IDENTITIES AND LOCAL SPEECH IN PITTSBURGH: A STUDY OF REGIONAL AFRICAN AMERICAN ENGLISH

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There has been a long-standing assumption in sociolinguistics that African American English (AAE) is a homogenous variety. Consequently, the phonetic and phonological characteristics of AAE have been, until recently, largely ignored. Current work in sociolinguistics, however, has begun to focus on regional variation in AAE, challenging this previously held belief. This dissertation adds to this body of literature, examining the vowel systems of African Americans in Pittsburgh, Pennsylvania.

I begin with an overview of the sociolinguistic setting, with particular focus on the neighborhood of the Hill District. I move on to describe broad speech patterns of the Pittsburgh dialect, and discuss the vowel systems of a select number of speakers. I then examine two vocalic variables in detail that are characteristic of the Pittsburgh dialect. I first analyze the low back vowels /ɑ/ and /ɔ/, which have been merged in White Pittsburgh speech for decades. My analysis shows that African Americans exhibit alignment to the local phonological system with respect to this feature, also having merged these vowels. I propose that the sociohistorical conditions of African Americans early in the 20th century led to the spread of the merger from White to African American speech. The second variable analyzed is the monophthongal pronunciation of /aw/, a stereotype of Pittsburgh speech. While there is a great deal of variation in the length of glides produced

by African Americans in Pittsburgh, I demonstrate that the monophthongal pronunciation is absent. I discuss this finding with respect to the feature's salience and connection to a specific social identity—the White Pittsburgher—and how orientation to place helps to account for its absence in local African American speech.

This work contributes to a burgeoning line of research that challenges the field to depart from a purely racially-based definition of AAE and move towards one founded on regional linguistic characteristics, thereby paralleling definitions of white English varieties. Additionally, it underscores the importance of the sociohistorical and cultural contexts in which African American communities are situated when approaching an explanation of patterns of speech, rather than assuming a binary choice of accommodation or resistance to local norms.

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PREFACE

There are many people who have helped me get to this point. The Department of Linguistics and the English Language Institute at the University of Pittsburgh have been generous with teaching assistantships throughout my time as a graduate student, for which I am grateful. In addition, I thank the Andrew Mellon Foundation for its Predoctoral Fellowship, the National Science Foundation, for a Dissertation Improvement Grant, and the Arts and Sciences Dean's Office at the University of Pittsburgh for a Dean's Tuition Scholarship.

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generous with her time. It is hard to express how deeply grateful I am for having had the chance to work with both Carmen and Barbara. Larry has been a wonderful resource on all things Pittsburgh. His expertise on African American life in the city allowed me to gain a new perspective on the history of the community that I otherwise would not have had. David has been my script-writing guru. Without his help, I couldn't have done it.

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1.0 INTRODUCTION

For several decades, African American English (AAE) has been the focus of a great deal of sociolinguistic analysis, and has remained the focus of attention for numerous scholars. In the late 1960s, sociolinguists began to systematically describe AAE, demonstrating its logic and adherence to morphosyntactic rules, parallel to those that govern 'standard' English (Labov, 1969; Wolfram, 1969). This work has enabled sociolinguists to make great gains in dispelling popular beliefs about AAE as an illogical and deficient way of speaking (Labov, 1969, 1970; Wolfram, 1969). At the same time, however, sociolinguists themselves have created a "sociolinguistic folklore" (Wolfram, 2007) about African American English which until recently has gone unexamined. In particular, as I discuss below, there has been an idealized view of variation and change in AAE that sharply contrasts with sociolinguistic views of other language varieties. Because a goal of sociolinguistics has been to eradicate folk theories of language in the popular arena, it is somewhat troubling that the field has unquestioningly accepted and united around one.

In this dissertation, I contribute to a line of research that has recently come to the fore in sociolinguistic work: the study of regional varieties of African American English. I focus on a single regional variety of African American English, spoken in Pittsburgh, Pennsylvania. This research puts assumptions about AAE under the microscope, and by

examining and testing previously held beliefs, this wave of scholarship is bringing the study of African American English on par with research on other varieties of the language. Below I discuss the assumptions about AAE that have contributed to the neglect of the phonological systems of its speakers. Following that, I describe current research in sociolinguistics, results of which are working to reshape thinking about African American speech. Finally, I outline the chapters that follow in this dissertation.

1.1 AFRICAN AMERICAN ENGLISH

In the 1960s and 1970s, sociolinguists began to systematically describe the speech patterns of African Americans in various urban centers in the U.S. (Fasold and Wolfram, 1970; Labov, 1972a; Wolfram, 1969). As Wolfram (2007) discusses, a major finding from these early studies was that there was a core of features shared by African American speakers, despite the spread across different geographic areas. For linguists, this discovery was markedly different from the vast variation found between dialect areas throughout the United States. In other words, scholars were finding that in areas as far apart as Detroit, New York City and Washington D.C., African Americans shared a core of linguistic features, such as copula absence, /r/-lessness, and habitual *be*, while White speakers in different regions did not share such distinctive features with one another. As a result, scholars came to the conclusion that African American speech was largely homogenous—while for White speakers, geographic area was strongly correlated with speech patterns,

race seemed to take primacy over region for African American speakers. This is summed up in Labov's assertion that,

> "By the 'black English vernacular' we mean the relatively uniform dialect spoken by the majority of black youth in most parts of the United States today, especially in the inner city areas of New York, Boston, Detroit, Philadelphia, Washington, Cleveland, Chicago, St. Louis, San Francisco, Los Angeles, and other urban centers. It is also spoken in most rural areas and used in the casual, intimate speech of many adults" (Labov, 1972a, p. xiii)

Such statements helped consolidate the "fundamental axiom" (Wolfram, 2007) that regional variation in AAE is overshadowed by its core of features that stretches across geographic boundaries. Some of the most commonly cited features are listed in Table 1.1. Virtually every text on African American speech reflects this belief, and although there is often also a clarification that regional variation within AAE surely exists, it is most often the case that such acknowledgement is then ignored, as the scholarship turns to focus on those features that *are* shared. As Wolfram (2007) points out, Lisa Green's (2002) text on the structure of AAE is one of the few that makes a more substantial statement on regional variation, explaining that,

> "there are regional differences that will distinguish varieties of AAE spoken in the United States. For example, although speakers of AAE in Louisiana and Texas use very similar syntactic patterns, their vowels systems may differ. Speakers of AAE in areas in Pennsylvania also share similar syntactic patterns with speakers in Louisiana and Texas; however, speakers in areas in Pennsylvania are not likely to share some of the patterns that the Louisiana and Texas speakers share with other speakers of southern regions." (Green, 2002, p. 1)

The distinction Green draws between syntactic characteristics and vowel systems is an important one, and linguistically, what we would expect from any English variety—there is bound to be more vocalic variation than at the level of morphosyntax. Carmen

Fought (2006) makes this important point as well, which I return to below. In fact, locating differences in vocalic pronunciation has been an essential focus in studies of regional White varieties, and crucial in linking present-day variation to long-term linguistic change (see e.g. Labov, 1994 for extensive discussion; 2001b). In contrast to this, morphosyntactic features have been the focus of the vast majority of research on AAE. In part, this is because syntactic structures in AAE (as Green says) are probably more similar supraregionally than phonological and phonetic features. In addition, early studies on the grammatical system were instrumental in discrediting the theory that AAE is simply a reflection of deficits in African American culture and intelligence, and that African American children performed poorly in the educational system due to extreme verbal deprivation (e.g. Bereiter and Engelmann, 1966; Bereiter et al., 1966). These authors claimed that "the language of culturally deprived children…is not merely an underdeveloped version of standard English, but is basically a nonlogical mode of expressive behavior" (Bereiter et al., 1966, pp. 112-113).

In the face of such a theory of deficiency, William Labov (1969, 1970, 1972a) strove to illustrate the systematicity and logic of the variety using the methods he had introduced to the study of dialects more generally (Labov, 1963, 1966). Labov (1969), for example, demonstrates the way in which AAE is governed by rules in the same way that 'standard' English is.[1] In this early paper on AAE, Labov shows that in all contexts in which standard English can contract the copula (*She is smart* → *She's smart*), AAE can delete the copula (*She*

[1] Using the term 'standard' to describe some varieties of English is problematic. Labeling a language variety as 'standard' not only imposes a value judgment (implying that other varieties are *non*-standard, and possibly *sub*-standard), but also because there is no definition of what such a variety would be.

smart). Likewise, in environments in which standard English cannot produce a contraction, such as in sentence-final position (**I don't know where he's*), AAE similarly cannot delete (**I don't know where he*). This application of scientific methods to the study of AAE was instrumental in demonstrating that the grammatical patterns found in the variety were not indicative of deficiencies in intelligence or culture, but rather reflective of a logical, rule-governed system parallel to that which characterizes the standard, or indeed any linguistic system. The ability to show such regularity and order for structures so different from standard English underscored the point that speakers of AAE did not communicate with "a series of badly connected words or phrases" as Bereiter et al. (1966, p. 114) assert. Instead, Labov and others demonstrated that speakers of AAE have complete knowledge of the phonological and morphosyntactic constraints of the English system. What Labov clearly illustrated is that AAE speakers operate with rules—different from the rules of the English of their teachers and White middle-class counterparts, but systematic rules all the same. Such important revelations were in part why the focus in the study of AAE has been primarily on its morphosyntactic characteristics.

In contrast, the phonology of AAE has been, as Bailey & Thomas (1998) say, the "neglected stepchild of research on African-American Vernacular English," there are some phonological features of AAE that have consistently received scholarly attention (see Table 1.1). As with syntactic features like copula absence, sociolinguists have been able to show that problems in the acquisition of literacy skills, for example, can be linked to rules in the phonological systems of AAE speakers, and are not reflective of cognitive deficiencies or verbal deprivation (Labov, 1995, 2001a; Wolfram, 1993). As Table 1.1 shows, however, these features are mainly consonantal, not vocalic segments—until recently, there were

virtually no studies of the vowel systems of African Americans. Furthermore, as Fought (2002) points out, these features either are stigmatized variants (e.g. absence of post-vocalic /r/) or stable variables that are shared with other dialects (such as consonant cluster reduction).

Table 1.1 Selected Features of AAE

Morphosyntactic Features	
copula absence	'She tall.'
negative inversion	'Can't nobody remember him.'
3rd person singular –s absence	'John don't live here.'
past tense *had*	'We had gone to the store.'
habitual *be*	'This room be hot.'
remote past *been* (stressed)	'They been married.'
intensive continuative *steady*	'She be steady ripping on him.'
Phonological Features	
final consonant cluster reduction	[tɛs] for *test*, [dɛs] for *desk*
labialization or dentalization of /θ/ and /ð/	[tuf] for *tooth*, [dɪs] for *this*
absence of post-vocalic /r/	[sto] for *store*
metathesis	[æks] for *ask*
glide weakening or deletion in /ai/(especially before voiced segments and word-finally	[tɑ:m] for *time*, [hɑ:] for *high*
merging of /ɪ/ and /ɛ/ before nasals	*pin* = *pen*

The neglect of AAE vowel systems can be partially explained by the assumption of cross-regional uniformity, as discussed above. However, there is another "sociolinguistic myth" (Wolfram, 2007) that has contributed substantially to the previous lack of interest in this area: it has been widely believed that African Americans are not affected by sound changes that occur locally in the communities in which they reside. Labov (2001b, p. 506)

states this unequivocally: "No matter how frequently [African Americans][2] are exposed to the local vernacular, the new patterns of regional sound change do not surface in their speech." Despite the fact that this is clearly an empirical question, the widespread acceptance of that claim within the field has resulted in a dearth of knowledge about how African American English has changed or is changing. For decades, sociolinguists have collected and analyzed data from young and old speakers in urban and rural areas around the country, providing a window into linguistic change in progress and enabling us to predict the trajectory of change. We know the details and the effects of the major ongoing vowel rotations in North America (Labov, 1991, 1994), and we know where dialect boundaries begin and end with respect to a whole host of vocalic features (Labov, Ash and Boberg, 2006). However, the acceptance of the claim that AAE is unaffected by local sound change has steered many scholars away from pursuing studies of sound change in African American and other ethnic minority communities. However, as Fought (2006) points out, we should expect more variation in AAE phonetic and phonological features than in the morphosyntactic system, paralleling the extent of variation in White speech communities in the U.S., and English more generally. She writes,

> "In the case of European-American vernaculars, for every instance of a regional structure like *He might could do it* or *The car needs washed*, there are numerous subtle vowel differences that distinguish, e.g., speakers from Atlanta, Georgia and Pittsburgh, Pennsylvania. Therefore, all other things being equal, we would expect AAVE varieties across the country to have relatively few morphosyntactic differences, especially in comparison with the number of phonological ones" (Fought, 2006, p. 59).

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[2] Labov includes all "non-white" populations in this statement, so that Latinos and Native Americans are also believed to be immune to local sound changes (see also Fought, 2002 for further discussion; 2006).

Fought (2006) also notes that the extent of regional variation in AAE may be less than in some White dialects, reflecting the more recent patterns of migration of African Americans. The effects of migration patterns can also be seen in the fact that regional differences are much greater between dialects on the East Coast, where people have been settled for much longer, as opposed to the West Coast, where migration occurred in the much less distant past. Therefore, if there is less regional phonological variation between African American dialects than there is between White vernaculars, the explanation may lie in basic principles of dialectology. The main point to bear in mind is that at this juncture, we simply do not know the details of how African American English patterns across regions, and whether or not it varies in the same ways and to the same extent that White vernaculars do. Fought (2006, p. 60) makes the final point that:

> "If it turns out to be the case that AAVE varieties are quite consistent in morphosyntactic features across regions, and share some phonological traits but vary in a number of others, then the pattern for AAVE will be much like the pattern for other English dialects. If this turns out not to be the case, in other words if AAVE varieties show little phonological variation by region, then this result would have interesting implications for the construction of ethnic identity. However, it seems premature to explore these implications until more data about what is actually happening are available."

Fortunately, in recent years, scholars have embarked on investigations of regional varieties of AAE, in order to discover how African American speech may vary from one geographic region to the next. I review a selection of such works in the following section. I limit this review to those works that have investigated elements of the vowel systems in regional varieties of African American English. Other studies of regional AAE are available as well on the production of consonants and the use of morphosyntactic features (e.g.

Childs and Mallinson, 2004; Hinton and Pollock, 2000; Wolfram and Thomas, 2002) as well as lexical items (Childs and Mallinson, 2006).

1.1.1 Regional African American English

As the number of studies on regional AAE continues to grow, the sweeping claims that have been made about AAE and sound change are complicated and called into question. In this section, I will discuss a number of these works, some of which support the idealized view of African American avoidance of local (White) sound change, and others which present a challenge to that piece of sociolinguistic folklore.

As one of the major vowel rotations occurring in the United States, the Northern Cities Chain Shift (NCCS) is one of the most widely studied phenomena in current sociolinguistic research (see Gordon, 2001; Labov, 1991; Labov, Ash and Boberg, 2006). Depicted in Figure 1.1 (based on Labov, 1994, p. 191), the NCCS involves the movement of 6 vowels: the raising of /æ/, the fronting of /ɑ/ and /ɔ/, the lowering of /i/ and /ɛ/, which also backs, and the backing of /ʌ/. This chain shift is found across the Inland North—in Syracuse and Rochester, and moving west, in Buffalo, Cleveland, Detroit, Chicago, and Madison, Wisconsin.

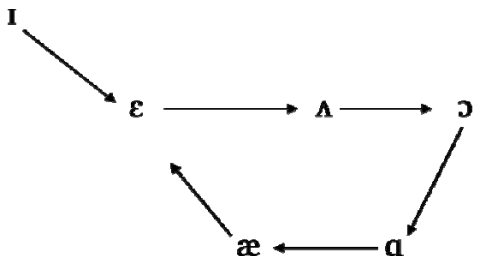


Figure 1.1 Northern Cities Chain Shift

While the vowel rotation has been the focus of a great amount of research dealing with White speakers, very few studies have examined whether or not the shift, or elements of it, is taking place in African American speech (or the speech of other ethnic minority groups). Matthew Gordon (2000) investigates three NCCS vowels in the speech of White, African American, Mexican American and mixed ethnicity young women in Calumet, IN: /æ/-raising, /ɑ/-fronting and /ɛ/-lowering/backing. The White speakers in Gordon's sample exhibited considerably more use of each of these three features than did any other ethnic group, even for the most advanced feature in the region, /æ/-raising. For this variable, the least advanced White speaker raises /æ/ at a rate of 10%, just over the 9.3% that is the highest rate for /æ/-raising among the African American group. Furthermore, Gordon points out that the majority of raised tokens produced by African American speakers preceded nasal consonants, an environment which favors raising of low vowels. For the other two variables, African Americans exhibit even lower rates for the realization of NCCS-like vowels. With respect to /ɑ/-fronting, only 1 of 5 speakers shows any fronting, and this occurs in 1 token out of 26 total (3.8%). 2 of the speakers produce 1 token each of a lowered/backed /ɛ/, at a rate of 1.3%. From these numbers, it seems clear that

African Americans in Calumet are not participating in the NCCS, even though it is beginning to take hold among Whites in the area. Gordon leaves open the possibility that the raising of /æ/ found among the African Americans may be indicative of a change in progress related to the NCCS; however, he notes that the frequency with which these tokens occur before nasal segments makes it difficult to put forth such an argument. Furthermore, Gordon speculates that this raising could be related to the same process commonly found in Southern speech (cf. Bailey and Thomas, 1998). Thus, Gordon concludes, the features of the NCCS studied here are restricted to use by White speakers in this community, with no clear evidence of the shift occurring within communities of other ethnic groups.

In Lansing, Michigan, Jamila Jones (2003) also investigated the raising of /æ/ (which she refers to as the 'first step' in the NCCS) among 31 African Americans in the area. Speakers were assigned an index score depending on to what extent tokens of the vowel were raised. If the F1 of /æ/ was not significantly different from /ɛ/, the speaker received an index score of 2. If F1 readings were significantly higher than /ɛ/, the index score was 3, and so on. The highest possible index score was 5, indicating that the vowel had raised to a height at which F1 readings were no longer distinguishable from those of /ɪ/. In the sample of speakers, 20 exhibited raising of /æ/, though no speaker received an index score over 2. Among those speakers who raised the vowel, the highest rates occurred among women, particularly those under 40 years of age and who were identified as middle class. Such results parallel the general principles of linguistic change (Labov, 2001b), in which

women and those within the interior of the socioeconomic hierarchy drive changes in the system.

In another study within the same community, Jones & Preston (forthcoming) found that only 2 of 33 African American speakers showed any signs of the fronting of /ɑ/. These speakers were also women, but of the working, not middle class. At first glance, it seems odd that members of the same community would exhibit one feature characteristic of the NCCS (/æ/-raising) but avoid another (/ɑ/-fronting). The authors offer the following explanation for their results:

> "All this evidence points to the interpretation that /æ/-raising is a local linguistic norm which has nothing to do with the African American identity of Lansing speakers…To raise /æ/ is to be from Lansing, a regional but not ethnic characteristic, and sensitivity to it follows age, gender, and social status patterns but not ones of ethnic identity and/or solidarity. On the other hand, to front /ɑ/ in Lansing appears to be a phonological marker of ethnic identity, and perhaps it is even an avoided White sound" (p. 17)

This is an intriguing argument, but one which requires additional evidence for support. It is not clear on the basis of the evidence presented in the article alone that /æ/-raising symbolizes localness while /ɑ/-fronting indexes Whiteness for African Americans in Lansing. It is entirely plausible that these two variables function in these different ways in the community, but additional support for this position would help to further substantiate that claim. It becomes a particularly intriguing question when thrown into contrast with Erik Thomas' (2007) observation that there is a widespread fronting of /ɑ/ underway in AAE, as part of the African American Shift (see Figure 5.1). This underscores the importance of defining the social meanings of linguistic variables at the local level in order

to fully understand why a particular feature may or may not be adopted. This is a point I will revisit later, in discussing the sociolinguistics of ethnicity in Pittsburgh.

Bridget Anderson (2002, 2003) also investigated features of the vowel systems of African Americans in the state of Michigan, but her work focused on a comparison between White and African American Southern migrants living in Detroit. Anderson looked at two phenomena: gliding in the diphthong /ai/ and fronting of the back vowels /u/ and /ʊ/. Loss or weakening of the glide in /ai/ is commonly found in the South, as well as in AAE throughout the U.S. (Bailey and Thomas, 1998; Fridland, 2003b). Traditionally, glide weakening or loss has occurred in all environments except those in which the diphthong precedes a voiceless segment. In a recent change in some areas of the South, this has been expanded to prevoiceless contexts as well (Bailey and Thomas, 1998). For African Americans, however, weakening or loss of the glide before voiceless segments is strongly associated with White speech in the South (Wolfram and Thomas, 2002), and as such, is a 'crucial site' for the construction of ethnolinguistic identity in the region (Anderson, 2003). The speakers in her sample included African Americans living in Detroit but whose families had migrated from the South. Among these speakers, weakening of glides in /ai/ has spread, occurring even before voiceless segments younger speakers. This finding suggests that within this community, prevoiceless glide weakening in /ai/ does not index ethnic group identity as it may in the South. She argues that once these speakers moved to Detroit from Appalachia, it became "no longer necessary for the Detroit AAE speakers to index this social opposition" (Anderson, 2003, p. 196). The weakening of /ai/ in prevoiceless environments has been found in the South, as well. In Memphis, TN, Valerie

Fridland (2003b) also found that African Americans weakened (but did not delete) /ai/ glides at a rate of 44% before voiceless segments, compared to White speakers' rate of 25%. Fridland (2003b, p. 296) reasons that this change in AAVE in Memphis "symbolize[s] involvement in the Southern community and its associated heritage." In other words, this linguistic feature now has meanings of localness attached to it, rather than meanings of ethnic identity. This is further supported by the fact that the speakers make use of a number of other features associated with AAVE, indicating that prevoiceless /ai/ glide weakening is not a reflection of assimilation to White linguistic norms. Finally, in Texana, NC, Childs & Mallinson (2004) found increased /ai/ glide weakening before voiceless segments among younger speakers in the region. These authors also argue that the use of this feature by African Americans shows alignment with the regional community; importantly, however, other features of 'supraregional' AAE allow these speakers to also orient to a non-local African American identity. In each of these three cases, the authors show that this linguistic resource, which was previously thought to index ethnic identity, instead has become a marker of regional affiliation and alignment for African Americans in particular local settings.

The fronting of the back vowels /u/ and /ʊ/ is widespread in American English. *The Atlas of North American English* (Labov, Ash and Boberg, 2006) reports that the fronting of /u/ is common over much of the U.S., especially before coronals, while the fronting of /ʊ/ is found mainly in Southern speech (Thomas, 2001). Thomas (2007) notes that while fronting of /u/ (and also /o/) tends to be limited in African American speech, it is a feature that appears in some regional varieties of AAE. However, he notes, even in these areas,

African Americans lag behind their White counterparts in the region; in other words, while African Americans may show some fronting of the vowels, they typically do not front them to the same extent that Whites in the area do. Anderson (2003) found consistent fronting of both vowels in her sample of migrant African American speakers in Detroit. In fact, African Americans and Whites in her sample show little difference in the amount of fronting of both /u/ and /ʊ/. Wolfram & Thomas (2002) find high back vowel fronting among African Americans in Hyde County, NC, and Valerie Fridland (2003a) does as well in Memphis, TN. In general, as Thomas (2007) notes, African Americans in these areas tend not to front to the same extent as Whites in the same region. The fronting of the nucleus of /o/ is yet another widespread change in North American English, affecting areas throughout North America. Thomas (2001, p. 29) writes, "The main regions that have resisted it are New England, the Inland Upper North, the northern Great Plains, and perhaps New York City." This variable, Thomas (2001) adds, is found primarily in White speech in these regions, though he adds that the fronting has been found in some African American (and Mexican American) speech as well. Thomas (1989 [1993]) reports some fronting of /o/ in African Americans in Columbus, OH (68% among men, 75% among women), though Whites are still in the lead of this change in the area (89% for men, 91% for women). Additionally, while centralization of this vowel is disfavored before /l/ among White speakers, African Americans showed a centralized variant at a rate of 44% in this environment. Durian, Dodsworth and Schumacher (forthcoming) also found fronting of /o/ among both White and African Americans in Columbus, with younger speakers and women in the lead. In addition to this fronting, the authors found a lowering of the glide

among their African American participants, as well as a lowered nucleus among some African American speakers (younger men and older women). All of these studies point to the fact that African Americans are indeed influenced by sound changes occurring in their local communities, contrary to previously held beliefs about AAE phonology.

Finally, vowel mergers tend to be common in AAE, and often African Americans show higher rates of mergers than their White counterparts. Some examples of this trend are the merging of /ɪ/ and /ɛ/ before nasals (Hazen, 2005; Labov, Ash and Boberg, 2006), and the merging of /i/ and /ɪ/ before /l/ (Labov, Ash and Boberg, 2006; McElhinny, 1993). The one exception to this trend is the low-back merger, which neutralizes the distinction between /ɑ/ and /ɔ/ (Labov, Ash and Boberg, 2006; Thomas, 2007). This merger is the focus of Chapter 5 and will be discussed in more detail there. As possibly the largest phonological change taking place in North America (Labov, 1994), the merger has been the focus of a great deal of research. Most scholars who have investigated the merger in regional AAE, however, have found that the distinction is maintained, even if the vowels are merging in White speech. The most robust piece of evidence to date that African Americans are not sharing in the spread of the low-back merger comes from Bernstein (1993), who reports on data from the 1989 Texas Poll, which surveyed roughly 1,000 speakers. For the low-back merger, Bernstein found a significant difference among ethnic groups, with African Americans maintaining the /ɑ/-/ɔ/ distinction to a greater extent than either Whites or Hispanics. In these other two ethnic groups, the merger had spread considerably. Similarly, in West Virginia, Hazen (2005) shows that of the African

Americans in his sample, only 50% (2/4) have the low-back merger before /t/, the context most conducive to the merger in the state. This compares to 81% of the 36 White speakers who have lost the contrast in this environment. In the pre-/k/ environment, a similar, though less drastic difference obtains as well: 50% of the African American speakers were merged before /k/, while 67% (24/36) of White speakers did not produce a contrast in this environment. Likewise, Fridland (2004) found that the merger was incipient in the speech of Whites in Memphis, TN, though African Americans appeared to be resisting the change. In a later, more detailed discussion of the acoustics of /ɑ/ and /ɔ/ segments, Fridland (forthcoming) discusses the low-back vowels among 20 African American and White speakers in Memphis. Overall, she finds that neither group shows substantial evidence that there is a systemic merger underway in the city. However, the two groups maintain the phonemic contrast in distinct ways: African Americans tended to have longer glides and unrounded nuclei, while Whites exhibited rounder nuclei and shorter, less rounded glides. In contrast, Thomas (1989 [1993]) reports that in Columbus, OH, 10 of 16 African American informants showed no distinction between the low-back vowels before voiceless consonants (also see Speaker 157 in Thomas, 2001). This compares to only 1 White participant (out of 18) who retained the distinction in this environment. Furthermore, vowel plots from a variety of geographic regions in Thomas (2001) reveal that the low-back merger is indeed largely absent in African American speech—only 1 African American speaker (from Kilgore, TX) has a merger, and 1 more (from Columbus, OH) has a conditioned merger, before /t/. ANAE data also support this trend, as none of their African American

participants, from a wide geographical range, have a merger in production or perception.[3] I will return to the issue of the low-back merger in African American speech in Chapter 5, as well as explore the status of the low-back vowels in AAE in Pittsburgh, a region in which the merger is well established in the White population (Kurath and McDavid, 1961; Labov, Ash and Boberg, 2006; Thomas, 2001; Wetmore, 1959).

As this review has shown, it is misleading to claim categorically that African Americans do not participate in sound changes occurring in regional White varieties. Nor is it accurate to say even that African American participation in such changes is only minimal. Contrary to what many sociolinguists have assumed, changes in the English vowel system indeed appear to be more widespread than merely "White-spread" (Anderson, 2003, p. 200). An important trend found in several of these studies as well (Anderson, 2003; Childs and Mallinson, 2004; Fridland, 2003b) is the search for social explanation for linguistic patterns—as discussed above, these authors have shown that for African Americans in the regional contexts in which they reside, particular social meanings attached to particular linguistic variables largely responsible for their patterning in these communities.

The fact that we see this extent of variation from one region to the next in AAE further helps to dismiss previous claims about the uniformity of African American English. This research, to some extent, is reminiscent of earlier debates about the trajectory of White and African American speech patterns, and whether the two are converging or diverging

[3] It is important to note, however, that in the regions that the authors chose to include, their white participants do not show a merger either, with the exception of Los Angeles, California, where all 5 white speakers were merged.

(see discussions in Fasold et al., 1987). Although this research was focused primarily on grammatical rather than phonological features, it constitutes additional evidence that AAE is not a monolithic entity with a single trajectory of change. Minority groups, including African Americans, are thought not to participate in local sound change because they "are instead oriented to a national pattern of koine formation within the nonWhite groups" (Labov, 1994, p. 157). But work such as that of Anderson (2002, 2003), Childs & Mallinson (2004), and Fridland (2003b), among others, shows that there motivations can be more complex than a binary choice between alignment to local White or to supraregional African American norms.

1.1.2 Convergence and Divergence

An important trend that emerges from recent studies in regional African American English is that a discussion of whether White and African American vernaculars are converging or diverging may be somewhat misguided. However, this is a debate that has surrounded the study of AAE for many years. Although the debate does not have the fierceness it once did, there still remains much focus on whether AAE, either regionally or on a national level, is becoming more or less similar to White linguistic systems.

Early in the history of research on AAE, William Labov claimed that the variety was becoming increasingly dissimilar from the White vernaculars it was in close contact with. Labov provides convincing evidence for his claims (see Fasold et al., 1987; also Labov and Harris, 1986), showing that over time, AAE is becoming less like White varieties, particularly in the tense and aspect system. At the heart of Labov's thesis is the premise

that Whites and African Americans are becoming increasingly segregated in communities in which they co-exist, and thus the vernaculars are becoming progressively less like one another in their grammars. This argument is illustrated as well in other works, such as Ash & Myhill (1988) and Myhill & Harris (1988). Ash & Myhill (1988) present data from both African American and White speakers, who have varying amounts of contact with the other race. The data appear to support Labov's argument: those African Americans who have minimal contact with Whites exhibit extensive use of grammatical features of AAE. The data for phonology and lexical items, on the other hand, are much more evenly spread—African Americans with little contact with Whites still lead in the features of AAE, but are closely followed by the African Americans and Whites who have substantial contact with the other ethnic group.

More recent research has also suggested that AAE and White vernaculars are diverging. For instance, Wolfram & Thomas (2002) and Cukor-Avila (2001) report that African Americans are diverging from the local White vernacular, and showing increasing alignment to general norms of AAE. Cukor-Avila's (2001) work in Springville, TX examines the speech of African Americans and Whites for a multitude of grammatical features, and finds that while the two vernaculars shared many features prior to World War II, as time has passed, there has been a considerable decline in the amount of contact between Whites and African Americans, the result of which has been fewer similarities in the linguistic systems. Wolfram & Thomas's (2002) comprehensive study of Hyde County, North Carolina also examines features of morphosyntax, but encompasses variables of the vowel system as well. They show, for example, that although older African Americans in

the region exhibit the local pronunciation of /ai/ as backed and rounded [ɔj] (often represented as *'hoi toide'* for *high tide*), the younger speakers in the sample have lost this feature, among others typical of the area (see also Wolfram, Thomas and Green, 2000).

The claims of divergence put forth by Labov and others have not gone unchallenged. One of the early criticisms waged against this position was that it gives the impression to non-linguists, who may already view AAE as 'bad English', that the variety is only getting 'worse'. Vaughn-Cooke, for example (also in Fasold et al., 1987), expresses this view. Not only does Vaughn-Cooke characterize Labov's research on the divergence hypothesis as "flawed and misguided" (p. 18), she additionally cites evidence which challenges the divergence position. For instance, she reports that initial unstressed syllables in words such as *electric* and *afraid* are, over the course of three generations, being established in the speech of the African Americans in her sample. Similarly, she discusses the work of Anshen (1969), who found convergence for post-vocalic /r/ in AAE speech in North Carolina. Vaughn-Cooke also marshals evidence within the grammatical systems which indicates convergence, through a discussion of the work conducted by Nichols (1983) in South Carolina, in which it was found that younger and middle aged speakers were shifting their pronominal system to be more like that of standard English. In the same community, Nichols (1986, discussed in Fasold et al., 1987) reports convergence in the prepositional systems of White and African American speakers.

Again, recent research, situated mostly in rural enclave communities, has to some extent supported a view of convergence between AAE and White varieties. In a study of a small African American community in Texana, North Carolina, for example, Childs &

Mallinson (2004) report on African Americans' use of several variables, including copula absence, absence of 3rd person singular –s, post-vocalic /r/ and /ai/ glide weakening. Although the results are not consistent for each feature, the authors conclude that on the whole, African American Texana speakers appear to be aligning with Appalachian English norms, rather than moving towards more general, supraregional norms of AAE. The authors show, for example, that over time, Texana residents are becoming more /r/-full, a move towards Appalachian speech norms. Additionally, as discussed above, Texana residents are expanding the glide weakening in /ai/ to prevoiceless environments, a feature which has traditionally been thought of as a feature distinguishing African American and White speech in the South (Bailey and Thomas, 1998; Rickford, 1999; Thomas, 2001). As noted above, other studies have also reported increased /ai/ weakening in the speech of African Americans who have a connection to Appalachian speech (Anderson, 2002; Mallinson and Wolfram, 2002) or who identify with a shared Southern heritage, regardless of race (Fridland, 2003b). In a similar manner, Hinton & Pollock (2000) discuss the use of post-vocalic /r/ in AAE in Davenport, IA, and report that AA adults exhibited levels of the feature over 97% of the time and children used it more than 90%, both closely paralleling White patterns in the area. Mallinson & Wolfram (2002) examine a host of "diagnostic linguistic variables" (p. 749) for African American speakers in the enclave community of Beech Bottom, North Carolina (e.g. copula absence, 3rd person singular –s absence, /ai/ glide weakening). The authors find considerable alignment with local White speech norms, and report that "the dialect of African Americans in Beech Bottom sounds nearly indistinguishable from that of their European American cohorts" (p. 767). This claim was confirmed in an examination of the vowel system of African

Americans in Beech Bottom (Childs, Mallinson and Carpenter, 2007), which showed considerable alignment with the local White vowels system. Moreover, Wolfram & Thomas (2002) report that in perception tests, participants correctly identified the race of the African American Beech Bottom speakers less than 10% of the time, indicating that vocalic variables are not reliable markers of ethnicity in the region. This contrasts substantially with results of similar perception tests in other regions of North Carolina (Hazen, 2000; Wolfram, Hazen and Tamburro, 1997), in which listeners are overwhelmingly accurate at identifying the race of the speakers.

Although the intensity of the convergence/divergence debate has subsided considerably since the 1980s, the issue of the relationship between White and African American speech continues to intrigue sociolinguists, and continues to influence investigations of regional varieties of AAE. However, as is evident from the studies discussed above, there is no identifiable national trend of the relationship between African American and White varieties—just as many studies find convergence as do divergence. The implications of this are clear: first of all, AAE is not a monolithic entity as was previously assumed; secondly, scholars must take into full consideration the local social conditions to attempt to uncover the motivations for convergence or divergence in those regions.

1.2 LANGUAGE AND SOCIAL MEANING

The study of sociolinguistic variation centers on the observation that there are 'different ways of saying the same thing'. It is the business of sociolinguists to sort out the order in the seemingly chaotic linguistic variation that every individual in every speech community exhibits. Sociolinguists are good at finding patterns and correlating them with social groups—e.g., gender, class, ethnicity—in order to explain observed linguistic behavior. Making meaning out of these correlations rests on the assumption that these different linguistic realizations are imbued with social meaning. But in identifying the form-meaning links attached to linguistic variables, there is a danger in assuming that people speak a certain way, or use certain variants, simply because they are members of certain social groups. Indeed, this has been the dominant approach in sociolinguistics for many years. Rather than exploring what linguistic variants mean for speakers and hearers, researchers have tended to assign meaning based on predefined social categories, such as those listed above (see also Coupland, 2007; Eckert, 2000).

Beginning with Labov's (1966) study of New York City, variationist scholarship has focused primarily on large-scale surveys, with the aim of discovering broad patterns of language variation and change. This research provided a picture of how linguistic variables are distributed socially within a given geographical region, concentrating on how regional variants were distributed with respect to gender and social class. This research paradigm enabled scholars, most notably Labov to develop principles underlying the mechanisms of linguistic change (see e.g. 2001b for a comprehensive review). Such work revealed that, for example, linguistic change is initiated by those in the upper-working and lower-middle

class groups, rather than those at the extremes of the social class hierarchy. Gender has also been repeatedly identified as playing a crucial role in driving language change, with women leading changes in progress, but showing less use of stable stigmatized variants (e.g. alveolar pronunciations of the *–ing* morpheme).

Although substantial gains have—without question—been made in correlating linguistic variation with social groups and linking this to language change, the social meaning of sociolinguistic variants has been very narrowly conceived. Coupland (2007) describes this model of linguistic variation research as follows:

> "The survey designs of variationist research, which have been remarkably successful in revealing broad patterns of linguistic diversity and change, have not encouraged us to understand what people meaningfully achieve through linguistic variation…[T]he sort of truth generated in variationist research is necessarily one based in generalisations and statistical tendencies. These are 'probabilistic' truths, expressing degrees of relative similarity and dissimilarity within and across groups of speakers and social situations. The convention is to produce averaged statistical values (e.g. percentages of people's use of a particular linguistic feature in a particular social situation, or factor loadings in statistical tests) to represent patterns of linguistic variation. So, accent variation between two different groups of speakers is usually represented as the difference between one statistical value (perhaps a percentage) and another" (Coupland, 2007, p. 5).

