Introduction

- This paper argues that monophthongization and intonation in Appalachian English (AE) are hard to capture and model using traditional sociolinguistic grouping, such as SES, age or gender/sex.
- Both features can be better explained by including rootedness, i.e., local attachment to the region as one of our social factors.
- Preliminary results suggest that AE speakers with stronger rootedness have more:
  - more monophtongal realizations
  - a later pitch alignment
  - larger pitch change
Some quotes to keep in mind...

▸ ‘Let us come now to the highlands – a land of promise, a land of romance, and a land about which, perhaps, more things are known that are not true than of any part of the country’ (Campbell, 1921: xxi)

▸ ‘Two defining stereotypes are lodged in the American mind: the Appalachian mountaineer, noble and stalwart, rugged and independent, master or mistress of the highlands environment, and the profligate hillbilly, amusing but often also threatening, defined by a deviance and aberration, a victim of cultural and economic deprivation attributable to mountain geography’ (Williams, 2002: 17)

Why these features?

▸ Monophthongization is ‘the most notable unchanging element in Southern states’ pronunciation’ (Feagin, 2000: 342)
  ▸ In the metalinguistic portion of my study, many participants specifically mentioned this pronunciation as the feature that others have also noticed and caricatured

▸ Botinis (2000) writes ‘Intonation is the most characteristic vocal means for communicating paralinguistic and indexical information’ (2)
  ▸ I recognized a fellow Appalachian by speech alone, specifically intonation

▸ ‘The array of structured variation available to an individual, coupled with other factors such as ideology... can be seen as a rich resource from which the individual can choose elements in order to project their identity and achieve particular communicative goals’ (Foulkes et al., 2010: 717)
Overview

The current study uses sociolinguistic interviews to analyze monophthongization of /æI/ and intonation, specifically rising pitch accents, of speakers from Upper East Tennessee.

Methodology

Participants

- 24 participants all from the same town in Northeast TN
  - Participants were stratified by age (Older, Younger) and gender (12 male, 12 female)
  - Additionally, speakers were categorized by their rootedness, based on their responses to interview questions (e.g., Haddican et al., 2013)
Data Collection

- Data was drawn from sociolinguistic interviews
  - I asked several questions related to local attachment, ‘rootedness’
    - Do you like (Hometown, Home County)? Why/why not?
    - Where do you consider to be ‘home’? Why?
    - Do you think that is part of who you are? Part of your identity?
  - Each interview took place in a quiet room in a participant’s home or workplace
  - Interviews were recorded on a Tascam DR-40 digital recorder using either an AT BP896 or Shure MX183 omnidirectional condenser lavalier mic
  - Interviews were transcribed and force-aligned using FAVE (Rosenfelder et al., 2014)

Background on Monophthongization

- Monophthongization is associated quite broadly with the South
  - Wolfram and Schilling-Estes (1998) write ‘Southern Americans are perhaps more well known for their pronunciation of /ay/ as [a]...than for any other dialect feature’ (69)
  - Thomas (2001) finds /ai/ weakening (in varying degrees) from Texas to North Carolina
  - Noticed by both insiders and outsiders
    - Plichta and Preston remark that it is ‘one of the principal caricatures of US speech’ (2005: 107)
    - Listeners can reliably place a speaker on a North-South continuum based on the articulation of /ai/
    - Many lay dictionaries (e.g., Venable, 2013) use examples, such as *arn* for ‘iron’
Monophthongization Background

- It is subject to both geographic and social differentiation
  - Thomas (2003) outlines two broad systems
    1. Pre-voiced and open syllables, PRIZE/PRY
    2. All contexts, PRIZE/PRICE/PRY
  - Linguistic atlas data show a prevalence of System 1 across the South (Pederson et al., 1993 and Labov et al., 2006)
  - However, System 2 is more restricted, and stigmatized (Bernstein, 2006)
- Monophthongization in Appalachian English is System 2

Monophthongization in Appalachia

- Appalachian English is characterized by monophthongization (Kephart, 1922; Berrey, 1940; Hall, 1942; Wise, 1957; Jones, 1973; Miller, 1973; Wolfram and Christian, 1976; Reese, 1977; Pederson, 1983; Williams, 1992; Irons, 2007; Greene, 2010)
- Some studies (Labov et al., 2006; Jacewicz et al., 2011a,b) argue that monophthongization is receding cross-generationally in Appalachia
- Irons (2007) found it was advancing across rural and Appalachian KY, particularly in pre-voiceless contexts
- Greene (2010) suggests pre-voiceless monophthongization may be a local identity marker
Monophthongization Methodology

