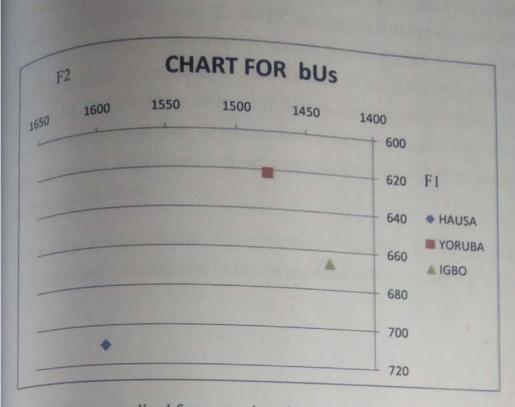


Fig. 5.9 Mean normalised formant values for (A) for 10 respondents each from the HE, IE, YE sample population.

In terms of acoustic dimensions, Fig. 5.9 shows YE respondents as having a lower FI than the familiarity of a central the familiarity of a central hausa produced the variant of (a) with both the highest F1 and the highest F2. The HE realisation is the most advanced forward of the three ethnolects and is most dissimilar. On the other hand, the range of difference between the F1 values of IE and YE despite the proximity of their F2 values, makes their variants also very dissimilar. The degree of disparity is high enough to make it inaccurate to classify them phonologically as the same regional accent.

The waveform and spectrogram of one respondent each from the HE, IE and YE sample population in their pronunciation of bus are presented in Fig. 5.10 and Fig. 5.11.

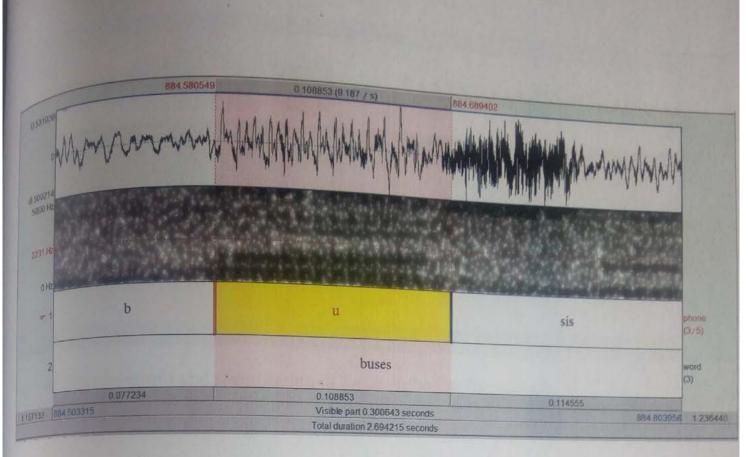


Fig. 5.10 The waveform and spectrogram of buses (Hausa English accent)

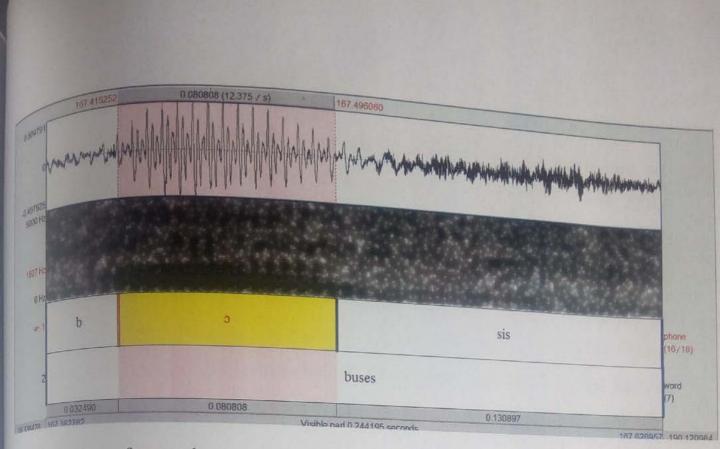


Fig. 5.11 The waveform and spectrogram of buses (Igbo English accent)

5.2 Prosodic analysis

sections 5.1.1 to 5.1.11 above, discussed selected segmental sounds reported to characterise varieties of NE accent (Jibril, 1982; Igboanusi, 2006a; Simo Bobda, 2007; Awonusi, 2009a). Beyond consonant and vowel sounds, other features are also typical of specific ethnic groups even when the sound segments are identical.

From random tests of the general public's ability to identify the ethnic group of respondents by listening to the recordings used for the present study, some lexical items were found to consistently appear on the list of ethnic group markers. From that list, the following words were selected for prosodic analysis: develop, vegetables, security, gentlemen, television.

5.2.1 Prosody of develop

This word was selected for analysis as an ethnic marker particularly of IE respondents. In general English it is pronounced with primary stress on the second syllable. It is analysed in the present study in terms of stress placement, vowel type and quality in HE, IE and YE.

5.2.1.1 Stress placement

The different placements of primary stress in develop by the respondents in each ethnic group as presented in Table 5.36, shows 60% of HE and 65% of IE respondents as placing the primary stress on the last syllable of develop, while all YE speakers placed stress on the second syllable. No YE speaker placed stress on the third syllable. It is noteworthy that when HE and IE respondents employed the same stress pattern the accents still differed; the reason was the variation in vowel type and quality preferred by each ethnic group.

52.1.2 Vowel type and quality

Four different vowel types were observed in the first syllable of develop in the output of respondents from the three ethnolects. The vowel types and the percentage of users in the data are presented in Table 5.37.

ts	ence for primary stress in	develop and percei
nic group	Second syllable	Third syllabl
HE	40%	60%
IE	35%	65%
YE	100%	0

5.37. Ethnic preference		- sevelop a	nd percentage of
ic group E	i	e	
HE 25%	15%	35%	350/
55%	30%		25%
IE		15%	0
YE 0	95%	0	5%
	185		

over half of IE respondents (55%) were observed to use [ɛ] in develop; 95% of YE speakers used [i] and the HE respondents utilised all available variants in near equal proportions. The transcribed data showed that even when IE and HE respondents placed stress on the same third syllable in develop the IE respondents' preponderant use of [ɛ] in the first syllable often gave away the ethnicity of the Igbo. The transcription also revealed that when IE and HE respondents similarly stressed the third syllable and also similarly used [ɛ] in the first syllable, ethnicity was still perceived because the IE respondents predominantly used [o] on the third syllable of develop, while HE respondents usually used [o] in the third syllable. All (100%) of the YE respondents used [o] on the third syllable of develop.

Based on acoustic analysis, the formant chart of the quality of the vowel sounds used by HE, IE, and YE respondents for the first syllable of *develop* is presented in Fig 5.12. The F1 of the IE vowel is the lowest, while the F1 of HE is the highest as presented in Fig. 5.12. The IE and YE output of (i), compared to HE, is relatively close particularly in terms of F2 values, showing more fronting than the HE variant.

The implication of all the information on the prosodic analysis of *develop* so far is that vowel type or quality does not affect stress placement in HE, IE, or YE; neither does stress placement affect the quality of the vowel.

5.2.2 Prosody of vegetables

This noun word in native English has just three syllables, primary stress on the first syllable with a DRESS vowel followed by two syllables with the schwa, which is a weak vowel. Majority of the speakers sampled in HE, IE and YE pronounced the word with four syllables as a result of vowel epenthesis to break a consonant cluster. This usually resulted in /vedgitebuls(z)/ instead of /vedgtəbəlz/. Stress placement and vowel type; however, differed in the three ethnolects as presented in Table 5.38.

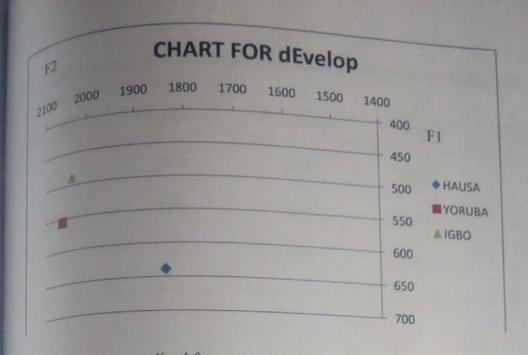


Fig. 5.12 Mean normalised formant values for (i) for 10 respondents each from the HE, IE, YE sample population.

7able 5.38 Ethnic preference for primary stress placement in vegetables and

Ethnic group	1 st syllable	2 nd syllable	3 rd syllable	4 th syllable
HE	20%	50%	30%	0
IE	55%	25%	15%	5%
YE	0	55%	45%	0

specific speakers as shown in the first syllable by 55% of the IE speakers as shown in the first syllable, rather the majority in YE preferred to stress either the second or third syllable. In cases where HE, IE and YE speakers in the sample shared the same stress preference, ethnicity remained distinct basically through differences in the solved type used in the three ethnolects.

for instance, whereas IE speakers more often used [ε] in the first syllable and [e] in the third to give /vεdʒitebu(l)s/, YE speakers were more likely to use [e] in the first syllable and [ε] in the third to give /vedʒitebu(l)s/. Hausa English speakers in the same context had a higher tendency to follow the YE vowel choice, or they pronounced the word with three syllables rather than four and often times, the schwa was used resulting in /vedʒtebu(l)s/ or /vedʒitabu(l)s/

5.2.3 Prosody of security

This word was one of the most prominent ethnicity markers in the whole data, particularly in identifying YE respondents. Stress placement was found to be the same, with all three ethnolects favouring primary stress placement on the second syllable. The ethnic variation lay in the vowel type used in the first and second syllables of security. The statistical analyses in simple percentages are presented in Table 5.39 and Table 5.40.

In the realisation of the first syllable vowel sound of security in Table 5.39 shows that 60% of HE and 95% of YE respondents favoured the use of [i] to give /sikjoriti/, while in IE only 25% of the respondents used [i]. The most preferred variant by 40% of the IE sample population was [e] resulting in /sekj{u, o}riti/, which no YE respondent used and which was used by just one person in the HE sample. The next preferred option in IE by 35% of the respondents was [e] to give /sekjoriti/, which again was used by a less than 25% of the respondents in HE and YE.

It was only in the HE data that vowel deletion was observed resulting in /skjuriti/ by 20% of the HE respondents

ju	jo		····y	
		θu	jə	jio
65%	20%	5%	10%	0
60%	25%	10%	5%	0
15%	80%	0	0	5%

the results presented in Table 5.40 indicate that there is a much closer affinity between the results preferring /ju/. The second syllable of this word with 65% HE and 60% IE respondents preferring /ju/. The output of the YE respondents was different with only 15% following the HE/IE choice of [u] while 80% used /jɔ/. The YE dominant use of [ɔ] instead of IE's favoured use of [u] was also seen in the pronunciation of campus, one of the words contained in the reading passage used to collect data for the present study.

Seventy percent of IE respondents used [u] for the second syllable in campus, while 85% of the YE speakers used [o] instead. In the HE data, 25% of the speakers used the favoured IE [u], while 55% used the preferred YE [o] in the pronunciation of campus. Whereas IE speakers would use [u] where YE favoured [o], HE speakers were more likely to sound like IE speakers because of their choice of [u] over [o] in the pronunciation of the second syllable of security. It was also only in IE and HE that the deletion of /j/ was observed although in a Low level (<25%) by one respondent in HE and two in the IE data.

5.2.4 Prosody of gentlemen

This compound noun was pronounced with relatively the same sounds in all three ethnolects unlike what was observed in the other three words so far examined, yet it stood out as an ethnic identity marker in the data. The source of variation was found to be in the rhythm, not stress placement or vowel type. Stress was placed on the first syllable in the three ethnolects. Table 5.41 shows the rhythmic patterns used: H = high tone, M = mid (rising) tone, L = low (falling) tone.

