University of South Carolina Scholar Commons

Theses and Dissertations

2016

Sounding Appalachian: /ai/ Monophthongization, Rising Pitch Accents, and Rootedness

Paul E. Reed University of South Carolina

Follow this and additional works at: https://scholarcommons.sc.edu/etd

Part of the Arts and Humanities Commons, and the Linguistics Commons

Recommended Citation

Reed, P. E. (2016). Sounding Appalachian: /ai/ Monophthongization, Rising Pitch Accents, and Rootedness. (Doctoral dissertation). Retrieved from https://scholarcommons.sc.edu/etd/3563

This Open Access Dissertation is brought to you by Scholar Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact digres@mailbox.sc.edu.

Sounding Appalachian: /ai/ Monophthongization, Rising Pitch Accents, and Rootedness

by

Paul E. Reed

Bachelor of Arts Maryville College 2004

Master of Arts University of Memphis 2007

Submitted in Partial Fulfillment of the Requirements

for the Degree of Doctor of Philosophy in

Linguistics

College of Arts and Sciences

University of South Carolina

2016

Accepted by:

Tracey L. Weldon, Major Professor

Elaine Chun, Committee Member

Michael Montgomery, Committee Member

Allen Montgomery, Committee Member

Erik R. Thomas, Outside Member

Lacy Ford, Senior Vice Provost and Dean of Graduate Studies

© Copyright by Paul E. Reed, 2016 All Rights Reserved.

DEDICATION

This dissertation is dedicated to the memory of two great men, Paul Henry 'Pop' Reed and Dr. Paul Emory Reed Sr. They both exemplified what it meant to be mountain men. Dad and Pop, I hope you are looking down from your rockers with smiles.

ACKNOWLEDGMENTS

When I think of the number of people that have helped me throughout the course of preparing, researching, and writing this dissertation, my gratitude swells. I would not have been able to produce this work, and I would also not be who I am today.

To the people of Hancock County who shared their lives and stories with me, thank you. I hope this work shows that I did not and do not take your words for granted. There would be no dissertation without your voices, and I am eternally grateful for the privilege of hearing them.

Thank you to Tracey Weldon for your steady and compassionate hand. You are all that an advisor is supposed to be: kind, encouraging, supportive, and firm when needed. Your comments, questions, feedback, and exhoration were always helpful and thorough. You pushed me to see the weaknesses in my argument and my ideas, but you were also quick to help me to see how to address them. You also knew when to let me be more independent, as my ideas were flourishing and the dissertation was coming to fruition. Mastery of the delicate balance of oversight and freedom characterizes your advisement. I hope one day that I can be the same.

Thank you to Michael Montgomery. With your help and guidance, I found the proud Appalachian mountain man that was always there inside. Our conversations helped me to understand who I was, where I came from, and how I could be an advocate for my region. Along the way, I not only gained a mentor, but a friend. I cherished our conversations, trips, and collaborations. Thank you for your input into this work; it would not have happened without you.

Thank you to Elaine Chun, Allen Montgomery, and Erik Thomas for serving on

my committee. Conversations with Elaine helped me to better understand more qualitative approaches, and to see how identity can be expressed. I am so grateful that you helped me see past numbers, tokens, and formants! Allen Montgomery showed me the wonderful word of statistical analysis. Thank you for showing me how to bring a modicum of order from the chaos of real-world data. This analysis would have been much poorer without your help! To Erik Thomas, thank you for opening my eyes to sociophonetics. Your instruction helped me to even be able to approach this topic, and your guidance helped me to carry it out.

There are so many of my fellow students who have shared this journey with me. Thanks to Sandra Keller, Julia McKinney, Sara Lide, and Thor Sawin for spending many an hour with me writing. Your help, criticism, encouragement, and comments were always on point, even when I sidetracked us with Skype emojis! We did it! To the Agraphia Group — Allison, Vic, and Spencer — thanks for helping me to set writing goals and for encouraging me to meet them. To Emily Garnett and Isabel Hubbard, #StatPackForLife.

Thanks also to Bridget Anderson, my Appalachian big sister from another mister, for conversation, encouragement, and insight. I am very grateful to Kirk Hazen for sharing his dissertation data from Warren County with me, and to Michael J. Fox for helping me get it. Thanks also to Dennis Preston and Walt Wolfram for conversations that helped refine my thinking on many topics, both dissertation related and beyond. I hope to be like you both someday!

I would be remiss if I did not thank the Dean of the College of Arts and Sciences, Mary Anne Fitzpatrick, for the Dissertation Fellowship during 2014-2015. That award allowed me to conduct research and to focus on writing, I am very grateful.

Last, but certainly not least, thanks go to my wife, Kristin, my partner in this journey of life. You are my muse and my anchor. Thanks for the encouragement and for the support. I am so grateful to you for listening to me babble away about euclidean distance and pitch accent onset, for understanding when I had to write, and for always being there during the hard times and the easy times. I love you so dearly!

Abstract

Appalachia, the mountainous region that stretches from northern Georgia to Pennsylvania (ARC, 2015), is a region that has been considered culturally and linguistically unique in the United States. There is a small but growing body of literature that has demonstrated that the language varieties of this region, collapsed under the broad heading of Appalachian English (AE), diverge from Mainstream American English and other Southern American English varieties (Wolfram & Christian, 1976, Montgomery & Hall, 2004, Labov et al., 2006, among others). Much of this literature has focused on vowels and morpho-syntax, but other linguistic aspects have not received much attention, and there is little to no scholarly work on the perception of these varieties within the region, much less the ideology that underlies the perception.

To begin to fill this gap in knowledge about Appalachian English, this dissertation investigates two features from a sociophonetic viewpoint: /ai/ monophthongization and intonation. The former has received attention from traditional descriptive (Hall, 1942) and sociolinguistic (Wolfram & Christian, 1976; Thomas, 2001, 2003) perspectives. Research suggests that speakers use this feature in various ways to index regional, cultural, and ethnic identities (Fridland, 1999, Feagin, 2000, Thomas, 2000, Thomas, 2001, Anderson, 2003, Fridland, 2003, Bernstein, 2006, among others). The latter has only been anecdotally noted in the literature, save one study — Greene (2006), who observed a higher incidence of L+H* accents among AE speakers, compared to speakers of Mainstream American English or other Southern American English varieties. The phonetic realization of pitch has been shown to have regional variation in American English (Arvaniti & Garding, 2007; Clopper & Smiljanic, 2011) and other English varieties (e.g., Grabe et al., 2000; Grabe, 2004; Ladd et al., 2009).

The field site for the study is Hancock County, Tennessee, a small, rural county in north East Tennessee, which is also the hometown of the author. Data come from sociolinguistic interviews from 25 (13 women, 12 men), all natives to the area. I employed quantitative methodology to analyze participants' use of both /ai/ monophthongization and rising pitch accents.

Results show that speakers who are more rooted to the local area have more monophthongal productions of /ai/, use more frequent rising pitch accents, and also realize rising pitches in a quantitatively different way. Thus, both of these features and their phonetic realizations can serve as a way to signal local orientation, what I call rootedness.

Further, these Appalachian speakers are distinct from other Southern speakers with respect to the relative frequency of rising pitch accents, as well as the phonetic realization of pitch. Thus, frequent rising pitch and its phonetic realization may function as a unique feature of Appalachian English.

PREFACE

This dissertation represents a crucial effort in a on-going process of self-recognition and regional appreciation. On the surface, my dissertation reports on the linguistic behavior of a small corner of a misunderstood region. But, at its core, it is also the story of my realization of who I am. I am a proud son of the South, a Tennesseean with roots that go back as deep as you want, a now-unapologetic Mountain Man. Yet, I have also carried a sizable chip on my shoulder about the South and my region, Appalachia. A well-hidden shame about where I come from. But, over the course of several years, I have reflected upon my region and my people, the good and noble and the bad and difficult; I have shed that shame. In its stead is now a deeper understanding and a profound appreciation, a true love, of the people whose voices echo in the mountains and the vales. Not merely a sycophantic love, but one that is principled and nuanced.

Along the way, I have read articles, chapters, essays, and books about my region and my people penned by perceptive, well-meaning, and caring outsiders. Many of these people are friends and colleagues, and I am very grateful for their work. But I also noticed something: certain voices were missing. Voices from within the region, a critical look at us by us, were too rare. An unflinching and nuanced investigation from an Appalachian perspective was hard to find. This dissertation is my attempt to rectify this.

It took me over three decades to be comfortable enough in my own skin to own the mantle of 'mountain man', to become aware of the culture and history of me and mine. To know who I am deep enough to be able to return home with a mission: to investigate how my people talk and move towards understanding why. This dissertation is a step on that journey.

TABLE OF CONTENTS

DEDICATION	iii
Acknowledgments	iv
Abstract	vii
Preface	ix
LIST OF TABLES	xiv
LIST OF FIGURES	xvi
Chapter 1 Introduction	1
1.1 Sounding Appalachian: Monophthongization and Rising Pitch Accents	15
1.2 Research Questions	18
1.3 Plan of Study	21
1.4 Outline of Dissertation	22
Chapter 2 Literature Review	24
2.1 Standard Language Ideology	24
2.2 Perceptions of Appalachia	28
2.3 Appalachian English	33
2.4 Monophthongization of /ai/	37

2.5	Rising Pitch Accent	41
2.6	Language, Identity, and Place	43
2.7	The Attention-to-Speech Model	49
Снарт	er 3 Methodology	55
3.1	Geographical Area	55
3.2	Data Collection	68
3.3	Acoustic Analysis	82
Снарт	er 4 /ai/ Monophthongization	87
4.1	Methods	87
4.2	Overall Distribution	89
4.3	Linguistic Distribution	94
4.4	Social Distribution	98
4.5	Discussion	105
Снарт	er 5 Rising Pitch Accents	108
5.1	Methods	108
5.2	Rising Pitch Accent in Hancock County	112
5.3	Rising Pitch Accent Comparison with Warren County	117
5.4	Rising Pitch Accent Discussion	121
Снарт	er 6 Language, Rootedness, and Appalachian Identity	124
6.1	Discussions of Place	126
6.2	Perspectives on Language	135

6.3	Individual Case Studies	143
6.4	Discussion	154
Chapt	er 7 Conclusion	157
7.1	Summary of Findings	157
7.2	Implications	161
7.3	Final Words	170
Biblio	GRAPHY	174
Appeni	dix A Monophthong Examples	196
Append	dix B Interview Modules	198
Appeni	dix C Reading Passage	201
Appeni	dix D Word List	203
Append	dix E Rootedness Metric	205

LIST OF TABLES

Table 2.1	Percent of monophthongal/short glide in various lexical items from <i>The Linguistic Atlas of the Gulf States</i> (Pederson et al., 1986-93).	39
Table 2.2	Rates of /ai/ monophthon gization in communities across Appalachia and the South. Adapted from Greene (2010)	54
Table 3.1	Racial make-up of Hancock County, TN in 2000 and 2010 (U.S. Census Bureau, 2013)	59
Table 3.2	Age Demographics of Hancock County, TN in 2000 and 2010(Tennessee State Government, 2013)	62
Table 3.3	Percent of Educational Attainment for Hancock County adapted from Tennessee State Government (2013)	62
Table 3.4	Participants from Hancock County	70
Table 3.5	Participants from Hancock County	78
Table 3.6	Top Three Areal Identification Choices and Range for All Par- ticipants from Hancock County	80
Table 3.7	Top Three Areal Identification Choices and Range for Older Par- ticipants from Hancock County	80
Table 3.8	Top Three Areal Identification Choices and Range for Younger Participants from Hancock County	81
Table 4.1	Distribution of /aı/ tokens across Interview Tasks per Speaker $$	88
Table 4.2	Summary of significant effects from mixed effects linear regression	94
Table 4.3	Means, medians, and standard deviations for Euclidean distance measures for Interview Tasks	99

Table 5.1	Demographic information for the Warren County speakers	111
Table 5.2	Average pitch accent frequency for Hancock County speakers and Warren County speakers. Note that the total number of pitch accents per variety = $100. \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$	118
Table 6.1	Participants from Hancock County	126

LIST OF FIGURES

Figure 1.1	The geographic location of Hancock County, TN	4
Figure 1.2	The counties of East Tennessee	5
Figure 1.3	The counties of Middle Tennessee	5
Figure 1.4	The counties of West Tennessee	5
Figure 1.5	The flag of Tennessee	6
Figure 1.6	The proposed State of Cumberland	13
Figure 2.1	Appalachia as defined by the ARC, with the 'core region' from Ulack & Raitz (1981) superimposed.	34
Figure 3.1	The population of Hancock County from 1900-2010 drawn from U.S. Census Bureau (2013). This includes the 2013 and 2014 population estimates.	57
Figure 3.2	The gender/sex distribution of Hancock County from the 2000 and 2010 census records (U.S. Census Bureau, 2013)	60
Figure 3.3	Percent of Educational Attainment in Hancock County by Age Group adapted from U.S. Census Bureau (2013) and Tennessee State Government (2013).	63
Figure 3.4	The income distribution of individuals in Hancock County from from the 2000 and 2010 censuses (U.S. Census Bureau, 2013; Tennessee State Government, 2013).	66
Figure 3.5	The scoring system for the rootedness metric	76
Figure 3.6	Scatter plot showing the relationship between age and rooted- ness. Superimposed line shows the line of best fit	79

Figure 4.1	Normalized and scaled mean vowel formant values for all speakers.	90
Figure 4.2	Vowel system for all speakers in pre-voiced contexts	91
Figure 4.3	Vowel system for all speakers in pre-voiceless contexts	91
Figure 4.4	Boxplot showing the Euclidean Distance distribution for the Hancock County speakers.	92
Figure 4.5	Euclidean distance measures split by the voicing of the following segment.	95
Figure 4.6	Euclidean distance as a product of the duration of the vowel. The overlay shows no real relationship. Note the x-axis (dura- tion) has been log transformed.	96
Figure 4.7	Euclidean distance as a product of the duration of the vowel separated by voicing of the following segment. Note the x-axis (duration) has been log transformed.	97
Figure 4.8	Euclidean distance measures by Interview Task	98
Figure 4.9	Euclidean distance measures by Interview Task separated by Speaker Gender.	100
Figure 4.10	Euclidean distance measures by duration and interview task. (Note: Duration is log-transformed).	101
Figure 4.11	Euclidean distance measures by Interview Task separated by Voicing of Following Segment.	102
Figure 4.12	Euclidean distance measures by Rootedness separated by voic- ing of the following segment	103
Figure 4.13	Euclidean distance measures by Rootedness and interview task	104
Figure 5.1	Overall distribution of pitch accents for Hancock County speakers.	113
Figure 5.2	The distribution of pitch accents by speaker age in the left panel and by speaker rootedness in the right panel	114
Figure 5.3	Comparison of Pitch Accent Onset by Speaker Gender for Han- cock County speakers.	115

Figure 5.4	Relationship Between Pitch Accent Onset and Rootedness for Hancock County speakers	116
Figure 5.5	Comparison of Pitch Accent Onset between Hancock County speakers (Appalachian) and Warren County speakers (Southern).	120
Figure 6.1	Euclidean Distances for Haley and Misty	144
Figure 6.2	Euclidean Distances by Task for Haley and Misty	145
Figure 6.3	The distribution of pitch accents in the left panel and PA-ON in the right panel for Haley and Misty.	146
Figure 6.4	Euclidean Distances for Two Hancock County Speakers, Misty and Hugh.	150
Figure 6.5	Euclidean Distances by Task for Hugh and Misty	151
Figure 6.6	The distribution of pitch accents in the left panel and the average PA-On in the right panel for Misty and Hugh	152
Figure A.1	Monophthongal 'might' from the author's speech	196
Figure A.2	Monophthongal 'ride' from the author's speech. \ldots	197
Figure A.3	Monophthongal 'shy' from the author's speech.	197

CHAPTER 1

INTRODUCTION

Appalachia is the mountainous region that principally stretches from northern Georgia to Pennsylvania (ARC, 2015)¹. Scholars and lay people alike have all too often treated it as a monolithic area, distinctive in both culture and language. However, a growing body of literature has demonstrated that the speech varieties there, collapsed under the broad heading of Appalachian English (AE), or sometimes 'Appalachian Englishes', diverge from Mainstream American English (MAE) and from other Southern American English (SAE) varieties (Pederson et al., 1986-93; Carver, 1987; Labov et al., 2006, among others)², and are not monolithic. Much of this research has largely focused on vocalic and lexical features, at the exclusion of many other features. Furthermore, little is known about how speakers in the region construct locally and regionally place-based identities through their speech. Additionally, there is scant scholarly work on the ideologies underlying evaluations of AE varieties by native speakers³. This dissertation aims to fill these empirical lacunae, with an eye to understanding the persistence of AE forms in the face of marginalization from both outsiders and insiders (cf. Ryan, 1979). Furthermore, focusing on a small ru-

¹The Appalachian Regional Commission (ARC) does have a more expansive definition based on both geography and socioeconomic factors. See Section 2.3 for a more in-depth discussion.

²These citations do not focus solely on Appalachia, rather dialectal regions of the U.S. and/or North America. However, their raw material, when taken collectively, shows the quantitative and qualitative distinctiveness of the varieties spoken in Appalachia.

³Some exceptions are Greene (2010), which treats how speakers both accept and reject part of standard language ideologies, Puckett (2000), which describes power relations in discourse, and Puckett (2006), which provides an overview of language ideologies in the region.

ral community in northeast Tennessee, this study seeks to illuminate how linguistic behavior conveys a local place-based identity, and how the realizations of a salient, well-documented feature — /ai/ monophthongization⁴ — and a less salient, less wellknown feature — the relatively frequent use of rising pitch accents — correlate with differing degrees of local attachment. A deeper understanding of the native AE speaker commentary on these features can help to elucidate the impact of widely circulating cultural and linguistic stereotypes on language and how attachment to place features into language behavior.

In an overview of sociological approaches to place, Gieryn (2000) notes that place has to have three components: geographic location, material form, and investment with meaning and value (464-465). Without these, place is merely 'space', and not meaningful. He writes,

A spot in the universe, with a gathering of physical stuff there, becomes a place only when it ensconces history or utopia, danger or security, identity or memory. In spite of its relatively enduring and imposing materiality, the meaning or value of the same place is labile - flexible in the hands of different people or cultures, malleable over time, and inevitably contested. (Gieryn, 2000:465).

A place is thus geographic space imbued with meaning and value for particular people. For nearly 150 years, metropolitan America has viewed Appalachia as a region of interest; yet this interest has suffered from misinformation and distorted portrayals. John C. Campbell stated that Appalachia is 'a land about which, perhaps, more things are known that are not true than of any part of our country' (1921:xxi). Sadly, this almost century-old statement rings as true today as ever. Articles and

 $^{^{4}}$ Throughout this dissertation, I will use the International Phonetic Alphabet (IPA) transcription /ai/. Where necessary, I have changed the notation of quotations drawn from outside sources to adhere to the IPA, except for the titles in my bibliography.

commentary regularly appear that promote circulating tropes of poverty and violence, regardless of their veracity or applicability when focusing on Appalachia (e.g., Williamson, 2015). The region's high rates of poverty and its reliance on exploitative extractive industry, coupled with the vast amounts of governmental investment and aid since the highly publicized federal War on Poverty beginning in the 1960s, have buttressed pre-existing stereotypes of the region as backward and uneducated (e.g., Luhman, 1990; Ayers, 1996:70-71). There is also the common belief that cultural practices, such as Child balladry and handicrafts (e.g., Whisnant, 2008), and linguistic patterns have changed little from those that early British and Irish colonists and immigrants brought with them in the 18th century⁵. Such a belief reflects the idea that Appalachia remains in the past, avoiding progress.

In many descriptions of the region and its culture (e.g., Jones, 1975, 1994; Abramson & Haskell, 2006), place and place attachment are central. This attachment can be very localized, potentially even to a particular parcel of ancestral land, often known as the 'homeplace' (Cox, 2006). However, other research suggests (Greene, 2010; Reed, 2012, 2014a) that some natives may orient *away* from the region culturally and linguistically, perhaps due to intense negative perception and stigma of the region and ways of speaking that are associated with it.

One focus of this dissertation is to explore the extent to which a varying degree of local place attachment correlates with differing linguistic behavior. There is a long history of sociolinguistic research on the relationship between language and place, dating back to Labov's seminal 1963 study of Martha's Vineyard (see also Lane, 1998; Solomon, 1999; Johnstone et al., 2006; Johnstone & Kiesling, 2008; Schoux-Casey, 2013; Carmichael, 2014). Within each of these studies, place as in physical location was important, but crucially, a speaker's relationship to place helped explain

 $^{^5 \}mathrm{See}$ Montgomery (1998) and Cramer (2014) for scholarly rebuttals to the language preservation belief.

linguistic variation better then mere location.

The focus of this study is my own hometown of Sneedville, TN — a rural Appalachian town, located in Hancock County, which sits on the border of the Southern and Central Appalachian regions in Upper East Tennessee (ARC, 2015). Figure 1.1 shows the county's location, which is shaded in the map.



Location of Hancock County, TN

Figure 1.1: The geographic location of Hancock County, TN.

Any discussion of place and the impact of place in Tennessee necessitates some background of the state itself, as place features prominently in state history, particularly for East Tennessee. The following sections outline the Grand Divisions of the state, explain why the Divisions arose, and then focus on East Tennessee and, in particular, Upper East Tennessee, and explore why place and the perception of place are so meaningful in this subregion.

1.0.1 The significance of place in Tennessee history

Tennessee is somewhat unusual among states in the United States in that it has officially recognized and sanctioned Grand Divisions: East, Middle, and West Tennessee (see Figures 1.2, 1.3, and 1.4 below). Each division contains roughly one-third of



Figure 1.2: The counties of East Tennessee.



Figure 1.3: The counties of Middle Tennessee.



Figure 1.4: The counties of West Tennessee.

the state's land area. The counties that comprise each Division are specified by state law — though some have changed over time (State of Tennessee, 2015). The Grand Divisions are reflected in the state flag, where the three central stars represent the Grand Divisions (see Figure 1.5).

The Grand Divisions roughly equate to differences in geography, rugosity, and elevation, and some geographical features have been declared borders⁶. East Tennessee is mountainous. It is dominated in the east near the North Carolina border by valleys and the various mountain chains that are part of the larger Appalachian range, and the ridge and valley system as one moves west. Middle Tennessee begins with the Cumberland Plateau and the piedmont region shifting toward flatter land

⁶A 'clear' border between East and Middle Tennessee remains elusive. Further, some counties have passed from one division to the other. Most recently, Perry County has moved from West to Middle in 1991 (State of Tennessee, 2015).



Figure 1.5: The flag of Tennessee.

as one moves west. Fertile valleys and lightly rolling landscape characterize most of Middle Tennessee. The Tennessee River forms the boundary between Middle and West Tennessee. The westernmost Grand Division is flatter and lower-lying and part of the expansive Gulf Coastal Plain region. Its character is level, fertile ground, quite suitable for large-scale agriculture.

The sectionalism of Tennessee and formally recognized Grand Divisions have implications within state government. For example, on the Tennessee Supreme Court, there can be no more than two justices of the five members of the Court from any single Grand Division. The Court must also rotate and hold hearings in each Grand Division during each session term. There are other administrative complexities relating to the Grand Divisions, such as other requirements that certain committees must have members drawn from each Grand Division, such as the Public Service Commission, the Textbook Commission, and other state agencies (State of Tennessee, 2015). Thus, place has an impact even on state administration.

The differences between the Grand Divisions go deeper than even geography and governance. A perceived cultural difference also exists. Within the past 30 years, signs on interstates welcomed visitors to the 'Three States of Tennessee'. While gone now, such a motto reveals that the residents of the three Grand Divisions see themselves as not necessarily being unified. Crawford (1986) notes, 'the residents of these Grand Divisions have generally been, at a basic level, competitors when not enemies of one another. They are divided by a social and economic background of a different nature — more than by miles, even though the difference is great.' (63). This sectionalism has roots in the state's history, outlined below.

As settlers came west across the mountains or came south down the great valleys into what would become Tennessee (it was part of North Carolina in the years before statehood), political power centralized in growing settlements in what is now East Tennessee. All of the land that would become Middle and West Tennessee was off-limits to settlement, as it belonged to various Native American tribes/nations, especially the Cherokee. This prohibition did not necessarily stop some settlers from illegally crossing into Native American land. As a result, border violence was a reality. With large land purchases and plenty of land grabs by white settlers, the population began to swell. Additionally, the signing of various treaties with the Native American tribes lessened some of the threats of violence. Settlers and speculators expanded west as the threat of warfare with Native Americans subsided and the land became legally available. The fertile valleys of what would become Middle Tennessee drew many settlers, as it was more conducive to agriculture, and the balance of population and political might shifted westward (Tennessee Blue Book, 2013).

As the state's population continued to grow, settlers continued to move west, where the land was flatter and richer. This more fertile land in the western portions of Tennessee facilitated larger-scale agriculture. As a result, plantation culture and a type of Southern aristocracy took hold in what is now West Tennessee. Here, the climate and land were suited to grow cotton on large plantations with slave labor. West Tennessee's economy grew to depend on cotton and slave labor. In Middle Tennessee, there were fewer plantations, although there was still a burgeoning plantation culture based on tobacco, another labor intensive crop requiring involuntary slave labor, and other large-scale agricultural practices, such as hog farming. However, in the East, the land was ill suited for large-scale plantation work and most agriculture occurred on smaller plots of land; thus, plantation culture did not develop in this area (Bergeron et al., 1999 and Tennessee Blue Book, 2013).

With the booming slave-based economies of Middle and West Tennessee, rich plantation owners rose in power and influence within state politics. The power had shifted west (exemplified by the move of the capital to Nashville in 1826, after several attempts to keep it in East Tennessee⁷). Not unexpectedly, many from the more populous eastern portion resented this loss of power and influence and also felt maligned with respect to state funding and attention, and there were some calls for forming a separate state. To maintain a sense of cohesion and to attempt to avoid sectional crises, the 1834 State Constitution formally recognized the three grand divisions. This code included the requirement for the State Supreme Court to have representation from all three grand divisions. Yet this did not solve the sectionalist issues. Like much of the South, slavery and the slave-based economy also played a large role. Many of the state's political issues were deeply divided, particularly due to the economic power that slavery permitted. The plantation owners in West Tennessee and Middle Tennessee dominated state politics and were much more aligned with the secessionist movement spreading across the South. The state was a hotbed of pro- and antislavery sentiment. Thus, in the lead up to the Civil War, many in West and Middle Tennessee, due to their reliance on slave labor for cotton and tobacco plantations, called for secession (Tennessee Blue Book, 2013). In contrast, the majority of East Tennesseans were against secession, mainly to counter the economic might of those from Middle and West Tennessee. Writing about how East Tennesseans saw slavery, Crawford notes that in East Tennessee, 'the free and independent farmers had little

⁷The state capital was Knoxville from statehood in 1796 until 1807. It was in Kingston (still in East Tennessee) for a single day, and then back to Knoxville until 1812. It moved to Nashville from 1812-1817. Murfreesboro, in Middle Tennessee, was the capital for 8 years, 1818-1826. The state government moved back to Nashville in 1826, and the city became the permanent capital in 1843 (Tennessee Blue Book, 2013).

desire to defend the institution of slavery' (1986:66). This was not a rejection of the idea of slavery, but a rejection of the economic might and political influence of slave holders (Kelley, 2012). Many sought actively to secede from the state and remain part of the larger union. Additionally, during the Civil War itself, Union enlistment was highest in the East, cementing a feeling of isolation and difference for this part of the state (Bergeron et al., 1999).

The shift of political and economic power, combined with differing views toward slavery and secession, consolidated the sectionalism feelings in Tennessee. The brief overview above provides a broad outlines of why the Grand Divisions were formed and why perceived differences might remain. This historical background provides context for why place would be so prominent for many people. Where one lived mattered and shaped views toward one's fellow Tennesseans, and there were rather clear divisions between people based on place and perceptions of place. This history began to imbue particular places with meaning, such as East Tennessee being different and separate. Thus, place linked with identity as different perspectives were associated with geographical areas. The communal memory would focus on being from a particular place, and would permeate it with meaning derived from both history and identity (following the Gieryn definition of place above).

1.0.2 The significance of place in East Tennessee

The sense of separateness and perhaps even uniqueness embedded in the fabric of East Tennessee inspired many attempts to be recognized as independent and formally distinct. In fact, some say that place features more prominently in East Tennessee than anywhere else in the state. As observed by Crawford (1986), 'it has been traditional in the mountain counties to view those of different experience and culture as real or potential enemies. And the local residents [of East Tennessee] make little distinction between Middle and West Tennessee. All are outsiders...' (68, see also Montgomery, 1995a). Such sentiments derive in part from historical realities and their interpretation. Tom Lee writes that 'political and economic disputes with the other sections of Tennessee produced among East Tennesseans a distinctive sectional identity built around a mythologized historical narrative of heroism and victimization that East Tennesseans themselves fostered and that persisted through the Civil War and into the twentieth century' (Lee, 2010:294). In fact, historian John Inscoe argues that the stronger regional identity in East Tennessee is what allowed for the stronger pro-Union sentiment in East Tennessee, in contrast to other mountain areas such as western North Carolina (Inscoe, 2008:103-123). The community perspective, memory, and identity in East Tennessee have been impacted by a somewhat unique history, and that community memory helps to mark place as something very important to East Tennesseans, and in particular, Upper East Tennesseans.

The roots of the belief that East Tennessee is different begin with the Battle of Kings Mountain in 1780 during the American Revolution. A large group of militiamen, later known as the Overmountain Men, mustered in East Tennessee (near present-day Elizabethton), and marched over the mountains into South Carolina, south of King's Mountain. There, the colonial militia defeated the loyalist militia, marking a turning point in the War. This loss forced British and loyalist forces back into South Carolina, and thus turned the tide of the Southern campaign (Mace, 2006). The fact that many of the militiamen were from what would become East Tennessee became a cause célèbre for the courageous and distinctive nature of the area.

Related to the story of the Overmountain Men is the short-lived State of Franklin, which seceded from North Carolina in 1784. This is a factoid that most children learn in their Tennessee History classes during elementary school. In the period just after the American Revolution, what is now East Tennessee was part of North Carolina. This area was referred to as the *Western Counties* or the *Overmountain Counties*, hence Overmountain Men in the Battle of Kings Mountain. Since it was the far western frontier and rather distant from state administration, people in the Western Counties felt isolated from the rest of North Carolina, even though men from these counties helped mightily during the Revolution. In the aftermath of the war, North Carolina voted in 1784 to cede the land from the mountains to the Mississippi river to Congress to help offset war debts. Naturally, the settlers living in this region were not terribly pleased with this proposal, due to fears about Native Americans and/or fears about the land being sold to France, Spain, or some other foreign nation. North Carolina changed course, possibly becoming cognizant of the growing resentment, and decided not to cede the land. However, the damage was done. Some of the inhabitants of the Western Counties decided to form their own state in 1784. The newly-formed state petitioned the U.S. Congress for statehood, and was denied. Thus, the State of Franklin declared itself independent, and functioned as a separate entity until its dissolution and re-entry as a part of North Carolina in 1789 (Tennessee Blue Book, 2013:495).

This separatist sentiment never fully left East Tennessee and bubbled to the surface many times in the decades following statehood in 1796. Much of the separatism stemmed from feelings of being overlooked by Middle and West Tennessee, which was partly true as state-funded development in Middle and West Tennessee far outpaced that of East Tennessee during the early to middle decades of the 19th century. These disparities in funding, influence, and economic power fueled the distrust in the East of the two western Grand Divisions. As a reaction, there were several proposals in the antebellum period for East Tennessee independence, stemming from the political power shifting to Middle and West Tennessee with the rise of the plantation aristocracy. These proposals were typically stalled, but the sectionalist differences continued. For example, a majority of the Tennessee citizenry voted to seceed from the Union, but over 69% of the voters in East Tennessee opposed secession⁸. As

 $^{^{8}}$ This total was actually down from the initial vote of 81% opposed to secession in the first

a reaction against pro-secession forces from Middle and West Tennessee (and some counties in East Tennessee), the pro-Unionist East Tennessee Convention convened in 1861 to petition the Tennessee state government and the federal government to allow East Tennessee to form a separate state, a 'mountain republic' (akin to the successful separatist movement in Virginia that led to the formation of West Virginia) (Kelley, 2012). The state government denied this petition, and anti-East Tennessee sentiment (which was in reality anti-Unionist) ran high. As a result of this petition, East Tennessee was occupied by Confederate forces, and was not 'freed' until late 1863 (Lee, 2010:303-304).

The harsh response to the separatist movement has lived on in the memory of many and affected the perception of East Tennessee as well. From the sectional differences and the violent reaction, 'antebellum perceptions of East Tennessee as a distinctive section within Tennessee evolved into a perception of East Tennessee as a distinctive region within the South' (Lee, 2010:294). For decades after the Civil War, its aftermath, and Reconstruction, East Tennessee viewed the rest of the state suspiciously and vice versa, and was politically distinct (although this political distinction is now largely gone). The political contrast was known as 'Mountain Republicanism⁹', in contrast to the 'Solid South', which was almost uniformly Democrat. For example, a state guidebook on Tennessee produced by the Work Projects Administration in 1939 declared 'To the East Tennessean, West Tennessee is almost as far away and unknown as Missouri. He looks upon the western section as a swamp and resents the weight of the powerful Shelby County political machine in state-wide elections. What West Tennessee is for, he is 'agin" (WPA, 1939:4, as quoted in Montgomery, 1995a:72).

statewide convention to consider leaving the Union. There were two conventions in 1861, one in February and the decisive one in June. The latter decision caused Tennessee to become the eleventh and final state to join the Confederacy.

⁹See McKinney (1978) for an elaboration of this idea.

In 1959 and again in 1961, future U.S. Congressman James H. Quillen, while serving as a state legislator, proposed to the state legislature to resurrect the State of Franklin. One of his first acts as U.S. Congressman in 1963 was to propose that East Tennessee become the 51st state. Naturally, this was rejected (Lee, 2010:313). Even more recently, in 1987, an organization proposed to create the State of Cumberland, which includes several counties in Upper East Tennessee (Claiborne, Hancock, and Hawkins), southwest Virginia (Lee, Scott, and Wise), and southeastern Kentucky (Bell, Harlan, and Knox) (see Figure 1.6). This figure (pulled from promotional



Figure 1.6: The proposed State of Cumberland.

materials) depicts the counties that would comprise the new state, and the proposed

state flag, state bird, state flower, and state motto. While quixotic in nature, such a proposal highlights a feeling of separateness, and a feeling of difference and not belonging. Even today, many East Tennessee residents still express a measure of distrust for Nashville and Memphis, cities that represent Middle and West Tennessee, respectively.

1.0.3 East Tennessee Identity

This brief overview shows how the perception of East Tennessee as a distinct entity has historical roots. Such history relates to the investment of identity and meaning from Gieryn (2000) as well as the 'sense of place' outlined in Agnew (2002). The sense of place is the 'symbolic identification with a place as distinctive' (Agnew, 2002:16). Sectional differences manifest themselves in personal identity. Most residents of Tennessee believe that the Grand Divisions, and East Tennessee in particular, are separated by profound cultural differences. John Shelton Reed, a noted sociologist of the South, explains that regional identity is the 'cognitive entity that people use to orient themselves' (Reed, 1983:11). Thus, cultural difference, whether based on perception or based on some concrete reality, helps people orient themselves and define themselves as distinct. Ask a Tennessean where he/she is from, and the response will most likely specify at least the Grand Division. For some, it is the particular sub-region that is highlighted, e.g., 'Upper East Tennessee' or 'North East Tennessee'. There is a palpable sense of difference in the minds of state residents, even if, as Montgomery (1995a) notes 'though just about everyone native to the state, regardless of social class, knows that these divisions are there in very human terms, it is usually right night impossible for them to pin down what they consist of (70): emphasis in original).

Many of the participants in this study identified most strongly with communities within Hancock County, followed closely by East Tennessee or Upper/Northeast Tennessee. These participants considered the local area and East Tennessee as central to their self-perceptions, and notably, they were not as aligned with the rest of Tennessee or the broader South. These reports adhere to the notion that regional and place-based orientation is prominent and central. We might, thus, expect that language plays some role in signaling or reflecting such an orientation.

1.1 Sounding Appalachian: Monophthongization and Rising Pitch Accents

As with many stigmatized and misunderstood varieties, speakers of Appalachian English express a range of opinions regarding the variety (cf. Lippi-Green, 1997:221-228). Research has begun to show how some speakers associate a strong sense of pride and identification with local language (Greene, 2010; Reed, 2012, 2014a), similar to feelings toward a local area and region as a whole. In the current study, some participants expressed pride in their language, noting 'this is how we talk, there's nothing wrong with it', and 'it's like artwork, man, I love it!' These participants often mentioned how much the local region and community mean to them, reflecting a place-based identity. Other participants, however, described efforts to avoid sounding like a 'country bumpkin' or 'hillbilly' or made reference to their own 'bad grammar', 'country slang', or perhaps 'horrible sound'. Such varied responses indicate that standard language ideologies (Lippi-Green, 1997, 2012) have made quite an impact on speakers' perceptions of AE. But, at the same time, pride in the local variety is also present.

The literature on AE has identified features that, when viewed together, distinguish it from other varieties of American English and subject it to varying levels of awareness and stigma in the popular mind. Some of these features are much more salient than others, and are not only recognized but are also commented upon by both natives and non-natives. Others are less salient, and do not receive the same level of commentary and description. This dissertation will explore the extent to which two characteristic features of Appalachian English with differing levels of awareness and stigma can be used in the construction of local attachment.