As Coupland notes, the social meaning of linguistic variation, of speakers' choice of one linguistic variant over another in a particular social context, has not been given priority in this line of research. The main criticism of this work, waged by authors like Coupland, Eckert (e.g. 2000; 2008) and others, has been that ways in which speakers orient to and display specific facets of their identities, at particular moments for particular purposes, and how they recruit specific linguistic variants to do this social work, has all been lost in these large-scale survey studies. However, while this has been the overwhelming trend in

sociolinguistic research, it is by no means the approach that all variation studies have taken. In fact, one of the earliest variationist studies, Labov's work on Martha's Vineyard (Labov, 1963), took a more nuanced approach to variation in a speech community. Labov investigated the centralization of the nuclei of the diphthongs /aw/ and /ai/, a feature that had been receding among the older generations on the island. Labov discovered, however, that this trend was reversing, and the centralized variants were appearing at high rates among some younger speakers on the island. In particular, variants were heavily concentrated in the population of 'up-islanders': those who lived in the rural sections of the island, and who adhered to the traditional ways of island living. The island's economy depends strongly on the summer population of tourists from the mainland. For those islanders who resist the influx and influence of mainlanders, and felt that the island was rightfully theirs, the pronunciation of the diphthongs /aw/ and /ai/ was symbolic of being a native to the island. Younger islanders who had a strong affinity for the island and were planning to stay there seemed to have revived a local pronunciation that was being lost in order to display their resistance to mainland influence and their commitment to the island. This group contrasted with islanders who expressed an outward-looking orientation. They did not express resentment and resistance to mainland tourists in the same way, and in fact voiced a desire to leave the island. For these speakers, the centralized nucleus of /aw/ and /ai/ was much less frequent. In explaining this intriguing finding, Labov (1963, p. 36) writes, "When a man [*sic*] says [rəɪt] or [hɐʊs], he is unconsciously establishing the fact that he belongs to the island: that he is one of the natives to whom the island really belongs." In

other words, the use of these centralized variants helped speakers claim an authentic local identity in the face of and in opposition to those from the mainland.

In the years since Labov's work on Martha's Vineyard, as mentioned above, the dominant trend in sociolinguistics has been towards large-scale survey studies. But there have always been researchers asking more in-depth questions about the social meanings of linguistic variables, rather than assuming that their meaning lies in their correlations with predetermined social groups. Eckert (e.g. 2000, 2008), for example, has consistently argued for more attention to the social meaning of linguistic variation. In her work with White high school students in Detroit (1989a, 2000), Eckert showed that two distinct social groups in the school—jocks and burnouts—were differentiated in part by their use of linguistic variables involved in the Northern Cities Chain Shift (see Eckert, 2000; Labov, Ash and Boberg, 2006). The burnouts led in the use of newer variables in the chain shift, showing an orientation to an urban identity, rather than one aligned with the institution of the school (as the jocks showed). But rather than directly laying claim to an urban identity, Eckert argues, the burnouts were drawing on the characteristics associated with urban life, such as toughness and street-smarts. This is precisely the way in which social meaning is attached to linguistic variables, in Eckert's view: "variables index demographic categories not directly but indirectly, through their association with qualities and stances that enter into the construction of categories" (Eckert, 2008, p. 455; see also Kiesling, 2005; Ochs, 1992). Burnouts aligned to stances and characteristics associated with urban life, with working class values, and recruited specific linguistic variables in the creation of those stances. Along with other characteristics, such as make-up, clothing and activities engaged in, these

linguistic variables contributed to a larger personal style that the burnouts and jocks displayed, constructed largely in opposition to the other group.

Recent research on perception has offered a great deal of insight into how sociolinguistic variables are evaluated, and the complex social meanings that single linguistic variants can express. This work (e.g. Campbell-Kibler, 2007a; Podesva et al., 2008) employs a matched guise technique, using carefully controlled stimuli that have been manipulated so that two versions of the same utterance differ only in the realization of a single sociolinguistic variable. For example, a sentence such as "We went swimming yesterday" is manipulated so that there are two versions: one with the velar [ɪŋ] on the final morpheme and one with the alveolar [ɪn] realization. The resulting sentences are exactly the same except for the variable of interest (see Campbell-Kibler, 2008 for an audio example). Playing these different versions to listeners then allows the researcher to tap into the social meanings that these variants carry. With respect to variation in the *–ing* morpheme, Campbell-Kibler (2007a, 2007b) , for example, found that using the velar variant made speakers sound more educated and more articulate, while using the alveolar realization made them sound more casual and relaxed. Campbell-Kibler also discusses the complexity of meaning of linguistic variables in terms of the backgrounds and expectations of the listeners, as well as how *–ing* interacts with other perceptions about the speaker. Studies such as these demonstrate that sociolinguistic variables do not simply reflect the static social categories that they may correlate with in a large-scale quantitative study. For the researcher to assign social meaning to sociolinguistic variables on the basis of statistical correlations, then, obscures the complex social meanings that are at work with respect to

linguistic features. Variants are not merely 'different ways of saying the same thing', even if their referential meanings can be taken as equivalent. This assumption reduces the significance of the social meanings indexed by different variants, and ignores the effects that the situated use of a particular variant may have on other elements of the interaction, or the interaction as a whole (see Coupland, 2007). As Eckert (2008, p. 456) writes on this issue, "Different ways of saying things are intended to signal different ways of being."

The notion that speakers use language to display facets of their identities at different moments is at the heart of LePage and Tabouret-Keller's (1985) view on *acts of identity* in their book of the same name. The authors analyze the ways in which speakers project facets of their social identities, particularly in contexts in which there is a mix of languages, dialects and ethnic groups, such as in many Caribbean nations. In their well-known description of acts of identity, LePage and Tabouret-Keller (1985, p. 181) write, "the individual creates for himself the patterns of his linguistic behaviour 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." Their approach is quite similar, as they acknowledge, to accommodation theory (e.g. Giles and Powesland, 1975), though they are more concerned with long-term patterns of linguistic accommodation or differentiation, whereas Howard Giles and others working within accommodation theory are more interested in such occurrences in interpersonal exchanges.

The approach of LePage and Tabouret-Keller is based on the premise that social identities are dynamic rather than static, and projected rather than reflective of social group membership, making it an early proponent of a social constructivist perspective of language and identity. Their work provides a detailed look at identities in Belize, a multiethnic and

multilingual context. Traditionally, groups have been delimited on the basis of ethnic identity, often based on physical characteristics, such as hair and lips, but also the basis of language. Over time, LePage and Tabouret-Keller find, natives of the island begin to 'focus' around a single and shared identity—Belizean—while in the past, other social identities seemed to take precedence (Spanish, Carib, Mayan, for example). The locus of this focusing, the authors show, is Creole, which comes to be closely linked with a national Belizean identity. Those who retain strong affiliation with another social identity, however, tend not to share in this identification with a Belizean identity, and often, express negative orientation to Creole. Such a case is illustrated in an interview that LePage and Tabouret-Keller held with a high school teacher LG, who strongly identifies as Spanish. LG expresses prejudice on the part her family with regard to marrying across ethnic lines, particularly those who are Spanish marrying 'Negros'. She seems to embrace the trend of intermarriage, but at the same time, expresses strong hostility towards Creole language. She reports not speaking because it "goes against [her] grain" (Le Page and Tabouret-Keller, 1985, p. 232), and is upset by the fact that Creole is overtaking Spanish in Belize, as evidenced by her younger siblings, whose limited ability in Spanish "is a shame" (p. 173). While LG expresses positive orientation to a national Belizean identity, for her, this clearly does not entail Creole as a shared national language. The case of LG illustrates the second part of LePage and Tabouret-Keller's famous quote above, that individuals can make use of linguistic patterns to *disassociate* themselves from those they wish to be differentiated from. While in the context of multilingual Belize this translates into the use or avoidance of a language, like Creole, in other contexts, this can also mean the use or absence of particular linguistic features in an individual or group's speech.

As they conclude their book, LePage and Tabouret-Keller restate their social constructivist position of language and identity. They write,

> "Language...can symbolize in a coded way all the other concepts which we use to define ourselves and our society. It is true that we do this unconsciously in our eating habits, more consciously perhaps in other rituals and practices. In language however we are offered, by the society we enter, and we offer to others, a very overt symbolization of ourselves and of our universe, not only in the various domains of that universe, but also through *the social marking which each occasion of use carries*. Language is not only itself the focal centre of our acts of identity; it also consists of metaphors, and our focussing of it is around such metaphors or symbols…*these symbols are the means by which we define ourselves and others*" (p. 248, my emphasis).

This "social marking" of linguistic tokens, which arises with "each occasion of use" is not, however, unconstrained. The authors earlier in the text identify four elements that constrain speakers' ability to "create patterns of linguistic behavior," some of which I have made mention of in previous sections. Speakers must, first of all, be able to *identify* a group—there must be awareness that some group of people is differentiated, linguistically or by other means, from others. Secondly, there must be sufficient *access* to the group, and "ability to analyse their behavioural patterns" (p. 182). In other words, individuals must not only be aware of a group's existence, but also have adequate contact with its speakers. *Motivation* to identify with groups is the third of LePage and Tabouret-Keller's constraints, and the one they deem most important. Motivation can affect use of one language over another, as in the context of Belize, in which speakers may choose to speak Creole over Spanish, or vice versa; the authors point out that motivation can also affect the use of single linguistic features. Linguistic patterning of this kind has been the focus of a great deal of variationist work (e.g. Labov, 1966; Lesley Milroy, 1987; Trudgill, 1974), although not generally discussed as motivation per se. Lastly, the authors identify a final constraint on

the linguistic accommodation they are interested in—*ability*, the discussion of which the authors frame in terms of age. It is generally accepted that children have an easier time of acquiring a new language or dialect than do adults (see Payne, 1980). LePage and Tabouret-Keller make the point based on this fact that for children, the social motivation does not have to be as strong as it does for adults in order for a substantial change in linguistic behavior to take place.

These constraints on speakers' ability to adjust their linguistic behavior are important reminders to scholars of language and identity. It can be easy for a researcher to assign social meanings and identity projections to speaker productions, even though such social work may not have been the speaker's intent at all. Johnstone and Kiesling (2008, p. 7) raise this very issue: "sociolinguists need to be more careful than we sometimes are to avoid the 'intentional fallacy', the assumption, that is, that it is possible to derive a speaker's intention from a hearer's interpretation." As these authors show, it is unwise to do so, because for the speaker, the linguistic feature may not carry the social meaning that the researcher assumes it does (or any social meaning at all). Speakers who are unaware that a feature (such as monophthongal /aw/) indexes some social meaning (such as being local to Pittsburgh) cannot be said to be projecting a regional identity if they monophthongize /aw/. Therefore, it is an important step to take to identify not only which variables carry social meaning, but also the extent of awareness of these features in the community—and not to assume that all speakers in a community share the same level of awareness or the same indexical links between linguistic form and social meaning.

1.2.1 Dialect Awareness

The extent to which a sociolinguistic variable is embedded in the social consciousness has been central in the study of language change since the beginnings of variationist research. In discussing the mechanisms of language change, based on his work in New York City and Martha's Vineyard, Labov (1972b, pp. 178-180) introduces three types of linguistic variables: *indicators*, *markers*, and *stereotypes*. An *indicator* is a variable that shows no stylistic variation—it affects all members of a particular word class, and thus operates fully below the level of social awareness in a speech community. Indicators are "a function of group membership" (Labov, 1972b, p. 178), and "are difficult to detect for both linguists and naïve speakers (Labov, 2001b, p. 196) . When a variable becomes a *marker*, it begins to show variation both stylistically and socially, and may through time become overtly associated with membership in particular groups in the community (based on characteristics like social class, gender, age). Variation in the morpheme *–ing* is such an example. There is variation (in virtually every English-speaking community) between [ɪŋ] and [ɪn], which vary on both social and stylistic planes, so that the variant [ɪn] is associated with speech of those in the lower and working classes and with less formal contexts, while [ɪŋ] is associated with more formal speaking styles and with the speech of those in the upper levels of the social class hierarchy. At the other end of the social awareness spectrum are *stereotypes*, which are extremely stigmatized forms that receive social evaluation and overt comment. Once a variable reaches this stage, it may begin to fade from use and eventually disappear. Examples of stereotypes in the U.S. are characterizations of New York City

speakers producing *toity toid* for 'thirty third', or utterances like *pahk ya cah* for 'park your car' to represent speech in Boston. The evolution of a variable from an indicator to a stereotype can, as Labov argues, be a pivotal force in the mechanism of language change.

'Pittsburghese', the locally-named dialect in the area of Southwestern Pennsylvania, has gone through such an evolution—or enregisterment—as Johnstone, Andrus and Danielson (2006) argue. Building on work in linguistic anthropology (Agha, 2003; Silverstein, 2003), these authors demonstrate that 'Pittsburghese' changed from being 'how everyone talked' to "a "dialect" linked explicitly, via its name, with place" (Johnstone, Andrus and Danielson, 2006, p. 95). In other words, 'Pittsburghese' has become a symbol of localness. The features of Pittsburgh speech were once not noticed at all by Pittsburghers, because they were shared by all people in the region—they 'indicated' membership in a group, in this case, pertaining to geographic location. Although their use was more frequent among speakers who were also working class and male, these social correlations were not yet meaningful, because the features were spread across other groups as well. Through increased social mobility, features that were once not noticed were given social meaning; specifically, 'Pittsburghese' came to be associated with working class speech. The increased geographic mobility that Pittsburghers witnessed later led to the third stage of the enregisterment of 'Pittsburghese', in which "regional forms are now increasingly heard as signals of authentic local identity and can be used to project localness" (Johnstone, Andrus and Danielson, 2006, p. 93). The fact that (some) features of local speech now have a high level of social awareness means that they are available for speakers to display their local affiliation—to self-consciously mark a regional identity in a way that was not possible before. I will revisit the notion of regional/place identity below. Returning to Labov's

taxonomy, now that 'Pittsburghese' has reached the level of a stereotype, we might expect features associated with it to begin to fade, and indeed, there is some indication that at least one feature, monophthongal /aw/, is dying out in the region, as younger speakers use it with less frequency (Kiesling and Wisnosky, 2003). The distribution and trajectory of monophthongal /aw/ in Pittsburgh still require a fuller treatment, to determine whether the feature persists, in whose speech, and in what contexts, or if it is indeed fading away. The crucial point that Johnstone and Kiesling (2008) make is that those speakers who hear monophthongal /aw/ as local are the least likely to produce it in their own speech. For speakers who frequently use the monophthongal variant, the feature does not carry the social meaning of localness that others may attribute to it. This finding greatly complicates the general notion that analysts are able to read social meaning from speakers' productions, just because features carry social meaning for the researcher. Awareness at the community and individual levels should factor into discussions of social meaning and social identity work through speech.

Natalie Schilling-Estes (1998) provides a very different look at what the effects of dialect awareness can be. As she discusses, high awareness of dialect features may lead to their persistence (as opposed to their dying out), at least in some registers, such as performance. While in everyday conversation, speakers may not actually exhibit these features of the dialect, they can be called up in performative contexts, creating particular personae for specific purposes. Rex O'Neal, a lifelong resident of Ocracoke, North Carolina, uses exaggerated forms of stereotypical dialect features, in particular, producing /ai/ with a backed and raised nucleus ([ɔi]) in order to conform to outsiders' perception of

how people on the island talk—despite the fact that no one on the island actually talks this way. Schilling-Estes (1998, pp. 74-75) writes of his performance that,

> "when Rex focuses on the fact that he is participating in an interview so that his speech can be examined, he casts himself in the role of performer of the most distinctive island dialect he can muster, in order to give the linguists exactly what they want to hear—and then some. He is not converging with the linguists, and he is diverging from them in a very specific way, in order to fulfill a very specific role. Nor is he converging with anyone else, since no one on Ocracoke really talks or ever talked the way he talks in his speech performance. He is, however, evoking the cultural image—of the old-time Ocracoke waterman; in effect, he is playing the part."

'Playing the part' of an authentic Ocracoke waterman centers on the exaggerated use of a highly salient feature of the dialect. In any speech community, it is not all features that become stereotypes and used in performances of the dialect, but a selection of them, which, for one reason or another, have come to be crucial symbols of the dialect. As such, they are available for performances of the type shown in Schilling-Estes (1998), or are the subject of metalinguistic talk, as Johnstone and colleagues describe (Johnstone, Andrus and Danielson, 2006; Johnstone and Kiesling, 2008).

The works described above focus on awareness of one's own dialect—Pittsburghers talking about and using 'Pittsburghese', and an Ocracoke man using a particular realization of the vowel /ai/ that is associated with the island. Dennis Preston (e.g. Niedzielski and Preston, 2003; Preston, 1989, 1997) has done much work on dialect awareness, but with attention to awareness and perceptions about *others'* speech. This field of 'folk linguistics' has shown what linguists often suspect to be true—that people have very definite ideas about how other people speak. Map-labeling activities, for example, give clear indication that many people mentally divide up the country into regions based on stereotypes about

what speech sounds like in those areas. In these activities, labels such as 'rednecks' and 'hillbillies' are often provided for Southern states, while labels like 'mellow', 'relaxed' and 'cowboy' are given to describe the speech in California, the Northwest and the West, respectively. Such perceptions, and the attitudes they reveal towards those places and speech patterns, can also play an important role in the linguistic choices that speakers make, as I discuss below.

1.2.2 Place Identity

For several years, many sociolinguists have been moving away from a model that views social identities as static, and towards one in which identities are seen as dynamic and fluid, socioculturally constructed, and discursively created. Researchers have thus focused on how identity categories, such as gender, are linguistically displayed and brought into context, and how individuals present themselves, for example, as men or as women, and as particular kinds of men or women (e.g. Bucholtz, 1999; Eckert, 1989b; Kiesling, 1998). This differs from treatments of social identities in which identity categories are imposed by the researcher, and seen as explanatory in and of themselves. In such approaches, researchers tend to assume that there is a direct form-meaning indexical link between membership in a social group and language use, based on broad correlations between social categories and linguistic patterns (see Coupland, 2007 for additional discussion).

While many researchers have abandoned static models of social identity with respect to concepts like gender and ethnicity, the concept of *place* has, until much more recently, remained unexamined. In studies of speech communities, sociolinguists and dialectologists

tend to invite speakers to participate based on the criterion that they live in or are from a specific geographical location. These speakers are assumed to be 'the same' in this respect, because, as Johnstone (2004, pp. 65-66) writes, "we tend to assume that identifying where someone is, where someone is from, and who else is from there is unproblematic because the relevant criteria are objective and categorical…But we do not tend to think about the ways in which 'being in Pennsylvania,' 'being a Texan,' or 'being from a small town' might also be emic, culturally defined categories." In Johnstone's view, sociolinguists ought to shift their view from place as location to place as meaning, paralleling the shift in thinking about other social and personal identities. 'Being from' a place can mean very different things for different individuals, because people can have different experiences in and orientations to the same region, and this, in turn, can influence the linguistic choices and behavior of individuals. As Eckert (2004, p. 109) writes, "although members of a population defined as living in the same community may all agree that they live in a particular area or political unit, they do not orient in a homogenous way to that area or unit or its surroundings…Categories, groups, and networks may, as a result, embody differences in spatial orientations and practices, with important consequences for linguistic variation."

As discussed above, Labov's (1963) work on Martha's Vineyard illustrates precisely what Eckert (2004) is emphasizing. The case study of the reversal of a sound change on the island is a clear example of the ways in which individuals in the same physical space experience that locale quite differently—and the ways in which orientation to place can manifest in linguistic behavior. There are a number of other studies that suggest the same thing—that orientation to place can be displayed linguistically, just as other social identities

are marked through speech. Jonathan Holmquist (1985) found that inhabitants of Ucieda, a Spanish village, signaled a move away from their traditional mountain farming and towards a more modern way of life, by lowering /u/ to [o] in word-final position. Susan Gal (1979) showed a similar trend in the Austrian town of Oberwart, where Hungarian signaled a traditional peasant life, while German was indexical of a more modern lifestyle. In this case, the linguistic consequences of place identity constituted not just a change in phonetic realization of variable, but a shift from one language to another. Barbara Johnstone's work (e.g. Johnstone, 1999; Johnstone and Bean, 1997) with women in Texas reveals how specific meanings of 'southernness' are constructed and put into use in discourse. Evoking the South, for these women, can call up meanings of 'gentility' and of 'closeness and friendship', and can also be used for personal gain. As one of Johnstone's interviewees says, "My Southern drawl makes me $70,000 a year…it's hilarious how those businessmen turn to gravy when they hear it" (Johnstone, 1999, p. 305). In this example, it becomes apparent how the intersection of social identities, like gender, and place can create a specific persona for an individual, which is then available for linguistic display.

Several works mentioned above appealed to 'regional identity' as a way of explaining the linguistic behavior of African Americans (Anderson, 2002, 2003; Childs and Mallinson, 2004; Fridland, 2003a, 2003b). In each of these works, the authors argue that linguistic features that have been associated with sound changes in White communities, but which they find in the speech of their African American participants, can be linked to orientation to a region, rather than being associated with ethnicity. Anderson (2002, 2003) demonstrates that the glide-weakening in /ai/ has spread to include pre-voiceless contexts, and that this feature is shared by African American and White Southern migrants living in

Detroit. She argues that the incidence of this feature among her African American participants can be seen as an expression of opposition to White Northerners, a sentiment shared by the White participants who had migrated from the South. In this case, the boundaries between the ethnic groups that are created in other regions with respect to this feature are removed, creating a solidarity based on place rather than a division based on race. Fridland (2003b) and Childs and Mallinson (2004) make similar arguments for the African American communities under study in their scholarship. In each of these cases, the authors focus on communities of African Americans in the South, and argue that the spread of /ai/ glide-weakening to prevoiceless contexts signals alignment to the regional community. Fridland (2003a) also makes this case for the appearance of features of the Southern Shift in African American speech in Memphis. Fridland argues that there may be a difference between the North and South with respect to regional affiliation, which helps explain why in many Northern areas African Americans are less likely to align to local phonology: Southern Whites and African Americans alike share the cultural heritage of the South; furthermore, both are subjected to the cultural prejudice that comes with being a Southerner.

As the review above shows, the concept of place seems to be a compelling line of explanation for speech patterns found within localized communities. Of course, place identity and dialect awareness are intricately connected—a speaker's linguistic display of place identity is closely tied to the awareness that speaker has of the local dialect, and what features for that speaker are indexical of the region. The links between awareness and identity seem to be relatively unexplored in this area, and leave open an important line of inquiry. In other words, it is not clear that scholars have asked "how the area and its

linguistic characteristics are locally imagined" (Johnstone, 2004, p. 76). What local people see as indexical of a region, and what linguistic characteristics are seen as symbols of that region, must be explored, if we are able to argue that the use (or non-use) of a particular regional feature can indeed be interpreted as an expression of place identity. Analysts should try not, in other words, to commit the "intentional fallacy" (Johnstone and Kiesling, 2008, p. 7), by assuming that speakers' intentions are immediately transparent and interpretable based on the hearer's/analyst's perspective.

Awareness of regional dialect features can come in many forms. In the case of Martha's Vineyard, for example, Labov (1963) notes that the specific variables he investigates—centralized nuclei in /aw/ and /ai/—are not themselves in the social consciousness. Islanders do not articulate that these specific pronunciations are heard as local by either users or non-users of the regional variants. However, there is awareness that there is a distinct way of speaking that is associated with traditional islanders—a "'close-mouthed' articulatory style [that] is the object of social affect" (Labov, 1963, p. 40). In other areas, the indexical form-meaning link may be more explicit. Pittsburgh is one such place.

In Pittsburgh, as discussed above, the local dialect, 'Pittsburghese', has reached the status of a stereotype in Labov's (1972b) classification of variables. 'Pittsburghese' is, as Johnstone (2004, p. 76) writes, "very visible as a symbol of localness, commodified in folk dictionaries and on souvenir T-shirts and refrigerator magnets and alluded to and performed in talk about what authentic localness means." What is not clear at this point is whether 'symbols of localness' are also seen as such by African American Pittsburghers, and whether 'what authentic localness means' is agreed upon by Whites and African Americans in the city. Johnstone (2004) has noted that when localness and local speech

become commodities, there is potential for conflict over what these meanings are, and how they ought to be used. In Pittsburgh, there is certainly competition and struggle over a place, the Hill District. As I discuss in §2.3.1, this struggle (which has been more or less ongoing since the 1950s), has led to a deep resentment towards the city of Pittsburgh and its inhabitants on the part of African American Pittsburghers, particularly those who live or lived in the Hill District. In this case, African American residents of the Hill are largely at odds with the larger city and those groups that want to recreate the image of the Hill. There exists a great amount of discord—about who belongs in the Hill, and who the Hill belongs to—between these African American residents and outsiders. This complex regional orientation, in which there is a strong affinity for place at the neighborhood level, but an equally strong dislike for the larger city, is one which presents an interesting case for the study of local speech and its relation to identity of place.

1.3 GOALS OF THE DISSERTATION

There are several lines of inquiry to be tackled in this dissertation. The goals of this work are as follows:

1. To provide a description of the vowel systems of African American Pittsburgh speakers.

2. To determine the extent to which African American residents share in characteristic features of the local Pittsburgh dialect. This involves the analysis of two distinctive features of the local dialect:
    1. The low-back merger
    2. The monophthongization of /aw/

3. To connect the social meanings of Pittsburgh speech to the linguistic patterns observed in the community; more specifically, to explore the roles of dialect awareness and place identity in the linguistic behavior of Pittsburgh African Americans. How do African American Pittsburghers conceive of the local dialect? How do they imagine their community? Is their primary community the city of Pittsburgh, the Hill District, or something else? How do conceptions of local speech and orientation to place affect language use in this community?

In pursuing these goals, in Chapter 2 I begin with an overview of the sociolinguistic setting, Pittsburgh, Pennsylvania, including the history and current social conditions of African Americans in the city. There, I also provide a sketch of the Pittsburgh dialect, and discuss a selection of previous research pertinent to the current project. Chapter 3 gives details on the data and methods used for this project. Chapter 4 provides an overview of the vowel systems of African American Pittsburghers. In the subsequent two chapters, I present the results of the acoustic analyses of two linguistic features in the local Pittsburgh dialect: the low-back merger (Chapter 5) and the monophthongization of /aw/ (Chapter 6). In Chapter 6, I delve more deeply into the social meanings of local variables (specifically monophthongal /aw/) and the local dialect more generally, exploring social factors such as racial identity, orientation to the local community and awareness of and ideologies about local speech, all of which converge to influence the linguistic choices of African Americans in Pittsburgh. Finally, in Chapter 7, I summarize the major findings of this work, discuss their implications and outline directions for future work in this area.

2.0 PITTSBURGH AND ITS SPEECH COMMUNITIES

In this chapter, I describe the site chosen for this project: Pittsburgh, Pennsylvania. As we will see, Pittsburgh is an interesting site for the study of sociolinguistic variation in general, and ethnolinguistic variation in particular, because of the sociohistorical conditions of groups who settled in the city, and also because of the salience of the local dialect there, 'Pittsburghese'. I discuss here the general setting of Pittsburgh as an arena in which to conduct sociolinguistic research on AAE, many of which become relevant in later chapters, as I attempt to explain the patterns of variation I find among the African American speakers in this study. I also use this chapter to describe the Pittsburgh dialect, as it has been described for White speakers by scholars in previous investigations. Two features of the phonological system of (White) Pittsburgh speech—the low-back merger and /aw/-monophthongization—and the differential roles they play in local language ideology, will be the focus of the chapters that follow.

2.1 EARLY PITTSBURGH

Pittsburgh is the urban center of Southwestern Pennsylvania in Allegheny County (see Figure 2.1), near the state border with Ohio. Pittsburgh is situated at the confluence of the Allegheny and the Monongahela Rivers, which meet to form the Ohio. Early in the history of the United States, this juncture was recognized as a strategic location, often called "the Gateway to the West" (Killikelly, 1906). River access to the West and the South enabled Pittsburgh manufacturers to easily transport goods, and in the late 1700s, Pittsburgh was already seeing enormous industrial growth (Baldwin, 1937). In the 19th century, the iron and steel industries in Pittsburgh increased tremendously, and Pittsburgh quickly became established as the nation's industrial center (Dunaway, 1944).

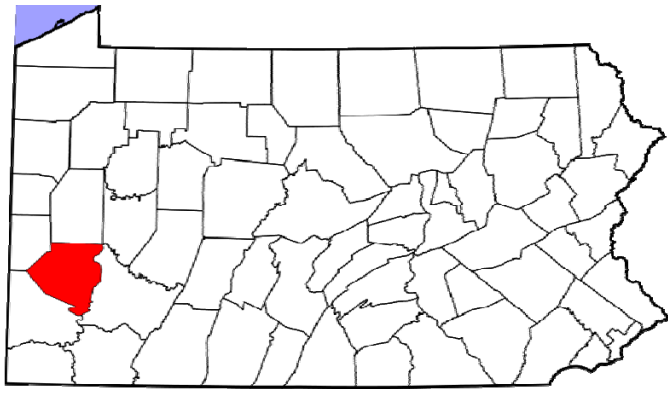


Figure 2.1 Map of Pennsylvania, Allegheny County Highlighted

During this early period of Pittsburgh's history, the majority of the population was of Scots-Irish descent (Hinshaw, 2002), and it was members of this group (including industrialists such as Andrew Mellon) that were largely responsible for the establishment of

the iron and steel industries in the city. The need for additional labor drew immigrants from elsewhere, mainly Eastern and Southern Europe, and workers of Scots-Irish descent moved up in the ranks in the mills (Dickerson, 1986; Epstein, 1969). By 1910, more than half of the steelworkers in the Pittsburgh area were foreign-born Whites. But the need for labor went beyond what European immigration could provide, and thus African Americans also began to flock to Pittsburgh for work.

2.2 AFRICAN AMERICANS IN PITTSBURGH

In many ways, Pittsburgh's industrial roots have shaped the city's social and economic structure, and the history of African Americans in Pittsburgh is no exception to this influence. In fact, partly because of the impact of the steel industry, in the late 19th and early 20th centuries, the experience of African Americans in Pittsburgh was somewhat different from that in other Northern cities, beginning with the movement of African Americans into the city, and then the conditions they encountered once they had arrived.

2.2.1 Industrial Pittsburgh

The promise of work in the thriving steel and iron mills triggered African American migration to Pittsburgh much earlier than to other Northern cities. During the Great Migration, from about 1910 to 1930, African Americans moved in massive numbers from the South to the North. In Pittsburgh, on the other hand, large-scale African American migration began around 1875 (Dickerson, 1986; Epstein, 1969; Glasco, 2006). Prompted

initially by continual labor strikes, steel companies in Pittsburgh began to actively recruit African Americans from the South to fill positions and maintain the productivity of the mills (Dickerson, 1986; Glasco, 1996; Gottlieb, 1987). The number of African American migrants continued to grow into the 20th century, swelling in the late 1910s and 1920s as the U.S. entered World War I and the restrictive Immigration Act of 1924 was passed. Both U.S. involvement in the war and the new immigration policy severely reduced the number of Southern and Eastern European immigrants allowed to enter the country, creating a great need for a new source of workers. Glasco (1996, p. 672) reports that the number of African American inhabitants in Pittsburgh grew substantially almost tenfold from 1880 to 1930, as illustrated in Figure 2.2.

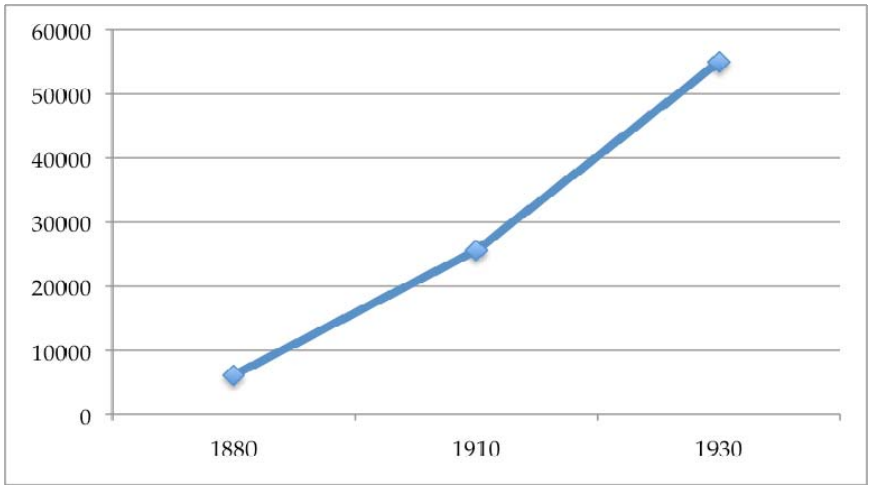


Figure 2.2 African American population in Pittsburgh, 1880-1930

Of Pittsburgh's industrial period, Hinshaw (2002) writes that "Industrialists' desire for a heterogeneous and cheap labor force and the aspirations of immigrants from Europe and the countryside of the United States combined to make the Pittsburgh region one of the

most ethnically and racially diverse in the country." Although the number of African Americans in Pittsburgh's steel industry was quite large, the group was easily outnumbered by native- and foreign-born White workers. In addition to the massive influx of African Americans to the city for work in the steel industry, European immigrants, mainly from the Eastern and Southern areas of the continent, also joined the Pittsburgh workforce in large numbers. In 1890, only 10% of steelworkers in the entire United States hailed from that region; by 1910, that number soared, and in Pittsburgh, over 50% of all steel plant employees were of Southern and Eastern European descent (Hinshaw, 2002). Even after immigration from Europe had ceased due to the war, in 1930, eastern European immigrants composed 30% of the steel workforce in Pittsburgh (Hinshaw, 2002). Figure 2.3 illustrates the composition of steelworkers in Pittsburgh from 1890 to 1930 (compiled from Dickerson, 1986).

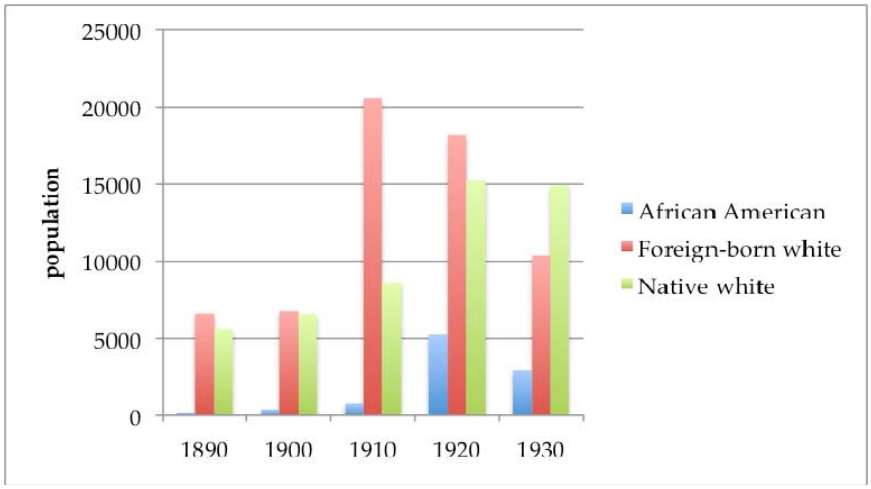


Figure 2.3 Steelworker population in Pittsburgh, 1890-1930

During this era, immigrants of Slavic descent were most highly represented in the Pittsburgh workforce. The Scots-Irish had by that time moved up into higher positions in the industry; thus, African Americans and immigrants of Slavic descent filled the positions on the bottom-most rungs of the hierarchy. Moreover, Hinshaw (2002) reports that it was the practice of many employers to create worker groups in which the nationalities and colors were mixed, to prevent groups from forming too strong a bond with one another.

The Great Depression, which stretched through the 1930s, brought Pittsburgh's steel production to only one-third of its capacity (Hinshaw, 2002). This crisis was by no means confined to Pittsburgh: U.S. Steel, the largest steel firm in the nation, did not retain any full-time employees (Hinshaw, 2002). In Pittsburgh, as in other industrial cites, the working class was deeply affected. African Americans were hit especially hard by the economic plunge, often the first to lose their jobs and the last to be rehired (Dickerson, 1986). Glasco (1989) reports that during this time, the unemployment rate among African Americans in Pittsburgh was as high as 40%.

The entrance of the United States into World War II rejuvenated Pittsburgh's steel industry, bringing production from 50% capacity to nearly 100% capacity within a two-year period, from 1939 to 1941. The revival of the steel industry brought another surge in African American migration from the South to Pittsburgh (Dickerson, 1986), again spurred by labor shortages. Many migrants were recruited, as they had been during the first World War, from the deep South to fill jobs in the steel industry. Dickerson (1986) puts the number of African American newcomers to Pittsburgh during the war at over 10,000. As was the case before, however, African Americans were often given menial jobs at lower wages. Some plants refused to hire African Americans, and when women joined the

workforce, White women had a much easier time of landing a job than did African American women (Dickerson, 1986). Moreover, African Americans found that they could not rely on protection from unions, which also often exhibited discriminatory practices (Dickerson, 1986; Hinshaw, 2002). But in all, work was plentiful in the Pittsburgh region, for Whites and African Americans alike. War, "Pittsburgh's fairy godmother," (O'Connor, in Hinshaw, 2002, p. 65) had revived the region once again. The renewed success of Pittsburgh's industries, unfortunately, was short-lived.

2.2.2 Post-Industrial Pittsburgh

The economy in Pittsburgh boomed during World War II, and in the years immediately after as well. But over the next few decades, Pittsburgh's industries began a significant decline, until the 1980s, when the economy, locally and nationally, was stagnant. Hinshaw (2002, pp. 159-160) writes, "Not until 1968 would Pittsburgh regain the number of jobs it had held in 1953. As jobs drained from the region, people followed, and the greater Pittsburgh region began a secular loss of population that has yet to end." While other Northern cities continued to receive large numbers of new settlers seeking work in various industries, Pittsburgh saw a steady decrease in numbers of migrants of all backgrounds. Glasco (1996, p. 672) reports that the number of African Americans relocating to Pittsburgh plummeted from 14,000 during the 1950s to 4,000 in the following decade.

Not only were Pittsburgh's once thriving industries in severe decline, but there was also a movement afoot to change the image of the city. Pittsburgh was highly polluted from the constant manufacturing. There was a strong feeling that the smoke and smog that had

given the nickname 'the Smoky City' ought to be cleaned up, in order to retain companies housed in the city and attract new ones to come (Hathaway, 1993). This campaign was at the center of the Pittsburgh Renaissance, Mayor David Lawrence's attempt to transform the city, and the drive to achieve this outweighed the consequences of the industries collapsing (Hathaway, 1993). As a result of these efforts, Pittsburgh was named 'America's Most Livable City' in 1985 by Rand McNally, but this masked the unbearable conditions for the thousands of people who were out of work because of it. Hinshaw (2002, p. 251) contends, "The "most livable city" enjoyed by the city's mostly White upper and middle classes coexisted with or rather rested upon a city where a third of its workers labored below the poverty line."