The two main rhythmic patterns shown in Table 5.41 are HLM for IE and HHM for HE and YE. Primary stress is placed on the first syllable of gentlemen in the three ethnolects. Nevertheless, in IE accent, there was greater pitch prominence on the first syllable compared to the prominence observed in the HE and YE accents. Also, whereas IE respondents lowered the high tone, YE speakers characteristically maintained it, resulting in two strong stresses on gentle and a slight lowering to mid tone on men. Sixty percent of the HE speakers had the same rhythmic pattern as YE, preferring the HHM pattern, but unlike YE where all 20 speakers adopted this rhythm, HE had variations ranging from MMH to HLH and HHH, giving off a sing song quality characteristic of the HE accent.

hnic	HLM	ННМ	and percentar	HLH	ННН
up E	25%	60%	10%	5%	0
	75%	15%	5%	0	5%
2	0	100%	0	0	0

5.2.5 Prosody of television 52.5 Prossors

52.5 Prossors

Syllable noun word can be pronounced with primary stress on the first syllable or the syllable. However, since rhythm in NE is not stress to this four syllable. However, since rhythm in NE is not stress-timed, but usually follows the third syllable timed characteristic of the indigenous first language of its speakers, the realisation syllable beauty in connected speech results in different rhythmic patterns in the three of televis of televis of simple percentages are presented in Table 5.42.

Generally, Table 5.42 shows that the two most favoured rhythms in the three ethnolects generally the IF norm in one or the other of the ethnic varieties. Specifically, the IE norm is MMHL used by 50% of the respondents in pronouncing vegetables, while the YE norm is MMHH used by 95% of the speakers. No dominant norm was observed for HE as Table 5.42 indicates less than 50% users in all the available patterns in the data.

The observable trend in the two dominant rhythmic patterns displayed in Table 5.42 is that E speakers tend to end with a fall or low tone, while HE and YE speakers end on a high tone. In the speech data of the three ethnic groups, the intonation of two phrases in the reading passage: People have nothing to fear . . . and In other words ..., exemplify the low tone ending in the IE accent. A fall/low tone was placed by the IE respondents on the second word in the two phrases where YE and HE speakers placed high or mid tones. This variation in intonation was also observed in the casual conversation data produced by the IE versus HE and YE respondents.

Rhythmic pattern of television						
ммнн	MMHL	HLMM	HLML	Agran	3300	
	50%	200/		МНН	HLHH	HLHM
45%	370	20%	10%	5%	10%	501
25%	50%	0	25%			5%
	50/			0	0	0
95%	3%	0	0	0	0	0
	45%	45% 5% 25% 50%	45% 5% 20% 25% 50% 0	45% 5% 20% 10% 25% 50% 0 25%	45% 5% 20% 10% 5% 25% 0 25% 0	45% 5% 20% 10% 5% 10% 25% 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

53 Affirmation of convergence or not of HE and IE accents to YE

This section presents the results of the empirical assessment of the claim that HE and IE were converging towards YE (Jibril, 1982; Simo Bobda, 1995:252-3; 2000:261; 2003:37; Igboanusi, 2006a:495). The test was carried out using the instrument of a questionnaire on Nigerian Spoken English (QNSE) described in chapter three. The questions were asked in order to get information leading to the respondents' self assessment of spoken English, ethnic loyalty and orientation as well as their ability to identify other people's ethnic group through their English speech.

The profile of the respondents has been presented in Chapter three and the relevant questions selected for ANOVA, post hoc and t-tests are the following:

- 1. How would you rate your spoken English? Excellent. Good. Fair. Poor.
- 2. Are you able to identify a Hausa, Igbo or Yoruba person just by his/her English speech alone (e.g. in a telephone conversation or radio programme)?
- 3. Which do you prefer? Hausa English. Igbo English. Yoruba English.

Statistical analysis of the answers to these questions is expected to provide insight into the possibility of convergence and the sociological motivations for doing or not doing so based on the principles of Accommodation theory.

53.1 Result of question on speech rating

This question was asked in order to determine what speakers thought of their own fluency in spoken English. It is based on the assumption that if you think your speech is excellent or good, then you have no mindset for need for improvement in spoken English. It also means you are not in any way aiming towards any standard and that you are not between a first language (L1) and a second language (L2); rather, what you speak now as English is what you consider best for you. The ANOVA result of speech rating among the three groups is shown in Table 5.43.

Although ANOVA showed no significant difference in speech rating among the three sthnic groups, the pair comparison result given in Table 5.44 showed details of the level of existing variation among them.

43. Result	of ANOVA for	speech rating	
The state of the s		The second secon	

Table		Sum of Squares	df	Mean Square	F	Sig.
Speech rating	Between Groups	.239	2	.119	.358	.701
	Within Groups	18.676	56	.334		
	Total	18.915	58			

Table 5.44. Result of post-hoc test for speech rating

Scheffe a		bset for na = 0.05
Ethnic group	N	1
2 Igbo	20	2.05
3 Yoruba	19	2.16
Hausa	20	2.20
Sig.		.719

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 19.655.
- b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Four options were given to the respondents – excellent, good, fair or poor. No respondent selected the fourth option of "poor". Scores were assigned as follows: Excellent =1; Good selected the fourth option of "poor". Scores were assigned as follows: Excellent =1; Good selected the fourth option of "poor". Scores were assigned as follows: Excellent =1; Good selected the fourth option of "poor". Scores were assigned as follows: Excellent =1; Good selected the follows: Excellent =1; Good in spoken English but far from excellent, since each group scored above 2 marks. The IE respondents judged themselves higher than HE and YE speakers did. Considering that the respondents score available is 1 for excellent, and none of the three groups scored close to it, it was well be that the respondents regard themselves as learners of English requiring improvement or moving on a continuum – vertical or horizontal (Bayley and Regan, 2004:325) – towards a target of a subconscious standard if not native-like English accent.

53.2 Result of ability to identify ethnicity through accent

It is postulated that accent is the foremost marker of ethnicity particularly when face-to-face interaction and other visual cues are absent. This question was asked mainly to assess among the selected sample how conscious they were of accentual variation and if they were indeed able to discern that a person was Hausa, Igbo or Yoruba solely by their spoken English. ANOVA result, presented in Table 5.45 showed no significant variation among the three groups: $F_{(2, 57)} = 0.073$, p> 0.05. Pair comparison using the post hoc test was however, still carried out to reveal details in the ethnic groups. Table 5.46 shows the result.

Scores were assigned to the responses as follows: 1 = yes; 2 = no; 3 = sometimes. Some respondents did not answer the question, but their number was not significant enough in any of the three groups to skew the result. The majority in all three ethnic groups answered "yes" to being able to identify ethnicity through accent -75% of Hausa, 75% of Igbo and 80% Yoruba respondents in the present study claimed that they could identify each other's ethnicity through accent alone. Put together, this means that an average 76.6% of all the respondents said that they could identify if a person was Hausa, Igbo or Yoruba by their spoken English alone without any visual cues.

Some people argue that it is not always possible to identify ethnicity with accent (Igboanusi, 2006a). We did not scientifically verify the respondents' claim; being outside the immediate scope of this study but claiming ability at all has wide social implications.

18ble 5,45. Result of ANOVA for ability to identify speaker's ethnicity through

		Sum of Squares	df	Mean Square	F	Sig.
Ability to identify ethnic group	Between Groups	.055	2	.028	.073	.930
	Within Groups	18.618	49	.380		
	Total	18.673	51			

Table 5.46. Result of post-hoc test for ability to identify ethnicity through accent

Scheffeb		bset for na = 0.05
Ethnic group	N	1
3 Yoruba	18	1.17
Hausa	17	1.24
2 Igbo	17	1.24
Sig.		.948

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 17.321.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. First, it immediately suggests that respondents already consciously or unconsciously habitually perceive others in terms of their ethnicity, notwithstanding that their perception may be wrong.

Secondly, on a psychological level, a form of subtle discrimination, positive or negative is at play in the respondent, towards others based on presumed ethnic identification. For instance, if a prospective tenant or applicant calls the landlord or employer for an appointment on phone, the receiver of the call is able to make biased judgements for or against the caller simply based on the perceived (right or wrong) ethnicity of the speaker as revealed through his/her accent.

On a third level, claimed ability to identify ethnicity solely by speakers' spoken English shows that respondents are aware of linguistic features (markers) associated with HE, IE and YE ethnic groups. It means they are, therefore, as the need arises, able to manipulate linguistic variables to accommodate towards, or diverge from one ethnic group or the other for ulterior motives, including criminal acts, based on their claimed ability to perceive linguistic ethnic cues contained in HE, IE and YE accents.

Most importantly, in connection with the aims of the present study, the respondents' assertion that they could identify other people's ethnicity purely by accent alone proves that they are aware of ethnic variation and therefore, their choice of preferred accent can be assumed to be credible and based on an informed decision.

5.3.3 Result of preferred accent

A person's accent is as close to a person as his/her name is. This question on preferred accent was asked to determine the ethnic orientation of respondents towards their accent. It was presumed that YE should be the most preferred accent if HE and IE were indeed converging to YE. Was there a strong loyalty to ethnic accent as a symbol of identity or not? Also, the most preferred accent in the sample could give a clue to what may likely emerge as General Nigerian English.

Respondents were instructed to make a choice between HE, IE or YE. The tripartite forced-choice test was to ensure respondents' attention was focused on only these three

options, thus eliminating distractions from other stimuli. In addition, the forced-choice nature of the question made for straightforward statistical analysis of the data. ANOVA revealed no significant difference among the three ethnic groups. Table 5.47 shows that F = 2.001, p> 0.05; however, an examination of raw scores revealed some useful information as presented in simple percentages in Table 5.48.

of the 60 respondents sampled, 46.6% said they preferred HE. Yoruba English had the least preferences overall (16.6%); within the Yoruba group itself, 50% said they preferred the HE accent above their own. The Igbo group were the most loyal to their ethnic accent; a total of 85% IE respondents preferred IE. The only non-Igbo person that preferred the IE accent was a Hausa female but there was no way to confirm if her preference was due to a romantic involvement with an Igbo male or not. No HE speaker preferred YE accent and only one IE speaker did. No YE speaker preferred IE accent and less than half of the YE speaker sample preferred YE. Evidence of convergence in line with Accommodation theory is therefore, statistically lacking.

The result of the post-hoc test also confirmed the findings presented in Table 5.49 and gave another dimension to the interpretations. For this test, scores were assigned as follows: Hausa = 1; Igbo = 2; Yoruba = 3. The absence of round figures suggests that there is a continuum. Amongst the HE respondents, with a score of 1.50, there is a possibility that a few people in the population would favour other varieties above their own. The Igbo respondents on the other hand appear to have a more rigid commitment to their accent and by implication, perhaps their ethnicity as a whole. YE respondents appear to be the most liberal in their accommodation of other accents with a score of 2.05, which is very far below the expected score of 3 for YE accent.

As pointed out above, 50% of YE respondents preferred HE. Different reasons given for the preference of HE accent by non Hausa people include, HE accent sounded more "beautiful", "musical" and also more refined like native English accent. The basis for the qualification as musical may be due to the presence of the schwa-like vowel in Hausa that is reflected in HE as well as the relative abundant use of other central vowels like the NURSE and the STRUT compared to IE and YE accents.