1.1.1 Monophthongization of /ai/

Monophthongization¹⁰ of /ai/ is surely one of the most salient regional features in American English, and thus quite well-documented (Kurath & McDavid, 1961; Pederson et al., 1986-93; Labov, 1994; Thomas, 2001, 2003; Labov et al., 2006; Baranowski, 2007, among many others). Monophthongization extends across the language varieties of most of the Southern United States, from the Mid-Atlantic coast to Texas (Kurath & McDavid, 1961; Pederson et al., 1986-93; Wells, 1982; Thomas, 2001; Labov et al., 2006). Several systems of monophthongization exist (Thomas, 2003), and its use is socially stratified (Pederson, 1983; Bernstein, 2006). For example, monophthongal realizations, particularly in pre-voiceless contexts, have been found to be inversely correlated with class and education (Pederson, 1983; Pederson et al., 1986-93; Bernstein, 2006), and are primarily associated with rural areas (Thomas, 1997; Hazen & Fluharty, 2004; Irons, 2007; Greene, 2010).

With respect to Appalachia, research has shown that monophthongization is a highly salient feature of AE (e.g., Hall, 1942; Wolfram & Christian, 1976; Greene,

¹⁰There are different ways of analyzing or even labeling monophthongization in the existing literature. Some studies utilize a binary categorization, by which a realization is treated as either monophthongal or diphthongal. Typically, this is based on the researcher's own impressionistic judgment, perhaps supplemented by some reliability testing. But, such a method is, of course, subject to bias, depending on one's experience with or exposure to the different realizations. Other researchers take a slightly more nuanced approach, by identifying several levels: diphthongal, monophthongal (cf. unglided), or glide-weakened (cf. glide-shortened). For some, glide-weakened also encompasses monophthongized productions. This additional nuance helps distinguish the various realizations. But differentiating between the levels can be somewhat problematic. The main issue is that these terms assume some mainstream variety as the norm, while the variety under question is seen as deviating from the norm to the extent that it *lacks* the glide, or lacks a sufficient glide. Additionally, separating the realizations into levels still fails to show that vowels are dynamic gestures, and any realization lies somewhere on a continuum that is not easily divided. In this dissertation, I will use the term 'monophthongization' and utilize a continuous measure to capture the vocalic gesture, while remaining agnostic about whether the glide is to be expected or not. The term 'monophthongization' reflects the fact that a vocalic gesture is a dynamic process, and that different speakers, and even the same speaker in different utterances or situations, can realize the vowel in various ways.

2010; Reed, 2014a). There are also broader studies (Pederson, 1983; Pederson et al., 1986-93; Labov et al., 2006) that suggest that monophthongization in Appalachia is more progressive than in other areas with monophthongal varieties. In AE, the process occurs in all phonetic contexts (open syllables, pre-voiced, and pre-voiceless) at much higher rates than other monophthongal areas, occasionally approaching categorical monophthongal realizations (Hall, 1942; Wolfram & Christian, 1976; Pederson et al., 1986-93; Greene, 2010). This dissertation will extend this body of research by considering not only the linguistic, but also the social factors that influence this process.

AE speakers (and Southerners in general) along with other American English speakers are aware of monophthongization and its status as a regional and subregional linguistic caricature (Plichta & Preston, 2005). Virtually every popular depiction of Southern and Appalachian speech displays monophthongal /ai/ as a noteworthy feature (see e.g., Venable, 2013). Viewed through the indexical lens of Labov (1972a,b), this feature might best be described a $stereotype^{11}$. It is actively present in meta-discourse, as well as in humorous depictions of the region's speech (e.g., Venable, 2013), etc. Moreover, it is a source of stigma, as reflected in the following quote from Misty, one of the participants in my study, 'I had people to ask me to say, 'nice white rice', and I would, and they would laugh. I realized, that, that they were laughing at how I was saying it.' Despite its stigma, monophthongization has persisted, particularly in Appalachia and in other Southern rural areas, (Bernstein, 2006; Irons, 2007; Greene, 2010; Reed, 2014a, among others). One of the contributions of this dissertation is to explore why the feature is still thriving in spite of its stigma (cf. Ryan, 1979). Toward this end, I investigated how speakers with differing degrees of local attachment realize /ai/.

¹¹Some might claim that it is a *marker* (Labov, 1972a), but the fact that humorous dictionaries include it and participants make overt comments suggest that it is a stereotype.
1.1.2 Rising Pitch Accents

A less salient feature of AE is the presence of a relatively high rate of rising pitch accents. Researchers have found that the relative frequency of pitch accents and the phonetic realization of pitch vary regionally in American English (Greene, 2006; Arvaniti & Garding, 2007; Clopper & Smiljanic, 2011) and British English varieties (Grabe et al., 2000; Grabe, 2004; Ladd et al., 2009). However, the extent to which speakers and social groups can be identified by specific pitch patterns and/or the extent to which speakers convey their regional and cultural identities through pitch accent (and intonation more broadly) remain virtually unexplored from a sociophonetic perspective. Yet speakers in the current study often mentioned 'how we talk', or their 'tone', 'pace', or 'rhythm' as something they recognize in the speech of friends and neighbors. Given these anecdotal references to intonation, it is somewhat surprising that there is a distinct lack of intonational studies on AE. The only detailed study of AE intonation patterns to date is Greene (2006), which observed a higher incidence of L+H* accents (a rising pitch on stressed syllables) among speakers in a northeastern Kentucky community, compared to speakers of MAE or other SAE varieties. However, Greene did not investigate precisely where the pitch accent was anchored in the syllable, nor did she consider possible correlations with local identity, both of which this dissertation explores. Following Labov (1972a), the frequent use of rising pitch accents might best be described as an *indicator*, since no overt commentary or widespread social stigma exists for this feature. As such, this feature provides a useful comparison to /ai/ monophthongization, particularly as it relates to local attachment and the linguistic construction of Appalachian identity.

1.2 Research Questions

Given the differences between these two features, several research questions guide this dissertation. The first basic question is how are these two features distributed, both

socially and linguistically. Previous research has found that monophthongization of /at/ varies according to numerous social factors, including age, gender, education, and socioeconomic class (Wolfram & Christian, 1976; Pederson et al., 1986-93; Pederson, 1983; Hazen & Fluharty, 2004; Bernstein, 2006). And, as noted earlier, monophthon-gization has been shown to occur in all linguistic contexts in AE, thus exhibiting a wider linguistic distribution than in other varieties. These findings lead to the following sets of questions:

1. How is monophthongization of /ai/ phonetically realized in this northeast Tennessee community? What are its social and linguistic distributions?

Because there is little previous research for rising pitch accents, this dissertation also describes the social and linguistic distribution of this feature, guided by similar overarching questions as those state above:

2. How are rising pitch accents phonetically realized in this northeast Tennessee community? What are the relative rates of occurrence? What are the social and linguistic distributions?

In addition to these general questions, the present investigation considers the difference in salience of these two features, and how this difference in salience shifts as the presumed attention to one's speech changes. Monophthongization of /at/ features prominently in many descriptions of Appalachian speech and is often caricaturized. Also, monophthongal productions are somewhat stigmatized (e.g., Bernstein, 2006). If we follow Labov's 1972a and 1972b classification of features, monophthongization would be seen as a *stereotype*. Under these assumptions, we might expect that such a salient and stigmatized feature should become less frequent as a speaker's attention is drawn to speech. The linguistic behavior of the speaker will shift in ways that reflect the social perceptions of a variable. More specifically, the use of socially stigmatized features should decline as more attention is paid to speech. Different portions of the

sociolinguistic interview (conversation, reading passage, word lists) serve as the proxy for varying degrees of attention. One would thus expect fewer stigmatized features in the reading passage as compared to the conversation, and fewer still in minimal pair lists. However, relatively frequent rising pitch accents are not the subject of stigma or even comment. Speakers do make somewhat opaque mentions of 'how we talk'; thus, intonation seems to be much less salient, and speakers seem to not necessarily be cognizant of its use. Following Labov's classification scheme, we might operate under the assumption that they are an *indicator*. Given the difference in levels of salience and stigma associated with /aɪ/ monophthongization and rising pitch accents, one should expect that they would behave differently as more attention is paid to speech, thus leading to the following questions:

3. How does the production of /ai/ monophthongization and rising pitch accents vary? Does each feature's realization shift across tasks?

Finally, previous research (Greene, 2010; Reed, 2014a) has suggested that monophthongization of /ai/, especially in pre-voiceless contexts, is a way of signaling local identity and orientation, despite being highly stigmatized (Bernstein, 2006; Greene, 2010). For example, Greene (2010) has shown that monophthongization of /ai/ was practically categorical among her participants in Northeastern Kentucky. And when juxtaposed with infrequent realizations of AE grammatical features, she argued that the monophthongization evinced local identity while avoiding the stigma of 'incorrect' grammar. Based on these findings, Greene has suggested that opposition to Mainstream Standard English (MSE) ideology was at the root of the linguistic behavior of her participants. For frequent rising pitch accents, on the other hand, Greene (2006) found that AE speakers in the aggregate used relatively more rising pitch accents than Southern or Mainstream English speakers, but with much individual variation. In light of these findings, this study considers how these two features correlate with the strength of local place-based Appalachian orientation, what I am terming 'rootedness', as measured by a psychometric instrument created for this dissertation. Thus as a final research question, I ask:

4. To what extent do /ai/ and rising pitch accent vary according to rootedness/local attachment?

Based on previous research, a reasonable prediction is that monophthongization of /ai/, particularly in pre-voiceless environments, should be used more frequently by AE speakers with stronger degrees of rootedness. A second prediction is that rising pitch accents, by contrast, should likely exhibit a less overt correlation with rootedness, although the actual acoustic realization of the rising pitch (the anchoring of the pitch peak) might correlate with degree of rootedness below the level of conscious awareness.

These four question sets will form the basis for this dissertation. To address them, the present study follows the plan outlined below.

1.3 Plan of Study

The data for this study were collected through oral history/sociolinguistic interviews with a social cross-section of Hancock County natives (see Section 3.2.1 for fuller description). The interviews were designed to elicit identity anecdotes, personal reflection and recollection, as well as other attitudinal data, all of which further illuminated the local orientation of speakers and helped to show how local orientation interacted with linguistic features. Furthermore, the interviews were designed to elicit a range of speech styles, according to Labov's (1972b) attention-to-speech model. Such a model was found to be useful in determining whether/how features like /ai/ monophthongization and rising pitch accents, which differ in both salience and stigma, vary along a style continuum (see Section 3.2.2 for a complete description of the interview protocol). As noted above, the other portion of the fieldwork was the administration of a Rootedness Metric (RM), which quantified local place-based identity (cf. Williams & Vaske, 2003; Williams, 2004). The RM was adapted from place and community attachment measures, which were originally designed to explore how communities were attached to local state and national parks and wilderness areas (e.g., Williams & Vaske, 2003). The RM is a questionnaire designed to measure the strength and breadth of local attachment, i.e. 'rootedness', thus allowing for a measurable, nuanced view of how localized attachment is (i.e. to one's local community, county, region), and crucially, how one speaker's rootedness can compare to another's (see Appendix E for the entire RM). Additionally, the RM permits a comparison of how a speaker's rootedness correlates with his/her monophthongization and rising pitch accent realizations, measuring the impact of local attachment on linguistic behavior.

1.4 OUTLINE OF DISSERTATION

The remainder of the dissertation is organized in the following manner. Chapter 2 provides an overview of relevant literature, including standard language ideology, Appalachia and its cultural perceptions, Appalachian English, monophthongization of /ai/, intonation, and the attention-to-speech model. It addresses areas that have motivated the present dissertation from a variety of perspectives that each shed light on important issues of research. It also indicates how the present work fills certain gaps. Chapter 3 describes the research design for this project, providing a detailed description of the participants, the local area and community, the types of data used in this study, the data collection methods, and the analysis procedures. Chapter 4 on monophthongization and Chapter 5 on intonation focus on answering the first three research questions for the respective linguistic features. Each illustrates how members of this community realize the monophthongization of /ai/ and rising pitch accents respectively, first focusing on the social and linguistic distribution, and each

concluding with sections devoted to rootedness. Chapter 6 then explores rootedness from a more qualitative perspective, evaluating how participants in the study discussed place, focusing on the intersection of place and language. Chapter 7 presents conclusions and suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

This dissertation sits at the intersection of sociolinguistics, Appalachian studies, and phonetics. This chapter reviews the relevant literature, drawn primarily from these three areas, as they served as the impetus for the present study.

2.1 Standard Language Ideology

In the United States, most forms of prejudice and discrimination face severe backlash in both the public and the private spheres. However, one type of discrimination often occurs without censure: linguistic discrimination. Wolfram et al. (1999) state 'attitudes about language can trigger a whole set of stereotypes and prejudices based on underlying social and ethnic differences' (27). One example is a dialect quiz that went viral on social media in 2014 about what area of the country had the ugliest accent (Evans, 2014). It quickly received thousands of votes and hundreds of comments, describing various accents as 'horrible', 'terrible', 'working class', 'dumb', etc. The post asked readers to comment on, vote on, and rank various regional and city-based accents. In the end, the Pittsburgh accent was chosen as the ugliest. It is hard to imagine that any entity would advertise a competition for the ugliest ethnicity or race, much less that thousands would participate. The public censure would certainly be quick and vociferous. Another example is Oak Ridge National Laboratory, located in Tennessee, which offered employees a Southern accent reduction class. In a memo, the lab wrote 'Feel confident in a meeting when you need to speak with a more neutral American accent, and be remembered for what you say and not how you say it' (Greenblatt, 2014). The classes were to be led by a speech-language pathologist, whose profession was aimed at rehabilitating speech from those with impairments, those suffering from pathologies, or those recovering from accidents and/or trauma. Predictably, employees reacted negatively, and the laboratory directors cancelled the classes. Yet another example comes from Underhill (1975), which described situations in a large news corporation where employees often mocked the speech of Southerners and Appalachians from recordings of news events. Any employee who spoke with a regional accent, particularly a Southern or Appalachian accent, faced criticism and strong encouragement to accommodate to a more 'educated' variety. Underhill even suggested that beliefs about language color the type of news coverage of certain areas, possibly undercovering tragedies and disasters.

The examples above demonstrate the belief that speaking a certain way is 'ugly' or 'wrong'. Such beliefs stem from 'standard language ideology' — the idea that there are correct and/or educated ways of speaking, and deviations from these 'standard' varieties are subject to stigma, prejudice, and discrimination (Lippi-Green 1997; 2012). In the U.S., 'standard' varieties are typically linked to the spoken and written practices of white, educated, middle or upper class speakers, and are often associated with particular areas of the country¹. Interestingly, the standard is usually defined by what it is not (i.e., the avoidance of any overtly stigmatized features associated with marginalized groups or regions, see Wolfram & Schilling-Estes, 2006:12-13). Silverstein (1996) describes this linkage between 'standard' varieties and groups with social power as reflecting the 'hegemonic domination' of the standard. Often, this ideology favoring 'standard' varieties is a covert way to express other types of prejudice and discrimination, such as racism, sexism, or classism, as the stigmatized 'non-standard' varieties are often the language varieties of racial/ethnic minorities, women, those without education, or lower socioeconomic status groups. Thus, linguistic discrimi-

¹The actual location is usually vague, typically an indefinite location in the North or the Midwest.

nation, since it habitually goes without comment or critique, serves as a proxy for other types of discrimination, which typically receive public censure if expressed. As Bloome states,

Those varieties of English associated with white, northern, middle- and upper- class communities are perceived as better than those varieties of English associated with groups such as African Americans, Mexicans and other Latino communities, and people from working class backgrounds (2008:xiii).

Such stigma extends to region as well, as illustrated by Preston (1989, 1999). One of the principal regions highlighted by this perceptual dialectology work is the Southern United States, and specifically the Appalachian region (usually derogatorily mentioned as 'hillbilly' or 'mountain').

Linguistic stigmatization has many social and linguistic consequences. Language and culture are intrinsically linked, and thus, language and identity also are closely intertwined. As Bucholtz & Hall (2004a) state, '...among the many symbolic resources available for the cultural production of identity, language is the most flexible and pervasive' (369). Thus, the stigmatization of one's language variety is, by extension, the stigmatization of one's culture and identity. Dunstan (2013) elaborates,

'despite appearance, educational attainment, social class, or other factors, the moment a speaker of a non-standardized variety of English opens his or her mouth, he or she may be 'triggering' a multitude of stereotypes and prejudices associated with the group of which his or her speech has marked him or her as being a member' (14).

Certain features may trigger stereotypes more than others, as they are more salient to listeners. Typically, these stereotypes and prejudices are negative, as the groups associated with non-mainstream language varieties are members of marginalized groups. Speakers of stigmatized dialects are subject to myriad injustices, from ridicule about accent (Underhill, 1975, Greene, 2010:vi), to suggestions of speech pathology or the need for speech therapy (McBride, 2006:155), to job/career discrimination (Lippi-Green, 2012:239). And yet, non-mainstream accents and dialects are alive and well in spite of marginalization and stigma (see e.g., Ryan, 1979; Pederson et al., 1986-93; Thomas, 2001; Labov et al., 2006). As referenced in the Bucholtz and Hall quote above, the perseverance of these varieties, in the face of discrimination, is perhaps largely a reflection of their role in the construction of personal and group identity (cf. Ryan, 1979). Ryan (1979) suggests that 'low prestige' or non-mainstream varieties continue to exist for precisely this reason, that language can be used to signify belonging to groups that are meaningful to the speaker. The term 'covert prestige' has been used to describe the desire of individuals to utilize cultural expressions that demonstrate belonging to groups that are low prestige, from the perspective of more prestigious groups (e.g., Labov, 1966; Trudgill, 1972). Speakers may want to express solidarity with and show membership to groups that have lower social status because this membership is meaningful and important to the speaker, regardless of the lack of status. If someone desires to construct a non-mainstream identity, whether exhibiting membership in a non-prestigious or marginalized group or perhaps in opposition to mainstream ideologies, language can be the vehicle.

Appalachia is a region subject to many circulating stereotypes and tropes, especially about the language varieties spoken there, yet it also evokes strong positive associations (See Section 2.2 for elaboration). Writing about her participants in Eastern Kentucky, Greene writes 'linguists' traditional treatment of regional varieties as un-reflective shows that they have difficulty believing that people might *aim* to speak with a regional accent' (2010: 117). As noted earlier, many of my participants expressed a similar sentiment, talking about how they did not mind speaking 'differently'. Some expressed pride in their speech, although they also acknowledged that it might be perceived as 'incorrect' or 'bad'. From these statements, we see the influence of both the local pride and standard language ideologies. Speakers then have partially internalized the stigma, yet still recognize the value in how they speak. Given this seeming contradiction, I have chosen a community in this Appalachian region to investigate and explore how speakers use language in the construction of placebased identities that may enter into conflict with social stereotypes and mainstream ideologies.

2.2 Perceptions of Appalachia

The idea of a Southern mountain region that is somehow culturally and linguistically different from the rest of the nation has existed in the broader American cultural mindset for roughly 150 years, resulting in widely circulating stereotypes that color perceptions of the region for both natives and outsiders. In fact, much of the Appalachian Studies literature is devoted to debunking stereotypes and giving a more nuanced and realistic picture of this region (cf. Billings et al., 2000; Whisnant, 2008). Nevertheless, there are two main stereotypes² about the region that have persisted, thus contributing to a skewed perception of Appalachian culture and lifestyle among both outsiders and natives. Williams (2002) describes them as follows:

... 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 (17).

²There are many other stereotypes about the region, particularly related to coal, coal mining, and other exploitative industry. However, in East Tennessee, coal played a very minor role and stereotypes relate more to the two outlined in this section.

The mistaken notion that this region has been untouched by the trappings of progress and technology is still rampant, exemplified by queries to me, for example, about whether 21st century inhabitants of the region have telephones. In such questions about basic technology, the presumption of backwardness or cultural deprivation is quite clear. Such stereotypes are so prevalent that entire volumes have been written as rebuttals. For example, Billings et al. (2000), a collection of essays which first began as a response to the 1992 Robert Schenkkan play The Kentucky Cycle, responds to popular stereotypes about the prevalence of moonshining, common and violent feuds, corrupted language, and environmental degradation. The essays give proper historical and current context to the reality of Appalachia, along with debunking stereotypes. They also illustrate how appreciation for certain aspects of Appalachian culture, such as handmade artifacts, music, and even legal moonshine has been revived due to interest from outside (and inside) the region. The Encyclopedia of Appalachia (Abramson & Haskell, 2006) continues this exploration of the region and its nonmonolithic nature. The goal of the *Encyclopedia* is to reflect the diversity of the region, paying homage to traditional ideas while showcasing the region's entrance into modernity, with articles from quilt-making to aerospace engineering. Yet, the prevalence of the competing perceptions of the region persists. For example, the *Encyclopedia*'s own characterization of the region alludes to the two prevailing images described above.

Appalachia holds a curious place in the American psyche. There is a pervasive perception of the region as a hinterland inhabited by a backward and developmentally stunted people. Economically, culturally, and technologically suspended in an era gone by, this Appalachia is regarded as one of America's enduring social and economic problems. But there is another perception of Appalachia — home to the beautiful mountain system for which the region is named. It is a quaint retreat into the past, reflecting the integrity of a people with a pioneering spirit and lifestyle that pays homage to a simpler time. (Abramson & Haskell, 2006:jacket notes).

What could generate and maintain such disparate notions? Hsiung (1997) argues that some negative stereotyping stemmed from social differences in antebellum Appalachia. He uses East Tennessee as a clear example, where conflicting desires over railroad funding created a divide between locally oriented citizens who opposed funding and outward-oriented supporters who desired better connection with the broader society. Some opponents, who believed the railroads would only benefit certain areas rather than East Tennessee as a whole, saw no need to finance rail expansion. Others were more apathetic as a railroad would not greatly affect their lives. Supporters of the funding, who were typically town/valley dwellers, portrayed those who were apathetic and/or opposed to the funding as overly traditional, backward and sometimes isolated. Supporters used newspaper articles, pamphlets, public meetings, etc to spread this negative view of the funding opponents. Additionally, funding supporters occasionally conveyed these negative perceptions to outsiders, some of who were writing descriptions of the region and its people. Such descriptions were then disseminated in articles and stories in newspapers, magazines, and popular books (see below), thus carrying these negative stereotypes into the broader American culture.

Shapiro (1978) describes the continued development and spread of regional stereotypes, referencing the post-Civil War period, when a particular type of popular literature, known as 'local color', began to flourish. This literature, aimed at the burgeoning middle class in metropolitan areas, comprised articles about interesting and unique areas of the United States and short stories and novels set in such places. Many of these authors, such as Mary Noailles Murphree³ and John Fox Jr., focused on Appalachia because of the cultural difference from Eastern cities found there and

³Murphree wrote under the pseudonym Charles Egbert Craddock.

its geographical proximity to these cities. This genre of literature focused on what was most different from the urban norm. Thus, as local color grew in popularity, the portrayal of the area as different and isolated continued to spread. Some of the sources for these local color authors were the supporters of the railroad funding described by Hsiung (1997). The disaffected portrayal of the region partly stemmed from the characterization of railroad funding opponents, serving as the basis for some of the local color literature.

As the popularity of Appalachian local color literature grew, interest in the region also began to surge from Northern Protestant churches and other benevolent organizations as a response to the distorted portrayal of the local color. As Shapiro states, 'The same kind of assumption concerning the otherness of Appalachia, which made the region seem a suitable field for literary exploitation, thus made it seem a suitable field of action for home missionary endeavor.' (1978:32). This otherness, coming to light in local color writings, seemed to stem from isolation from two cultural vehicles: churches and schools. Natives to the region were white, American, and yet still an 'other', still perceived as 'unchurched'⁴, and in dire need of Americanization and modernization. The Northern churches and organizations began to build schools and settlement houses, with the expressed goal of bringing modernity and skills to the region (Whisnant, 2008: particularly Ch. 1). We see here the seeds of some of the stereotypes about the region, e.g., the backwardness and lack of education.

Several factors hampered the modernization efforts making them relatively ineffective. The rugged environment of parts of the region coupled with a type of relative social and cultural isolation meant that schools and settlements were few and far between, and were only capable of serving a few communities. The broad swaths with no schools or settlement homes had no access to these supposed 'modernizers'.

 $^{^{4}}$ This is a false perception from the Northern Protestant denominations. For an overview and history of religion in Appalachian, see McCauley (1995).

The perceptions of 'otherness' of the Appalachian inhabitants was very apparent to those writers, benevolent workers, and others entering the region. According to Shapiro, these writers and workers supposed that the otherness was not simply a factor of the environment and isolation. The mountaineers had an inherent virtue, expressed through the maintenance of certain worthy cultural traditions, such as ballads and artisanal crafts (e.g., quilts and woodworking). Yet a question remained; why were they different and 'backward'? Some workers and missionaries assumed that the history of the region could answer this question. The differences purportedly began with the settlement of the region, specifically with the misguided idea of a 'pure Anglo-Saxon' strain of people settling the area (cf. Frost, 1899). However, due to geography and other forces beyond anyone's control, these 'pure' settlers remained as they were when they first arrived. Even though they were impoverished and an 'other', there was a nobility about their state.

This supposed 'purity' separated the mountaineer from the 'degenerate' strains from other regions and other areas of the South (a racist and xenophobic idea). This 'purity', while invented and false, in turn, was used to explain how the Appalachian region avoided slavery wholesale⁵, as such a 'pure' strain of people would not have lowered itself to slave-holding. Benevolent workers projected this false idea of mountaineers' purity, inherent nobility, and distinctiveness from other Southerners to potential investors. The idea that mountaineers were Anglo-Saxon and non-slaveholders eased the conscience of Northern philanthropists, permitting them to invest time and money in support, but without any aid going to former slave-holders or supporters of slavery.

The combination of these two ideas about Appalachian people, that they were 'pure' and non-slaveholding, continued to spread across the country in popular writ-

 $^{^5{\}rm This}$ is not exactly the case. See Inscoe (2008) for a detailed picture of the complexity of race in Appalachia

ings, requests for contributions, and speeches from benevolent workers (e.g., Frost, 1899). Once such ideas were firmly planted in the minds of outsiders, the second major trope about Appalachia, that of the noble mountaineer was born.

From this contrasting imagery, a picture emerges about why attitudes toward the language varieties of the region vary. On one hand, the region might connote poverty, isolation, and backwardness (the first trope). On the other hand, the idea of idealized integrity or nobility (the second trope) might take precedence. This type of discrepancy is not confined to Appalachia, as perceptual dialectology work shows a similar bifurcation for the South as a whole, with low judgments on correctness but with high judgments on pleasantness (e.g., Preston, 1989, 1997, 1999, among others). Lippi-Green expands upon this idea, stating 'southerners exhibit an insecurity about their language and a willingness to accept responsibility for poor communication or bad language, but they do so only when in contact with the direct criticism of the northerner' (1997:213). Thus, when confronted with a variety judged to be more standard or more correct in the popular cultural mindset, people from a marginalized language region may have a negative view of their own language, which clashes with the image of the language of belonging and home.

2.3 Appalachian English

The official demarcation of Appalachia, defined by the Appalachian Regional Commission (ARC), comprises 410 counties across 13 states. However, in the minds of most people the borders are much more constrained. This discrepancy arises because the ARC uses a combination of geography and socio-economic factors to label a county as part of Appalachia. In Figure 2.1, we see the official designation of the ARC in white. Superimposed is a circle that represents the perception of both natives and non-natives of the region of where the 'real' or 'core' Appalachia is. (cf. Ulack & Raitz, 1981). However, as Puckett (2003) notes the terms *Appalachia* and



Figure 2.1: Appalachia as defined by the ARC, with the 'core region' from Ulack & Raitz (1981) superimposed.

Appalachian English are 'non-indigenous lexemes not recognized by community residents or, if recognized, used under systems of metapragmatic awareness and linguistic ideological construction that conform to the linguistic ideologies of their communities and networks...' (541). Thus, the term Appalachian English should be understood best as a scholarly umbrella term used to cover numerous varieties, which have different local names (such as mountain, country, East Tennessee talk, etc.). Along this line, Hazen & Fluharty (2004) refer to the varieties spoken in Appalachia as

Appalachian Englishes.

Language scholars have studied the English varieties of the core region illustrated in Figure 2.1 for many years, following three main traditions. First, using observational methods, much of the early literature primarily focused on finding archaic survivals from previous forms of English (e.g., Brown, 1889, 1891; Combs, 1916a,b). Many of these early studies tended to utilize generalizations about the existence of a separate mountain variety. Although apparently such studies are based on local experience, they nonetheless employed terms that referred to much broader areas, and they also assumed the wider region spoke a similar monolithic variety (although differences were occasionally noted). The focus on Appalachian varieties as archaic continued (e.g., Dial, 1970), but the primary focus shifted beyond attempts at classifying the varieties as linguistic holdovers. Second, linguistic atlas work, beginning in the late 1920s and continuing to the present day, focused on and continues to focus on tracing settlement and migration history of the U.S. via language, with emphasis on differences between areas and speakers (e.g., LAMSAS (McDavid et al., 1980) and LAGS (Pederson et al., 1986-93), two atlases that covered parts of the geographical area encompassing Appalachia). Linguistic geographers, as a result, naturally avoided terms such as Appalachian English or Mountain Speech, or any other generalization that could not be supported by clear empirical evidence. Primarily, this reluctance stemmed from the reality that one could sub-divide the Appalachian region and find linguistic differences Wolfram (1977:95). Rather than positing an Appalachian dialect region, linguistic geographers posited a Midland dialect region, empirically distinct from the Northern region and the Southern region⁶. Third, with the rise of modern sociolinguistic methods in the 1960s, a new focus arose which studied linguistic variation to solve 'issues fundamental to the construction of an adequate linguistic

⁶Hempl, 1896 first used the term, and it was popularized in Kurath, 1949:3f. See also the discussion of the earliest attestations of the term 'Midland' in Montgomery (2004).

model for describing a language' (Wolfram, 1977:96). In this manner, several studies (Hackenberg, 1973; Jones, 1973; Miller, 1973; Hackenberg, 1975; Wolfram & Christian, 1976; Reese, 1977) focused on small communities or collections of communities within the region, drawing conclusions that some structures seem to be somewhat common to broad parts of the geographic area, yet each community is diverse both internally and from one another.

In this vein of heterogeneity, Wolfram (1984) discusses whether the term Appalachian English has validity. He reviews the history of investigation into the speech varieties of the area, and points out that many features of mountain speech are not necessarily unique. However, he argues the 'set of co-occurring structures' (224) of mountain speech is unique. He concludes then that AE may not be qualitatively distinct, rather quantitatively, and a constellation of features and their realizations are what separates Appalachian varieties from others. Thus, as outlined by Wolfram, features identified in all three traditions of literature, when taken cumulatively, keeping in mind the idea of structural co-occurrence, demonstrate differences from other American English varieties (see e.g., Brown, 1889, 1891; Combs, 1916a,b, 1931; Kephart, 1922; Hall, 1942; Wise, 1957; Hackenberg, 1973; Miller, 1973; Jones, 1973; Wolfram & Christian, 1976; Reese, 1977). From this then, we can see that varieties of Appalachian speech share many features with Midland varieties (e.g., post-vocalic /r/-fulness, you'uns as a second person plural, cot/caught merger) and with other Southern varieties (e.g., monophthongal /ai/, pin/pen merger, and the use of y'all). The major difference between Appalachian speech and its derivatives⁷ and other varieties is the quantitative realization and perhaps the social distribution of many of these features. For example, in AE, monophthongal /ai/ extends to pre-voiceless contexts and there appear to be higher rates of regularization of irregular verb forms across different social groups (i.e. knowed for knew) (Atwood, 1953:15, Wolfram &

⁷These include Ozark English and some Texan English varieties.

Christian, 1976, McGreevy, 1977, Reese, 1977). Further, there are also some features that appear to have been more widespread in U.S. English in the past, but now are primarily found in the core Appalachian region. One phonological example is the upgliding of /æ/, as in *pass* or *half*, which was widespread in the South, but is now largely gone. The upgliding seems to have persisted at least one generation longer in Appalachia than the rest of the South (Thomas, 2003). Others include *a*-prefixing, pronunciations of it as *hit*, and certain lexical items, such as *bealing* for a skin boil and *gaum* for gummed up/jammed and/or dirty (Cassidy & Hall, 1985-2013).

2.4 MONOPHTHONGIZATION OF /ai/

Monophthongization is a feature that is associated quite broadly with the South; in fact, Feagin calls it 'the most notable unchanging element in Southern states' pronunciation' (2000:342). Wolfram & Schilling-Estes note 'Southern Americans are perhaps more well known for their pronunciation of /ay/ as [a]... than for any other dialect feature' (1998:69). In his overview of North American vowels, Thomas (2001) finds /ai/ monophthongization (in varying degrees) from Texas to North Carolina.

Bailey & Tillery (1996), using data from the oldest speakers in linguistic atlas data, have suggested that Southerners began using monophthongal /ai/ in pre-voiced contexts during the late 19th century in the period after the Civil War⁸. By World War II, monophthongal productions were a characteristic of Southern speech (Bailey & Tillery, 1996). Pre-voiceless monophthongization is presumed to have arisen later, although a precise date is not known (Thomas, 2001:37). Moreton & Thomas (2007) theorize that the perceptual difference in pre-voiced and pre-voiceless off-glides, and the concomitant differences in vocalic duration, allowed for monophthongization to begin in pre-voiced contexts, noting that there is a 'tendency for diphthongs to be

⁸This claim not universally held. Some of the oldest *LAMSAS* speakers (McDavid et al., 1980), born before the Civil War, show some degree of monophthongization. Positing that they acquired the feature later in life is problematic (Thomas, p.c.).

dominated by the offglide before voiceless codas, and by nuclei elsewhere' (55). In their atlas of North American vowels, Labov et al. suggest that monophthongization is the first stage of the on-going Southern Vowel Shift (SVS) (cf. Labov et al., 1972), a series of vowel changes occurring in many places across the South. Appalachia is considered to be one area where the SVS is advancing (Irons, 2007), especially since monophthongization occurs in all phonetic contexts (cf. Hall, 1942; Wolfram & Christian, 1976; Thomas, 2001, 2003).

This characteristic feature of speech is also recognized by non-linguists. Plichta & Preston remark that monophthongization of /ai/ is 'one of the principal caricatures of southern US speech' (2005:107). Listeners are able to fairly reliably place a speaker on a North-South geographic continuum based solely on the articulation of /ai/, with the more monophthongal articulations being considered more Southern. Additionally, many lay dictionaries and descriptions of Southern and Appalachian speech (e.g., Venable, 2013) use examples of monophthongization to characterize the speech of Southerners and Mountain people, such as *arn* for iron, *mah* for my, etc. Thus, both insiders and outsiders notice this feature and occasionally comment upon it.

Monophthongization of /ai/ is subject to both geographic and social differentiation, as well as linguistic conditioning. Thomas (2003) outlines two broad monophthongal systems: 1) monophthongization occurring in pre-voiced and syllable final positions (PRIZE/PRY), and 2) monophthongization in all contexts (PRIZE/PRICE/PRY). Hazen (2004) notes that there appears to be a rough sonority hierarchy of environments favoring monophthongal productions across the South, from most likely to be monophthongized to least likely⁹:

pre-pausal > liquid > nasal > pre-voiced > prevoiceless (Hazen, 2004:66)

Linguistic atlas data show that the prevalence of monophthongization of /ai/ in pre-

⁹This scale may also be read as an implicational scale, where the presence of monophthongization in contexts presupposes monophthongization in contexts to the left.

voiced and open syllables is found across the South (Pederson et al., 1986-93; Labov et al., 2006). However, extensive pre-voiceless monophthongization is much more restricted. In the Appalachian region, monophthongization is of the PRIZE/PRICE/PRY system (Pederson, 1983; Pederson et al., 1986-93). Table 2.1 shows the higher frequency of monophthongal /ai/ in East and eastern Middle Tennessee (both in Appalachia) from the rest of Tennessee, as an example of the greater rates of /ai/ monophthongization in Appalachia. Some examples that showcase Appalachian monoph-

Table 2.1: Percent of monophthongal/short glide in various lexical items from *The Linguistic Atlas of the Gulf States* (Pederson et al., 1986-93).

Lexical item	Percentage in East	Percentage in	Percentage in West
	Tennessee	Middle Tennessee	Tennessee
Right	65%	28%	12%
Five	70%	54%	66%
Iodine (first syllable)	75%	73%	38%

thongal productions, drawn from native Appalachian speech are provided in 1(a-c).

- 1. Monophthongization examples¹⁰
 - a) Well, that sure was a fun ride [iaid]. (pre-voiced)
 - b) I might [ma:t] be able to do that. (pre-voiceless)
 - c) Don't be shy [faː]! (syllable final)

The extension to pre-voiceless environments combined with higher relative rates of monophthongal realizations is what sets Appalachia apart from most of the rest of the South (see also Kephart, 1922; Hall, 1942; Wise, 1957; Jones, 1973; Miller, 1973; Wolfram & Christian, 1976; Reese, 1977; Pederson, 1983; Williams, 1992; Irons, 2007; Greene, 2010). See Table 2.2 for an overview of many studies and the percentages

¹⁰These examples are all from my own speech, as I am a native of this region. See Appendix A for spectrograms.

of /ai/. The references are ordered from highest to lowest rates of monophthongization. Starred citations are from Appalachia. Note that the Appalachian studies tend to have higher rates of monophthongization, typically approaching categorical monophthongal /ai/.