All of Pittsburgh suffered from the collapse of the once-flourishing industries, but African Americans were one of the hardest hit groups. Glasco (1989) reports that by 1980, the unemployment rate was 3.5 times higher for African Americans than that of Whites, and that the group earned only 57% the income of their White counterparts. The racial disparities in Pittsburgh were particularly noticeable when compared on a national level. Glasco (1989, p. 88) writes, "in 1987 a national consultant ranked Pittsburgh forty-first out of forty-eight metropolitan areas in terms of the comparative economic status of local blacks and Whites." Hinshaw (2002) reports that the only cities with higher unemployment rates among African Americans during this time were Detroit, Cleveland and Toledo. In addition to the problems with unemployment and wage-earning, many African Americans in Pittsburgh faced displacement as a result of urban renewal efforts that accompanied the Pittsburgh Renaissance movement. How such plans affected one neighborhood in particular, the Hill District, will be discussed below. During this time, Pittsburgh was

plagued with racial tensions. Complaints about the brutality of the police force, particularly when dealing with African American youth, prompted monitoring of complaints by the NAACP, and finally a class-action lawsuit filed by the ACLU. One of the most notable incidents of this era in Pittsburgh was the murder of Johnny Gammage in 1995, an African American man stopped by police, and then beaten and suffocated to death by the officers. There have been other racially-motivated killings in Pittsburgh, adding to the general racial discord in the city: in 2000, African American Ronald Taylor shot five White men, killing three of them. Just two months later, Richard Baumhammers, a White Pittsburgh man, shot and killed five people and paralyzed another, all of whom were Jewish, Asian-American or African American. The city is largely segregated today, and access to public transportation, quality schooling, and jobs is limited for many African American Pittsburghers. African Americans continue to lag well behind Whites in terms of income, home ownership and school success, but lead by a significant margin in poverty levels and unemployment rates (Center on Race and Social Problems, 2007).

The racial problems that have plagued Pittsburgh for decades are certainly shared by other areas of the country. In virtually every urban center in North America, there exists segregation, and reports of racial discrimination and unrest. From the perspective of African Americans who live in Pittsburgh, however, the city seems to be a particularly unpleasant place in terms of race relations. These feelings, and the facts that support them, are an important component of understanding African American cultural life in Pittsburgh. These issues will factor prominently in Chapter 6, in pulling together an explanation for some linguistic behavior of individuals in the city's African American community.

2.3 PITTSBURGH'S ETHNIC NEIGHBORHOODS

The landscape of Pittsburgh did more than allow for the remarkable industrial growth that the city witnessed. The topography also determined the settlement patterns of groups as they moved into the city, and has in many ways shaped some cultural aspects of Pittsburgh and its residents. Pittsburgh is often described as a "city of neighborhoods", in part because of the relative isolation of neighborhoods that are separated by the city's hills and ravines. As different groups came to settle in Pittsburgh, they concentrated in areas throughout the city, creating ethnic enclaves, traces of which remain even now. These neighborhoods were often self-contained, and housed stores, churches and restaurants that operated in the native languages of the immigrants. The influence of these groups is still somewhat evident today; for example, Bloomfield is widely known as Pittsburgh's Little Italy, and Squirrel Hill has remained largely Jewish. One such self-contained neighborhood was the Hill District, home to the majority of participants whose speech will be the focus of the chapters to come. This neighborhood, and its importance to the city and to African American life there, is discussed in the next section.

2.3.1 The Hill District

In the early 1900s, the Hill District was established as an ethnically diverse "blue-collar cluster" (Bodnar, Simon and Weber, 1982, p. 23). Close to downtown Pittsburgh and several factories and mills along the river, the Hill District was a centrally-located neighborhood that attracted large numbers of African American, Jewish, Polish and Slavic

workers who settled there. Figure 2.4 provides a map of the city of Pittsburgh, with the areas of the Hill District highlighted (map courtesy of the City of Pittsburgh). Downtown Pittsburgh (labeled 'Central Business District' on the map) is immediately to the left of the Hill, nested in the point of convergence of Pittsburgh's three rivers.

Figure 2.4 Map of Pittsburgh, the Hill District highlighted

The Hill District became one of several neighborhoods for African Americans in the city. Because of Pittsburgh's hills and rivers, African Americans were forced to scatter throughout the city into four or five "mini-ghettoes" (Glasco, 1989, p. 80). This

fragmentation of the community prevented the formation of a strong and unified African American presence in the city, as there was no neighborhood until the 1930s that had a majority of African American residents. Furthermore, as Glasco (1989) notes, the dispersal of African Americans throughout the city created deep class divisions, as middle class African Americans were separated—both socially and geographically—from those in less advantaged positions. Over the years, the Hill District slowly became a solidly lower-class African American neighborhood, as residents (African American and those of other ethnic backgrounds) achieved economic stability and moved to more desirable neighborhoods. Jewish residents moved in large numbers to Squirrel Hill, Italians moved to Bloomfield, African Americans moved to Homewood, East Liberty, or "Sugartop" in Schenley Heights, which is adjacent to the Hill District.

The Hill District established itself in the early 20th century as one of the nation's most prominent African American cultural districts. As the site of many nightclubs and bars, the Hill attracted nationally-acclaimed jazz musicians (many of whom were native to Pittsburgh) such as George Benson, Stanley Turrentine, and Earl Hines. Glasco (1989, p. 76) writes, "As the district's fame spread nationwide, Claude McKay, leading poet of the Harlem Renaissance, labeled the intersection of Wylie and Fullerton Avenues—in the heart of the Hill—"Crossroads of the World." One participant in the current project, Gladys I. (born 1946), describes some of her childhood memories of the Hill District: [4]

Excerpt 1. Gladys I. on the Hill District

[4] Backchanneling (minimal responses such as, 'um-hum') and other such comments from the interviewer have been removed for ease of reading.

Gladys I.

See
I grew up
I grew up when the Hill was flourishing
you know
I-I grew up
I grew up
I don't know if you've ever seen the
the TV show Wylie Avenue Days[5]?
but I grew up
I grew up when
when the Crawford Grill was
when
when jazz artists were
coming to the Crawford Grill
I can remember
we lived
we lived on Webster
um
and
we lived between
between Erin and Wooster
and the Grill was on the corner of Wylie and Erin
and it
it faced
Wylie Avenue
and it had a side door
that led to the back of the stage
like you know
and
I can remember on summer nights
you know
walking
you know
down to Wylie Avenue with my grandmother to get ice cream
or
just coming home for like
she used to go to downtown to pay bills and stuff
[…]
but I can remember summer nights
you know coming up Erin
and hearing the music

[5] *Wylie Avenue Days* is a documentary about the Hill District produced by WQED, the Public Broadcasting Station in Pittsburgh.

41 coming out of the Grill
42 you know
and sort of smelling the food
43 you know I
44 you know and I have
45 I you know I can remember
46 Good's Drugstore
47 you know the pharmacy and the post office
48 and Lee's Flower Shop
49 and all of those black-owned businesses on
50 on Centre and Wylie Avenue
51 you know
52 that's a part of
54 my childhood memories
55 you know
56 I remember you know
57 the the barbeque stands and the
58 you know
59 and and and all of that

The neighborhood today is drastically different. There are very few shops or restaurants in the neighborhood; there is no grocery store. Where there used to be jazz clubs, movie theaters, and restaurants, there now are crumbling buildings, boarded-up storefronts and empty lots. Those participants who witnessed the Hill as Gladys I. describes it above, when it "was flourishing" (line 3) not only recall those days fondly, but also express bitterness and resentment at the neighborhood's current state. One of the most frequently recurring themes in interviews when discussing the Hill District is the lack of a grocery store, and the apparent lack of interest in installing one. Current residents often complain that they have to travel to nearby neighborhoods, such as the Southside (about 3 miles away and across the Monongahela River) to buy food. For many, this entails either depending on a friend or relative with a car, or paying for the bus (2 buses each way) or a

jitney.[6] In Excerpt 2 below, Esther N., who was born in 1932, draws comparisons between the Hill District when she was a child and the conditions of the neighborhood today, expressing the dissatisfaction with there being no grocery store or other market for her to buy groceries.

Excerpt 2. Esther N. on the Hill District

Esther N.
What boggles my mind is
growing up in the Hill
you didn't have to leave the Hill
like other
there were many neighborhoods that was like that
you didn't have to leave the Hill for anything
you could buy clothes
you could buy shoes
we had fish mar-
fresh fish markets
we had um
groceries similar to Giant Eagle
um we had
um
what do they call them
stores where you could buy dishes and a can opener
or a fan or
you know
they were all
you know
a cleaners
they were all there
they were all there
and now
there's barely anything
in comparison
[…]
it just drives me crazy
it drives me crazy
and I say I'll probably be dead and in my grave

[6] A jitney is an unlicensed taxi, relied on heavily by African American communities in Pittsburgh.

30 before they get the area back to
31 semi normal

The causes of there being, as Esther N. puts it, "barely anything" (line 25) now in the Hill District, can be linked to several events. Plans for urban renewal have resulted in the demolition of large parts of the Hill District. This planning began in 1943, stemming from a group of leaders wanting to plan for Pittsburgh's future success—the Allegheny Conference on Post-War Community Planning (Fullilove, 2004). The sentiment of that group and of the city at large with respect to the Hill District is articulated in the following segment from an article that appeared in 1943 in Greater Pittsburgh, written by George Evans, a member of the Pittsburgh City Council:

> "The Hill District is probably one of the most outstanding examples in Pittsburgh of neighborhood deterioration…Approximately 90 per cent of the buildings in the area are substandard and have long outlived their usefulness, and so *there would be no social loss if they were all destroyed*…These streets should all be vacated and a new street pattern overlaid. This would effect a saving of probably 100 acres now used for unnecessary streets" (Evans, 1943, my emphasis).

The assertion that "there would be no social loss" is a remarkable comment on the disregard for the African Americans who inhabited the streets and neighborhood Evans wanted to see destroyed. Similar urban renewal plans were underway in African American neighborhoods throughout the country, particularly in areas that were close to a city's downtown area, such as the Hill District. The goal was to replace the unsightliness and blight of these neighborhoods with new, modern spaces, into which Whites (with money) could move (Fullilove, 2004). This would give the affluent easy access to work and

recreation in the city. But before they could do this, the area had to be 'cleaned up'. Fullilove (2004, p. 65) also notes that it was important to create "a buffer zone" between the downtown area and the poor, black area adjacent to it. In Pittsburgh, this was realized in the demolition of the Lower Hill to create the Civic Arena. The Lower Hill was the residential neighborhood closest to Pittsburgh's downtown, and housed not only African Americans, but also Jewish, Polish, Italian, and other ethnic groups (Bodnar, Simon and Weber, 1982; Glasco, 1989). In the 1950s, the area was cleared out and razed to build the arena, a place for concerts, and the playing field for the Pittsburgh Penguins, the local professional hockey team. Whites who lived in the Lower Hill moved to other city neighborhoods, many of which were fairly ethnically homogenous—Polish Hill, Bloomfield, Squirrel Hill. African Americans were left with somewhat fewer choices, as they were not welcome in such neighborhoods. Many moved to the Middle Hill, literally just up the hill from their old residence. Others moved to one of the predominantly African American neighborhoods in the city, such as East Liberty and Homewood. It was also around this time that federal money became available around the country for urban renewal efforts, and cities began creating public housing developments to hold poor African Americans and contain them in "islands of black life" (Fullilove, 2004, p. 27).

At this point, people had been displaced, but there were still the businesses—the stores, the music clubs, the bars—that Esther N. and Gladys I. spoke of in Excerpts 1 and 2 above. However, with the assassination of Dr. Martin Luther King, Jr. in 1968, what remained of the business district in the Hill was destroyed. A resident of the Hill District, Sala Udin, who was interviewed for Mindy Fullilove's book, describes the anger that prompted the rioting and attack on these businesses:

> "when Dr. King, the father of love and nonviolence, became the victim of hate and violence, the bottom fell out of the hope, and whatever was left of any symbols, of White ownership, of enterprise in the black community, got burned. Without regard to the inconvenience that resulted. Without regard to the blight that would be left in the community and the marginalization that would occur because people so feared even entering the community.
>
> "That's hindsight. That's stuff that you know twenty years after it has happened. It's not something you know when you've got that Molotov cocktail in your hand and you're looking at this shoe store that's been owned by these White people, and all these other stores, all up and down Centre Avenue from Kirkpatrick to Crawford Street. The only ones we owned were a couple of bars. And so, that kind of anger just exploded. Just exploded. And, it was like, 'What the hell? Why not. What the hell. Burn this shit down. Burn their shit down. We use it, but we don't own it. Burn it down.' " (from Fullilove, 2004, p. 175).

And so what was left of the thriving Hill District was gone. These businesses were never rebuilt, presumably because their owners did not want to take the risk of re-opening. The Hill has remained a desolate neighborhood, segregated from the rest of the city since this time. The inhabitants are mostly African American, and largely poor. And now the Hill District faces the same displacement and destruction that it did some 50 years ago. A new phase of urban renewal sees the Hill District as a prime location, and has begun to demolish existing buildings and homes, some abandoned and some occupied, and build new ones in their place. Some public housing developments, such as Allequippa Terrace, have already been replaced with newer buildings. Residents who were forced to move are not ensured a new home in these developments. They have to meet eligibility requirements, and often the rent is beyond what is affordable for people in public housing. According to several Hill District residents interviewed for this project, there were initial promises of reduced rent, but the cost has gone steadily up, eventually forcing people out. All of these efforts are see by residents as plans to 'change the demographics' of the Hill, as Albert T. puts it. In Excerpt 3 below, Albert T. tells me about these plans:

Excerpt 3. Albert T. on the Hill District[7]

Albert	1	Th- the plans you see now that the Hill is
	2	uh it's uh
	3	changed the demographics up here
	4	were put into p-
	5	into pa- on paper
	6	quite some time ago
	7	long time ago
	8	I'd say about ninety-three
	9	maybe ninety
		[…]
	10	it's the demographics
	11	they want to
	12	they figured that
	13	they figured
	14	they started with uh
	15	I'm trying to think of the name of the big building
	16	it's right down on the hill
	17	it's the first one they built
	18	they built it a lo:ng time ago
	19	umm
	20	it's a apartment building
	21	it's right down on the
	22	Crawford Street
Maeve	23	I think I know where you're talking about
Albert	24	It's the biggest building by the arena
	25	it's right across from the arena
Maeve	26	yeah yeah yeah
	27	I know where you're talking about
	28	I don't know the name of it
Albert	29	I'm trying to think of it
	30	and I can't
	31	I can't think of the name of it but
	32	it it it was built
	33	years ago
	34	and they built it because
	35	they thought mostly
	36	White people would move into it
	37	and rej-

[7] Backchanneling from the interviewer has been omitted.

38 and start to rejuvenate some of the Lower Hill
39 that was planned for the Lower Hill
40 the building was built
41 to be built like an L-shape
42 not like it is now
43 it was supposed to be
44 a new ad- another addition put on
45 but they found out
46 they couldn't fill it up anyway
47 there was supposed to be a swimming pool
48 which I think they did build
49 added to the building
50 so it would be a upper class neighborhood because
51 of the uh
52 easy access to the downtown area
53 a-and they they thought that would be the uh
54 thing that would draw 'em back
55 the fact that you could li-
56 Washington Plaza
57 that you could live in Washington Plaza
58 and there would be a bus from Washington Plaza
59 to take you downtown
60 and when you got through you were home
61 in a minute
62 you didn't have to live out
63 in Squirrel Hill
64 Fox Chapel and other places
[…]
65 they sold it like
66 but for a long time they couldn't fill it
67 and so they never put the other addition on
[…]
68 when they first built the Washington Plaza he-
69 there were no windows on the Hill side of the Plaza
Maeve 70 really
Albert 71 no <*scoffs*>
72 the wall was <*laughs*>
73 the blank wall was facing the Hill
Maeve 74 okay
Albert 75 yeah 'cause uh
76 there wasn't too much to see there
77 you know if you lived in the
78 that was a smart business ma-
79 mean there wasn't nothing to see
80 until they

renovated
that part of the Hill
'fore the plans was put into
into uh
a long time ago they uh
planned this
and now they're uh
bringing it to uh fruition
they uh
are able now to implement what they
and it's going farther than that
as you see they're building up to
Kirkpatrick
and eventually they're gonna build all the way out

Over and over in interviews with Hill District residents, there is discontent expressed at the obvious attempts of the city to move in non-African American groups. Barbara expresses this dissatisfaction below:

Excerpt 4. Barbara E. on the Hill District

Barbara E.
I remember
when they first started doing Crawford Square
they put a big sign
on a billboard saying
'Welcome Back to the Hill'
so
to me
that was saying
they couldn't have been talking to the blacks because we were already here so
when it said 'Welcome Back to the Hill'
well it could've been saying
you know that they were rebuilding
I don't know
but <*laughs*>
they've made it so that it's pretty hard to
for your average
African American to make it

Barbara E. interprets (as do I) the billboard welcoming people 'back' to the Hill as an advertisement that the neighborhood is changing in a way to be suitable once again for non-African Americans to take up residence there. The city accomplishes this by demolishing existing structures and building residences in which 'your average African American' cannot afford to live. As a result, people feel powerless and helpless in combating the unfair situation they are presented with in their own neighborhood.

Attached to this current phase of urban renewal is a new plan for the Civic Arena, which is now itself slated for demolition, to be replaced by a parking lot, proceeds from which will go to the hockey team. In the summer of 2007, I attended a meeting of the Historic Hill Initiative.[8] One representative from an urban planning organization described his vision for the Civic Arena—to create a community center that would serve the needs of the Hill District residents. After a moment of tense silence, one woman, an older community member and organizer, spoke up: "Lots of folks fought for that thing not to be built, lots of folks went to jail for that. We want to see it come down."[9] The urban planner seemed to have good intentions; he believed that the land for the Civic Arena had been taken from the Hill District, and should be returned to them. But the hurt and resentment felt by the Hill District residents runs deep. They have seen their neighborhood destroyed once, and are fighting to gain some power to have a say in what happens to it next. The

[8] The Historic Hill Initiative is a community-run organization that seeks to document and preserve the many historic sites in the neighborhood, all of which are potential targets for demolition. Run by Dr. Kimberly Ellis and Dr. Larry Glasco, the organization also acts as a mediating body between the neighborhood residents and the city government, particularly when buildings are under the threat of the bulldozer.

[9] I was not recording this meeting, and recreate this utterance from my notes. The quotation may not be exactly as it was uttered, but it captures the essence of her response.

Civic Arena is a constant reminder to these residents that they, poor and African American, have little control over the spaces they inhabit.

I have written at length about the effects of urban renewal on the Hill District and its residents. What place does it all have in this linguistics dissertation? Fullilove (2004, p. 171) states, "All of these developments—turning over the land for uses important to White people, creating a buffer to downtown, and destroying people's homes, then letting the land lie fallow—contributed to alienation between the African American community and the larger city." These city projects, and the power of the city and its developers to force people to move and then destroy their homes is a point of bitter discontent among Hill District residents, current and former. There is, as a result, a strong lack of affinity for Pittsburgh. This negative orientation towards the city is critical to understanding the role of place identity in shaping the linguistic patterns of African American Pittsburghers. I will take up these issues again in Chapter 6. In the sections that follow, I situate Pittsburgh linguistically in North America, and describe the features of Pittsburgh speech as they have been identified in scholarly literature.

2.4 PITTSBURGH SPEECH

Linguistically, Pittsburgh is part of the Midland, the "Third Dialect" of North American English (Labov, 1991; Labov, Ash and Boberg, 2006). The Midland is the narrow region between the North and the South of the U.S., and includes the major cities of Philadelphia and Pittsburgh in Pennsylvania, Columbus and Cincinnati in Ohio, Indianapolis, Indiana,

and St. Louis and Kansas City, MO. There are several features that Pittsburgh speech shares with other Midland cities, but other features that set Pittsburgh apart from the region. As stated above, descriptions of Pittsburgh speech have relied exclusively on data from White speakers. There is, however, some evidence available about the speech of African Americans in the city. Where relevant, I include this information in the descriptions of the local dialect that follow.

2.4.1 Lexical Items and Grammatical Constructions

In discussions of what Pittsburgh speech is, what comes to mind most readily for laypeople are the lexical items thought to be unique to the city. Many of these words are characteristic only of Pittsburgh and its vicinity, and are remnants of the early immigrant groups who settled there. Others, like *pop* (soda), are shared with many other areas as well. Table 2.1 provides a list of words that are limited to the area in and around Pittsburgh (see the Dictionary of American Regional English and the Oxford English Dictionary).

Table 2.1 Pittsburgh Lexical Items

Word	**Meaning**
babushka	head scarf
chipped ham	thinly sliced ham
gumband	rubber band
jag (to jag off, to jag around (*v*); jagoff (*n*))	to tease, irritate; a stupid or irritating person
jumbo	bologna
n'at [n.æt]	'and that' (discourse extender)
nebby	nosey
pop	soda; carbonated beverage
redd up	clean up
rip on	to talk negatively about another person
slippy	slippery

tennis shoes	sneakers; athletic shoes
yinz, you'uns	2nd person plural

In addition to the lexical items in Table 2.1, the grammatical construction 'needs + past participle' (e.g. 'The car needs washed') has been identified for many years as characteristic of western Pennsylvania (e.g. Stabley, 1959). In a survey of its distribution, Murray et al. (1996) found a clear concentration of the 'needs V-en' construction in the area surrounding western Pennsylvania, but also found occurrences of it throughout the Northern states of the Midland. As with several of the lexical items in Table 2.1, 'needs V-en' appears to be a remnant of the Scots-Irish population who settled in the area (Montgomery, 1991).

2.4.2 Phonological Features

2.4.2.1 The Midland Dialect System

As stated above, Pittsburgh is part of the Midland dialect system, a characterization that is based on the features of its phonological system. As such, it does not appear to be participating in either of the major vowel rotations occurring in the U.S., the Northern Cities Shift and the Southern Shift. In these vowel rotations, a domino effect takes place: the movement of one vowel prompts the movement of another, and so forth. For this reason, vowel rotations are often referred to as 'chain shifts'. The Northern Cities shift, discussed and depicted above, involves the raising of /æ/, followed by the fronting of /a/ and /ɔ/, the lowering of /i/, the lowering and subsequent backing of /ɛ/, and the backing

of /ʌ/. This chain shift affects cities across the Great Lakes region, from Albany, moving west to Syracuse, Rochester, Buffalo, Cleveland, Detroit, and Chicago.

The Southern Shift, shown below in Figure 2.5 (based on Labov, 1994), involves loss or weakening of the glide in the diphthong /ai/, the fronting of the back vowels /u/, /ʊ/ and /o/, the lowering of /i/ and /e/, the fronting and raising of /ɪ/ and /ɛ/ (which leads to a reversal of /i/ and /ɪ/ and /e/ and /ɛ/). This vowel rotation is found throughout the Southern states of the U.S., and also in parts of the South Midland (Kentucky, Southern Indiana, Southern Illinois, Missouri, Arkansas, Southern Kansas and Oklahoma).

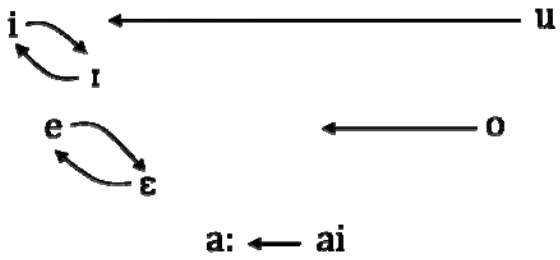


Figure 2.5 The Southern Shift

The (North) Midland is situated between these two dialect areas, and does not show evidence of significant participation in either of these vowel rotations. As Labov (1991, p. 33) states, "Neither the Northern Cities Shift nor the Southern Shift appears to operate noticeably in the third dialect areas. Though there are linguistic changes in progress, there are no sweeping rotations of the entire system." The Midland has several has several distinguishing characteristics, listed in Table 2.2 below (from Labov, Ash and Boberg, 2006).

These features as they relate to the local dialect in Pittsburgh are addressed in the following section, along with additional features of the western Pennsylvania region.

Table 2.2 Phonological Features of the Midland

Feature	**Example Word**
merging of the low-back vowels /ɑ/ and /ɔ/	cot = caught; Don = Dawn
fronting of /o/	boat, home
/æ/ often raised before front nasals	pan, ham

2.4.3 Pittsburgh Phonological Features

With respect to the features listed in Table 2.2, Pittsburgh is very much part of the Midland. Pittsburgh speech exhibits a raised /æ/ before front nasals, and also before /d/, but remains lax in other environments (Labov, Ash and Boberg, 2006). Additionally, Pittsburgh shows a fronting of /o/, a change taking place across the Midland, but also as part of the Southern Shift (Labov, Ash and Boberg, 2006). In Pittsburgh, Thomas (2001, p. 29) reports, based on records from the *Linguistic Atlas of the Middle and South Atlantic States* (1982-1986) the fronting of /o/ may have been a feature in western Pennsylvania by the time of the Civil War, that is, prior to the 19th century. Thus, the fronting of the vowel aligns Pittsburgh with the Midland, but the timing of this movement may set the region apart.

An important characteristic feature of Midland speech which is found in Pittsburgh is the low-back merger, the collapse of the phonemic distinction between /ɑ/ and /ɔ/, which will be discussed in detail in Chapter 5. Labov, Ash and Boberg (Labov, Ash and Boberg, 2006) show that the merger is clearly in transition (i.e., the vowels are moving

towards merger, but the merger has not yet reached completion in all areas) throughout the Midland. In western Pennsylvania, however, the merger is a long-established feature of the local dialect (Hankey, 1972; Kurath and McDavid, 1961; Wetmore, 1959). In addition, the low-back vowels appear to have merged in all phonological environments in Pittsburgh (Labov, Ash and Boberg, 2006), whereas in other areas, the neutralization may be restricted to particular environments, such as before nasal segments. Finally, Pittsburgh also contrasts with other areas in which the distinction is being lost because of the phonetic realization of the merged vowel, which is closer to [ɔ] than to [ɑ], and often rounded. This feature is discussed in more detail below, and is the focus of analysis in Chapter 5.

Apart from those features that Pittsburgh shares with the Midland, there are other phonological characteristics of the dialect that make it quite distinct. Table 2.3 provides a list of these features, which will be discussed in turn below (except the first three, which were discussed above).

Table 2.3 Phonological Features of Pittsburgh Speech

Feature	**Example Word**[10]
raising of /æ/ before front nasals and before /d/	*pan, dad*
fronting of /o/	*boat, home*
fronting of /u/	*boot, move*
low-back merger	*cot*=*caught* [kɔt]
/l/-vocalization	*college* [kɔʷɪdʒ]; *Bill* [bɪʷ]
laxing of tense vowels before /l/	*peel* [pɪl]; *pool* [pʊl]; *pale* [pɛl]
lowering of /ʌ/	*but, fun*

[10] I provide here a phonetic transcription of how the example words are often realized in the local Pittsburgh dialect where it is appropriate to do so. For some processes, such as fronting and lowering, there is no obvious way to transcribe the phonetic quality of the example words.

back chain shift before /r/	*boar=bore=boor*
monophthongization of /ai/, especially before liquids	*tile* [ta:l]; *iron* [a:rn]
monophthongization of /aw/	*down* [da:n]; *house* [ha:s]

The vocalization of /l/ is a process that occurs in several dialects of English for White speakers (see Ash, 1982; Wells, 1982), and is a common feature of African American speech (Thomas, 2007). In intervocalic or word-final position, vocalization results in the articulation of /l/ as "a voiced glide articulated far back in the mouth" (Ash, 1986, p. 330), and as such is closer to a vowel sound than a consonant. In some cases, the /l/ is deleted altogether (McElhinny, 1999; Thomas, 2001; Wells, 1982). Several scholars have noted that /l/-vocalization is a feature of Pittsburgh speech (Hankey, 1972; Kurath and McDavid, 1961). In her study of police officers in Pittsburgh, Bonnie McElhinny (1993) found that both African Americans and Whites showed /l/-vocalization, but that overall, African Americans exhibited this feature more than their White counterparts (40% to 30%). In a more recent study, Kiesling et al. (2005) found that among White Pittsburgh speakers, /l/-vocalization remains prevalent, particularly among residents within the city (as opposed to suburban dwellers), and those in skilled occupations (as opposed to unskilled, clerical and professional).

Western Pennsylvania has been characterized as "a hotbed of vowel mergers" (Thomas, 2001, p. 74). Contributing to this is the fact that several tense vowels tend to lax before /l/, creating conditioned mergers between /il/ and /ɪl/, /ul/ and /ʊl/, and /el/ and /ɛl/. This feature is also sometimes the target of jokes made about the local dialect, in representations of words like 'Steelers' (the city's professional football team) as '*Stillers*'. As with the vocalization of /l/, pre-/l/ laxing is not unique to the Pittsburgh region.

Additionally, the laxing of /i/ before /l/ has been identified as a feature of African American speech (Labov, Ash and Boberg, 2006; Thomas, 2007). In addition to /l/-vocalization, McElhinny (1993) also investigated the laxing of /i/ and /u/ before /l/ in the speech of her White and African American participants. She found /il/-laxing in both groups, with higher percentages among African American speakers (51%, compared to 37% for White speakers). Conversely, she found no /ul/-laxing among African Americans, although Whites exhibited laxing in 27% of these tokens.

Additionally, as in many other areas, there appears to be a collapse between several back vowels before /r/. Thomas (2001, p. 46) notes that /ɔr/ "is rapidly losing its status as a distinct class because its merger with /or/ is so pervasive." Additionally, the merging of /ur/ with /or=ɔr/ is common to parts of the East Coast, in states such as New York, New Jersey and Pennsylvania (Thomas, 2001, p. 46). The result of this three-way merger is that there is no longer a distinction between pairs such as *tore* and *tour*, *moor* and *more*, or *boar*, *bore* and *boor* (Thomas, 2001). According to (Labov, Ash and Boberg, 2006), one of these mergers is a result of the back chain shift before /r/: /ɑr/ moves towards /ɔr/, which in turn moves towards /ur/. The final result of this is that the segments /ɔr/ and /ur/ are merged.

The lowering of /ʌ/ is involved in what Labov has named 'the Pittsburgh Chain Shift' (see Labov, Ash and Boberg, 2006). Similar to the Canadian Shift (Labov, Ash and Boberg, 2006), this movement is triggered by the merging of the low-back vowels /ɑ/ and /ɔ/. As /ɑ/ has raised and backed to merge with /ɔ/, there is room for /ʌ/ to lower, as

depicted in Figure 2.6 (following Labov, Ash and Boberg, 2006). The phonetic space that /ʌ/ is moving towards is [ɑ], which is also occupied by the monophthongal realization of /aw/ (discussed below). To prevent this potential merger between /aw/ and /ʌ/, there is a lengthening of monophthongal /aw/, so that it is realized as [ɑ:] (Labov and Baranowski, 2006). This phonemic lengthening serves to preserve the contrast between these low-central vowels. Recently, Kiesling & Johnstone (2007) confirmed that /ʌ/ is a change in progress in the city, with F1 increasing as age decreases (indicating that the younger the speaker, the higher the F1, and thus a lower realization of /ʌ/.

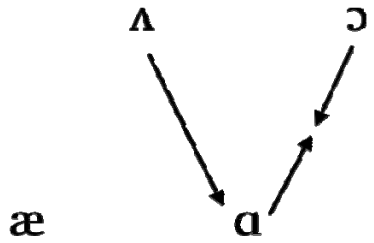


Figure 2.6 Pittsburgh Chain Shift

The monophthongization of /ai/ is a widespread feature in North America, most commonly recognized as a characteristic of Southern speech, and African American speech in both the North and South (Labov, Ash and Boberg, 2006; Thomas, 2001; Wolfram and Schilling-Estes, 2006). Glide loss in /ai/ has also been identified with Pittsburgh speech, where it occurs only when it precedes /l/ and /r/, in words like *smile* and *fire*. This feature is subject to stereotyping when it occurs before /r/ (but not before /l/, as far as I am

aware). It is not uncommon to hear exaggerated pronunciations of /air/, in items like *firefighter* or *Iron City*, which is a brand of locally produced beer. In addition, there is some indication that glide-weakening occurs in other phonological environments as well, when the vowel precedes a voiced segment (Hankey, 1972). Monophthongization of /ai/ before voiced segments is a common feature of White and African American Southern speech, as well as African American speech in the North (see Thomas, 2001). Glide-weakening or loss in /ai/ before voiceless segments, on the other hand, is generally limited to White speech in the Southern U.S. (Anderson, 2002; Thomas, 2001). Labov, Ash and Boberg (2006) report a tendency for glide-deletion before resonants in the Midland, but found only one speaker in the Midland (in Kansas) who showed glide-deletion before obstruents.

Finally, the phonological feature most commonly associated with Pittsburgh speech is the monophthongization of /aw/, in words like *house* and *down*. This feature is the focus of Chapter 6, and will be discussed in more detail there. Briefly, in North America, this pronunciation is not found outside of Southwestern Pennsylvania (Labov and Baranowski, 2006), though it has been said that a weakened glide is more common in African American speech elsewhere, particularly in the South (Thomas, 2003, 2007). In Pittsburgh, monophthongal /aw/ is a highly salient feature of local speech, and is the object of stereotyping and performances of the local dialect. Additionally, as discussed above, the feature is phonologically linked to other changes occurring in the Pittsburgh dialect, namely the Pittsburgh Chain Shift, which involves the lowering of /ʌ/ into the space of [ɑ] (which is not filled since /ɑ/ has moved up and back to merge with /ɔ/). This has caused a potential merger between monophthongal /aw/ and /ʌ/, which is avoided by the

phonemic lengthening of /aw/ to [ɑ:] (Labov and Baranowski, 2006). The occurrence of this feature in Pittsburgh African American speech will be explored in Chapter 6.

2.4.4 'Pittsburghese'

The features described in the previous sections are not only of interest to scholars of language variation. Many of them are additionally involved in ideas about what it means to speak 'Pittsburghese' (the popular name for the local dialect), which is closely linked to ideologies about what constitutes authentic local identity. Moreover, descriptions of what it means to be a 'Pittsburgher' often center on the ability to use and recognize features of the local dialect (Johnstone, 2007; Johnstone, Andrus and Danielson, 2006). In Pittsburgh, interest in the local dialect runs high, and commodification of "Pittsburghese" is pervasive: t-shirts, mugs, and other artifacts prominently display representations of local-sounding speech. Local newspapers and magazines sometimes run features on Pittsburgh speech (e.g. Fleming, 2008; Johnstone and Kiesling, 2001), and in special TV programs about the city, such as WQED's *Pittsburgh A to Z*, Pittsburghese is often highlighted. Additionally, there are several Pittsburghese-themed websites, and the book *How to Speak Like a Pittsburgher* (McCool, 1982) has been in circulation for over twenty years.

Most commonly, items featuring Pittsburghese contain lists of words or phrases thought to be unique to Pittsburgh, such as *yinz* (2nd person plural) and *redd up* (clean up).[11] Additionally, phonological features surface in words shown with non-standard spellings to

[11] Some items, such as *pop* for 'soda', are shared with other regions, but are believed to be unique to Pittsburgh nonetheless.

represent local pronunciation, as I have noted in one or two cases above. For example, /il/-laxing is commonly displayed in the item *Stillers*, for 'Steelers', the local professional football team. Another popular characterization of Pittsburgh dialect is the representation of 'Iron City' (a locally-produced beer) as *Ahrn City*, calling to mind the monophthongal pronunciation of /air/ that is sometimes heard. But the most frequently represented feature of Pittsburgh speech by far is the monophthongal pronunciation of /aw/, which appears almost exclusively in the item 'downtown', spelled *dahntahn*. In fact, Johnstone, Bhashin & Wittofski (2002) found that in written representations of the local dialect, monophthongal /aw/ appeared three times more frequently than any other phonological feature. As such, monophthongal /aw/ is seen as a strong symbol of local identity for some (although not all Pittsburghers; see Johnstone and Kiesling 2008). In contrast, other features of Pittsburgh speech, such as /l/-vocalization and the low-back merger, do not enter popular discussions or representations of Pittsburgh speech, and thus do not have the same explicit connections to localness. I will revisit this issue in Chapter 6, in the analysis of /aw/ in Pittsburgh AAE and the discussion of social meanings the local pronunciation holds for those speakers. I turn now to the details of the data and methods employed in the current project, and then move on to the results from the current analyses.

3.0 DATA AND METHODS

Below I describe the data used in this dissertation, as well as the general methods of analysis. In subsequent chapters, additional methodological details will be provided as necessary. While I have approached this dissertation as a sociolinguist, the phonetic techniques utilized in the analysis place this work in the somewhat newer field of *sociophonetics*, which requires the researcher to come to a middle ground between the approaches of sociolinguistics and phonetics. Phonetic research generally uses few speakers who each produce great amounts of data, usually by producing prepared speech samples in a highly controlled laboratory setting. In contrast, sociolinguists place a high value on the use of spontaneous speech, and only supplement this with prepared reading passages and word lists. Furthermore, sociolinguistic data is gathered 'in the field', rather than in a soundproof recording booth. As I discuss below, these differences entail modifications to some of the generally used methods of both sociolinguistic and phonetic data analysis. In the sections that follow, the balance that I have struck between these fields will be discussed.

3.1 STUDY DESIGN

3.1.1 Sampling Methods

There are two basic types of sampling methods, each with its own benefits and drawbacks (Leslie Milroy and Gordon, 2003): *random sampling*, which aims for representativeness, and *judgment sampling*, which aims to fill quotas of predefined categories (age, gender, social class, ethnicity). Researchers may choose to use a random sample because it seeks to remove bias from the selection process. In other words, if the researcher seeks to draw generalizations about a group (e.g. residents of a city or a neighborhood; members of a speech community), then the smaller sample that those generalizations are based on should be representative of the larger whole. William Labov's (1966) study of New York City is an example of an attempt at random sampling. As Milroy and Gordon (2003) discuss, achieving a statistically-sound random sample is generally not feasible for sociolinguistic research, because of the very large number of people needed. Labov (1966), for example, originally intended to collect data from 340 New Yorkers, but for a variety of reasons (illness, refusal to participate, etc.) ended up with only 88—a number perfectly reasonable (in fact large) for sociolinguistic research, but too small to be considered random in a strict statistical sense. Milroy and Gordon (2003, p. 25) write, "Difficulties of this kind soon led researchers to query both the wisdom and the validity of a laborious sampling procedure which in the end might not measure up to the standards demanded by disciplines outside linguistics." Instead, the type of sampling method most often employed is judgment

sampling, in which the researcher defines what types of speakers are desirable, and then attempts to find a number of people who fit those criteria.

Once a researcher knows which categories of speakers are needed to attain an adequate description of the speech community under investigation[12], one very effective method of garnering participants is the "snowball" technique (Leslie Milroy and Gordon, 2003). Using this method, the researcher asks speakers if they can recommend other people who might be willing to participate—hence the label "friend-of-a-friend" that this recruitment technique often receives. In this way, the researcher both gains contact with new potential participants, and is less likely to be refused by those new contacts. This technique therefore provides an advantage to the researcher, as they are then associated with an inside member of the community or social network, rather than simply an outside stranger. This can lead not only to more willingness of new speakers to participate, but also more productive interviews, as speakers may feel less inhibited and more relaxed. The general structure of sociolinguistic interviews is described below.

3.1.2 Data Collection

Sociolinguistic interviews have long been a primary technique for data collection in the field. Established by William Labov, sociolinguistic interviews are designed to elicit a range of speech styles, which are placed on a continuum running from 'careful' to 'casual'

[12] It is not always the case that the researcher knows what the socially relevant categories are, as the work of Penny Eckert (2000) demonstrates. In this case, the researcher must work to discover "what is worth sampling" (Eckert, 2000, p. 69).