Result of ANOVA for preferred accen	- 47	Result of	ANOVA for	preferred	accen	ı
-------------------------------------	------	-----------	-----------	-----------	-------	---

Table		Sum of Squares	df	Mean Square	F	Sig.
preferred accent	Between Groups	3.433	2	1.717	2.001	.145
	Within Groups	48,900	57	.858		
	Total	52.333	59			

. A do	. 48.	Percentage	for preferred	accent
--------	-------	------------	---------------	--------

PREFERRED ACCENT	HE SPEAKERS	IE SPEAKERS	YE SPEAKERS	OVERALL %
HE ACCENT	80%	10%	50%	46.6%
IE ACCENT	5%	85%	0	30%
YE ACCENT	0	5%	45%	16.6%
NONE	15%	0	5%	6.6%

Table 5.49. Result of post-hoc test for preferred accent

Scheffe		bset for na = 0.05
Ethnic group	N	1
Hausa	20	1.50
2 Igbo	20	1.95
3 Yoruba	20	2.05
Sig.		.181

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

The description of HE sounding more like native English than the IE and YE accent may also be traceable to the difference in the history of education in the regions where the HE, IE and YE ethnolects are spoken.

Specifically, in the southern part of Nigeria, location of the Igbo and Yoruba people, the first Western education teachers were a blend of Scottish, Irish, German, English, French, Dutch, West-Indian, Sierra-Leonean and American teachers with markedly different accents, and little or no training in the teaching of English. Often, the purpose of early education then was simply to equip Nigerians to be able to help the missionaries and colonial administrators (Banjo, 1970:64) properly.

Above the River Niger on the other hand; although Western education was slow to start there, its entrance was deliberate, organised, targeted at the Hausa elite and well equipped with carefully selected and trained teachers from Britain. The British Government was directly involved in setting the standard of education and determining the quality of teachers in the north through the establishment of Katsina College. In the south the situation was different, various groups of missionaries set up their schools and colleges in pursuit of different goals and objectives. The result was that the emphasis laid on proper English pronunciation in Katsina College (Jibril, 1982) produced generations of graduates with a strong oral English foundation that has come to characterise HE today.

5.3.4 Discussion of affirmation of convergence to YE or not

Language convergence, in the context of Accommodation theory, takes place when an individual or group for socially advantageous reasons adopt(s) the speech style of another individual or group that is considered superior. Persons or groups may also converge to a prestige language of power. In the case of the HE, IE and YE respondents sampled in the present study, there was no overt social expression, behaviour or attitude by any of the groups to show that YE was considered superior, prestigious or that its speakers possessed a "power" factor unavailable to Hausa and Igbo ethnic groups or that put the Hausa and Igbo at a disadvantage.

When asked which of the three accents was preferred, YE was the least preferred even by YE respondents themselves. Except it can be proven that the convergence is subconscious,

in which case the regard for YE as a prestigious and power variety is also subconscious, then there is no social or linguistic grounds for accommodation and therefore there can be no convergence. In Egbokhare's view, it is indeed possible for the power position of a language and its speakers not to be under conscious control but be determined by extra-linguistic factors (2001:105).

There is also the role of "pervasive mobility" (Milroy, L. 2002:5) that should be taken into consideration in the determination of linguistic convergence. Chambers (2002) describes mobility as "a potent force in levelling regional [and by extension ethnic] language variants." The analysis of responses in the questionnaire used in the present study showed that many of the respondents had not travelled or spent time outside their ethnic home base. Fig. 5.13 shows that none of the HE respondents had ever spent any length of time outside their home base, while just 15% of the YE respondents had ever moved out of the Yoruba speaking states. Fig. 5.13 shows the Igbo with the highest bar in terms of mobility.

Statistical analysis of segmental variation showed no evidence of HE and IE accents converging towards YE. For instance, ANOVA revealed that of the eight preselected linguistic variables that ethnicity had a significant effect on, YE accent was the main cause of variation in just two of them: (f) and (v). Nevertheless, these two sound variations unique to YE in terms of frequency of occurrence showed no traces of reoccurrence or adaptation by HE and IE respondents as would have been expected, particularly in the output of the females, if indeed there was a convergence. The results of the t-test for (f, v) on Table 5.51 shows that accent was not sensitive to speaker sex in HE, IE and YE.

The low mobility among the HE, IE and YE respondents means that the expected dialect levelling or convergence that accompanies mobility could not also occur. More inferences relating to the assessment of convergence can be drawn from the perceptual analysis of the linguistic variables. Table 5.50 presents a concise and condensed picture of the details side by side.

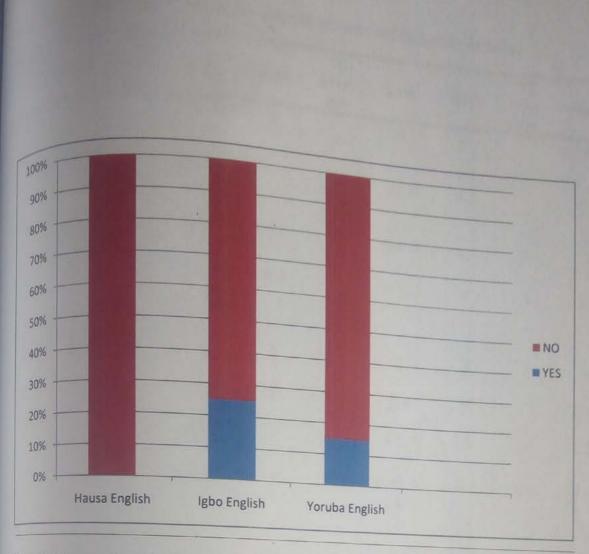


Fig. 5.13 Respondents' exposure outside mother-tongue area

Table 5.50 Concise view of ethnic variation of pre-selected linguistic variables

1100	_	HE					natic vari	ibles	
Sound	High	Aver- age	Low	High	IE Aver- age	Low	High	YE Aver-	Low
P	p		f, ph, φ,	P		Ø	p	age	
٧	٧	f	ø, f ^w , b, p, w	v	f	ø,f	v, f		ø, f
Z	s, z		s, ø, θ	s, z		s, ø, θ	s, z	S	Ø
θ	θ	t	th, ts, ŏ, z, s, f, d,	θ, t		ø, ę, d	θ	t	ø, ţ
ð	ð	d	z	d		ð	ð	d	ø
f	Ŋ		ſ, s	f		ſ,ø	y		ſ, t, ø
ſ	S		3, s, z	l		∮ 3, s	S		∮ 3, s
9:	a/a:	ə:, ɔ: / ɔ	e, u, o, A	a	e, o	e, ai, u, A, ə, ə:	a, o	e, a:	Λ, ə
е	е		ε, a, ə, i, Ø	e	ε	Ø, ə	е		3
ə	a, o, e, u	ə	a:, ia, ε, Λ, i, ο, ie, Ø, ə	a, o, u	3	o, ea, ia, e, i, iə, ø, ə	a, u, o, i, e, ia		ε, ha, wa, ø, ə
٨	э	Λ	a:, o, o:	0	0	u, ou, a, õ,	э		u, ou, a, õ,

Table 5.50 shows that the HE and IE data had more variants per linguistic variable than were present in YE. Theoretically, it is possible to conclude that since the existence of english in Nigeria started in Yoruba land, and languages naturally undergo the process of levelling, vowel shifts and other such sound segment reduction or elimination procedures over a period of many years, then it is possible that the numerous variants in HE and IE will also naturally reduce. What will be left will be the equivalent of what exists in YE. In which case, it will not be a case of convergence towards YE by accommodation, but a natural linguistic evolution tantamount to least sounds standing.

5.4 Effect of sex variable on linguistic variables and preferred accent

The sex variable was tested following the general assumption of Variationist theory concerning the linguistic behaviour of men and women. It is established in various sociolinguistic studies that female speakers usually use the higher, in-coming, and more standard or prestige variety of a language, while males stick with the conservative, lower levels or vernacular end (J. Milroy, 1981; Labov, 1990; Wodak and Benke, 1997). Based on the established observation of sex-related linguistic variation, the two hypotheses in this section are:

- i. HE, IE and YE accents would be sensitive to speaker sex. This is because if, indeed, there is convergence to a prestige YE accent, it would be an in-coming variety; therefore, it would be evidenced by the significant difference in the choice of variants used by the males and females in the speaker sample. The variables that are sensitive to sex would also reveal what sounds were being affected by the convergence.
- There would be significant sex differentiation in terms of preferred accent.

 Specifically, more females from the three ethnic varieties should prefer YE accent above HE or IE, if indeed YE was a prestige variety that HE and IE were converging towards.

The t-test result of the effect of speaker's sex as a social variable on ethnophonological variation and the influence of sex on accent preference is presented in Table 5.51.

1 sble 5.51. Result of t-test for speaker sex variable on preselected segmental sounds

and present	Gender	N	Mean	SD			sounus
Sound	Male	30	14.67	1.30	Df	'Cal	Sig
P	Female	30	14.93	0.25	58	-1.106	0.273(ns)
	Male	30	11.63	1.43	-		
V	Female	30	12.07	1.14	58	-1.299	0.199 (ns)
	Male	30	4.93	1.31	50		
1	Female	30	4.80	0.96	58	0.449	0.655 (ns)
θ	Male	30	3.77	2.08	58		
0	Female	30	3.73	1.98	20	0.064	0.950 (ns)
8	Male	30	8.67	8.30	58	0.500	
	Female	30	9.93	8.55	50	-0.582	0.563 (ns)
ſ	Male	30	6.20	1.50	58	-1.272	0.200 (>
*	Female	30	6.60	0.86		-1.212	0.208 (ns)
ſ	Male	30	11.20	0.66	58	1.356	0.180 (ns)
	Female	30	10.97	0.67			0.100 (113)
91	Male	30	0.67	1.24	58	-1.743	0.087 (ns)
	Female	30	1.20	1.13			
e	Male	30	10.97	1.25	58	-1.597	0.116 (ns)
	Female	30	11.43	1.01			
a	Male	30	4.67	4.40	58	1.541	0.129 (ns)
	Female	30	3.10	3.42			
٨	Male	30	1.00	1.64	58	0.494	0.623 (ns)
	Female	30	0.80	1.50			
Preferred	Male	30	1.70	0.84	58	-1.099	0.243(ns)
accent	Female	30	1.97	1.03			E STATE OF

Note: ns means not statistically significant at p = 0.05

The result in Table 5.51 shows that for all the linguistic variables, accent was not sensitive in HE, IE or YE. Also, sex had no effect on accent preference in the three groups. It is possible to infer therefore, that any chance of the males using expected vernacular accent was blocked; hence the uniformity in variables used by both sexes in the speaker sample.

Secondly, the arguments put forward by Variation theorists for the difference in male and female linguistic behaviour may not apply to the female respondents used in the present study. Three arguments reported in literature are that:

- (i) females used prestige varieties at times to compensate for their less secure social position (Trudgill, 1972);
- (ii) they used it to identify with a higher social class (Labov, 1990);
- (iii) whereas men are judged by their jobs, women are judged by their appearance, both physical and linguistic; hence, women's tendency to use the more fashionable variety of any language (Trudgill, 1972).