Vocalic duration is also found to have an impact on monophthongization. Greene (2010) found that longer durations favored more diphthongal productions for prevoiceless tokens. Since all vowels are dynamic gestures, a longer duration may permit the articulators to reach the gestural target. The further the articulators move, the greater the change in vowel formants, i.e. a more diphthongal production. However, as will be seen in Chapter 4 of the present work, duration does not consistently have an impact on monophthongization.

Some studies, such as Labov et al. (2006) and Jacewicz et al. (2011a,b), argue that monophthongization of /ai/ is receding cross-generationally in Appalachia, perhaps due in part to the social stigma associated with the region and its linguistic variety¹¹. However, in a study of Eastern Kentucky and other parts of rural Kentucky, Irons (2007) found that /ai/ monophthongization and the associated Southern Vowel Shift (SVS) were actually advancing among certain groups and in successive generations. Irons hypothesized that an urban/rural distinction might be at work, where rural speech showed advancement of monophthongization (and the SVS) whereas urban speech did not show the same advancement. In a rural region of Eastern Kentucky, Greene (2010) found almost categorical monophthongization of /ai/. Furthermore, as noted in Chapter 1, Greene (2010) and Reed (2012, 2014a) argue that /ai/ monophthongization in rural Eastern Kentucky and rural East Tennessee, respectively, might reflect a local identity, perhaps in opposition to mainstream standard language ideologies (cf. Lippi-Green, 1997, 2012). According to Pederson (1983), in East Tennessee, speaking about /ai/ monophthongization,

¹¹Other features of the Southern Vowel Shift (SVS) were also found to be receding.

the evidence from the synopses on [monophthongal /ai/] suggests that, although the trend toward Inland Northern pronunciation of some phonemes in East Tennessee speech is apparent, this unit is resisting that influence...The strongest inroads of Northern influence are observed among the young and better educated urban dwellers, but this pattern is not nearly as strong in this instance as it has been in the pronunciation of other consonants and vowels' (1983:75).

Thus, the resistance to Northern influence on pronunciation might be reflective of the fact that the realization of /ai/ has other social significance in East Tennessee.

The prevailing theme in all these studies is that /ai/ monophthongization is prevalent throughout Appalachia, and crucially East Tennessee, where research for this dissertation is based. Further examination of its social and linguistic patterning and its potential use in the construction of local identity and affiliation should, therefore, prove to be informative.

2.5 RISING PITCH ACCENT

With the exception of Greene (2006), quantitative sociolinguistic research on intonation in Appalachia is practically non-existent, save a few anecdotal mentions. But, anecdotes and impressions should not be dismissed entirely. Many times, lay impressions and anecdotal evidence can lead an investigator to what speakers perceive as salient within a particular variety (cf. Feagin, 1979 or Thomas, 2003 for the Southern drawl). For example, in his chapter on Southern Mountain speech, Kephart (1922) references 'clipping' (Kephart, 1922:276), which could mean vowel elision/reduction or some type of prosodic process, although the reference is vague (276). Hall (1942), writing about speech in the Great Smoky Mountains, observes 'the great force with which the stressed syllables are uttered results in an abnormal weakening of the unstressed syllables' (44). Moreover, Williams (1992) outlines a system of rising and falling pitch in Southern Mountain speech that is distinct from that of other types of English. He describes these features as 'forming the rhythmic patterns of the speech of the people of the Southern mountains are low intonations [and] leisurely pace' (17). While completely based on his intuitions, observations, and impressions of others, we can see here that melody (i.e. rising and falling pitch) sets Appalachian speech apart. The 'low intonations' that Williams describes would be seen against the backdrop of other high intonation patterns. While mainly impressionistic and anecdotal, these descriptions, particularly Williams (1992), suggest that AE has pitch shifts that are a distinguishing feature. There are also many stories of how natives from the region can recognize each other by intonation alone, even after adapting segmental features to other regional and/or supraregional varieties (Anderson et al., 2014 and Montgomery p.c.). Such observations speak to the significance of intonational patterns, even at a subconscious level, as cues that listeners use to identify natives to the region.

In addition to the above-mentioned anecdotal descriptions of AE pitch, Greene (2006) examined Appalachian intonation in Eastern Kentucky using the ToBI framework (Beckman & Elam, 1997; Beckman et al., 2005)¹². She observed that Appalachian speakers use the L+H* rising pitch accent at a rate greater than Southern American English (SAE) speakers and other Mainstream American English (MAE) speakers. According to the intonation literature (cf. Pierrehumbert & Hirschberg, 1990), this rising accent indicates emphasis in MAE. Yet Greene did not discern that her speakers use an inordinate amount of emphasis in their use of this pattern. Furthermore, she noted that there was no significant difference between SAE and MAE with regard to the L+H* pitch accent. Thus, her findings suggest that Appalachian English might be distinct from both SAE and MAE with regard to the overall frequency of this accent. However, she did not investigate in-depth how this pitch accent

 $^{^{12}{\}rm This}$ framework marks pitch accents and junctures in speech. For an excellent overview of the methodology, see Thomas (2011:200-217).

was phonetically realized (e.g., syllabic anchoring, excursion, etc.), though the phonetic realization of pitch accents has been shown in other English varieties to be a regionally salient feature (Grabe et al., 2000; Ladd et al., 2009). This dissertation will expand upon Greene's study by investigating the actual phonetic realization of rising pitch accents via the peak anchoring in the syllable and overall pitch excursion, as well as its realization across social groups and possible correlations with rootedness/local orientation.

A comparison of rising pitch accent and of /ai/ monophthongization in terms of both social and linguistic conditioning will enrich our understanding of the role that linguistic salience plays in their use and distribution.

2.6 LANGUAGE, IDENTITY, AND PLACE

Investigating how place (and changing place) mediates identity, Harrison (1998)¹³ writes 'identity is generated through culture - especially language - and it can invest itself in various meanings ... [h]erein lies the facility of identity politics: it is dynamic, contested, and complex.' (248). Sociolinguistics, at its core, is the investigation of the relationship between identity and language. Building on this idea, Chambers (2003) argues that 'the underlying cause of sociolinguistic differences, largely beneath consciousness, is the human instinct to establish and maintain social identity' (274). As Eckert (2000) explains, 'the study of meaning in sociolinguistic variation is a study of the relation between variation and identity' (42). Identity and how speakers construct their social selves has become a central research focus of scholars of language and place. Following along these research trends, one goal of this dissertation is to explore how locally oriented identity, i.e., rootedness, the strength of local attachment, correlates with the use of Appalachian regional linguistic features.

¹³This essay is part of a collection (Kershen, 1998) examining the question of identity.

Languages are composed of features, from phonetic to syntactic to discursive. It is crucial to understand that linguistic features have social meaning, both within the local contexts and in larger regional and national contexts. What is noteworthy is that linguistic features do not in and of themselves carry social information. The patterns of use by certain individuals that belong to particular groups, or just the speakers themselves, can cause a particular feature to acquire social meaning. This association between feature and group (or aspects of groups) is called *indexicality*, which is, as Bucholtz & Hall (2004b) defines, 'the semiotic operation of juxtaposition, whereby one entity or event points to another' (378). Crucially, a feature can be associated with more than one type of information. For example, in Trudgill's (1972) study of the (ng) variable, the /n/ variant was often associated with lower socio-economic status speakers and males. Features may not index just one group, however. Rather very often there are typically multiple levels of association with each linguistic feature (to different groups or different aspects of groups). Sometimes these particular levels are quite different or even conflicting, e.g., Preston's folk dialectology work showing that Southern features are both 'pleasant' and 'uneducated' (Preston, 1989, 1997, 1999).

In conceptualizing how the process of indexicality occurs, Ochs (1992), writing about language and gender, notes that features become associated with particular social categories indirectly, rather than a direct one to one link. She describes the use of sentence-final particles in Japanese as a clear example. There are two options for these particles, -ze and -wa. The latter typically functions to mitigate the force of an utterance, representing a type of deference in conversation, the stance that an interlocutor has toward the other participant(s). However, in this sociolinguistic context, those who tend to use this deferential connotation tend to also be female. Over time, the particle came to not only reflect deference, but also the gender of the speaker. Thus, this form connotes two different meanings, indexing women's speech and deference, combining a stance relationship and gendered identity.

Building upon this process of indexicality, features of Appalachian speech have come to index various meanings in U.S. society. One meaning could be the place of Appalachia. This meaning could have originated from typical regional differences, stemming from settlement patterns and the differing populations of immigrants, and their different languages and varieties that made Appalachia home (see Montgomery, 1995b). As the forms that index the region are interpreted by those within and outside the region, the indexicality might therefore go beyond just place. The forms might no longer only reflect a geographical variance, rather they could now have additional meanings associated with circulating notions about the region as a whole, potentially positive or negative depending on which perception a speaker or listener has.

I single out the region of Appalachia for a variety of reasons. Following Benedict Anderson's idea of 'imagined community" (Anderson, 1991), Johnstone (2004) writes 'regions have come to be seen as meaningful places, which individuals construct, as well as select, as reference points. Identification with a region is identification with one kind of 'imagined community' (69). Particularly within Appalachia, scholars have discussed the strong affinity for the region and certain places in particular on the part of natives. Defining the region's limits is problematic (e.g., Ulack & Raitz, 1981), yet many natives possess a very strong attachment, i.e. rootedness, to the region. In an essay Jones writes about Appalachian people, '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' (1975). Later, he discusses the 'love of place' as a value of many Appalachian natives (Jones, 1994). Especially, the sense of a specific place, the 'homeplace' is central to many Appalachians, as it is the tangible expression of the love for and attachment to place (Cox, 2006:219). 'Homeplace' typically refers to the house and surrounding land of a family's ancestral home, where the speaker

was born and raised and/or where the speaker spent considerable time. This sense of place and place attachment does have an 'imagined' component, as Anderson and Johnstone noted; for example, many Appalachians refer to a 'homeplace' even when they have migrated to other regions (Berry, 2000) or even when it is the homeplace of their grandparents or earlier generations (see e.g., Anderson, 2003). Montgomery (2015) observes an uptick in the use of 'homeland' by Appalachian natives, often co-occurring with a personal possessive, such as my or our to refer to the region, as a whole or one's hometown or home county. Thus, the region and particular locations within it are present in the minds of many residents and reflected accordingly through language.

Even though a place may hold importance for many residents, it may not be present for them in the same way or with the same connotations, or the importance may change over time. As individuals are members of various groups and communities (Johnstone, 1996), there may be relationships and tensions and multiple ways of understanding their social environment. Individuals vary with respect to which memberships (or aspects of memberships) to express at any given time. As LePage & Tabouret-Keller (1985) argue, language is, fundamentally, a 'series of acts of identity' in which 'an individual creates for himself the patterns of his linguistic behavior so as to resemble those of the group or groups with which from time to time he wishes to be identified, or so as to be unlike those from whom he wishes to be distinguished' (181). Thus, it is difficult, if not impossible, to disentangle linguistic behavior from the ideologies present in society about various groups. An individual may exercise agency to construct an identity based on the positive aspect of Appalachia or his/her individual view of a particular place in the region. This can permit insight, as:

an ideological analysis treats social categories as locally created by social actors and discoverable by analysis, rather than as a given. Consequently, an ideologically oriented account of language variation and change treats members of speech communities as agents, rather than as automatons caught up ineluctably in an abstract sociolinguistic system. (Milroy, 2004:167)

From an ideological standpoint then, the locally relevant aspects of identity, such as rootedness, may trump circulating negative tropes.

This contested nature of the meaning of place has been observed in the sociolinguistic literature. Place and a speaker's orientation to place have been shown to be very important for speakers and the expression of identity. In the classic study of Martha's Vineyard, Labov (1963) found that both place and a speaker's feeling about the island itself helped explain the variation present. Islanders who were from 'up-island' and viewed the island in a positive light used more central realizations of both /ar/ and /au/. These speakers may have utilized more central realizations to distinguish themselves from seasonal tourists and other residents. 'Down-island' residents and those who viewed the island negatively and wanted to leave used less centralized variants, perhaps aligning with the linguistic norms of seasonal tourists and off-island language varieties. However, following up on this study, Blake & Josey (2003) noted a shift in the economic structure, from fishing to primarily tourism, of the island, and also allegiance toward the island. As a result, use of place-based indicators had plummeted in Martha's Vineyard.

Sometimes this desire to express place through linguistic practices results from contact with outsiders. In a study of the emergence of a new regional dialect in Denmark, Lane (1998) showed that speakers who used the most regionally-marked features interacted more with persons outside the town of Thyborøn, Denmark. She suggests that pride in the local variety encouraged the use of marked features, especially with outsiders. A speaker's identity with Thyborøn seemed to be more important than the stigma from using marked features.

The social associations of place can also influence the extent to which speakers

utilize features associated with it. In particular, expressing an allegiance or a connection to a location permits individuals to express aspects of that place — qualities of the place that speakers want to have associated with themselves. In Pittsburgh, Johnstone and colleagues observed that the use of a monophthongized /au/, dahntahn for downtown, represents a local person, a 'Pittsburgher'. Interestingly, this association was primarily for those who do not themselves use the monophthong. Additionally, the indexical connection for non-monophthongal speakers is not only to locality, but also a particular type of working class identity. Monophthongal /au/can be employed (and also commodified) to express a particular localness or locally defined persona (Johnstone et al., 2002; Johnstone et al., 2006; Johnstone & Kiesling, 2008). It is important to note that the associations may be different for the speaker and the hearer. One may hear/produce the local variant that means local; others may hear/produce 'working class' or even some other association like 'incorrect' or 'uneducated'.

Contrastedly, some speakers may also want to avoid using features, or use features that are related to a different place, because of negative associations with a place. In Valladolid, Yucatán, Solomon (1999) noted that a speaker's orientations toward urban centers explained the variation in (y). Those speakers who oriented toward urban areas used the variant [5], which is associated with urbanity. These speakers rejected features linked to rurality, where some lived. Features associated with rurality also connoted poverty, lack of education, backwardness, etc. which speakers presumably wanted to avoid. Rather, they utilized features associated with a different urban locale, with the social associations of urbanity, i.e. education, cosmopolitanism, etc.

Certain events can highlight the orientation to place and the concomitant social meanings of that place. Both Schoux-Casey (2013) and Carmichael (2014) show how New Orleans and a speaker's locally based orientation affect a speaker's realization of marked features. In the post-Katrina landscape, saving and rebuilding the city became a focus for many residents, and thus linguistic features associated with being from New Orleans gained a particular importance. Schoux-Casey (2013) observed that /r/-lessness was transformed from being merely a feature of most of the varieties of the city to a critical 'floating cultural variable, serving as a semiotic resource on which speakers can draw on to perform localness' (v). Carmichael (2014), in a similar fashion, observed that the speech of speakers who were more oriented toward a particular neighborhood (Chalmette) utilized more locally salient features in their speech. In particular, speakers who were forced to relocate from Chalmette to another neighborhood post-Katrina used language as a vehicle to express their allegiance toward their former home. Both of these studies demonstrate that not only is place important, but also that a speaker's view of and orientation toward place is crucial to understanding the use of linguistic features linked to place.

2.7 The Attention-to-Speech Model

There are numerous ways to attempt to examine how social meaning impacts linguistic practice. One of the most influential, and the one that will be adopted for this dissertation, is the three degrees from *indicator* to *marker* to *stereotype* as described in Labov (1972a), which are derived from the attention-to-speech model (Labov, 1966, 1972a). This framework views differences in the relative frequency of a linguistic feature along a continuum of attention-to-speech that roughly corresponds to different styles.

In his seminal 1966 study of the speech of New York City, Labov observed that different social groups reacted in a similar manner to certain linguistic features, with variation in the relative frequency of occurrence of certain variants, e.g. post-vocalic /r/-lessness, as more attention is paid to speech. All speakers used more post-vocalic /r/ in more formal contexts, and less /r/ in more casual contexts. This change in relative frequency was not determined by the individuals' overall use of the variant — those speakers who were generally /r/-less still used more /r/ in more formal contexts and those speakers who were /r/-full approached categorical usage in formal contexts. Labov observed that the variants used most often in formal contexts tended to be those variants used more often by speakers from higher socio-economic statuses. Returning to post-vocalic /r/, speakers higher on the scale of SES used more post-vocalic /r/ overall, in addition to more /r/ in more formal contexts. Furthermore, hearers also reacted in a strikingly uniform fashion to certain features, where some features were understood by New Yorkers to be 'better, or more correct, or are endowed with superior status' (Labov, 1966:277). Thus, /r/-full productions were associated with both formal contexts and higher status speakers.

For this methodology, the sociolinguistic interview is central. This semi-structured interview is designed to reduce the 'Observer's Paradox' — for which we want to observe how a person speaks when unobserved. The interview has several tasks, each increasing the interviewee's attention to his/her speech. In the conversational interview task, participants are encouraged to relay anecdotes, reminiscences, and other stories wherein the goal is to capture relaxed, casual speech. A second task is typically a reading passage with many instances of the feature under question. Theoretically, reading increases the attention on how the person is speaking, and thus more attention is paid to speech. Traditionally, the third and fourth tasks are a word list and a minimal pair list, each increasing in attention. Reading a list of words increases the focus on how each word is pronounced, and differentiating minimal pairs focuses entirely on pronunciation.

Depending on how the relative frequency of a feature changes according to style and also how hearers react to the presence/absence of a feature, Labov identified three stages of association between language and social meaning. The first stage is called an *indicator*. This term refers to a linguistic feature that varies according to an observable social feature, e.g., gender, socio-economic class, region, etc. The feature in question occurs in all available linguistic contexts, with no discernible patterning of stylistic variation; the particular variation affects all available linguistic contexts, regardless of the attention paid to speech. The second stage is what Labov terms a *marker*. In contrast to an indicator, a marker clearly shows changes in relative frequency in correlation with changes in style. Speakers use more or less of a marker as style changes over the course of the sociolinguistic interview. Crucially, the increase or decrease in relative frequency typically reflects the social evaluation of that feature, as positively viewed features will increase and negatively viewed features will decrease. A speaker becomes aware at some level, albeit possibly subconsciously, that a particular form is associated with some social meaning within the speech community, such as appropriateness in formal contexts but not in informal ones, and linguistic behavior reflects this social meaning. In Labov's classic studies in New York (Labov, 1966, 1972a), post-vocalic /r/ deletion, historically associated with NYC speech, was found to correspond to more casual speaking styles, i.e., less attention-to-speech. As more attention was paid to speech, speakers used more post-vocalic /r/, avoiding deletion.

Johnstone & Kiesling, following this framework, explain how this process of moving from indicator to marker can come into being, in that 'the repeated use of different variants in different self-presentational styles associated with locally relevant social groupings can cause particular variants to become semiotically associated with particular ways of being and acting' (Johnstone & Kiesling, 2008:7). Speakers observe that particular features begin to have layers of social meaning. If they desire to do 'social work' (Johnstone & Kiesling, 2008:8), they can utilize the feature, or not, depending on the particular social setting or social context. Interestingly, most speakers cannot articulate exactly what they are doing, as it is often subconscious behavior. Further, markers often can be defined by the effect they have on listeners, as use of markers can evoke certain social judgments about the speaker. In Labov (1966), interviewees evaluated excerpts from sociolinguistic interviews from other speakers. In these evaluations, the absence of post-vocalic /r/ was associated by listeners with lower socioeconomic status in addition to more casual styles.

For some linguistic features, the social meaning of the variable rises to the level of conscious and explicit awareness on the part of community members, and this awareness can extend to outsiders. Speakers and outsiders can develop a conscious and overt awareness of the social meaning that a feature indexes, and as Labov writes, 'a form may become the overt topic of social comment' (1972:180). Labov describes this stage as a *stereotype*. What this means is that both group members and outsiders recognize and comment on the social meaning of the feature, and the use of a particular feature is explicitly tied to a particular social profile or social orientation. Occasionally (and perhaps usually), this correlation becomes a negative association because the social profile/orientation that is reflected is stigmatized. Labov predicts that once a feature has become a stereotype, it will most likely disappear from vernacular speech (1972a:180).

Monophthongization in Appalachia, as in other Southern American English varieties (cf. Bailey, 1991; Johnstone, 1999; Bernstein, 2006, for other Southern varieties), is associated with certain aspects of Appalachian regional and local identity. For example, Greene (2010) hypothesizes that her speakers opposed mainstream standard language ideology and wanted to express local allegiance, and thus used monophthongal /ai/ to demonstrate their rejection of the SLI. However, this opposition was not a complete rejection, as speakers avoided using other stigmatized grammatical features (i.e., leveled *was*). Greene suggests that local 'accent' variants allowed speakers to express their local allegiance while avoiding some stigma stemming from non-mainstream grammar. She explains 'speakers combine strongly locally-accented phonology with relatively prescriptive grammar in an effort to appear local and authentic, yet at the same time competent and modern' (2010:iv). Additionally, Bernstein (2006) observes that many Southern speakers associate monophthongal productions, particularly pre-voiceless monophthongization, with lower socioeconomic status speakers and less educated speakers, and openly state such perceived connections. Further, local humorous dictionaries (e.g., Venable, 2013) caricature Appalachian speech with monophthongal productions, e.g., *nahs* for *nice*. From such observations, it seems that /ai/ monophthongization could be considered a marker, but perhaps is best considered a stereotype. In the present study, studying how the relative frequency of the feature varies over the course of a sociolinguistic interview, combined with any overt discussions within the interviews themselves, can help better choose which of Labov's three degrees of social evaluation of this variable applies.

Regional and social intonational variation, while not receiving as much attention as other linguistic features in American English, has been shown to be regionally salient in Great Britain (Grabe et al., 2000; Ladd et al., 2009), Germany (Atterer & Ladd, 2004; Kügler, 2004), Italy (Grice et al., 2005), and also in some varieties of American English (Arvaniti & Garding, 2007; Clopper & Smiljanic, 2011). Different intonation patterns can be observed in different regions, and perhaps even different social groups. However, investigations into intra-group differentiation are absent in the literature. Both Williams (1992) and Greene (2006) suggest that Appalachian English intonation might be distinct from that of other Southern American English varieties. Thus, the AE intonation might represent an indicator, since it may correspond to an observable social group, in this case Appalachian speakers. Additionally, the different level of salience for AE intonation vis-à-vis /ai/ monophthongization (i.e., the relative lack of awareness and mention) also points toward the indicator description.
Table 2.2: Rates of /ai/ monophthongization in communities across Appalachia and the South. Adapted from Greene (2010).

Community, Sub-group, Study		n	Pre-	n
	vl		vd	
*Roaring Creek, NC, E-A, (Mallinson & Wolfram, 2002)	99%	176	100%	119
*Beech Bottom, NC, A-A, (Mallinson & Wolfram, 2002)	98%	150	99%	116
*Wilson County, KY, E-A, (Greene, 2010)	89%	270	-	-
Detroit, MI, A-A men, (Anderson, 2002)	89%	67	92%	46
Detroit, MI, A-A girls, (Anderson, 2002)	87%	27	60%	12
*Robeson County, NC, E-A (Schilling-Estes, 2000)	80%	324	91%	209
*Eastern KY, (Irons, 2007)	$78\%^{\dagger}$	-	-	-
Detroit, MI, A-A, (Anderson, 2002)	71%	341	83%	248
South Midlanders, (Bernstein, 2006) [‡]	$66\%^{\dagger}$	-	37%	-
TX, Anglos, (Bernstein, 2006) [‡]	$63\%^{\dagger}$	-	$78\%^\dagger$	-
Griffin, GA mill villagers, (Dupree-McNair, 2005)	61%	-	94%	-
Town and rural TX Anglos, Thomas (1997)	60%	20	-	-
*Texana, NC, A-A, Childs & Mallinson (2004)	56%	475	97%	959
Memphis, TN, A-A, Fridland (2003)	44%	59	88%	149
TX Anglos, Thomas $(1997)^{\S}$	39%	108	-	-
Griffin, GA, farmers, Dupree-McNair (2005)	37%	-	90%	-
Southerners, Bernstein (2006)	$37\%^\dagger$	-	$69\%^{\dagger}$	-
Lower Class AL, Bernstein $(2006)^{\S}$	36%	50	-	-
Lower Class Southerners, Bernstein (2006)	34%	179	-	-
Southern Whites, Bernstein $(2006)^{\S}$	25%	717	-	-
Southerners, ages 46-70, Bernstein (2006) [§]	24%	256	-	-
Middle Class Southerners, Bernstein (2006) [§]	22%	441	-	-
TX, sorority women, Gregory & Bernstein (1993)	22%	-	-	-
*WV, A-A, Hazen (2006)	22%	418	72%	145
Southerners, ages 13-45, Bernstein (2006) [§]	21%	145	-	-
Lower Class TX, Bernstein (2006)§	20%	46	-	-
Upper Class Southern, Bernstein (2006) [§]	19%	97	-	-
Very large metro TX Anglos ages 18-29, Thomas (1997) [§]	19%	42	-	-
Memphis, TN, E-A, Fridland (2003)	16%	25	82%	62
Upper Class AL, Bernstein (2006) [§]	12%	16	-	-
Upper Class TX, Bernstein (2006) [§]	10%	20	-	-
AL, sorority women, Gregory & Bernstein (1993)	9%	-	87%	-
Southern A-A, Bernstein $(2006)^{\S}$	8%	197	-	-
TX, A-A, Bernstein $(2006)^{ddagger}$	$0\%^{\dagger}$	-	$93\%^\dagger$	-
North and North Midland, Bernstein (2006)	$0\%^{\dagger}$	-	$0\%^{\dagger}$	-

[†] Percentage of speakers who were perceived as having generally monophthongal systems, not percentage of tokens that were perceived as monophthongal. [‡] Based on data from Thomas (2001). [§] The number of speakers is unavailable.

Chapter 3

METHODOLOGY

3.1 Geographical Area

As discussed in Chapter 1, fieldwork for this dissertation was conducted in Hancock County, a small rural county in northeast Tennessee. The only incorporated town in the county, Sneedville, is the county seat and largest town. This community, located in the mountainous part of upper northeast Tennessee, sits on the border between Central and Southern Appalachia as defined by the Appalachian Regional Commission (ARC, 2015). As such, this area provides a useful point of comparison with previous studies on Appalachian English (AE). Hancock County falls in relatively close proximity to Wilson County, KY (approximately 100 miles away) and the Great Smoky Mountains National Park (approximately 70 miles away), where Greene (2006, 2010) and Hall (1942) conducted their respective studies. Thus, comparison and contrast with their results could allow for fruitful insight, especially with regard to how speakers use language to create a local Appalachian identity. Furthermore, given that large sections of the Appalachian region are entirely rural and populated with small towns, the findings may be generalizable to some extent to the linguistic behavior of other rural areas of the region (cf. Wolfram & Christian, 1976).

The choice of this particular field site, however, was also motivated by a personal connection to this place. This community is my hometown. Given how some past research and literature about the region paints a very negative picture about Appalachia, some residents have been reluctant to engage with outsiders who seek to do research within the region. However, when approached by a fellow Hancock Countian, those reservations seemed to vanish, and every resident I approached was quite happy to help and to participate. My status as an insider was invaluable. This community, akin to many small rural ones, is very tight-knit. Thus, I knew most of my respondents on a personal level prior to engaging in research. The few with whom I did not have a personal relationship were friends with my extended family. As such, I was at the very least an acquaintance, and this meant every interview was one between familiars.

However, potential drawbacks do exist when studying one's home community. Since I am from Hancock County and my participants were friends and acquaintances, I could not claim complete objectivity as an outsider might be able to. Further, these participants know me in particular roles in the community, and my newer role as researcher may have had some possible effect (Hazen, 2000). Some concern also exists, in the vein of Giles (1973), that having a fuller knowledge of my participants and their respective backgrounds may cause me to produce the features under investigation, thus my participants might then accommodate to me, rendering some 'circularity' of results — where I produce the very features that I am studying and my participants accommodate to that. The very status that permitted me to be able to enter this community might very well have colored my perceptions of the area and its people.

However, the features under question are part of my typical linguistic behavior, and the status as an insider permitted me access to participants and data that would have been unavailable to someone not from the area. In this regard, I would concur with Alim (2004) in that a researcher who has the ability to style shift and share particular features with participants can have a richer data source. Further, since we shared features, the accommodation would most likely be bi-directional (Alim, 2004:69). I have tried, as much as possible, to be as objective as I can, but the possibility of bias nonetheless exists. According to the U.S. Census, the population of Hancock County in 2010 was 6,819¹, and the county seat of Sneedville had a population of 1,387. While the population has remained relatively stable in the two most recent censuses, there was a substantial drop in population from 1940 to 1970, wherein the county lost roughly 40% of its population (see Figure 3.1 below).



Figure 3.1: The population of Hancock County from 1900-2010 drawn from U.S. Census Bureau (2013). This includes the 2013 and 2014 population estimates.

According to Berry (2000), lack of economic opportunity over the past century has resulted in population loss across the entire Appalachian region. Many have relocated within their same state or to other places in the South, typically to nearby counties with larger towns and cities with more opportunities, although a sizable number have moved outside the region to larger metropolitan areas of the South and Midwest.

¹The 2014 estimate (the most recent) shows a potential 2.4% decline to 6,657 for the county.

In Hancock County, this population loss has had many far reaching consequences. Historically, the majority of residents have been native to the county. Over 99% of the population in both the 2000 and 2010 censuses self-reported as having been born in the United States. Two-thirds (75.9% in 2000, 76.6% in 2010) were born in Tennessee (many others apparently were born in nearby Virginia or Kentucky). However, the increase in those born outside of Tennessee also reflects the fact that non-locals, 'outsiders', are moving into the county (see below). Nine out of ten families in both 2000 and 2010 were in the same household the previous year (U.S. Census Bureau, 2013; Tennessee State Government, 2013). Thus, the populace of the county has been relatively static. Most residents have had long standing social networks, both familial and social, with other residents. With such a dramatic population loss from 1940 to 1970, and smaller losses in the decades after 1970, these network ties have been made denser (more connections) and more multiplex (multiple connections to the same people), as most people have many different relationships (familial, educational, religious, etc.) with the same people (Milroy & Milroy, 1985). Naturally, such social networks have fostered a strong sense of community and local attachment, which has undoubtedly also had an impact on the language varieties spoken there. Hancock County residents also comment on recent patterns of in-migration, referring to residents who are not from the region, who have relocated in the area post-retirement, or who have fled more urban areas, as 'outsiders'. Many of these in-migrants were drawn to the area by relatively cheap land and low taxes. This slight influx accounted for the small increase from the 2000 Census to the 2010 Census in Figure 3.1. However, this small increase was subsequently offset by those leaving the county for jobs, education, or other opportunities.

Given the historical lack of in-migration coupled with population loss and outmigration, the recent uptick of in-migration and the resulting social interaction has highlighted both the real and perceived differences between natives and 'outsiders'. Many residents describe a somewhat oppositional orientation toward those from outside the county (see e.g., Montgomery, 1993). Locals view particularly negatively those newcomers who show no desire to 'fit in', and who appear to be condescending toward local mores and practices. However, 'outsiders' who do want to participate in local events, do adhere to local norms and do not condescend are typically accepted by locals, and consequently receive positive comments and acceptance. This recent contact between natives and some 'outsiders' may have intensified local attachment because for so long there was no such contact within the county, and thus local practices and habitus have gone unquestioned and unchallenged and there has been little opportunity for influence from outside the county. This phenomenon further buttresses the importance of local attachment, as ties to and participation in the local community, even for in-migrants, is crucial to complete acceptance.

3.1.2 Race and Ethnicity

The county's racial and ethnic make-up is shown in Table 3.1. Like many Appalachian

2000 Census	2010 Census	Ethnicity
97.9%	97.91%	White/Caucasian
0.50%	0.49%	Black/African
		American
0.40%	0.37%	Hispanic
0.20%	0.24%	Native American
0.10%	0.07%	Asian
0.00%	0.01%	Pacific Islander
0.3%	0.34%	Other
0.90%	0.94%	Two or more races

Table 3.1: Racial make-up of Hancock County, TN in 2000 and 2010 (U.S. Census Bureau, 2013)

counties, the preponderance of those identifying as White/Caucasian has remained steady for most of the history of Hancock County. In the past, there have been more minority residents (related to the fact that there was a greater overall population), but the percentages have remained relatively stable. Thus, we would not expect language varieties associated with non-white populations to have had a significant impact on the varieties spoken in the county. Furthermore, over 99% of all households report using only English (U.S. Census Bureau, 2013), so any influence from foreign languages would be minimal to non-existent.

3.1.3 Gender/Sex

The gender/sex distribution of the county is fairly equitable. Figure 3.2 shows the results from the two most recent census records. In 2000, females were 51.3% of the county's population, and males 48.7%. In 2010, females were 50.7% of the population, and males 49.3%. While the population is fairly gender-balanced, some social



Figure 3.2: The gender/sex distribution of Hancock County from the 2000 and 2010 census records (U.S. Census Bureau, 2013).

differences do exist. For example, more women finish high school (or its equivalent) than men, and the numbers for post-secondary education are roughly equal between

men and women in the county. Yet, the unemployment rate for women is remarkably higher (58.3% for women vs. 29.1% for men in 2010), and the median income for women is lower compared to men (U.S. Census Bureau, 2013; Bureau of Labor Statistics, 2014). Studies such as Trudgill (1972) have suggested that such gender dynamics can have linguistic consequences, as women tend to adhere closer to standard speech norms in order to achieve social status². Thus, gender/sex may have some linguistic consequences within Hancock County.

3.1.4 Age

Like much of the state of Tennessee, the age demographics of the county are currently in flux. In 2010, the median age was 43. This was an increase from 2000, when the median age was 39. The share of the county's population that was over the age of 45 grew, whereas the share that was under the age of 45 fell. Table 3.2 shows this trend in the growth rate, i.e. the change in the number of individuals in a given time period as a percentage of the population. The younger three age ranges had negative growth rates, whereas the older two ranges had positive growth rates. Such a demographic shift could have a lasting impact on the language varieties spoken in the county. Studies such as Jacewicz et al. (2011a,b) have suggested that some features of AE are receding in younger generations, so younger speakers' linguistic behavior may be different from that of older speakers. However, the fact that many younger people are leaving may indicate that those younger speakers who do stay have particularly strong ties to the local area. Thus younger speakers who choose to remain in Hancock County may not be as distinct from older speakers.

²This conclusion has been widely challenged as too essentializing in the literature, and is not as accepted in current thought as in the past. See the discussions in Eckert (1989b), Eckert & McConnell-Ginet (1992), Eckert & McConnell-Ginet (2003), and McElhinny (2003).

Age Range	Percentage in	Percentage in	Growth Rate
	2000	2010	
Under 18	23.1%	21.9%	-4.7%
18-24	8.8%	7.0%	-19.4%
25-44	26.9%	23.8%	-11.2%
45-64	25.5%	30.2%	19.3%
65 and over	15.7%	17.0%	8.7%

Table 3.2: Age Demographics of Hancock County, TN in 2000 and 2010(Tennessee State Government, 2013)

3.1.5 Education

Much like many other rural, relatively impoverished areas, there is relatively low overall educational attainment in Hancock County. The county as a whole falls toward the bottom of the state in educational attainment. In 2000, Hancock County ranked 94th out of 95 counties in the state for the number of high school diplomas (or the equivalent) received; in 2010, the county was ranked 91st. With respect to completion of a Bachelor's degree or higher, the county was 49th in 2000, but fell to 91st in 2010. Such a dramatic drop could be related to the fact that many younger people (those who might seek higher education) are leaving the county, as noted above. Table 3.3 shows the education percentages from the two most recent censuses.

Table 3.3: Percent of Educational Attainment for Hancock County adapted from Tennessee State Government (2013)

Educational	Percentage in 2000	Percentage in 2010
Attainment		
Percent w/ HS (or	55.9%	69.5%
equivalent)		
Percent w/ Bachelor's	10.2%	7.6%
or higher		

One interesting observation regards the percentage of high school (HS) diplomas received according to age group. As can be seen in Figure 3.3, there is a direct correlation between age and educational attainment, with younger residents receiving their high school diplomas at dramatically higher rates than older residents. Furthermore, all age groups showed a dramatic increase in the percentage of high school diplomas received from 2000 to 2010. This type of increase in high school completion coupled with fewer college degrees is happening across the U.S. (Wong, 2016). Wong suggests more people are attempting to go straight to the workforce, bypassing college due to an improving economy. However, such a choice can have adverse effects for long term employment and earnings, as those without a college degree face greater job insecurity as well as typically earn less than those with a degree.

Given the widely known impact of educational attainment on vernacularity, one might expect such changes to have an influence on language behavior as well. More education typically means more exposure to standard language ideologies (Lippi-Green, 1997, 2012), thus we might expect fewer regional linguistic features and perhaps more mainstream features in younger generations.



Figure 3.3: Percent of Educational Attainment in Hancock County by Age Group adapted from U.S. Census Bureau (2013) and Tennessee State Government (2013).

