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ACOUSTIC PHONETIC SELF-DISCOVERY: EDITOR'S PROLOGUE

ETTIEN KOFFI

I stole the idea of a “linguistic” portfolio from the students in the Arts Department. Semester after semester, I see their works on display. So, I thought that it would be a great idea to display the great linguistic works that the students who take courses in linguistics and TESL produce each semester. This dream has become reality thanks to funds that became unexpectedly available from the Department of English.

The students of this semester, just like those of previous semesters, have produced works worth displaying. The works done by the current crop of students are no less scientifically informed than the ones produced by their predecessors many semesters ago. The idea of a linguistic portfolio in general, but that of a phonetic portfolio in particular, is worth pursuing because the acoustic works produced by students can be useful tools for future analyses. With this first publication (and hopefully many more to follow), many informative end-of-the semester projects will no longer go to waste.

The present issue contains two types of writings: papers and “phonetic portfolios.” The phonetic portfolios qualify as exploratory studies with a personal touch. Each begins with a short biographical statement, followed by a phonetic transcription of a text that the student produced. The texts qualify as broad allophonic transcriptions. From there, the student moves to an acoustic analysis of his/her own speech samples. They compare their pronunciation with General American English Vowels (GAE). Most of the students are from Central Minnesota or have lived in Central Minnesota for a long period of time. So, this gives us some useful insights about vowel change in this region of the country. There are also international students in the course. Their data is useful because it can shed some light on issues of intelligibility. The phonology course from which most of the papers come is a double-numbered course. It means that five graduate students can take it. Graduate students are free to write their paper on topic they choose so long as it has a phonetic acoustic value to me and to them. Doug LeBlanc chose to investigate the various allomorphs of <-ED>. Amber King studied the allophones of /t/ in her own speech. Abdirahman Mohamed measured the VOT of six Somali speakers of English. They provided excellent raw acoustic phonetic data. Their initial analyses were good. But since this was only their first course in instrumental phonetics, I joined hands with them to help interpret their waveforms, spectrograms, and measurements acoustically. Papers from two other courses are included in this issue of the *Linguistic Portfolios*. One paper has to do with the best approaches for teaching English prepositions to nonnative speakers. Two papers apply the Game theory to matters concerning Teaching English as a Second Language. One paper tries to see through the SCSU policy of requiring only a very low score on the TOFEL. Another paper applies the Game theory to discover the model of ESL that would work best for Japan. This issue of the *Linguistic Portfolios* also contains three senior theses that undergraduate students wrote under my supervision for their BA in linguistics. Though the majority of the articles deal with acoustic phonetics, I believe that there is enough variety to satisfy most readers.

The remaining part of the prologue is autobiographical because I have included my own acoustic vowel space in the portfolios by popular demand. Since I'm not a native speaker of English, my students are curious as to how the formants of my vowels compare with those of General American English (GAE) speakers. I have obliged. However, before getting to my acoustic vowel, the reader needs to travel with me in memory lane to the distant land of Cote d'Ivoire (also known as Ivory Coast) where I was born half a century ago. My native language, that is, the language that my father and mother spoke to me when I was growing up is Anyi. It is the only language that I knew and spoke until I went to school at the age of about eight. From that year on I got introduced to French. It is the official language of Cote d'Ivoire. It is also the only language of instruction in Ivorian schools in **all** grades, and at **all** levels. From first grade until I graduated from the University of Abidjan in 1984, French became my only language of education and also my only language of socialization outside of my Anyi-speaking siblings and acquaintances. English is a compulsory English Foreign Language in Cote d'Ivoire. Every student entering 7th grade must take it. So, from 7th grade until I graduated from college, I studied English. In 9th grade students must add a second foreign language. I chose Spanish. I did well in my studies of English; so well in fact that I did not have to take English language courses when I enrolled for my MA and Ph.D. in linguistics at Indiana University, Bloomington campus in 1985. Since that time English has become my only language of education and also my only language of socialization, apart from the occasional French-speaking people that I run into here and there. For nearly a quarter of a century, English has become the language of my home because my American-born wife and kids only know English. My students are amazed that I speak many languages. However, I'm not. I wish I were fluent in more languages than Anyi, French, English, and (a little bit of) Spanish. I almost forgot to add that I have research proficiency in Greek and Hebrew, and that I have some pretty good analytical insights in Ditammari, Fon, Gun, Mina, Kabye, Lokpa, Moba-lok, and Ewe for having done linguistic and exegetical work in support of the translation of the Bible in these languages.

Why do I mention all these languages? In acoustic phonetics, it is customary to have a good overview of the linguistic repertoire of the person whose speech one is studying because it is believed that the languages that a person knows may affect his/her speech. I do not know which of these languages may have had a greater impact on my production of GAE vowels. I suspect that it may be Anyi or Ivorian French. However, several layers of acoustic studies involving Anyi and Ivorian French will have to be done before one can answer this question with any degree of certainty. However, the answer to this question is not crucial for now. What matters is how my vowels look like when compared with those of GAE. I recorded myself saying the words in the Table 1 six times each, for a total of 66 tokens. The recordings were done with an Olympus Digital Voice Recorder WS-710M.

Words ¹	heed	hid	hayed	head	had	hod	hawed	hoed	hood	who'd	hud
Vowels	[i]	[ɪ]	[e]	[ɛ]	[æ]	[ɑ]	[ɔ]	[o]	[ʊ]	[u]	[ʌ]
GAE F1	270	390	476	530	660	730	570	497	440	300	640
Koffi F1	280	390	436	524	820	612	812	439	532	380	793
GAE F2	2290	1990	2089	1840	1720	1090	840	910	1020	870	1190
Koffi F2	2308	2222	2276	2091	1652	1606	1395	1312	1167	1038	1419

Table 1: Koffi's F1 and F2 Formants

The measurements reported here represent the mean F1 and F2 formant values. I then plotted them in the normalization website at <http://ncslaap.lib.ncsu.edu/tools/norm/>. The result gives the comparative acoustic chart below. My vowels are within circles.