The arguments above are said not to apply in the present study because the female respondents were university students, which by implication means they were already in the elite class. Secondly, the females were on the same social status with the males, together pursing academic degrees in a system foundationally structured to reward merit irrespective of sex. In the university context, therefore, the social position of the females was secure. Furthermore, they were in the same "jobs" (academic pursuit) as the males and would be judged on the same platform of academic excellence not physical appearance; so there was no need for them to adjust their linguistic behaviour.

Based on the above explanations, the earlier stated expectation that the female respondents in the present study would produce different variables from the males as proof of convergence to YE make the results inconclusive. Although ANOVA showed that there was no significant difference between the HE, IE, and YE males and females in their segmental variation, a calculation of the total means revealed females (M=79.56) as using

spandard English variables more than the males (M=78.36); thus statistically validating the assumption of Variation theory. This microscopic information may be a pointer to exceptional research findings on biological sex and phonological variation in NE.

5.5 Summary

- 1. Ethnicity had a significant effect on eight of the preselected linguistic variables (ŏ, e, v, Λ, ə, ə:, θ, ∫);
 - a. The main cause of variation in (ŏ) was the IE accent;
 - b. The main cause of variation in (e) was the IE accent;
 - c. The main cause of variation in (v) was the YE accent;
 - d. The main cause of variation in (a) was the HE accent;
 - e. The main cause of variation in (a:) was the IE accent;
 - f. The main cause of variation in (θ) was the IE accent;
 - g. The main cause of variation in (f) was the YE accent.
 - h. The main cause of variation in (A) was the HE accent.
- 2. IE and HE were alike in their use of [u] and [o] variants for (a) and (a) while YE respondents consistently used [o].
- 3. Acoustic analysis with the Praat speech analyser showed that the F1 and F2 values of vowel sounds examined as produced by HE, IE and YE respondents were dissimilar enough to disqualify regional classifications of HE, IE and YE.
- 4. The major ethnolectal variations at the prosodic level were observed not only in word stress placement but also in rhythm and intonation.
- 5. The prosody of IE is distinct from HE and YE in its preference for low tone endings at lexical and phrasal levels in connected speech.

- 6. Sex had no significant effect on linguistic variation in HE, IE and YE but total means showed females (M = 79.56) being higher than and males (M=78.36) in the use of more standard forms.
- The results of the questionnaire analysis showed that YE was not the most preferred accent among the three ethnolects; therefore, there was no immediate surface cause for convergence to it. The HE accent was the most preferred by 46.6% of the respondents, followed by IE, preferred by 30% of the respondents; YE was preferred by 16.6% of the entire sample population, making it the least preferred of the three accents. 6.6% of the population did not prefer any of the three.

Chapter six will present the summations of answers to the research questions; conclusion drawn from the results and recommendations for further research.

CHAPTER SIX SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This last chapter presents a summary of the major findings as they relate to the research questions posed at the beginning of the present study, after which conclusions are drawn. The final section of the work provides recommendations for further studies on NE.

6.1 Summary

The following research questions were raised and tested:

- 1. Is there any significant difference in the pronunciation of /p, v, z, θ, δ, ʧ, ʃ, ə:, e, ə, Λ / among HE, IE and YE speakers on the basis of ethnicity?
- Is there any significant difference in the pronunciation of /p, v, z, θ, δ, f, ∫, ə:, e, ə, Λ / among HE, IE and YE speakers on the basis of gender (sex)?
- 3. Is there any difference in the prosody of lexical items among HE, IE and YE speakers on the basis of ethnicity?
- 4. Is YE the most preferred accent among HE, IE and YE speakers on the basis of ethnicity?
- 5. Is YE the most preferred accent among HE, IE and YE speakers on the basis of gender?

The summary of results is provided in the sub sections below.

6.1.1 Effect of ethnicity on HE, IE and YE accent

In answer to the question of whether there is a significant difference in the accent of HE, IE and YE speakers on the basis of ethnicity, these 11 preselected sounds were empirically tested (p, v, z, θ , δ , f, f, g:, e, g, g). Results of ANOVA showed that ethnicity had a significant effect on 8 out of the segmental sounds as follows:

|b|/F(2,57) = 30.851, p< 0.05; |c|/F(2,57) = 21.764, p< 0.05; |c|/F(2,57) = 9.647, p< 0.05; |b|/F(2,57) = 25.346, p< 0.05; |a|/F(2,57) = 23.770, p< 0.05; |a|/F(2,57) = 6.158, p< 0.05; |b|/F(2,57) = 4.770, p< 0.05; and |b|/F(2,57) = 4.512, p< 0.05.

6.1.2 Effect of sex on HE, IE and YE accent

The empirical analysis was carried out using the t-rest and the result was that accent was not sensitive to gender in HE, IE and YE. In other words, there was no sex bias in the variations of $(p, v, z, \theta, \delta, f, f, a., e, a, h)$ in HE, IE or YE.

6.1.3 Ethnic variations in the prosodic features of HE, IE and YE

To test variations on the basis of ethnicity at the prosodic level, five lexical items were selected from the reading passage. Respondents' speech was analysed and presented in simple percentages. In *develop* and *vegetables*, an average of 62.5% IE and 37.5% HE subjects had similar stress placement that was absent in the YE accent. Conversely, in terms of vocalic representation, HE and YE were more alike in the two words. The major variations at the prosodic level were not found in word stress placement as much as in vowel type affecting pitch, rhythm and intonation. Compared to high tone endings used by HE and YE speakers, IE speakers regularly had low tone endings.

6.1,4 Most preferred accent on the basis of ethnicity

The underlying assumption was that YE would be the most preferred accent following claims in existing literature that HE and IE were converging towards YE. The result of ANOVA however showed that YE was the least preferred accent even by YE speakers

themselves. No social grounds for convergence to YE was established; rather, indication of desire to diverge from YE even by YE speakers themselves was brought to light. In terms of relative percentages, the HE accent was the most preferred by the respondents with 46.6% preference.

6.1.5 Most preferred accent on the basis of sex

In Variationist theory, females are expected to use more of the conservative or prestige variants and less of the progressive (incoming) or vernacular variants but ANOVA revealed that there were no such preferences for or rejections of YE accent in the speech of all females in the data. There was no sex variation in terms of preferred accent among HE, IE and YE speakers.

6.2 Conclusion

The regional classification of NE varieties into southern versus northern Nigerian English (Brosnahan, 1958; Jibril, 1982; Simo Bobda 2000) has been empirically proven as inaccurate in the present study. The analysis of variation in (a:, ŏ, e, θ) shows that contrary to what has erstwhile been assumed, there is sometimes a closer relationship between HE and YE than there is between YE and IE. On the other hand, HE and IE, in certain contexts are more similar, for example, their preference for [u] where YE would use [a] and [b] where YE would use [b]. Empirical analysis has shown that overgeneralisations also exist in the independent descriptions of HE, IE and YE in available literature. A variation like (p): [f] in HE for instance, even though observed, had a low rate of occurrence in the present study compared with Jibril's findings (1982). The submission in the present study is that of a diachronic change in progress.

Other documentations in available literature like the non realisation of /h/ in YE and the absence of /ə/ in IE and YE have been quantitatively proven in the present study to be accurate. Concerning the stereotypes usually associated with HE, IE and YE, the results of the present research confirm the observation made by Wolfram (1997:119) that "stereotypical symbolic caricatures . . . are often not linguistically faithful to the actual use of the form by speakers from the particular speech community." Compared to HE and YE speakers, the IE respondents placed lexical stress more on first syllables of polysyllabic

words than HE and YE speakers did. The IE variety was also unique in its use of falling tones at the end of words and phrases.

Convergence of HE and IE to YE was not evident in the phonological analysis of the data possibly due to language loyalty and reluctance to accommodate towards any other accent at the expense of one's 'Hausaness', 'Igboness' or 'Yorubaness'; that is, preservation of ethnic identity. Also, many of the subjects had never travelled or spent time outside their mobility could not occur. It is pertinent to note that though 86.6% of the speaker sample said that they had not resided for any length of time outside their ethnic region, the awareness of accentual features of other ethnic groups was high; average of 76.6% respondents claimed they could identify ethnicity through English accent alone, without any facial cue. The effect of the media, especially NTA and Nollywood Home videos and movies as well as Africa Magic on cable television cannot be minimised in this regard. The National Youth Service (NYSC) programme that compels graduates to live and work for at least one year amongst a different ethnic group may also have facilitated this ethnic differentiation awareness by the respondents.

For all linguistic variables tested, accentual variation was not sensitive to sex in HE, IE or YE. Any convergence towards a prestige variety should expectedly be evidenced among the females, while the conservative variety would be evident in the accent of the male sex. The absence of sex sensitive variation in the data is; however, not a conclusive indication of lack of convergence because a less socially homogenous group than the university speech community may produce a different result.

In most inner circle Englishes like British and American English, ethnic variations are not so obvious, rather variations are reflected at regional and class levels. Boberg (2004) for instance, observed in his study of English speaking Jewish, Italian and Irish bilinguals in Montreal, Canada that strong ethnic differentiations of speech were displayed contrary to what occurred in other parts of the North American continent. The present study has shown with statistical analysis that in Nigeria also, ethnic varieties of NE are real and quantifiable physical manifestations. Indeed, the categorisation of NE into two regional varieties may be too broad. We therefore recommend that empirical analyses and

categorisations based on ethnicity rather than region will provide more realistic, true-to-life and representative descriptions of NE accent and its varieties. When all the ethnic features are brought together, they clearly constitute the variety of English as spoken in Nigeria that is, NE.

The description of NE need not be continually tied anymore to excuses/apologies in the guise of explanations such as substratum influences from the various mother tongues; incongruence between English orthography and pronunciation; or the assorted pronunciations of early missionary teachers and so on. Eighty-six percent (86%) of the respondents, representing the younger generation and urban youth in Nigeria today, said that they spoke no other language fluently apart from English and their mother tongue. The English language in Nigeria and by implication, its nativised variety – NE, has grown far beyond a means of educational advancement to an instrument for socio-cultural expression and the projection of ethnic identity. It has become so intertwined, enmeshed and inextricable from the psyche of the younger generation of Nigerians in particular, such that it is as much a Nigerian language as Yoruba, Hausa, Efik, Ibibio, Ogori, Emai and so on are. It should therefore be regarded and studied as such.

An important note of warning; however, is that despite the admitted existence of a 'Nigerianised' variety of English for local, intra-national use, it is obligatory that the younger generation of Nigerians, in particular, are aware of the existence of a global variety of English for international communication, and are competent in its use. This awareness of, and competent use of English as an international language (EIL), should not be limited to accentual features alone but also include all aspects of grammar – lexis, structure, semantics, discourse – in order to ensure global intelligibility.

While formal education through the oral English syllabus in secondary and tertiary institutions continues to be relevant, it may not be adequate enough to ensure an output of internationally intelligible English for the students. The reason is because teachers of oral English themselves may be inadvertently transferring generational errors to the students, and even when the correct variety is taught, there is the problem of the students' negative attitude towards acquiring or using the global accent, which is considered 'foreign' and a betrayal of their supra-ethnic identity as Nigerians. In this regard, we advocate an

attitudinal change by generating a strong public awareness of the benefits of acquiring communicative competence in the use of an internationally intelligible variety of the English language even if the nativised variety is used domestically. This is because the entire world is indeed fast becoming a global village.