The period between 2000 and 2010 also corresponds to the final stages of school

consolidation in Hancock County (where local neighborhood schools were consolidated to one elementary, one middle, and one high school). Many participants mentioned this phenomenon in their interviews. Before 1960, most of the local areas throughout Hancock County had a local elementary school, sometimes with only a dozen to few dozen students, depending on the population of the individual area, and a few scattered high schools. Furthermore, teachers typically lived in the various areas where they taught or in a nearby neighborhood. Thus, the educational environment, the social networks therein, and even recreational opportunities (e.g., sports or school activities) revolved around the local neighborhood. Many of the older residents in this study spoke about how much the local school³ meant to them, their sense of community, and the sense of localness among their neighbors. However, as time passed and busing improved, many schools consolidated to better serve the students and make more efficient use of county resources. In the 1960s, the county began to consolidate secondary education, eliminating the community high schools first and, over time, community elementary schools as well. Consolidation continued until the final community elementary schools closed in the early 2000s. There is now a single elementary school, a single middle school, and a single high school for the entire county⁴. My school experience took place toward the end of this consolidation $process^5$. When I was in elementary school, there were five elementary schools — one located in Sneedville and four local community/neighborhood schools. The middle school had not been built; thus, grades K-7 were in the elementary schools, and grades 8-12 were in the single high school serving the county⁶. Soon after I graduated, the

³Many participants also mentioned the importance of the local church. There has not been the same loss of local churches, however.

 $^{^4{\}rm The}$ middle and high schools actually occupy a single building with two wings, one for the middle school and the other for the high school.

⁵I graduated from high school in 2000.

 $^{^{6}8^{\}rm th}$ grade students occupied a small wing of the high school, somewhat apart from the other students.

four remaining community schools were closed and converted into community centers.

Many residents have lamented this consolidation. While they recognized the need for improved facilities and better educational opportunity, they spoke of a loss of 'local pride', and 'community', and of other unforeseen negatives that have resulted from the process. Edward, a male participant in his 70s, referring to this loss of localness, stated, 'The pride's left this county, shortly after you graduated. This [younger] generation just doesn't seem to have the same, the same pride'. He pointed specifically to a lack of local schools as one of the reasons for this loss of pride. Thus, for some participants, there is also a generational tension between those with and without pride in their local district⁷ and in Hancock County as a whole. This tension, particularly from older participants, appeared in many anecdotes about school consolidation in Hancock County.

3.1.6 Socioeconomic Status

According to census classifications and statistics, the population of Hancock County is both rural and impoverished. With a median household income of \$22,052 and a per capita income of \$20,079 in 2010, the county ranks lowest in income in the state of Tennessee (Tennessee State Government, 2013). Figure 3.4 shows the income percentages from the past two censuses.

According to the census, 73.9% of the population in 2000 and 64.2% of the population in 2010 made less than \$35,000. The poverty rate is also striking, with a rate of 29.4% in 2000, and 33.8% in 2010.

Like many Appalachian areas, there are myriad reasons for this poverty⁸. The county's unemployment rate is consistently high, and ranks toward the top for TN (Bureau of Labor Statistics, 2014). Local infrastructure is lacking, resulting in very

 $^{^7{\}rm This}$ terminology is how many, if not all, Hancock Countians refer to their local area, i.e., $1^{\rm st}$ district, $7^{\rm th}$ district, etc.

⁸For an overview of Appalachia's struggle for economic development, see Eller (2008).



Figure 3.4: The income distribution of individuals in Hancock County from from the 2000 and 2010 censuses (U.S. Census Bureau, 2013; Tennessee State Government, 2013).

little industrialization and few employment opportunities⁹. The primary local employment opportunities are county and town governance, primary and secondary education, healthcare, and farming. Most people have to travel outside the county for work (and for shopping and leisure). Outside the county, the main employment sectors for Hancock Countians are retail trade and food service/accommodation.

Systemic poverty such as that found in Hancock County (and other subregions of Appalachia) has profound social impacts beyond pure economic hardship. Such poverty tends to preclude the formation of income-based social groupings/castes like those that might occur in areas with greater income distributions. A lack of income-

⁹However, since the 2010 Census, a small manufacturing facility re-opened. While not enough to cause a dramatic shift, there were several dozen jobs created with potential for more.

based groupings, consequently, has implications for research methodology, given that many traditional social stratification studies (e.g., Labov, 1966, 1972a) used income or socio-economic status (SES) measures to define social groups.

In Appalachia, previous attempts (e.g., Hackenberg, 1973, 1975) at using social class have proven less than fully satisfactory, further underlining the illusory nature of class in general. The failure of most attempts is primarily because such metrics quantified class using factors such as income or consumption. Further, such class metrics have been adapted from sociological indices based on urban/suburban environments with very different social milieus than rural communities. For example, in Hackenberg (1973, 1975), attempts to use class metrics (from Hollingshead & Redlich, 1958) in rural West Virginia failed to capture the actual situation that Hackenberg observed; the social capital and community standing/influence that some participants possessed was not captured by measuring income and/or consumption. Thus, he adapted the methodology to include a weighted measure of occupation and education, which functioned better to describe the actual linguistic and social situation present in his study, but with divisions that were somewhat arbitrary.

Hurst (1992) clarifies why class is elusive in rural communities, especially for rural communities like those found in Appalachia. He argues that class/status functions differently in rural Appalachia than in many other places, based more on local traditions and connections, geographic/cultural isolation, differing economy, and popular stigmatization (see Section 2.2 for a review of the stereotypes and stigmas associated with the region). Participation and belonging are much more crucial in rural areas than income or consumption. This occurs with many subcultures and sub-groups within broader cultures, as status 'can be based on 1) lifestyle, 2) extent of empirical/rational formal education, 3) family genealogy, and/or 4) occupation' (Hurst, 1992:54). These factors, rather than traditional sociolinguistic class groupings, are better suited to measure the social capital and social influence that a person possesses. Given the problematic and ephemeral nature of such measures, Greene (2010) decided not to include class in any fashion in her study of an Appalachian community in eastern Kentucky, due to the problematic and ephemeral nature of any such measure. Rather, she used educational achievement as a proxy, which functioned relatively well as she found that younger, more educated women had slightly lower rates of monophthongization in her cohort. However, she did note the strong influence of local identity on /ai/ monophthongization. Incorporating local identity into any linguistic description in Appalachia thus is crucial, as it better reflects the social capital that an individual has in a rural community.

With these considerations in mind, I chose to stratify my participants using a 'rootedness' metric (defined by factors such as lifestyle, family ties, and levels of local participation) as an alternative to traditional class structure. This personal identity measure seemed to capture better the social capital that individuals possess in a rural community such as Hancock County (see Section 3.2.5 for a full explanation).

3.2 DATA COLLECTION

The data collection involved two processes — sociolinguistic/oral history interviews and distribution of the rootedness metric. I conducted interviews in Hancock County from January through March of 2014. I visited four times, staying a total of four weeks in the area. I collected 12 interviews my first trip, 8 interviews the second. Each of these first trips was roughly 10 days each. The last two trips were shorter, over long weekends. I collected 3 interviews the third trip, and completed the interviewing with 2 more my final trip in March. Each interview was conducted in a quiet area of the participant's home or workplace. For the rootedness metric, I returned in the late summer/early fall (August-September) of 2014. Over the course of two week-long trips, I followed up with all participants, completing 13 rootedness metrics the first trip and 12 the second. The speakers for this study were drawn from a judgment sample, in which I, as the researcher, solicited individuals who seemed to be characteristic of the community to participate (cf., Milroy, 1987). My goal was to recruit a gender-balanced pool of participants that represented a wide age range, and that included persons with college degrees and without.

I used a combination of methods to recruit participants. As a native of the local area, I initiated contact with my initial participants through social media or by telephone contact. I asked these early participants if they might know other people who would be willing to participate. My participants provided names of potential persons, all of whom I knew in some capacity, many of whom I then contacted¹⁰. I continued until I felt I had a balanced sample that seemed characteristic of the area. Participants were told that the research project was about the history, language, and culture of Hancock County, and that I was interested in interviewing and recording speakers who were native to the county. As an incentive, I informed all participants that I would provide them with a copy of the recording and transcript (if they so desired), since I would be asking them to recall family stories and histories over the course of the interview. The shared social background and personal relationships helped to establish an open and friendly conversational environment and context, which seemed to set all participants at ease.

3.2.1 Participants

Twenty-five participants were recorded for analysis. Twenty-one of the participants were recorded in one-on-one interviews, while there were two sessions with pairs of interviewees. The resulting sample included participants stratified by gender, age, and educational level. A full list of the participants, referred to by pseudonyms to

 $^{^{10}{\}rm I}$ did not contact every single recommended person. Rather, I selectively contacted those that fit my established criteria.

protect their identities, as well as demographic data for each participant can be found in Table 3.4 below.

Name	Age	Gender/Sex	Education	Occupation
Haley	27	F	Bachelor's	Teacher
Charlotte	32	F	Associate's	Healthcare assistant
Rachel	35	F	Technical	Law Enforcement
Misty	37	F	Master's	Teacher
Juanita	50	F	PhD	Teacher
Tonya	53	F	Associate's	County administrator
Naomi	56	F	Master's	Teacher
Faith	65	F	Bachelor's	Teacher
Trish	68	F	Bachelor's	Retired teacher
Martha	73	F	High School	Retired business owner
Alice	77	F	Technical	Retired business owner
Opal	89	F	Bachelor's	Retired teacher
Katherine	94	F	High School	Retired factory worker
Joey	29	М	Bachelor's	Teacher
Brian	30	М	Master's	Business professional
Tyler	35	М	Bachelor's	Government service
Nathan	40	М	Technical	Business owner
Terry	43	М	Bachelor's	Plant manager
Jasper	63	М	Bachelor's	Retired company worker
Edward	70	М	Bachelor's	Retired county official
Danny	66	М	High School	County administration
James	69	М	Technical	Retired company worker
Coleman	76	М	High School	Retired business owner
Hugh	84	М	High School	Retired business owner
John	92	М	High School	Retired construction worker

Table 3.4: Participants from Hancock County

Not surprisingly, given the demographic trends described in Section 3.1.5 above, age was inversely correlated with educational attainment in my sample. In fact, given the overall lower rates of educational attainment of the older residents in the community, the fact that *all* of the participants in my study had at least a high school diploma is actually slightly an over-sampling with respect to education. With this inverse correlation, teasing apart the independent effects of age and educational attainment will be more challenging. However, there are 2 speakers over the age of 65, Opal (89) and Edward (70), who have college degrees who can serve as case studies, thus providing some inroads into understanding the relative importance of both education and age for this particular population.

3.2.2 Interviews

As a first step in collecting data for analysis, I conducted sociolinguistic interviews — semi-structured interviews designed to cover a variety of topics, while permitting researchers to potentially access a range of conversational styles (Labov, 1972a; Tagliamonte, 2006). For my research purposes, this particular method has several benefits. First, large amounts of data can be gathered in a relatively short amount of time, particularly phonetic variables like those under investigation in the present study. Second, the interview provides similar types of data from each participant. The interviews typically comprise several question sets and tasks ('modules'), which provide a means of guiding the content within the interview. Third, interviews provide flexibility. Even though the same question sets are utilized, each participant's individual responses can vary. Finally, as the interview progresses, the last modules employ reading passages and word lists, which allow further control of data, but crucially, focuses the participant's attention on his/her own speech, with the goal of eliciting more formal styles of speaking.

Traditionally, the sociolinguistic interview makes a distinction between Context A, opportunities for casual speech over the course of the formal interview, e.g., talking to a third party, danger of death, speech outside the interview, and Context B, speech in response to the interview questions themselves (Labov, 1966). However, in the present study, this distinction did not seem necessary. Since all the participants knew me in some capacity before the interview session, the tone and structure of the interview was relaxed and relatively informal throughout, which provided a contrast with the reading passages and word list which were intended to elicit more formal styles.

Because I am a member of this community and maintain long-standing personal relationships with many of the participants, I tailored the first interview questions after those used in *Roswell Voices*, a project focused on life, culture, and personal histories of long-time residents and their descendants in Roswell, GA (Kretzschmar et al., 2004, 2006). The interviews were more akin to oral history projects than traditional sociolinguistic interviews, but retained elements of Labovian style interviews such as reading tasks and word lists. This technique helped me to determine what social factors and groupings were locally relevant, in addition to allowing participants to play a more active role in the focus and scope of the interviews themselves. Reed & Montgomery (2013) outline how oral history-type interviews, especially when the researcher and participant know one another, can be rich data sources for language studies. The main benefit is that the participant and the researcher share the principal goal of the questioning — to determine what life is/was like and the personal connection the participant has with the area. Further, both researcher and participant consider that the interview would ultimately contribute to a record of the local area, not merely serve as a means of collecting data for analysis. The basic questionnaire provided in Appendix B, was, thus, used as a guide for the purpose of continuity across interviews, but was also supplemented by other questions that arose naturally over the course of the interview, relating to the participants' personal and family histories. Since one of the foci of the present study is the importance of rootedness, one module focused primarily on the local area and participants' feelings toward it, which provided a qualitative perspective on rootedness, (henceforth the 'identity module'). Following what Wolfram & Schilling-Estes (2006) call the 'Principle of Linguistic Gratuity' (296), I then offered each participant a transcription and recording of the interview, both as an incentive for participation, as well as a way of giving back to the community, by securing a more permanent medium for the memories of the participants.

Each interview took place in a quiet room in the participant's home or workplace. Interviews lasted roughly 45-90 minutes each, depending on how long the participant wanted to talk. Each was recorded on a Tascam DR-40 digital recorder with either an Audio-Technica BP896 omnidirectional condenser lavalier microphone or a Shure MX183 omnidirectional condenser lavalier microphone¹¹. The interviews were saved as .WAV files sampled at 44kHz for later acoustic analysis. The interviews were then orthographically transcribed and force-aligned (with hand correction) using the FAVE suite Rosenfelder et al. (2014).

3.2.3 Reading Passage and Word List

In order to elicit more formal styles of speaking for the purpose of observing style shifting for the variables in question, I then presented the participants with reading passages and word lists toward the end of the interviews (see Appendices C and D). The purpose of the reading tasks was to increase the perceived formality of the task (Labov, 1972a) to determine how the features, which differed in relative salience, shifted across styles. The reading passage contained potential tokens of /ai/ monophthongization in different linguistic contexts and in different locations in a sentence. There were also several types of sentences, with different levels of focus, to attempt to elicit different intonational patterns. The word list contained pairs of words with differences in final consonant voicing, and distractors. In addition to increasing the perceived formality of the task, the use of word lists helped control for linguistic context and helped balance token counts for /ai/, which allowed for direct comparison of individual tokens and facilitated statistical analysis. All of my participants completed the reading tasks, except for my two eldest speakers, for whom limited eyesight made reading a challenge.

¹¹An equipment malfunction during one trip necessitated using a backup.

The two reading tasks functioned quite well for testing effects of style and salience for /ai/ monophthongization. However, the intonation of the read data, in both the distribution of pitch accents and overall intonational phrasing, sounded quite different from the more spontaneous interview data. I thus decided to not utilize the reading data in my analysis of the rising pitch accents.

3.2.4 Comparison with Southern English from Warren County

To understand the extent to which the use and realization of relatively frequent rising pitch accents are a characteristic of Appalachian English, I decided to test whether the relative frequency of rising pitch accents and their phonetic realization of my speakers in Hancock County were distinct from SAE speakers from a different area of the South. For this comparison, I utilized data from Hazen (1997), a study of Warren County, a rural community in north eastern North Carolina. The two communities are roughly similar: relatively small, rural, and somewhat impoverished, both located in the Southern United States. However, Hancock County is in Appalachia while Warren County is not. This fact permits a comparison between two related varieties. Note that I am only using data from the European American participants from Warren County. Chapter 5 has further description of the Warren County speakers, data, and methodology.

3.2.5 Rootedness Survey

To arrive at a measure of local identity, i.e. rootedness, I used a two-part technique. Using my insider understanding of the community, during the interview portion of the session(s), I posed three questions designed to capture how each participant felt about the local county (the first three questions from the identity module), roughly following the methodology employed by Haddican et al. (2013) in Northern England. These questions elicited responses about personal identity toward the local area, what part (if any) of the local area he/she considered most dear, and what made that place (if any) more special than others. For these questions, a positive response was scored +1, a neutral response was scored 0, and an overtly negative response was -1. Thus, from the identity module of the interview, scores could range from +3 to -3. These scores were combined with the results of the Rootedness Metric (RM), described below.

I designed a Rootedness Metric survey (see Appendix E) to measure local placebased attachment, which reflected the participants' affinity toward the local community and the strength of ties within the local community. Quantifying rootedness allowed for a measurable view of how localized attachment was (i.e. local community, county, East Tennessee, Appalachia as a whole), and crucially, how one speaker's rootedness compared to another.

I adapted the RM from a place and community attachment measure from Williams & Vaske (2003) and Williams (2004). Many of the questions in William's survey were related to how a person felt about a local park or wilderness area. Using locally relevant terminology that had meaning within Hancock County, I adapted these questions below to address participants' feelings about the local area. The metric (shown in Appendix E) asked eleven questions from seven categories: willingness to relocate, travel habits, where a participant claimed to be from (both locally and when traveling), family history, areal identification (from local community to the South as a whole), participation in local events (e.g., the local Fall Festival and other community gatherings and special events), and self-reported local identity. Other questions were explored (i.e., following the fortunes of the University of Tennessee athletic teams or following country music), but these questions did not prove to be of any significant value in characterizing speakers. Each category was quantified using the scoring system shown in Figure 3.5.

As shown above, the RM favored locally relevant terminology and other responses

- 1. Willingness to Relocate
 - a) Yes 0
 - b) No +2
- 2. Travel Habits
 - a) Frequent 0
 - b) Rare +1
- 3. Where a participant says they're from
 - a) Locally
 - i. 'Overhome' +3
 - ii. Local Area within Hancock County +2
 - iii. Hancock County +1
 - iv. Other response 0
 - b) When traveling
 - i. Local Area within Hancock County +4
 - ii. Hancock County +3
 - iii. Upper/North East TN +2
 - iv. East Tennessee +1
 - v. Other 0
- 4. Family History
 - a) Family Living in Hancock Countyi. 5 or more members +2
- ii. 2-4 members +1iii. Less than 2 members 0 b) Generations in Hancock County i. 5 or more +2ii. 2-4 +1 iii. Less than $2 \ 0$ 5. Areal Identification a) Local area within Hancock County +5b) Hancock County +4c) Upper/Northeast Tennessee +3d) East Tennessee +2e) Tennessee +1f) The South +1g) The Mountains +16. Participation in Local Events a) Participation +1b) No participation 0 7. Identification to Hancock County a) Closely Tied +3b) Somewhat Tied +1
 - c) Not Tied 0

Figure 3.5: The scoring system for the rootedness metric.

that reflected a local, place-based orientation. For example, in 3(a), participants who produced the term 'overhome' to describe where they were from when traveling to nearby cities and towns received a higher score than those who referred to their local community, to Hancock County, or to some broader classification. 'Overhome' is usually a term of strong endearment¹², and is widely understood to refer to traveling to Hancock County or communities within the county, as to get there from any direction requires traversing a mountain, i.e. you must go over to get home. Further, in section 5 of the RM, I distinguished between Northeast Tennessee¹³ and East Tennessee as labels for areal identification, given the tendency for some residents to associate themselves with the upper region of East Tennessee, and to disassociate themselves from lower or southern East Tennessee¹⁴.

In a subsequent session a few months after the initial interview, I revisited each participant in order to administer the RM. The interval permitted an independence of the two sessions, helping to limit any influence from one session on the other. I had printed copies for each participant, and I also asked each question aloud. I recorded these subsequent sessions to ensure that any oral responses were captured in addition to their written choices or responses to the rootedness survey. Table 3.5 summarizes the rootedness scores of the participants in my study. This score represents the sum of responses from the RM and the responses from the interviews (see above for scoring). These scores were incorporated into statistical modeling and analysis for the relative impact on both linguistic features under question.

The highest possible rootedness score was 38, while the lowest possible score was -3 (if a speaker were to have all negative responses to the interview questions). We can see some trends based on the distribution of rootedness scores. The highest actual

 $^{^{12}\}mathrm{The}$ use of this term may also reflect the participants' level of comfort with me and/or the interview setting.

 $^{^{13}\}mathrm{Some}$ Hancock Countians use Upper East Tennessee for the same reason.

 $^{^{14}}$ See the discussion of the importance of place in East Tennessee in Chapter 1.

Name	Age	Gender/Sex	Rootedness Score
Haley	27	F	18
Charlotte	32	F	20
Naomi	56	F	23
Faith	65	F	23
Juanita	50	F	27
Alice	77	F	28
Martha	73	F	29
Opal	89	F	29
Trish	68	F	29
Tonya	53	F	29
Katherine	94	F	30
Misty	37	F	31
Rachel	35	F	31
Tyler	35	М	19
Brian	30	М	20
James	69	М	23
Terry	43	М	23
Joey	29	М	25
Nathan	40	М	26
Coleman	76	М	29
Hugh	84	М	29
John	92	М	29
Danny	66	М	30
Jasper	63	М	30
Edward	70	М	31

Table 3.5: Participants from Hancock County

score was 31, from three participants (Edward, Misty, and Rachel). The lowest actual score was 18, from Haley. The average rootedness score was 25.95 and the median rootedness score was 28; thus, in the aggregate, participants seemed to be fairly rooted to Hancock County. The average rootedness score for female speakers was 26.15 and the median was 29, whereas the average rootedness score for males was 25.74 and the median was 26. Thus, in the aggregate, females were slightly more rooted than males. The range of scores was 13 (18 to 31) for females and 12 (19 to 31) for males. Age and rootedness have a fairly strong positive correlation (r=.62), meaning that older speakers tend to have higher rootedness scores. This correlation is understandable, as older participants have chosen to stay in the county, which could be attributed to a somewhat stronger local attachment. Figure 3.6 shows this graphically, with a line of best fit showing the relationship between age and rootedness.



Figure 3.6: Scatter plot showing the relationship between age and rootedness. Superimposed line shows the line of best fit.

Looking at the responses to the questions of the RM, we see several trends, displayed in Table 3.6.

Of the 25 participants, 12 chose their local community as the area they most identified with, whereas 11 chose Hancock County. For the second area they identify with, 13 chose Hancock County and 10 chose their local community. Hancock County was not selected lower than third for areal identification, and local community was not lower than fourth. These trends support the observation that, overall, this group is fairly rooted to the community. For the other choices, we see a much broader range of responses regarding personal identification. 'The mountains' ranged from first to

Area	First Place	Second Place	Third Place	Range
Local community ^{\dagger}	12	10	2	1-4
Hancock County	11	13	2	1-3
North/Upper East Tennessee	-	-	4	3-7
East Tennessee	-	-	10	3-6
Tennessee	-	1	4	2-7
The South	-	-	1	3-7
The Mountains	2	1	3	1-7

Table 3.6: Top Three Areal Identification Choices and Range for All Participantsfrom Hancock County

 † This response refers to the local neighborhood or local district within Hancock County.

last, and Tennessee ranged from second to last. East Tennessee, the most popular third place selection, ranged from third to sixth. Both North/Upper East Tennessee and The South ranged from third to last place. Thus, it is in this third place selection with respect to areal identification where we start to see the distinction between those more rooted and less rooted speakers. More rooted speakers chose North/Upper East Tennessee or East Tennessee, whereas less rooted speakers made other choices.

Given that rootedness score and age are correlated, a more detailed look at the responses based on age to the rootedness metric seemed warranted. Since the median age is 63, I compared the responses for speakers 63 years of age and older (3.7) with the scores of those younger than 63 (3.8).

Table 3.7: Top Three Areal Identification Choices and Range for Older Participantsfrom Hancock County

Area	First Place	Second Place	Third Place	Range
Local community [†]	8	4	1	1-3
Hancock County	4	8	1	1-3
North/Upper East Tennessee	-	-	4	3-6
East Tennessee	-	-	4	3-6
Tennessee	-	-	4	3-7
The South	-	-	1	3-7
The Mountains	1	1	1	1-7

[†] This response refers to the local neighborhood or local district within Hancock County.

Of the 13 older speakers, 8 chose the local community as the area they most identified with, while 4 chose Hancock County. For the second ranked choice, 8 speakers chose Hancock County and 4 ranked their local community as the second area they most identified with. East Tennessee and Tennessee tied for the third area most identified with for older speakers. Similar to the cohort as a whole, Hancock County was not selected lower than third for areal identification, and local community was not lower than third either. These trends indicate that, overall, this group is fairly rooted to both the local community in particular and also to Hancock County as a whole. Tennessee, East Tennessee and North/Upper East Tennessee tied for the most popular third place selection. In contrast, results from the 12 speakers younger than 63 revealed slightly different trends.

 Table 3.8: Top Three Areal Identification Choices and Range for Younger Participants from Hancock County

Area	First Place	Second Place	Third Place	Range
Local community [†]	4	6	1	1-4
Hancock County	7	5	-	1-2
North/Upper East Tennessee	-	-	3	3-7
East Tennessee	-	-	6	3-5
Tennessee	-	1	-	2-6
The South	-	-	-	4-7
The Mountains	1	-	2	1-6

[†] This response refers to the local neighborhood or local district within Hancock County.

Of the 12 younger speakers, 7 chose Hancock County as the area they most identify with, while 4 chose the local community. For the second ranked area, 6 chose the local area, while 5 chose Hancock County. Note that Hancock County was first or second for every one of the younger speakers, and the local community was ranked second by half of them. This slightly different trend in ranking from that of the older cohort may explain why some older speakers complained that younger speakers do not have the same local pride. Younger speakers seem to be more strongly identified with Hancock County as a whole, rather than the local community (the various neighborhoods and districts within the county).

3.3 Acoustic Analysis

Since this is a sociophonetic dissertation, there is a slight tension between traditional sociolinguistic methods and traditional phonetic methods. The goal of most traditional sociolinguistic methodology is to have the most natural and/or vernacular speech possible, with a strong preference for spontaneous speech in relaxed settings. In contrast, traditional phonetic methodology has as its goal the most replicable experimental environment possible, with controls in place for linguistic context, ambient environment context, etc.; thus, the focus is on controlled speech collected in a laboratory setting. I attempted to strike a balance between the two, collecting data from spontaneous conversation (described above) while exerting the most control possible over the collection of data. I attempted, when possible, only to record in quiet areas of participants' homes or workplaces, preferring carpeted rooms. I also closed curtains and drapes when applicable, to reduce outside noise and possible reverberations/echoes. I attempted to record away from noise generating appliances (e.g., air conditioners, refrigerators, fans). However, I had to relax this constraint for one of my older participants, who used an oxygen machine. I did, however, attempt to mitigate the possible effects (e.g., facing away from the machine, placing the machine behind furniture)¹⁵. These efforts helped to control the natural variability in recording contexts. All acoustic measurements were conducted using Praat (Boersma & Weenink, 2014), with appropriate scripts for automatic measurement and extraction.

 $^{^{15}\}mathrm{Upon}$ examination of the recording and spectrogram, there did not appear to be any interference from the machine.

3.3.1 Monophthongization Measures

I used Euclidean distance¹⁶ (EuD) to quantify monophthongization (Thomas, 2011:313). This technique measures the distance between two points in space. When applied to speech, it reflects the relative closeness in F1/F2 space of two vowels or the closeness of the nucleus and glide for an individual vowel token for a speaker. For this study, I measured the EuD between the onset (20% of the vowel's duration) and glide (80% of the vowel's duration) of /ai/ tokens. A small EuD means that the two vowel qualities are located close together in the vowel space; thus, the onset and glide have a similar vowel quality, and would be considered more monophthongal, as monophthongs maintain a more constant vowel quality (the relationship between F1 and F2) throughout the articulation. A large EuD would indicate that there is a greater difference in the vowel targets, and thus the token would be considered more diphthongal, as diphthongs are complex vowel sounds with a change in the relationship of F1 and F2 during the vowel's articulation.

A benefit of EuD is that it is a type of normalization. It is based on the distance between two points relative to each speaker's vowel space, rather than the actual frequency values themselves. However, to ensure the most normalized vowel space possible, prior to calculating the EuD, I performed a Lobanov normalization (see Nearey, 1977) and re-scaled the measures using the FAVE suite (Rosenfelder et al., 2014). The re-scaling returns a Hertz-like measure. Lobanov normalization removed the interference from comparing speakers of different vocal tract lengths and head sizes (e.g., males vs. females) while maintaining sociolinguistic differences. Additionally, since the EuD measures each token's distance relative to the speaker's own vowel space, there is another layer of normalization to insure comparability. Thus, the EuDs of groups of different speakers can be compared, and correlations with social factors

¹⁶The formula for Euclidean distance is: $\sqrt{(F1_{onset} - F1_{glide})^2 + (F2_{onset} - F2_{glide})^2}$

are possible.

To measure the EuD, I first extracted all possible tokens of /ai/. Then, using the LPC function in Praat (Boersma & Weenink, 2014) and between 6 and 12 LPC coefficients as appropriate for each individual token, I measured the first and second formants at 20% and 80% of the duration of the vowel. This method helped to reduce any coarticulatory interference from surrounding segments, which could affect measurement values. Using these measurement values, I determined the EuD between the onset (the first measurement at 20% of the duration) and the glide (the last measurement at 80% of the duration).

I also measured each vocalic token's overall duration. For a measure like EuD, if there are two distinct vowel targets (i.e. a true diphthong), then a longer duration would mean that the articulators have more time to move and to potentially reach those targets. Thus, the EuD would be greater and the token would be more diphthongal with more movement.

3.3.2 Intonation Measures

In order to study intonation, a combination of methods is required. To count the frequency of pitch accents, Tones and Break Indices, (ToBI), an intonational transcription method described in Beckman & Elam (1997) and elaborated in Beckman et al. (2005), is quite common. This method requires several stages. First, a researcher must label and transcribe speech following certain conventions. In a ToBI transcript, there are several transcription tiers. The first tier, the tonal tier, marks all pitch accents and boundary tones where they occur in the speech signal. The next tier is the break index tier, denoting the level of juncture in each utterance of the speech stream. The orthographic tier is a typical orthographic transcription of the utterances of the speech signal. The final tier, which is optional but often very useful, is a notes/miscellaneous tier. This is where the transcriber can note disfluencies or

non-linguistic sounds (laughing, etc.). To determine the frequency of pitch accents, a researcher totals the occurrence of each type of pitch accent from the first tonal tier. Greene (2006), Arvaniti & Garding (2007), Ladd et al. (2009), and Clopper & Smiljanic (2011) used variations of this ToBI methodology to analyze regional variation in intonation, thus demonstrating that this method is flexible and useful¹⁷. In particular, Greene (2006) found that the rising pitch (L+H^{*}) was much more frequent in data from Eastern Kentucky. A pilot study for my dissertation (Reed, 2014b,c) corroborated this finding in East Tennessee.

In order to investigate the phonetic realization of pitch accents, there are two methods required. First, a researcher must determine where the pitch accent is anchored in the syllable. To do this, one must first locate the pitch accent under question, and then measure the highest pitch point in the stressed syllable (as measured from the onset of the stressed vowel). This measure demonstrates where the pitch accent is anchored in the syllable, which can be called peak delay, peak alignment, or pitch accent onset (PA-On in Ladd et al. (2009)). If the anchoring is early in the vowel, the PA-On is smaller; later in the vowel means a larger PA-On. Ladd et al. (2009) found that this difference in peak alignment differentiated Standard Scottish English from Southern British English varieties. Reed (2014b) suggested that the anchoring of pitch might correlate with Appalachian rootedness.

The second stage of analyzing the phonetic realization of pitch involves measuring the pitch excursion, which is the magnitude of the change of F0 over the course of the pitch accent. Thus, a researcher measures how much the F0 changes in the realization of the pitch accent from the lowest F0 point to the highest F0 within the syllable. To adequately determine whether PA-On is truly distinct, excursion is crucial. The time involved for a large change in pitch (a greater excursion) would theoretically be

¹⁷A slightly different, yet related methodology, Intonational Variation in English (IViE) was used in Grabe et al. (2000) and Grabe (2004), both of which found variation in intonation in the English of the British Isles.

greater than that for a small excursion (the articulators need more time to make a large change). If a difference in PA-On exists, by measuring both the PA-On and the excursion, a researcher can determine if the excursion was the driving force in the difference in the change in peak alignment.

In the present study, I used the autocorrelation tracker in Praat (Boersma & Weenink, 2014) to track the changes in pitch. I varied the maximum and minimum pitch values as appropriate for each speaker. If a token was unable to be adequately tracked (e.g., creaky), I did not include it in analysis. I first labeled approximately 5 minutes of speech from the middle portion from each interview following ToBI conventions. Subsequently, I re-did the labeling a second time. This repetition allowed me to check the accuracy of my transcriptions. I then counted the frequency of each pitch accents' occurrence. For L+H* pitch accents, I also measured the PA-On and the excursion, following the methodology described above.

CHAPTER 4

/ai/ Monophthongization

This chapter reports on the results of the linguistic and social distribution of /ai/ monophthongization for my participants from Hancock County. I first examined how the voicing of the following segment impacted /ai/. The following environment has been considered the primary difference in the monophthongization patterns of Appalachia from that of many parts of the broader South (e.g., Hall, 1942; Pederson et al., 1986-93; Thomas, 2001; Labov et al., 2006), as noted in Section 2.4. Further, I evaluated what impact traditional social factors such as age, gender, education, and attention-to-speech had on the phonetic realization of /ai/. All of these have been considered to condition the phonetic realization of /ai/ (e.g., Bernstein, 2006). Some researchers have suggested that monophthongization of /ai/ may be an Appalachian identity marker (e.g., Greene, 2010). To test this idea, I evaluated how rootedness, a measure of place-based attachment, correlated with the phonetic realization of /ai/.

4.1 Methods

I extracted and analyzed over 3,000 total stressed tokens of /ai/ from the conversational, reading passage, and word list sections of the interview. Because participants were sometimes nervous at the beginning of the interview and the goal was to observe a relatively relaxed style of speaking, I excluded from analysis tokens from the first five minutes of the interview (cf. Miller, 2008:660). After this point, most participants appeared to become much more comfortable. To ensure that all tokens were not phonetically reduced, no tokens shorter than 70 milliseconds were included. Thus, this study excluded phonetically reduced or unstressed syllables. I measured 25 pre-voiced¹ /ai/ tokens and 25 pre-voiceless tokens from each participant from the interview. Pre-voiced tokens were far more common in my data than pre-voiceless. I chose to count only 25 of each because the speaker with the fewest number of pre-voiceless tokens in the interview only had 25 tokens. I used no single lexical item more than five times when possible, to avoid any lexical effects. The reading passage² included 23 pre-voiced tokens and 11 pre-voiceless tokens and the word list contained 20 pre-voiced and 19 pre-voiceless tokens. The reading passage and word list overall token count varied slightly per participant, due to repetitions, mispro-nunciations, and slight differences in reading (e.g., skipped words, interjections and small additions). However, for the analysis I only included full pronunciations or the most complete pronunciation of repetitions to maintain comparability and keep token counts balanced.

	Pre-voiced	Pre-voiceless	Total
Conversation	25	25	50
Reading	23	11	34
Passage			
Word List	20	19	39
Total	68	55	123

Table 4.1: Distribution of /ai/ tokens across Interview Tasks per Speaker

As discussed in Section 3.3.1, I used Euclidean Distance (EuD) measure to analyze the degree of monophthongization of the /ai/ tokens. Each token was measured using a combination of the FAVE suite (Rosenfelder et al., 2014) and the Praat acoustic analysis software (Boersma & Weenink, 2014). I measured the first and second formants (F1 and F2) at 20% and 80% of the vowel's duration. These Hertz (Hz)

¹This number included tokens from open syllables, as they patterned together in my data, consistent with findings from other researchers (e.g., Anderson, 2003; Thomas, 2003; Greene, 2010)

 $^{^{2}}$ I was unable to collect reading material from two participants, as they were uncomfortable with reading, so I balanced the token counts with additional data from the conversational section.

measures were subsequently normalized using the Lobanov vowel normalization procedure (Nearey, 1977) as part of the FAVE suite (Rosenfelder et al., 2014). All vowel plots were created using the vowels package (Kendall & Thomas, 2014) implemented using the R statistical program (R Core Team, 2015). From these normalized formant measurements, I calculated the Euclidean distance (EuD) (see Section 2.4 for elaboration). All other plotting presented in this chapter was done using ggplot2 (Wickham, 2009).

4.2 Overall Distribution

As discussed in both Chapters 1 and 2, monophthongization is a relatively prominent feature in Appalachian English. As can be seen in Figure 4.1, the overall vowel system of my participants, with vowel data from all styles, exhibits many features of the Southern Shift, including /ai/ monophthongization (e.g., Labov et al., 1972 and Labov et al., 2006).

The back vowels exhibit fronting. There is movement of /ae/, indicative of possible breaking (i.e., the Southern drawl). And the high front vowels are close in F1/F2 space and almost overlap. More importantly for the present study, /ai/ shows very little glide movement, and the little overall movement is more centering in nature, rather than fronting. In the aggregate here, the vowel system would presumably be described as more monophthongal in nature. There is relatively clear evidence of some of the features of the Southern Shift.


Figure 4.1: Normalized and scaled mean vowel formant values for all speakers.

As discussed in Section 2.4, Appalachian English tends to be different from most other Southern varieties in that monophthongization frequently occurs in both prevoiced and pre-voiceless contexts. In my participant cohort, in the aggregate, this finding appears to be supported. Figures 4.2 and 4.3 shows the overall vowel system in pre-voiced and pre-voiceless contexts, respectively. While there is some movement of /ai/ within the vowel space in both contexts, this would best be described as very weak or very short glides. In particular, for the pre-voiced monophthongs, the movement is centering in nature. For the pre-voiceless, the movement is more akin to typical diphthongal direction, but the glide is still somewhat short. Neither context shows a true diphthongal realization, where the glide moves toward the location in F1/F2 space of /I/ or /i/



Figure 4.2: Vowel system for all speakers in pre-voiced contexts.