(see Labov, 1984, 2001c). Careful speech is elicited through tasks in which interviewees are asked to read something out loud—generally a passage of text and a list of single words or word pairs. These tasks are usually designed with the inclusion of words with particular sounds in specific linguistic environments, which are of interest to the study. When speakers are asked to read out loud in this way, it is thought that they are most conscious of the way they speaking, and therefore will produce the most conservative pronunciations in their linguistic system. Eliciting casual speech can be more challenging. Sociolinguists are constantly faced with the 'observer's paradox' (see Labov, 1966): we want to know what the speaker sounds like when they are not being observed, but since we are observing them in order to collect speech data, we cannot achieve this.[13] Thus, it is the task of the fieldworker to make the participant feel as comfortable and at ease as possible, so that they are able to relax into the most causal speech style they have—what they would use with their closest friends and family members.

3.1.3 Data Analysis

Since the early study of Labov, Yaeger and Steiner (1972), the acoustic study of speech data has been part of the sociolinguistic enterprise. As Erik Thomas (2002) points out, however, the use of such techniques could be more broadly applied than they are. A far more common method of analysis is the impressionistic or auditory coding of the data. Using

[13] Of course, one way around this is to make recordings without the knowledge or the consent of the observed. However, this is obviously not an option for sociolinguists—it is not only illegal, but immoral.

this approach, the researcher (who is a trained linguist) carefully listens to tokens of the variable under scrutiny and makes a judgment as to the quality of the sound. For example, if the topic is the monophthongization of /ai/, the researcher listens to all tokens of /ai/ occurring in a speech sample, and codes each as 'monophthongal', 'diphthongal', and sometimes add an 'intermediate' category as well. Each approach may be more appropriate for certain types of linguistic phenomena. In the study of /r/-fullness, for example, the researcher must rely on auditory coding as a measure of whether or not an [r] is present (on words like 'four'), as acoustic analysis will not provide this information. On the other hand, auditory coding of /ai/ in determining amount of monophthongization may not be as appropriate, because of the gradient nature of gliding on diphthongs. Other factors, such as the duration of the vowel, exert a great effect on the amount of gliding present, so that the human listener may not be able to distinguish, for example, tokens that are fully monophthongal from those with short offglides (Anderson, 2003; Thomas, 2002, 2003). However, auditory analysis might be a useful complement to acoustic analysis even in this case, because the impressions of the researcher may give insight into how the vowel is *perceived* by listeners (expert or lay)—as diphthongal or monophthongal. Furthermore, as Herold (1990) discusses, auditory and acoustic analysis are each subject to different kinds of error. In the case of auditory coding, the theoretical bias of the researcher may affect the results; at the same time, an auditory check can ensure that there are no major errors in the acoustic measurements. The two approaches to sociolinguistic analysis, then, can be usefully applied together to arrive at a fuller account of the data.

Just as important as the use of natural speech in sociolinguistic research is the commitment to an account of all of the data, not just those that lend support to the

researcher's hypothesis or theoretical stance. This is the *principle of accountability* (Labov, 1972b, p. 72): "we will report values for every case where the variable element occurs in the relevant environments as we find them." If a researcher is interested in the monophthongization of /ai/, for example, they must account for all occurrences of the vowel—no matter what the realization of the token is (monophthongal, diphthongal or intermediate). Depending on the type of analysis, the "relevant environments" must be defined appropriately. Most obviously perhaps, tokens that are whispered or too quiet to hear cannot be included in any type of analysis; words that are so reduced such that the quality of the vowel is difficult to identify similarly are generally excluded from analysis. The demands of instrumental phonetics, require that some tighter restrictions be put into place, which does not allow every token produced to be measured. In the section below, in which I describe the methods of the current research, I detail the parameters used for the selection and analysis of vowel tokens in the current study.

3.2 METHODOLOGY OF THE PRESENT STUDY

3.2.1 The Hill District Sample

As discussed above, the neighborhood of the Hill District was chosen as the site for this research. The participants were therefore selected based on a close association to the Hill. Almost all of the speakers were native to the Hill, and most remained there for the majority

of their lives. Some, however, grew up there but at the time of the interview lived in another neighborhood in the city. In a limited number of cases, the speakers did not grow up in the Hill, but in an adjacent neighborhood, and had close connections to the Hill, either through work, family, or church affiliation. The 'friend-of-a-friend' method proved to be very effective in the recruitment of participants. Several family members participated, either jointly or on separate occasions, in the interview. Family members can be identified by their last name initial in Table 3.1. Their precise relationship is also given in Appendix A.

Interviews were conducted between 2004 and 2007. Two fieldworkers were involved in collecting the data for this study. Trista Pennington, an African American fieldworker native to Cleveland, Ohio, collected a large portion of the interviews, and I (White, native of Philadelphia, Pennsylvania) conducted the remainder of the interviews. I have provided this information in the participant list in Appendix A. Many interviews took place in participants' homes. Others were conducted in a quiet public space, such as the library. Although it could not be completely avoided, care was taken to minimize ambient noise during the recording.

Interviews lasted, on average, for between 1 and 2 hours. The interview protocol adopted (with some additions) was that used in the Pittsburgh Speech and Society project (headed by Barbara Johnstone and Scott Kiesling). This protocol was designed, as discussed above, to elicit a variety of speech topics and speech styles. In the last modules of the protocol, participants are asked to talk about their neighborhood and the city of Pittsburgh, which aims to understand how speakers have experienced the place of Pittsburgh, and how they orient to it. Finally, speakers are asked to talk specifically about

local speech—what they know about it, if they have heard of 'Pittsburghese', what features they can identify (if any). This metalinguistic talk allows the researchers to gain insight into speakers' awareness of the local dialect, as well as their perceptions about who uses it. For the African American speakers discussed here, an additional segment on speech was included, to find out about speakers' awareness of African American speech. In particular, we were interested in perceived differences and similarities between White and African American speech in the city, as well as between African American speech in Pittsburgh and African American speech elsewhere.

Towards the end of the interview, most participants were asked to read out loud two reading passages and a word list. These tasks have the benefit of eliciting the most careful speech of the participant (see above), and have the added benefit of eliciting vowel tokens of sounds that do not frequently arise in naturally occurring speech, or that are of particular interest to the researcher. In the present study, not all speakers participated in these tasks, for various reasons. In some cases, the participant did not have enough time after the conversational portion of the interview was complete. In other cases, the participant expressed not wanting to read out loud. Finally, in a few cases, there was indication that the participant had somewhat limited literacy skills, and thus was not asked to engage in this task, deemed to be a potentially uncomfortable and embarrassing situation for the interviewee. Some participants were stopped during the reading, assured that the researcher just wanted to record a couple of sentences, because the task was an obvious struggle for the speaker, and it was thought to be more important in those cases to protect the speaker than to get the data.

A total of 36 speakers were interviewed for the project, and 34 of these are included in the analyses that follow. One speaker's recording was of such poor quality that it was barely audible, and thus was appropriately excluded. Another speaker revealed during the interview that although he had spent most of his life in Pittsburgh, he lived in New York City until he was about 5 years old, and throughout his childhood and teenage years, he spent summers and other vacations there. Because that experience may have an influence on his speech patterns, I decided not to include him in the current study. The remaining 34 speakers comprise a sample of African American Pittsburghers who show a relatively good balance of gender and age. We tried to obtain speech samples from speakers in four age categories, which coincide with generational groupings in the United States, and also with significant shifts in the social and economic structure of Pittsburgh. Moreover, important periods for the African American experience in the city overlap with these categories as well. The four age groups are outlined below.

A. **Born before World War II**: Speakers who were born in 1945 or earlier grew up in Pittsburgh during the height of its industrial strength. The city was relatively isolated from other areas, with little exposure to the outside world, except through radio and travel. This was a time of vast African American migration to Pittsburgh for work in factories and mills.

B. **Born 1946-1964:** Speakers who are part of the 'baby-boomer' generation in the U.S. experienced the collapse of Pittsburgh's economy. These speakers grew up during the Civil Rights movement, and in Pittsburgh, experienced the city's development plan for an area of the Hill District, the result of which was the displacement of over 8,000 residents, many of whom were African American.

C. **Born 1965-1984**: Speakers who grew up in post-industrial Pittsburgh, and during the Pittsburgh renaissance, an attempt to rebuild the city after the collapse of the industrial economy. African American speakers born during this time were growing up at a time of great civil unrest in the city. Riots following the assassination of Dr. Martin Luther King, Jr. in 1968 destroyed many of the businesses in the Hill District and led to a state of martial law.

D. **Born 1985-1997**: These speakers have grown up in the age of globalization, and have witnessed the influx and growth of new industries in Pittsburgh—health care and technology. African Americans born during this time grew up after desegregation, but have experienced the continued displacement of African Americans, as new development plans are drawn up for neighborhoods such as the Hill District and East Liberty, another predominantly African American area in the city.

In addition, the social class of each speaker was calculated, as the location of individuals in the socioeconomic hierarchy has repeatedly proven to be a crucial factor in studies of variation and change (see Labov, 2001b). Problematically, however, sociolinguistic studies have measured social class in widely varying ways, and therefore, it has not been applied uniformly across communities (Ash, 2002; Guy, 1988). Most scholars recognize that social class is determined by a multitude of factors rather than a single indicator, and thus a composite index score is often given based on a number of attributes. Among these are usually occupation, education and residence, the latter generally being defined by property upkeep and neighborhood status (Jones, 2003; Warner, Meeker and Eells, 1960), in combination with residence value (Labov, 2001b), and occasionally age of house and building type (Trudgill, 1974).

In assigning social class to participants in the current study, I incorporated a combination of features—occupation, education and neighborhood—to determine social class. Indices of social class are normally calculated by weighting the components of the overall score (Labov, 2001b; Warner, Meeker and Eells, 1960). Since it is by far the strongest indicator of social class, occupation is generally given the highest weighting, and measures of housing and neighborhood are usually given low weightings. I chose to use the calculation for social class from Warner et al. (1960), and assigned speakers to one of four

social class groups: Lower, Working, Lower Middle, Upper Middle, following Labov (see 1972b, 2001b). The details of this calculation and the score ranges for each group can be found in Appendix A.

Table 3.1 presents a list of the speakers analyzed in the chapters that follow. A more complete description of each speaker can be found in Appendix A. All names are pseudonyms. As mentioned above, several speakers are related to one another; the details of these relationships can be found in Appendix A, and the last name initials also mark members of the same family.

Table 3.1 Participants

Name	Year of Birth	Age at Interview	Generation	Sex	Social Class
Albert T.	1926	81	A	M	Working
Marilyn E.	1929	75	A	F	Working
Booker J.	1933	72	A	M	Lower Middle
Esther N.	1935	70	A	F	Working
Victor J.	1936	69	A	M	Working
Rodney O.	1940	65	A	M	Lower Middle
Marsha Z.	1942	63	A	F	Lower Middle
Evelyn D.	1944	61	A	F	Working
Jackie F.	1944	63	A	F	Working
Gladys I.	1946	59	B	F	Upper Middle
Maureen F.	1947	60	B	F	Working
Andrea O.	1949	56	B	F	Lower Middle
Barbara E.	1951	53	B	F	Working
Calvin R.	1959	48	B	M	Working
Dennis S.	1959	47	B	M	Lower Middle
Tammy C.	1960	44	B	F	Lower Middle
Don U.	1960	45	B	M	Lower Middle
Gerald E.	1962	52	B	M	Working
Lisa M.	1962	43	B	F	Lower Middle
Yvette W.	1963	44	B	F	Working
Sheila Z.	1964	41	B	F	Working
Keith E.	1967	37	C	M	Working
Brenda A.	1968	39	C	F	Lower Middle

Rob Q.	1970	36	C	M	Lower Middle
Sabrina E.	1974	30	C	F	Working
Tanesha G.	1978	28	C	F	Working
Antoine K.	1982	25	C	M	Working
Janice L.	1984	22	C	F	Working
Daryl Z.	1986	20	D	M	Working
Alyse V.	1987	20	D	F	Working
Daneen Y.	1989	18	D	F	Lower
Nadine B.	1990	17	D	F	Lower
Terrance H.	1992	14	D	M	Lower
Maurice P.	1993	14	D	M	Lower Middle

3.2.2 Methods of Acoustic Analysis

Interviews were recorded on a Marantz PMD670 solid-state digital recorder with a Sony ECM-77b lavaliere microphone, and downsampled at 44,100Hz. 5-10 tokens of each vowel were selected for analysis from the conversational portions of the interviews. To avoid lexical effects, not more than two instances of the same lexical item were included. Only tokens appearing in the primary stressed syllable of a word were selected. If the vowel was audibly reduced due to rate of speaking, it was not included. Any token occurring during overlapping speech (by the interviewer or joint interviewee) or during laughter or other non-speech noise (coughing, microphone popping or scratching) was not included. Preferably, all tokens appeared in monosyllabic words, and while this was not always possible, words with more than two syllables were generally not included. Tokens with a preceding nasal, liquid or glide were excluded, due to the significant effects they have on formant readings, though in some cases, these environments were included as a separate

category. In the analysis of the low-back vowels and the diphthong /aw/, which are the focus on Chapters 5 and 6, more tokens were included for analysis. In each case, with the restrictions stated above in place, I gathered between 10 and 20 tokens of each vowel, including no more than 3 of the same lexical item.

Analyses of the vowels were done in Praat, the digital software for acoustic analysis (Boersma and Weenink, 2007). Following Baranowski (2006), the maximum formant was set to 5500 Hz for women and 5000 Hz for men, with the number of poles set to 10. Measurements for the first three formants[14] and duration of the segment were automatically extracted. These readings were checked by hand and adjusted manually as needed, in which case the number of poles was varied to between 6 and 10. For monophthongs (/i/, /ɪ/, /ɛ/, /æ/ /ɑ/, /ɔ/, /u/, /ʊ/, and /ʌ/), measurements were taken at the midpoint of the vowel. For diphthongs (/e/, /ai/, /aw/, /o/ and /oi/), two measurements were taken, at 35ms from the onset and offset of the vowel, in order to avoid transitional information into and out of the vocalic segment.

The data were normalized using Neary's (1977) log-mean normalization method. Normalization is a process necessary to filter out the physiological differences between speakers, such as the size of the vocal tract. Because normalization procedures eliminate these differences but retain differences in pronunciation that arise due to social variation, the process allows sociolinguists to meaningfully compare across groups of speakers of

[14] Formants are the resonant frequency of the vocal tract, and correspond to the position of the tongue in the mouth during the production of the segment. Formants (F) 1 and 2 provide information about the location of the vowel in the vowel space—where the tongue is placed and therefore what the precise pronunciation of the vowel is. F1 describes the height of the vowel, and F2 describes the vowel in terms of the front/back dimension. F3 gives information about lip-rounding, /r/ coloring and /l/ coloring, and is also needed for some methods of normalization (Thomas, 2001).

different genders, ages.[15] Nearey's formula is a speaker-intrinsic method that has been shown to perform quite well in filtering out physiological differences between speakers while retaining the sociolinguistic variation that we are interested in capturing (see Adank, van Hout and Smits, 2004; Labov, 1994 for evaluation of normalization methods). Data normalization was performed utilizing the online NORM system (Thomas and Kendall, 2007). The speakers' full vowel systems were included in the normalization procedure, as speaker-intrinsic methods such as Neary's perform best when all vowels are represented (Thomas and Kendall, 2007).

In the chapters that follow, I first provide an overview of the vowel systems of African Americans in Pittsburgh, and then move on to describe the results of investigations of two specific features of local speech—the low-back merger and monophthongal /aw/—and their occurrence in African American speech in the region.

[15] Objections to normalization methods have been raised (Harrington and Cassidy, 1994; Leslie Milroy and Gordon, 2003; Watt, 1998), and while these issues should not be dismissed, there remains the problem of being able to compare women and men, older and younger speakers, whose vocal tracts may differ considerably in size and would therefore yield substantially different formant readings.

4.0 VOWEL SYSTEMS IN PITTSBURGH

In this chapter, I provide an overview of vowel systems of African American English in Pittsburgh, using three speakers for illustration. This description shows general trends in the vowel systems of AAE in the city, and provides a basis for later, more in-depth comparisons to be made both to White speech in the region, and to AAE vowel systems elsewhere in the country. The discussion begins with a look at the vowel system of a White Pittsburgh woman, and then moves on to show the vowel systems of a selection of African Americans from the current sample. As will become clear as we move through the description and discussion, there is no single vowel system that is representative of all African Americans in Pittsburgh. In the vowel systems shown below, each of the African American speakers included show variability with respect to exhibiting features of local phonology as well as those features associated with African American English on a more supraregional level. While I am not attempting to make broad generalizations about African American vowel systems based on the descriptions from the three speakers below, there are some identifiable trends across these speakers which may be more representative of the city's speech patterns. They are certainly areas that will be investigated in more detail in later work. I begin with the vowel system of an older White speaker in Pittsburgh, and then move on to the African American speakers following that description.

4.1.1 White Vowel Systems

Figure 4.1 shows the vowel system of Diane, a White Pittsburgh woman born in 1941. Diane grew up in a working-class neighborhood in the city, and is lower-middle class, based on the social class index composed of education, occupation and current neighborhood. She has lived in Pittsburgh all of her life, and now lives in a suburb outside of the city limits.

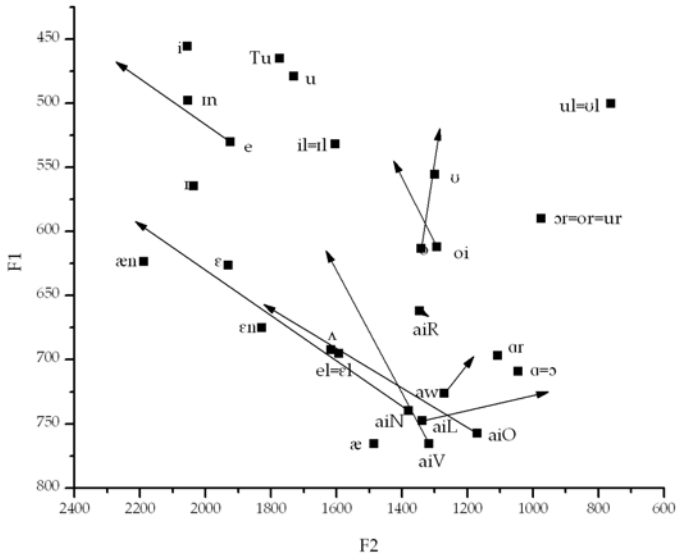


Figure 4.1 Vowel space of Diane, a White female Pittsburgher

As can be seen in Figure 4.1, Diane exhibits the many vowel mergers that Erik Thomas (2001) identifies as characteristic for the Western Pennsylvania region. With one exception, these are conditioned mergers, occurring before liquids. Like many other Pittsburgh-area speakers, Diane collapses /i/ and /ɪ/ before /l/, and the same process occurs with the vowel pairs /u/ and /ʊ/ and /e/ and /ɛ/. What this means is that Diane

and others who share these mergers pronounce word pairs like *steel* and *still* the same way, as well as the pairs *pool* and *pull* and *bail* and *bell*. These mergers are not unique to Western Pennsylvania, but are a well-known feature of the region. In addition, Diane makes no distinction between the high back vowels before /r/, so that *poor*, *pore* and *pour* are all homophonous. Thomas (2001) notes that this merger is fairly common throughout the U.S., so that this distinction is all but lost in most areas. Labov, Ash and Boberg also note that this three-way phonemic neutralization, which they term the 'Back Chain Shift' before /r/, is common to Pittsburgh and many other areas as well.

Another characteristic feature of Diane's vowel system is the lack of gliding on /aw/. As mentioned above, this feature seems to be limited to the western Pennsylvania within North America. The substantially lowered glide that is evidenced in Diane's vowel plot above is common for speakers of her generation, as well as those that are somewhat younger. There is some evidence that monophthongal /aw/ is receding in the region, and thus speakers much younger than Diane may exhibit the feature somewhat less frequently (Eberhardt, forthcoming; Kiesling and Wisnosky, 2003). This feature in African American speech will be the focus of Chapter 6.

A third feature of Diane's speech which is highly characteristic of Pittsburgh phonology is the merging of the low-back vowels /ɑ/ and /ɔ/. As discussed in Chapter 5 in detail, this merger may have been established in the western Pennsylvania region as early as the mid-19th century, based on records from *The Linguistic Atlas of the Middle and Atlantic States* (McDavid, 1982-86). What is noteworthy as well about Diane's /ɑ=ɔ/ vowel is its location, near the space where /ɔ/ tends to be realized in other dialects. This backed

and rounded version of the merged vowel is another distinctive feature of Pittsburgh speech, as most other areas which have the merger realize the vowel as a fronter, unrounded variant, closer to /ɑ/ (Kurath and McDavid, 1961; Labov, Ash and Boberg, 2006; Wetmore, 1959).

Diane's /ʌ/ is not substantially lowered, a feature that Labov has identified for Pittsburgh speech as part of the Pittsburgh Chain Shift. *The Atlas of North American English* shows an average F1 value of 787 Hz for /ʌ/; Diane's reading is just under 700 Hz, well below this measurement. We should bear in mind, however, that the lowering of /ʌ/ is identified as a change in progress in the city. Thus, it is likely that we find an increase in F1 across generations—as speakers get younger, their F1 for /ʌ/ should increase. Kiesling and Johnstone's (2007) findings corroborate Labov's claims, with the F1 of /ʌ/ being negatively correlated with age. *The Atlas of North American English* also notes that in the Midland, including the Pittsburgh region, /ʌ/ is moving frontwards, particularly among younger speakers. Diane does show an /ʌ/ that is relatively far front, at over 1600 Hz, just past the midline, though well differentiated from /ɛ/, which is both further front and substantially higher. In some of the speakers with extreme fronted values in *ANAE*, /ʌ/ is approaching the space of /ɛ/.

The Atlas of North American English comments that the fronting of the back vowels /u/ and /o/ are often parallel processes, and that fronting of both vowels is occurring in

numerous regions across the United States, including Pittsburgh. The mean F2 values that Labov, Ash and Boberg (2006) provide for Western Pennsylvania are 1529 Hz for /u/ and 1422 for /o/. *The Atlas of North American English* notes that the fronting of /u/ tends to be much more extreme in most areas, while the fronting of /o/ does not move as far front in the vowel space. This pattern is seen clearly in Diane's realization of these back vowels. Her /u/ is very far front, well past the vowel space midline, at about 1729 Hz. /o/ on the other hand reaches just about to the middle of the vowel space, under 1400 Hz. The history of /o/-fronting and its current patterning is not altogether clear for the Pittsburgh region. Thomas (2001) notes that this feature may have been present in the western Pennsylvania region as early as the Civil War. However, additional fronting may be ongoing, but whether or not it is occurring needs to be tested with a larger sample of the population than I am able to provide here.

Another feature of Midland/Pittsburgh phonology that Diane exhibits is a raised /æ/ before nasals. Labov, Ash and Boberg (2006) also identify as common in the region. It should be noted that the tokens of /æ/ represented in Diane's vowel plot and those to follow do not include those with a following /d/, as this environment may also trigger /æ/-raising. Diane's /æ/ is quite low and somewhat central rather than front. And while there is substantial separation between this vowel and the pre-nasal allophone, it is not as great a distance as is seen is other dialects, which have extreme raising of /æ/ before nasals, such as New York and Philadelphia.

The patterning of /ai/ in Pittsburgh is not altogether clear, as I discussed above. Specifically, whether or not there is some glide weakening when the vowel appears before voiced segments is not entirely clear. However, loss of the glide is common before /r/ and

/l/, both of which are evident in Diane's vowel space. The backwards movement seen in /ail/ is attributed to the falling F2 reading that the velar /l/ produces. These tokens are heard as monophthongal, as [ɑ:l], just as before /r/. Diane does not show weakening of the glide in any other environments—before voiced or voiceless segments or before nasals. But, as mentioned above, the possibility that /ai/ weakens in pre-voiced contexts is something that deserves further investigation.

Now that we have seen a vowel system of a White Pittsburgh speaker, I turn to examples and descriptions of African American vowel systems in the city, with special attention paid to similarities and differences between the ethnic groups. I would like to stress that it is not my intention to compare African American English in Pittsburgh to White speech, taken as the norm. Nor am I arguing for convergence or divergence here. Rather, I am presenting a descriptive look at the sociolinguistics of the city, and for this reason I include a White speaker in addition to the African American speakers that follow. Inclusion of White speakers in such analyses, in addition, allows researchers to answer questions about whether sound changes in the region are limited to White speakers or whether they are also shared by ethnic minority groups, though this question will be beyond the scope of this work.

4.1.2 African American Vowel Systems

A selection of representative vowel systems from the African American community in Pittsburgh is presented below. As we would expect, there is not a single vowel system that encompasses the variation that we find in the community. My aim in this section is to point

out areas of interest for the speakers I present as examples here, before approaching the two variables to be analyzed for the entire sample in Chapters 5 and 6. In describing the plots below, I discuss those features of local speech mentioned in the previous section, as well as a selection of features that are frequently described for African American speakers across geographic regions. Figure 4.2 depicts the vowel space of Evelyn, a woman born in 1944; Don, a man born in 1960, is represented in Figure 4.3, followed by Janice, a woman born in 1984 in Figure 4.4. In discussing these vowel systems, I will not make mention of the two variables to be discussed in the following chapters, namely the low-back merger and glide-deletion in /aw/.

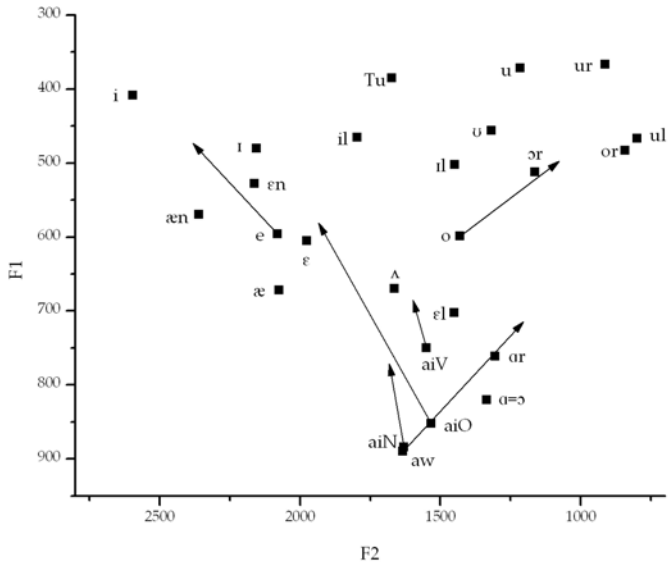
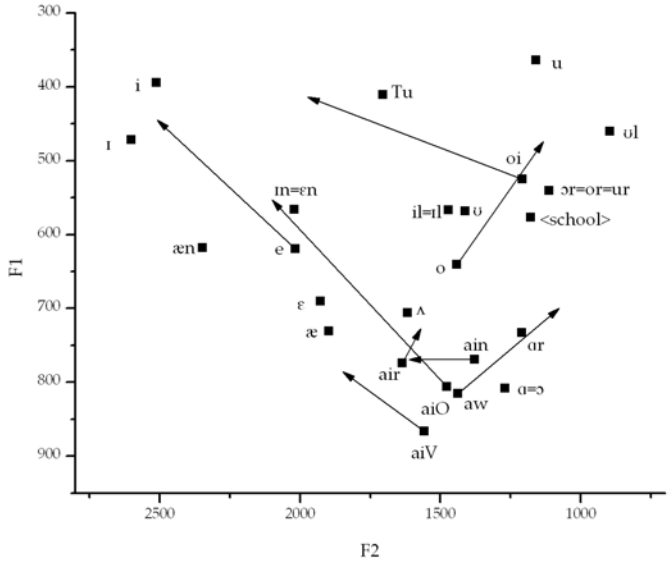


Figure 4.2 Vowel space of Evelyn

The vowel space of Evelyn shows some similarities to local phonology, but also some differences. The same can be said for features of African American English, which are thought to reach across geographic regions. A noticeable difference in Evelyn's vowel space is the absence of several conditioned mergers found in the Pittsburgh region, and in African American speech elsewhere. Evelyn does not show a merger of the *poor*, *pour* and *pore* classes, which Thomas (2001) notes is a distinction that is all but lost in most areas of the United States. Evelyn also does not merge /il/ and /ɪl/, which is not only a feature of the Western Pennsylvania region (Labov, Ash and Boberg, 2006; Thomas, 2001), but also identified as a feature common to African American speech (Thomas, 2007). Another commonly discussed feature of AAE, glide weakening or glide deletion of /ai/ is exhibited by Evelyn. Just as the vowel has been shown to pattern elsewhere in African American speech, Evelyn shows a weakened glide before nasals (in words like *sign* and *time*) and before voiced segments (words such as *ride* and *five*), but before voiceless segments (e.g. *write* and *knife*), her glide is full. Evelyn also shows a raised /æ/ before front nasals (words like *ham* and *land*), which is common to the Midland (Labov, Ash and Boberg, 2006). Evelyn's /æ/ is also raised, almost to the height of /ɛ/, which has also been noted as a feature found in African American speech (Bailey and Thomas, 1998; Thomas, 2007). With respect to back vowel fronting, Evelyn shows fronting of /o/, but her /u/ vowel remains against the back edge of the vowel space. As we will see in the vowel plots that follow, this is a trend in the African American community in Pittsburgh: /o/-fronting appears to be more widespread than /u/-fronting is. However, when /u/ is preceded by a coronal segment, the vowel does appear fronter in Evelyn's vowel space, so that there is a



separati on between /u/ and /Tu/, as opposed to Diane's vowels, which are both heavily fronted, so that there is little difference between pre-coronal /u/ and /u/ in other environments. This is a common occurrence across much of the U.S., as discussed in *The Atlas of North American English* (Labov, Ash and Boberg, 2006).

Figure 4.3 Vowel space of Don

Don's vowel space shows some of the same trends that appeared in Evelyn's vowel plot above. In particular, some features that are often identified with AAE are exhibited. Like Evelyn, Don shows weakening of the glide in /ai/ when it preceded nasal and voiced segments, but not when the vowel is in prevoiceless environments. Don also exhibits a merger of /ɪn/ and /ɛn/, which is often associated both with African American English and Southern English (Bailey and Thomas, 1998; Labov, Ash and Boberg, 2006; Thomas,

2001, 2007). Don also exhibits a merging of /il/ and /ɪl/, which, as mentioned above, is a feature of Pittsburgh speech (McElhinny, 1993; Thomas, 2001). Unlike Diane and other White speakers in Pittsburgh, Don maintains a distinction between /ul/ and /ʊl/, although it is difficult to make a definitive statement to this end, since /ul/ is represented only by the lexical item *school* in Don's interview. This patterning would, however, be consonant with McElhinny's (1993) analysis of these vowels in Pittsburgh, in which she found that laxing of /il/ was frequent among African American speakers but that laxing of /ul/ was absent among the group. Like Evelyn, Don also shows a raised /æ/ both before nasals and in other environments as well. He also exhibits a similar patterning with respect to back vowel fronting: /o/ is fronted and /u/ remains a back vowel, but /Tu/, that is, pre-coronal /u/, shows fronting. Don does show a three-way merger between /or/, /ur/ and /ɔr/, again, common to the Pittsburgh area but in many other regions as well. The vowel space of the final speaker to be discussed here, Janice, is given below. Many of the same trends are again evident in her vowel system that I have been describing for Evelyn and Don.

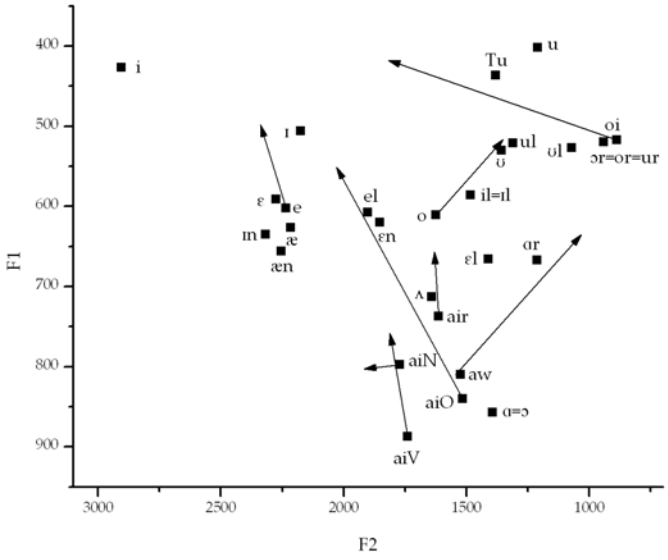


Figure 4.4 Vowel space of Janice

Like Don, Janice shows a merging of /il/ and /ɪl/. She keeps /ul/ and /ʊl/ separate, but there is less space between the two than we saw in Don's vowel plot. Janice also maintains a separation between /el/ (as in *sale*) and /ɛl/ (as in *sell*), which are often merged in Pittsburgh (Thomas, 2001), illustrated by Diane's vowel plot above. However, like Don, Janice shows the collapse of the /or/-/ur/-/ɔr/ distinction. Janice also shows substantial raising of /æ/ and /æn/, and she also exhibits glide weakening of /ai/ in pre-voiced, pre-liquid and pre-nasal environments. She does not, however, show a merger between /ɪn/ and /ɛn/. Like Evelyn and Don and other Pittsburgh speakers, Janice also shows fronting of /o/. Also in line with the other African American speakers here, Janice does not front /u/, which differs from Diane and other Whites in the area. Even after coronal segments, Janice's /u/ remains well within the back region of the vowel space.

While I have pointed out some general tendencies in African American vowel systems in the city, it is certainly unwise to make broad generalizations based on these speakers alone. However, there are a few areas of these vowel systems that I would like to return to, and to (cautiously) suggest that these may be patterns within the larger community. These features are: glide weakening or deletion in /ai/ and /o/-fronting.

The first of these features, sometimes referred to as monophthongal /ai/, has been pointed to as a core feature of AAE, and is almost categorically included in any list of features of the variety (Green, 2002; Rickford, 1999). For example, in a recent discussion of African American middle class speakers, Rahman (2008, p. 155) includes monophthongal /ai/ as one of a list of features (along with the realization of /ð/ as [d] and absence of post-vocalic /r/) "that point to an African American identity" while the diphthongal variant "index[es] affiliation with the establishment" (as do [ð] and r-fullness, in her view). In the face of the extent of regional variation found in AAE, it is becoming increasingly difficult to point to a set of features, or even a single feature, that is truly supraregional. However, studies are finding that African Americans in different geographic areas are selecting different features from what was once thought to be the 'core' shared across regions. With respect to /r/-fullness, for example, Thomas (2007) mentions that the rate at which African Americans exhibit r-lessness ranges from zero to over 90%, based on literature in various geographic locales. The more interesting question, then, is how speakers in particular locations draw on specific linguistic variables to do the work of ethnic (and other) identity construction. It appears, for example, that /ai/ may be a resource for African Americans in Pittsburgh to construct a specifically African American identity in the region. There is some question about whether Whites in Pittsburgh also show glide-weakening on /ai/ in pre-

voiced contexts (Hankey, 1972), but this remains unanswered. And even if Whites in the region do show weakening of the glide in /ai/, they do not show monophthongization of the vowel, except before /r/ and /l/, in words like *fire* and *mile* (see e.g. Johnstone, Bhasin and Wittkofski, 2002). The vowel seems to be available to index ethnic identity in the city. In addition, it appears that African Americans in Pittsburgh follow the pattern described for other regions: deletion of the glide takes place before voiced segments and word-finally, but does not occur in prevoiceless contexts. Prevoiceless glide-weakening is generally believed to be restricted to White speech in the South, so that it serves to differentiate the ethnic groups in that region, where /ai/ monophthongization is widespread (see e.g. Bailey and Thomas, 1998). While prevoiceless glide-weakening is losing this function in some areas as it spreads to African American speech (Anderson, 2002; Fridland, 2003b), this does not appear to be occurring in Pittsburgh. A fuller analysis of /ai/ realizations in Pittsburgh will shed light on whether this feature is receding in this variety of AAE, indicating alignment to the local system, or whether there is an increase in its use, with younger speakers exhibiting monophthongal pronunciations more, suggesting alignment to non-local AAE norms. Such an analysis is certainly in order, but for the time being, we can note that there is at least some presence of /ai/ glide-deletion within the speech community; how widespread it is will remain a question for later work to address.

The second feature I would like to comment on briefly is the fronting of /o/, which is a change occurring over a wide range of regions in North America (Labov, Ash and Boberg, 2006). Thomas (2007) notes fronting of /o/ is generally less common in African American speech than in White speech, and that in some areas, there is in fact no fronting of the vowel in AAE. In Philadelphia, for example, Graff et al. (1986) report that /o/-fronting

is absent among African Americans, though the vowel is strongly fronted in White speech there. As Thomas (2007) goes on to clarify, however "The evidence as a whole, however, suggests that, while African Americans widely show some resistance to fronting of the GOAT and GOOSE [/o/ and /u/] vowels, they are not entirely impervious to it in regions where European Americans front the GOOSE vowel or both the GOAT and GOOSE vowels" (p. 14). In several regions, researchers find that African Americans participate in the fronting of these vowels, but that the fronting is less advanced for African Americans. This pattern was for one or both vowels (/o/ and /u/) found in Columbus, Ohio (Durian, Dodsworth and Schumacher, forthcoming; Thomas, 1989 [1993]) and in Memphis, Tennessee (Fridland, 2003a). And while in some cases there is no difference between ethnic groups with respect to back vowel fronting (Anderson, 2003; Wolfram and Thomas, 2002), more commonly they serve as a marker of ethnic differentiation (Graff, Labov and Harris, 1986; Thomas and Reaser, 2004). In the vowel systems above, all three African American speakers show some fronting of /o/ (but not fronting of /u/). To reiterate, while it is too early to make broad claims about /o/-fronting in Pittsburgh AAE, it appears that there is some movement toward local norms with respect to this vowel. Based on casual observation in the city, my hypothesis would be that Pittsburgh follows the pattern found in the studies mentioned above, with some /o/-fronting on the part of African Americans, but with White speakers in the lead. But like /ai/-monophthongization, this will have to remain an open question for the time being.

4.2 SUMMARY

The purpose of this chapter was to present a picture of a selection of vowel systems in Pittsburgh, and to discuss specific features related to the local dialect in Pittsburgh and to African American phonological systems elsewhere. Based on the vowel systems for the three African American speakers presented here, it appears that there is a mixture of some local features of vowel phonology alongside some features of a non-local AAE system. In particular, I discussed likelihood that monophthongal /ai/ is prevalent in Pittsburgh AAE, and might serve as a marker of ethnic identity in the region. In addition, there appears to be /o/-fronting in African American speech in the region, also evidenced in the vowel plots above. Other features identified for AAE cross-regionally appear variably: the /ɪn=ɛn/ and /il=ɪl/ mergers, for example, are exhibited by some speakers, but other speakers maintain distinctions between them. With respect to some local features, such as /ul=ʊl/ and /u/-fronting, African Americans in Pittsburgh seem to maintain differentiation from the local White system. This description of the former feature is consistent with McElhinny's work in the region, in which she shows that African Americans do not exhibit laxing of /ul/.