To overcome the challenge of oral English teachers who themselves lack proficiency in the practical use of English as opposed to its theory; it is advisable that each individual takes it upon him or herself to adopt various self-improvement strategies outside the classroom. Such self-improvement measures in internationally intelligible English include listening with a tuned ear to radio and television broadcasts of stations like BBC and VOA, especially their news programmes and documentaries as well as advertisements, contemporary dramas and plays. Watching international programmes in English on cable TV networks like DSTV in Nigeria is also a very good source of self-development in spoken English. In the absence of cable TV, watching films and documentaries on DVDs is equally helpful; in addition there are many useful internet sites for self-practice in oral English. We also recommend that individuals take advantage of audio CDs on their laptops and mobile phones, thereby making it easy to access the audible standard pronunciation of lexical items for international intelligibility.

Formal school learning may not be enough in ESL situations for the proper acquisition of a globally intelligible variety of English that is at the same time functional.

6.3 Further research

The present quantitative study has focused on socio-phonological variation in urban Nigerian youth, using data collected from the formal speech style of undergraduates selected from three different ethnic backgrounds. While the present study used respondents from the university community, future research will benefit from an investigation of a less socially homogeneous group of urban youths, particularly in order to make more conclusive statements about the effect of speaker sex on accentual variation.

The effect of conversational speech style on the segmental variables studied in the present work is also a useful area for future research. Furthermore, since variation spans the gamut

of language from phonology to style and discourse, it is necessary in the comparative studies of the varieties of NE to also carry out, at least, to start with, in-depth investigations of lexical and syntactic variations in HE, IE, YE and indeed other ethnic varieties of NE. Ibibibio, for instance, is said to be the fourth largest language spoken in Nigeria (Essien, 1970) yet, it is rarely mentioned in detail in NE literature. Finally, an extension of the present research to cover more ethnic groups with wider sociodemographic characteristics such as religion, age, level of education and type, will give a clearer picture of the diachronic development of NE and the emergence of new varieties.

REFERENCES

- Adegbija, E.1989. Lexico-semantic variation in Nigerian English. World Englishes. Vol. 8
 - presented at the 5th Conference of the International Association of World Englishes held at the University of Illinois, Urbana-Champaign, USA.
- of English. P. Lucko, P. Lothar, W. Hans-Georg. Eds. Frankfurt am Main: Peter Lang. 41 56.
- Adeniran, A. 1979. Personalities and policies in the establishment of English in northern Nigeria (1900-1943). International Journal of the Sociology of Language 22:57 77.
- Adetugbo, A. 1978. The development of English in Nigeria up to 1914: a socio-historical appraisal. Journal of West African Studies. 18. July. 61 75.
- Nigerian English influences and characteristics. A. Dadzie and S. Awonusi. Eds. Lagos: Sam Iroanusi Publications. 179 199.
- Adjaye, S. 2005. Ghanaian English pronunciation. USA: Edwin Mellen Press.
- Akinjobi, A. A. 2004. A phonological investigation of vowel weakening and unstressed obscuration in Educated Yoruba English. Ph.D Thesis. Dept. of English. University of Ibadan.
- Vol. 22, No. 1. 10 17.
- Allen, W. S. 1961. Living English speech. London: Longmans, Green and co. Ltd.
- Amayo, A. 1982. The classification of Nigerian spoken English. JOLAN 1: 209 211.
- Atoye, R. 1991. Word stress in Nigerian English. World Englishes 10.1:1 6.
- Auer, P. 2003. 'Türkenslang' ein jugendsprachlicher Ethnolekt des Deutschen und seine Transformationen. In Annelies Häcki Buhofer (ed.), Spracherwerb und Lebensalter. Tübingen/Basel, Francke: 255-264. Reviewed in English by Jaspers, 2008. Op. Cit.

Awonusi, V. 1986. Regional accents and internal variability in Nigerian English: a . 1990. Coming of age: English in Nigeria. English Today 22:31-35 , 2007. Good spoken English and national development: sociophonology in the service of man. Inaugural Lecture. University of Lagos. . 2009a. Some characteristics of Nigerian English phonology. Nigerian English influences and characteristics. Op.cit. . 2009b. Cycles of linguistics history: the development of English in Nigeria. Nigerian English influences and characteristics. A.B.K. Dadzie and S. Awonusi. Eds. Lagos: Sam Iroanusi Publications. 46 - 66. Babajide, A.O. 2001. Language attitude and patterns of Nigerians. Language attitude and conflict in West Africa. H. Igboanusi. Ed. Ibadan: Enicrownfit Publishers. 1 - 13. Bamgbose, A. 1971. The English language in Nigeria. The English language in West _. 1982. Standard Nigerian English: issues of identification.Braj B. Kachru, ed. The other tongue: English across cultures. Urbana: University of Illinois Press, _. 1995. English in the Nigerian environment. New Englishes: a West African perspective. Ibadan: Mosuro. 9 - 26. Banjo, A. 1970. A historical view of the English language in Nigeria. Ibadan. 28:63 - 68. . 1971. Priorities in post-primary English. JNESA 4.2 153 – 168. _ 1979. Beyond intelligibility. Varieties and functions of English in Nigeria. E. Ubahakwe. Ed. Ibadan: African Universities Press. . 1995. On codifying Nigeria English: research so far. New Englishes: a West African perspective. A. Bamgbose, A. Banjo and A. Thomas. Eds. Ibadan: Mosuro. 203 - 230. . 1996. English language in Nigeria: an overview. Ibadan: Ibadan University Press.

- Bayard, D., Weatherall, A., Gallios, C. And Pittam, J. 2001. Pax Americana? Accent Sociolinguistics 5.1: 22 49.
- βayley, R., and Regan, V. 2004. Introduction: the acquisition of sociolinguistic competence. Journal of Sociolinguistics 8.3: 323 338.
- Beinhoff, B. 2008. Accent and identity Are some non-native speaker accents of English better' than others? Sociolinguistics symposium micro and macro connections.

 Amsterdam. Retrieved on February 20, 2011 from http://www.meertens.knaw.nl/ss17/
- Bickerton, D. 1971. Inherent variability and variable rules. Cited in Honey, J. 1997. 81 91.
- Boberg, C. 2004. Ethnic patterns in the phonetics of Montreal English. Journal of Sociolinguistics 8.4:538 568.
- Brann, C. M. 1998. The role and function of languages in government: language policy issues. Sociolinguistics 19: 1 19.
- Brosnahan, L. F. 1958. English in Southern Nigeria. English Studies 39 (1-6): 97 110.
- Carlock, E. and Wölck, W. 1981. A method for isolating diagnostic linguistic variables: the Buffalo ethnolects experiment. *Variation Omnibus*. Edmonton. 17 24.
- Chambers, J. K. 2002. Dynamics of dialect convergence. Journal of Sociolinguistics 6.1: 117-130.
- Chomsky, N. and Halle, M. 1968. The sound pattern of English. New York: Harper Row.
- Clyne, M., Eisikovits, E. and Tollfree, L. 2001. Ethnic varieties of Australian English. English in Australia. D. Blair and P. Collins. Eds. Amsterdam: John Benjamins. 223-238.
- Coulmas, F. Ed. 1997. The handbook of sociolinguistics. Oxford UK: Blackwell Publishers
- Cox, F. and Palethorpe, S. 2006. Some phonetic characteristics of Lebanese Australian English. Australian Linguistic Society Conference. Macquarie University.
- Cruttenden, A. 2008. Gimson's pronunciation of English (7th ed.). London: Hodder Education

- Cuckor-Avila, P. and Bailey, G. 2001. The effect of race of the interviewer on sociolinguistics 5.2:254 270.
- Dadzie, A.B.k. 2009. Bilingualism. Nigerian English influences and characteristics.
- panesi, M. 1985. Ethnic languages and acculturation. The case of Italo-Canadians.
- pavy, J. 2004. A conservative view of the New Englishes. Forms and functions of English and indigenous languages in Nigeria, K. Owolabi and A. Dasylva. Eds. Ibadan: Group Publishers. 87 113.
- Deshaies-Lafontaine, D. 1974. A socio-phonetic study of a Quebec French community: Trois-Rivières. PhD. Dissertation, University College, London. Cited in Foulkes, P. 2006.
- Dunstan, E. 1969. Twelve Nigerian languages: a handbook on their sound systems for teachers of English. New York: Africana Publishing Corporation.
- Eckert, P. 1997. Age as a sociolinguistic variable. The handbook of sociolinguistics. F. Coulmas. Ed. Oxford: Blackwell Publishers. 151 167.
- Eckert, P. 2008. Where do ethnolects stop? International Journal of Bilingualism.

 Retrieved May 23, 2009 from www.accessmylibrary.com/coms2/summary-0286-35036280 ITM.
- Egbokhare, F. 2001. The Nigerian linguistic ecology and the changing profiles of Nigerian Pidgin. Language attitude and conflict in West Africa. H. Igboanusi. Ed. Ibadan: Enicrownfit Publishers. 105 124.
- . 2003. The story of a language: Nigerian Pidgin in spatiotemporal social and linguistic context. Studies in African varieties of English. P. Lucko and H.G. Wolf. Eds. Frankfurt am Main: Peter Lang. 21 40.
- Stirling-Horden Publishers (Nig) ltd.
- Eka, D. 1985. A phonological study of standard Nigerian English. PhD. Thesis. A.B.U. Zaria, Nigeria. Cited in Akinjobi, N. Ibid.
- Ekong, P. A. 1978. On describing the vowel system of a standard variety of Nigerian spoken English. PhD. Thesis. University of Ibadan.

- perspective. A. Bamgbose, A. Banjo and A. Thomas. Eds. Ibadan: Mosuro. 284 –
- Encarta dictionaries. Microsoft® Encarta® 2009. © 1993-2008. Microsoft Corporation.
- Essien, O.E. 1970. The place of language and linguistics in our institutions. JNESA 4.2.
- and indigenous languages in Nigeria. K. Owolabi and A. Dasylva. Eds. Ibadan:
- Ferguson, C.A. 1959. Diglossia. Word 15:325 340.
- Finegar, E. 1997. Sociolinguistics and the law. The handbook of sociolinguistics. F. Coulmas. Ed. Ibid. 421 435.
- Fishman, J. 1997. Language and ethnicity. The handbook of sociolinguistics. F. Coulmas. Ed. Ibid. 327 343.
- Folarin, B. 1975. Phono-graphological problems in student English (1). JNESA 7.1&2:51 -60.
- Foulkes, P. 2006. Sociophonetics. Encyclopedia of language and linguistics. 2nd ed. K. Brown. Amsterdam: Elsevier Press. 495 499.
- Gao, Y., Cheng, Y., Zhao, Y. and Zhou, Y. 2005. Self-identity changes and English learning among Chinese undergraduates. World Englishes 24.1:39 51.
- Giles, H. and Coupland, N. 1991. Language: contexts and consequences. Pacific Groove: brookes/Cole Publishing co. Retrieved February 9, 2011 from http://social.jrank.org/pages2952/speech-accommodation-theory.html
- Gimson, A. 1977. Everyman's English pronouncing dictionary. 14th ed. London: Dent.
- Goodman, L. 1987. Supply and demand; women's short stories. Framing feminism: art and the women's movement 1970-1985. R. Parker and G. Pollock. Eds. London: Pandora Press. 79 93.
- Gupta, A. 1999. Standard Englishes, contact varieties and Singapore Englishes. Teaching and learning English as a global language: native and non native perspectives. C. Gnutzmann. Ed. Tübingen: Stauffenberg-Verlag. 59 72.