Figure 4.3: Vowel system for all speakers in pre-voiceless contexts.

Focusing on the /ai/ tokens only, Figure 4.4 shows the distribution of the EuD for the Hancock County participants. This boxplot shows the distribution of EuD, where the lower 'whisker' shows the minimum, the 'box' shows the range from the first to the third quartiles, the dark line indicates the median, the upper 'whisker' extends to 1.5 times the inter-quartile range. The dots display those measures that extend beyond 1.5 times the inter-quartile range, i.e., outliers. The majority of the



Figure 4.4: Boxplot showing the Euclidean Distance distribution for the Hancock County speakers.

EuDs for these speakers is quite small, as the minimum is 0 and the majority of the data (the box itself) shows little movement. However, there is great spread within the data as well, since the upper quartile (the top whisker) extends to roughly 700, and there are many outliers.

In the aggregate, the speakers in this cohort have very small EuDs. This suggests that overall, /ai/ tends to be more monophthongal in its realization. However, the

spread of the data and significant number of outliers also points to much variation among the Hancock County speakers. A more detailed analysis of the influence of both linguistic and social factors might help to better explain this observed variation.

In order to understand the EuD patterning across speakers and linguistic context, I generated a mixed effects linear regression model with EuD as the dependent variable, using R (R Core Team, 2015) and *lme4* (Bates et al., 2015). To observing linguistic conditioning, log-transformed duration of the vowel (a continuous measure) and voicing of the following segment (a categorical variable — voiced or voiceless) were included as fixed independent effects within the model. To observe social conditioning, gender (a categorical variable — male or female), age (a continuous measure)³, education (a categorical variable — college or noncollege), interview task (a categorical variable — conversation, reading passage, and word list), and rootedness (a continuous measure) were all included as fixed independent effects. Individual speaker and word were included as random independent effects. All two-way interactions were also included.

Visual inspection of residual plots did not reveal any obvious deviations from homoscedasticity or normality⁴. Since p-values for mixed effects models are notoriously difficult to adequately compute and some scholars caution against using p at all (see Johansson, 2010), other methods are needed to evaluate a factor's impact. One such method which does provide p-values is a Likelihood Ratio Test. Basically, this is a type of model comparison where one model is constructed with the factor of interest included and a separate model without the factor, and then a Likelihood Ratio test is performed (basically a χ -squared test on the two models). I ran separate models

 $^{^{3}}$ I use age as a continuous variable to avoid having to chose somewhat arbitrary divisions of old/middle/young etc. Mixed models allow for many continuous variables, thus permitting age to vary.

⁴These terms refer to the underlying assumptions of linear models. Normally distributed residuals and no deviations from homoscedasticity simply means this data can be modeled appropriately under the assumptions of mixed effects models.

with the effect in question against models without the effect in question for all effects and their interactions. I then compared the fit of both models with Likelihood Ratio testing to obtain p-values.

Table 4.2 shows all the significant main effects and interactions from the Likelihood Ratio testing. In Table 4.2, note that the EuDs were significantly longer in

Effect	p-value	Result for EuD
Voice: Voiceless	0.001379	Longer EuD
Task: Word List	2.2e-16	Shorter EuD
Gender: Male \times	0.0001931	Shorter EuD
Task: Word List		
Task:Word List \times	0.000779	Longer EuD
Log Duration		
Task: Reading \times	0.006548	Shorter EuD
Voice: Voiceless		
Rootedness \times Voice:	0.02371	Shorter EuD
Voiceless		
Rootedness \times Task:	4.292e-05	Shorter EuD
Word List		

 Table 4.2:
 Summary of significant effects from mixed effects linear regression

the pre-voiceless condition and in the word list \times log duration interaction. For the other significant conditions and interactions, the EuDs were shorter. In the following sections, I explore each of these significant effects in turn.

4.3 LINGUISTIC DISTRIBUTION

As noted above, the voicing of the following segment was found to have a significant effect on the EuD of /ai/. Specifically, tokens of /ai/ followed by voiceless consonants had a longer EuD, yielding more diphthongal realizations. This result is somewhat surprising for a variety of Appalachian English, as the variety is typically described as completely monophthongal (e.g., Hall, 1942; Wolfram & Christian, 1976; Greene, 2010). However, pre-voiceless monophthongization is the more marked and more stigmatized environment (cf. Bernstein, 2006). So this finding is consistent with previous literature on monophthongization, though it deviates somewhat from previous findings in Appalachia. However, much previous work used perceptual categories (i.e., monophthong or diphthong); in contrast, the present study used instrumental analysis of EuD, a more objective measure, rather than perceptual categorization. Thus, previous work in Appalachia probably categorized some short glides as perceptual monophthongs. To display this result visually, Figure 4.5 shows EuD split by voicing of the following segment, where the pre-voiceless median (the black line) is higher than that of the pre-voiced median. While these measures are quite similar, the voiceless context has a larger spread of measures, which means that speakers are more variable in pre-voiceless contexts, with some having much longer EuDs than others.



Figure 4.5: Euclidean distance measures split by the voicing of the following segment.

Surprisingly, the other linguistic factor, duration, was not found to be significant as a main effect, though it was found to be significant in interactions. This result contrasts with findings reported in Greene (2010), where duration was a predictor of more diphthongal tokens⁵. This finding casts doubt on a suggestion made in Moreton & Thomas (2007) that the voicing effect on monophthongization might, in fact, be due to durational differences and the perceptual differences stemming from differences in duration. Figure 4.6 shows that this possibility may not the case, as there is not a positive relationship between duration of the vowel and EuD (but see the interaction discussion below). In fact, the Pearson's correlation is -0.006, which



Figure 4.6: Euclidean distance as a product of the duration of the vowel. The overlay shows no real relationship. Note the x-axis (duration) has been log transformed.

is considered a very, very weak negative correlation, practically non-existent. Such a

⁵The discrepancy could be due to different measures. She used F2 change, where I use EuD.

weak relationship is not significantly different from $zero^6$.

When one factors in the voicing of the following segment, the lack of impact of duration remains. As shown in Figure 4.7, there is a slight negative relationship in the pre-voiceless context and a small positive relationship for voiced segments. For tokens with following voiced segments, Pearson's correlation is .046, and for tokens with following voiceless segments, Pearson's correlation is -0.07. While both are significantly different from zero, it must be noted that both of these correlations are considered very, very weak. Thus, longer duration has no meaningful relationship



Figure 4.7: Euclidean distance as a product of the duration of the vowel separated by voicing of the following segment. Note the x-axis (duration) has been log transformed.

with EuD for these speakers, regardless of voicing.

 $^{^{6}}$ The p-value is 0.6772.

4.4 Social Distribution

4.4.1 Main Effects

The following section discusses the significant social factors and their interaction. With regard to the main effect of task, productions of /ai/ in word list style exhibited the shortest average EuDs, and thus the most monophthongal productions. Such a result is unexpected, given the observation in traditional studies of stylistic variation (see e.g., Labov, 1972a) that increased attention-to-speech tends to correlate with a decrease in the production of socially stigmatized features. The average EuD for each respective task is shown in Figure 4.8. The task with the longest average EuD



Figure 4.8: Euclidean distance measures by Interview Task.

was actually the conversational portion of the interview, as both the mean EuD and median EuD were longer than both the reading passage and the word list, meaning that speakers had more diphthongal productions in conversation. The large standard deviations, shown in Table 4.3, however, are suggestive of a great deal of variation within this community. These large deviations point to the need to perhaps look for the impact of other social factors beyond attention-to-speech.

	Conversation	Reading	Word List
		Passage	
Mean	273	179	228
Median	214	141	139
Standard	199	138	208
Deviation			

Table 4.3: Means, medians, and standard deviations for Euclidean distance measures for Interview Tasks

This finding raises questions for the attention-to-speech model, as the interview conversation had the longest average and median EuD, though presumably the least attention-to-speech. In contrast, both the reading passage and word list had shorter average and median EuDs yet presumably greater attention-to-speech. One explanation might be that reading invokes a type of 'performance register' (Schilling-Estes, 1998), where increased attention-to-speech is not necessarily linked to more formal styles. A performance register is actually linked to *heightened* local features deemed important by speakers. This performance highlights certain aspects of local speech, especially if that feature is salient. Since monophthongization of /ai/ is a salient feature, perhaps speakers are performing.

4.4.2 Interactions

Figure 4.9 shows the distribution of EuD by interview task, separated by speaker gender. The results for females are in the left panel; results for males are in the right panel. We can see that for males, the word list task has the lowest EuD, and it is in this task that the EuD is significantly lower than the females' word list task. Thus, males are more monophthongal when the attention-to-speech is presumably



Figure 4.9: Euclidean distance measures by Interview Task separated by Speaker Gender.

highest. This behavior perhaps reflects a type of covert prestige (cf. Trudgill, 1972), as during a word list task, one way to signal localness is through speech itself. Thus perhaps males are using EuD as a signal of localness (as the rootedness \times word List interaction discussed below).

The second interaction that was significant was task by duration interaction of Word List \times Log Duration. Figure 4.10 shows this interaction graphically. Different colors are used to represent the line of best fit for each interview task. This figure shows that as duration increases, EuD increases but only during the word list task, i.e., duration alone was not significant, but when combined with task it was. Given that the word list was the task with the longest vowel duration⁷, meaning the average

⁷A one-way ANOVA on the effect of task on duration showed a significant result, (F(2,3558) = 1231, p = 2e-16. Post hoc testing using the Bonferroni correction showed that word list had a



Figure 4.10: Euclidean distance measures by duration and interview task. (Note: Duration is log-transformed).

duration of the /ai/ tokens in the word list was longer than the average realizations of /ai/ in the other tasks, this result is not necessarily surprising. With such a large difference in duration for the word list, the articulators do seem to move more during this task, resulting in a greater EuD, but not as a main effect (and also mitigated by gender, see discussion above for male \times word list above).

Another significant interaction was reading \times voicing of the following segment. This finding is related to the main effect of task above. In Figure 4.11, one can see the difference in EuD. The interview tasks are split by the voicing of the following segment. The reading task in pre-voiceless contexts has the smallest EuD. This result is contrary to the main effect of the voicing of the following segment, where

longer duration than both conversation and reading passage.



Figure 4.11: Euclidean distance measures by Interview Task separated by Voicing of Following Segment.

pre-voiceless EuD is greater. During the reading task, EuD is actually smaller. This finding could be related to the fact that the reading task (the Arthur the Rat passage) is a story, and the focus is purely on the unfolding of the plot, particularly since the story has a surprise ending and would most likely not be familiar to speakers. Thus, the participant is utilizing the most unmarked local feature, which would be a more monophthongal realization. Thus, for these speakers, it seems that attention-to-speech does not have the predicted effects for /ai/ monophthongization.

Another explanation, as noted above, could be that reading invokes a narrative style, some kind of 'performance register' (Schilling-Estes, 1998). Thus, the very act of reading causes speakers to highlight salient local speech features. Additionally, speakers read the reading passage immediately after the interview modules about local identity and local language. Speakers had just been discussing the local area, local language, and also what the local area means to them personally. This chronology might have encouraged some type of performance, as the discussions may have primed speakers to highlight localness.

The last two interactions both involve rootedness. The first was an interaction between rootedness and voicing of the following segment. We see this interaction and the relationship between the factors in Figure 4.12, with pre-voiceless contexts shown in the right panel and pre-voiced shown in the left panel. This figure shows that as



Figure 4.12: Euclidean distance measures by Rootedness separated by voicing of the following segment.

a speaker's rootedness increases, the EuD decreases in pre-voiceless contexts. This result shows that speakers with a stronger local place-based orientation, i.e. greater rootedness, use the more stigmatized feature (at least from a mainstream perspective), pre-voiceless monophthongization. This result may mean that the stigmatized variant is more closely associated with the local area, because speakers who are more locally rooted utilize it more.

The second significant interaction involving rootedness was rootedness \times word list. Figure 4.13 shows the relationship of EuD by Rootedness, with each interview task colored differently. This figure shows that as rootedness increases, the EuD



Figure 4.13: Euclidean distance measures by Rootedness and interview task.

for the conversation and the reading passage stay relatively the same. However, for the word list task, as rootedness increases, the EuD decreases. This finding indicates that for the task with the highest attention-to-speech, more rooted speakers use a more monophthongal realization. Thus, when we might expect a speaker to adhere to a regional norm or a supra-regional norm as a result of attention-to-speech, particularly avoiding a stigmatized variant, more rooted speakers utilize the local variant. Differences between a local and non-local orientation are most marked most when a speaker's attention-to-speech would presumably be at its height.

4.5 Discussion

The previous sections outlined the relative statistical impact for both linguistic and social factors, with some surprising results. Overall, these speakers showed somewhat atypical linguistic features associated with the varieties spoken in Appalachia. When looking in the aggregate, the linguistic factors were not as expected. The EuD for pre-voiceless contexts was slightly longer, contrary to previous findings. Duration, interestingly, did not have the expected impact. It did not correlate with longer EuD, again contrary to previous findings. Thus, the linguistic distribution for /ai/monophthongization in Hancock County is somewhat distinct from what has been described in the literature for Appalachian English.

Turning to the social distribution, the relative impact of traditional sociolinguistic factors — age, education, gender, and task — showed mixed results. Age, education, and gender were not significant as main effects in our modeling. Each of these in previous literature was found to be significant (e.g., Greene, 2010). Task, by contrast, was significant. However, the results go contrary to many previous findings, with the longest EuD (i.e., more diphthongal productions) for the interview (theoretically the task with the least attention-to-speech), and shortest EuD (i.e., more monophthongal productions) for word list (theoretically the task with the most attention-to-speech). This may mean that Labov's attention-to-speech model does not operate to capture the variation within this community as in other communities. It may also mean that the three way distinction (indicator/marker/stereotype) may be inadequate for some features or communities. Part of the description of a speech community is that there is some type of uniform reaction (e.g., increasing/decreasing the relative frequency of a feature). However, within this small community, certain speakers increased the use of more monophthongal variants, while others did not. A lack of uniform reaction would mean that certain features have different meanings for particular individuals or sub-groups within the community. Alternatively (or perhaps additionally), some other factor, beyond the traditional sociolinguistic factors, is at work.

There were several significant interactions, male \times word list, word list \times log duration, reading \times voicing of the following segment, rootedness \times voicing of the following segment, and rootedness \times word list. The first two follow patterns that we might expect based on previous literature. More monophthongal realizations of /ai/ are associated with males (e.g., Bernstein, 2006), and thus when attention-to-speech is focused, a male speaker may want to tap into some type of covert prestige, thus using a more local feature. A longer duration, as found in the word list task, does appear to permit more articulator movement and thus a greater EuD — a more diphthongal production. This echoes previous findings, i.e. Greene (2010); however, she found it as a main effect, rather than in interaction. This also means that Moreton and Thomas' 2007 suggestion about the influence of duration on monophthongization is valid, though perhaps constrained by speaking style. The third, reading by voicing, is contrary to what we might expect. The EuD for tokens from the reading task are shorter (i.e., more monophthongal) from those of the other tasks, but only in the pre-voiceless contexts. This distinction might be due to the fact that the story being the focus, particularly since Arthur the Rat has an odd plot. Perhaps speakers are attuning to the plot, and not their own speech. However, Arthur the Rat has been used often in phonetic investigations, and I know of no other study that suggests the plot causing a difference. Thus, a better explanation may be that reading encourages a narrative style that emphasizes local features, what might be seen as a type of 'performance register' (Schilling-Estes, 1998). The very task of reading a passage or word list may thus motivate speakers to utilize salient local features, i.e. perform local speech. Many descriptions of Appalachian discuss the importance of narrative within the culture; thus, a narrative register or performance register might exist and be associated with local features. Further, immediately prior to the reading passage task, the question module related to Hancock County, place, and identity to Hancock County. The participant had just been discussing Hancock County, what the county means to the participant, personal identification with the area, etc. So, it might be that the prior module had potentially primed the speaker's localness and local identity (their rootedness), thus encouraging the use of more locally salient features, which would be a more monophthongal /ai/.

Related to this last point, I must reiterate the fact that I am an insider in this community — a local. My participants knew me and my family in some capacity previous to any fieldwork. I cannot rule out some influence of this fact during the sociolinguistic interviews. All the participants appeared very comfortable and the conversations were lively and engaging. We discussed Hancock County, its history, its people, and their relationship to the local area. Perhaps at some level, participants wanted to perform localness, because they may have assumed that was a topic of investigation since a local had returned to his homeplace to study.

The last two significant interactions form cruxes of this dissertation and treat a phenomenon that has heretofore not been explored for varieties of Appalachian English. More rooted speakers have a more monophthongal realization of /ai/ in pre-voiceless contexts and during the word list task. Speakers with a more localized place-based identity, regardless of their gender, age, or education, use the more stigmatized variant, and they utilize it when their presumed attention-to-speech is greatest. Chapter 6 further discusses these results.

Chapter 5

RISING PITCH ACCENTS

In this chapter, I describe the distribution and realization of rising pitch accents for my participants from Hancock County. Intonation studies are under-represented in sociophonetics (and sociolinguistics more generally). However, there are anecdotal mentions of intonational features that have been said to be characteristic of Appalachian English (AE) (cf. Williams, 1992), and one quantitative study (Greene, 2006), which observed a higher rate and proportion of rising pitch accents in AE than in Southern American English (SAE). This chapter reports the results of my investigation of rising pitch accents in Hancock County and the correlation of certain social factors on observed patterns of variation. In this chapter, I also consider how speakers from Hancock County compare to a cohort of other Southern American English speakers to determine if the quality and quantity of rising pitch accents in AE exhibits any distinctive patterns that speakers might draw upon in the construction of place-based identities.

5.1 Methods

In order to be able to compare the results of my study with Greene (2006), I employed the same basic methodology, but with some important differences. The sole focus of Greene (2006) was to determine whether or not pitch is distinctive in AE, and her research design reflected this focus. She compared speakers from Eastern Kentucky with two groups of speakers from the Switchboard Corpus (Godfrey et al., 1992)— Southerners and 'Mainstream' (speakers drawn from the North or West regions). In the current study, I examine the variation in the phonetic realization of pitch accents among Appalachian speakers and also compare these realizations to those of other Southerners. Additionally, whereas Greene (2006) used 70 pitch accents, I chose to analyze 100 pitch accents, corresponding to about 3-5 minutes of speech from each interviewee, in order to facilitate mathematical operations. In an effort to analyze a stretch of speech that was relatively uninterrupted, I drew these data from the middle of the conversational portion of the interview for each participant.

Each stretch of speech was labeled according to ToBI guidelines from Beckman & Elam (1997) and Beckman et al. (2005). ToBI involves marking all tones and break indices. Tones include pitch accents and boundary tones¹. I first identified and marked prominent syllables (marked with *) and phrase boundaries (marked by -). For the accented syllables, I used the f_0 movements (from visual inspection and repeated listening) to classify the associated pitch accents. According to the ToBI annotation system, American English has five pitch accent tones, a high tone (H*), which is the most common, a low tone (L*), and their combinations, L+H* and L*+H². The difference between these latter pitch accents is that the L*+H may extend into the following syllable, whereas L+H* stays on the accented syllable (Arvaniti & Garding, 2007:3)³. According to the intonation literature, each of these L+H combinations can be used for emphasis (e.g., Pierrehumbert & Hirschberg, 1990). The fifth pitch accent identified is H+!H* (typically used to express annoyance or indignation)⁴.

¹For languages with lexical tone, a researcher would also mark these tones as well.

 $^{^{2}}$ The * marks the accented or stressed syllable.

³This describes the general difference in L^*+H and $L+H^*$. Two exceptions are that if the host syllable is prolonged or if there are no unstessed syllables in the same foot as the host syllable, occasionally you get an L^*+H if there is a long, flat low area followed by a rise.

⁴The ! stands for a downstepped pitch accent. Downstepping occurs when several pitch accents of the same type occur in succession. Each successive pitch accent may be slightly lower than the preceding one, thus *downstepped*.

have limited utility for sociophonetics, as they are largely redundant with boundary tones or word boundaries (206-207). After ToBI-labeling these stretches of speech, I tabulated each occurrence of each of the different pitch accents.

To expand beyond what Greene (2006) investigated, I also examined how the rising pitches (L+H^{*} in particular) were phonetically realized. Research in varieties of British English, such as Grabe et al. (2000), Grabe (2004), and Ladd et al. (2009), and in American English Arvaniti & Garding (2007), has found that the phonetic realization of pitch can distinguish different varieties. I measured the peak alignment of L+H^{*} pitch accents (the second most frequent pitch accent in both Greene's study and the present study) to determine the alignment of the pitch accent peak, one phonetic feature that was observed to vary in the cited studies. Using a methodology similar to that outlined in Ladd et al. (2009), I calculated the pitch accent onset (PA-On), a measure from the onset of the vowel containing the pitch accent to the highest pitch point⁵. To determine the PA-On, I marked both the onset of the vowel of the rising pitch accent and the highest pitch point, and then calculated the difference in milliseconds.

As one further measure, I examined the excursion of the pitch accent for each rising pitch token. Excursion is the change from the local pitch minimum to the local pitch maximum. Greene (2006) suggested that some of her speakers with relatively high rates of L+H^{*} occurrence may have had more extreme pitch changes (i.e. excursions). She measured the scaling of the average L+H^{*} (taking the average maximum f_0 of the L+H^{*} tokens and dividing by the difference of the $f_{0_{max}}$ minus the $f_{0_{min}}$), and found no obvious differences. However, she averaged across speech varieties and did not investigate individual speakers or individual tokens. Averaging across varieties does not allow for the detection of any intra-group differences, which was not a focus

 $^{^{5}}$ Ladd et al. (2009) use PA-Off, measuring from the offset of the vowel. This would result in some negative numbers. To avoid this, measuring from the onset insures only positive numbers, so I measured from the onset.

of her study. However, she suggested that individuals or subgroups might exist. To calculate the excursion, I measured the difference in f_0 from the pitch accent peak to the preceding trough (the lowest f_0) for each L+H* token. To cancel out some of the differences across speakers due to physiology, I normalized pitch by transforming all f_0 measures to the equivalent rectangular bandwidth (ERB) scale (cf. Thomas, 2011:226)⁶.

Finally, to consider whether these aspects of pitch might differentiate AE from other Southern American English varieties, I compared the Hancock County speakers with a subset of speakers from Warren County, NC (see Hazen 1997), using the same methodology described for the Hancock County speakers. The demographics of the Warren County speakers are shown in Table 5.1. Warren County is a relatively

Gender	Age	Occupation	
Female	25	Database Administrator	
Female	34	Teacher	
Female	77	Farmer	
Female	85	Store Keeper	
Male	37	Logger/Business Owner	
Male	40	Teacher/Principal	
Male	64	Store Keeper	
Male	77	Farmer/Store Owner and Keeper	

Table 5.1: Demographic information for the Warren County speakers.

small rural community, located in northeastern North Carolina near the border with Virginia, several hundred miles from Appalachia and Appalachian English varieties. The demographics of this subset of the Warren County community are relatively comparable to Hancock County⁷. Warren County is rural and has experienced recent decline in wealth and population, and Hazen observationally notes that 'cultural

⁶The formula for conversion is $ERB = 16.7 \log_{10}(0.006046f + 1)$.

⁷Warren County does have a sizable African American community, which Hancock County does not.

identity is the most important social factor' for these speakers (iii). While no two communities are perfectly matched, Warren County provides a reasonable parallel for Hancock County. Thus, a comparison with a similar community can help to determine if intonational variation is a feature of rural Southern speakers in general, or whether there is case-study evidence for broader differences among Appalachian and Southern Englishes.

5.2 RISING PITCH ACCENT IN HANCOCK COUNTY

To examine how Hancock County speakers vary with respect to rising pitch, I first compared how different social factors impact the relative frequency of $L+H^*$ realization (Section 5.2.1). To test the relative impact of social factors on the phonetic realization of $L+H^*$, I analyzed the variation of PA-On present among the speaker cohort (Section 5.2.2). Finally, to determine whether pitch excursion might explain the differences in PA-On, I examined whether differences in excursion exist among the Hancock County speakers.

5.2.1 Pitch Accent Frequency Comparison among Hancock County Speakers

Figure 5.1 shows the pitch accent distribution for each individual Hancock County speaker. The most frequent pitch accent was H^* (the lightest colored blue bar), followed very closely by L+H^{*} (the darkest blue bar). Note the wide deviations in counts of H^{*} and L+H^{*} in particular. These differences suggest that speakers vary with respect to how many L+H^{*} pitch accents they produced, similar to findings in Greene (2006).

To better understand how social factors of gender, age, and rootedness impacted the relative frequency of L+H^{*} pitch accents in these data, I ran a mixed effects logistic regression analysis. Speaker age, gender, education and rootedness with twoway interactions were included as fixed independent variables, with individual speaker



Figure 5.1: Overall distribution of pitch accents for Hancock County speakers.

treated as a random independent variable. Main effects of age (z = 3.683, p = 0.0002) and rootedness (z = 3.401, p = 0.00067) were significant in the model, as well as the age × rootedness interaction (z = -3.591, p = 0.00033). The frequency of pitch accents by age is shown in the left panel of Figure 5.2, the frequency by rootedness is shown in the right panel. As these figures show, older speakers in Hancock County used more L+H* pitch accents than younger speakers, and more rooted speakers produced more L+H* than less rooted speakers. Age and Rootedness are correlated within Hancock County (Pearson correlation 0.56), so the result that they both are significant in the model conforms to what one might expect⁸. The older speakers in my study have chosen to stay in Hancock County. A feeling of place-based attachment would in all probability influence the decision to remain.

 $^{^{8}\}mathrm{However},$ the model tests each factor independently, so they both have an effect as well as a combined effect.



(a) Pitch accent distribution by speaker age.(b) Pitch accent distribution by rootedness.Figure 5.2: The distribution of pitch accents by speaker age in the left panel and by speaker rootedness in the right panel.

The finding that more rooted speakers utilize a presumably less salient linguistic feature (as compared to /ai/ monophthongization) than less rooted speakers suggests community members recognize that certain pitch patterns index localness. Such knowledge would most likely be implicit, as little overt commentary exists about intonation. Some Hancock County participants do mention 'tone' as a local feature, but these remarks are infrequent and it is unclear exactly what linguistic correlates they refer to. In the broader literature, as noted in Section 2.5, references to Appalachian intonation are sparse and primarily anecdotal. Nonetheless, the linguistic behavior of community members, even subconscious behavior, belies the social meaning, localness, of relatively frequent rising pitch accents.

5.2.2 Pitch Accent Realization Within Hancock County

To determine the relative impact of various social factors on the variation of PA-On within Hancock County, I conducted a mixed effects linear regression analysis. In the model, speaker gender, age, education, rootedness were included as independent fixed effects, while individual speaker was a random independent effect. PA-On was the dependent variable. I obtained *p*-values from likelihood ratio tests of the full model including the effect in question against a reduced model absent the effect. Gender ($\chi(7) = 16.665$, p = 0.01969) and rootedness ($\chi(7) = 20.647$, p = 0.004329) were significant. Males had an earlier PA-On, as gender decreased PA-On by 67.3 \pm 285.6 (standard errors). However, a caveat must be noted here. Such large standard errors indicate that gender in this sample may have a statistical effect, but that it may not necessarily be meaningful. The standard error is the standard deviation of a sampling distribution, and thus such a large SE indicates the distribution would vary quite widely depending upon the sample, and may indicate that gender results are not as meaningful as they appear. Nonetheless, gender is statistically significant, and Figure 5.3 shows the PA-On by speaker gender. More rooted speakers had an earlier PA-On, as root-



Figure 5.3: Comparison of Pitch Accent Onset by Speaker Gender for Hancock County speakers.

edness decreased PA-On by -4.67 ± 4.27 (standard errors). Figure 5.4 displays this

relationship graphically.



Figure 5.4: Relationship Between Pitch Accent Onset and Rootedness for Hancock County speakers.

A possible explanation for this PA-On difference might be excursion. To test this question, I ran a mixed effects linear regression analysis on the excursion of the Hancock County speakers. Speaker age, gender, education, rootedness, and all two- and three-way interactions were included as independent fixed effects. Individual speaker was included as a random fixed effect. The excursion in ERB was the dependent variable. Similarly to the results above, after running likelihood ratio tests of models including the effect in question and those without the effect, I found no significant differences.

This result means that the change from low to high is not different among the Hancock County speakers. Since the more rooted speakers had earlier alignment, and less rooted speakers had later alignment, a difference in excursion could explain this difference. Since there was no difference, speakers have similar changes from low to high, and the difference truly lies in the PA-On, the peak alignment.

From these results, we see that males and more rooted speakers have earlier aligned peaks for L+H^{*} pitch accents. This has a caveat, as the effect for gender may be statistically significant, but not necessarily meaningful. A large standard error (the standard deviation of a sampling distribution) means that different samples would vary greatly. Thus, drawing concrete conclusions from any one sample (here my cohort of speakers) about the population (Hancock County as a whole) would be difficult, as there is evidence that the samples would vary widely. Additionally, some of the most rooted speakers are female, which further questions the robustness of gender's impact. With this caveat in mind, I focus on the rootedness finding.

Hancock County speakers with higher rootedness scores had earlier pitch peaks, demonstrating that pitch can vary within a community in a similar fashion to what has been observed across communities (cf. Arvaniti & Garding, 2007 for American English and Ladd et al., 2009 for British varieties). These findings suggest that the individual identity and orientation of the speaker, particularly with respect to place, is key to understanding the realization of this phonetic feature. These regional and intra-community differences illustrate the fact that such variation is fertile ground for continuing research.

5.3 RISING PITCH ACCENT COMPARISON WITH WARREN COUNTY

In the following section, I report the results of my comparison comparing of the Hancock County rising pitch data with that from Warren County. I first compared the relative frequency of $L+H^*$ between the two varieties. Then, I analyzed whether the peak alignment of the $L+H^*$ pitch accent was different, and also whether the differences in peak alignment might be attributable to pitch excursion.

5.3.1 Relative Frequency of Rising Pitch Accents

To test Greene 2006's claim about the distinctiveness of the relative frequency of $L+H^*$ in AE, I compared the relative frequency of $L+H^*$ pitch accents in the Hancock County data with those produced by the Warren County speakers using a mixed effect logistic regression analysis. In this model, speaker dialect, gender, age, and all possible two and three way interactions were treated as fixed independent variables, while the individual speaker was treated as a random independent variable. Frequency counts of $L+H^*$ were the dependent variable.

Within this model, a main effect of variety was significant (z = -3.160, p = 0.00158), with Hancock County speakers using a higher average number of L+H^{*} pitch accents as well as a higher proportion of L+H^{*}/H^{*} tokens compared to the Warren County speakers (see Table 5.2. We see that the Appalachian speakers from Sneedville use many more L+H^{*} pitch accents out of the 100 counted pitch accents and they make up a far greater proportion as compared to the H^{*} pitch accent (the most common pitch accent) than those of the Warren County speakers.

Table 5.2: Average pitch accent frequency for Hancock County speakers and Warren County speakers. Note that the total number of pitch accents per variety = 100.

Variety	Average L+H [*] count	Proportion of
		$L+H^*/H^*$
Hancock County -	28.8	0.49
Appalachian		
Warren County -	10.25	0.12
Southern		

These findings support those reported in Greene (2006), thus strengthening the argument that relatively frequent $L+H^*$ pitch accents are a characteristic feature of AE, distinct not only from Mainstream American English varieties, as reported by Greene, but also from other varieties of Southern American English, such as the Warren County speakers considered here. In a related fashion, Arvaniti & Garding

(2007) describe a difference between the distribution of pitch accents in Minnesota and California varieties, and they suggest that Minnesota speakers perhaps lack a distinction between H* and L+H*. Clopper & Smiljanic (2011) observe a distinction in the distribution of pitch accents between Midland and Southern varieties, with Southern females showing a preference for L*+H pitch accents. The current findings, along with these others, suggest that pitch accents do not have one sole meaning across American English (cf. 'emphasis' from Pierrehumbert & Hirschberg, 1990). Rather, the different pitch accents seem to have a regionally-based difference in distribution not necessarily tied to meaning or semantic function. Thus, like segmental variation, the distribution of pitch accents can vary based upon region.

5.3.2 Pitch Accent Onset Comparison

To analyze whether the two varieties phonetically realized L+H* differently with respect to peak alignment (PA-On), I ran a mixed effects linear regression analysis. In this model, speaker dialect, gender, age and all possible two- and three-way interactions were treated as fixed independent effects, while the individual speaker was treated as a random independent effect. The PA-On was the dependent variable.

As with the mixed effect linear models in Chap 4, I obtained *p*-values from likelihood ratio tests from a comparison of the full model with the effect against a reduced model without the effect. After the likelihood ratio tests, speaker dialect was significant ($\chi(1) = 7.7382$, p = 0.005407), increasing it by 24.6 ± 8.36 (standard errors). Thus, these results suggest that Hancock County speakers have a shorter PA-ON than Warren County speakers.

We can see this difference by looking at the average PA-On from the two different varieties. Figure 5.5 shows a boxplot of the PA-On values. This figure shows that the Hancock County speakers, on the left, have a lower average PA-On.

One explanation of the difference in peak alignment (PA-On) between the two



Figure 5.5: Comparison of Pitch Accent Onset between Hancock County speakers (Appalachian) and Warren County speakers (Southern).

varieties could be pitch excursion. If one of the varieties had a larger change from the lowest point to the highest point of a pitch accent (i.e. the excursion), we would expect a difference in the time necessary to reach that higher pitch point. To test this possibility, I analyzed whether the pitch excursion of the L+H* pitch accent was realized differently between the Hancock County and Warren County speakers using a mixed effects linear regression model. I included speaker dialect, age, and gender as fixed independent effects. Individual speaker was a random independent effect. The excursion in ERB was the dependent variable. After running likelihood ratio tests, no main effects or interactions were significant.

This result means that the change from low to high is not different between the two dialects. Since the alignment was later for the Warren County speakers, one explanation would be that they had a greater change in pitch, i.e. that their excursion would be greater. It would take more time to effect this change in pitch, and thus their alignment would be later. However, no effect was found. This means that the change in pitch for the two varieties is not significantly different, and the Hancock County speakers do align their pitch peaks earlier.

From these results, we see that Hancock County speakers have an earlier alignment of the L+H^{*} peak. These findings are consistent with those of other studies, where it has been observed that peak alignment serves to distinguish regional varieties. For example, Arvaniti & Garding (2007) found differences in rising accent peak alignment between Minnesota and Southern California speakers, with the California speakers having later alignment. Further, Ladd et al. (2009) found differences in peak alignment between Standard Scottish English and Southern British English (Received Pronunciation) in the British Isles, with the Standard Scottish English having later alignment. The results of the current study bolster the claim that intonation varies across region in a manner akin to segmental variation. These findings also bolster the claim that AE has a characteristic, and perhaps even unique, intonational contour. As a characteristic of AE, the feature would potentially be available to signal additional social meaning for group members, and perhaps for those outside the community.

5.4 **RISING PITCH ACCENT DISCUSSION**

The results from the Hancock County/Warren County comparison (Section 5.3) reveal that intonation may differentiate some Appalachian varieties from other Southern varieties. Hancock County speakers have a higher relative frequency of $L+H^*$ pitch accents, and the PA-On of the $L+H^*$ pitch accents is anchored earlier in the syllable. These two findings suggest that pitch variation might very well be a way to distinguish two closely related language varieties. As more attention is paid to regional variation in intonation, we can expect that, like segmental variation, intonation can distinguish region.

Turning to variation within Hancock County, we see that traditional social factors have an impact — age on the relative frequency of pitch accent and gender on PA-On. However it appears that rootedness is most crucial to understanding the intonational variation present in this Appalachian community, as it is consistent across both analyses. Those speakers who are more rooted have relatively more frequent L+H* pitch accents, and also an earlier PA-On.

Putting these findings into the context of Hancock County and what the speakers said about themselves sheds much light on these findings. Tyler, a 35 year old male, mentioned several times how you can tell a local by the way he/she talks, specifically 'the melody'. He referred to it as 'artwork', something that is 'so cool'. He specifically mentioned that for his work, which required much interaction with the public, he used his manner of speaking as a way to make his clients feel more comfortable. He implied that if someone does not sound local, then clients are not at ease, and any interaction becomes much more difficult due to a lack of trust. Others consistently mentioned that locals had a certain 'tone', and from their descriptions, it seemed more that the intonation was the crucial aspect. Trish, a 68 year old female, talked about how people that move in do not have the same 'tone', and like above, she seemed to be referring to intonation. When pressed, she did not mention any particular vowel sound or lexical items, she said once again, 'the way they talk'. Such anecdotes indicate that male and female speakers, across the age continuum, are aware of the intonational variation present in the community, even if they are not able to pinpoint what they are perceiving.

Furthermore, these references demonstrate that localness matters with regard to a less salient feature (as compared to /ai/ monophthongization). Intonation has not received the same type of attention in either the linguistic or popular literature as monophthongization, yet it can differentiate more rooted speakers in a similar fashion. Hancock Countians seem to notice differences in intonation, even differences in pitch accent frequency or even the difference in pitch peak alignment. These features, while perhaps not as salient as monophthongal /ai/, nonetheless can allow a speaker to demonstrate his/her local attachment.