This sample of vowel systems, while giving only a limited description, illustrates the general trend that studies on regional AAE phonology have been revealing. African Americans incorporate both features of non-local African American English into their sound systems, and at the same time make use of a selection of features found locally in their region. These findings underscore the point that AAE is not the uniform system that scholars once believed it was. As discussed above, although early research on AAE tended

to leave open the possibility for regional variation, the studies (and the field) focused on a supraregional system thought to be shared by African Americans across the country (see also discussions in Fought, 2002; Wolfram, 2007). Now, few would likely take this position. Additionally, these findings suggest that African Americans in any locale have available to them a plethora of linguistic resources, both those marked as 'local' and those marked as 'ethnic', to aid in the construction of various facets of their social identities. In other words, African Americans do not have to 'choose' between aligning to linguistic features or systems that are associated with ethnicity and those that are in place in the regions where they live. Instead, African Americans can, and do, select features from each system, creating a locally influenced variety of African American English.

In the two chapters that follow, I analyze two features of the local phonological system in more detail: the low-back vowels /ɑ/ and /ɔ/ (Chapter 5) and the diphthong /aw/ (Chapter 6). Examination of these two features of Pittsburgh speech, as we will see, allows for a deeper discussion of both the linguistic and social motivations that have influenced African American speech with respect to local (White) phonology.

5.0 THE LOW-BACK MERGER

The low-back merger, which neutralizes the distinction between /ɑ/ and /ɔ/, is perhaps "the largest single phonological change taking place in American English" (Labov, 1994, p. 316). The merger is a feature of U.S. dialects in New England, through the Midland, and into the West, and as one of two "pivot points" in U.S. English, is a crucial taxonomical feature of North American dialects (Labov, 1991). As Labov (1991, p. 12) states, "In characterizing any American vowel system, it is helpful to know…do short-o and open-o [/ɑ/ and /ɔ/] remain as distinct phonemes…or are they merged to a single low back vowel?"

Despite the importance of the low-back merger in North American speech, our knowledge of the merger's distribution among African Americans is quite sparse. Given the fact that African American English (AAE) is the most extensively studied variety of the language (Wolfram and Thomas, 2002), this is somewhat surprising. Partially as a consequence of the assumption that African Americans do not exhibit features of sound change occurring in the speech of their White counterparts (see e.g. Labov, 2001b), very few studies have addressed the status of /ɑ/ and /ɔ/ in African American speech. As scholars become increasingly interested in regional variation within AAE, however, many investigations have begun to address the participation of African Americans in sound

changes occurring in their local communities. The low-back merger, as a feature of such importance in current dialectology, should figure prominently among future investigations of regional varieties of AAE.

In this chapter, I address this gap with a report on the status of the merger in AAE in Pittsburgh, Pennsylvania, where the merger has been stable for several decades (Kurath & McDavid, 1961; Wetmore, 1959). In the first section, I discuss the phenomenon of vowel mergers, and their importance to the study of language variation and change. I then describe a study of word list data collected during the interview, which tests whether the production and perception of minimal pairs such as *cot* and *caught* or *pond* and *pawned* are the same or different. I then move on to an acoustic analysis of words which fall into the historical word classes of /ɑ/ or /ɔ/, in order to determine whether or not there is a full systemic merger of the low-back vowels in Pittsburgh AAE.

5.1 VOWEL MERGERS

Labov (1994) identifies three possible changes within a phonological system: rotations, mergers and splits. Very simply, "The first maintains distinctions, the second eliminates them, and the third creates them" (p. 295). This chapter focuses on the second type of sound change, mergers, which eliminate distinctions. A merger occurs when two or more word classes 'fall together' and thus no longer contrast phonemically with one another. Mergers, Labov (1994) notes, are much more common historically than are chain shifts or splits. One reason for this is Herzog's principle, "Mergers expand at the expense of

distinctions" (Labov, 1994, p. 313). We see this principle at work in the ongoing rapid spread of the low-back merger in North America, discussed below.

5.1.1 Mechanisms of Merger

There are three generally accepted processes by which vowels tend to merge. Trudgill and Foxcroft (1978) discuss two of these processes in detail: *merger by transfer* and *merger by approximation*. M*erger by transfer* is a type of lexical diffusion, by which the phonetic character of a lexical item or subset (e.g. [dɑn] 'Don') is suddenly replaced with the pronunciation of another (e.g. 'Dawn' [dɔn]), so that both 'Don' and 'Dawn' are now pronounced [dɔn]. In this process, there are no phonetically intermediate forms; rather, there is a transfer of items from one word class into the other. Furthermore, *merger by transfer* does not necessarily result in a complete merging of the word classes. Because it proceeds by lexical sets, it may be the case that the merger never reaches completion, meaning that there is a possibility that the categories remain distinct, even though some words have been transferred. While this type of transfer is generally thought of as lexical diffusion, Trudgill & Foxcroft (1978) note that the diffusion may not be lexical, but rather phonologically conditioned. Indeed, it has been reported that the low-back vowels in North America, for example, may merge before nasals or /t/ but not elsewhere (Labov, Ash and Boberg, 2006). *Merger by transfer* is usually the outcome of dialect contact. This

process is attributed, for example, to the spread of the low-back merger from Western Pennsylvania to the West and North (Herold, 1990; Labov, 1994).

In *merger by approximation*, there is a gradual movement towards one another in the vowel space. In other words, the word classes slowly become phonetically more similar to one another, until there is no longer a phonetic difference between them. *Merger by approximation* affects all lexical items at the same time—all words in a word class begin to shift their phonetic form simultaneously. The resulting vowel may be phonetically similar to one of the original word classes, or it may have a form intermediate between the two. As the merger proceeds, the phonetic range gets gradually smaller as the word classes draw closer, until there is no distinction between the two. A reduction in the phonetic range used for the vowels does not occur in the case of *merger by transfer.*

A third mechanism, *merger by expansion*, was introduced by Herold (1990) in order to explain the occurrence of the low-back merger in eastern Pennsylvania. In this area, Herold found that the phonetic range used for the low-back vowels had not decreased, as it would have had the mechanism been *merger by approximation*. Nor had the phonetic space been reduced due to a switch of all words from one class to the other, as would be the case with *merger by transfer*. Instead, Herold found that the entire phonetic space of the original two word classes was used, but without distinction between the vowels. This led her to propose a third mechanism, *merger by expansion*. In this process, Herold (1990, pp. 91-92) writes, "the lexical constraints on the distribution of two former phonemes are lifted. As a result, the entre phonetic range formerly divided between the two phonemes now becomes available for the realization of either." In other words, the new phoneme occupies more phonetic space than either of the original phonemes did alone. Another distinguishing

feature of *merger by expansion* is the fact that the process moves to completion very rapidly. This is illustrated by Herold's side-by-side comparison of a father and son—the father has two distinct vowel classes, while the son has collapsed them into one. So if the mechanism is *merger by expansion*, the process can be completed within the span of one generation. This is not the case with other two mechanisms of merger, described above, which may take longer to complete, or which may never reach completion. The means by which a merger entered a speech community and took hold there can be impossible to discover once the merger has reached completion.

5.1.2 The Low-Back Merger

The low-back vowels are members of the historical word classes /ɑ/ and /ɔ/. Word classes are "historical accident[s]" (Labov, 1994) (p. 311), and are classified as such because their members contain some remnant of an older phoneme. In the case of the low-back vowels, there remains a trace of the Middle English vowel /o͝/. Normally, words that contained/o͝/ in Middle English are assigned to the /ɑ/ class. However, as Labov (1989) discusses, in many words, the vowel has been lengthened, "part of a longstanding drift that has affected West Germanic for over a thousand years" (p. 3). These words now fall into the /ɔ/class. Certain environments were particularly susceptible to this lengthening, and thus membership in the /ɑ/ or /ɔ/ class is partially predictable on the basis of phonological environment. So, for example, Middle English /o͝/ was commonly lengthened when followed by the voiceless fricatives /s/, /f/, or /θ/ (e.g. *lost*, *cough sloth*),

the velar nasal /ŋ/ (such as *song*, *long*), and the voiced velar stop /g/ (as in *dog*, *log*—although Labov (1989, in Herold, 1990) notes that this environment is subject to a great deal of regional variation). Additionally, words in the /ɔ/ class were also derived from Middle English /au/ (in words like *saw*), from Middle English /ou/, in words ending in –*ght* (such as *thought* and *brought*), and also early Modern English from Middle English /ɑ/ before /l/ (in words like *all* and *salt*). Words which fall today into the /ɑ/ class are derivative of those Middle English words containing /ŏ/ that were not lengthened (e.g. *top*, *rock*, *pop*). As this discussion shows, historically, these vowels have been greatly affected by phonetic conditioning, which is something we will need to consider in determining whether or not a merger is present in the community under study. I return to this issue below.

As stated above, Labov (1994) has characterized the low-back merger as perhaps the largest current phonological change in the U.S., and as such is sweeping across broad areas of North America. The relationship between the historical word classes of /ɑ/ and /ɔ/ makes them particularly susceptible to neutralization, to a greater extent than other vowel pairs. Of these word classes, Labov (1991, p. 12) writes,

> "From the eighteenth century onward, there has been an unstable relation between *long open o* and *short open o*. The first is a miscellaneous class composed principally of words with monophthongized *aw* (*hawk*, *law*), a before vocalized velar /l/ (*talk*, *all*), lengthened *o* before labialized velars (*cough*, *trough*), and lengthened *short o* words (*dog*, *lost*, *off*). The residual short class contains the original *short o* words that have not been lengthened, all spelled with *o*. The unstable opposition of length has been resolved in one of two ways: increased differentiation by unrounding and lowering of the short vowel with raising and overrounding of the long vowel, or merger."

The great majority of speech communities in North America are resorting to the second of these two options, and merging the low-back vowels. The exceptions to this trend can be found in areas of the mid-Atlantic, such as New York and Philadelphia, where merger is avoided by the raising of /ɔ/. In the Inland North, especially in those areas affected by the Northern Cities Chain Shift, the fronting of /ɑ/ is attributed to the maintenance of this distinction. Finally, in the South, as Irons (2007) discusses, the back-upglide on /ɔ/ helps guard against the phonemic collapse. In most other areas, the tendency is towards merger (see Labov, Ash and Boberg, 2006).

Majors (2005) discusses another reason for the susceptibility of the low-back vowels to merge, from. As she discusses, /ɑ/ and /ɔ/ exhibit very similar spectral qualities (Majors, 2005), to a greater extent than other vowel pairs in close proximity, such as /æ/ and /ɛ/.

5.1.3 Merger in Western Pennsylvania

Western Pennsylvania has long been identified as a merger region: "Pittsburgh…contrasts sharply with the Midland cities in the completeness of the low-back merger" (Labov, Ash and Boberg, 2006, p. 270). In this region, the low-back merger is reported to be completed in all phonological environments, and has been stable throughout the 20th century, and

perhaps much earlier (Wetmore 1959; Kurath & McDavid 1961). Speakers in Kurath & McDavid (1961), for example, had an average age of 43 in 1940, which provides a glimpse of the area's phonological system around the year 1900. Kurath & McDavid (1961, p. 17) conclude from these data that the low-back vowels are fully merged into one class in Western Pennsylvania. Similarly, working with data from the records of the *Linguistic Atlas of the Middle and Atlantic States* (LAMSAS), Wetmore (1959, p. 111) concludes that, "western Pennsylvania has the unique distinction of possessing one fewer vowel phonemes in the range of the low vowels than do other American dialects spoken in the eastern United States." These data allow a look at Western Pennsylvania phonology at an even earlier time—the average age of speakers in 1940 was 64; the oldest speaker was born in 1860. Such previous work in the region gives strong indication that the low-back merger has been stable in White speech in Western Pennsylvania since before the turn of the 20th century.

Pittsburgh is also set apart from other merger regions in that the quality of the merged vowel is different from that in other areas. The realization of the merged vowel shows a great deal of phonetic variation in any area, and cannot accurately be described phonetically as identical to either of the vowels prior to the neutralization of the two. However, the merged vowel tends to converge in the vowel space close to one of the original phonemes. In most merger areas, this resulting vowel is a front unrounded version, in the space close to /ɑ/. In Pittsburgh, however, the merger converges on a more backed and raised version, very often rounded, approaching the space of /ɔ/. Kurath & McDavid (1961, p. 17) provide that the merged vowel in Western Pennsylvania "is usually a raised low-back vowel [ɐ], more or less rounded and prolonged." *The Atlas of North*

American English (p. 271) additionally states that "As in Canada, the Pittsburgh merger takes place in lower mid-back position, so that both /o/ and /oh/ are realized as [ɔ]," a characteristic that further distinguishes western Pennsylvania from other areas of the Midland. The phonetic space occupied by the merged vowel which Wetmore (1959, p. 108) refers to as "the phoneme /ɒ/" has a wide range, varying from the retracted low-front [a˃] to the lowered and fully rounded low-back [ɔ˅].

As mergers have a strong tendency to do, following Herzog's principle (Labov, 1994), the low-back merger has spread from the area around Pittsburgh (in Southwestern Pennsylvania) toward the Northwestern regions of the state, eastward into central Pennsylvania, westward into Ohio, and through West Virginia into Kentucky. In eastern areas of Pennsylvania, however, Herold (1990) found that the merger arose independently, and is not related to spread from the western regions of the state.

5.1.4 The Low-Back Merger in AAE

Studies of the low-back merger in AAE are relatively few, despite the fact that studies on the merger in White speech communities abound. As I discussed above, those studies of the low-back merger in AAE that have been conducted (Bernstein, 1993; Fridland, 2004; Labov, Ash and Boberg, 2006) have supported the belief that African Americans avoid local sound change. Thus, the low-back merger, while spreading rapidly through White speech communities, appears to be limited in African American speech (Labov, Ash and Boberg, 2006; Thomas, 2007). In those studies that have found some evidence of the merger among

African American speakers (Thomas, 1989 [1993]; Hazen, 2005), it appears to be limited. Thomas (1989 [1993]) finds that 6 out of his 16 informants in Columbus, Ohio had merged the vowels before /t/; Hazen (2005) reports that 2 of 4 African American speakers in West Virginia had lost the contrast in the pairs '*cot-caught*' and '*hock-hawk*'. These figures compare to 17 of 18 White speakers who were merged in Columbus, and 21 of 36 in West Virginia (29 showed no contrast in the pre-/t/ environment, 24 had no distinction in the pre-/k/ environment, and 21 speakers appeared to be merged in both contexts). Thus, these studies lend further support to the overall trend of African Americans, in quite disparate geographic regions, to keep the low-back vowels distinct.

There may be a structural explanation for the apparent tendency of African American avoidance of the low-back merger. Thomas (2007) has identified a possible vowel rotation occurring in the African American community, the "African American shift." In this vowel shift, which is depicted below in Figure 5.1 (from Thomas, 2007, p. 16), /æ/, /ɛ/ and /ɪ/ are raised, and /ɑ/ is fronted.

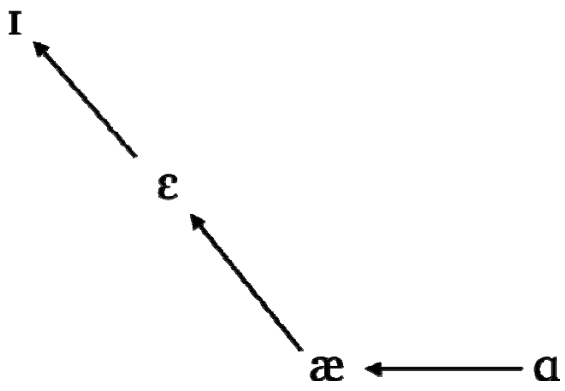


Figure 5.1 The African American Shift

Relevant to the current discussion is the fronting of /ɑ/, which, Thomas proposes, is a possible cause of the limited incidence of the low-back merger in AAE. In other words, the movement of /ɑ/ towards the front of the vowel envelope and thus away from /ɔ/ inhibits the collapse of the two low-back vowels, as they draw farther apart rather than closer to one another. The fronting of /ɑ/ is also a contributing factor in the maintained /ɑ/-/ɔ/ distinction in areas of the Inland North (Labov, Ash and Boberg, 2006), where the Northern Cities Chain Shift is occurring.[16] Such an explanation for the reported lack of the low-back merger in AAE is quite promising, but requires that researchers establish that in precisely those areas in which the low-back merger is not present in African American

[16] In the Mid-Atlantic states, the distinction between the low-back vowels is maintained by the raising of /ɔ/, and in the South, the back upgliding of /ɔ/prevents the collapse of the distinction (Labov, Ash and Boberg, 2006).

speech that /ɑ/ is fronted, thereby inhibiting the merger. Furthermore, even if some varieties of AAE are characterized by a fronted /ɑ/, whether AAE in all regions exhibits this feature remains an empirical question. More studies of the low-back merger in regional varieties of AAE will help to assess claims of its absence in African American speech, and also provide a basis on which to delimit dialect boundaries within AAE, as we further depart with the idealization of African American English as a homogenous supraregional language variety.

5.2 AUDITORY ANALYSIS OF MINIMAL PAIRS

In this section I describe an initial study of the low-back merger in Pittsburgh AAE that relied on data from a word list. Word list tasks are a standard component of a sociolinguistic interview (Labov, 1984), and are intended to elicit a speaker's most careful speech style. At the end of an interview, participants are asked to read pairs or trios of words aloud, one after the other, and judge whether they sound the same or different from one another. Using this method allows for the assessment of whether the speaker has merged the sounds in question, and also provides insight into how the speakers perceive the sounds—as merged or distinct. During such a task, speakers have heightened awareness that their language is under scrutiny, and thus the most careful pronunciations will surface, which may be markedly different from productions in natural, less guarded speech. Therefore, as is always the case when working with word lists, it is probable that the speakers were aware that particular sounds were of interest to the researcher.

However, as Gordon (2002) points out, this is appropriate for discovering whether or not the sounds are merged, because in the case that speakers in such a situation cannot hear or do not produce a contrast between the phones, there is a clear indication that the merger has completed for these speakers.

The word list used in the interview protocol for this study contained two word pairs with the potential /ɑ/-/ɔ/ contrast: *cot/caught* and *pond/pawned*. These word pairs were read together (i.e., *pond* directly followed by *pawned*), but the two pairs were separated from one another by intervening word sets. So while participants were likely aware that certain sounds were being elicited during the task, it is unlikely that they were conscious of which particular sounds were of interest in the study.

Of the 34 speakers in the sample of African American speakers in Pittsburgh, 19 completed the word list task.[17] Following other studies of the merger (e.g. Hazen, 2005), the production of the pairs for each speaker was coded auditorily as *merged*, *distinct* or *close.* If a pair of words was indistinguishable during careful listening, they were classified as *merged*. If there was a clear difference in pronunciation between the words (e.g. [ɑ] versus [ɔ]), they were coded as *distinct*. The category *close* was reserved for those pairs which sounded very similar, but in which a slight difference in vowel quality was audible.

[17] While it would have been ideal for all speakers in the corpus to partake in the word list task, a few reasons prevented this. Most obviously, if a participant expressed that they did not wish to read out loud, the task was eliminated. If a participant seemed to have limited literacy skills, which sometimes became evident during the informed consent process, they were not asked to complete the word list task or the reading passages, to avoid a potentially uncomfortable or embarrassing situation. Finally, in some cases, the participant simply did not have enough time to complete the word list and reading passage tasks.

The results of the word list analysis are summarized in Figures 5.2 and 5.3, both of which suggest that the merger is well on its way to being established in Pittsburgh AAE. In the production of the *cot-caught* and *pond-pawned* pairs, only 3 speakers (Albert T., Esther N. and Barbara E.), all of whom are among the oldest participants in the sample, received a score other than *merged*. Albert T., 81 years old, and Barbara E., age 53, produce *cot* and *caught* with some phonetic difference between them, but not as much difference as we would find between [ɑ] and [ɔ]. Esther N., 70 years of age, produces the only minimal pair in this sample for which a distinct difference between the vowels was found. Esther N.'s productions of *pond* and *pawned*, on the other hand, were *merged*, as were Albert T.'s. This result is consistent with the tendency for the low-back vowels to merge pre-nasally before they merge in pre-obstruent environments (Labov, Ash and Boberg, 2006). Only one speaker, Barbara E., produces a slight audible difference between *pond* and *pawned*, resulting in a *close* coding for that pair. It is a significant finding that only the oldest speakers in the sample show variation with respect to this merger, indicating that the merger may not have reached completion until after these older speakers were born. Another important note to be made about the production of these word pairs is that the pronunciation that most often surfaces is the local realization of the merged vowel—a rounded variant close to [ɒ] and sometimes [ɔ]. I will return to this point in the discussion below.

As mentioned above, the perception of the merger in the community was assessed by asking each speaker to judge the sounds as being the same or different once they had produced them. For the majority of speakers in the corpus of the current study, the

production and perception scores coincide. These results are shown in Figure 5.2 for *cot-caught* and Figure 5.3 for *pond-pawned* (1=merged, 3=distinct).

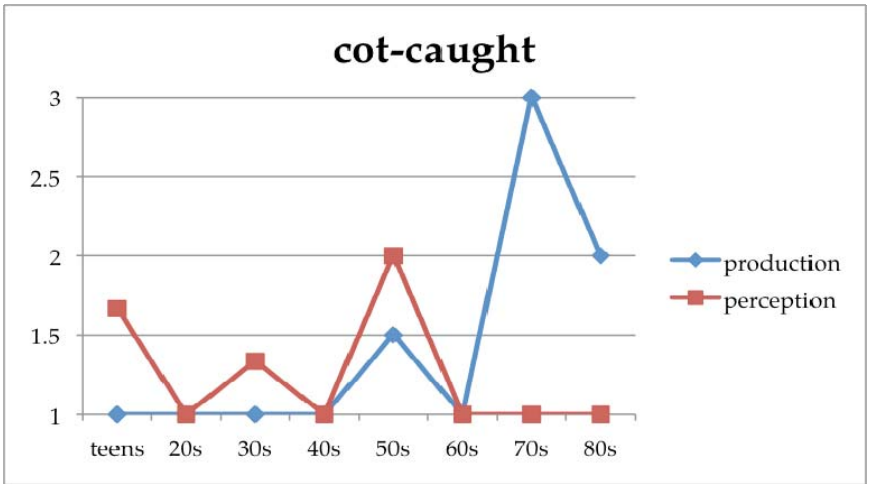


Figure 5.2 Merger of *cot* and *caught* by decade

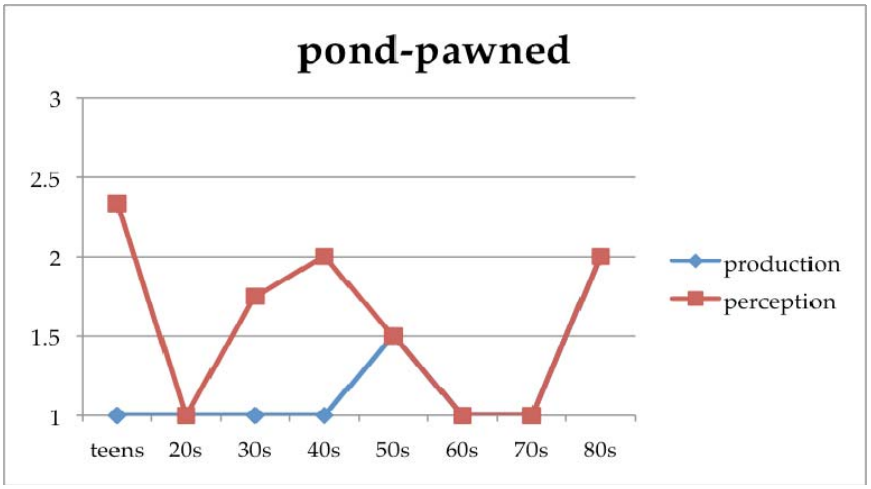


Figure 5.3 Merger of *pond* and *pawned* by decade

The perception scores for these minimal pairs show less consistency than the production scores. However, such discrepancies between production and perception are not uncommon for such methods of assessing perception (see Gordon, 2002; Labov, 1994). In general, the expectation is that production and perception will concur; in other words, if a merger has taken place, we assume that the speaker will produce the sounds as homophones and will likewise report not hearing a difference between them. Conversely, we would expect that if a merger has not taken place, then the speaker will hear the sounds as distinct, and will consistently produce a difference between them. There are two possible scenarios when a speaker's perception and production do not coincide, both of which may explain the current data. One scenario is that the speaker has a "near merger" (Di Paolo and Faber, 1990; Labov, 1994; J. Milroy and Harris, 1980): the speaker does not hear a distinction between the sounds and thus judges them to be the same, but nevertheless produces a contrast between the sounds in their speech. It has been posited that near-mergers occur because mergers tend to occur in perception before they occur in production (though that the sounds have merged in perception does not necessarily mean that the contrast will also be lost in production at some point). Only one speaker in the current sample, Esther N., exhibits such a pattern, and only for the *cot-caught* pair. For all other speakers whose production and perception scores do not match, the second scenario is revealed: the speakers report hearing a difference between the sounds, but do not produce a distinction between them. While the causes for this have not been as thoroughly investigated as those for the near-merger have been, orthography is certain to be a highly influential factor. Speakers may believe that if the words are spelled differently, there "should" be a difference in the way they sound as well. Gordon (2002, p. 247) provides an

example in which orthography clearly is interfering: the speaker reports that *which* and *witch* sound different because *witch* has "more of a '*t*' in it". It is difficult to say whether the current results can be attributed to orthography, though the explanation seems plausible. For the *pond-pawned* pair, the presence of the past tense morpheme on *pawned* may very well have influenced speakers' judgment of 'sameness'. Furthermore, in the *cot-caught* pair, there was a third word present, *cat*. Even though cot and caught were read together and then followed by cat, it could be the case that the inclusion of that third very distinct word affected the judgment of the other two. Some speakers may have reported that the words were 'different' because they were judging across all three words, and so did not report that *cot* and *caught* sounded the same to one another, but were different from *cat*.[18] In future work, commutation tests (see Labov, 1994) may more accurately assess whether or not speakers can perceive a distinction between the low-back vowels in these environments. For the time being, we can say that the perception along with the production of these word pairs data point only to a tendency, the production data reveals that African American speakers in Pittsburgh have neutralized the distinction between /ɑ/ and /ɔ/. In any case, based solely on the production of two word pairs, it is difficult to claim that there has been a complete collapse of these word classes. In order to determine this, we need to show that speakers systematically do not show a distinction between the vowels, in naturally occurring speech. The following section approaches this task with an acoustic analysis of the low-back vowels in conversation.

[18] Indeed, several speakers initially made the judgment that the words were 'different', but then corrected themselves and reported that the first two were the same but the last one was different.

5.3 ACOUSTIC ANALYSIS

The results of the word list task described above indicate that African Americans in Pittsburgh have merged the low-back vowels /ɑ/ and /ɔ/. The question to be addressed in the remainder of this chapter is whether or not a full systemic merger has taken place, or whether it is limited to the pairs used in the word list, *cot-caught* and *pond-pawned*. In the next sections, I report on an acoustic analysis of the low-back vowels in African American speech in the conversational portions of the interview data (described in Chapter 3).

5.3.1 Methods

The general methodology (described in Chapter 3) for the analysis of the low-back vowels was followed in this analysis as well, with some minor additions. For each speaker, I gathered between 10 and 20 tokens of /ɑ/ and /ɔ/ in a variety of phonological environments, and the number of instances of the same lexical items was expanded to allow 3. In addition, I tried to include 5-10 instances of both vowels before nasals, as the merger tends to occur in this environment before others (Labov, Ash and Boberg, 2006). In pre-nasal environment, no more than two tokens of the same word were included. Because these pre-nasal tokens are rather infrequent, I supplemented conversational data with tokens from the word list and reading passages for those speakers for whom these data were available. Tokens before /r/ were excluded from this study (cf. Herold, 1990; Irons, 2007; Wetmore, 1959).

5.3.2 Identifying Merged and Non-Merged Speakers

The most straightforward way of identifying whether or not two phonemes have merged or have remained distinct is to check for statistically significant differences between the word classes for each individual speaker. An independent samples t-test run for each speaker provides this information—if a speaker shows a significant difference between the word classes, it is reasonable to assume that they have maintained a phonemic distinction between them. If, on the other hand, there is no significant difference between the word classes, this is a good indication that the speaker has merged the phonemes, and no longer makes a reliable distinction between the two. Thus, in order to identify merged speakers in this population, independent samples t-tests were used for each speaker. Two t-tests were run for each speaker to check whether or not the low-back vowels in Pittsburgh AAE had been neutralized: 1) in pre-obstruent/open environments and 2) before nasals. The t-tests were run for the measures of F1, F2, and duration. All speakers are included in the open/pre-obstruent environments. Unfortunately, not all speakers produced enough usable pre-nasal tokens for analysis. The minimum number of tokens needed for inclusion was 4 of each vowel. For those cases in which a word list and/or reading passages were available, I supplemented conversational data with tokens from these tasks. Not all speakers completed these tasks, however, and several did the word list task but not the reading passage, so in the end, only 9 speakers had enough tokens in the pre-nasal environment to be analyzed.

The results of the t-tests are provided below in Table 5.1. The results indicate that the low-back merger is well established in the African American community in Pittsburgh,

corroborating the results of the word list task presented above. In the open and pre-obstruent environment, only 2 speakers (Sheila Z. and Antoine K.) show significant differences on any of the three measures, and neither of these speakers exhibits a significant difference for more than one of these factors. The test run for Sheila Z. returned significant results on the measure of duration; Antoine K. showed a significant difference on the dimension of F1. In addition to these significant results, several speakers' t-tests returned p-values that were not significant (<.05), but which approached significance, with p-values under .1, indicating that the possibility of the results arising due to chance was under 10% rather than under 5%. Two speakers had such results: Albert T., (F1 p=.085) and Sabrina E. (F1 p=.075). These results deserve additional discussion, which I provide below. All other speakers show non-significant differences between the word classes, indicating that the merger has reached completion in the community. Individual speakers' mean values for formant and duration measures can be found in Appendix B.

Table 5.1 Results of t-tests for open/pre-obstruent environments

		F1		F2		Duration	
	df	**t**	**p**	**t**	**p**	**t**	**p**
Albert T.	32	.897	.085	1.758	.574	.549	.828
Marilyn E.	24	.721	.194	1.115	.783	-.874	.484
Booker J.	26	.822	.925	.778	.743	.496	.759
Esther N.	31	.322	.907	-.306	.976	-.255	.956
Victor J.	29	1.458	.251	1.002	.951	-.609	.175
Rodney O.	27	-.295	.304	1.092	.753	.327	.820
Marsha Z.	35	.859	.138	-.386	.269	-1.545	.226
Evelyn D.	24	1.290	.568	1.020	.445	.200	.088
Jackie F.	18	.148	.406	-.523	.314	-1.228	.277
Gladys I.	25	1.280	.677	3.371	.262	-.164	.498
Maureen F.	24	.765	.917	.405	.844	1.029	.931
Andrea O.	28	.782	.742	-.683	.225	1.765	.957
Barbara E.	25	-.146	.801	-.569	.919	.745	.947

Calvin R.	11	-.600	.539	1.234	.765	.721	.278
Dennis S.	38	.379	.474	.076	.366	-.459	.086
Tammy C.	20	.293	.302	.028	.856	.421	.776
Don U.	27	1.701	.443	-.301	.199	1.311	.667
Gerald E.	23	1.032	.234	-.442	.211	-.103	.376
Lisa M.	14	-.546	.477	.535	.255	.812	.371
Yvette W.	25	.158	.948	-.331	.450	1.887	.939
Sheila Z.	24	-.569	.152	-.073	.826	-2.069	.029
Keith E.	23	-.842	.733	.279	.248	.816	.644
Brenda A.	28	1.727	.301	1.107	.772	.815	.145
Rob Q.	23	-1.865	.138	-1.066	.778	.307	.513
Sabrina E.	19	-.020	.075	.454	.916	.703	.315
Tanesha G.	20	1.328	.537	.024	.554	.810	.200
Antoine K.	22	-.881	.016	-1.267	.730	.209	.758
Janice L.	31	.297	.706	.588	.577	3.068	.111
Daryl Z.	13	.417	.747	.102	.512	.120	.768
Alyse V.	18	.756	.435	.351	.799	3.302	.457
Daneen Y.	15	-.261	.265	-2.344	.256	1.216	.768
Nadine B.	12	.054	.952	-.414	.351	.882	.428
Terrance H.	17	-1.269	.489	.231	.618	1.038	.548
Maurice P.	25	.991	.568	1.417	.204	-.305	.344

Table 5.2 Results of t-tests for pre-nasal environment

		F1		F2		Duration	
	df	**t**	**p**	**t**	**p**	**t**	**p**
Esther N.	16	1.540	.439	2.901	.170	-1.978	.895
Marsha Z.	14	-1.564	.121	.629	.888	-.926	.711
Evelyn D.	9	-.801	.183	.203	.248	-.890	.478
Brenda A.	11	1.128	.654	.782	.290	-.842	.810
Keith E.	11	.867	.867	.623	.606	-2.107	.393
Rob Q.	13	1.819	.079	.592	.775	-1.490	.142
Sabrina E.	9	1.138	.648	1.042	.356	-1.080	.506
Janice L.	14	.730	.478	.593	.563	-.572	.577
Daneen Y.	11	1.722	.279	1.182	.647	.075	.872

It is important to bear in mind that statistical significance may not always indicate linguistic significance (Herold, 1990; Majors, 2005). As the results above show, two

speakers in the sample show a statistically significant difference on one of the three measures between the low-back vowels: Antoine K. (F1) and Sheila Z. (duration). It is possible that these speakers are outliers, and simply diverge from the group pattern. However, it would be difficult to argue that within a community in which there appears to be only one phoneme in the low-back region, these speakers have two. Given that both speakers fall into the middle of the age range in the sample, paired with the general properties of mergers discussed above (see also Labov, 1994), this is not a very plausible explanation. Furthermore, as mentioned above, neither speaker has a significant difference, or one that is approaching significance, on either of the other two measures. The question at hand then, is whether these statistical differences translate into linguistic differences. I discuss each of these speakers in turn below.

5.3.2.1 Significant Results: Distinct Vowel Classes?

As previously mentioned, Antoine K. shows a significant difference between the low-back vowels on the dimension of F1. However, the difference between the mean values for the F1 of /ɑ/ and /ɔ/ is 17.24 Hz, leading us to question whether or not this is a salient linguistic difference see (Majors, 2005). Moreover, the averages show that Antoine K.'s /ɔ/ vowel is lower in the vowel space than /ɑ/, which is not the typical pattern—for an unmerged speaker, we would expect /ɑ/ to be lower, thus showing a higher F1 value. Together, these facts make it difficult to argue that Antoine contrasts with the rest of the speech community in Pittsburgh, both White and African American, in the phonemic status

of the low-back vowels. Further evidence is provided by a look at Antoine K.'s productions of /ɑ/ and /ɔ/ tokens, shown in Figure 5.4. As can be seen in this figure, there is a significant overlap of tokens in the vowel space, providing further indication that this difference in F1 may be statistically, but not linguistically, significant.

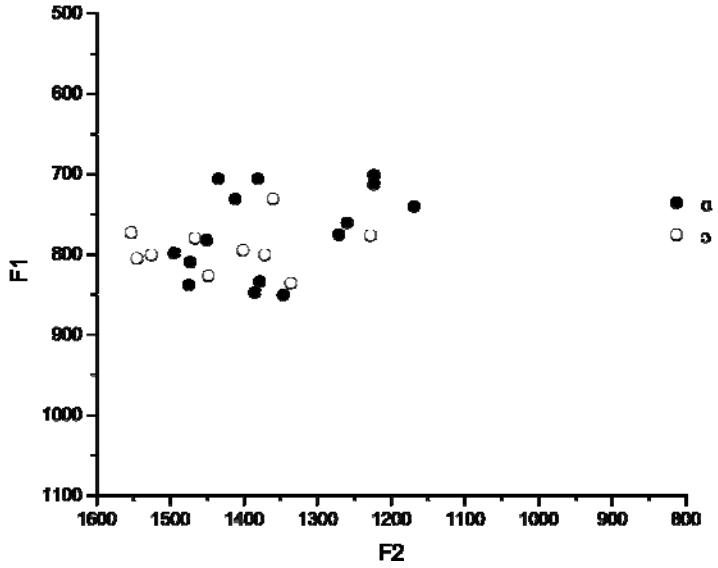


Figure 5.4 Plot of Antoine K.'s low-back vowels

Sheila is the other speaker for whom t-tests returned significant results, but for the measure of duration rather than formant readings. Sheila Z.'s average value for /ɔ/ is 38 milliseconds longer than for /ɑ/. This length falls below the 50 millisecond difference that has separated the historical classes of /ɑ/ and /ɔ/ (Peterson and Lehiste, 1960). This

difference of 50 milliseconds is also the length at which Labov & Baranowski (Labov and Baranowski, 2006) argue phonemic distinctions are preserved in cases in which a merger otherwise may take place. DiPaolo & Faber (1990) have demonstrated that a phonemic distinction can be preserved by linguistic means other than formant values, and it is therefore possible that Sheila Z. has a durational distinction between the low-back vowels, even though they have merged along the F1/F2 dimensions. The picture is complicated not only by the relatively short difference (38ms) in means for these vowels, but also by the fact that it entails our singling out Sheila Z. as an unmerged individual in a community of merged speakers. A potentially more serious complication for the hypothesis that Sheila Z. is an unmerged speaker is the fact that Sheila Z.'s mother and her son are both included in the sample (Marsha Z. and Daryl Z.), and neither of them have significant differences in duration (nor in F1 and F2) between the low-back vowels. Thus, if Sheila Z. in fact preserves a phonemic contrast between these vowels, she would have had to keep them distinct throughout her childhood, despite her being raised by a merged mother. But in addition to that, we would have to imagine that her son acquired only one phoneme while she had two.[19] So if we believe that Sheila Z. has a reliable linguistic distinction in duration between the low-back vowels, we would have to accept that the merger in effect skipped a generation. Paired with the small difference found in duration between the historical word classes for Sheila Z., we must conclude that she also can be classified as a merged speaker.

[19] While neither Sheila Z.'s father (Marsha Z.'s ex-husband) nor her ex-husband (Daryl Z.'s father) are among those interviewed, the women reveal in their interviews that both of these men are from the city of Pittsburgh, and in fact, also from the Hill District. So we do not have here a family situation in which acquisition is complicated by one parent who is distinct and one who is merged.