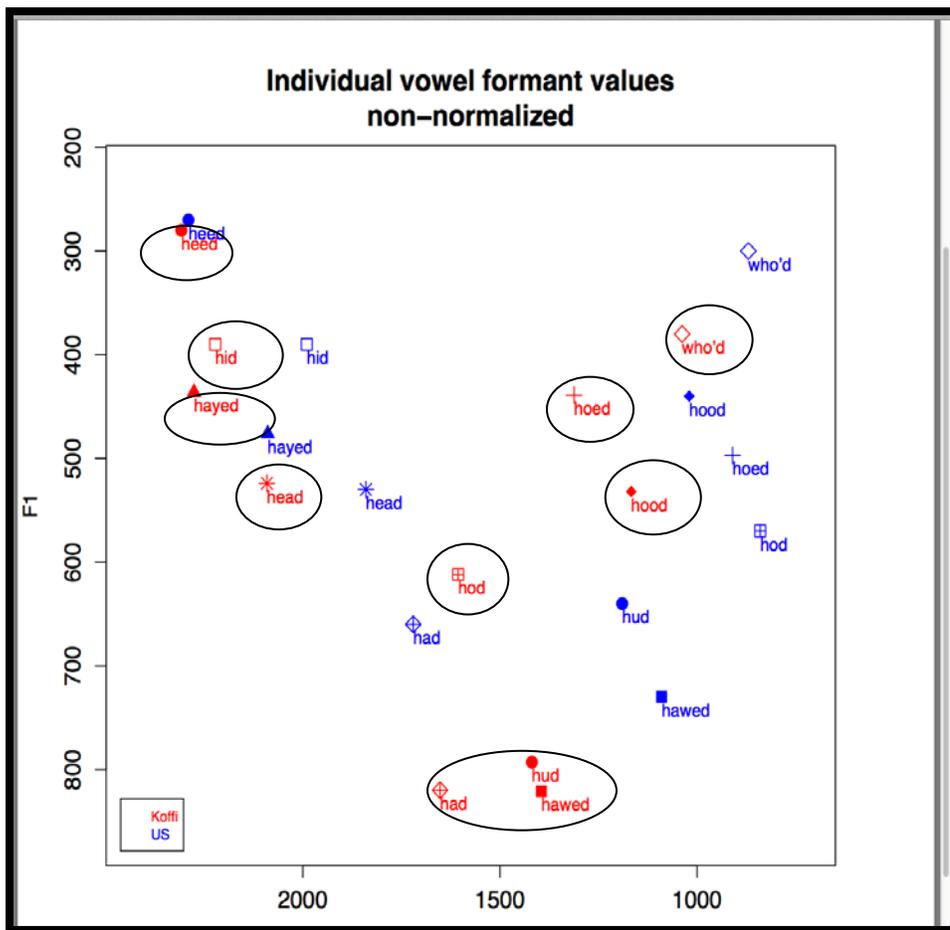


Figure 1: Koffi's Acoustic Vowel Space

¹ The F1 and F2 values for /e/ and /o/ are based on Hillenbrand et al (1995:3103) because Peterson and Barney did not measure these two vowels. These two vowels are widely believed to be diphthongs but Hillenbrand et al. consider them to be monophthongs in the Midwest.

Some cursory observations can be made regarding my vowel space. My vowels [æ], [ɑ], and [ʌ] are significantly lower than those of GAE. Indeed, my wife, my kids, and my GAE speaking-friends tease me mercilessly about my vowels [ɑ, æ, ʌ]. Presumably, I do not distinguish or cannot distinguish between the words <cop>, <cup> and <cap>. When the new iPad 2 came, I went to buy one. I told the vendor that I wanted to see their iPads. He brought me a whole bunch of iPods. Then, I realized that it was my [æ] interfering with my [ɑ] again! My vowel space shows that my [u] is halfway between the GAE [u] and [ʊ]. So, people don't really know if I pronounce <cookies> as [k^hukiz] or [k^hʊkiz]. Generally, though, my lax back vowels are problematic. I'm not the only one who has "problems" with lax back vowels. These vowels are unstable across nearly all the speakers whose data are presented in this volume. The general tendency of Central Minnesota English is the shifting of back vowels. They are becoming more centralized. Two other important features of vowels in our area that I would like to draw the reader's attention are the lowering of [ʊ] to a quasi schwa status, and the raising of [æ] higher than [ɛ] when it occurs immediately before [g] in words such as <bag>, <flag>, <bag>, <tag>, <nag>, <sag>, <Mag>, etc.

To conclude, I would like to thank two students for their hard work. Lindsay Giacomino, my associate editor, has spent dozens upon dozens of hours designing the cover page, formatting the various papers and phonetic portfolios, and proofreading everything. Her patience and longsuffering is admirable. I have made additional revisions even when she thought everything was ready to go. Doug LeBlanc served as an assistant editor. He is to be thanked for taking time to read through numerous papers at a time when he was busy moving from one apartment to another, and one state to another. This first edition of the *Linguistic Portfolios* will not have been possible without their hard work and dedication. I would be remiss if I forgot to thank the chair of the Department of English, Professor Robert Inkster, for his enthusiastic support and for helping to secure the funds to publish this first issue.

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