Chapter 6

LANGUAGE, ROOTEDNESS, AND APPALACHIAN IDENTITY

In the preceding chapters, place-based identity, framed as rootedness, emerged as a significant factor in the monophthongization of /ai/ and both the relative frequency and realization of rising pitch accents. Since my findings demonstrate that place attachment affects the accents of speakers in this community, an analysis of how my participants negotiate the various meanings of place in Appalachia, more generally, and East Tennessee and Hancock County, more specifically (see Chapter 1) and how these negotiations create and/or delineate social differentiation is critical to understanding the phonetic variation observed in this study and its broader social implications. In the present chapter, I discuss the importance of rootedness within this Appalachian community, reflecting, specifically, on its role in the variation of two linguistic variables with different degrees of salience among the Hancock County residents who participated in this study.

The results of this study showed that some Hancock County participants indeed have a strong sense of localness, and this sense has an observable linguistic impact. However, this community is not monolithic; some participants are quite attached to place (i.e., they are more rooted) while others are less attached to place (i.e., they are less rooted), so the place has somewhat disparate meanings, depending upon the individual (cf. Gieryn, 2000). This conflicting perspective coincides with how many have viewed Appalachia throughout history. Thus, to truly understand the complex nature of place and place attachment in Hancock County, we should consider the individual participants themselves and contextualize their responses within the broader conception of place in Appalachia through the lens of Hancock County.

The present chapter delves into how place as a concept features so prominently in this community. I explore how individual speakers discuss place and what place means to them, and principally, why place is important, why they feel attached to this place, and how language contributes to this sense of attachment. In order to investigate this attachment, I asked each participant about their feelings toward Hancock County, and their responses illuminate the conflicting view of Appalachia as one's home to cherish or as an object of disparagement. Additionally, participants expressed their awareness that sounding a particular way indexed Hancock County and, as a result, contributed to this contested meaning. Observing individual responses as expressing contested and sometimes contradictory sentiments permits us to frame why linguistic features play a prominent role in the discussion of place and why rootedness is crucial to some residents in this community. Additionally, I consider three speakers as case studies to help better elucidate the importance of place, and in particular, how rootedness permits a better understanding of the variation present in Hancock County. To facilitate discussion, the list of participants, arranged according to their rootedness scores, is provided again here.

As noted in Chapter 3, the median rootedness score among my participants was 28. Thus, we can use that number as a dividing line in the discussion that follows. Those speakers with scores below 28 will be considered less rooted, and those with scores 28 and above will be considered more rooted. Where applicable and illuminating, I will note the division between these two groups. Often, all participants have similar views, but the nuance of the discussion and what they focus on in their responses reveals the complex nature of place orientation in this community. Where relevant in the discussion below, I will also place the participants' rootedness scores in parentheses
Name	Age	Gender/Sex	Rootedness	Rootedness
			Score	Classification
Haley	27	F	18	Less Rooted
Tyler	35	М	19	Less Rooted
Brian	30	М	20	Less Rooted
Charlotte	32	F	20	Less Rooted
Faith	65	F	23	Less Rooted
James	69	М	23	Less Rooted
Naomi	56	F	23	Less Rooted
Terry	43	М	23	Less Rooted
Joey	29	М	25	Less Rooted
Nathan	40	М	26	Less Rooted
Juanita	50	F	27	Less Rooted
Alice	77	F	28	More Rooted
Coleman	76	М	29	More Rooted
Hugh	84	М	29	More Rooted
John	92	М	29	More Rooted
Martha	73	F	29	More Rooted
Opal	89	F	29	More Rooted
Tonya	53	F	29	More Rooted
Trish	68	F	29	More Rooted
Danny	66	М	30	More Rooted
Jasper	63	М	30	More Rooted
Katherine	94	F	30	More Rooted
Edward	70	М	31	More Rooted
Misty	37	F	31	More Rooted
Rachel	35	F	31	More Rooted

Table 6.1: Participants from Hancock County

after their names (e.g., Rachel (R=31)), so as to facilitate comparison between the more rooted and less rooted speakers.

6.1 DISCUSSIONS OF PLACE

The results from Chapters 4 and 5 demonstrate that place-based identity matters in this community. Given that many of my participants had higher rootedness scores, i.e., had strong place-based identity, we would expect that a desire to express this identity would be present. One of the modules in the sociolinguistic interview included questions about how each speaker felt about the local area and Hancock County. I also asked how people from Hancock County sound, and whether they believed this sound was any different from nearby and more distant places.

In the discussions of place with my participants, it became readily apparent that there is tension between pride and stigma. Many participants expressed pride in being from Hancock County and recognized a distinction from other areas, particularly the more rooted speakers. However, there was a concomitant admission from most participants that the county has shortcomings and is far from perfect. Many of the most negative comments came from the less rooted speakers, and often they spoke of how hard it might be to overcome the issues. In contrast, the more rooted speakers sounded more optimistic, pointing out that they felt that the county could overcome the problems and issues. It is a fine balancing act that many participants do, praising the county and its people while also engaging in critique, bitingly at times. Occasionally, a compliment hastily followed a critique to ameliorate what was said. At other times, a critique immediately mitigated a compliment. These seemingly conflicting responses reflect the nuanced perceptions of place among these residents (cf. Gieryn, 2000).

A second aspect of discussions of place in my cohort is that people often speak of place via the people and their actions, attitudes, and behaviors. The reason that Hancock County is held so dear to so many of its residents springs from the perceived positive behaviors of the people of the county; in contrast, the perceived negative behaviors of some people in the county cause other residents to have a different opinion. Also, the same types of behavior can have different interpretations. For example, many of the more rooted speakers see a close knit community where neighbors show great personal interest in one another; in contrast, some less rooted speakers see an overly close community where neighbors are intrusive. Place is of consequence because the degree of rootedness affects the manner in which people from Hancock County perceive interactions with one another. The descriptions of place personify the county as friendly and neighborly or as close-minded and fearful of change.

A third aspect of discussions of place in this study was the observation made by many participants that Hancock County is in the midst of change. Some older participants described the change as a loss of pride on the part of younger Hancock Countians, particularly those older, more rooted speakers. There was a distinct critique that younger people do not possess the same values as previous generations, and that these values are changing the county in negative ways. Another source of change, mentioned by practically every participant, regardless of age or rootedness, was the in-migration of 'outsiders' to the county. As discussed in Section 3.1.1, there has been an increase in the number of non-natives ('outsiders') in the county, and many native Hancock Countians see this influx as radically changing the area. Many of the more rooted speakers had the strongest reactions to outsiders, both negatively when outsiders did not adhere to county norms and mores and also positively when outsiders made attempts to fit in. Below, I describe in more detail how these various discussions of place relate to rootedness among my participants.

6.1.1 Tension between Pride and Stigma

The tension between pride and stigma was a constant in any discussion of place, regardless of age and gender. Many of the less rooted speakers seemed to focus on the stigma and the more negative side. James, a lesser rooted 69 year old (R=23), referring to himself, said that Hancock County was 'a part of you wherever you go'. However, he noted that many people did not feel the same, and he mentioned that he considered leaving the county. He mentioned several times how the size of the county and the lack of opportunity made life more challenging. Also, he mentioned that people seem to look down on Hancock County and its people, primarily due to poverty. Brian, a less rooted 30 year old (R=20), acknowledged that where one

is born and raised has an indelible impact. This admission was not one of full and unmitigated acceptance. He also acknowledged the dearth of career and recreational opportunities in the county, though he realized that it might be in 'bad taste' to tell me that. Brian also shared that while Hancock County and East Tennessee 'were home' for him, he was planning on leaving and moving away. He had spent some time away in Middle Tennessee, and he was actively considering relocation. His mother warned him that he would finally realize how distinct the people were in the mountains as compared to elsewhere (I discuss this more fully in Section 6.1.2 below). However, he believed that he needed to leave for better opportunities.

At the other end of the rootedness continuum, Edward (R=31), a 70 year old more rooted speaker called Hancock County the 'best place in the world to grow up' and said that he was 'proud to have been raised and educated in Hancock County'. He discussed the 'freedom' that the area and its people enjoyed, particularly during his childhood. Yet, he also pointed to many problematic issues, such as widespread poverty and drug abuse, but stated that he felt that the county could overcome those issues, particularly if locals could 'see what we have here'. Similarly, Martha (R=29), a 73 year old more rooted female, stated that Hancock is 'remote and rural' and that 'we've been looked down on', yet she loved the county and could not envision living anywhere else. She quite poignantly stated 'where you are is part of who you are', and Hancock County was part of her.

In these discussions, we see that both sets of speakers note positives and negatives. However, the less rooted speakers feel that the negatives, and the stigma that comes along, might outweigh the positives. Thus, many mentioned plans to leave (e.g., Brian) or said that they had considered leaving (e.g., James). Contrastedly, more rooted speakers acknowledged the negatives, but they did not see the unfavorable aspects of Hancock County fatalistically. Rather, they emphasized the favorable aspects and talked about overcoming any detriments.

Many participants, while describing the internal tensions regarding the area, exhibited the influence of circulating negative tropes. By using terms widely associated with derision of the region (e.g., 'hillbilly' and being 'from the backwoods'), these participants reflected an internalization of widely propagated stereotypes of Appalachia itself. Juanita, a less rooted 50 year old (R=27), discussed layers of Hancock County and the broader East Tennessee region, noting, 'We have such natural and cultural beauty' and yet she acknowledged that 'problems still exist'. And these problems, primarily stemming from historical and systemic poverty and its ramifications, color perceptions of the area. Alluding to circulating stereotypes, she discussed not wanting to appear like a 'dumb hillbilly' because of where she is from. This is a reference to the idea that people from this area, being the mountains of Appalachia, were somehow less intelligent ('dumb') and perhaps culturally backward ('hilbilly')¹. In the same vein, Trish, a 68 year old more rooted speaker (R=29), enjoyed 'knowing her neighbors' and 'the slower pace of life' within the county. This was all part of 'the feeling of community' that characterized the county. Yet, she also noted the problems associated with 'remoteness', particularly that some people considered 'us' to be 'country bumpkins'. This term, as above, refers to the idea that people from the mountains are different from urban/suburban dwellers ('country') and are not as sophisticated ('bumpkins'). Shortly after using the term 'country bumpkin', she said that when traveling, both nearby and further from home, she proudly stated that she was from Hancock County.

Both more rooted and less rooted speakers were familiar with circulating tropes, and referenced them in their responses. However, perspectives were slightly different. For example, Juanita said that she did not want to appear as a 'dumb hillbilly' while Trish said that others might see her as a 'country bumpkin'. Trish seemed to find

¹See Montgomery et al. (forthcoming) for the various meanings and senses of the term 'hillbilly' in Appalachia.

humor in this acknowledgement. But, Juanita did not want to *personally* appear as a hillbilly. For Trish, others may view her and other Hancock Countians negatively, whereas Juanita seemed to indicate that she herself might appear negative. These two perspectives are related, but the nuance of the point of view demonstrates the difference in the speaker cohort. More rooted speakers acknowledge the possible stigma from outsiders but do not appear to internalize it, while less rooted speakers often lament that they are part of the stigma.

6.1.2 The Place as its People

As referenced above, many people described the county via its people, and the line between place and the people of the place was very often blurred, regardless of where one fell on the rootedness continuum. This aspect of discussions of place seems to relate, at least in part, to historical descriptions of the region, discussed in Chapter 1, where the distinctive nature of the people of East Tennessee and Upper East Tennessee is at the forefront. Recall for example, Brian (R=20), discussed above, whose mother warned him that not everyone in Middle Tennessee would be as friendly and welcoming as 'mountain people', particularly those in the Nashville metropolitan area where he would be living. He agreed with this assertion, but did not necessarily point out any concrete examples of difference. Joey (R=25), a less rooted 29 year old, also talked about the county as being friendly, noting that 'people here know one another' and that Hancock County always 'feels like home'. He also noted that sometimes the friendliness can feel meddlesome. He said 'everybody knows everybody' and that this had positive and negative implications. Both he, and Brian above, said that people from other areas, or even those who moved away, were not the same as those who were from the county and stayed. However, he provided no examples of the difference. It was simply accepted that because other people are not from the area that they would be different, and those who left the area would change.

Juanita (R=27) also described the county and its people as having a strong sense of 'connectedness' and 'community', and noted that this could have positive and negative implications (cf. Joey above). On the positive side, she referred to the willingness of Hancock Countians to help and be there for neighbors in crisis, saying that this was perhaps rarer in other areas. At the time of this interview, a mutual friend was suffering from a serious illness. She discussed how the people in the county had visited the family, taken food, and held many vigils, an evident expression of this sense of community. These expressions of community, according to Juanita, characterized the area, even though a crisis, in this instance, brought them to the fore. However, like Joey, she also noted how this interest could be 'too much' for some people. She described a fine line between interest or concern and intrusiveness or 'being nosy'.

By contrast, more rooted Edward (R=31) said Hancock was 'friendly' and 'neighborly', and 'we have some of the best people in the world here'. He talked of helping family, friends, and neighbors when necessary, and how many Hancock Countians would do the same. He said 'you don't get that everywhere'. He did not mention any of the possible negative aspects of interest in neighbors. He seemed to feel that having neighbors interested in one's life was a definite positive, something worth cherishing.

6.1.3 A Changing Place

In practically every interview, my participants noted that Hancock County was changing. Many different reasons and explanations emerged, but three factors seemed to be the central drivers of change: a loss/drift in local civic pride, loss of local neighborhoods, and in-migration. Typically, more rooted participants referenced the changing nature of civic pride. Referring to me and my peer generation of the late 1990s and early 2000s, Edward (R=31) lamented that 'younger people don't have the same pride as y'all did'. He believed the presence of civic pride was something that helped to counteract more negative perceptions of the county and stereotypes about the region. Some of his commentary could be considered typical longing for the good old days, yet he described something more. The local pride had it roots in a feeling of distinctiveness (outlined in Chapter 1), which he felt helped to combat and possibly alleviate the negative perceptions of the county. He singled out and used as an example the county's successful high school basketball teams, who for a period of years were highly competitive in the state playoffs. He stated 'you boys cared about this county, and other people did too'. Edward seems to indicate here that the success of the teams buttressed, and was perhaps driven by local pride. However, the athletic success waned, and apparently, so too did the local pride. Rachel (R=31), a more rooted 35 year old, offered a similar opinion, commenting on the fact that attendance at local sporting events was diminishing. She made the connection between pride and going to local events, and she also noted that the lack of attendance reflected a loss of local pride. She stated 'you go to a game and there's like a couple dozen people there'. This was somewhat shocking to me, as previously the games would be very well attended. I asked her what happened, and she responded 'people just don't seem to care anymore'. She clearly believed that a loss of local pride was to blame.

Other more rooted participants attributed the change to a loss of localness. One of the prevailing reasons given was school consolidation, discussed earlier, by which the county, over the last few decades, consolidated all of the neighborhood elementary schools into a single unified elementary school. As recently as the 1960s, the county had over 40 elementary schools. These neighborhood schools, according to many participants, particularly the more rooted participants, cultivated a strong sense of localness. Misty, a more rooted 37 year old female, stated, 'We're not tight little communities anymore...We're losing our localness'. She specifically referenced the closing of the local schools as one way the county was losing this 'localness'. While she saw the obvious cost benefits of a single school, she felt strongly that a loss of localness, an unintended consequence of school consolidation, was negative. Other participants echoed similar sentiments.

In-migration also featured prominently in all discussions of place. 'Outsiders', a term used by almost every participant, have had a significant impact on Hancock County, and many participants lamented this. It seemed, from the perspective of my participants, that the traditional families were being displaced. James (R=23), a less rooted 69 year old, described the feeling, 'You look around, and some of the historical last names are just not here anymore'. Such a change was not easy, and some participants offered ideas about why the change was difficult. Nathan (R=26), a less rooted 40 year old said 'a lot of the beauty and what we love about the place, a lot of people don't want to share that with outsiders'. Such a profound statement might be regarded as purely antagonistic toward outsiders. Nathan, however, also mentioned his disapproval of this sentiment. He pointed out how some natives to the county were somewhat 'close-minded', and too 'set in their ways'. He felt that outsiders could have positive impacts, but that depended on the individual.

Relatedly, what most people seemed to resent was the attitude of some outsiders. According to Trish (R=29), 'outsiders want to change things' within the county and 'people who move in complain' about the county. Misty (R=31) also described the presence of in-migrants in the school system, noting that 'I don't know any last names anymore'. Her main issue with not knowing the students and their parents was that it was hard for her to address parents' complaints by just picking up the phone and calling them. The lack of these relationships complicated many issues at school and elsewhere.

Discussions of in-migration were not always negative. Some told anecdotes about outsiders 'fitting in' well if they wanted to. This sentiment was echoed by many, that outsiders could fit in and would be welcomed if they approached the community without condescension. Nonetheless, even those outsiders who fit in symbolized to participants that the county was changing. 'The county is not the same as when I grew up' noted James (R=23). He had many 'outsiders' as neighbors that he 'got along well' with, yet it 'wasn't how it used to be'. He did not necessarily see this as negative, however, rather representative of change in progress.

6.2 Perspectives on Language

The central role of language in my participants' conception of place is one of the defining aspects of this project. It is obvious that the speech of the area helps to define it. What is interesting is that we see the impact of standard language ideologies and circulating stigma, but at the same time, a strong sense of pride in local speech.

6.2.1 Impact of Standard Language Ideologies and Stigma

Although the language is a defining characteristic of the county, the impact of standard language ideologies is also very present. Some of my participants used negative terminology when describing the local speech. Additionally, many shared anecdotes of being made fun of for the way they spoke. It is noteworthy that both more and less rooted speakers showed the influence of standard language ideologies in this regard. However, more rooted speakers seemed more resentful of the ridicule, and, consequently, more determined to speak in a local way. Less rooted speakers were also angry, but it seemed that they felt that explanation of the differences or accommodation might be better options. Lippi-Green (1997; 2012) describes Southerners (and by extension we might assume Appalachians) participating in derision and stigmatization of local accents, and that some Southerners choose to speak differently. However, the impact of rootedness would seem to complicate this idea, where more rooted speakers appear to reject stigmatization. These speakers do not appear to see any reason to change, and in fact, stigma and ridicule seem to encourage the use of local speech as a reaction against these negative perceptions. Many participants talked of 'bad grammar', 'country accent', or as above, 'hillbilly language'. However, even though many similar terms were used, a difference between more and less rooted speakers remains. Rachel (R=31), a more rooted speaker, somewhat sheepishly admitted that she initially did not want to be interviewed, as that she was afraid that I would hear how 'bad' she talked. She feared being seen as a 'country bumpkin' or as 'Ellie Mae' from the *Beverly Hillbillies*². After I assured her that I certainly would not judge her or her speech, and I re-emphasized my own localness, she willingly agreed. She said that she was self-conscious of her speech because of her 'bad English'. However, even though she thought it was 'bad', she did not necessarily feel that a change was necessary. Contrast this with Haley (R=18), a less rooted speaker, who talked about her own 'awful speech'. She described hearing a recording of herself and wondering, 'do I sound that bad?'. She felt that others would see her and people who spoke like her as 'uneducated hicks'. She wondered if changing her speech might help her avoid some stigma.

Other less rooted speakers referred to the local language as incorrect or as lacking something compared to a more educated variety of English. For example, Tyler, a less rooted 35 year old male talked about 'dropping gs', a reference to the alternation between /n/ and /ŋ/. Many talked about not 'talking correct' or 'not using good English'. Joey (R=25), a less rooted speaker, talked about the difference between 'country vs. proper', with local speech being country and elsewhere being proper. 'Proper' was better, although many local people spoke 'country'. Such labels reveal, sadly, entrenched standard language ideologies about what language is *supposed* to be (Lippi-Green, 1997, 2012:cf.). The derisive terms used for local language belie a belief by some that local language is aberrant.

²This program, which ran from 1962-1971, followed a family from the Ozarks who relocated to Beverly Hills after finding oil on their lands. Many humorous plots revolved around the misunderstandings and miscommunitions between the 'hillbillies' and the 'city folk'. A reference to this show demonstrates the power of popular media portrayals of the South, particularly a show based primarily on stereotypes (Lippi-Green, 1997, 2012).

In contrast, more rooted speakers did acknowledge (like Rachel above) that local speech may be seen as sounding uneducated or might be considered 'bad English', but that did not mean that it was of no value. Edward (R=31) said that the 'slow drawl' of local speech derived from the county's 'mountain-ness'. He knew that the way he talked may not seem educated, but he 'has never been ashamed' and openly questioned why someone would be. Trish (R=29) acknowledged that education might 'make a difference', but she also questioned why someone would feel like they needed to change.

Two powerful stories came when participants related the impact or anticipation of ridicule. The reactions to the ridicule reveal the differences between more rooted and less rooted speakers. One very poignant story came from Haley, a less rooted speaker. She had gone to a nearby college (approximately 50 miles from Hancock County). For one class, she had to record a voice-over for a powerpoint presentation. She recalled thinking 'oh no', and that she was very hesitant about the project. Her fears were realized, as other students began to laugh and giggle as her voice described the animations and presentation slides. One student in particular said out loud 'you sound so funny!'. Realizing that such a statement might be hurtful, this other student quickly attempted to mitigate her laughter, stating, 'I don't mean to offend', yet reiterated that Haley's manner of speaking was humorous. Naturally, such commentary and laughter were incredibly painful. Haley defended her speech, and said to me 'I'm not embarrassed by it, but I know that it will always be an issue'. Such ridicule, and lasting impact from it, occurs over and over again with respect to Appalachian speakers³. Haley felt that she might need to accommodate her speech to 'something more standard' to avoid further ridicule.

Misty (R=31), a more rooted speaker, spoke of her concerns about pursuing a

³See e.g., Underhill, 1975 for linguistic discrimination in the corporate world, Ayers, 1996 for other anecdotes from academia, and Greene, 2010, particularly the preface, for similar stories from other mountain speakers.

graduate degree. She said 'I was scared about going on for my Master's, because of the way I talk'. She was equating sounding local as incommensurate with a graduate school education. She felt that sounding a certain way would hinder her, or would somehow block her ability to continue her education. She had concerns about how other students and professors might treat her. She wondered if she would be taken seriously in a graduate program sounding like she was from Hancock County. However, she did say that she decided that ridicule or laughter would not stop her from achieving this personal goal, saying 'I'm proud of where I'm from'. She did finish her degree, and she said that getting the degree did not change her speech, which she noted was a source of pride. She appreciated sounding like someone from Hancock County.

These anecdotes show that standard language ideologies (see Section 2.1) have had quite the impact. The negative terminology utilized and the plaintive anecdotes of ridicule reflect that some people feel (or are made to feel) that the way they speak is lesser. Yet, the reactions from participants highlight the differences between more and less rooted speakers.

6.2.2 Pride in Local Speech

Although many participants shared some negative sentiment about the local speech, or worse, had experienced mockery of their own speech, many spoke with great regard for local speech. The regard had several expressions: the belief that local speech preserved an older form of English, the belief that local speech was distinct, and the belief that sounding local was important. For each of these aspects of pride, the reactions and explanations of more and less rooted speakers differed.

A few speakers, mainly less rooted speakers, referenced the antiquity of mountain speech as a source of pride. Brian (R=20), a less rooted speaker, said that local speech was 'the language of old'. Juanita (R=27), another less rooted speaker, spoke of the 'Elizabethan' nature of the speech of Hancock County and other mountain areas. She said it was 'very much like the KJV⁴'. I assume this was another reference to antiquity, although perhaps also piety. A few others also referenced some gloried past when describing local speech.

Such arguments are not new — authors have often compared Appalachian English to Elizabethan English, Chaucerian English, or some other variety from the distant past (e.g., Frost, 1899; Campbell, 1921; Kephart, 1922; Miller, 2009, among others). However, many of my participants seemed to be using the supposed antiquity or historical nature of speech as a way to fight back against stereotyping. I know this argument well, as I have personally used it in the past. If something has roots in a glorious past, it becomes more difficult to ridicule. In fact, less rooted speakers seem to use this strategy to undermine the mockery. Lack of knowledge of the 'historical' nature of the speech is what drives the ridicule. Thus, speakers who are aware of the historical nature of local speech can feel better about themselves and their speech. If the mockers knew that local speech was like that of the great English bard, the ridicule might stop. While such ideas are not accurate, they nonetheless demonstrate that speakers want to have pride in the way they speak. Local speakers search for ways to legitimize their speech in the eyes of others, and history is one way.

Many speakers expressed the belief that Hancock County has a distinct way of speaking. Here, rootedness plays into how speakers view the implications of such distinction. Charlotte (R=20), a less rooted speaker who moved to the county as a child, recounted that she felt like Hancock Countians spoke differently, 'the language stood out to me when we moved in'. Terry (R=23), another less rooted speaker, described the county as having 'our own dialect'. He felt this made people stick out, and he was not sure whether this was a good or bad thing. At the other end of the rootedness continuum, Edward (R=31) said that 'language is a part of Hancock' and

⁴She was referring to the King James Version of the Bible.

that 'we get our slow drawl from our mountain-ness'. He was proud of the language, even though he knew that some might view it negatively.

Both more and less rooted speakers noted the distinctive nature of Hancock County speech. Less rooted speakers tended to try to justify the distinctiveness as a type of linguistic preservation. In contrast, more rooted speakers tended to state that the distinctiveness derived from place. Less rooted speakers noted the differences, but did not necessarily view the differences positively. However, the more rooted speakers like Edward note the distinctiveness with pride. Speech set Hancock County apart, and being set apart was positive.

The perceived distinctiveness was often highlighted when traveling. Martha (R=29), a more rooted speaker, said that 'we don't realize it's different until we go somewhere'. Trish (R=29), said that, when traveling, 'people stared because they had never heard anyone talk like that'. Many people had stories of being asked where they were from while on vacation after someone heard them speak. Most of these were narrated as humorous anecdotes. Trish and Edward (R=31), both more rooted speakers, are married. They separately told me the same story. While traveling out west, they were waiting for a table in a restaurant. They were talking to one another, and a person walked up and said 'you must be from the mountains of Tennessee or Virginia'. Somewhat dumbfounded, the couple asked him how he knew. He replied 'I'm from Bulls Gap [a nearby town] and you sound just like home'. Naturally, they were thrilled to hear that. Importantly, this anecdote points out the emotional connection that speakers have to local speech. To sound like home refers to an emotional link between a particular way of speaking and a (presumably) cherished place.

More recently, the increase of in-migration and contact with non-local speakers has caused the realization of the distinct nature of Hancock County speech to occur within the county itself. Naomi (R=23), a less rooted speaker, said 'outsiders' language is completely different' than that of Hancock County. Sometimes, these differences and reactions to differences, whether real or perceived, cause friction between locals and in-migrants. Nathan (R=26), a less rooted speaker, said 'You can tell some [of the outsiders] are from up north' and he continued 'there's an attitude, maybe some [of them] condescend'. I asked how he could tell, and he replied 'they sound like they're from up there'. Tyler (R=19), who had to interview lots of people for his work, talked about how he needed to change for outsiders, 'if I am trying to talk, to prove to you and show that I am not a hillbilly, that definitely changes how I talk'. He knew that some people might stigmatize him if he did not alter his speech.

Not only was local speech distinctive, many saw language as one of the defining characteristics of the county, if not the defining characteristic. Juanita (R=27), a less rooted speaker, said that 'you know you're from around here when you start talking like us'. Referring to in-migration and acceptance, she continued 'outsiders belong when they use mountainisms'. Tyler (R=19), a less rooted speaker, said that the local language could be described as a principal aspect of local culture. These descriptions demonstrate that the populace is keenly aware that their speech is central to what it means to belong or to be considered local. I note here that these very insightful comments came from less rooted speakers. Even though their attachment to the local area may not be as strong as other speakers, less rooted speakers were still readily aware of how prominently speech featured into localness. To sound local is to belong, and such belonging is of prime importance to residents.

The importance of sounding local was of paramount importance to many participants. Tyler (R=19) discussed that a local sound was crucial for many people. He said that people tend to respond to local speech, which was 'that tone that sounds familiar'. He said that people perceive someone who uses local speech features differently. Local speech can put people at ease because it 'sounds like home'. Part of his work required much interaction with and interviewing of people on a one-to-one basis. He overtly referred to speech as the vehicle to demonstrate belonging and localness. He said 'someone considered an outsider or not from the area, you're not gonna get anywhere close to the same interview'. In spite of his weaker personal tie to the area, he noticed the importance of sounding local.

However, my respondents also noted that not everyone in the community sounded the same, and these responses uncovered further differences between more and less rooted speakers. Many pointed to local speech being more prevalent in older speakers. More rooted Trish (R=29) stated that many older people 'had that country accent' and that not all younger people did. She considered this a loss for the younger generation. Contrast this sentiment with that of Brian (R=20), a less rooted speaker, who stated that 'the older generation' sounds a certain way. He seemed to indicate that change was happening among younger speakers and it was not necessarily negative. Terry (R=23), a less rooted speaker, talked of 'some having it [local speech features] more than others'. He thought it might be an urban/rural split. Here, I think he means the town dwellers versus those who live further away from town, as there is no real urban area in Hancock County. Terry continued, saying that he had friends who 'intentionally change the way they speak' after moving away. He noticed that 'they sound odd' to him now, that they do not sound local anymore. He insinuated that this change was negative. He thought they might have sounded different before they moved, but he was unsure. Others, however, referred more to a sense of local attachment with respect to speech. Edward (R=31), a more rooted speaker, said 'those that don't identify [and] don't have the same pride, don't sound the same'. Part of being local meant sounding local.

The discussion above has highlighted differences, in the aggregate, between more and less rooted speakers. Fundamentally, more rooted speakers have an overall more positive view of the county and its speech. In contrast, the opinions of less rooted speakers is more mixed. While not always overtly negative, many less rooted speakers acknowledge stigma and negative aspects, and some note the impact of both.

6.3 Individual Case Studies

In this section, I focus on three speakers — Haley, Misty, and Hugh — to consider how rootedness at the level of individual impacts both monophthongization of /aI/and rising pitch accents.

First, I compare Haley and Misty — two female speakers, who have Master's degrees and work in the public educational system. Haley is 27 years of age; Misty is 37. Based on these *a priori* categories, the two form a relatively coherent and homogenous pair. Furthermore, their sociodemographic backgrounds, from a traditional sociolinguistic perspective, would predict relatively 'standard' language behavior. However, their rootedness scores differ greatly from the lowest (R=18) for Haley to Misty, who is tied for the highest at R=31. And, their linguistic behavior seems to reflect this difference in rootedness.

With respect to EuD as a measure of monophthongization of /ai/, we saw in Chapter 4 that as the rootedness score increased, the EuD decreased, i.e., the production of /ai/ became more monophthongal. Figure 6.1 shows the EuD for Haley and Misty.

In this figure, the average EuD for Haley was much higher than that of Misty, 318 to 174; thus on average she used more diphthongal productions whereas Misty used on average more monophthongal productions.

When we include the influence of interview task, we see that Haley has a higher EuD during all tasks, as shown in Figure 6.2 below. Here, we see that the mean EuD for Haley during the conversation is 269, whereas the conversational average for Misty is 220. During the reading task, the two speakers are more similar, but Haley still has a slightly higher EuD; the reading average for Haley is 184 while for Misty it is 176. However, the difference between these two speakers is most striking during the word list task. Here, the average for Haley is 579 while for Misty it is 110. In fact, the maximum EuD word list value for Misty, 344, does not even reach the first



Figure 6.1: Euclidean Distances for Haley and Misty.

quartile EuD values for Haley, 445.

These results suggest that the difference between these two speakers is driven primarily by the word list task and secondarily by the conversation task. When their presumed attention-to-speech is at its lowest, i.e., the conversation, Haley and Misty are different, with Misty producing more monophthongal /ai/ tokens. However, the disparity in EuD grows to a five-fold difference when the presumed attention-tospeech is at its height, when reading a word list. Here, Haley's productions of /ai/ are completely distinct from those of Misty. Thus, according to the attention-to-speech model, for Haley, a more monophthongal /ai/ is to be avoided when attention-tospeech is highest. In contrast, for Misty, a more monophthongal /ai/ is favored as more attention is paid to speech.

We saw in Section 2.4 that some studies report that monophthongal /ai/ is stig-



Figure 6.2: Euclidean Distances by Task for Haley and Misty.

matized. We might presume then that a speaker might want to avoid stigmatized features when paying more attention-to-speech, as Haley does with /ai/. However, Misty does the exact opposite. When her presumed attention is at its height, she uses the most monophthongal productions of /ai/. Such linguistic behavior might indicate that for Misty, a more monophthongal realization may actually be preferred.

Turning to the relative frequency of pitch accents and the average length of PA-On of the L+H* pitch accent, we see a similar linguistic behavior, displayed in Figure 6.3. In the left pane of the figure, the frequency of the L+H* pitch accent is displayed. Misty produces more L+H* pitch accents than Haley, 26 to 19, as shown by the rightmost dark blue bars. In the right pane, a boxplot of the average PA-On of the L+H* pitch accent is shown for each speaker. Misty's PA-On is much shorter than that of Haley.



Figure 6.3: The distribution of pitch accents in the left panel and PA-ON in the right panel for Haley and Misty.

What these figures and results show is that even for speakers that we might expect to adhere to supra-local norms — two females working in the educational field with post-graduate degrees — a priori groups or social factors do not necessarily tell the whole story. The differences between these two speakers with respect to /ai/andrising pitch accents seem to stem from a difference in attachment to place. Also, we see the interaction of attention-to-speech and the salience of each feature. As more attention was paid to speech, Haley avoided the use of the salient feature, whereas Misty used it more. For the less salient feature, their productions are much more similar, yet still remained distinct. However, the difference between Haley and Misty's intonation was not as great as the difference between their monophthongization. I believe this can be explained via the relative salience of each feature. Monophthongization is well-known and commented on. Thus, a change in monophthongization will have a greater impact because it is more salient to the listener and speaker. In contrast, intonation does not receive nearly the amount of attention or commentary. A change in intonation or the phonetic realization of pitch may be noticed, but such a change may not have the same impact. There is a more explicit connection between monophthongization and localness, and thus a more rooted speaker is more distinct from a less rooted speaker with respect to monophthongization rather than intonation (although their intonation is also distinct).

While we have seen that their rootedness scores are quite different, how is this difference borne out qualitatively? In the questions about Hancock County, Misty spoke of how much the county meant to her. She described it as her home, as part of her, and something to cherish. She spoke of how deeply she reacted when someone denigrated Hancock County, particularly if that person was a local. In fact, she told an anecdote of confronting a mutual friend about his online aspersions of the county. She said, 'I told him to stop throwing off⁵ on the county. This is home, and I won't stand for it.' She was not unaware of the issues facing the county. However, she felt that the people of the county could find solutions to the problems.

With respect to language, recall that Misty said she had some concerns about pursuing a Master's degree because of her speech. She was worried that her speech might prevent people from taking her seriously. However, she also firmly stated that 'Hancock is home and I sound like where I'm from. I'm proud of that fact.' She stated that if someone had a problem with her speech, that choice did not reflect on her, rather it reflected poorly on the other person.

A closer look at her responses to the RM illustrates her positive feelings toward Hancock County. When asked about her willingness to relocate, Misty answered that she saw no circumstances where she would move away from Hancock County. She said that she found bigger cities [than Sneedville] too busy, too crowded and overwhelming. She did travel to nearby towns weekly, but she said she did it out of necessity. She emphasized that she tried to shop locally when possible, but admitted that it was difficult given the lack of options in the county. For the third section of the RM, where one says they are from, Misty responded that when she traveled

 $^{^{5}}$ To throw off on means to insult, to denigrate, or to cast aspersions on. Typically, the term is used when someone openly defames something. For further elaboration of this term, see Montgomery & Hall (2004).

nearby, she would tell people that she was from 'Overhome'; when she traveled further away, she would say she was from 'Upper East Tennessee'. Her family history, section four of the RM, is quite deep in the county. Misty's family has been in the county for more than four generations, and she had more than 10 family members living within the county. With respect to local participation (fifth section of the RM), she did attend and participate in local events. She said she often volunteered at local events, wanting them to be as successful as possible. For the sixth section of areal identification, her top two areas that she identified with were 1-Hancock County and 2-her local community. Overall, she felt her identity was closely tied with Hancock County (the final section of the RM).

Haley was somewhat different from Misty. She liked living in Hancock County, but she chafed at the lack of opportunity. She noted how few jobs were available, and that career advancement was practically nonexistent. Further, she reflected on the changes that were happening. She stated that the county had changed greatly since her childhood. She pointed out many problems: poverty, lack of opportunity, and drugs. She thought those problems might be too much to solve without a drastic change. She did speak highly of the people of the county, but she also admitted that even she felt that some people were changing for the worse. She mentioned that her current neighbors were not like her neighbors growing up; in the past, neighbors were friends. Currently, she barely knows her neighbor, and developing a relationship is proving difficult. She spoke of how that lack of relationship was a parallel to the changes happening across the county.

With respect to language, recall that Haley told the story of being ridiculed for her speech during a college class. She got quite animated when telling of the embarrassment she felt. She spoke of the anger that burned, particularly since one of the persons ridiculing her speech spoke English as a second language. She knew that her accent was somewhat different, and she also knew that sounding a certain way was 'always going to be an issue'. She professed to be concerned about how people would perceive her due to her speech.

