Research Statement

African American English (AAE) is a dialect of English spoken by many Black Americans of historical African descent. Yet fifty years after the variety was well described by William (Bill) Labov with AAE speakers in New York, and Walt Wolfram, with AAE speakers in Detroit, limited research has been completed on regional variation in AAE, nor on the acoustic phonetics (spectral frequency distribution, intensity, duration) of AAE including word shape (e.g. final consonant cluster reduction gold ◊ goal), variations in word level stress (e.g. De-TROIT → DEtroit; po-LICE→PO-lice) and phrase and sentence level prosody, and timing to express sentence level meaning, and to convey mood focus and intent. My research evaluates the acoustic phonetics of regional varieties of AAE while asking a basic science question, "How is AAE acoustically and phonetically similar and different from White American English (WAE) produced in the same geographic region"?

My acoustic phonetic analysis of AAE and WAE speech is completed using a quasiexperimental method of observational data analysis. Although participants complete an experimental protocol, the goal of the experiment is not to condition the participants to change in response to a stimulus. Instead my research evaluates how similar or different are the sub-segmental (below the level of conscious control) speech of each group.

Past Research

Due to the robust variation observed in these speech production results, a series of speech perception experiments is currently underway to evaluate whether the identified acoustic phonetic cues of vowel duration, vowel height, and location in the vowel space area, are useful to unfamiliar listeners (i.e., from another region of the United States) in identifying the socio-ethnic (racial) identity of the speaker.

Motivation for future research

While the basic science question of socio-ethnic identity and distribution of acoustic cues across groups is a worthwhile endeavor, there are two overarching lines of research that derive directly from this basic science to directly affect the daily lives of African American users of AAE and speakers of other dialects of American English; 1) education and 2) access to goods and services via automatic speech recognition (ASR) applications. With respect to education the Linguistic Awareness Flexibility hypothesis asserts that child speakers of African American English with the socio-cognitive awareness of the subtle and broad differences between AAE and General American English or more putatively the regional dialect used by educators in the school setting have, a significant advantage in meeting and achieving educational milestones including learning to read by 3rd grade and meeting other educational milestones in a manner consistent with same age peers.

From the consumer side this means persons who do not use GAE speech may be excluded from or limited in their access to goods and services available to users of the GAE dialect.

Funding and Collaboration Opportunities

I have completed research and publications with several current faculty members at East Carolina University, including Charles Ellis, Lucia Mendez, Jamie Perry, and Balaji Rangarathnam. I have received university grant funding in collaboration with both Jamie Perry and Lucia Mendez in the form of a cross campus collaboration grant with Stephen Fafulas a former faculty member in the Department of English Language and Linguistics. I am a co-investigator on a second cross campus collaboration with Kate Harcourt, Elijah Asagbra, Toyin Babatunde, Paul Toriello and Wanda Wright. The research conducted from this collaboration has just been completed and data are currently being analyzed. In addition to these local collaborations, I am currently working with colleagues at three research intensive universities. Tessa Bent PhD at Indiana University, Andrew Stuart PhD at East Carolina University, Deanna McQuitty at North Carolina A&T University and I are gathering pilot data on vowel identification and racial (socio-ethnic) identification from AAE, WAE and GAE listeners in Bloomington, IN; Greenville, NC and Greensboro, NC. These pilot data will be analyzed and used as part of an NSF grant submission in January of 2019. Finally, I am continuing to collaborate with Robert Fox and Ewa Jacewicz at The Ohio State University investigating socio-ethnic (racial) variation in speech production. The data from this collaboration will be used to provide additional support for the anticipated NSF grant submission slated for January 2019 with Bent, Stuart and McQuitty.