

Monophthongization and /r/-lessness in an Appalachian Biracial Enclave Community

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INTRODUCTION

This preliminary study compares two linguistic features of two African Americans and two European Americans in Coe Ridge, Kentucky, a biracial enclave community in Cumberland County, on the western fringe of Appalachia.

The two main research questions were 1) whether the two ethnic groups were similar with regard to the realization of two linguistic features: /ai/ monophthongization and post-vocalic /r/; and 2) where to situate the speech of Coe Ridge with regard to other site studies that have been conducted. Previous research (Wolfram 1974 *inter alia*) has shown that modern African-American English (AAE) is distinct from Southern White English (SWE) in lacking a glide in pre-voiced and open contexts but having one in pre-voiceless contexts. Some varieties of SWE have monophthongal /ai/ in all contexts, as did the African American speakers studied by Mallinson and Wolfram (2001) in western North Carolina. In addition, AAE has consistently shown more post-vocalic /r/-lessness than cohort European American speech, again except in Mallinson and Wolfram (2001).

Our hypotheses are:

- The two ethnic groups will show a significant difference in the realization of the glide of /ai/ in one or more of the three contexts.
- The two ethnic groups will show a significant difference in the realization of post-vocalic /r/ in one or both of the contexts.

BACKGROUND

Community

This community was formed in the foothills of the Appalachian Mountains in south-central Kentucky by freed slaves at the end of the Civil War. The African Americans in this community lived near several small rural white communities and traded and interacted with them, yet remained separate until the community's disintegration in the mid-20th century. The community was originally comprised of freed slaves, some escaped slaves, biracial (black and Cherokee) settlers, and the occasional white outcast (Montell 1970, 1972). The community initially lived in relative peace and cooperation neighboring communities, but violence and lack of opportunity, coupled with moonshining and bootlegging, led to many federal raids and the eventual out-migration of most of the Coe Ridge inhabitants to Midwestern urban centers (Indianapolis, Chicago, St. Louis, among a few others). The point of the history is that Coe Ridge was situated close enough to several white communities for several generations and interacted enough that there would be the opportunity to participate in a local regional variety, that of the Appalachian English as spoken in South Central Kentucky. This speech data is accompanied by extraordinarily rich meta-data on speakers, local history and geography. This meta-data, coupled with the time-depth of elderly speakers recorded in 1961, makes this material rare if not unique. The speech of the four individuals studied was acquired in the 19th century, permitting us to tap into speech patterns formed well over a century in the past.

Study

We have chosen these two variables because previous research has shown that each can be a marker for both region and ethnicity. First, we chose /ai/ monophthongization because the Appalachian Dialect Region is more or less unique from other areas in the South in that the monophthongization, which is a hallmark of Southern speech (Thomas 2001, 2003; MacMillan and Montgomery 1989 list 92 studies of Southern vowels), has a different pattern. Green (2010), Hall (1942), Mallinson and Wolfram (2001) and Wolfram and Christian (1976) found that in four different areas of Appalachia, monophthongization in white speech occurred before both voiced and voiceless segments. Hall explains, "The tendency observed elsewhere in Southern speech to reduce [a] before voiced consonants, but to retain it before voiceless consonants is assuredly not characteristic of Smokies speech" (1942:43). Following Thomas (2007), a different monophthongization typifies AAE speech, occurring in open syllables and pre-voiced contexts, but not pre-voiceless ones. Thus, /ai/ may be a variable that could separate the African American residents of Coe Ridge from their white counterparts. In addition, post-vocalic /r/-lessness is not typical of this region (Hall 1942), but Thomas (2007) states "one of the most consistent findings in American sociolinguistics is that African Americans show greater rates of /r/-lessness than cohort European Americans" (453). If the AA speakers from Coe Ridge have more /r/-lessness than the cohort white speakers, this could be an indication of an early feature that was ethnically marked.

PARTICIPANTS

Two African American (male and female) speakers, (b. 1873 and 1878) who were residents of Coe Ridge, and two European American speakers (male and female, both b. 1886) who were residents of nearby communities. These speakers were recorded in 1961 by a native of the local area who previously knew them.

METHODOLOGY

Monophthongization:

The first 50 tokens of possible /ai/ were extracted and the formants were measured using the LPC function of Praat (Boersma and Weenik 2012). F1 and F2 measurements were taken at 20% and 80% duration of each token. The Euclidean distance of the nucleus and glide were computed from these measures. Two-tailed T-tests were then performed on the Euclidean distance.