Haley's slightly lesser attachment to place was captured by her responses to questions from the rootedness survey. She was open to relocating, particularly for career advancement or career opportunities. Responding to the second section of the RM, Haley noted that she visited nearby towns quite often, and remarked about the necessity to drive for just about everything. With respect to how she answered where she says she is from, the third section of the RM, Haley said that when traveling close to Hancock County, she would tell people that she was from Sneedville and then perhaps Hancock County. When traveling further away, she would say she was from Tennessee. She had deep family roots in Hancock County, with at least 5 generations in Hancock County and more than 20 family members living in the county. When asked about her participation in local events, she did attend local events, and volunteered also. However, she did not follow this up with any anecdotes, in contrast to Misty (and Hugh below). For areal identification, Haley's top two areas that she identified with were 1-Hancock County and 2-Tennessee. Overall, she felt her identity was only somewhat tied to Hancock County.

Consideration of an individual's relationship to place, i.e., their degree of rootedness, permits a deeper understanding of linguistic behavior. Misty is more rooted to Hancock County than is Haley; and, she uses more local features in her speech than Haley as well. Without consideration of Misty's attachment to place, this differing behavior would remain unexplained and somewhat anomalous. However, through considering her relationship and orientation to place, her linguistic behavior can be better described.

A second comparison, between Misty and Hugh, further illuminates the importance of rootedness. Hugh is an 84 year old retiree with a high school education. Misty and Hugh, from a conventional viewpoint, would be considered quite different — different genders, different generations, different levels of education, different career paths. Misty works in public education whereas Hugh retired from a farming supply business that mainly served local people in Hancock County. We would probably expect their linguistic behavior to be somewhat distinct. Yet, their rootedness scores are close, 29 for Hugh and 31 for Misty. With respect to the two linguistic features analyzed, the linguistic behavior of these two individuals is remarkably similar. Figure 6.4 shows the average EuDs of both Misty and Hugh.



Figure 6.4: Euclidean Distances for Two Hancock County Speakers, Misty and Hugh.

The two average EuDs are quite similar, and show much overlap. The average EuD for Misty is 174 and for Hugh it is 220.

When we include the influence of interview task, we see that the speakers show further similarity, as shown in Figure 6.5 below. Here, we see that the mean EuD for Misty during the conversation is 220, and the conversational average for Hugh is 234,



Figure 6.5: Euclidean Distances by Task for Hugh and Misty.

quite similar values. During the reading task, the two speakers are slightly different, with Hugh having a slightly higher EuD; the reading average for Hugh is 243 while for Misty it is 176. During the word list task, the values for both decrease, but Hugh still has a slightly higher EuD. Here, the average for Hugh is 180 while for Misty it is 110. For all tasks, the values of EuD substantially overlap and are similar.

These findings reveal an overall similarity with respect to /ai/ realizations. Both of these speakers produce more monophthongal productions, and their average EuD values are similar. Notably, the word list task reveals the shortest EuD of any task, i.e. the most monophthongal productions, for both of these speakers. When their presumed attention is most drawn to speech, they each produce the most monophthongal /ai/ of the three interview tasks. This finding challenges traditional notions of the attention-to-speech model. However, it also suggests that individual identity, here rootedness, can yield starkly opposing responses from speakers.

Similarity between these two speakers also exists for both the relative frequency of pitch accents, the left pane of Figure 6.6 below, and the PA-On, the right pane of the figure. Hugh has a few more $L+H^*$ pitch accents than Misty, but her PA-On is slightly shorter. Thus, they both exhibit local features with respect to pitch accent.



Figure 6.6: The distribution of pitch accents in the left panel and the average PA-On in the right panel for Misty and Hugh.

The similarities between Hugh and Misty go beyond their linguistic realizations of /ai/ and rising pitch accent. The ways in which they describe Hancock County are also analogous, and their qualitative discussions of place exhibit many similarities. Thus, even though the individuals appear quite different in their demographics, their perspectives about Hancock County and the language varieties there resemble one another very closely.

When asked about Hancock County, Hugh, who served in the military as a younger man, spoke of how Hancock County was home. He said, speaking of Hancock County, 'I was in Europe, and I saw lots of beautiful things. But, none as pretty as home'. He spoke poignantly of wanting to see the hills of home again. He recounted an anecdote of hitchhiking from New Jersey, and arriving at Hancock County near sunup. He said seeing the sun's rays hit the mountains reminded him that he was home. After serving, he returned, and he had no plans of leaving. He, like Misty, recognized that the county suffered from various issues. But, again like Misty, he felt that things were improving, and he had faith that they would continue to do so.

Regarding language, Hugh spoke of how he knew that Hancock County speech might be seen as different from other areas, and the differences might be shared perhaps with nearby rural areas. But, he also mentioned that he was from Hancock County, so there was no reason to change. He said that he felt that just about everyone he knew from the county sounded somewhat similar to him, so he felt comfortable speaking the way that he does. Notice how similar this sentiment is to what Misty expressed above.

Hugh's responses to the rootedness survey captured his positive view and attachment to Hancock County. For the first section, Hugh saw no circumstances where he would move away from Hancock County. He knew that other places might have their good points, but he prefers home. He was 'completely at home in Hancock'. When asked about his travel habits, he relayed that he did travel fairly often to nearby cities, but he did so mainly to access medical treatment. For how he would respond to questions about where he's from, the third section of the RM, Hugh said that when traveling nearby, he would tell people that he was from Sneedville. When traveling further away, he would still tell people that he was from Sneedville, TN. He knew he might have to explain Sneedville's exact location, but he was fine with that possibility. Like many participants, Hugh's family had a long history in the county. His ancestors had been in the county for at least 6 generations, and he had 6 family members still living in the area. Speaking of his participation in local events, he does attend and participate in local events, volunteering when possible. He said that he loved local events, and seeing people of the county together was always a positive thing. He lamented that as he aged he was not as able to attend all the events that he used to in the past. With respect to his areal identification, Hugh most closely identified with 1-his local community and 2-Hancock County. Overall, he felt his identity was closely tied to Hancock County.

What the results and qualitative explanations above show is that even for speakers who might be considered socially distinct, *a priori* social factors again may not capture the entire story. Without considering the similarity in rootedness, the fact that Hugh and Misty behaved very similarly would prove difficult to explain. Their similarity in linguistic patterning crosses gender, generations of age, lines of education, and lines of occupation. We might expect some degree of resemblance since they are from the same area. Yet, given their social differences, we might anticipate many linguistic distinctions as well. However, by considering their rootedness, one can provide an account for why these speakers pattern alike. They both have a strong connection to Hancock County, a strong rootedness, and they both express this attachment linguistically.

6.4 DISCUSSION

This chapter has outlined how my participants discuss place, how language has a critical role in place identity. I have presented three individuals as case studies to demonstrate how place features in linguistic behavior. I see several implications for why place and language matter so greatly to this community.

First, Hancock County speakers have a feeling of being somewhat different from other areas of Tennessee and even of other parts of East Tennessee. This sense of difference is attached to place and grounded in a history of both pride and stigma. This sense of difference is also reflected in the language of the area, which many speakers see as an integral part of the local culture. And the fact that the fact that the county appears to be in flux now means that localness has come to the fore.

Hancock County has lost roughly 40% of its population from 1940-1970, with smaller decreases in the decades since. Many people born and raised within the county have left. Locals have felt the effects of such population loss, economically and culturally. In the past, residents were made aware of how different local speech was primarily when traveling or going away to college. However, some newcomers now point out speech differences within the county itself. Locals note that not everyone within the county sounds the same, and some note that the speech of those who have left has changed and may have been different even before they left. Since speech is one way the local area is felt to be distinct, the perceived importance of speech as an expression of localness has grown.

In the same way the Martha's Vineyard residents observed in Labov (1963) wanted to demonstrate their localness linguistically, in order to distinguish themselves from seasonal tourists, local Hancock Countians appear to be using speech as a way to emphasize place and their rootedness to place in the face of in-migration. However, using more local features is not just a reaction to in-migration alone. In this regard, rootedness, and the covert prestige of the local language, trumps the stigma imposed on local speech by the wider community. For many speakers, the desire to fit in locally overrides standard language ideologies and other circulating tropes about Appalachia, East Tennessee, and Hancock County itself. However, not everyone behaves the same way — individuals make their own linguistic choices. Speakers pull from available community linguistic resources to create individual identities, with their choices reflecting feelings and orientations toward place. As these linguistic choices become further imbued with locally relevant meaning, more individuals who want to express that same social meaning make similar choices. However, each individual is free to buck the trend and make a different choice, to reflect their own personal identity.

The case studies provided above demonstrate how difficult it would be to describe the linguistic behavior of this community without considering their degree of rootedness. These findings, as noted above, challenge the assumptions of the attentionto-speech model, which has happened before (e.g., Giles, 1973; Bell, 1984; Schilling-Estes, 1998; Bell, 2001). However, the incorporation of rootedness can provide a basis for the differences or similarities of speakers. In the case of Haley and Misty, we saw two speakers that one might assume would be very similar based on conventional social factors. However, the stark differences in rootedness allow for an explanation of why their realizations of the two features analyzed here contrast. Without including the importance of place-attachment, this variation might prove harder to describe. The difference in rootedness helped explain why their behavior was starkly different. Rootedness underscored the differences in importance of place and sounding local, which led to very distinct linguistic behavior. Further, the fact that Misty and Hugh, two speakers quite different with respect to social profile, pattern similarly in their use of the two features analyzed further demonstrated the importance of rootedness. Absent the rootedness similarity, it would be more challenging to characterize why these two individuals pattern alike. Thus, differences in degree of rootedness can often reveal why presumably similar individuals do not pattern alike or why dissimilar individuals pattern in an equivalent manner.

CHAPTER 7

CONCLUSION

In this dissertation, I set out to examine the relationship between language and identity in Hancock County, specifically aiming to quantify the influence of local identity on a heavily stereotyped feature, /ai/ monophthongization, and a recently identified and understudied feature, relatively frequent rising pitch accents. This study offered an ethnographically-informed quantitative analysis of Hancock County speech utilizing a novel psychometric instrument that quantified local attachment combined with rigorous acoustic and statistical analysis. From these analyses, I determined the pattern of variation of /ai/ monophthongization and relatively frequent rising pitch accents. In this chapter, I will summarize my overall findings, discuss the implications and limitations of this study, and end with concluding remarks about issues brought to light by this study and propose future directions for research.

7.1 Summary of Findings

The present analysis revealed that traditionally studied social factors, such as age and gender, were somewhat predictive of a speaker's linguistic behavior. However, a speaker's orientation toward the local area, i.e., rootedness, also featured prominently in the observed patterns of variation for both /ai/ monophthongization and rising pitch accents. In conjunction with traditional social factors such as age or gender/sex, degree of rootedness permitted a more nuanced understanding of the language variation present in this community.

7.1.1 Monophthongization Summary

Monophthongization has been examined throughout Appalachia and the South, and was a known feature of Hancock County and its language variety. However, variation within a relatively monophthongal system, particularly nuances in speakers' degree of monophthongization, has not been as comprehensively investigated. Typically, a study uses a perceptual bifurcation, monophthongal vs. diphthongal, to describe or classify tokens, and then performs a comparison between the two perceptual groups. In contrast, I chose to examine the feature with a more objective acoustically-based continuous measure, Euclidean distance from the nucleus to the glide. Such a methodology makes this dissertation one of a growing handful of sociophonetic studies of Appalachian speech. The findings showed that within a relatively monophthongal community, pronunciations of /ai/ can be realized in different ways.

Returning to my research questions regarding the social and linguistic distribution of /ai/ monophthongization, using acoustic measurement I found that overall, the community's realization is relatively monophthongal but not strictly monophthongal. The variation in EuD observed in this study suggests, given the nature of this rural community, we might be better served to describe the status of this particular variable in Hancock County as a process of *diphthongization*, as those more diphthongal realizations of some speakers deviate away from community norms, based on their individual orientations toward the local area. Most speakers produce a shorter EuD (i.e., a more monophthongal realization), although a longer EuD does exist for prevoiceless contexts. This finding suggests that bifurcating the variable into two strict categories might be misguided. Rather, the degree to which a speaker utilizes a more monophthongal (or more diphthongal) production is a process that can occur to a greater or lesser extent.

Interestingly, the duration of the vowel was not significant as a main effect in any of the statistical models for Euclidean distance. Typically, we think that as a vowel's duration increases, the ability for a speaker to reach the extremes of articulatory targets increases as well. Thus, we would expect that for a possible diphthong, a longer duration would equal a greater Euclidean distance, as the articulators have more time to move. However, in this community, this was not the case, as vocalic duration was not significant as a main effect. This finding could mean that there were not two targets for the vowel, rather a single target, and thus we might conclude that the target is more monophthongal, rather than more diphthongal.

Looking at the relative impact of social factors within this community, speakers with higher rootedness scores and thus a more local orientation had shorter Euclidean distances, i.e., a more monophthongal realization of /ar/. With respect to the different interview tasks, which served as proxies for attention-to-speech in this study, one interesting finding was that the primary driver of differences between more rooted and less rooted speakers occurred in the word list task. In this task in particular, the more rooted a speaker was, the shorter the Euclidean distance, while the less rooted a speaker was, the longer the EuD. While there were differences in the conversation and reading passage, the word list task had the greatest difference between more rooted and less rooted speakers. This finding suggests that differences between a local and non-local orientation are most marked when a speaker's presumed attention-to-speech is at its height.

These results show that even in a community that is characterized by /ai/ monophthongization, individual social factors can still have an impact. It is perhaps unsurprising to find that a salient feature such as /ai/ monophthongization would be available for speakers to do identity work in this way. What is more surprising, however, is that the relative frequency and quality of rising pitch accents, a less salient feature of the variety, appears to pattern similarly.

7.1.2 Rising Pitch Accent Summary

Because intonational variation in Appalachia had not been examined at length aside from Greene (2006), two of my goals were to observe the distribution of pitch accents in the community and to determine whether there were differences between Appalachian English and a Lower Southern variety that might point to a distinctive AE intonation pattern. I also sought to determine the social patterning of $L+H^*$ pitch accents within my Appalachian community.

The L+H^{*} rising pitch accent was more frequent among Appalachian speakers than Southern speakers in Warren County, N.C.. Additionally, the anchoring of the peak (PA-On) of the L+H^{*} pitch accent was earlier for the Appalachian speakers than the other Southern speakers. Such patterning suggests that intonation, and rising pitch accents in particular, may be a feature that distinguishes two closely related speech varieties, Appalachian English and Southern English, consistent with the findings of Clopper & Smiljanic (2011) between Southern English varieties and Midland English varieties.

Within Hancock County, the L+H*pitch accent was more frequent in the speech of older and more rooted speakers. Older speakers tended to be more rooted than younger speakers, as the correlation between age and rootedness was relatively strong (Pearson's correlation of .56). Thus, there was also an age \times rootedness interaction. The Pitch accent onset (PA-On) was earlier for males and for more rooted speakers. This result, when considering the results from the comparison with SAE, suggests that males' PA-On is earlier, thus possibly more Appalachian-like, while females' later PA-On is possibly more Southern-like.

The differences in intonation between more and less rooted speakers were not as great as the differences for these same speakers with respect to /ai/ monophthongization. This highlights the differences in salience of the two features. A more salient feature seems to do more social work, while a less salient feature may not have the same impact. However, this is not to say that intonation does not play a role in the expression of rootedness. Rather, it is subtler than the role played by monophthongization.

The importance of rootedness on intonation underscores the need for more research on intonation variation (and prosody in general). Including more personal identity factors is crucial for arriving at a deeper understanding of language variation. We know that personal identity is important, and finding ways to quantify these identity factors (albeit probably never perfectly or completely) permits a more replicable analysis, and potentially allows for adapting rootedness measures to other communities and linguistic contexts.

7.2 Implications

I have purposely situated my study between the traditional quantitative sociolinguistic paradigm of *a priori* social groupings, e.g., gender, age, education, etc., and a more qualitative sociolinguistic view of groupings emerging from local norms and choices, typically with a perspective of a linguistic individual that exercises agency rather than falling completely within the confines of preconceived social groupings.

The results of this study challenge Labov's strict three way distinction of *indicator*, *marker*, and *stereotype* and also the attention-to-speech model. While such challenges are not new (e.g., Bell, 1984; Schilling-Estes, 1998), my results emphasize the individual nature of language behavior and that differences in individual's root-edness can have starkly opposite linguistic outcomes. I did not observe community uniformity for either linguistic feature. Labov argues that an indicator occurs in every available linguistic context for a particular socially identifiable group. A marker shows social patterning, and there is a uniform reaction from community members. For a stereotype, community members are overtly and explicitly aware of the social meaning of a feature, and potentially avoid using it (Labov, 1972a:178-180). In this
community, I observed that some individuals did behave in similar fashion. However, the uniting social factor was not an identifiable demographic feature (such as gender or education), rather the uniting feature for these individuals was a similar psychological attachment to place, rootedness, that cut across various social factors.

I would argue that what might potentially be at work here is the difference between an urban and a rural community¹. Labov's work and theoretical assumptions stem from his years of investigation in urban areas (primarily New York and Philadelphia). The majority of investigations that have followed Labovian methodology took and take place in urban or suburban environments. However, not much work has been performed in rural areas, particularly areas as rural as Hancock County. Thus, what fits an urban area like Philadelphia may not fit a rural area like Hancock County.

To his credit, Labov acknowledges this potential urban/rural divide. In Labov (2001), writing about the transmission of change, he explicitly states that much of what he has described should be thought of as applying to urban areas, 'the social patterns described are typical of the social stratification of large cities and the operation of the socioeconomic hierarchy'. Rural areas, on the other hand, the transmission of features and the pathways of language variation and change 'might take on a different form'(Labov, $2001:437)^2$. I take this to mean that the different nature of social hierarchies, or lack thereof, in rural areas impacts the linguistic variation differently than in urban areas. Thus, for rural areas, a slightly different paradigm may be necessary.

Another implication of this work is that the speaker's psychological attachment to place and also their beliefs about place were central in understanding the language

¹Some researchers who have investigated relatively stable, tight knit urban communities (Milroy & Milroy, 1985) or suburban communities (Eckert, 1989a, 2000) have seen some similar results to this rural work.

²Although the difference might lie in the density and multiplexity of social networks rather than solely urban/rural. Habick (1980) in a rural area and Eckert (1989a) in suburban Detroit found similar social structures.

variation present. Statements such as 'we get our slow drawl from our mountainness' and 'you know you're from around here when you start talking like us' reflect the belief that the language spoken in Hancock County is distinct in some fashion, and these statements reinforce the idea that one must speak a certain way to belong. A speaker's desire to be seen as local via their speech reflects, to some degree, their belief that local speech can be used to reflect localness because it is distinct. The belief in the distinct nature of local speech permits speakers to utilize it as an emblem of belonging, as an expression of their rootedness.

I propose that the current study serve as a paradigmatic model for rural methodology. I combined methods that served to discover and begin to reveal the linguistic variation present. The methodology of varied tasks employed by the standard version of the sociolinguistic interview, designed to reveal social evaluation of linguistic features, did uncover differing evaluations; however, the differences in evaluation did not exhibit uniformity. Speakers did not all react in uniform ways; rather those with stronger degrees of rootedness used more local features. Speakers with lesser rootedness seemed to avoid those same features. Thus, within one community, two social evaluations are present, challenging the assumptions of uniformity required to classify a feature as a indicator, marker, or stereotype. Incorporating the importance of the local area, rootedness, permitted a more profound and nuanced description of linguistic variation present.

All of my speakers are individuals, with different experiences, life histories, and life trajectories. To treat them all as merely a product of their gender, education, or other social factor would be a disservice to the fact that individuals can and do make choices about their linguistic behavior. Yet all of my participants live and work in a community that does possess some shared norms. Ignoring the community would also do a disservice by overlooking the fact that many speakers talked about 'we' and 'us' when referring to linguistic behavior. Such a communal view means that community matters. However, we must constantly remember that individuals compose communities, and as individuals, they exert agency both inside and outside communal norms. As individuals make choices, the communal norms shift to reflect the choices made and beliefs held by community members. The linguistic norms are the sum of the choices made by individuals who comprise the community. Further, as elusive as an individual's beliefs and choices may be, by using psychometric instruments like the Rootedness Metric in the present study, we can begin to better quantify personal attributes to better describe language variation.

We might think of speakers exercising choice to reflect personal identity within a community as a type of repertoire (Gumperz, 1964; Benor, 2010), where speakers choose from a range of linguistic resources that are available to a community. Each of these choices might be individualized, as each individual speaker makes certain choices due to differences in personal identity, and yet, since they are pulling from shared resources, patterns will emerge as individuals center on features that have locallybased meaning. For example, when asked how long it would take outsiders who have in-migrated to be fully accepted as belonging to the local community, Juanita said that in Hancock County, 'outsiders belong when they use mountainisms'. Here, certain features index belonging to other locals, and absent these features in speech, a speaker seemingly does not belong. A socially understood and shared meaning (i.e., local attachment) is associated with certain features. Locals recognize and respond to the presence or absence of these features, and their associated local meaning. Thus, a person who, based on their individual perspective and history, wants to belong (or to be perceived as belonging) will need to use these features in their speech. Stated differently, those speakers who 'belong' have certain features in their speech, and others note these features. In Hancock County, these features that index localness might be slightly different in comparison to other communities, even nearby ones.

Individual identity operating within a community then helps one to address the

perennial question of why stigmatized varieties persist (Ryan, 1979). A community has a grammar with many shared features, norms, and evaluations. Thus, a speaker can choose to employ the feature, adhering to the norm with the knowledge of the local meaning, or not, perhaps to avoid the local meaning. Alternatively, a speaker may be adhering to a different norm stemming from a contrasting ideology or from a separate community, such as the standard language ideologies that circulate broadly in the United States (Lippi-Green, 1997, 2012).

The results of this dissertation also have implications for the investigation of Appalachian English. Some scholars still appear to view the region as a monolith (not to mention the view of the popular media), yet the current study demonstrates that even within a very small rural community, language variation is present. The idea of a monolithic Appalachia, of a monolithic Appalachian English, is proving more and more difficult to maintain. As scholars of Appalachia, we should strive to avoid assuming an overarching homogeneity within the region. Each community needs to be approached on its own terms, as collections of individuals that may share certain social, cultural, and linguistic features. Some of these shared features and norms may be common to certain areas, or they may be unique to one small county or small community. However, to assume an identical linguistic system for millions of residents over several states encompassing thousands of square miles is, in short, untenable. As Montgomery (2013), discussing the Englishes of Appalachia, states, 'Appalachia is a place as well as places, people as well as peoples... No matter how small the place, there are social differences in the use of English within it — there probably always have been and always will be' (2013:25). I believe this is a better view. Some features may very well be shared, but not by every speaker in every locale. The linguistic situation in Appalachia, as with any other place, is much more complex.

Further, my results underscore the importance of rootedness and place within

the region. Since the English varieties spoken in Appalachia face continuing stigma, I anticipate that the degree of attachment to place will prove to be an important factor in future investigations of language variation there. In the present study, results revealed that the county and local community were the focus of attachment. For other areas of Appalachia, other locally pertinent places may serve as the focus of attachment. Utilizing tools like the RM, adapted for local terminology, can help reveal the degree of rootedness and to what place, and thus can help describe the language variation that is undoubtedly present.

Findings from this study rely on objective and replicable acoustic methods, joining a small body of sociophonetic literature on Appalachian Englishes. The impact of using more objective methods cannot be overstated. The results herein suggest that some of the conclusions drawn from more impressionistic studies of Appalachian Englishes may need to be reevaluated. I challenge some previous findings with respect to /ai/ (such as the impact of duration or categorical monophthongization), and part of the challenge stems from using more quantitative acoustic measures. In the future, any study that can should make use of sociophonetic and acoustic methods.

7.2.1 Contributions

This dissertation has been pioneering from several standpoints, and thus I believe it can serve as a new paradigm for future studies. First and foremost, the rootedness survey quantified a psychological orientation to place. Through combining an ethnographically-informed series of questions with an adapted sociological metric, I was able to measure the importance of place and place attachment for my participants. While not the first study to attempt this (cf. Lane, 1998; Solomon, 1999; Carmichael, 2014), nonetheless, I feel that my study can serve as a model, as my metric can certainly be used or modified in other investigations, provided the researcher can use locally relevant terminology. Some of these other place-based studies caution against extrapolating their methods to other research areas, since the particular ethnographic context is potentially unique. In contrast, I hope others do incorporate rootedness in their investigations. Place matters, but it matters to different people in different ways. Quantifying the impact of place can help us to better describe variation in many areas.

Second, my study focused on a very rural population. Often, our field overlooks rural regions, since many investigations focus on change in progress. Rural areas are sometimes thought to be more conservative than urban areas because of more limited contact with other languages and dialects (Wardhaugh & Fuller, 2015:145). As a result of this belief, any researcher whose goal was to study language change would choose to focus on urban areas. However, the current study observed much language variation within a small rural population. The internal dynamism of this rural population was highlighted, contradicting assumptions of conservatism. Speakers utilized varied productions of both a salient feature and a less salient feature, underscoring the idea that variation exists in all speech varieties. However, variation within rural communities does not necessarily function in the exact same manner as urban areas, since some of these speakers saw themselves through the lens of their county and region. Further, since we assume that language variation is the impetus for language change, rural areas may be loci of language change (cf. Irons, 2007), yet the process or manner of linguistic change may be distinct from that of urban areas. Certain factors may have different relative impacts in rural areas as compared to urban or suburban ones. Without more attention to rural areas, these questions will go unanswered. I would hope that other researchers would heed my call to work with rural populations.

Third, related to the second pioneering aspect above, I am from the rural area that served as my field site. The interviews that served as data were more akin to conversations between friends or familiars, permitting a potentially richer pool of data than an interaction between strangers. Several participants mentioned that they were only participating because a fellow Hancock Countian was asking. While simultaneously being a researcher and a community member does have its own challenges and drawbacks, I still firmly believe that much of the nuance of my findings and conclusions might be unavailable to someone not affiliated with this population. Some participants, as mentioned, would not have participated. Others may not have participated in the same enthusiastic fashion, diluting the quality of the data. For an area like Hancock County and the people there, my status as an insider was invaluable, and also, pioneering.

Fourth, I utilized rigorous acoustic phonetic measurements on two linguistic features associated with Appalachian English. In so doing, I ensured reliability and replicability of acoustic results. Reliability means that all measures were objective and did not rely on any subjective or impressionistic coding. Replicability means that some other researcher could arrive at the same results by using the same techniques to analyze the same data independently. This dissertation joins a small handful of sociophonetic studies that focus on varieties of Appalachian English, (e.g., Greene, 2006, 2010). More objective methods, like Euclidean distance, allow for a more nuanced description of language, avoiding some sources of bias.

Fifth, this study is the first to both describe the distribution of pitch accents and to acoustically analyze the phonetic realization of Appalachian intonation. Other studies, (i.e. Greene, 2006) described the distribution; however, the present study expanded upon those observations. Both the distribution and realization of pitch accents, showed social patterning. Such patterning surely exists in other varieties and in other communities. And yet overall, a distinct lack of research into intonation exists in sociolinguistics and sociophonetics. When considering the present findings and others from around the globe, intonation deserves more attention and description. With freely available acoustic resources like Praat (Boersma & Weenink, 2014), free statistical packages such as R (R Core Team, 2015), and affordable recording devices and microphones, more researchers can now approach intonation, and it merits the investigation.

Sixth, while not the first study to use Euclidean distance for /ai/, this dissertation is the only study to use EuD on a variety of Appalachian English and its /ai/. Typically, other studies utilized an impressionistic methodology, i.e. monophthong or diphthong (or perhaps with more categories/levels). However, my results show that variation exists in how people realize the vocoid, and the variation has social influences. Impressionistic classification of vowels, while useful in its own right, may miss sources of variation. More objective acoustic measures can capture other sources of variation that impressions may overlook. Here, EuD shows that traditional factors like following voicing and less studied factors, like rootedness, can affect the realization of monophthongization. Vowels are dynamic, and a more dynamic measure can help uncover other facets of variation.

Finally, this study utilized a conjunction of methodologies, some novel, from several disciplines — Appalachian Studies, sociolinguistics, sociology, phonetics, acoustics, and statistics. Such a cross-disciplinary approach permitted a more nuanced investigation that produced a better description of the language of Hancock County. The methods from each discipline provided insight that might have been unavailable without their incorporation. Since language and its investigation crosses many disciplines, we as researchers must be cognizant of the methods from other fields and we should try to incorporate them if possible. This multi-method cross-disciplinary approach is pioneering, and I hope that other researchers adopt it.

7.2.2 Limitations

This study, like any study, has its limitations. In particular, there are two: my status as an insider and the nature of the sample itself.

My status as an insider provided access to many speakers and permitted a rich-

ness of data that might have eluded a non-insider investigator. However, the actual impact of my presence was not measured against another fieldworker (e.g., comparing realizations of EuD with interviews conducted by me and another person). While I fully believe the benefits might outweigh the negatives, nonetheless the actual impact of my insider status could have influenced my participants. Undoubtedly, the fact that a local person returned home for research had some kind of impact, particularly since my participants knew me beforehand, and thus related to me in a particular role (cf. Hazen, 2000). What impact this had on their linguistic productions will be the topic of further research.

With respect to the sample, while larger than some, still is relatively small at 25 speakers. Such a relatively small sample provides a somewhat narrow perspective into the linguistic behavior of Hancock County. With a larger sample size, and more data, the conclusions drawn could be stronger, and any speaker-specific effects could be suppressed. More data would provide stronger evidence for any conclusions. The upside is that since Hancock County's population is small, a fully representative sample is possible (and will be actively sought in the future).

A second aspect of the sample is that all speakers had at least a high school education and half had bachelor's degrees, somewhat skewing the data with respect to the rates of educational attainment in Hancock County. Although the rates of education have been increasing rapidly within the county, a truly representative sample would have included more speakers without a high school diploma (or its equivalent). Future investigations will address this with a more even-handed speaker selection.

7.3 FINAL WORDS

The broad aim of this study was to better understand how rootedness, i.e. place attachment, affects linguistic variation in a long maligned region. The varieties spoken in the Appalachian region have persisted in spite of stigma and have changed as a result of it. Understanding the impact of local attachment on speech advances our knowledge of how individuals express their orientations and identity.

For these Appalachian speakers, place is not merely a physical location. Rather, place is intertwined with a speaker's orientation toward and perception of a physical location. This study underscores the importance of looking within a particular locale at the individuals themselves, their perceptions of place, and at the variation across the individuals, rather than merely assuming place to be a static entity that predictably affects all inhabitants in an equal manner. The present study suggests that henceforth any investigation needs to incorporate rootedness. The findings in this study have demonstrated the fundamental importance of rootedness, and have underscored the necessity to explore attachment to place through metrics as in this dissertation in all future studies in Appalachia, and perhaps in investigations into all regional speech.

7.3.1 Further Directions

There remains much to research in Hancock County, in East Tennessee, and in Appalachia as a whole. This particular community is not monolithic, and neither is East Tennessee and most especially neither is Appalachia. Large gaps remain in the description of the linguistic variation present, particularly the variation within Appalachia. Further, there is a need for re-examining the traditional features of Appalachian English, looking at variation and change within the population while incorporating the idea of rootedness. The region has undergone many changes since much of the early linguistic work (e.g., Hall, 1942; Wolfram & Christian, 1976), and thus continuing research into all facets of language is sorely needed. Some researchers (e.g., Irons, 2007) have suggested an emerging urban/rural split. The traditional distinction of ridge/valley (Hsiung, 1997) may also still persist; more research will help explain how the region continues to develop and shift. Another avenue to explore is a comparison of speakers who have left Hancock County with those who have stayed. The sense of rootedness for many of the participants in the present study was relatively high, as they were all living in the county at the time of the interview. However, as noted in Section 3.1, many Hancock Countians have left. Some who have relocated have stayed relatively close, within East Tennessee or Appalachia, while others moved much further away. Since rootedness to the local area was crucial in understanding the linguistic variation within the county, a comparison of the present Hancock County cohort with one who left but stayed relatively close (e.g., within East Tennessee or Appalachia) and with one who moved further away could prove to be elucidating.

Research into intonational variation across all varieties of American English is lacking. This study has provided insight into one variety, yet much more is needed. As sociolinguists, we know that all aspects of language vary. However, investigation from a variationist perspective of intonation in American English is understudied, and fertile ground for additional research.

Finally, there are several avenues for further research on the importance of place. One is to look at rootedness, and quantify it using the RM or similar metrics, in more areas. Crucially, any investigation of place must be locally informed. Carmichael (2014:287) mentions focusing on 'situations where one's ties to place are in flux or otherwise contested'. I concur with this statement. In particular, I want to investigate how those speakers from Hancock County who have relocated pattern with respect to the variables studied here (/ai/ monophthongization and rising pitch accents) and compare them to the results from the current study. Another avenue for place within sociolinguistic study is perception. How do locals perceive certain features? Do all locals perceive features the same? There are undoubtedly other avenues for continued research of place, place identity, and language variation. However one proceeds, incorporating place and a speaker's perceived relationship to place will continue to elucidate our understanding of linguistic variation, permitting a more nuanced comprehension of how individuals express their identities using speech.

BIBLIOGRAPHY

- 1939. *Tennessee: A guide to the state*. New York: Viking Press: Work Projects Administration.
- 2015. Appalachian Regional Commission. Online: www.arc.gov.
- ABRAMSON, RUDY, and JEAN HASKELL (eds.) 2006. The Encyclopedia of Appalachia. Knoxville, TN: University of Tennessee Press.
- AGNEW, JOHN A. 2002. *Place and politics in modern Italy.* Chicago, IL: The University of Chicago Press.
- ALIM, H. SAMY. 2004. You know my steez: An ethnographic and sociolinguistics study of styleshifting in a Black American speech community. Stanford University dissertation.
- ANDERSON, BENEDICT. 1991. Imagined communities: Reflections on the origin and spread of nationalism. Revised edn. London: Verso.
- ANDERSON, BRIDGET. 2002. Dialect leveling and /ai/ monophthongization among African American Detroiters. *Journal of Sociolinguistics* 6.86–98.
- ANDERSON, BRIDGET. 2003. An acoustic study of Southeastern Michigan Appalachian and African American Southern migrant vowel systems. University of Michigan dissertation.
- ANDERSON, BRIDGET; JENNIFER CRAMER; BETHANY DUMAS; BEVERLY OLSON FLANIGAN; and MICHAEL MONTGOMERY. 2014. Needed research on the Englishes of Appalachia. Southern Journal of Linguistics 38.1–30.

- ARVANITI, AMALIA, and GINA GARDING. 2007. Dialectal variation in the rising accents of American English. *Papers in laboratory phonology 9*, ed. by Jennifer Cole and Jose H. Hualde, 547–576. New York: Mouton de Gruyter.
- ATTERER, MICHAELA, and D. ROBERT LADD. 2004. On the phonetics and phonology of 'segmental anchoring' of f0: Evidence from German. *Journal of Phonetics* 32.177–197.
- ATWOOD, E. BAGBY. 1953. A survey of verb forms of the Eastern United States. Ann Arbor, MI: University of Michigan Press.
- AYERS, EDWARD L. 1996. What we talk about when we talk about the South. All over the map: Rethinking American regions, ed. by Edward L. Ayers, Patricia Nelson Limerick, Stephan Nissenbaum, and Peter S. Onuf, 62–82. Baltimore, MD: John Hopkins University Press.
- BAILEY, GUY. 1991. Directions of change in Texas speech. Journal of Popular Culture 14.125–134.
- BAILEY, GUY, and JAN TILLERY. 1996. The persistence of Southern American English. *Journal of English Linguistics* 24.308–321.
- BARANOWSKI, MACIEJ. 2007. Phonological variation and change in the dialect of Charleston, South Carolina. No. 91 in Publication of the American Dialect Society. Durham, NC: Duke University Press.
- BATES, D.; M. MAECHLER; B. BOLKER; and S. WALKER. 2015. *lme4*: Linear mixed-effects models using S4 classes. R package.
- BECKMAN, MARY E., and GAYLE AYERS ELAM. 1997. Guidelines for ToBI labelling. "www.ling.ohio-state.edu//~tobi/ame_tobi/labelling_guide_v3. pdf".

- BECKMAN, MARY E.; JULIA HIRSCHBERG; and STEFANIE SHATTUCK-HUFNAGEL. 2005. The original ToBI system and the evolution of the ToBI framework. *Prosodic typology: The phonology of intonation and phrasing*, ed. by Suh-Ah Jun. Oxford: Oxford University Press.
- BELL, ALLAN. 1984. Language style as audience design. Language in Society 13.145– 204.
- BELL, ALLAN. 2001. Back in style: Reworking audience design. Style and sociolinguistic variation, ed. by Penelope Eckert and John R. Rickford, 139–169. New York: Cambridge University Press.
- BENOR, SARAH BUNIN. 2010. Ethnolinguistic repertoire: Shifting the analytic focus in language and ethnicity. *Journal of Sociolinguistics* 12.159–183.
- BERGERON, PAUL H.; STEPHEN V. ASH; and JEANETTE KEITH. 1999. *Tennesseans* and their history. Knoxville, TN: University of Tennessee Press.
- BERNSTEIN, CYNTHIA. 2006. Drawing out the /ai/: Dialect boundaries an /ai/ variation. Language variation and change in the American Midland: A new look at 'Heartland' English, ed. by Thomas E. Murray and Beth Lee Simon, 209–232. Philadelphia, PA: John Benjamins.
- BERRY, CHAD. 2000. Southern migrants, Northern exiles. Champaign-Urbana, IL: University of Illinois Press.
- BILLINGS, DWIGHT B.; NORMAN GURNEY; and KATHERINE LEDFORD (eds.) 2000. Backtalk from Appalachia: Confronting stereotypes. Lexington, KY: University of Kentucky Press.
- BLAKE, RENÉE, and MEREDITH JOSEY. 2003. The /ay/ diphthong in a Martha's Vineyard community: What can we say 40 years after Labov? Language in Society 32.451–485.