- Oul, Prosodic aspects of Standard Nigerian English. Typology of African Prosodic Systems Workshop. Bielefeld University, Germany. May 18 20, 2001.
 - and Milde, J. 2002. The phonology of Nigerian English. Proceedings of the International Conference of Speech Prosody. Aix-en-Provence, 367 370.
- Hoffman, M.F. and Walker, J.A. 2010. Ethnolects and the city: ethnic orientation and linguistic variation in Toronto English. Language Variation and Change 21.1: 37 67.
- Holy Bible, New Living Translation 2004. Illinois: Tyndale House Publishers, Inc.
- Honey, J. 1997. Sociophonology. The handbook of sociolinguistics. Ibid. 81 91.
- Hovarth, B. M. and Hovarth, R.J. 2002. The geolinguistics of /l/ vocalization in Australia and New Zealand. Journal of Sociolinguistics 6.3:319 346.
- Hudson, R.A. 1980. Sociolinguistics. Cambridge: Cambridge University Press.
- lgboanusi, H. 2000. Ethnic Englishes in Nigeria: the role of literature in the development of Igbo English. Journal of Cultural Studies. 2.1: 219 230.
- . 2002a. Igbo English in the Nigerian novel. Ibadan: Enicrownfit Publishers.
- Publishers.

 2002b. A dictionary of Nigerian English usage. Ibadan: Enicrownfit
- . 2003a. Knowledge, use and attitudes towards Americanisms in Nigerian English. World Englishes 22.4:500 604.
- Varieties of English. P. Luckor and H-G Wolf. Eds. Frankfurt am Main: Peter Lang.
- and Peter, L. 2005. Languages in competition: the struggle for supremacy among Nigeria's major languages, English and Pidgin. Frankfurt am Main: Peter Lang.
 - and Yoruba English speakers of Nigeria. English Studies. 87.4:490 497.
- 2006b. Syntactic innovation processes in Nigerian English. English Studies. 27:7, 61 73.

- J. 2008. Problematizing ethnolects: naming linguistic practices in an Antwerp secondary school. International Journal of Bilingualism. Retrieved on June 24, 2009 from http://www.accessmylibrary.com/coms2/browse_JJ_1037.
- Jenkins, J. 2003. World Englishes. London: Routledge.
- Jibril, M. 1982. Phonological variation in Nigerian English. PhD. Thesis. University of
- . 1986. Sociolinguistic variation in Nigerian English. English Worldwide. 7:45
- Jowitt, D. 1991. Nigerian English usage: an introduction. Ikeja: Longman.
- Kachru, B. 1990. The alchemy of English: the spread, functions and models of non-native Englishes. Illinois: University of Illinois Press.
- Kashoki, M. 1982. Rural and urban multilingualism in Zambia: some trends. International Journal of the Sociology of Language 34. 136 147.
- Kerlinger, F. N. 1986. Foundations of behavorial research. 3rd ed. Fort Worth: Harcourt Brace College Publishers.
- Kristiansen, G. 2001. Social and linguistic stereotyping: a cognitive approach to accents. Estudios Ingleses de la Universidad Complutense 9:129 - 145. Retrieved on March 12, 2010.
- Kujore, O. 1990. Nigerian English usage: analogies, aberrations and the tyranny of the idea. JNESA 10.1.
- Labov, W. 1972. The study of language in its social context. Gigioli, P. P. 1972. (Ed.)

 Language and social context. England; Penguin Books Ltd.
- .1990. The intersection of sex and social class in the course of linguistic change. Language Variation and Change. 2. 205 254.
- Ladefoged, P. 1993. A course in phonetics (3rd ed.). New York: Harcourt Brace Jovanovich College Publishers.
- Laferrierre, M. 1979. Ethnicity in phonological variation and change. Language. 55:603 617.

- R.B. 1997. The evolution of a sociolinguistic theory of language. The handbook of sociolinguistics. F. Coulmas. Ed. Ibid. 15-32.
- Matthews, P.H. 1997. The concise Oxford dictionary of linguistics. Oxford: Oxford
- Mazrui, A. A. 1975. The political sociology of the English language: an African
- Milroy, J. 1981. Regional accents of English: Belfast. Belfast: Blackstaff.
- Milroy, J. 2001. Language ideologies and the consequences of standardization. Journal of Sociolinguistics 5.4:530 555.
- and Milroy, L. 1997. Varieties and variation. The handbook of sociolinguistics.

 F. Coulmas. Ibid. 47 64.
- Milroy, L. 2002. Introduction: mobility, contact and language change working with contemporary speech communities. *Journal of Sociolinguistics*. 6.1. 3 15.
- Odumuh, A. E. 1993. Sociolinguistics and Nigerian English. Ibadan: Sam Bookman.
- Oke, D. O. 1970. English in the workshop. Journal of Nigerian English Studies Association (JNESA). 4.1:21-37.
- Okoro, O. 2009. The identification of standard Nigerian English usage. Nigerian English influences and characteristics. A.B.K. Dadzie and S. Awonusi. Eds. Ibid. 158 178.
- Omolewa, M. 1975. The English language in colonial Nigeria, 1862-1960: a study of the major factors which promoted the English language. *Journal of Nigerian English Studies Association (JNESA)* 7.1 and 2. 103 117.
- Omoniyi, T. 2003. Culture and identity shifts via satellites and virtual reality in the era of globalization. India in the age of globalization: contemporary discourses and texts.

 S. Gupta, T. Basu and S. Chattarji. Eds. Nehru Memorial Museum and Library.

 353 398.
- Osisanwo, A. 2009. Test of orals in English schools and colleges. Ibadan: Alafas Nigeria Company.
- Oyebade, F. 2008. A course in phonology. 2nd ed. Ijebu Ode: Shebiotimo Publications.

- Oyeleye, L. 1994. Problems of variety differentiation in Nigerian English a Africa. S. Asein and F. Adesanoye, Eds. Ibadan: Sam Bookman. 97 111.
- Oyetade, O.S. 2001. Attitude to foreign languages and indigenous languages in Nigeria.

 Language attitude and language conflict in West Africa. H. Igboanusi. Ed. Ibadan:

 Enicrownfit Publishers. 14 29.
- Oyetade, S.O. 1990. Nupe-Yoruba endoglossic bilingualism in Saare/Tsagari community in Kwara State. PhD. Thesis. Dept. of Linguistics and African Languages.
- Retrieved on June 15, 2011 from http://www.phon.ucl.ac.uk/home/estuary/rosew.htm
- . 1994. Estuary English tomorrow's RP? English Today. 10.1:3 8.
- Selinker, L. 1972. Interlanguage. International Review of Applied Linguistics. 10:209 231.
- Simo Bobda, A. 2007. Some segmental rules of Nigerian English phonology. English World-Wide 28:3. 279 310.
- . 2003. The formation of regional and national features in African English pronunciation. An exploration of some non-interference factors. English Worldwide. 24:17 42.
- . 2000. Comparing phonological features across African accents of English. English Studies. 3:249 266.
- . 1995. The phonologies of Nigerian English and Cameroon English. New English: a West African perspective. Ibadan: Mosuro. 248 268.
- Soneye, T. O. 2007. Phonological sensitivity of selected NTA newscasters in polyphonic and polygraphic phenomena in English. PhD. Thesis. University of Ibadan.
- StatSoft electronic statistics textbook. Retrieved on March 6, 2011 from http://www.statsoft.com/textbook/basic-statistics.
- Stets, J.E. and Burke, P.J. 2000. Identity theory and social identity theory. Social Psychology Quarterly. 63 no. 3:224 237.

- Sunday, A., and Ofoegbu, M.O.B. 2010. Oral English simplified: a practical guide for schools and colleges. Ibadan: Myke-Hill Global Enterprises.
- Tabouret-Keller, A. 1997. Language and identity. The handbook of sociolinguistics. F.
- Tamuno, T. 2004. Ayo Banjo at 70: beyond the frontier of language. Forms and functions of English and indigenous languages in Nigeria. Ibid. 36 48.
- Tiffen, B. 1974. The intelligibility of Nigerian English. PhD. Thesis. University of London.
- Torgerson, E. and Kerswill, P. 2004. Internal and external motivation in phonetic change: dialect levelling outcomes for an English vowel shift. Journal of Sociolinguistics 8.1:23 53.
- Trudgill, P. 1972. Sex, covert prestige and linguistic change in the Urban British English of Norwich. Language in Society 1:179 195.
- . 1974. The social differentiation of English in Norwich. Cambridge: Cambridge University Press.
- _____. 2000. Sociolinguistics: an introduction to language and society.4th ed. London: Penguin Books.
- Ubahakwe, E. 1974. Goals in English language education in Nigeria. JNESA 6.2
- Udofot, I.M. 1997. The rhythm of spoken Nigerian English. PhD. Thesis. University of Uyo. Cited in Akinjobi, A. Ibid.
- description. Paper presented at the 22nd West African Languages Congress (WALC), University of Ghana.
- . 2003. Stress and rhythm in the Nigerian accent of English. English Worldwide. 24:2:201 220.
- Ufomata, T. 1990. Thoughts on spoken Nigerian English. JNESA 10.2.
- on March 12, 2010 from http://pitch.phon.ucl.ac.uk/home/shl9/ufomata/titi

- Language attitude and language conflict in West Africa. H. Igboanusi. Ed. 50-67.
- Wade, R. 1997. Literature review of Black South African English (BASE). Retrieved on Oct. 10, 2005, from http://www.und.ac.za/und/ling/archive/wadech2.html
- Watt, D. 2002. 'I don't speak with a Geordie accent, I speak like the northern accent': Sociolinguistics 6.1:44-63.

 Tyneside vowel system. Journal of
- Weinreich, U. 1968. Languages in contact. The Hague: Mouton.
- Wells, J.C.1982. Accents of English. Cambridge: Cambridge University Press.
- . 1990. Longman pronunciation dictionary. Harlow, UK: Longman.
- Wodak, R. and Benke, G. 1997. Gender as a sociolinguistic variable: new perspectives in variation studies. The handbook of sociolinguistics. F. Coulmas. Ed. Ibid. 127 150.
- Wölck, W. 2006 German ethnolects and the development of urban American English.

 Paper in Dept. of Linguistics, University of Buffalo, New York. Retrieved on June
 24, 2006 www.wingsbuffalo.edu/org/gggaas/GLAC9Abstractpdf
- Wolf, H-G. and Igboanusi, H. 2004. Empowerment through English a realistic view of the educational promotion of English in post-colonial contexts: the case of Nigeria. ESSEN, LAUD paper. 559.
- Wolfram, W. 1997. Dialect in society. The handbook of sociolinguistics. Ibid. 107 126.
- and Fasold, R.W. 1974. The study of dialects in American English.

 Englewood Cliffs: Prentice Hall.
- Yule, G. 1997. The study of language. 2nd ed. Cambridge: Cambridge University Press.

APPENDIX A - Questionnaire

DEPARTMENT OF LINGUISTICS AND AFRICAN LANGUAGES UNIVERSITY OF IBADAN

QUESTIONNAIRE ON NIGERIAN SPOKEN ENGLISH (QNSE)

INTRODUCTION

This questionnaire is designed to identify the factors that influence English as spoken in Nigeria. All information will be treated as confidential.

INSTRUCTIONS

- 1. You are required to mark or tick the answer and fill in the blank spaces with the information that best represents your opinion.
- 2. There are no right or wrong answers. Every answer and information is equally important.