Four other speakers (Albert T., Sabrina E., Evelyn D. and Dennis S.) did not exhibit statistically significant differences ($p<.05$) on any of the measures, but did show differences that can be considered marginally significant (Johnson, 2007), in other words a p-value under .1. For Albert and Sabrina, this measure was F1, while for Dennis and Evelyn, it was duration. Plots of Albert's and Sabrina's low-back vowel tokens are shown in Figures 5.5 and 5.6. As with Antoine K., the difference between the means for these speakers' F1 measurements is quite small in both cases: 24.07 Hz for Albert T. and a mere .49 Hz for Sabrina E. The overlap of tokens for both speakers is strong indication that these speakers are merged. Albert T., however, is the oldest speaker in this sample, and in the word list task produced the *cot-caught* pair as 'close'. It may be the case that Albert T. is on the edge of the transitional stage of this merger in the Pittsburgh African American community. In the word list task, in which his attention is explicitly drawn to his language, he may have made the distinction greater than he did in more conversational speech. Data from African American Pittsburghers born before Albert T. will help to clarify whether or not this is the reason for Albert T.'s 'close' production of the vowels in the word list task, despite the merger in both perception (in which mergers tend to occur first; (see Gordon, 2002; Labov, 1994) on the word list task and in the more casual portions of the interview. As for Evelyn and Dennis, although the p-values are approaching significance, they pattern much like Sheila, discussed above, in that the difference between the word classes on this measure for both speakers is extremely small: 3.2 ms for Evelyn and 7.2 for Dennis. These duration differences are entirely too small to be audible, and thus it seems unnecessary to assume that these speakers distinguish the word classes on this basis.

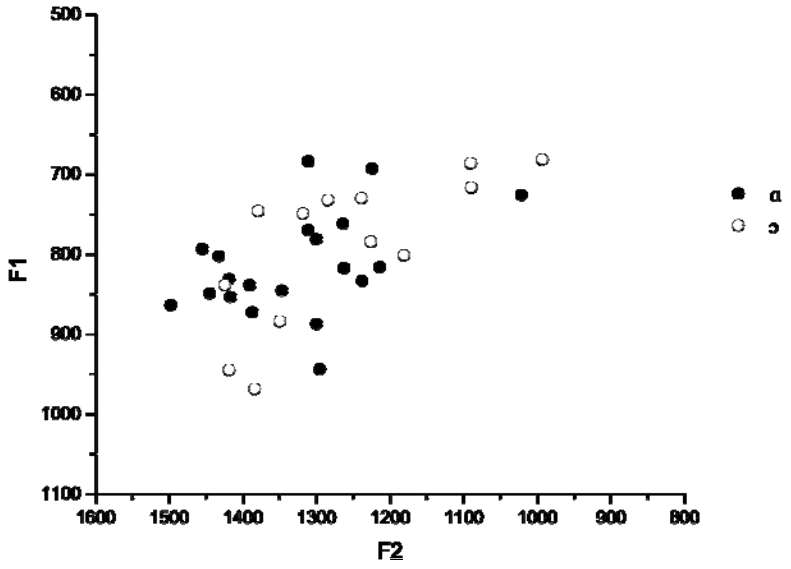


Figure 5.5 Plot of Albert T.'s low-back vowels

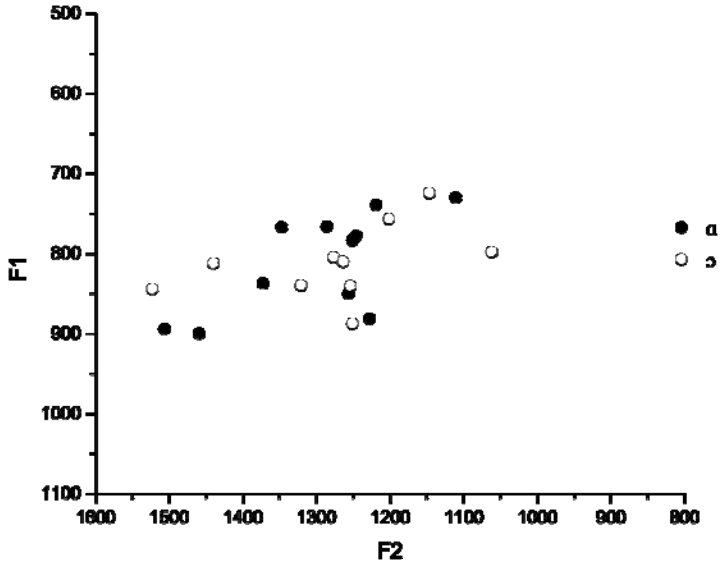


Figure 5.6 Plot of Sabrina E.'s low-back vowels

As discussed above, three speakers in the older generations seemed to show a near-merger when the word list task was considered. That is, these speakers (Albert T., Esther N. and Barbara E.) produced at least some distinction in one of the two the minimal pairs (*cot-caught* or *pond-pawned*). It is useful to check these speakers' productions of the low-back vowels to see whether the word classes show significant, minimal, or no overlap. A plot of Albert T.'s low-back vowels is presented above, in Figure 5.5. Esther N's plot is provided below. As was the case with Albert T., she shows substantial overlap between the word classes. What explains the discrepancy between these speakers' performance on the word list task as opposed to during the interview? Recall that the word list task is one that involves high metalinguistic awareness. These speakers, as the oldest in the sample, appear to be on the edge of the timeline for the merger in this community. Their performance in the word list task indicates that they may have thought there *should* be a difference between the minimal pairs they were presented with, particularly if there was some underlying consciousness that these words may belong to different word classes. In this case, these speakers may have made more effort to distinguish between the words, whereas in less guarded speech, no difference surfaces.

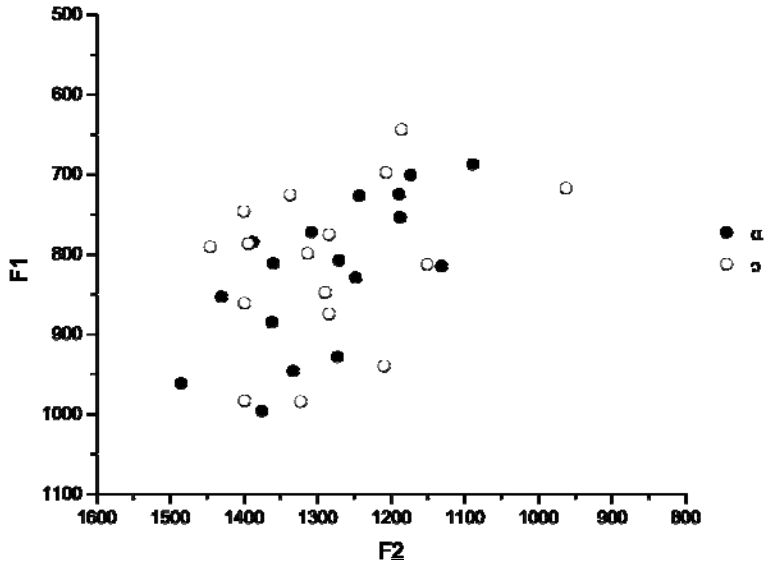


Figure 5.7 Plot of Esther N.'s low-back vowels

5.3.3 Multivariate Analysis

As discussed above, there is historical phonetic conditioning of the low-back vowels, such that the two word classes appear more frequently in certain environments. For example, /ɑ/ is much more frequently followed by /p/ than is /ɔ/, while the opposite is true when the following segment is /f/. In order to control for this phonetic conditioning, and to be sure that the effects we saw with the t-tests above were not due to lexical or phonetic effects, I ran multiple regressions for each speaker for F1 and F2 measures, controlling for the voicing, place and manner of the preceding and following segments. The coefficient value indicates what effect word class membership has on the formant value when the

effect of the surrounding phonological environment is filtered out. For example, if the coefficient for F1 is -100, this indicates that all other things being equal, membership in the /ɔ/ class yields an decrease in F1 of 100 Hz; in other words, /ɔ/ class words are on average 100 Hz higher in the vowel space than words in the /ɑ/ class. Table 5.3 provides the results of these regressions. Significant results are shaded.

Table 5.3 Coefficients and significance levels for effect of word class

	F1			F2		
	Coefficient	**p**	**r^2**	**Coefficient**	**p**	**r^2**
Albert T.	-36.742	.332	.291	-47.832	.455	.499
Marilyn E.	-26.681	.473	.254	-12.563	.753	.521
Booker J.	-29.846	.306	.306	-64.514	.195	.565
Esther N.	-38.565	.303	.361	-14.259	.753	.322
Victor J.	-17.415	.704	.333	-31.699	.453	.725
Rodney O.	13.589	.572	.355	-34.298	.504	.527
Marsha Z.	-19.981	.317	.478	15.999	.897	.373
Evelyn D.	-23.649	.506	.305	13.605	.714	.623
Jackie F.	-53.074	.294	.724	29.456	.624	.736
Gladys I.	-77.485	.031	.508	-187.365	.006	.353
Maureen F.	-17.732	.480	.592	29.043	.722	.271
Andrea O.	-33.662	.231	.385	-27.955	.466	.496
Barbara E.	-26.610	.802	.571	-33.005	.957	.174
Calvin R.	14.930	.746	.530	-55.740	.414	.667
Dennis S.	-27.210	.174	.325	11.158	.802	.327
Tammy C.	-7.530	.740	.540	-29.069	.528	.596
Don U.	-24.039	.214	.216	-32.407	.290	.404
Gerald E.	-21.452	.299	.274	-38.313	.485	.615
Lisa M.	-18.732	.526	.331	-35.608	.502	.658
Yvette W.	-13.251	.783	.233	-25.251	.718	.489
Sheila Z.	7.334	.913	.210	4.916	.948	.205
Keith E.	-7.416	.878	.277	7.322	.876	.517
Brenda A.	-8.352	.744	.651	8.318	.860	.345
Rob Q.	-9.660	.757	.475	-8.76	.987	.445
Sabrina E.	-22.797	.620	.430	11.672	.894	.532
Tanesha G.	-20.319	.395	.478	14.331	.807	.721
Antoine K.	3.030	.882	.417	-19.420	.612	.657
Janice L.	-15.832	.390	.395	8.998	.898	.261

Daryl Z.	4.088	.926	.421	12.506	.793	.630
Alyse V.	-12.342	.683	.642	-6.028	.932	.633
Daneen Y.	-34.818	.462	.564	9.327	.891	.493
Nadine B.	9.549	.762	.316	18.644	.886	.514
Terrance H.	-5.584	.821	.514	-13.980	.734	.544
Maurice P.	-10.278	.592	.569	-11.036	.757	.608

The results of the regressions should remove any doubt about the speakers in question above: Antoine K. and Sheila Z., both of whom had significant t-test results. Neither speaker has a significant effect for word class in the regression, nor do those speakers, Albert T. and Sabrina E., who had marginally significant results in the t-tests. One additional speaker requires attention, as she contrasts with the overwhelming pattern found in this community. This speaker, Gladys I., does not show significant differences in her t-tests for any of the three measures; however, the difference between the means for the word classes on the measure of F2 are considerably high: 162.36 Hz. When her tokens are examined in the vowel space (Figure 5.8), we see that while there is some overlap of the vowel classes, the cluster of /ɔ/ tokens at the back edge of the vowel envelope is clearly separate from the distribution of the others (cf. Boberg, 2001), indicating that she has not neutralized the phonemic distinction. Furthermore, she is the only speaker in the sample who has a significant effect for word class in the regression, as shown in Table 5.3. While Gladys I. is not among the very oldest speakers in the sample, she is one of the older speakers in the group, born in 1946. If for Albert T., who was born in 1926, the merger was nearing completion, by the time Gladys I. was born, it should have been complete, and thus it is somewhat peculiar that Gladys I. would be different from the rest of the community in

the status of the low-back vowels. However, the results of the word list task discussed above indicated that the merger was transitional as late as the 1950s—Barbara E., born in 1951, produced some audible distinction between the minimal pairs during this task. But none of the other speakers showed distinct vowel classes during unguarded speech. Considering her life history and position within the community may shed some light on the puzzling result that Gladys I. seems to retain a distinction between /ɑ/ and /ɔ/.

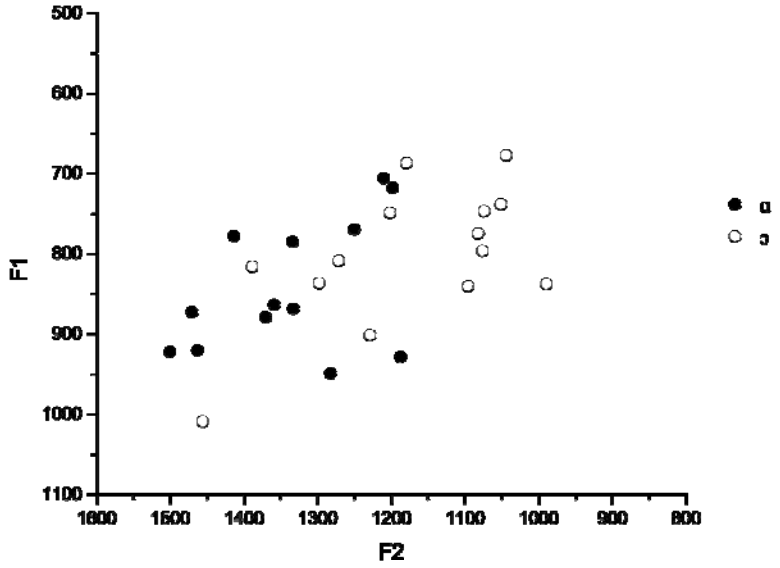


Figure 5.8 Plot of Gladys I.'s low-back vowels

5.3.3.1 An Unmerged Speaker

Results of the acoustic analysis discussed above showed that one speaker, Gladys I., had not merged the word classes of /ɑ/ and /ɔ/. What does this mean for the status of the merger in this speech community, where all other participants in the sample do not show a distinction? This divergent pattern can be attributed to the fact that the merger was still not fully complete until the 1950s, as discussed above. But in addition to that, the life experiences of Gladys I. have been in many ways different from the other participants. While other speakers in her age group (e.g. Barbara E.) may show a slight distinction between the vowels in situations of high metalinguistic awareness, Gladys I. maintains a separation between the word classes in unguarded speech as well. Below I discuss how her life has been different, and how such life experiences may have shaped her linguistic behavior, including the phonemic status of the low-back vowels.

Like the other speakers, Gladys I. was born and raised in Pittsburgh, and spent her earliest years in the Hill District. While Gladys I. was still in elementary school, her mother completed her Master's degree and the family moved to Homewood, a neighborhood which at that time was home to many upper-working and lower-middle class African Americans (Sapolsky and Roselli, 1987). Her grandmother remained in the Hill District, and Gladys I. continued to spend a lot of time there as a child even after moving away. In the current sample, Gladys I. is the only participant to be classified as upper-middle class. She earned a PhD and currently holds a prestigious administrative position in a university.

In terms of speech patterns, Gladys I. is the only speaker in the sample to consistently pronounce the word 'aunt' as [ænt] rather than [ɑnt].[20]

As discussed above, Labov (1994) has argued that mergers tend to operate below the level of social awareness. The fact that two vowels have 'fallen together' may not be above social consciousness, but the realization of the merged vowel can indeed be salient for individuals. In other words, while speakers likely will not realize that there is no longer a distinction between two vowels, they may very well hear the pronunciation of some words as strange. This explains why in the South, the *pin/pen* merger is a stigmatized feature in the region—individuals hear a marked pronunciation, not the collapse of two vowels. As Labov (1994, p. 344) says, "differences in phonological inventories—mergers and splits—are not normally the focus of social attention…social attention is paid to sounds, not to their relations." So while a merger will not be avoided or adopted because of the relationship between the two word classes, a merger can be avoided or adopted due to the social evaluation of the pronunciation of words. This is precisely what Irons (2007) argues is occurring with the low-back merger in Kentucky. In Kentucky, as in other areas of the South, there is a back upglide on /ɔ/, which has come to be seen as a marker of Southern regional identity. As a result of disassociation with this feature, some speakers are losing the glide, thereby merging the vowels. Those speakers who have maintained the phonemic distinction are those who have retained this back upgliding. While the merger in Pittsburgh is not accomplished in the same way as it is in Kentucky, the same type of

[20] Andrea O. also variably uses [ænt], but more frequently says [ɑnt]. Interestingly, Andrea also spent much of her childhood in Homewood.

explanation may be at work in the case of Gladys I., who appears to be the only unmerged speaker in the sample. For Gladys I., it is possible that the pronunciation of the merged vowel as backed and rounded, as is the typical realization of the merged vowel in Pittsburgh was marked for Gladys I., and possibly heard as typical of local speech, or the speech of the working class in Pittsburgh. Furthermore, in any study of a speech community, there are bound to be individuals who behave differently than the group (see e.g. Eckert, 2000). As discussed above, other speakers born before or around the same time as Gladys I. show some signs of a transitional merger (Albert, Esther, and Barbara) in the word list task. Thus, Gladys I. was growing up during a time when the merger may still have been in transition in the African American community thus making it not unreasonable to posit that she (and possibly others like her) resisted it.

5.4 MERGER THROUGH CONTACT

We have seen, based on the results of two types of analysis—word list production/perception and naturally occurring speech—that the low-back merger has moved to completion in the African American community in Pittsburgh. Given the fact that other studies have found that African Americans have a "minimal tendency" to merge the low-back vowels (Labov, Ash and Boberg, 2006, p. 299), it is interesting that the merger has such a strong presence in Pittsburgh AAE. What is it about Pittsburgh that would allow the low-back merger to appear in African American speech, when it has been reported as

largely absent elsewhere? In the following sections, I explore the possibility that the low-back merger spread from White speakers to the African American community.

5.4.1 African American and White contact in Pittsburgh

In the majority of studies that have examined the low-back merger in AAE, the merger was a change in progress in the speech communities under focus (e.g. Bernstein, 1993). The current study contrasts with such works, in that the merger in Pittsburgh is stable and complete, and has been for many years (Kurath and McDavid, 1961; Wetmore, 1959), as discussed above. Because of the long-standing stability of the merger in White speech in Pittsburgh, we might posit that its presence in AAE is due to spread from White to African American speakers. However, contact between Whites and African Americans in Pittsburgh today is quite limited. The topography in Pittsburgh is not conducive to contact between neighborhoods, and residents tend to prefer staying in the area of their neighborhood to the extent possible. A joke commonly heard in Pittsburgh is that if people have to cross a bridge to get somewhere, then it's too far to go. Furthermore, while it is generally true that in most U.S. cities African Americans and Whites do not have much contact with one another, in Pittsburgh, the neighborhood structure has resulted in African Americans being largely isolated from one another as well, so that there is limited interaction between African American residents from different neighborhoods (Glasco, 1989).

In a list of segregation rates in 50 metropolitan areas, Pittsburgh is ranked 20 in the year 2000 (Detroit holds the highest spot) and remains above the national average at 67% (Logan, 2001). While this number has decreased slightly since 1980, isolation of ethnic groups remains high. In the area of schooling, the picture does not improve. Data from The Lewis Mumford Center (Lewis Mumford Center, 2004) puts the index of dissimilarity for African Americans and Whites in Pittsburgh in 1990 at 67; in other words, 67% of residents of one race would have to move to a different neighborhood in order for there to be full racial integration in the neighborhoods. In Pittsburgh elementary schools, the situation is worse: the 2000 index of dissimilarity was 72.3, and unlike the overall segregation in Pittsburgh, racial isolation in the schools has been on the rise over the last 20 years. There is not, therefore, extensive contact between Whites and African Americans in Pittsburgh such that we would expect linguistic features to spread easily from one group to the next. However, a closer look at the history of African Americans in Pittsburgh suggests that there was a time in which the conditions for the merger to spread from White to African American speech were ripe.

5.4.1.1 Earlier Contact

As I discussed above, the steel industry in Pittsburgh drew tens of thousands of African Americans to the city from the 1870s to the 1930s. At the same time, the need for workers also attracted massive numbers of immigrants from eastern Europe, until the first World War, which restricted European immigration to the U.S. Along with African Americans, these European workers were given the lowest-ranking jobs in the mills, throwing them

into the most miserable and dangerous conditions. Thus, in Pittsburgh's industries, African Americans worked in close contact with Whites, both recently arrived immigrants and those that were native-born. While many mills capitalized on racial and ethnic tensions to quell worker organization, the structure of the mills was such that African Americans and foreign-born Whites were in daily contact with one another for a period of almost 30 years, until the Great Depression brought mill production to a halt. However, it was not only in the steel industry that there was contact between African Americans and Whites, but also in some neighborhoods in the city, where groups from different racial and ethnic backgrounds lived beside one another during these years and beyond.

In addition to contact in the steel mills between African Americans and Whites, in earlier years in Pittsburgh, there was much more integration in some neighborhoods than there is today. In particular, the Hill District was home to both African Americans and Whites from the late 19th century through the mid-20th century (Bodnar, Simon and Weber, 1982; Glasco, 1989). In 1900, the Hill District was established as an ethnically diverse "blue-collar cluster" (Bodnar, Simon and Weber, 1982, p. 23). Close to downtown Pittsburgh and several factories and mills along the river, the Hill District was a centrally located neighborhood that attracted large numbers of African American, Jewish, Polish and Slavic workers who settled there.

At this time, Bodnar, Simon and Weber (1982) report that the index of dissimilarity in Pittsburgh and Allegheny County together was 42—a number much lower than the 1990 measure of 67. While there was steady movement out of the Hill District by White groups as the number of African Americans increased, Whites remained a presence until the 1950s. As late as 1930, for example, the African American population was the majority, but had

only a slight lead at 53% (Glasco, 1989). Non-African American groups remained in the Hill until roughly 1956, when a phase of the Pittsburgh renaissance demolished the lower Hill (an area immediately adjacent to Pittsburgh's downtown) to build the Civic Arena (see Lubove, 1969 for detailed discussion). After that time, African Americans moved to primarily to the middle Hill, and Whites moved out of the area altogether, opting for various neighborhoods around the city that had few or no African American residents. Thus, although the Hill District has become increasingly isolated in the second half of the century (Fullilove, 2004; Glasco, 1989) African Americans were in close contact with White residents in the earlier part of the 20th century. Given that the low-back merger was already well established in the speech of White Pittsburghers during this time, it is possible that the merger expanded to AAE as well.

Taken together, the situation in the steel industry in Pittsburgh and the ethnic composition of the Hill District indicate that there was a great deal of contact between African Americans and Whites in Pittsburgh. But the question remains: is contact enough? In other words, should we expect that given a certain amount of contact between African Americans and Whites, linguistic features will spread from the majority to the minority group? Put quite simply, no—we cannot assume that contact in and of itself will result in the spread of a linguistic feature. As we will see in Chapter 6, this very same group of African Americans does *not* exhibit another feature of (White) Pittsburgh speech, monophthongal /aw/. Instead, we must take into consideration the type of linguistic feature under investigation in conjunction with a host of social factors in predicting or explaining the spread of a linguistic feature or resistance to it, such as ethnic identity and regional alliance (see e.g. Anderson, 2003; Childs and Mallinson, 2004; Fridland, 2003b). In

the case of the low-back merger in Pittsburgh AAE, an explanation based on contact-induced spread seems most plausible, given what we know about mergers in general (see Labov, 1994), as addressed below.

5.4.2 Expansion of the Merger

As discussed above, it is well-established that mergers have a remarkable tendency to expand (Labov, 1994, p. 313). This principle is observable today in the rapid spread of the low-back merger taking place across North America (Labov, Ash and Boberg, 2006), but has also been documented for other mergers occurring both in the United States and elsewhere (Labov, 1994). In part, the expansion of mergers is a consequence of the misunderstandings that may take place between those speakers with a non-merged system and those speakers who are merged (see Labov, 1994). The close and prolonged contact between merged Whites and non-merged African Americans around the turn of the 20th century in Pittsburgh presents a situation in which African Americans, who were greatly outnumbered by both native- and foreign-born Whites, may have diminished their reliance on a phonemic contrast that was not being produced by their interlocutors.

In addition, mergers tend to operate below the level of social awareness (Labov, 1994), so that the low-back merger in Pittsburgh would not have been readily associated with White speech. As I discussed above, the resulting pronunciation of a vowel merger may indeed be in the social consciousness (e.g. the *pin/pen* merger in the South; see Hazen, 2005), but in Pittsburgh, there appears not to be overt awareness of this local feature. It is

not included in representations of the local dialect, and not mentioned as a feature of 'Pittsburghese' by either Whites or African Americans. In other words, the realization of the merged vowel was not linked to alignment with a White system, and thus the loss of the phonemic contrast was not resisted in African American speech because of a negative social evaluation. The establishment of the low-back merger in the African American community, therefore, seems not to have been at odds with an African American identity, even if speakers took other measures to retain a phonology distinct from White Pittsburghers.

An alternative explanation to the one proposed here is that the low-back merger arose independently in African American speech in Pittsburgh. As we have seen, the merger is a rapidly expanding change in the vowel system of many American English dialects (Labov, 1994), and this is due in part to the relationship between and spectral properties of the low-back vowels (Labov, 1994; Majors, 2005). Further, the presence of the low-back merger in other areas has been attributed to independent processes rather than spread (Herold, 1990; Irons, 2007). However, at present time, there are no grounds on which to posit that the merger was an independent phenomenon in Pittsburgh AAE. First of all, the extensive contact with Whites, as described above, would have facilitated the spread of the merger to AAE, as it was already established in the White dialect. As Herold (1990) and Labov (1994) have discussed, one reason that mergers spread so rapidly is that unmerged speakers, who rely on a phonemic contrast to be made, cease to depend on it when the input they receive is inconsistent. In times of close and sustained contact between the races in the workplace and their place of residence, then, it is not surprising that one group would cease to rely on a phonemic distinction not being made by those around them.

Moreover, as discussed above, the quality of the merged vowel in both White and African American speech in Pittsburgh can be described as a raised and rounded vowel, somewhat closer to [ɔ] than to [ɑ] (Kurath and McDavid, 1961; Labov, Ash and Boberg, 2006; Wetmore, 1959), although this pronunciation is highly variable among both groups. In other merger areas, on the other hand, the merged vowel is often a more fronted, unrounded version. This quality of the vowel in Pittsburgh AAE further suggests that contact is the correct explanation for the presence of the merger in African American speech. However, there is a great deal of phonetic variation (Wetmore, 1959) in both African American and White speech in the region with respect to the pronunciation of the merged vowel. As Wetmore (1959) shows, although the majority of productions of the merged vowel are rounded, the phonetic range includes pronunciations that are more front and that are not rounded. The same is true of African American pronunciation of the merged vowel—the productions range from a quality close to the fully rounded [ɔ] to the unrounded and fronter [ɑ]. Although the groups share the number of phonemic distinctions made in the low-back region of the vowel space, there may be a difference between White and African American Pittsburghers in the patterning of how the phoneme is realized. Whether the groups overlap in the patterning of this phonetic variation as well is a question that falls beyond the scope of this dissertation, but will be addressed in future work.

Finally, as discussed above, the merger appears to be transitional in the speech of African American Pittsburghers born in the earlier half of the 20th century. While the merger has some presence in Pittsburgh AAE as early as the 1930s, it is not until after the

1950s that the phonemic distinction is completely lost. Recall that it was not until post-1950s that contact between African Americans and Whites was reduced, suggesting that the spread of the merger was dependent on prolonged contact between the groups. The data presented here do not provide information on the time during which there was initial contact between Whites and African Americans—before 1900—and thus there is no information about exactly when the merger entered African American speech. We might expect the merger to start appearing in African American speech in the first generation to grow up in Pittsburgh, among speakers born around the end of the 19th century. We must bear in mind that although African Americans *began* arriving at that time in Pittsburgh, new African Americans *continued* to arrive in the city through the early decades of the 20th century. So while all of the speakers in the sample discussed here are native to Pittsburgh, their families have not necessarily been in the region for generations. Albert T., for example, the oldest speaker represented here, is 2nd generation—his mother was born in Alabama, and his father was from Georgia. Thus, the apparent delay in the complete adoption of the merger may be due in part to the continual influx of African Americans from other areas, who likely had a contrast between /ɑ/ and /ɔ/. There is no evidence that I am aware of suggesting that African Americans at this time were merged, in the South or elsewhere; to the contrary, vowel plots of older African Americans presented in Thomas (2001), many of whom are from the South, show /ɑ/ and /ɔ/ classes that are quite distinct. Additionally, we might speculate that even though there was extensive contact between African Americans and Whites as I have shown above, the primary social group of most African Americans would have consisted of other African Americans, so that while contact

with the one-phoneme system of Whites eventually led to merger, greater contact with other two-phoneme system African Americans may have slowed the process down. To illuminate all of the issues surrounding the timing of the merger in Pittsburgh AAE—when it first appeared and how long it took to complete—will require data from speakers much older than those I have been able to include here. Despite this missing piece in the puzzle, a strong case can still be made for a contact-based explanation of the low-back merger in Pittsburgh AAE.

5.5 SUMMARY

In this chapter, I have presented the results of the analysis of the two historical word classes /ɑ/ and /ɔ/ in African American speech in Pittsburgh, where the merger between these classes has been complete for decades. Two types of analysis were considered in this investigation: the production and perception of the potential contrast between the low-back vowels in a word list task, and the production of the vowels in naturally occurring speech during interviews. In the word list task, participants were asked to read and judge two pairs with the contrast: *cot-caught* and *pond-pawned*. The production scores for this task showed that there was some variation among the oldest speakers in the sample. Three speakers produced the pairs either as 'distinct' or as 'close', but all other speakers showed no distinction between the pairs. The perception ratings also indicated that the vowels in these environments are merged in Pittsburgh AAE, but were complicated by the design of the word list. Specifically, the presence of a third word, *cat*, read after the *cot-caught* pair

may have led to a judgment of 'different' across all three words, even if *cot* and *caught* were perceived as the same. Additionally, the presence of the past tense morpheme on *pawned* may have affected the judgment of the similarity between the word with *pond*. These problems aside, the word list task indicated that the low-back vowels may be merged in this speech community. This was confirmed by an acoustic analysis of the word classes as they arose in a variety of phonological environments in speech during sociolinguistic interviews. The results of t-tests and regression analysis showed that the historical word classes no longer occupy separate regions within the vowel space, but have merged into one class.

These findings contrast with other studies of the low-back merger in AAE, which report that it is limited or absent in other areas, with a distinction maintained between the vowels (Bernstein, 1993; Labov, Ash and Boberg, 2006; Thomas, 2007). I have argued that in Pittsburgh, the conditions were present for the merger to spread from White to African Americans speech between the late 19th and early 20th centuries. While Pittsburgh today is noticeably segregated, during this earlier time, there was extensive contact between African Americans and Whites. By the time African Americans began migrating to Pittsburgh in the 1870s, the merger was already well-established in the local dialect (Kurath and McDavid, 1961; Wetmore, 1959). Furthermore, because of the nature of mergers and the lack of salience of the merger in Pittsburgh, it is not surprising that during a period in which the ratio of African Americans to Whites was low, the conditions of contact and the linguistic properties of the merger converged to promote the neutralization of the low-back vowels in African American Pittsburgh speech. Two areas remain tasks for future work, both of which I mentioned above. One is a comparison of African American and White

pronunciation of the merged vowel, in order to establish the extent of overlap in realizations of the phoneme. As I suggested above, while the groups may converge in the number of phonemes in the low-back region, a point of distinction may lie in the phonetic range occupied by this phoneme. A second area for later investigation is discovering the timing and mechanism of the merger in this speech community with archived recordings of African Americans born in the late 1800s and early 1900s. As other scholars have argued (e.g. Childs and Mallinson, 2004; Wolfram, 2007), as we continue to investigate regional varieties of AAE, we must fully consider the social, linguistic and historical facts that converge to account for the linguistic patterns discovered.

6.0 /AW/

In this chapter, I investigate the diphthong /aw/ in the sample of Pittsburgh African Americans represented here, addressing whether or not African Americans exhibit monophthongal pronunciations of /aw/, a highly salient feature of Pittsburgh speech. Monophthongal /aw/ stands in stark contrast to the low-back merger (described in Chapter 5) both linguistically and socially. As we will see, the linguistic behavior of African Americans with respect to this feature of the local Pittsburgh dialect is similarly contrastive.

6.1 MONOPHTHONGAL /AW/

In this section, I describe the linguistic characteristics of monophthongal /aw/, discuss its distribution, and then discuss this variable in context of the Pittsburgh region. Diphthongs are characterized by the movement of formants from the nucleus to the end of the vowel, resulting in a segment that essentially contains two vowel sounds rather than one. Monophthongs, on the other hand, are characterized by the steadiness of the formants throughout the duration of the vowel; there is little formant movement during a monophthong, and thus little change in pronunciation from the vowel's beginning to its end. When a diphthong is monophthongized, the formant movement from the nucleus to

the offset is reduced significantly, or deleted altogether. A well-known example of monophthongization is the stereotypical Southern pronunciation of the diphthong /ai/, in words like *buy* and *time*. When the glide is lost in these vowels, the realization is the single segment [ɑ:], rather than [ai]. The vowel is usually elongated, retaining the length of the prior to glide-loss (see also discussion below). In the case of /aw/, when the realization is diphthongal, the glide movement is towards the high back edge of the vowel envelope, towards the space of [u]. Both F1 and F2 fall; in other words, from the nucleus to the offset, the vowel becomes higher and backer. This is depicted in Figure 6.1, a spectrogram of a diphthongal pronunciation of the word 'couch', produced by an African American woman native to Pittsburgh. The entire word is represented in the spectrogram, but the vowel can be identified by the section of evenly spaced dark vertical bands towards the middle of the figure. The formants are overlaid with the White speckled lines, showing their movement throughout the vowel. The important elements to focus on in this example are the first and second formants, which are represented by the first two formant track lines from the bottom of the spectrogram.

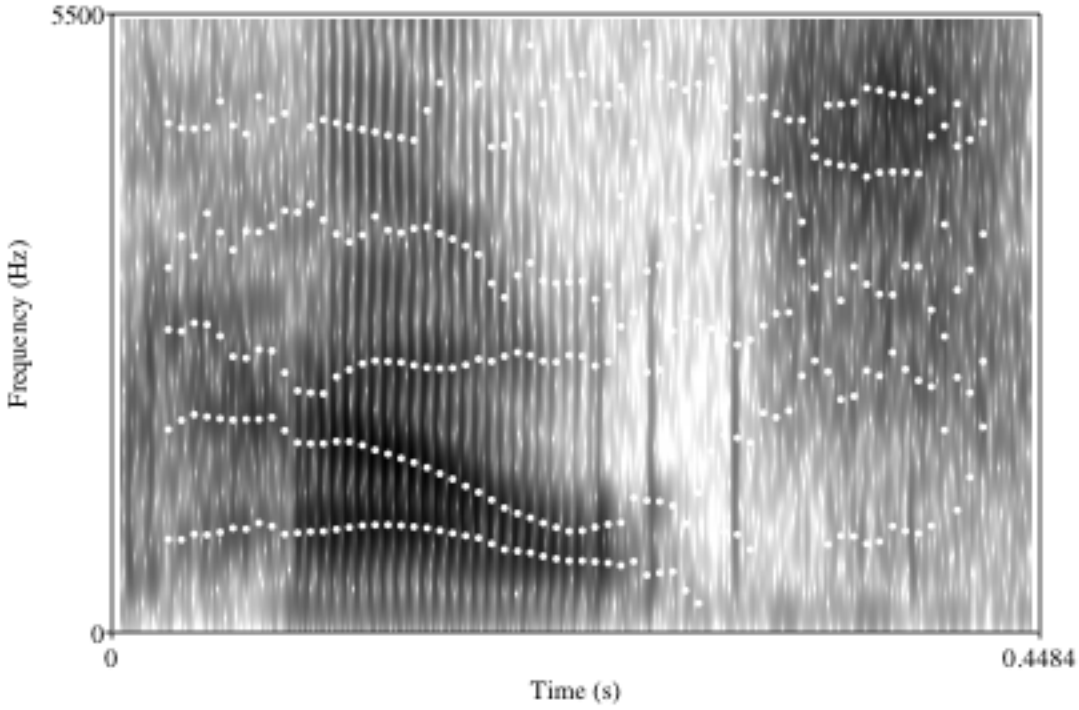


Figure 6.1 Spectrogram of diphthongal /aw/

The first two formants move downwards throughout the duration of the vowel, indicating that the vowel's trajectory is towards the high back corner of the vowel space. This is shown as well in Figure 6.2, a vowel plot showing the same example word, 'couch', as above. In Figure 6.2, the nucleus of the vowel is indicated by the filled black square, and the arrowhead indicates the vowel offglide. The length of the arrow on such vowel plots indicates the amount of formant movement—the longer the arrow, the more the formants move during vowel production.

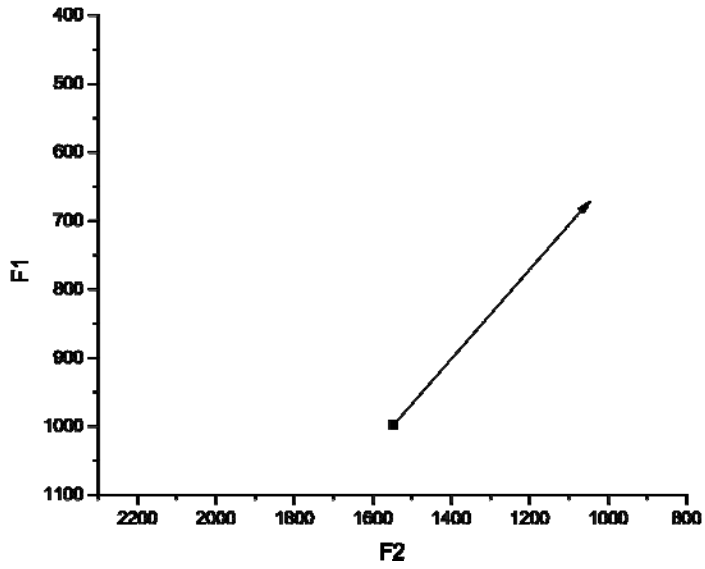


Figure 6.2 Plot of diphthong example

As Figure 6.2 shows, the formants in the example move substantially from the position of [ɑ] towards the position of [u]. It is important to note, however, that the target [u] is not reached in this example. Instead, the vowel ends closer to the space of [o]. Because this example was extracted from connected speech, this is perfectly normal. We can expect glides to be shortened somewhat when produced in conversational speech (Thomas, 2001). Even with the shortening of this glide, we can see that the pronunciation is diphthongal. This becomes clearer when the example is contrasted with a monophthongal production of /aw/, as shown in the spectrogram and vowel plots below, in Figures 6.3 and 6.4. This example was extracted from an interview with a White Pittsburgh man.