- BLOOME, DAVID. 2008. Foreword: 3/5 of a language? Affirming students' right to their own language: Bridging language policies and pedagogical practices, ed. by Jerrie S. Cobb, Dolores Y. Straker, and Laurie Katz. New York: Routledge.
- BOERSMA, PAUL, and DAVID WEENINK. 2014. Praat: Doing phonetics by computer. Online: www.praat.org.
- BROWN, CALVIN S., JR. 1889. Dialectal survivals in Tennessee. Modern Language Notes 4.409–417.
- BROWN, CALVIN S., JR. 1891. Other dialectal forms in Tennessee. Publication of the Modern Language Association 6.171–175.
- BUCHOLTZ, MARY, and KIRA HALL. 2004a. Language and identity. A companion to linguistic anthropology, ed. by Alessandro Duranti, 369–394. Oxford: Blackwell.
- BUCHOLTZ, MARY, and KIRA HALL. 2004b. Theorizing identity in language and sexuality research. *Language in Society* 39.469–515.
- CAMPBELL, JOHN C. 1921. The southern highlander and his homeland. The Russell Sage Foundation.
- CARMICHAEL, KATIE. 2014. 'I never thought I had an accent until the hurricane': Sociolinguistic variation in post-Katrina New Orleans. Ohio State University dissertation.
- CARVER, CRAIG M. 1987. American regional dialects: A word study. Ann Arbor, MI: University of Michigan Press.
- CASSIDY, FREDERIC G., and JOAN HOUSTON HALL (eds.) 1985-2013. *Dictionary* of American Regional English. Cambridge, MA: Harvard University Press.
- CHAMBERS, J.K. 2003. Sociolinguistic theory: Linguistic variation and its social significance. Oxford: Blackwell.

- CHILDS, BECKY, and CHRISTINE MALLINSON. 2004. African American English in Appalachia: Dialect accommodation and substrate influence. *English World-Wide* 25.27–50.
- CLOPPER, CYNTHIA, and RAJKA SMILJANIC. 2011. Effects of gender and regional dialect on prosodic patterns in American English. *Journal of Phonetics* 39.237–245.
- COMBS, JOSIAH H. 1916a. Dialect of the folk-song. *Dialect Notes* 1.311–318.
- COMBS, JOSIAH H. 1916b. Old, early, and Elizabethan English in the Southern Mountains. *Dialect Notes* 4.283–297.
- COMBS, JOSIAH H. 1931. The language of the Southern Highlander. *Publication of* the Modern Language Association 46.1302–1322.
- COX, RICKY. 2006. Homeplace. *The Encyclopedia of Appalachia*, ed. by Rudy Abramson and Jean Haskell, 219–220. Knoxville, TN: The University of Tennessee Press.
- CRAMER, JENNIFER. 2014. Is Shakespeare still in the holler? the death of a language myth. *Southern Journal of Linguistics* 38.195–207.
- CRAWFORD, CHARLES W. 1986. The nature of the Volunteer state: What makes Tennessee different? *The Egyptians 1985-1986 Yearbook*, 61–70.
- DIAL, WYLENE P. 1970. Folk speech is English, too. Mountain Life and Work 46.16–18.
- DUNSTAN, STEPHANY. 2013. The influence of speaking a dialect of Appalachian English on the college experience. North Carolina State University dissertation.
- DUPREE-MCNAIR, ELIZABETH. 2005. Mill villagers and farmers: dialect and economics in a small Southern town, Publication of the American Dialect Society, vol. 90. Durham, NC: Duke University Press.

- ECKERT, PENELOPE. 1989a. Jocks and burnouts: Social categories and identity in the high school. New York: Teachers College Press.
- ECKERT, PENELOPE. 1989b. The whole woman: Sex and gender differences in variation. Language Variation and Change 1.245–267.
- ECKERT, PENELOPE, and SALLY MCCONNELL-GINET. 1992. Think practically and look locally: Language and gender as community-based practice. *Annual Review* of Anthropology 21.461–490.
- ECKERT, PENELOPE, and SALLY MCCONNELL-GINET. 2003. Language and gender. Cambridge: Cambridge University Press.
- ECKERT, PENNY. 2000. Linguistic variation as social practice. Oxford: Blackwell.
- ELLER, RONALD D. 2008. Uneven ground: Appalachia since 1945. Lexington, KY: University of Kentucky Press.
- EVANS, DAYNA. 2014. America's Ugliest Accent Tournament. Online: http://gawker.com/tag/americas-ugliest-accent-tournament.
- FEAGIN, CRAWFORD. 1979. Variation and change in Alabama English. Washington, DC: Georgetown University Press.
- FEAGIN, CRAWFORD. 2000. Sound change in the South. American Speech 75.342–344.
- FRIDLAND, VALERIE. 1999. The Southern Shift in Memphis, Tennessee. Language Variation and Change 11.267–285.
- FRIDLAND, VALERIE. 2003. Tie, tied, and tight: The expansion of /ay/ monophthongization in African-American and European-American speech in Memphis, TN. *Journal of Sociolinguistics* 7.279–298.

- FROST, WILLIAM GOODELL. 1899. Our contemporary ancestors in the Southern Mountains. Atlantic Monthly.
- GIERYN, THOMAS F. 2000. A place for space in sociology. *Annual review of sociology* 26.463–495.
- GILES, HOWARD. 1973. Accent mobility: A model and some data. Anthropological Linguistics 15.87–105.
- GODFREY, J.J.; E.C. HOLLIMAN; and J. MCDANIEL. 1992. Switchboard: telephone speech corpus for research and development. *IEEE International Conference on acoustics, speech, and signal processing*, vol. 1, 517–520.
- GRABE, ESTHER. 2004. Intonational variation in urban dialects of English spoken in the British Isles. *Regional variation in intonation*, ed. by Peter Gilles and Jörg Peters, 9–31. Tübingen: Max Niemeyer Verlag.
- GRABE, ESTHER; BRECHTJE POST; FRANCIS NOLAN; and KIMBERLY FARRAR. 2000. Pitch accent realization in four varieties of British English. Journal of Phonetics 28.161–185.
- GREENBLATT, ALAN. 2014. Y'all keep talking: Lab scratches 'Southern accent reduction' course. Online: http://www.npr.org/blogs/thetwoway/2014/07/29/336364371/yall-keep-talking-lab-scratches-southernaccent-reduction-course.
- GREENE, REBECCA. 2006. Pitch accents in Appalachian English. Unpublished Qualifying Paper. Stanford University.
- GREENE, REBECCA. 2010. Language, ideology, and identity in rural Eastern Kentucky. Stanford University dissertation.

- GREGORY, ELIZABETH, and CYNTHIA BERNSTEIN. 1993. The decline of glideshortened /ai/ before voiceless consonants among white female natives of Alabama. Paper presented at the South Atlantic Modern Language Association.
- GRICE, MARTINE; MARIAPAOLA D'IMPERIO; MICHELINA SAVINO; and CINZIA AVESANI. 2005. Strategies for intonation labelling across varieties of Italian. *Prosodic typology: The phonology of intonation and phrasing*, ed. by Suh-Ah Jun, 362–389. Oxford: Oxford University Press.
- GUMPERZ, JOHN J. 1964. Linguistic and social interaction in two communities. American Anthropologist 66.137–154.
- HABICK, TIMOTHY. 1980. Sound change in Farmer City: A sociolinguistic study based on acoustic data. University of Illinois at Urbana-Champaign dissertation.
- HACKENBERG, ROBERT GREGORY. 1973. Appalachian English: A socio-linguistic study. Georgetown University dissertation.
- HACKENBERG, ROBERT GREGORY. 1975. The application of sociolinguistic techniques in rural Appalachia. Views on language, ed. by Reza Ordoubadian and Walburga von Raffler-Engel, 192–200. Murfreesboro, TN: Middle Tennessee State University Press.
- HADDICAN, BILL; PAUL FOULKES; VINCENT HUGHES; and HAZEL RICHARDS. 2013. Interaction of social and linguistic constraints on two vowel changes in northern England. Language Variation and Change 25.371–403.
- HALL, JOSEPH SARGENT. 1942. The phonetics of Great Smoky Mountain Speech. American Speech 17.1–110.
- HARRISON, GRAHAM. 1998. Political identities and social struggle in Africa. A question of identity, ed. by Anne J. Kershen, 248–270. Aldershot: Ashgate.

- HAZEN, KIRK. 1997. Past and present be in Southern ethnolinguistic boundaries. North Carolina State University dissertation.
- HAZEN, KIRK. 2000. The role of researcher identity in conducting sociolinguistic research: A reflective case study. *Southern Journal of Linguistics* 24.103–120.
- HAZEN, KIRK. 2004. Some cases of the syllable in Southern English. Southern Journal of Linguistics 28.64–80.
- HAZEN, KIRK. 2006. The final days of Appalachian Heritage Language. Language variation and change in the American Midland: A new look at 'Heartland' English, ed. by Thomas E. Murray and Beth Lee Simon, 130–155. Philadelphia, PA: John Benjamins.
- HAZEN, KIRK, and ELLEN FLUHARTY. 2004. Defining Appalachian English. Linguistic diversity in the South: Changing codes, practices, and ideology, ed. by Margaret Bender, 50–65. Athens, GA: University of Georgia Press.
- HEMPL, GEORGE. 1896. Grease and greasy. Dialect Notes 1.438–444.
- HOLLINGSHEAD, AUGUST B., and FREDERICK C. REDLICH. 1958. Social class and mental illness: A community study. New York: John Wiley.
- HSIUNG, DAVID C. 1997. Two worlds in the Tennessee mountains: Exploring the origins of Appalachian stereotypes. Lexington, KY: The University Press of Kentucky.
- HURST, CHARLES. 1992. Social inequality: Forms, causes, and consequences. 6th edn. Upper Saddle River, NJ: Pearson Education.
- INSCOE, JOHN C. 2008. Race, war, and remembrance in the Appalachian South. Lexington, KY: University of Kentucky Press.

- IRONS, TERRY. 2007. On the Southern Shift in Appalachia. University of Pennsylvania Working Papers in Linguistics 13.121–134.
- JACEWICZ, EWA; ROBERT A. FOX; and JOSEPH SALMONS. 2011a. Crossgenerational vowel changes in American English. Language Variation and Change 23.45–86.
- JACEWICZ, EWA; ROBERT A. FOX; and JOSEPH SALMONS. 2011b. Vowel changes across three age groups of speakers in three regional varieties of American English. *Journal of Phonetics* 54.448–470.
- JOHANSSON, T. 2010. Hail the impossible: p-values, evidence, and likelihood. Scandinavian Journal of Psychology 52.113–125.
- JOHNSTONE, BARBARA. 1996. *The linguistic individual*. New York: Oxford University Press.
- JOHNSTONE, BARBARA. 1999. Uses of Southern-sounding speech by contemporary Texas women. *Journal of Sociolinguistics* 3/4.505–522.
- JOHNSTONE, BARBARA. 2004. Place, globalization, and linguistic variation. Critical reflections on sociolinguistic variation, ed. by Carmen Fought, 65–83. Oxford: Oxford University Press.
- JOHNSTONE, BARBARA; JENNIFER ANDRUS; and ANDREW E. DANIELSON. 2006. Mobility, indexicality, and the enregisterment of 'Pittsburghese'. Journal of English Linguistics 34.77–104.
- JOHNSTONE, BARBARA; NEETA BHASIN; and DENISE WITTKOFSKI. 2002. 'Dahntahn' Pittsburgh: Monophthongal /aw/ and representations of localness in southwestern Pennsylvania. *American Speech* 77.148–166.

- JOHNSTONE, BARBARA, and SCOTT F. KIESLING. 2008. Indexicality and experience in Pittsburgh. *Journal of Sociolinguistics* 12.5–33.
- JONES, LOYAL. 1975. Appalachian values. Voices from the hills: Selected readings of Southern Appalachia, ed. by Robert J. Higgs and Ambrose N. Manning. New York: Ungar Publishing Company.
- JONES, LOYAL. 1994. Appalachian Values. Ashland, KY: Jesse Stuart Foundation.
- JONES, MABEL JEAN. 1973. The regional English of the former inhabitants of Cades Cove in the Great Smoky Mountains. University of Tennessee dissertation.
- KELLEY, LUCAS P. 2012. A divided state in a divided nation: An exploration of East Tennessee's support of the Union in the secession crisis of 1860-1861. The Journal of East Tennessee History 84.3–22.
- KENDALL, TYLER, and ERIK R. THOMAS. 2014. vowels: Vowel manipulation, normalization and plotting. R package.
- KEPHART, HORACE. 1922. *Our Southern highlanders*. New York: Outing Publishing Company.
- KERSHEN, ANNE J. (ed.) 1998. A question of identity. Aldershot: Ashgate.
- KRETZSCHMAR, WILLIAM A., JR.; CLAIRE ANDRES; RACHEL VOTTA; and SASHA JOHNSON. 2006. Roswell voices: Phase 2. Roswell, GA: Roswell Folk and Heritage Bureau.
- KRETZSCHMAR, WILLIAM A., JR.; BECKY CHILDS; BRIDGET ANDERSON; and SONJA LANEHART. 2004. Roswell voices. Roswell, GA: Roswell Folk and Heritage Bureau.

- KÜGLER, FRANK. 2004. The phonology and phonetics of rising pitch accents in Swabian. *Regional variation in intonation*, ed. by Peter Gilles and Jörg Peters, 75–98. Tübingen: Max Niemeyer Verlag.
- KURATH, HANS. 1949. A word geography of the Eastern United States. Ann Arbor, MI: University of Michigan Press.
- KURATH, HANS, and RAVEN I. MCDAVID, JR. 1961. Pronunciation of English in the Atlantic states. Ann Arbor, MI: University of Michigan Press.
- LABOV, WILLIAM. 1963. The social motivation for a sound change. Word 19.273–309.
- LABOV, WILLIAM. 1966. The social stratification of English in New York City. Washington, DC: Center for Applied Linguistics.
- LABOV, WILLIAM. 1972a. Sociolinguistic patterns. Philadelphia, PA: University of Pennsylvania Press.
- LABOV, WILLIAM. 1972b. Some principles of linguistic methodology. Language in Society 1.97–120.
- LABOV, WILLIAM. 1994. Principles of linguistic change: Internal factors. Oxford: Wiley Blackwell.
- LABOV, WILLIAM. 2001. Principles of linguistic change: social factors. Oxford: Blackwell.
- LABOV, WILLIAM; SHARON ASH; and CHARLES BOBERG. 2006. Atlas of North American English: Phonetics, phonology, and sound change. New York: Mouton de Gruyter.
- LABOV, WILLIAM; MALCAH YAEGER; and RICHARD STEINER. 1972. A quantitative study of sound change in progress: Volumes 1 and 2. Report on National Science Foundation Contract NSF-GS-3287. Philadelphia, PA: University of Pennsylvania.

- LADD, D. ROBERT; ASTRID SCHEPMAN; LAURENCE WHITE; LOUSIE MAY QUARMBY; and REBEKAH STACKHOUSE. 2009. Structural and dialectal effects on pitch peak alignment in two varieties of British English. *Journal of Phonetics* 37.145–161.
- LANE, LISA. 1998. Emergence and transformation of a dialect: Thyborønsk (Danish).University of Chicago dissertation.
- LEE, TOM. 2010. The lost cause that wasn't: East Tennessee and the myth of unionist Appalachia. *Reconstructing Appalachia: The Civil War's aftermath*, ed. by Andres L. Slap, chap. 11, 293–322. University of Kentucky Press.
- LEPAGE, ROBERT B., and ANDRÉE TABOURET-KELLER. 1985. Acts of identity: Creole-based approaches to language and ethnicity. Cambridge: Cambridge University Press.
- LIPPI-GREEN, ROSINA. 1997. English with an accent: Language, ideology, and discrimination in the United States. New York: Routledge.
- LIPPI-GREEN, ROSINA. 2012. English with an accent: Language, ideology, and discrimination in the United States. 2nd edn. New York: Routledge.
- LUHMAN, REID. 1990. Appalachian English stereotypes: Language attitudes in Kentucky. Language in Society 19.331–348.
- MACE, BORDEN. 2006. Overmountain men. The Encyclopedia of Appalachia, ed. by Rudy Abramson and Jean Haskell, 1607. Knoxville, TN: University of Tennessee Press.
- MALLINSON, CHRISTINE, and WALT WOLFRAM. 2002. Dialect accommodation in a bi-ethnic mountain enclave community: More evidence on the development of African American speech. *Language in Society* 31.743–775.

- MCBRIDE, KRISTINA HOLLAND. 2006. Roots and wings: Language attitudes of professional women native to the Blue Ridge mountains of North Carolina. Indiana University of Pennsylvania dissertation.
- MCCAULEY, DEBORAH V. 1995. Appalachian mountain religion: A history. Champaign-Urbana, IL: University of Illinois Press.
- MCDAVID, RAVEN I., JR; WILLIAM A. KRETZSCHMAR; and GAIL J. HANKINS (eds.) 1980. *Linguistic Atlas of the Middle and South Atlantic States*. Chicago, IL: University of Chicago Press.
- MCELHINNY, BONNIE. 2003. Theorizing gender in sociolinguistics and linguistic anthropology. *The handbook of language and gender*, ed. by Janet Holmes and Miriam Meyerhoff, 21–42. Oxford: Blackwell.
- MCGREEVY, JOHN C. 1977. Breathitt County grammar. Illinois Institute of Technology dissertation.
- MCKINNEY, GORDON B. 1978. Southern mountain republicans 1865-1900. Chapel Hill, NC: University of North Carolina Press.
- MILLER, DANIEL A. 2008. Discovering the quantity of quality: Scoring 'Regional Identity' for quantitative research. *Language Sciences* 30.652–678.
- MILLER, TRACEY RUSSELL. 1973. An investigation of the regional English of Unicoi County, Tennessee. University of Tennessee dissertation.
- MILLER, ZELL. 2009. Purt nigh gone. Stroud and Hall Publishers.
- MILROY, JAMES. 2004. Language ideologies and linguistic change. Critical reflections on sociolinguistic variation, ed. by Carmen Fought, 161–177. Oxford: Oxford University Press.

- MILROY, JAMES, and LESLIE MILROY. 1985. Linguistic change, social network, and speaker innovation. *Journal of Linguistics* 21.339–384.
- MILROY, LESLEY. 1987. Observing and analyzing natural language: A critical account of sociolinguistic methods. Oxford: Blackwell.
- MONTGOMERY, MICHAEL. 1993. The Southern accent: Alive and well. *Southern Cultures* 1.47–64.
- MONTGOMERY, MICHAEL. 1995a. Does Tennessee have three 'Grand Dialects'? evidence from the Linguistic Atlas of the Gulf States. *Tennessee Folklore Society Bulletin* 57.69–84.
- MONTGOMERY, MICHAEL. 1995b. How Scotch-Irish is your English?: The Ulster heritage of East Tennessee speech. *Journal of East Tennessee History* 65.1–33.
- MONTGOMERY, MICHAEL. 1998. In the Appalachians they talk like Shakespeare. Language myths, ed. by Laurie Bauer and Peter Trudgill, 66–76. New York, NY: Penguin.
- MONTGOMERY, MICHAEL. 2004. Solving Kurath's puzzle: Establishing the antecedents of the American Midland dialect region. *Legacies of colonial English: Studies in transported dialects*, ed. by Raymond Hickey, 310–325. Cambridge University Press.
- MONTGOMERY, MICHAEL. 2013. The historical background and nature of the Englishes of Appalachia. *Talkin' Appalachian: Voice, identity, and community*, ed. by Amy D. Clark and Nancy M Heyward, 25–53. University of Kentucky Press.
- MONTGOMERY, MICHAEL. 2015. The other 'h' word. Presentation at the Appalachian Studies Association Annual Conference (ASA), Johnson City, TN.

- MONTGOMERY, MICHAEL, and JOSEPH SARGENT HALL. 2004. The dictionary of Smoky Mountain English. Knoxville, TN: The University of Tennessee Press.
- MONTGOMERY, MICHAEL; JOSEPH SARGENT HALL; and JENNIFER NELSON HEIN-MILLER. forthcoming. *Dictionary of Southern Appalachian English*. Columbia, SC: University of South Carolina Press.
- MORETON, ELLIOTT, and ERIK R. THOMAS. 2007. Origins of Canadian Raising in voiceless-coda effects: A case study in phonologization. *Laboratory phonology 9*, ed. by Jennifer S. Cole and José H. Hualde, 37–64. Berlin: Mouton.
- NEAREY, TERRANCE M. 1977. *Phonetic feature systems for vowels*. University of Alberta dissertation.
- OCHS, ELINOR. 1992. Indexing gender. *Rethinking context: Language as an interactive phenomenon*, ed. by Alessandro Duranti and Charles Goodwin, 335–358. Cambridge: Cambridge University Press.
- PEDERSON, LEE. 1983. *East Tennessee folk speech*. Bamberger Beitrage 12. Frankfurt: Lang.
- PEDERSON, LEE; SUSAN L. MCDANIEL; and CAROL M. ADAMS (eds.) 1986-93. Linguistic atlas of the Gulf States, vol. 7 vols. Athens, GA: University of Georgia Press.
- PIERREHUMBERT, JANET, and JULIA HIRSCHBERG. 1990. The meaning of intonational contours in the interpretation of discourse. *Intentions in communication*, ed. by Philip R. Cohen, Jerry Morgan, and Martha E. Pollack, 271–311. Cambridge, MA: MIT Press.
- PLICHTA, BARTŁMIEJ, and DENNIS R. PRESTON. 2005. The /ay/s have it: Perception of /ay/ as a North-South stereotype in United States English. Acta Linguistica Hafniensia 37.107–130.

- PRESTON, DENNIS R. 1989. Standard English spoken here. Status and function of languages and language varieties, ed. by Ulrich Ammon, 324–354. Berlin: Walter de Gruyter.
- PRESTON, DENNIS R. 1997. The South: The touchstone. Language variety in the South revisited, ed. by Cynthia Bernstein, Thomas Nunnally, and Robin Sabino, 311–351. Tuscaloosa, AL: The University of Alabama Press.
- PRESTON, DENNIS R. 1999. A language attitude approach to the perception of regional variety. *Handbook of perceptual dialectology*, ed. by Dennis R. Preston, 359–373. Amsterdam: Benjamins.
- PUCKETT, ANITA. 2000. Seldom ask, never tell: Labor and discourse in Appalachia. Oxford University Press.
- PUCKETT, ANITA. 2003. The 'value' of dialect as object: The case of Appalachian English. *Pragmatics* 13.539–549.
- PUCKETT, ANITA. 2006. Language ideology. *Encyclopedia of Appalachia*, ed. by Rudy Abramson and Jean Haskell, 109–1020. University of Tennessee Press.
- R CORE TEAM. 2015. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria.
- REED, JOHN SHELTON. 1983. Southerners: The social psychology of sectionalism. Chapel Hill, NC: University of North Carolina Press.
- REED, PAUL E. 2012. Monophthongization and Southern Appalachian Identity: Change over a lifetime. Poster presented at New Ways of Analyzing Variation (NWAV) 41.
- REED, PAUL E. 2014a. Inter- and intra-generational monophthongization and Southern Appalachian Identity. *Southern Journal of Linguistics* 38.159–193.

- REED, PAUL E. 2014b. The realization of rising pitch as a socio-pragmatic identity marker in Appalachian English. Poster presented at New Ways of Analyzing Variation (NWAV) 43.
- REED, PAUL E. 2014c. Rising pitch realization in Appalachia. Paper presented at the American Dialect Society (ADS) Annual Meeting.
- REED, PAUL E., and MICHAEL MONTGOMERY. 2013. Earlier African-American English: Evidence from an Appalachian bi-racial enclave community. Paper presented at the Society for Pidgin and Creole Linguistics Winter Meeting.
- REESE, JAMES ROBERT. 1977. Variation in Appalachian English: A study of the speech of elderly, rural natives of East Tennessee. University of Tennessee dissertation.
- ROSENFELDER, INGRID; JOSEF FRUEHWALD; KEELAN EVANINI; SCOTT SEY-FARTH; KYLE GORMAN; HILARY PRICHARD; and JIAHONG YUAN. 2014. FAVE 1.1.3. http://sx.doi.org/10.5281/zenodo.9846.
- RYAN, ELLEN BOUCHARD. 1979. Why do low-prestige language varieties persist? Language and social psychology, ed. by Howard Giles and Robert St. Clair, 145–157. Oxford: Basil Blackwell.
- SCHENKKAN, ROBERT. 1992. The Kentucky Cycle. Dramatists Play Service, Inc.
- SCHILLING-ESTES, NATALIE. 1998. Investigating 'self-conscious' speech: The performance register in Ocracoke English. *Language in Society* 27.53–83.
- SCHILLING-ESTES, NATALIE. 2000. Investigating intra-ethnic differentiation: /ai/ in Lumbee Native American English. Language Variation and Change 12.141–174.
- SCHOUX-CASEY, CHRISTINA. 2013. Postvocalic /r/ in New Orleans: Language, place, and commodification. University of Pittsburgh dissertation.

- SHAPIRO, HENRY. 1978. Appalachia on our mind: The Southern Mountains and mountaineers in the American consciousness 1880-1920. Chapel Hill, NC: University of North Carolina Press.
- SILVERSTEIN, MICHAEL. 1996. 'Monoglot Standard' in America: Standardization and metaphors of linguistic hegemony. *The Matrix of Language: Contemporary Linguistic Anthropology*, ed. by Donald Brenneis and Ronald Macauley, 284–306. Boulder, CO: Westview Press.
- SOLOMON, JULIE. 1999. Phonological and syntactic variation in Spanish of the Valladolid, Yucatán. Stanford University dissertation.
- STATE OF TENNESSEE. 2015. Tennessee State Code annotated. via LexisNexis.
- BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR. 2014. Local area unemployment statistics. Online: http://www.bls.gov/lau/#cntyaa.
- TAGLIAMONTE, SALI. 2006. Analyzing sociolinguistic variation. Cambridge: Cambridge University Press.
- TENNESSEE BLUE BOOK. 2013. *Tennessee Blue Book 2013-14*. Secretary of State of Tennessee.
- TENNESSEE STATE GOVERNMENT. 2013. Tennessee county profile. Online: www.tennessee.gov.
- THOMAS, ERIK R. 1997. A rural/metropolitan split in the speech of Texas Anglos. Language Variation and Change 9.309–332.
- THOMAS, ERIK R. 2000. Spectral differences in /ai/ offsets conditioned by voicing of the following consonant. *Journal of Phonetics* 28.1–25.

- THOMAS, ERIK R. 2001. An acoustic analysis of vowel variation in New World English. No. 85 in Publication of the American Dialect Society. Durham, NC: Duke University Press.
- THOMAS, ERIK R. 2003. Secrets revealed by Southern vowel shifting. *American* Speech 78.150–170.
- THOMAS, ERIK R. 2011. Sociophonetics: An introduction. New York: Palgrave Macmillan.
- TRUDGILL, PETER. 1972. Sex, covert prestige and linguistic change in the urban British of Norwich. Language in Society 1.175–195.
- ULACK, RICHARD, and KARL RAITZ. 1981. Appalachia: A comparison of the cognitive and Appalachian Commission regions. *Southeastern Geographer* 21.40–53.
- UNDERHILL, DAVID. 1975. Yukking it up at CBS. Southern Exposure 2.68–71.
- U.S. CENSUS BUREAU. 2013. U.S. Census Profile. Online: www.census.gov.
- VENABLE, SAM. 2013. *How to tawlk and rite good*. North Charleston, SC: CreateSpace Independent Publishing Platform.
- WARDHAUGH, RONALD, and JANET M. FULLER. 2015. An introduction to sociolinguistics. 7th edn. Maulden, MA: Wiley Blackwell.
- WELLS, JOHN C. 1982. Accents of English, vol. 1. Cambridge: Cambridge University Press.
- WHISNANT, DAVID E. 2008. All that is native and fine: The politics of culture in an American region. 25th anniversary edn. Chapel Hill, NC: University of North Carolina Press.

- WICKHAM, HADLEY. 2009. ggplot2: elegant graphics for data analysis. New York: Springer New York.
- WILLIAMS, CRATIS D. 1992. Southern mountain speech. Berea, KY: Berea College Press.
- WILLIAMS, DANIEL R. 2004. Place identity. Encyclopedia of leisure and outdoor recreation, ed. by John Jenkins and John Pigram, 367–368. London: Routledge.
- WILLIAMS, DANIEL R., and JERRY J. VASKE. 2003. The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science* 49.830–840.
- WILLIAMS, JOHN A. 2002. Appalachia: A history. Chapel Hill, NC: University of North Carolina Press.
- WILLIAMSON, KEVIN D. 2015. Appalachia: The Great White Ghetto. *The Week*. Online: http://theweek.com/articles/452321/appalachia-big-white-ghetto.
- WISE, CLAUDE M. 1957. Applied phonetics. Englewood Cliffs, NJ: Prentice Hall.
- WOLFRAM, WALT. 1977. On the linguistic study of Appalachian speech. Appalachian Journal 5.92–102.
- WOLFRAM, WALT. 1984. Is there an Appalachian English? *Appalachian Journal* 11.215–226.
- WOLFRAM, WALT; CAROLYN T. ADGER; and DONNA CHRISTIAN. 1999. *Dialects* in schools and communities. Mahwah, NJ: Lawrence Erlbaum.
- WOLFRAM, WALT, and DONNA CHRISTIAN. 1976. Appalachian speech. Arlington, VA: Center for Applied Linguistics.

- WOLFRAM, WALT, and NATALIE SCHILLING-ESTES. 1998. American English: Dialects and variation. Malden, MA: Blackwell.
- WOLFRAM, WALT, and NATALIE SCHILLING-ESTES. 2006. American English: Dialects and variation. 2nd edn. Malden, MA: Blackwell.
- WONG, ALIA. 2016. Where are all the high school grads going? *The Atlantic*. Online: http://www.theatlantic.com/education/archive/2016/01/where-areall-the-high-school-grads-going/423285/.

Appendix A

MONOPHTHONG EXAMPLES



Figure A.1: Monophthongal 'might' from the author's speech.



Figure A.2: Monophthongal 'ride' from the author's speech.



Figure A.3: Monophthongal 'shy' from the author's speech.
Appendix B

INTERVIEW MODULES

Opening Questions

- 1. How are you? Everything going well?
- 2. How about this weather?
- 3. How was your Christmas Holidays? Did you do anything fun?
- 4. Do you have a favorite Christmas memory? Why?
- 5. Do you do anything as a family tradition? Any new things you'd like to try?

Daily Life

- 1. What was life like growing up here?
- 2. Do you have a favorite childhood memory?
- 3. What did/do you like about Hancock County and Sneedville?
- 4. What was your favorite thing about growing up here?
- 5. Do you have a favorite memory?
- 6. Did you have chores as a child? What were they? Were they different for your sisters/brothers?

School

- 1. What was school like? Is it different now?
- 2. Were all schools the same?
- 3. Did you have a favorite teacher? Why? Funny anecdotes about teachers or school?
- 4. Were there different groups of students at school? What made a person fit in with the different groups?

- 5. Where did students/groups hang out?
- 6. Any favorite activities?
- 7. Is this still the case?

Church

- 1. Where do you go to church?
- 2. Is church as important today as in the past? (Follow-up if necessary)
- 3. What activities do you do in church? Has that changed over time?

Hancock County itself

- 1. Are there differences between living here and other places?
- 2. What makes here different?
- 3. Do you think people feel the same way now as you did growing up? Why/why not?
- 4. Do outsiders fit in here? What about new residents or people moving in?
- 5. How long before someone can say they are 'from' Hancock County?
- 6. Have other cities and towns had an impact on Hancock County or Sneedville?
- 7. Do you have a story that really captures Hancock County and its people?
- 8. What makes that your favorite?
- 9. Were/are there any negatives? Why?
- 10. Do you have a story that can explain that?
- 11. (As you moved on), were there things you missed? Why?
- 12. Were there things you didn't? Why?

Identity

- 1. Would you say you identify with Hancock County? Sneedville? Why?
- 2. Is there another place that you identify with? Why?
- 3. What makes it so special?
- 4. Is that different from other people from here?
- 5. What sets people apart that feel the same way?

Language

- 1. Do you think people from around here sound any different than others? How?
- 2. What about people that really identify with Hancock County? Those that don't?
- 3. Do people from (nearby city) sound the same? What is different?

Appendix C

READING PASSAGE

Once upon a time there was a young rat who couldn't make up his mind. Whenever the other rats asked him if he would like to come out hunting with them, he would answer in a hoarse voice, "I don't know." And when they said, "Would you rather stay inside?" he wouldn't say yes, or no either. He'd always shirk making a choice. One fine day his aunt Josephine said to him, "Now look here! No one will ever care for you if you carry on like this. You have no more mind of your own than a greasy old blade of grass!" The young rat coughed and looked wise, as usual, but said nothing. "Don't you think so?" said his aunt, stomping with her foot, for she couldn't bear to see the young rat so cold-blooded. "I don't know" was all he ever answered, and then he'd walk off to think for an hour or more whether he would stay in his hole in the ground or go out into the loft.

One night the rats heard a loud noise in the loft. It was a very dreary old place. The roof let the rain come washing in, the beams and rafters had all rotted through, so that the whole thing was quite unsafe. At last one of the joists gave way, and the beams fell with one edge on the floor. The walls shook, the cupola fell off, and all the rats' hair stood on end with fear and horror. "This won't do," said their leader. "We can't stay cooped up here any longer." So they sent out scouts to search for a new home. A little later on that evening the scouts came back and said they had found an old-fashioned horse-barn where there would be room and board for all of them. The leader gave the order at once, "Company fall in!" and the rats crawled out of their holes right away and stood on the floor in a long line. Just then the old rat caught sight of young Arthur—that was the name of the shirker. He wasn't in the line, and he wasn't exactly outside it—he stood just by it. "Come on, get in line!" growled the old rat coarsely. "Of course you're coming, too?" "I don't know," said Arthur calmly. "Why, the idea of it! You don't think it's safe here any more, do you?" "I'm not certain," said Arthur undaunted. "The roof may not fall down yet." "Well," said the old rat, "we can't wait for you to join us." Then he turned to the others and shouted, "Right about face! March!" and the long line marched out of the barn while the young rat watched them. "I think I'll go tomorrow," he said to himself, "but then again, perhaps I won't—it's so nice and snug here. I guess I'll go back to my hole under the log for a while just to make up my mind." But during the night, there was a big crash. Down came beams, rafters, joists —the whole business.

Next morning —it was a foggy day —some men came to look over the damage. It seemed odd that the old building was not haunted by rats. But at last one of them happened to move a board, and he caught sight of a young rat, quite dead, half in and half out of his hole. Thus the shirker got his due, and there was no mourning for him.

Appendix D

WORD LIST

Please read the following words. Some of the words appear more than once.

tide tight	how hoe
$\cot \ldots caught$	sided sighted
pin pen	Abe ape
hard heart	tyke \dots take
pool pull	
	bide bite
sighting siding	coal cool
tour tore	fife five
hi hay	$\operatorname{doll}\ldots\operatorname{dull}$
golf gulf	bake bike
bite bide	
	$tight \dots tide$
pole pull	$ten \dots tin$
cart card	tote toad
hawk hock	dice dies
day die	full fool
$side \dots sight$	
	card cart
gull gall	shied shade

pool pole	feel fill	
siding sighting	how's house	
boat bout	hill heel	
	gate gait	
five fife		
indoor endure	lout loud	
height hide	feel fill	
sighted sided	endowed in doubt	
heart hard	$tripe \dots tribe$	
	dawn Don	
hall hull		
dies dice	sight side	
ate aid	surely Shirley	
hag Hague	$tock \dots talk$	
ght tot heel hill		
	Harper harbor	

 $tribe \ldots tripe$

Appendix E

ROOTEDNESS METRIC

Na	Name	Age	Sex: Male Female		
1.	. Are there any circumstances in which you might see yourself moving away from Hancock Co If yes, what kinds of circumstances might lead you to that decision?				
	If you would be willing to live somewhere else, co in Knoxville or the Tri-Cities?	uld you see yourself living	g Yes No		
	How often would you want to visit if you left?				
2.	2. How often do you visit nearby towns (Mor Tazewell, etc.)?	ristown, Rogersville,			
3.	3. When you go to Morristown or Rogersville or other nearby places, where do you say you're from?				
4.	4. If you traveled far away to some other place in the U.S. and met someone who asked where you were from, what would you tell them?				
5.	5. How many family members do you have live	5. How many family members do you have living in Hancock Co			
6.	6. How many generations of your family have	lived in Hancock Co.			
7.	7. Rank the following (1-7) in the order that Hancock Co. My local community Tennessee NE	you most identify with Tennessee East TN The S	:: South The Mountains		
8.	8. Are you a University of Tennessee fan? Do you watch or listen to the games?		Yes No Yes No		
9.	9. Do you follow country music?		Yes No Yes No		
10	10. Do you usually attend local events, like the	ne Fall Festival?	Yes No		
11	11. Please indicate on the following scale to v your identity is tied to Hancock county.	vhat degree you would	say		
	My My identity identity is not at is some all tied what	My identit - is close tied	ey ely		

206

what tied

 \square

4

 \Box 5

 \square 2

 \square 1