- 30 pre-voiceless tokens in the reading passages were extracted and impressionistically coded as diphthong/monophthong
- 30 pre-voiceless tokens were extracted from the conversational portion of the interview and impressionistically coded
- I also measure the first and second formants at 25% and 75% of the duration of the vowel and get the Euclidean Distance (ED) using the formula:
  \[ \sqrt{(F_{1\text{onset}} - F_{1\text{glide}})^2 + (F_{2\text{onset}} - F_{2\text{glide}})^2} \]
Monophthongs by Age

Monophthongs by Sex

(a) Distribution of Monophthongization by Age Group, Older and Younger

(b) Distribution of Monophthongization by Male/Female

Figure: The general distribution by two typical sociolinguistic groupings, Age and Sex. Notice that the variation is hard to explain.
Monophthongs Results and Discussion

(a) Distribution of Monophthongization by Rootedness/Male

(b) Distribution of Monophthongization by Rootedness/Female

Figure: Rootedness helps to capture the variation present in this population sample.
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Monophthongs Results and Discussion

(a) Distribution of Monophthongization by Rootedness/Older age group

(b) Distribution of Monophthongization by Rootedness/Younger age group

Figure: Rootedness, combined with age, captures variation that would be missed with preconceived categories.

Discussion of Monophthongization Results

- Those AE speakers with stronger Rootedness have more monophthongal tokens
  - This helps to explain the variation much more than Age or Sex
- It also appears to be an interaction between Age and Rootedness, perhaps due to opposition to in-migration
Background on Intonation

- There is a paucity of sociolinguistic attention paid to intonation in American English as a whole, and this is especially true for Appalachia.
- For other languages and parts of the world, more attention has been devoted
  - Atterer and Ladd (2004) and Kügler (2004) for regional variation in German
  - Grice et al. (2005) for differences in northern vs. southern varieties of Italian
  - Grabe et al. (2000), Grabe (2004), and Ladd et al. (2009) for regional differences among British English varieties
- There have been a few studies in the US
  - Arvaniti and Garding (2007): differences between CA and MN
  - Clopper and Smiljanic (2011): variation in Midland and Southern Englishes

Intonation in Appalachian English

- Williams (1992) anecdotally describes the intonation in AE as distinct
  - ‘forming the rhythmic patterns of speech of the people of the Southern mountains are low intonations [and] leisurely pace’ (17)
  - These low intonations would have to be contrasted with high ones
  - While based on his intuitions, it is interesting that he finds this to be a feature of Southern Mountain English (the title of his collection of essays)
- Greene (2006), a more rigorous study, found that pitch accent realization in AE was distinct from other Southern and Mainstream English varieties
  - In particular, AE had more rising pitches
Intonation Methodology

The intonation analysis required a two step process.

1. ToBI labelling of a 1-2 minute section of speech from the middle of the interviews
   - This is roughly 70 pitch accents
   - Count the occurrence of pitch accents
2. Measured the Pitch Accent Onset, (PA-On)
   - I adapted methodology from Thomas (2011) and Ladd et al. (2009), measuring where the highest pitch was in relation to the beginning of the vowel.

Intonation Results
The Appalachian speakers with stronger Rootedness were significantly different from speakers with weaker Rootedness.

Chi-squared results were significant at the p < .0001 level.
Figure: Pitch Accent Onset for AE speakers with Stronger and Weaker Rootedness.

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Intonation Results and Discussion

Pitch Accent Distribution by Rootedness

- The AE speakers with stronger Rootedness were significantly different from the speakers with weaker Rootedness
  - The stronger Rootedness average PA-On was 25.1ms; the weaker Rootedness average was 21.4ms
  - T-test results were significant at the p<.00001 level
Discussion of Intonation Results

▶ Those AE speakers with stronger Rootedness have the most rising pitches and the longest PA-On
  ▶ This may mean that this pitch accent is a way to signal an allegiance to the region and that this is a socio-pragmatically useful feature
  ▶ Since other AE features tend to be stigmatized (a-prefixing, vowel features, lexical items), this may be a strategy to signal an Appalachian identity without using stigmatized features

Overall Conclusions

▶ While instructive, using pre-conceived social factors can miss important sources of variation, particularly at the locally relevant level
▶ Including such personally and locally relevant factors, here rootedness, can help more completely capture the variation present in a community
▶ Particularly for certain communities, such as Appalachia, rootedness is crucial
  ▶ Jones (1975) writes, ‘we are oriented around places. We never forget our native places, and we go back as often as possible. Our place is always close on our minds. It is one of the unifying values of mountain people, the attachment to one’s place’