Post-vocalic /r/:

A combination of impressionistic and acoustic methods was used. 30 tokens of each of stressed and unstressed environments of potential post-vocalic /r/ were identified and extracted. Those with a perceptual /r/ were coded as /r/-ful; those with no clear /r/ were measured. If there was F3 drop, the token was coded as /r/-full; if there was no measurable drop in F3, the token was counted as /r/-less. Unclear or indeterminate tokens were removed.

RESULTS

Monophthongs:

We conducted two tailed T-tests on the Euclidean distance of the /ai/ tokens. For the pre-voiceless environment, the T-test had a p-value of .005, thus we reject the null and conclude that there is a significant difference between the two ethnicities. In other environments, there was not enough evidence to reject the null hypothesis.

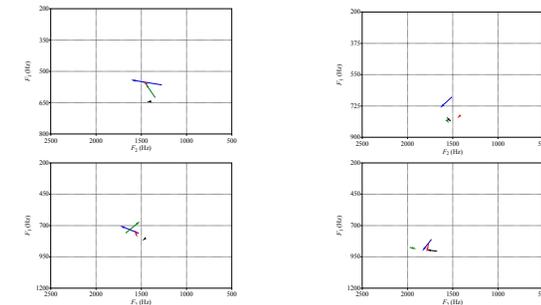
Post-vocalic /r/:

As the graphs on the right show, there was an apparent difference between the two groups. This can be attributed to the African American male, with only 63% /r/-fulness. He was significantly different from the other speakers. However, he was a non-native to the region, as was discovered during this study. When removed, the Coe Ridge natives were over 90% /r/-ful, results that are similar to Mallinson and Wolfram (2001).

DISCUSSION AND FUTURE DIRECTIONS

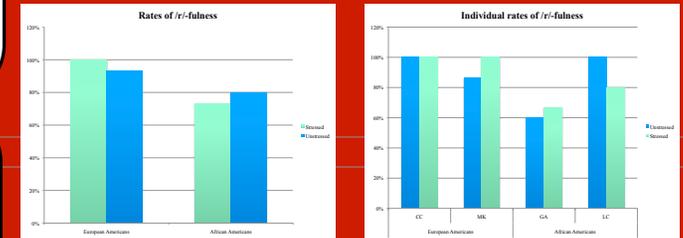
Our results demonstrate that a detailed instrumental analysis in conjunction with impressionistic techniques can tease apart fine distinctions. This biracial community, in contrast to others studied so far in Appalachia, does have ethnic patterning. The two ethnic groups are distinct with regard to /ai/ gliding, with African Americans having a significantly different level of glides in pre-voiceless contexts. However, perceptually the speakers sounded similar. The instrumental analysis showed that many of the glides occurred very late (and weakly) in the duration of the vowel, which impressionistically does not sound different from an unglided token, strengthening the argument that very fine distinctions may be lost to purely impressionistic transcription techniques. With post-vocalic /r/ the situation is murkier. Native residents of Coe Ridge were very /r/-ful, with the African American male being different, but he actually came to Coe Ridge in his early 20s. Thus, we can postulate that his /r/-lessness could have been a result of his earlier influences.

Given our small sample size, more data is needed to make more concrete conclusions and to compare to Coe Ridge speakers a generation younger. In addition, the time depth of our data would indicate that the inclusion of other traditionally regional features, such as the pin/pen merger or 'drawl', would benefit from an instrumental analysis. Such an analysis could reveal distinctions that might be lost or very difficult with just an impressionistic study.

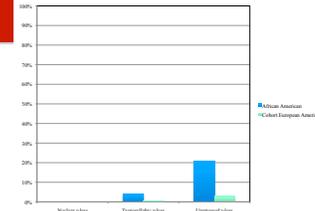


Vowel Plots

African Americans on left, European Americans on right. Males on top, females on bottom
Black lines are open syllables, blue are pre-voiceless, red are pre-voiced, and green are pre-nasal.



/r/ Vocalization from Mallinson and Wolfram (2001)



/r/ Plots

Top plots show Coe Ridge data. Bottom shows similar findings in Beech Bottom, NC, from Mallinson and Wolfram (2001)

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