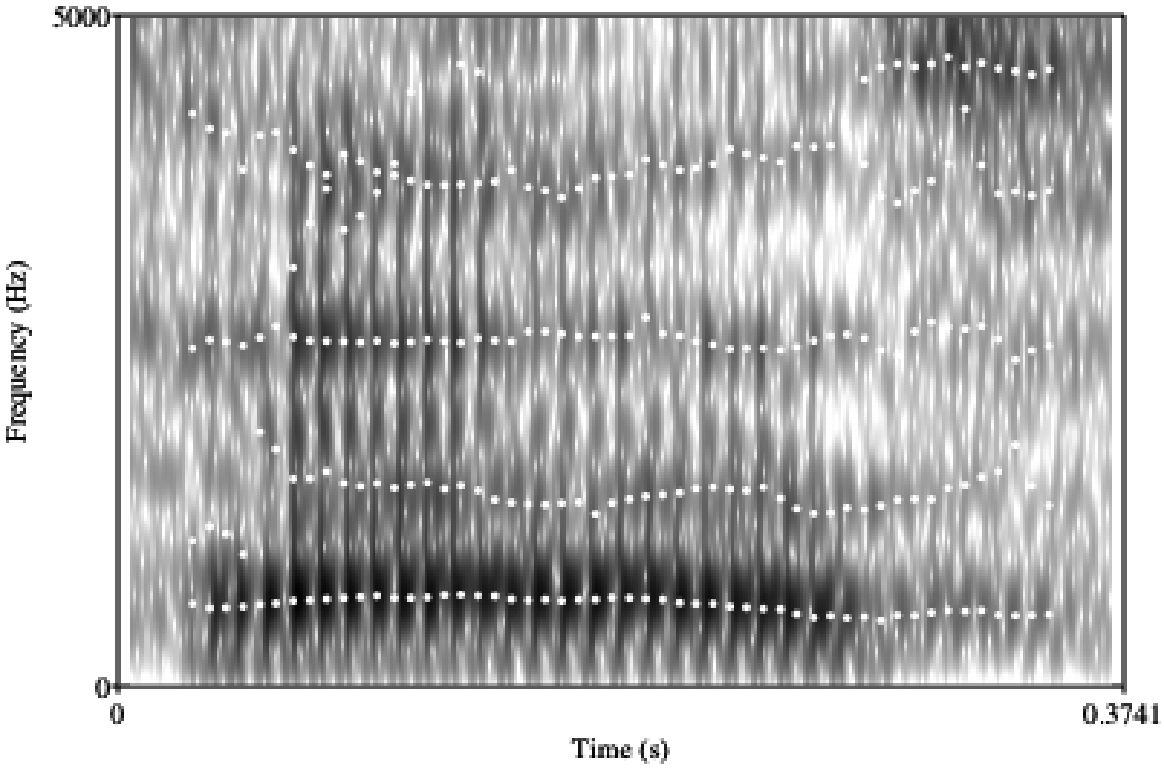


Figure 6.3 Spectrogram of monophthongal /aw/

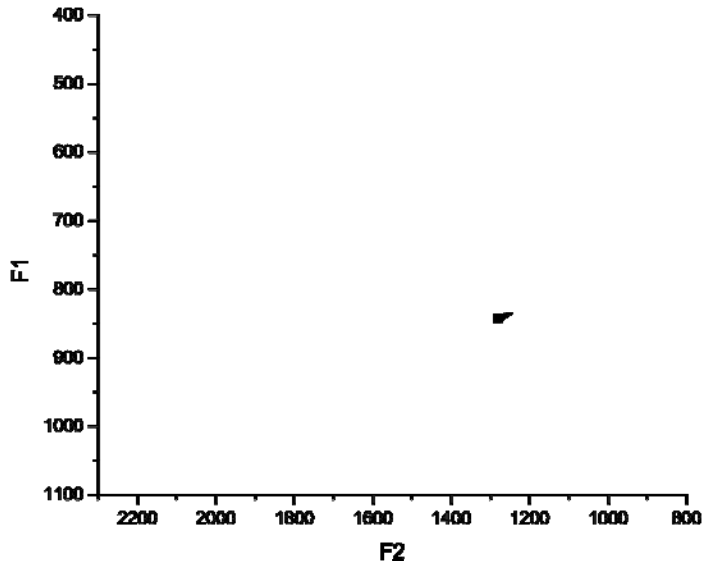


Figure 6.4 Plot of monophthong example

6.1.1 Characterization of /aw/

Erik Thomas (2001, p. 39) writes that /aw/ "shows a bewildering array of variations…There are relatively few dialects that show what is commonly regarded as the "normal" form of /au/, with a target value of [au] in all phonetic contexts." Most documentation of this variation has focused on the nucleus rather than the glide (e.g. Graff, Labov and Harris, 1986; Labov and Harris, 1986; Thomas, 1989 [1993]; Wolfram and Thomas, 2002), though Thomas (2001) notes that variation in the glide is just as widespread.

As a linguistic feature that characterizes a region, monophthongization of /aw/ appears to be unique to the Pittsburgh area in North America (Labov, Ash and Boberg, 2006). However, weakening or loss of the glide is found elsewhere, particularly in the

South, and particularly African American speakers (Thomas, 2001). Monophthongization or glide-weakening of /aw/ may occur more frequently before voiceless segments (Thomas, 1989 [1993]; Wolfram and Thomas, 2002). In Virginia, Lowman (1936) reports that glide-weakening tends to occur more frequently before /l/ and nasals, and longer glides appear more commonly in word-final position. Similarly, Johnstone, Bhasin and Wittkofski (2002) note that in Pittsburgh, monophthongal variants of /aw/ do not surface word-finally.

6.1.2 /aw/ in Pittsburgh

As mentioned above, Western Pennsylvania is the North American region most closely associated with monophthongal /aw/. Additionally, the feature may be implicated in ongoing changes in the vowel system of the dialect, identified by Labov et al. (2006). As depicted in Figure 2.6 in Chapter 2, the Pittsburgh Chain Shift is triggered by the merging of the low-back vowels. As /ɑ/ moves up and back towards /ɔ/, there is room for /ʌ/ to lower. The lowering of /ʌ/, as it moves into the space of /ɑ/, encroaches on the monophthongal pronunciation of /aw/. However, Labov & Baranowski (2006) propose that there is a durational difference between lowered /ʌ/ and monophthongal /aw/, with the latter receiving a longer duration to retain the phonemic contrast between the vowels. This durational difference was confirmed by Kiesling & Johnstone (2007), using conversational data from sociolinguistic interviews. In other words, although the glide in /aw/ has been lost, the duration of the diphthong is retained, which in turn prevents an additional merger in the vowel space.

The monophthongal pronunciation of /aw/ holds a unique position in the city for social reasons as well as the linguistic factors described above. Unique to the Pittsburgh region (Labov, Ash and Boberg, 2006), monophthongal /aw/ began to appear in the Pittsburgh area in the speech of residents born 1900 and later (Johnstone, Bhasin and Wittkofski, 2002), and may have arisen out of the massive immigration and language contact that resulted from the industrial era towards the end of the 19th century. Although it is socially stigmatized and indexical of working-class speech, particularly that of males, whether monophthongal /aw/ is receding in the region is unclear. Johnstone et al. (2002) show that across five generations of working-class men from Pittsburgh, monophthongal /aw/ peaks among speakers born between 1920 and 1949, but remains strong in the speech of men in the following two generations, the youngest being born after 1970. These findings suggest a strong presence of monophthongal /aw/ even in younger Pittsburgh speakers. In contrast, results from a telephone survey (Kiesling and Wisnosky, 2003) suggest that the feature may indeed be receding in the region, particularly among young women.

In discussions and representations of Pittsburghese, by far the phonological feature that figures most prominently is the monophthongal pronunciation of /aw/. Johnstone et al. (2002) found that in written representations of the local dialect, monophthongal /aw/ appeared three times more frequently than any other phonological feature. Representations of /aw/, which most commonly appear with the spelling 'ah' to indicate the monophthongal pronunciation, appear in newspaper and magazine cartoons, articles and other features, books such as *How to Speak Like a Pittsburgher* (McCool, 1982) and *Are You a Real Pittsburgher?* (Schumann, 1995), as well as on t-shirts, mugs, bumper stickers and

refrigerator magnets. Monophthongal /aw/ is in Labov's terms a 'stereotype': a feature of speech that is highly stigmatized and commented upon, and one that may through time fade away from the local dialect (see Labov, 1972b, 2001b). At this point, however, evidence pointing to the retreat of monophthongal /aw/ is sparse, and the feature remains central in the construction of Pittsburghese as the local dialect.

Given the salience of monophthongal /aw/ in Pittsburgh and the close connection to White speakers, how much presence does the feature have in African American speech in the city? As I have discussed in the previous chapters, African Americans do appear to exhibit some features of the Pittsburgh dialect, such as the low-back merger, which does not feature into metalinguistic discussions in the area. As a feature very much on the linguistic radar for many Pittsburghers, both White and African American, should we expect the same result for /aw/? Scholars of Pittsburgh speech have noted that monophthongal /aw/ seems to be largely absent in the speech of African Americans (Johnstone, Bhasin and Wittkofski, 2002; McElhinny, 1999), but until recently, this has not been measured. In an exploratory study of African American speech in Pittsburgh, Gooden & Eberhardt (2007) report that /aw/-monophthongization does appear to be limited among African Americans in the city. However, these findings were based on impressionistic coding, and not acoustic measurements. The current work applies the techniques of sociophonetics to the production of /aw/ by African Americans in Pittsburgh, with the goal of determining the extent to which the diphthong is fully maintained by these speakers, or whether there is any deletion of the glide among this group.

6.2 ACOUSTIC ANALYSIS OF /AW/

Erik Thomas (2002) discusses the importance of instrumental techniques for the investigation of certain sociolinguistic variables. His discussion centers on the diphthong /ai/, which has been the focus of a vast amount of research (Anderson, 2002; Childs and Mallinson, 2004; Fridland, 2003b; Schilling-Estes, 2000; Wolfram and Thomas, 2002). Thomas notes that auditory analysis may be insufficient for this variable, particularly a coding scheme that identifies only diphthongal and monophthongal pronunciations. The glide can be weakened as well, to varying extents, which the human ear may not be sensitive enough to capture. The same issues apply to the study of the diphthong /aw/, hence an acoustic analysis of this vowel is appropriate. The methods laid out in Chapter 3 were followed for the study of this variable, but the number of repetitions of a lexical item was expanded to 3.

6.2.1 Quantifying Diphthongization

As discussed in the explanation of methodology in Chapter 3, two points were selected for formant measurements, at 35ms from the onset and the offset of the vowel. The difference in formant readings between these two points, as discussed above, indicates the amount of

gliding present on the diphthong. Quantifying this movement, in order to precisely state how much gliding is present, can be done in a number of different ways.

In a study of glide absence in Creole African American English in Louisiana, Dubois and Horvath (2003) looked at the amount of gliding in 7 vowels. After taking measurements at the nuclei and glides, they calculated the degree of differentiation by subtracting the offset of F2 from its onset. Their tokens were then classified into one of two categories: tokens that showed 250 Hz or less in F2 difference were categorized as monophthongs, and tokens with more than 250 Hz were considered diphthongal. Similarly, in a study of /ai/, Fridland (2003b) made a three-way distinction, dependent on the degree of difference between the nucleus and glide: 'full' glides (300-500 Hz), 'short' glides (100-200 Hz) and 'very short' glides (under 100 Hz). Fridland does not specify whether these categories correspond to differences in F1, F2 or both. Anderson (2003) compares the amount of formant measurement in /ai/ tokens to movement in /ɑ/, based on the premise that if /ai/ is monophthongal, it will not exhibit any more movement than /ɑ/, which is generally monophthongal.[21] After taking measurements at 25ms from the onset and offset, Anderson reports "the change in Hz from midpoint to offset" (p. 154), presumably by subtracting the offset from the onset, though this methodological detail is not explicitly stated. She reports degree of differentiation for both F1 and F2 of /ai/ and /ɑ/, and deems /ai/ to be diphthongal when it shows significantly more formant movement than /ɑ/. In an earlier and smaller study of /aw/ in Pittsburgh (Eberhardt,

[21] Anderson makes the point that even though /ɑ/ is monophthongal, some formant movement is expected due to coarticulation effects.

forthcoming), I calculated the degree of differentiation by subtracting the offset from the onset of the vowels, for F1 and F2 separately.

While each of these papers certainly captures the amount of gliding present on diphthongs, they focus on only one dimension of the vowel space—F1 or F2—or they examine the two planes separately. Given that the trajectory of a diphthong involves movement on both F1 and F2, a measure of diphthongization that takes into account both dimensions together seems more appropriate. The measure of Euclidean distance offers such an assessment.

In recent sociolinguistic work, Euclidean distance has been used to measure the distance between two vowels in the vowel space (Fabricius, 2007a, 2007b, 2007c). This has also been used in some studies of vowel mergers, in demonstrating the incremental movement that two vowels make towards one another, which eventually ends in merger (e.g. Baranowski, 2006; Fogle, 2007) . Fabricius (2007b, pp. 303-304) argues that adding this distance measure into the methodology of sociophonetic research "quantifies the juxtaposition of two vowel points, a central concern for understanding changes in vowel configurations over time. It unites the two coordinates represented by F1 and F2 into a single polar representation, which captures the two-dimensionality of the (F1, F2) space in a single quantified relative position." Fabricius' work demonstrates the usefulness of Euclidean distance in identifying the relative position of two vowels in the vowel space, but the measure has also been used to determine the distance between the two target points of a single vowel, i.e., the distance between the nucleus and the glide of a diphthong. Hay and Maclagan (forthcoming) measured the amount of diphthongization to investigate the effects of /aw/-monophthongization on /r/-insertion after the vowel in New Zealand. Drager

(2008) also used Euclidean distance to calculate the amount of monophthongization, in a study of 'like' among high school girls in New Zealand.

Such work has proven that Euclidean distance is an effective measure for quantifying the relationship between two vowels in two-dimensional space, as well as for quantifying the amount of gliding present on a vowel. It eliminates the need to look separately at F1 and F2, as was done in previous studies (Anderson, 2003; Eberhardt, forthcoming), or to choose only one of the two planes to investigate (DuBois and Horvath, 2003). Thus, Euclidean distance was used in this work to calculate the amount of gliding on /aw/ among Pittsburgh African American speakers. This was achieved using the following formula:

$$\text{Distance} = \sqrt{(F1_{nuc} - F1_{gl})^2 + (F2_{nuc} - F2_{gl})^2}$$

The distances were averaged to find the mean for each speaker, and were then used as the dependent variable in regression analyses. These results are presented in the following sections.

6.3 RESULTS

Figures 6.5 through 6.8 illustrate the amount of /aw/-gliding within this community of speakers. These figures contain the averages across all measured tokens of /aw/ for each speaker, which have been normalized (see Chapter 3). Figures are grouped by age group and gender, with women on the left and men on the right. As can be seen in these vowel plots, there is no glide deletion present in Pittsburgh AAE.

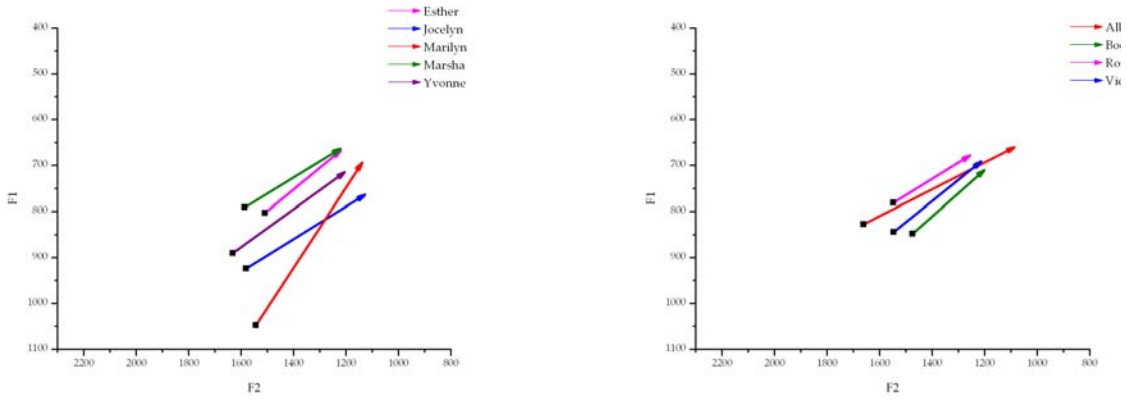


Figure 6.5 /aw/ glides in Generation A

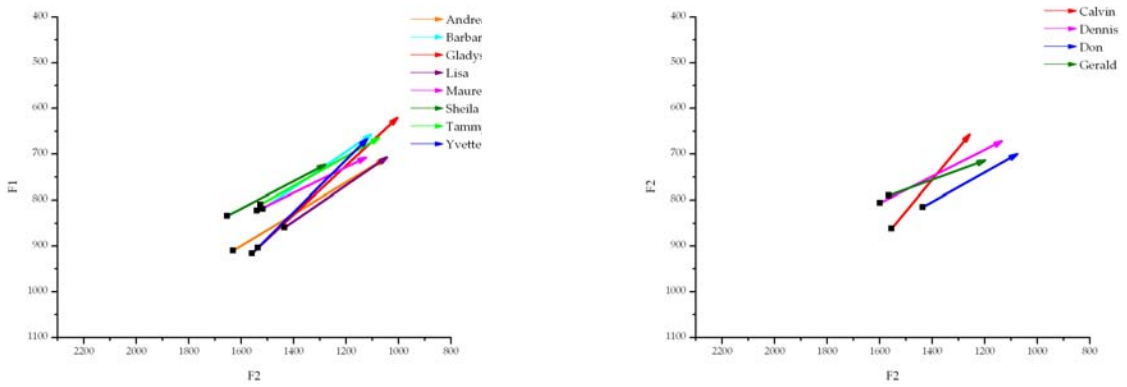


Figure 6.6 /aw/ glides in Generation B

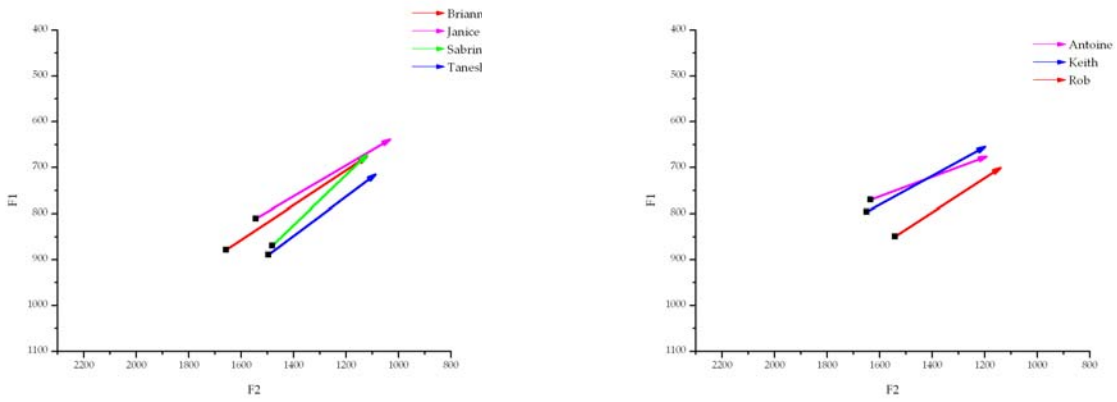


Figure 6.7 /aw/ glides in Generation C

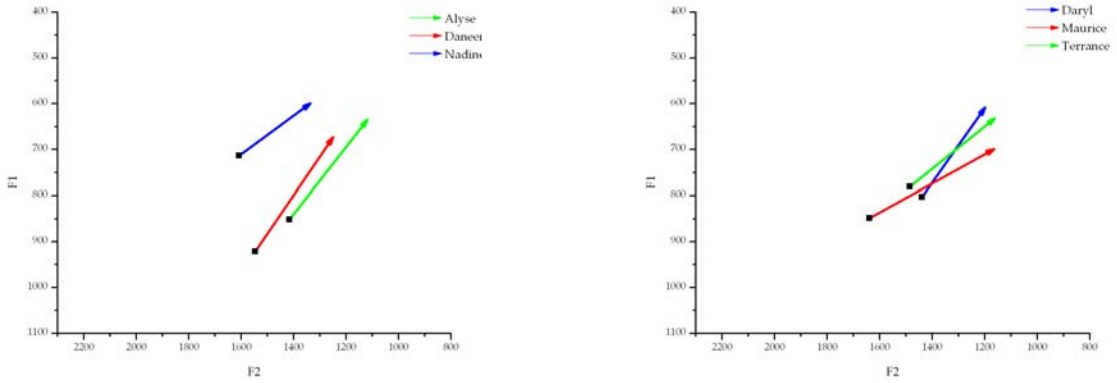


Figure 6.8 /aw/ glides in Generation D

The vowel plots in Figures 6.5 through 6.8 above, as I said before, show that there is no glide loss in /aw/ present in Pittsburgh AAE. Recall that the glide realization of /aw/ in connected speech is [o] or [ɔ] rather than [u] (Thomas, 2001). In the Figures above, no glides fall substantially short of such targets, and there certainly are no speakers who exhibit a glide barely distinguishable from the nucleus, as the example in Figure 6.4 shows. Glide *deletion* aside (I will return to a discussion of its absence in Pittsburgh AAE below), there is

variation in this sample of the extent to which /aw/ glides are full or somewhat *weakened*. The quantification of diphthongization, discussed above, allows for a detailed inspection of this variation in /aw/-gliding. This is the focus of the following section.

6.3.1 Social and Linguistic Factors

As discussed above, Euclidean distance provides a concrete measure of the differentiation between the nucleus and glide of the diphthong. Larger distances indicate more gliding, and shorter distances indicate that less formant movement is taking place through the duration of the vowel. To provide an illustration, I provide the distance measures for the examples of a diphthong and monophthong given above (Figures 6.2 and 6.4). In the case of the diphthong, the Euclidean distance is 479.296, while the monophthong is only 78.390. The average Euclidean distance for each speaker in this sample is provided below, in Table 6.1.

Table 6.1 Average Euclidean distances for /aw/ by speaker

Speaker	N	Mean	Standard Deviation
Albert T.	27	593.902	229.682
Marilyn E.	13	483.289	210.743
Booker J.	20	395.634	243.290
Esther N.	23	365.806	182.499
Victor J.	20	370.548	182.514
Rodney O.	21	334.445	196.0
Jackie F.	9	525.427	191.473
Marsha Z.	22	382.498	159.014
Evelyn D.	24	474.492	159.783
Maureen F.	16	427.163	100.147
Gladys I.	17	637.444	148.222

Andrea O.	18	633.050	248.921
Barbara E.	16	463.377	220.426
Gerald E.	16	378.915	197.379
Calvin R.	9	252.759	150.763
Dennis S.	19	497.727	162.999
Don U.	20	435.584	242.268
Tammy C.	18	494.274	205.478
Yvette W.	20	524.672	188.246
Lisa M.	20	433.094	183.191
Sheila Z.	14	389.475	169.567
Brenda A.	23	586.557	184.070
Keith E.	16	480.172	269.471
Rob Q.	18	438.835	231.200
Sabrina E.	15	453.714	150.641
Tanesha G.	18	430.073	217.186
Antoine K.	25	465.809	213.778
Janice L.	29	556.382	221.989
Alyse V.	18	347.582	185.356
Daryl Z.	17	349.988	175.229
Daneen Y.	8	426.262	105.465
Nadine B.	14	333.981	153.261
Maurice P.	15	486.479	259.848
Terrance H.	14	363.632	199.955

Table 6.1 illustrates that the Euclidean distances for /aw/ for this community are clearly categorizable as diphthongal. Recall that the diphthongal example given in Figure 6.2 had a Euclidean distance of almost 480 Hz, and the mean value across all speakers in the sample is 447.440 Hz. However, as the Table and plots above illustrate (Figures 6.5-6.8), some speakers exhibit longer glides on average than others. In order to determine what factors have an effect on the amount of gliding, I ran a regression analysis, with Euclidean distance as the dependent variable.

The social factors of interest are those that are standard to most sociolinguistic analyses: gender, age, and social class. The linguistic environment surrounding /aw/

tokens is another important element to control for in the analysis. As noted above, the segment that follows /aw/ exerts the most influence on the realization of the glide. Tokens were coded for whether the following segment was voiced or voiceless, nasal or oral, and word-final or word-internal. Tokens that preceded /r/ or /l/ were excluded, but are discussed below in §6.4. All speakers had a mix of tokens that were word-final and word-internal, and also showed balance in the following segment in closed syllables, with some nasal and some oral segments, and for most speakers, there were some voiced and some voiceless consonants following /aw/ tokens. Six speakers (Booker, Keith, Maurice, Tammy, Tanesha and Terrance), however, did not produce any tokens of /aw/ before voiced segments that were able to be included in the acoustic analysis (not including nasals). If one considers the distribution of words in English that contain /aw/ (e.g., *how, now, out, about, down, house*), this is not altogether surprising. This methodological flaw aside, the bulk of speakers showed distribution across the phonetic environments of interest.

Below I present the results of the multiple regression analysis used to determine what social factors (age, gender and social class) and linguistic factors (nasal/oral, voiced/voiceless, word-final/word-internal) exert the greatest effects on the distance between the nucleus and glide of /aw/ in this speech community. These results are shown in Table 6.2.

Table 6.2 Regression of /aw/ Euclidean distance on social and linguistic factors

	Coefficient
(Constant)	630.102

SOCIAL FACTORS	
Age	.002
Gender	-41.171*
Lower	-84.289*
Lower Middle	20.337
Upper Middle	183.162***
LINGUISTIC FACTORS	
Following Nasal	-40.671
Following Voicing	3.654
Open/Closed	-156.208***

*p<.05
**p<.01
***p<.0005

The results of the regression analysis reveal that only one linguistic factor has a highly significant effect (p<.0005) on the distance between the nucleus and glide of /aw/—whether the vowel falls at the end of the word or is closed by a following segment. In accordance with other work on /aw/ glide variation (e.g. Lowman, 1936; Thomas, 2001), these results indicate that when /aw/ appears word-finally, the glide is less likely to be weakened or lowered; if the syllable containing /aw/ is closed, the nucleus-glide distance reduces by 156 Hz, all other things being equal. The voicing and nasality of the following segment seems not to exert a significant effect on in this community (p=.896, p=.164, respectively), even though elsewhere, these are significant variables affecting /aw/-gliding (Thomas, 2001).

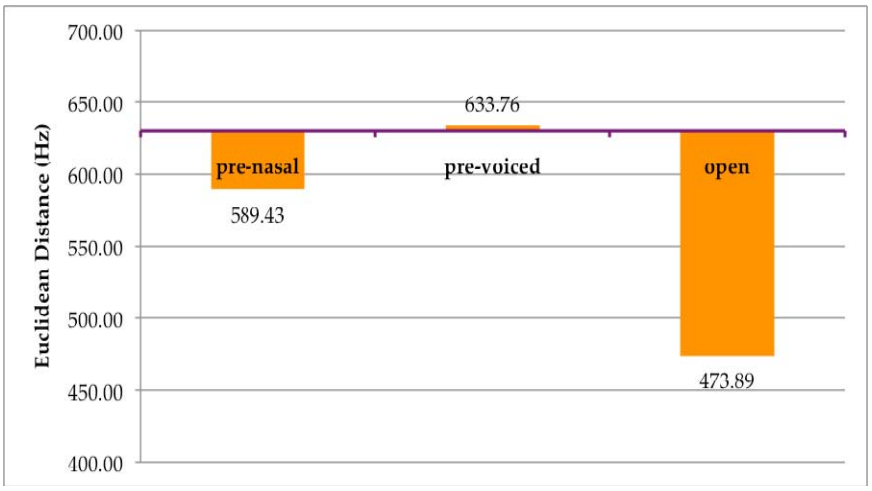


Figure 6.9 Effect of following segment on Euclidean Distance

Not surprisingly given the vowel plots in Figures 6.5-6.8 above, age is not selected as a significant factor in the regression (p=.997). While there is some indication that /aw/-monophthongization is receding in White speech in the city (Kiesling and Wisnosky, 2003), glide length in /aw/ appears to be stable in African American speech in the region. In contrast, both gender and social class do have significant effects on /aw/-gliding. However, even though gender was returned as significant in the regression (p=.017), the coefficient is not substantial. Women were selected as the reference group; therefore, the coefficient indicates, in effect, that being a man reduces the Euclidean distance by just over 40 Hz. This is not likely to be a salient difference, as 40 Hz may not be a perceptible difference. The effects of social class, on the other hand, are somewhat more informative. The coefficients indicate linearity in /aw/-gliding with respect to social class, when all other variables are held constant. The working class was selected as the reference group in this case, so the coefficients and significance levels for the social classes in Table 6.2 provide information about what effect membership in those classes has, while the constant indicates

the Euclidean distance for the working class group. The regression shows that there is no significant difference between the working class and the lower middle class (p=.262). However, being in the lower class reduces the Euclidean distance on /aw/ by nearly 85 Hz (p=.031). Being in the upper middle class has a highly significant effect on Euclidean distance (p<.0005), increasing this measure by 183.162 Hz. These results are also shown in the graph below.

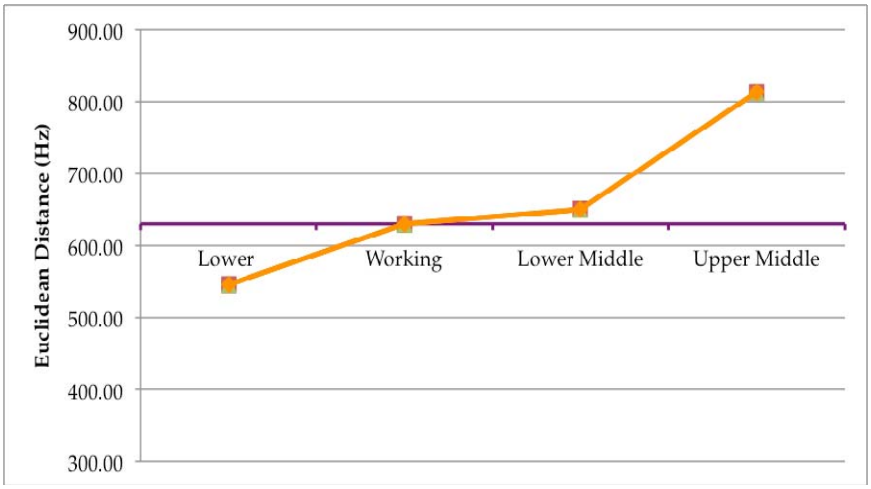


Figure 6.10 Effects of social class on Euclidean Distance

However, we should approach this last result with some caution, because, as the reader may recall, only one speaker, Gladys I., is categorized as upper-middle class in this sample. That means that the coefficient for distance corresponds only to her speech data, which may or may not be representative of other upper middle class African Americans in the region. Because she is the only speaker in this group, I ran another regression, folding her into the Lower Middle Class group. The results for social factors from this regression are below. As

can be seen there, the lower class group still remains significantly different from the working class group. The middle class (which now includes both lower middle speakers and the one upper middle class speaker) is not significantly different from the working class. The coefficient is very slightly higher than for the lower middle class in the previous regression, though 10 Hz is not a substantial difference. However, in the previous regression, the *p*-value for the lower middle class was .268; once the upper middle class speaker was included in that group, the *p*-value comes much closer to significance, although still does not reach it (.068). Only data from other African American Pittsburghers in the upper middle class will determine how generalizable this result is. Nevertheless, the results of this regression point to a definite trend in the community, namely that the higher African American Pittsburghers are in the social class order, the more differentiation there is between the nucleus and glide of /aw/ productions.

	Coefficient
(Constant)	621.966
SOCIAL FACTORS	
Age	.143
Gender	-50.164*
Lower	-79.942*
Middle	32.565
	*p<.05

To summarize the results of this regression, it appears that only one linguistic factor (whether or not /aw/ is word-final), and two social factors, gender and social class, exert

an effect on glide weakening in this community. But the important point to take away from this section is that answering the research question posed above, Do African Americans in Pittsburgh exhibit *monophthongal* pronunciations of /aw/, the answer is negative. While there is indeed variation in the length of the glide, with some productions certainly weaker than others, weakened glides in /aw/ are not socially meaningful variants—it is only monophthongal pronunciations that receive social evaluation and commentary. Impressionistically, there is a certain degree of glide-deletion that must take place before /aw/ is perceived as monophthongal. What this threshold is has yet to be determined, and falls outside of the scope of this thesis, but is an area for future work to discover. In the sections that follow, I embark on a qualitative explanation for the absence of this local feature (monophthongal realizations of /aw/) in this speech community. But before that, I turn to the previously excluded tokens of /aw/—those that preceded a liquid (/r/ or /l/), as these environments somewhat complicate the results discussed above.

6.4 /AW/ BEFORE LIQUIDS

Tokens of /aw/ that preceded a liquid segment, i.e., either an /r/ or an /l/, were not included in the analysis above, due to the substantial effects that these consonants exert on adjacent vowels. However, it is important to consider them separately, because of their standing in Pittsburgh speech; specifically, /aw/ (and also /ai/) has a strong tendency to

monophthongized when it precedes a liquid. Bonnie McElhinny (1999, p. 189) provides the following example of this feature from her fieldwork with police officers in Pittsburgh:

> "When I elicited tokens of [the diphthong /ai/ before /l/] from one Pittsburgh speaker, she first pronounced the word *file* as [fayl], and then said, "But I'm pronouncing it that way cause I'm paying attention, normally I'd say [fa:l]. Yeah, just like *fowl* [she pronounced it as [fa:l]], you know, the bird."

In my own experience, I have heard a similar narrative from more than one person: a non-native Pittsburgher is talking with a native Pittsburgher, and the non-native Pittsburgher has a great deal of trouble figuring out whether the Pittsburgh native is talking about *bathroom towels* or *bathroom tiles*. Not only does the local phonology cause this confusion (so that both are pronounced [tɑ:l]), but the context does not either provide sufficient information for the two to be distinguished by the interlocutor not native to Pittsburgh. Additionally, in my experience, it is not uncommon for White Pittsburgh speakers to monophthongize /aw/ before /r/ and /l/, even if they do not delete the glide elsewhere. We have already seen that /aw/-monophthongization does not occur in African American speech in the city. On the other hand, there is no evidence that preliquid /aw/ carries the same social meanings that are attached to/aw/-monophthongization elsewhere. The following section tests whether /aw/ before /r/ and /l/ is treated differently by African Americans in the city, and thus subject to monophthongization, even if the vowel in other environments is not.

6.4.1 Analysis of pre-liquid /aw/

In previous sections, I have argued that impressionistic or auditory analyses may be insufficient for the investigation of gliding on diphthongs (see also Thomas, 2002). In the analysis of pre-liquid /aw/, however, particularly in the case of following /l/, acoustic analysis may be misleading. Take for example the following spectrogram, which represents the production of *towel* and *tile* during a word list task. Notice that in both words, the slope of F2 is downwards, indicating that the formant trajectory is towards the high back corner of the vowel envelope, in the space of /u/. While this is the expected direction of movement for /aw/, it is opposite of the expected direction for /ai/, which should show a rising F2, towards /i/. This is the effect of the velar /l/ that closes the syllable in both words, causing a falling F2. Measurements will indicate formant movement, which could be interpreted as gliding on the diphthong. However, upon listening to the words, it is clear that both are monophthongal, produced [tɑ:l].

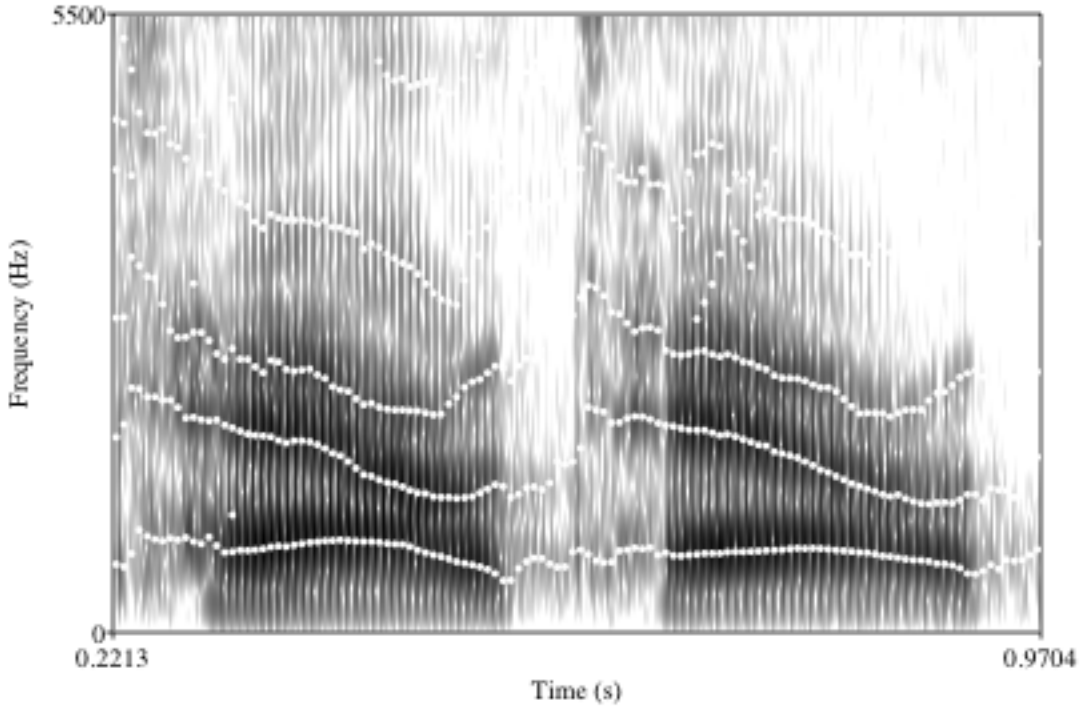


Figure 6.11 Spectrogram of /awl/ and /ail/

The spectrogram above also reveals that both productions are monosyllabic. As Veatch (1991) points out, /l/ and /r/ are disallowed in the same syllable with a glide. In his model of syllable structure, this is explained by the fact that /l/ and /r/ occupy his proposed glide node, which cannot bear both segments (i.e. the liquid and the glide of the diphthong). Therefore, words like *fire*, *towel*, *flower*, etc. can only be monosyllabic if the diphthong does not contain a glide; otherwise, they are broken up into two syllables. This can be seen in a comparison of Figures 6.12 (Daryl's production of *shower* during the interview) and 6.13 (Keith's reading of *tower* during the word list), which depict a monophthongal and diphthongal production of /awr/, respectively. Figure 6.12 is the /awr/ string in *shower*, produced by Terrance during the interview. Figure 6.13 shows

Keith's production of *tower* during the word list task. In the analysis to follow, therefore, I use auditory methods to investigate whether /aw/ before /r/ and /l/ is monophthongal in the African American community, or whether the glide is retained, paralleling the vowel's realization in other environments.