PART ONE: DEMOGRAPHIC INFORMATION

(i)	State of origin	
(ii)	Sex: Male	Female
(iii)	Age: Under 20 _	21 – 30 31 – 40 Above 40
(iv)	Mother tongue (our local language):
(v)	Other languages	spoken fluently:
(vi)	Religion: Islam	Christianity Other (pls specify)
(vii)	Department	Course of study
	Level	

PART TWO 1. Place(s) of residence in the	last 5 years:		
State	State	State	
Year to	Year to	Town	to
28. Primary school attended			
& Type: public private			
& Location:	State		
2b. Secondary school attende	ed		
♦ Type: public Privat	te		
♦ Location:	State		
2c. Tertiary (if postgradu	nate student)		
❖ Type: public p	private		
& Location:	State		
3. How would you rate	your spoken English?		
Excellent			
Good			
Fair			
Poor			
Have you ever lived (for at le	east six months) outside N	igeria? If yes, when	re?
. From	to	(state the year	ar/period).
	u could speak English like		
Name:			
	235		

Sex:	
Nationality	
State of origin (if Nigerian): _	

- 5. Are you able to identify a Hausa, Igbo or Yoruba person just by his/her spoken English alone? (E.g. in a telephone conversation or radio programme)
- 6. Which do you prefer? Hausa English:

Igbo English:

Yoruba English:

PART THREE (For recording)

A) WORD LIST

Person Develop
Cognate Phrase
Government Elements

Preserved Observe
Security Assure

Worth Relationship

Faith Fate

Birthday Thought

B) READING PASSAGE:

Jack's not sure if he can come. Did he say fifty-three people would enter one car? He didn't say car, he said coach. The government will still purchase thirty-five buses for our campus. In other words, we'll assure the people that in the month of July, their wish will come true through the policy and no witch can stop it. People have nothing to fear if you tell the gentlemen not to veer into any other business. The children in the surrounding hamlets and villages should quickly bring quality vegetables and special square baskets. I

them that there was a lot of it about. They should make each child wear one shoe or two shoes and not chew anything. The extra equipment above can be preserved if you approve and the issue of security will be determined by fruitful negotiations. That is the pleasurable order. The radio and television gave us this information yesterday.

C) CASUAL CONVERSATION

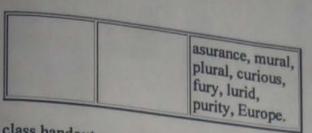
APPENDIX B LEXICAL SETS³

Lexical Set	RP	Sample Words
KIT	/1/	ship, rib, dim, milk, slither, myth, pretty, build, women, busy
DRESS	/e/	step, ebb, hem, shelf, effort, threat, bread, ready, any, friend
TRAP	/æ/	tap, cab, ham, scalp, plaid
LOT	/ø/	stop, rob, Tom, solve, profit, honest, swan, waffle, knowledge
STRUT	/4/	cup, rub, hum, pulse, butter, done, monk, touch, blood
FOOT	/ʊ/	put, full, cuckoo, good, woman, could
ватн	/a:/ (flat A = phonetically equal to PALM)	staff, path, dance, prance, calf, half, chaff, plastic
CLOTH	/p/ (broad O = phonetically equal to LOT)	off, soft, often, Australia, gone, moth, long accost, wash, origin, borrow, florid, horrid, moral, sorrow, laurel, quarrel
NURSE	131	hurt, church, curb, turn, burnt, shirt, firm, twerp,

		verb, term, certain, earth, heard, rehearsal, work, worst, journal, attorney
FLEECE	/i:/	creep, seed, seem, see, needle, these,brief, ceiling, be, key, meat, bead, team, sea, feast, equal, complete, receive, Caesar, phoenix, police, casino
FACE	/es/	tape, babe, name, change, taper, bass, bouquet, wait, day, rein, they, weigh, reign, great, steak
PALM	/a:/ (phonetically equal to START and BATH)	calm, balm, psalm, father, bra, ma, pa, ah, Bach, salaam, Brahms, Taj Mahal, spa, sonata, bravado, incommunicado, llama, marijuana, iguana, Koran, rationale, Nazi, enchilada, Nevada, lava, plaza, almond, drama, panorama
THOUGHT	/>(:)/	taught, naughty, ought, taut, applaud, autumn, hawk, jaw, chalk, all,

		bald, halt, alter,
GOAT	/90/	soap, road, note, robe, hole, so, noble, brooch, bowl, soul, colt, roll, sew, dough
GOOSE	/u(z)/	loop, mood, boom, boost, move, tomb, two, who, group, dupe, mute, cube, rube, plume, flu, ludicrous, music, sleuth, lewd, few, fruit, view, beauty
PRICE	/aɪ/	ripe, tribe, time, tiger, indict, child, bicycle, island, hi-fi, type, eye, height, aisle, buy, shoir, fight, sign
CHOICE	/31/	boy, toy, joy, noise, voice, void, coin, poison, buoy, employ, groin, hoist, joist
MOUTH	/au/	out, pouch, loud, noun, count, flour, crowd, dowry, plow
NEAR	/19/	beer, here, pier, fear, appear, fierce, weird, beard, serious, dreary, idea, Korea, museum, real, ideal

SQUARE	/63/	care, air, fair, bear, wear, heir, their, scarce, vary, rarity, dairy, fairy.
START	/a:/	far, star, bazaar, sharp, part, harsh, garb, large, farm, Charles, party, heart, sergeant, aardvark, safari, scenario, tiara.
NORTH	/52/	or, for, war, assort, cavort, tort, short, scorch, horse, absorb, chord, form, adorn, porn, porpoise, fortune, corporal, shorten, tortoise, forfeit, torso, orbit, normal, quart, swarm, ward, warm, ward, warm, wart, aura, Taurus.
FORCE	/5:/	adore, deplore, more, store, boar, floor, pour, deprt, porch, afford, borne, porter, coarse, court, oral, flora, glory, laborious, pictorial, uproarious.
CURE	/və/	boor, poor, tour, endure, lure, pure, gourmet, boorish, tourism,



17able adopted from class handout prepared by Nicole Taylor. Retrieved on 27, May, 2012 from www.ic.arizona.edu/~anth383/lexicalsets.html

CALCULATION OF MEAN FORMANT VALUES

HAUSA FEMALE

		APPLICATION N		
V8	pERson	dEvelop	develop	bUs
F1	688.2	601.2	535.9	710
F2	1972	1711	1885	1472
V22	535.9	579.4	1000	200
F1	2429		731.8	623
F2	2425	2255	1907	1667
VT	731.8	644.2		
F1	1842	1820	535.9	710
F2	1042	1020	1667	1450
v8	710	623	FOF -	
F1	1950	1689	535.9	710
F2	1330	1003	1994	1559
v9	731.8	688.2	402.4	
F1 F2	1798	2124	492.4	710
74	2,00	2124	1515	1885
	HAUSA N	MALE		
V24				
F1	731	557.7	623	622
F2	1602	2037	1950	623 1502
V3			2000	1302
F1	753.5	601.2	557.7	514.2
F2	1624	1907	1450	1341
V11				2072
F1	601.2	383.6	557.7	448.9
F2	1515	2211	1406	1167
V5				
F1	840.6	535.9	688.2	884.1
F2	1863	2146	1450	1754
٧				
F1	775.3	427.1	535.9	448.9
F2	1776	2342	1450	1145
V8	YORUBA	FEMALE		
F1				
F2	818.8	644.7	775.3	710
570	1820	2103	1363	1537
V11 F1		and the second		
. T	818.8	644.7	666.5	623
				243

	1711	1842	1515	
F2				1385
V17	682.6	447.5	682.6	527.0
F1	1442	2509	1442	537.9 1334
F2				1334
V20	731.8	535.9	753.5	644.7
F1 F2	1907	1929	1515	1559
V33	027.2	E01 7	***	
F1	827.2 1822	501.7 1894	646.4	592.1
F2	1022	1034	1297	1569
	,	YORUBA M	IALF	
. (2				
V3	579.4	492.4	753.5	840.6
F2	1863	2059	1646	2081
V4				2001
F1	710	448.9	688.2	644.7
F2	2059	1994	1298	1385
V5				
F1	623	557.7	731.8	688.2
F2	1428	1863	1994	1210
V6				
F1	688.2	470.6	623	666.5
F2	1385	2103	1406	1232
٧7				
F1	753	470.6	753.5	623
F2	1863	2037	1428	1472
	IGBO FEN	MALE		
V24	TODO I LIV	- ALL		
F1	623	448.9	448.9	601.2
F2	1667	2103	1406	1254
V11	1007	2103	1400	
F1	818.8	448.9	775.3	710
F2	2299	1842	1472	1798
V5	-233	1042	277	100000
F1	927.6	492.4	579.4	797.1
F2	2081	2211	1341	1341
V6		2277	20.12	
F1	557.7	710	492.4	623
		120		
				244

	1863	1994	1537		
F2			1337	1472	
VI	601.2	340.1	525.0		
F1	2364	2016	535.6	601.2	
F2			1450	1298	
	IGBO MALE				
	IODO IIII III				
V2	623	448.9			
F1	1885	2103	470.6	628.3	
F2	1000	2103	2059	1388	
V3	CAA 7	402.4			
F1	644.7	492.4	601.2	666.5	
F2	1385	2190	1602	1189	
V4		Section 1			
F1	666.5	470.6	862.3	535.9	
F2	1363	2037	2886	1341	
V10				7247	
F1	710	448.9	688.2	753.5	
F2	2168	1776	2560	1298	
v11				1298	
F1	731.8	557.7	557.7	EAAT	
F2	1428	1885	1406	644.7	
			1400	1232	
pErson	HF			LINA	
- Constant and Constant					
		F2		HM	
	F1	F2		F1	F2
		F2 1972		F1 731	F2 1602
	F1 688.2	1972		F1 731 753.5	1602 1624
	F1 688.2 731.8	1972 1842		731 753.5 601.2	1602
	F1 688.2 731.8 710	1972 1842 1950		731 753.5 601.2 840.6	1602 1624
TOTAL	F1 688.2 731.8 710 731.8	1972 1842 1950 1798		731 753.5 601.2	1602 1624 1515
TOTAL	F1 688.2 731.8 710 731.8 2861.8	1972 1842 1950	TOTAL	731 753.5 601.2 840.6	1602 1624 1515 1863
TOTAL MEAN	F1 688.2 731.8 710 731.8	1972 1842 1950 1798	TOTAL MEAN	731 753.5 601.2 840.6 775.3	1602 1624 1515 1863 1776
	F1 688.2 731.8 710 731.8 2861.8	1972 1842 1950 1798 7562		731 753.5 601.2 840.6 775.3 3701.6	1602 1624 1515 1863 1776 8380
MEAN	F1 688.2 731.8 710 731.8 2861.8	1972 1842 1950 1798 7562		731 753.5 601.2 840.6 775.3 3701.6	1602 1624 1515 1863 1776 8380
	F1 688.2 731.8 710 731.8 2861.8	1972 1842 1950 1798 7562		731 753.5 601.2 840.6 775.3 3701.6	1602 1624 1515 1863 1776 8380
MEAN	731.8 710 731.8 2861.8 715.45	1972 1842 1950 1798 7562 1890.5		731 753.5 601.2 840.6 775.3 3701.6 740.32	1602 1624 1515 1863 1776 8380 1676
MEAN	F1 688.2 731.8 710 731.8 2861.8 715.45	1972 1842 1950 1798 7562 1890.5		731 753.5 601.2 840.6 775.3 3701.6 740.32	1602 1624 1515 1863 1776 8380 1676
MEAN	F1 688.2 731.8 710 731.8 2861.8 715.45	1972 1842 1950 1798 7562 1890.5		731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6	1602 1624 1515 1863 1776 8380 1676
MEAN	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623	1972 1842 1950 1798 7562 1890.5		731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9	1602 1624 1515 1863 1776 8380 1676
MEAN dEvelop	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623 688.2	1972 1842 1950 1798 7562 1890.5 1711 1820 1689 2124	MEAN	731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9 427.1	1602 1624 1515 1863 1776 8380 1676 2037 1907 2211 2146 2342
MEAN dEvelop	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623 688.2 2556.6	1972 1842 1950 1798 7562 1890.5 1711 1820 1689 2124 7344	MEAN	731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9 427.1 2505.5	1602 1624 1515 1863 1776 8380 1676 2037 1907 2211 2146 2342 10643
MEAN	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623 688.2	1972 1842 1950 1798 7562 1890.5 1711 1820 1689 2124	MEAN	731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9 427.1	1602 1624 1515 1863 1776 8380 1676 2037 1907 2211 2146 2342
MEAN dEvelop	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623 688.2 2556.6	1972 1842 1950 1798 7562 1890.5 1711 1820 1689 2124 7344 1836	MEAN	731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9 427.1 2505.5 501.1	1602 1624 1515 1863 1776 8380 1676 2037 1907 2211 2146 2342 10643 2128.6
MEAN dEvelop	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623 688.2 2556.6	1972 1842 1950 1798 7562 1890.5 1711 1820 1689 2124 7344	MEAN	731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9 427.1 2505.5	1602 1624 1515 1863 1776 8380 1676 2037 1907 2211 2146 2342 10643
MEAN dEvelop	F1 688.2 731.8 710 731.8 2861.8 715.45 601.2 644.2 623 688.2 2556.6	1972 1842 1950 1798 7562 1890.5 1711 1820 1689 2124 7344 1836	MEAN	731 753.5 601.2 840.6 775.3 3701.6 740.32 557.7 601.2 383.6 535.9 427.1 2505.5 501.1	1602 1624 1515 1863 1776 8380 1676 2037 1907 2211 2146 2342 10643 2128.6

1000					
develop	731.8	1907			
				557.7	1450
	535.9	1994		557.7	1406
	492.4	1515		688.2	1450
	1760.1	7301	TOTAL	535.9	1450
TOTAL	440.025	1825.25	TOTAL	2962.5	7706
MEAN				592.5	1541.2
222	710	1472			
bUs				623	1502
	710	1450		514.2	1341
	710	1559		448.9	1167
	710	1885		884.1	1754
	2840	6366	TOTAL	448.9	1145
TOTAL	710	1591.5	TOTAL	2919.1	6909
MEAN	/10	1391.5	MEAN	583.82	1381.8
	YF			2000	
pErson	F1	F2		YM	
		1777		F1	F2
	818.8	1820		579.4	1863
	818.8	1711		710	2059
	682.6	1442		623	1428
	731.8	1907		688.2	1385
	827.2	1822		753	1863
TOTAL	3879.2	8702		3353.6	8598
MEAN	775.84	1740.4		670.72	1719.6
JF 1					
dEvelop	644.7	2103		492.4	2059
	644.7	1842		448.9	1994
	447.5	2509		557.7	1863
	535.9	1929		470.6	2103
-	501.7	1894		470.6	2037
TOTAL	2774.5	10277		2440.2	10056
MEAN	554.9	2055.4		488.04	2011.2
day to					4545
develOp	775.3	1363	3	753.5	1646
	666.5	1515	5	688.2	1298
	682.6	1442	2	731.8	1994
	753.5	151	5	623	1406
700	646.4	129	7	753.5	1428
TOTAL	3524.3	713	2	3550	7772
				246	

704.86 1426.4 710 1537 623 1385 840.6 2081 537.9 1334 644.7 1385 644.7 1559 666.5 1232 592.1 1569 666.5 1232 10TAL 3107.7 7384 3463 7380 692.6 1476 PERSON IF 623 1667 623 1885 927.6 2081 666.5 1363 557.7 1863 710 2168 601.2 2364 731.8 1428 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 MEAN 566.32 1441.2 636 2102.6 MEAN 566.32 1441.2 636 2102.6 bUs 601.2 1254 628.3 1388 797.1 1341 753.5 1298					
## PERSON IF FERSON Factor Facto	JEAN	704.86	1426.4	710	
BUS 623 1385 644.7 1385 644.7 1385 644.7 1385 644.7 1385 6644.7 1385 6688.2 1210 592.1 1569 666.5 1232 10TAL MEAN 621.54 1476.8 623 1472 818.8 2299 644.7 927.6 2081 666.5 1363 710 2168 757.7 1863 601.2 2364 731.8 1428 MEAN 705.66 2054.8 666.5 1645.8 dEvelop 448.9 1842 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 10TAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 70TAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 666.5 1389 1388 535.9 1341 797.1 1341 623 1472 535.5 1298	MIL			,10	1554.4
537.9 1334 644.7 1385 644.7 1559 688.2 1210 592.1 1569 666.5 1232 107AL 3107.7 7384 3463 7380 692.6 1476 PERSON IF 623 1667 623 1885 927.6 2081 666.5 1363 557.7 1863 710 2168 557.7 1863 710 2168 601.2 2364 731.8 1428 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 753.5 1298		710	1537		
537.9 1334 644.7 1385 644.7 1385 644.7 1559 664.7 1232 1210 592.1 1569 666.5 1232 1472 3463 7380 692.6 1476 623 1476.8 692.6 1476 623 1667 623 188.8 2299 644.7 1385 666.5 1363 710 2168 757.7 1863 710 2168 757.7 1863 710 2168 731.8 1428 731.8 1428 731.8 7428 755.6 2054.8 675.2 1645.8 656.5 1666.5 1666	bUs	623	1385		2081
592.1 1569 666.5 1232 TOTAL 3107.7 7384 3463 7380 621.54 1476.8 692.6 1476 person IF 623 1667 623 1885 818.8 2299 644.7 1385 927.6 2081 666.5 1363 710 2168 757.7 1863 710 2168 601.2 2364 731.8 1428 MEAN 705.66 2054.8 675.2 1645.8 develop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 705AL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298		537.9	1334		
TOTAL 3107.7 7384 623 1472 MEAN 621.54 1476.8 692.6 1476 person IF 623 1667 623 1885 818.8 2299 644.7 1385 927.6 2081 666.5 1363 557.7 1863 710 2168 601.2 2364 731.8 1428 MEAN 705.66 2054.8 675.2 1645.8 develop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 535.9 1341 797.1 1341 535.9 1341 797.1 1341 535.9 1341 797.1 1341 535.9 1341		644.7	1559		1210
TOTAL MEAN 621.54 1476.8 3463 7380 692.6 1476 PERSON IF 623 1667 623 1885 644.7 1385 927.6 2081 666.5 1363 710 2168 557.7 1863 710 2168 731.8 1428 707AL 3528.3 10274 3376 8229 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 107AL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 3180 10513 MEAN 566.32 1441.2 636 2102.6 btus 601.2 1254 666.5 1189 797.1 1341 535.9 1341 535.9 1341 797.1 1341 535.9 1341 535.9 1341 797.1 1341 535.9 1341 535.9 1341 797.1 1341 535.9 1341 535.9 1341 797.1 1341 535.9 1341 535.9 1341 797.1 1341 535.9 1341		592.1	1569		1232
MEAN 621.54 1476.8 692.6 1476	TOTAL	3107.7	7384		1472
PERSON IF 623 1667 818.8 2299 927.6 2081 666.5 1363 557.7 1863 710 2168 601.2 2364 731.8 1428 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1865 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 MEAN 566.32 1441.2 636 2102.6 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 535.9 1341 623 1472 753.5 1298	TUINE	621.54	1476.8		7380
818.8 2299 623 1885 818.8 2299 644.7 1385 927.6 2081 666.5 1363 557.7 1863 710 2168 70TAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298	MEAN			692.6	1476
818.8 2299 623 1885 818.8 2299 644.7 1385 927.6 2081 666.5 1363 557.7 1863 710 2168 70TAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298					
818.8 2299 644.7 1385 927.6 2081 666.5 1363 557.7 1863 710 2168 601.2 2364 731.8 1428 TOTAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 develop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 638 1388 797.1 1341 535.9 1341 623 1472 753.5 1298	pErson			IM	
927.6 2081 664.7 1385 557.7 1863 710 2168 731.8 1428 TOTAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 develop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 MEAN 566.32 1441.2 636 2102.6 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 636 2102.6 bus 601.2 1254 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298				623	1885
557.7 1863 710 2168 601.2 2364 731.8 1428 TOTAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 MEAN 566.32 1441.2 636 2102.6 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 636 2102.6 bus 601.2 1254 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298		100000000000000000000000000000000000000		644.7	
557.7 1863 710 2168 601.2 2364 731.8 1428 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 579.4 1341 862.3 2886 492.4 1537 688.2 2560 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298			STATE OF THE STATE		
TOTAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 577.4 1341 862.3 2886 492.4 1537 688.2 2560 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298			1863		
TOTAL 3528.3 10274 3376 8229 MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103			2364		
MEAN 705.66 2054.8 675.2 1645.8 dEvelop 448.9 2103 448.9 2103 448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 577.7 1406 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 753.5 1298 797.1 1341 753.5 1298	TOTAL	3528.3	10274		- Allerton
448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298	MEAN	705.66	2054.8		
448.9 1842 492.4 2190 492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 623 1472 753.5 1298					
492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 753.5 1298	dEvelop	448.9	2103	448.9	2103
492.4 2211 470.6 2037 710 1994 448.9 1776 340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develOp 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 753.5 1298		448.9	1842	492.4	
340.1 2016 557.7 1885 TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develOp 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 753.5 1298		492.4	2211	470.6	
TOTAL 2440.3 10166 2418.5 9991 MEAN 488.06 2033.2 483.7 1998.2 develOp 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 797.1 1341 753.5 1298		710	1994	448.9	1776
MEAN 488.06 2033.2 483.7 1998.2 develop 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 797.1 1341 753.5 1298		340.1	2016	557.7	1885
develOp 448.9 1406 470.6 2059 775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 797.1 1341 753.5 1298	TOTAL	2440.3	10166	2418.5	9991
775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 753.5 1298	MEAN	488.06	2033.2	483.7	1998.2
775.3 1472 601.2 1602 579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 797.1 1341 535.9 1341 753.5 1298					
579.4 1341 862.3 2886 492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 797.1 1341 753.5 1298	develOp	448.9	1406	470.6	2059
492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298		775.3	1472	601.2	1602
492.4 1537 688.2 2560 535.6 1450 557.7 1406 TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 753.5 1298		579.4	1341	862.3	2886
TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298				688.2	2560
TOTAL 2831.6 7206 3180 10513 MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298				557.7	1406
MEAN 566.32 1441.2 636 2102.6 bus 601.2 1254 628.3 1388 710 1798 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298	TOTAL				10513
710 1798 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298		and the second second			
710 1798 666.5 1189 797.1 1341 535.9 1341 623 1472 753.5 1298	bUs	-	4054	628 3	1388
797.1 1341 535.9 1341 623 1472 753.5 1298	- 100				1189
797.1 1341 753.5 1298 623 1472 753.5					4044
623 14/2					4200
247		623	1472		
				247	