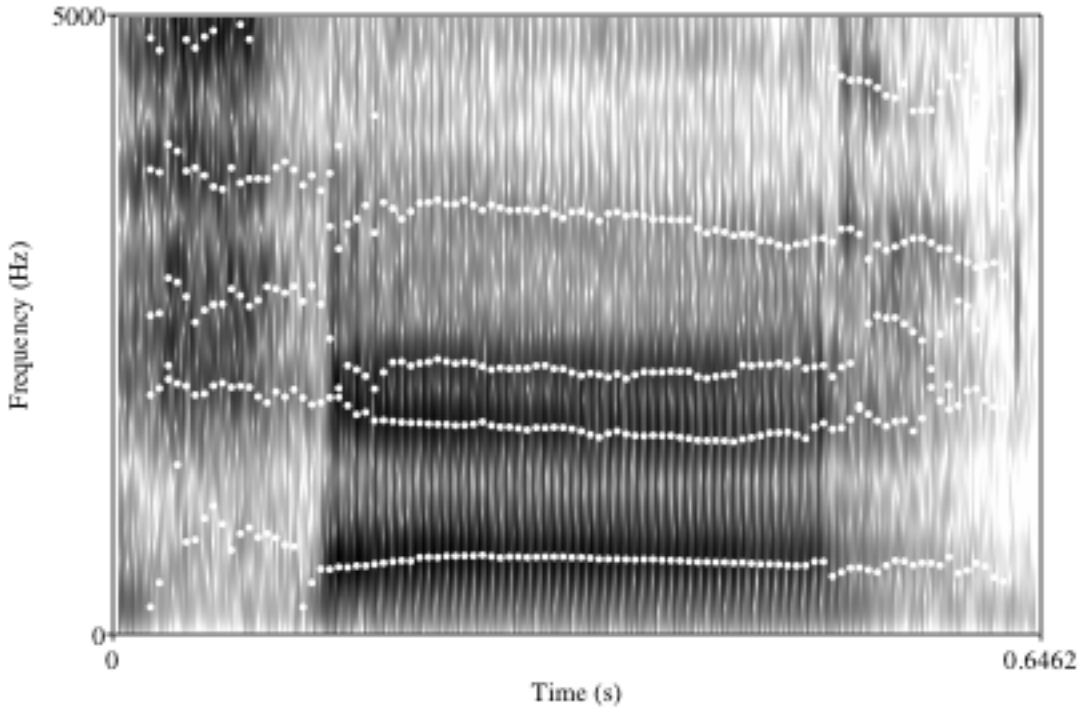


Figure 6.12 Spectrogram of monophthongal /awr/

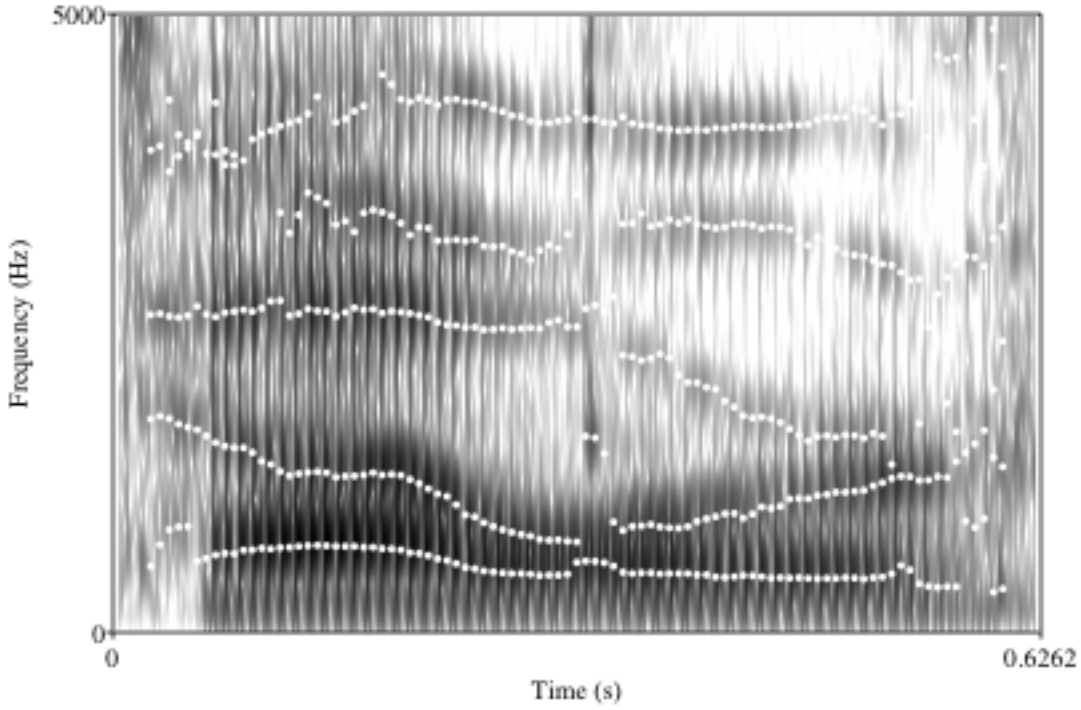


Figure 6.13 Spectrogram of diphthongal /awr/

For this analysis, the restrictions on token selection laid out above are largely removed. The main criterion that I had for the selection of tokens was that the vowel be in a stressed syllable. Therefore, virtually every instance of /awr/ or /awl/ was coded as monophthongal or diphthongal. Unfortunately, these VC strings do not occur very frequently in spontaneous speech (the pronoun *our* was excluded, because of the nearly categorical pronunciation as [ɑr] in North American speech). In particular, /aw/ followed by /l/ is particularly scarce. The vowel before /r/ appears with somewhat more frequency, in common words like *hour* and *power*. I therefore supplemented the interview data with productions of *towel* and *tower*, both of which appeared on the word list that a portion of the speakers read at the end of the interview. This enabled the inclusion of all 34

speakers in the analysis of pre-liquid /aw/. Tokens were coded for whether they were monophthongal or diphthongal, the preceding and following environment, and in the case of a following /l/, whether or not the /l/ was vocalized. The data were then run through Varbrul, the software package for variable rule analysis, used widely in sociolinguistic investigations. Varbrul performs a multiple regression analysis, but it works with categorical, rather than continuous data. Similar to regression coefficients, Varbrul provides weightings, which indicate the magnitude of the effect of each factor on the dependent variable, with higher figures having a greater effect. Varbrul analysis allows the researcher to determine which social and linguistic factors condition the variation observed in a speech community.

The factor groups considered for each token of a preliquid /aw/ were the speech context, following liquid, and three social factors: gender, age and social class. The speech context factor group contained two factors, with tokens divided between those produced spontaneously by the speaker during the conversational portions of the interview (Interview), and those produced during the word list task (Word List), administered at the end of the interview, and which 19 speakers participated in. The word list contained two instances of pre-liquid /aw/: *tower* and *towel*. Because this is a task with heightened awareness of speech, I predicted that the tokens produced spontaneously, in the Interview factor, would show greater likelihood for the monophthongal variant of /aw/ to be realized. The second factor group was Following Liquid, which contained two factors, /r/ and /l/, depending on which liquid segment followed the token of /aw/. Scholarship on the interaction between monophthongization and the vocalization of /l/ (McElhinny, 1999; Veatch, 1991) suggests that /l/-vocalization may trigger monophthongization of /aw/ and

also /ai/. McElhinny (1993) found frequent /l/-vocalization among her African American speakers, at rates higher than the White speakers in her study. I have also observed /l/-vocalization among the speakers in this study, although I have not carried out a full analysis of this variable for this community. McElhinny (1999) makes the point, however, that because monophthongization is observed also before /r/ in Pittsburgh, it is not clear what is driving the process. While this dissertation does not allow for a full fleshing out of the issues involved in the interaction between /aw/ and following /l/, we can conjecture that an /l/ following /aw/ will more strongly favor monophthongization than /r/. For the three social factor groups included, the factors were: Male or Female (Gender), Lower, Working, Middle or Upper-Middle (Social Class), and Generation A, B, C or D (Age). The details of these social classifications for each speaker can be found in Appendix A. While the regression analysis discussed in Chapter 5 included the speakers' actual ages, in this analysis I was forced to use the generational groupings discussed in Chapter 3, because Varbrul works only with categorical, and not continuous data. Predictions about how some of these social categories would affect the monophthongization of /aw/ were more difficult to make. In terms of social class, I may guess that belonging to a higher social class will disfavor the monophthongal variant, if we assume that such speakers have a tendency to use more 'standard' language than those in the lower classes. The same can be said for the effect of gender on this variable; many studies have shown that women tend to avoid variants that are marked as 'nonstandard', particularly when these variants are stigmatized (Labov, 2001b). As mentioned above, in the case of pre-liquid /aw/ in Pittsburgh, however, there is no evidence that I am aware of that this is a stigmatized or even socially-marked variable, in which case we might find that gender has little or no effect on it.

Moreover, as discussed above, it is not clear that pre-liquid /aw/ is associated with Whites in Pittsburgh in the same way that it is in other environments for African American residents. Thus, while predictions can be made about the effects of social class and gender with respect to this variable, they are merely tentative. Finally, in terms of age, there is no evidence to suggest that pre-liquid /aw/ monophthongization in Pittsburgh is either age-graded or undergoing change. Therefore, I expect to see little or no effect coming from this factor group.

Before Varbrul proceeds with the regression analysis, the program must first identify any 'knockouts' in the data—any factors that show categorical behavior. Within the current data, there was one knockout factor: upper middle class. Tokens of pre-liquid /aw/ produced by an upper-middle class speaker were categorically diphthongal. Only one speaker in this sample, Gladys, falls into the upper-middle class category. As with the regression analysis on Euclidean Distance above, I included Gladys in the Lower Middle class group to proceed with the analysis.

The input variable for the current analysis was 'monophthong'; therefore, the probability figures and percentages displayed correspond to the amount of monophthongization observed for each category. In effect, these figures indicate the likelihood of the monophthongal variant of /aw/ being used for that factor. During its analysis, Varbrul builds the best model, selecting only those inputted factors that significantly affect the likelihood that a particular variant will be used. Table 6.3 provides the results for the current analysis. Values in the 'p' column give the probability for each factor. Probabilities above .5 indicate that the factor favors the input variable, while those below .5 disfavor it. The 'percentage' column indicates the percentage of total tokens that

were labeled monophthongal in that factor, and the 'n' column indicates the total number of tokens in the category.

Table 6.3 Varbrul analysis of preliquid /aw/

	p	%	n
SPEECH CONTEXT			
Interview	.746	61.9	97
Word List	.060	39.5	38
FOLLOWING LIQUID			
/r/	.301	49.1	108
/l/	.967	81.5	27
SOCIAL CLASS			
Lower	.625	60.0	10
Working	.624	64.6	82
Middle	.253	37.2	43
INPUT/TOTAL	**.565**	**55.6**	**135**

p<.05

The results in Table 6.3 demonstrate several things about this auditory analysis of /aw/ appearing before liquid segments. The first thing to point out is that not all factor groups were selected by the program for inclusion in the model. Specifically, neither gender nor age appears in the best model selected by Varbrul. The single social factor group that remains is social class, with three factors (recall that the middle class category includes both lower and upper middle class speakers, since the one upper-middle speaker produced only diphthongal tokens). Being in the middle class in this speech community shows a low probability for the monophthongal variant to surface (.253). The working and lower classes show somewhat higher probabilities (.624 and .625, respectively), but neither strongly favors the monophthongal variant.

The remaining factor groups, Speech Context and Following Liquid, show much more differentiation between the factors. The speech context, as discussed above, contained two factors: interview and word list. As we would expect, tokens produced during the word list have a much lower probability to be monophthongized than those produced spontaneously. However, an additional point must be made about these tokens, which is not revealed by the analysis. During the word list task, speakers were asked to read two words that contained /aw/ before a liquid: *towel* and *tower*. In the production of *tower* during the task, only one speaker, Janice, produced a monophthong; all remaining 18 speakers produced *tower* as a diphthong. In the production of *towel*, on the other hand, results showed a different trend. 5 of the 19 speakers produced *towel* as a diphthong, while the remaining 14 speakers produced a monophthong. And 1 of these 5 speakers (Albert) produced a diphthong in the first production, but a monophthong when he repeated it. It appears, then, that not only does pre-liquid /aw/ behave quite differently from /aw/ in other environments in African American speech in Pittsburgh, but the presence of the /l/ has a particularly strong effect on the vowel, eroding the strong tendency towards diphthongization during the metalinguistic activity of the word list task. That following /l/ increases the likelihood that a monophthongal variant will surface is confirmed by the final factor group selected by Varbrul. Table 6.3 reveals that overall, when /l/ follows /aw/, the likelihood for monophthongization is substantially greater than when /r/ is the final segment. This is illustrated in Figure 6.14, which shows the results of the interaction between the speech context and the following liquid. The y-axis provides the probability weights given by Varbrul. One factor in the interaction was categorical—all tokens of /awl/ produced during the interview were monophthongal. Therefore, these tokens were

not included in the Varbrul analysis, but I have included them in the Figure, with a probability of 1, indicating the categorical status of this factor. Figure 6.14 shows a parallel shift in style in the Labovian sense (Labov, 2001c), as speakers move from more casual speech in the interview to more careful speech during the word list. The vowel before /r/ is much more sensitive to this change in speech setting, and thus we see a steeper slope as speakers move from interview to word list with respect to monophthongization. In both speech settings, the probabilities are substantially higher when the vowel is followed by /l/.

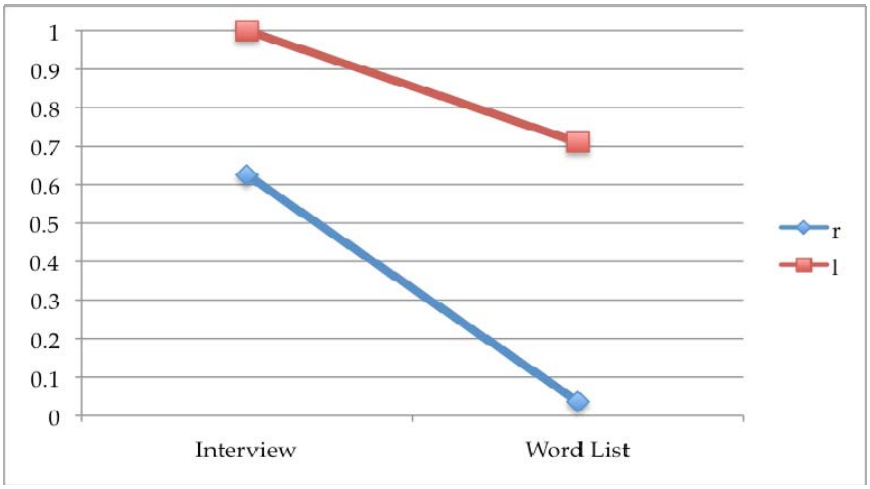


Figure 6.14 Interaction of speech context and following liquid

The analysis of /aw/ before /r/ and /l/ in this section has answered some questions and raised others. The largest point that can be taken away from the analysis is that very much unlike /aw/ before most segments, /aw/ before liquids in Pittsburgh AAE is commonly monophthongized. It appears, then, that /awr/ and /awl/ do not carry the same meanings for African Americans in Pittsburgh that /aw/ elsewhere does (these will be discussed in more detail below). The social constraints that discourage monophthongal

/aw/ in most environments appear to be lifted when the vowel is followed by a liquid. Which raises the question, what is triggering this monophthongization? Veatch (1991) proposes that in dialects which exhibit vocalization of /r/ (e.g. New York City, Boston and AAE) and /l/ (e.g. Pittsburgh, Philadelphia and AAE), the monophthongization of segments like /aw/and /ai/ is triggered. The reason for this is the presence of a glide node, which Veatch argues is contained within the nucleus of the syllable. The glide node can contain only one segment, and because /r/ and /l/ are glides according to Veatch, both co-occur in the same syllable. This explains the statement above, that all monophthongal pronunciations of pre-liquid /aw/ contain only one syllable, while diphthongal pronunciations are spread over two syllables. Veatch (p. 66) writes,

> "when a phonetic change occurs so that a post-vocalic consonant becomes vocalic, and is phonologically reanalysed as a glide, all the contrasts among vowels that precede the new glide, which depended formerly on the presence of glide features to distinguish them, must either be re-analysed, or lost, depending on the phonetic forms of the relevant sound classes."

Veatch's explanation accounts for, for example, the merging of words such as *source* and *sauce* in dialects with /r/-vocalization, like New York City. It also explains the merging of words like *towel* and *tile* in Pittsburgh, both of which are often monophthongized and realized as [tɑ:l]. Under Veatch's model, this monophthongization is triggered by /l/-vocalization, a feature found frequently in Pittsburgh speech, and one cited for African American speech as well (Green, 2002; McElhinny, 1993; Rickford, 1999; Thomas, 2007). Veatch proposes that a number of dialectal features, all of which occur in Pittsburgh,

explained under this explanation: /l/-vocalization, laxing of tense vowels before /l/ and glide-loss before /l/. As he elucidates:

> "/l/ shifts into the glide slot from its former coda position…At the same time, the glide slot into which the /l/ has moved had formerly represented the long-short distinction; if /l/ now occupies the post-vocalic glide slot next to formerly long as well as short nuclei, the formal distinction between the long and short vowels disappears; this accounts for the long/short mergers. The same logic accounts for the coalescence of glides with the realization of /l/" (Veatch, 1991, p. 68).

McElhinny's (1993, 1999) investigation of two features in Pittsburgh speech—/l/-vocalization and high tense vowel laxing—lends support to Veatch's analysis. McElhinny found that /l/-vocalization strongly favored the laxing of /i/ and /u/. Further support for Veatch's model may come from the fact that /aw/ and /ai/ have a strong tendency to monophthongize before /l/ in Pittsburgh, as noted by several researchers e.g. (Hankey, 1972; Kurath and McDavid, 1961), and as confirmed in the analysis presented above.

Although McElhinny does not include /aw/ in her analysis, she suggests that monophthongization of /aw/ and /ai/ may be the cause of syllable restructuring, rather than the vocalization of /l/. She marshals two strong pieces of evidence that lead her to this conclusion. First, she writes, monophthongal /aw/ appears to have been a linguistic feature in the region prior to /l/-vocalization. This claim comes from records of the *Linguistic Atlas of the Mid-Atlantic States*, which do not report /l/-vocalization (Ash, 1992). Secondly, the fact that /aw/-monophthongization also occurs before other segments in Pittsburgh, and so is not limited to pre-/l/ environments, also leads her to believe that it is monophthongization triggering syllable restructuring, and not /l/-vocalization that is at the root of this process. She goes on to write,

> "Other complications arise from the observation that, among African Americans in Pittsburgh, (l), (ay), and (i) are found as sociolinguistic variables, but (aw) and (u) are not. If the vocalization of /l/ is conditioning the laxing of /i/ and monophthongization of /ay/, it becomes difficult to explain why the same is not true of /aw/ and /u/" (McElhinny, 1999, p. 190).

McElhinny's analysis, as discussed above, revealed that African Americans in her sample did not exhibit /ul/-laxing (I did not observe this variant in my data either). However, the statement that /aw/ is not monophthongized among African Americans should be revised to exclude the pre-liquid condition. In fact, the current analysis has shown that African Americans in Pittsburgh lose the glide before liquids, and that when the vowel appears before /l/, the likelihood for this to happen increases. Nevertheless, I second McElhinny's skepticism that /l/-vocalization is driving the process of /aw/-monophthongization, both for the reasons she discusses (outlined above), and also based on the fact that other areas which also vocalize /l/, such as Philadelphia, do not (as far as I am aware) exhibit /aw/ and /ai/ monophthongization. As McElhinny also points out, further investigation of these processes should address whether these processes are necessarily related, in the same way that variables are related to one another in chain shifts. While a full analysis of the interaction between these variables and the implications for the phonological system in Pittsburgh is not possible here, it is clear that this is an area fruitful for future investigations. What this analysis has established firmly is that preliquid /aw/ must be treated altogether separately from /aw/ in other environments in Pittsburgh, for the reasons I have been discussing here, as well as those I will address below, having to do with the social meanings of monophthongal /aw/ for African American Pittsburghers.

6.5 THE SOCIAL MEANINGS OF MONOPHTHONGAL /AW/

There is not a single explanation for why monophthongal /aw/ is absent in African American speech in Pittsburgh. In this section, I will discuss three factors that contribute to the lack of alignment by African Americans to this local feature: the salience of monophthongal /aw/, its association with local identity, and its indexicality of Whiteness. It is the combination of these features together that fully account for the non-use of monophthongal /aw/ by Pittsburgh African Americans.

6.5.1 Salience

The salience of monophthongal /aw/ in Pittsburgh has been discussed at length in studies of the local dialect (Gagnon, 1999; Johnstone, Andrus and Danielson, 2006; Johnstone, Bhasin and Wittkofski, 2002; Kiesling and Wisnosky, 2003). This feature is a strong stereotype of local speech in the region, and is by far the most frequently occurring feature in discussions and representations of local speech. In spellings such as *dahn* 'down' and *hahs* 'house' to represent local pronunciation, monophthongal /aw/ surfaces on local artifacts such as mugs, t-shirts, and postcards. Johnstone, Bhasin and Wittkofski (2002, p. 158) write,

> "When Pittsburghers talk informally about what characterizes "Pittsburghese," they tend to mention the syntactic and morphological peculiarities that come to the fore when people are taught to write in standard English, rather than features of the local accent…In written representations of local speech, however, monophthongal /aw/ plays a dominant role. Monophthongal /aw/, especially but not exclusively in the word *downtown* (almost invariably spelled "dahntahn"), is consistently depicted as one of the most typical features of the local accent."

The authors find, in a study of these written representations of monophthongal /aw/, that the feature appears three times more frequently than any other phonological feature. They conclude that "Pittsburghers thus tell each other over and over that "real" Pittsburghers say things like "dahntahn"" (p. 160).

Is the fact that monophthongal /aw/ has the status of a linguistic stereotype in Pittsburgh explanation for its absence in African American English in the city? Levels of salience and presence in the social consciousness would explain the absence of monophthongal /aw/ as well as the presence of the low-back merger in Pittsburgh AAE, as the latter is not subject to social evaluation and appears in Pittsburgh AAE (see Chapter 5), while the former has a high level of social awareness and is absent. As I discussed in Chapter 5, however, the lack of social salience attached to the merging of the low-back vowels is only a partial explanation for why the merger appears in AAE in the region. I argued there that other factors, such as the linguistic properties of mergers and the historical contact between Whites and African Americans in the city, together with the lack of social evaluation, provide an account of the presence of merger in Pittsburgh AAE. Furthermore, other features shared by White and African American Pittsburghers that are in the social consciousness rule out salience as the sole explanation of monophthongal /aw/ absence. One feature belonging to this category that stands out is the laxing of /i/ before /l/, making words such as *peel* and *pill* sound identical. While a thorough analysis of this feature has not been carried out in this dissertation, the vowel systems in Chapter 4 indicated that African American speakers in Pittsburgh tend to have this feature; at the same time, it is a feature closely identified with local speech in the White community. This

feature does play a role in representations of local speech, most commonly occurring in the name of the local professional football team, *the Steelers*, written as *the Stillers*. In fact, Johnstone et al. (2002) find that this feature is the third most commonly occurring in written representations of the local dialect (preceded by monophthongal /aw/ and alveolar pronunciations of the morpheme –*ing*). However, this feature is found in African American speech throughout the country (Labov, Ash and Boberg, 2006; Thomas, 2007), and so for African American speakers may be indexical of ethnicity and not localness. As mentioned above, however, in several other areas, scholars have pointed out that the diphthong /aw/ tends to lack a glide in African American speech (Taylor, 2008; Thomas, 2003). This is illustrated in Figure 6.15 below, from Thomas (2003, p. 155), which shows the vowel space of an African American man born in 1920 from "Springville" Texas. The glide for /aw/ (labeled 'au' in the plot) barely extends past the point of the nucleus. So the presence of a feature in African American speech elsewhere in the country may not have much bearing on how it is interpreted and what social meanings are assigned to it locally.

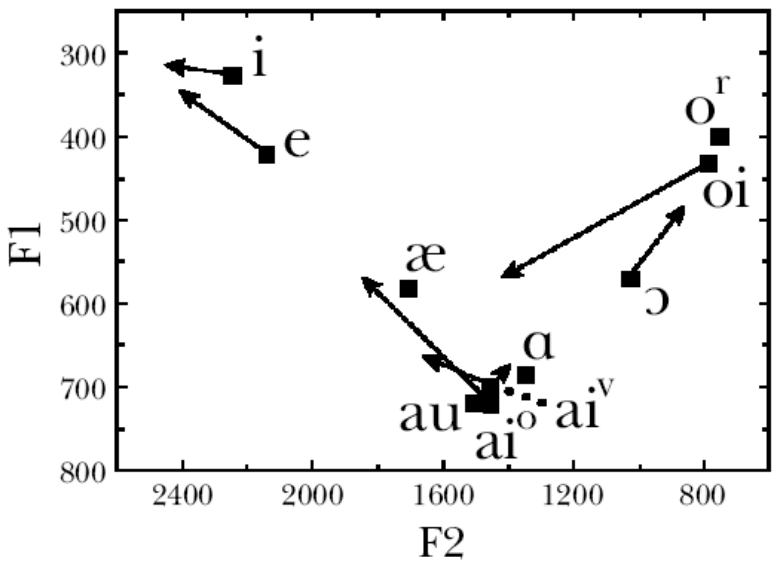


Figure 6.15 Vowel plot of an African American man from "Springville" Texas, born 1921

Furthermore, other studies of regional African American English have found that highly salient local features—even those that are stereotypes in Labov's terminology, which monophthongal /aw/ in Pittsburgh can be argued to be—are not necessarily absent from AAE in those areas. Becker and Coggshall (forthcoming), for example, investigated pronunciation of /ɔ/ in New York City in White and African American speech. This is a well-known feature of New York City English, identified as a stereotype in Labov's (1966) seminal study of speech in the city. The local realization of this vowel, in words like *coffee* and *dog*, is a raised nucleus with an in- and down-moving glide. Becker and Coggshall (forthcoming) found that /ɔ/ indeed appears to be raised in African American speech in New York City, with F1 values well under 700 Hz (which *The Atlas of North American English* identifies as the value of raised /ɔ/). Furthermore, the authors find no significant

differences between Whites and African Americans in F1 values for /ɔ/. Interestingly, this feature of New York City speech seems to be receding in White speech in the region, with younger White speakers exhibiting F1 values approaching 700 Hz. As Labov predicts, these speakers appear to be losing a feature that has become stereotypical of New York City speech. African Americans in the city, on the other hand, are not losing the feature, despite the high salience of the feature both inside the city and elsewhere. Based on the work of Becker and Coggshall, we can venture that while a raised and diphthongal /ɔ/ in New York City may be salient, that salience does not seem to threaten a sense of African American identity for these residents. Instead, Becker and Coggshall point out that New York City African Americans choose selectively (not necessarily consciously) from a range of regional and ethnic features (i.e., those associated with AAE, such as glide-deletion in pre-voiceless /ai/). Indeed, the work of Becker and Coggshall, as well as of other scholars working on regional AAE and local phonology (e.g. Childs and Mallinson, 2004), mirror the overall findings of the current thesis—we find presence of some features of local phonology, and absence of others. But as I have noted above, salience does not seem to be a sufficient explanation for these findings, and this argument is supported by the data provided in Becker and Coggshall (forthcoming). An alternative explanation is that in Pittsburgh, monophthongal /aw/ is not only salient but also strongly indexes a specific social identity—the White Pittsburgher. The close association between place and race, paired with the salience of monophthongal /aw/, provide a fuller explanation of its absence in Pittsburgh AAE.

6.5.2 Language and Place

The discussion above focused on the social polarization of ethnic groups as an explanation for the absence of monophthongal /aw/ in Pittsburgh AAE. However, ethnic identity provides only a partial explanation for this linguistic finding in the city. It is not only the fact that monophthongal /aw/ is salient, nor is it only the fact that it is associated with Whites (which I elaborate on below). Avoidance of this feature of White Pittsburgh speech also has much to do with the fact that it is a symbol of Pittsburghese: the local dialect linked explicitly to the place of Pittsburgh through its name (Johnstone, Andrus and Danielson, 2006). A central meaning of monophthongal /aw/ for African Americans is place—and place for local African Americans has highly negative associations.

The local dialect 'Pittsburghese' comprises phonological, lexical and syntactic items, some of which are indeed local, in the sense that they do not occur elsewhere, but others of which do appear in regions outside of western Pennsylvania (see also Johnstone, Andrus and Danielson, 2006; Johnstone, Bhasin and Wittkofski, 2002). Pittsburghese has become heavily commodified; representations of the dialect appear frequently on t-shirts, mugs, refrigerator magnets and postcards, and are sold in places alongside other items marketed towards tourists. Features of the dialect have also made their way into the public realm in other ways; for example, former mayor Bob O'Connor's campaign for a citywide clean-up was dubbed "Redd Up Pittsburgh", *redd up* being a local term for 'clean up'. As mentioned above, there is a great deal of interest in what are perceived to be uniquely local ways of speaking. In addition to the types of souvenirs mentioned above, as Johnstone et al. (2006)

note, Sam McCool's (1982) popular book on the dialect, *How to Speak Like a Pittsburgher,* has been in print for over 25 years.

Johnstone, Andrus and Danielson (2006) discuss the ways in which Pittsburghese and its associated features have become intricately linked to place. Monophthongal /aw/ becomes the focus of this work, because, as mentioned above, the feature is emblematic of the local dialect. As the authors discuss, the connection between dialect and place in Pittsburgh is achieved in part through the name Pittsburghese, the frequent presentation of features overlaid on the city's skyline, and the fact that Pittsburghese items are often sold alongside other souvenirs of the city. The authors show that there has been an evolution of social meaning of the dialect, as it has become *enregistered* (Agha, 2003, 2007) as a recognizable, socially-marked way of speaking; in other words, Pittsburghese did not always index place. Johnstone and colleagues trace the shifts in social meaning of 'Pittsburghese' in general, and monophthongal /aw/ in particular, from not being recognized, because "everyone spoke that way", to being linked to social class, and then gradually to place. This shift in the "potential indexicality" of monophthongal /aw/, from first- to second- to third-order indexicality (see Silverstein, 2003) can be linked to changes in the population of Pittsburgh and people's movement in and out of the city. At the first order of indexicality, Johnstone et al. (2006, p. 82) write that, "The frequency of regional variants can be correlated with being from Southwestern Pennsylvania, especially from Pittsburgh, and with being working-class and male." At this stage, monophthongal /aw/ and other local variants are not socially marked—they are indicators, in Labov's (1972b) terminology. At the second order of indexicality, social meaning is attached to the use of monophthongal /aw/ through the metapragmatic discourse widely circulating in the

region: "The meaning of these forms is shaped mainly about ideologies about class and correctness, though regional forms can also be linked with locality by people who have had the "localness" of these forms called to attention" (Johnstone, Andrus and Danielson, 2006, p. 82). At the third order of indexicality, speakers in the community draw on the social meanings connected to monophthongal /aw/, employing them in more explicitly performative speech. As the authors write,

> "People noticing the existence of second-order stylistic variation in Pittsburghers' speech link the regional variants they are most likely to hear with Pittsburgh identity, drawing on the increasingly widely circulating idea that places and dialects are essentially linked (every place has a dialect). These people, who include Pittsburghers and non-Pittsburghers, use regional forms drawn from highly codified lists to perform local identity, often in ironic, semiserious ways" (Johnstone, Andrus and Danielson, 2006, pp. 82-83).

When performing local identity or engaging in metalinguistic talk about Pittsburghese, speakers typically rely on a handful of well-known features associated with local speech—the "highly codified lists" that Johnstone et al. make reference to. For African Americans in the city, the features associated with Pittsburghese are limited; in fact, Pittsburghese is generally reduced to two features of the local dialect for African Americans: *yinz* and monophthongal /aw/. As we will see in metalinguistic talk by local African Americans in later sections, Pittsburghese is wholly represented for many speakers in this community by these two local features.[22] Other features of Pittsburghese (such as /il/-laxing and *nebby*) are, crucially, not considered part of Pittsburghese, because to

[22] A few speakers (Brianne is one example) talk about "White" and "Black" Pittsburghese, including words such as *yinz* in the White variety and words like *nebby* in the Black variety. The majority of speakers who discuss Pittsburghese, however, do not make this distinction, and instead follow the generalization I discuss here.

include them in a description of Pittsburghese would be implicating African Americans in the use of the register, since African Americans use these features with frequency. Because monophthongal /aw/ is emblematic of the local dialect—for Whites and African Americans alike—it is difficult to disentangle the social meanings surrounding this single phonological feature and the dialect as a whole. Both Pittsburghese generally, and monophthongal /aw/ specifically, seem to represent the same thing for African Americans in the city—both are strongly associated with a local way of speaking—both index place. The question to be addressed, then, is how place and local identity are conceived in the African American community in Pittsburgh.

In some areas, African American use of local linguistic features has been explained by a strong affiliation to region. Childs and Mallinson (2004), for example, show that speakers in Texana, a rural community in North Carolina, are showing increasing alignment to the phonological system of Appalachian English in two areas: glide weakening of /ai/ in prevoiceless contexts and presence of post-vocalic /r/. While African American residents of Texana maintain a distinct ethnolinguistic identity in other ways, through features such as consonant cluster reduction, the increasing alignment to local phonological norms suggests that at the same time, the speakers share a regional identity with Whites in the area. In a fuller discussion of regional identity among African American women in this community, Mallinson (2006) illustrates that the ties to the region for these speakers are strong: "Texanans of all generations share an attachment to place and view the community as a haven" (p. 111). Texana speakers express feelings that there is "no place on earth" like Texana, and that it is a good place to live and raise a family (Mallinson, 2006, p.

112). Furthermore, Mallinson notes that residents who leave the area are viewed as having rejected Texana and its community members.

The sentiments expressed by Texana community members in many ways sound like those expressed by Pittsburghers—but White Pittsburghers only. Interviews and conversations with White Pittsburghers reveal that like Texana residents, many feel that there is no better place to live than Pittsburgh. Over the years I lived in the city, I can recall numerous people telling me that they would never want to live anywhere else—that Pittsburgh is the best place to live, whether or not they ever lived in any other place. In interviews conducted for the Pittsburgh Speech and Society Project,[23] speakers express that wherever they go, they look forward to returning to the city, as Debbie says in the excerpt below.

Excerpt 1. Debbie on Pittsburgh

Debbie
1 I always say when we hit (route) 51 South or North whatever
2 where ever we're coming back
3 it's always nice to be back here
[…]
4 It just seems like home
5 I've been here forever so it will always be home to me
6 Even if we ever move or we retire somewhere else
7 this will always feel like home to me

Although Debbie leaves open the possibility of retiring outside of the city, most White Pittsburghers I have spoken with about the region express a strong desire to stay where

[23] This is a large-scale project headed by Barbara Johnstone and Scott Kiesling. It includes interviews with residents of three neighborhoods in the Pittsburgh area, as well as a study of a community of practice comprising 8 White women. The quotes here come from interviews that I conducted with those women in the community of practice.

they are, and feel that the city is the best place they could live. In another section of her interview, Debbie says that she likes "what Pittsburgh represents," another sentiment often expressed by Whites in the city. Besides being a city with a "hometown feel" or "small town feel," many White Pittsburghers also report that they like the working class feel of the city. Being the nation's industrial hub at one time, Pittsburgh is a place that people describe as having blue-collar roots which still color the city today—Pittsburghers are often described as having a strong work ethic, being down-to-earth, 'just regular' people.

African American Pittsburghers tend to have a much different view of the area. While many Whites express strong attachment to the city, and many say that they could never see themselves leaving even after retirement, African Americans say that they would welcome an opportunity to leave. Many speakers in the sample say that the only reason they remain in Pittsburgh is their family—if they did not have relatives living in the region, they would leave. This is precisely what Sheila says in the excerpt below.

Excerpt 2. Sheila on Pittsburgh

Trista	1	So do you like Pittsburgh then?
Sheila	2	No not really
	3	I'm here
	4	mainly a-
	5	because my mother is here
	6	um
	7	she whe- I-
	8	years ago I asked her to move
	9	Let's just move someplace else
	10	and she didn't wanna move because *her* mother was here
	11	And then after my grandmother passed
	12	she just didn't wanna move
	13	So you know
	14	I don't feel like
	15	I don't wanna leave her here

16 And she said
17 'Well just go ahead move
18 I'll just come visit you'
19 Well you can't come and visit
20 you have to come and live

Reasons for wanting to leave are somewhat varied, but speakers tend to make the same general point—Pittsburgh is not a place where African Americans have much chance to succeed. Other cities, Atlanta in particular, are often pointed to as places that offer more opportunities for African Americans. Both Lisa and Sabrina express this sentiment in the excerpts from their interviews that follow.

Excerpt 3. Lisa on Pittsburgh

Lisa	1	I mean
	2	this is all I've really known
	3	is Pittsburgh
	4	Um you know
	5	visiting other cities
	6	seeing how well
	7	I know my family members have been doing
	8	in other cities
	9	um I know my family members have said
	10	they would never come back
Trista	11	um-hum
Lisa	12	And other people I've known that have lived here
	13	they said they would never come back
Trista	14	Is it because of employment then?
	15	[Or just lifestyle?]
Lisa	16	[It it's]
	17	employment
	18	it's uh mentality
	19	It's um you know
	20	a combination of both
Trista	21	okay
Lisa	22	And um
	23	my goal is
	24	I'm ready to go

Trista	25	Yeah
Lisa	26	Um
	27	I know there's more out there
	28	I want better for my kids and my family
	29	um for myself
	30	um
	31	and I'm ready to go

Lisa's thoughts on Pittsburgh contrast strongly with those of many Whites in the city, who tend to want to stay in Pittsburgh. Lisa, on the other hand, says more than once in the excerpt above, as well as in other places in her interview, that her "goal" is to move out of Pittsburgh. In lines 26-29 Lisa speculates that such a move out of the city would provide more opportunities for herself and her family, in contrast to Pittsburgh, where she feels there is less possibility to succeed. Later in her interview, Lisa makes the analogy between African Americans in Pittsburgh and fireflies trapped in a jar. Both, she says, believe that they can only "jump so high", because of the limits that have been imposed on them. If the lid were removed, the fireflies could fly much higher; if Pittsburgh were not so oppressive, African Americans could realize their full potential. Sabrina expresses a similar sentiment in the following excerpt, in which she explicitly states that Pittsburgh offers only limited opportunities for African Americans.

Excerpt 4. Sabrina on Pittsburgh

Trista	1	So do you think you'll stay here and raise kids
	2	retire=
Sabrina	3	=No
Trista	4	or be here like for the rest of your life?
		[Like]
Sabrina	5	[No]
Trista	6	I'm talking about like
	7	in Pittsburgh or the Hill District
Sabrina	8	No

Trista	9	where exactly
Sabrina	10	I don't know where I would go but I would not
	11	I w- I don't
	12	I believe that I will not be staying here for the rest of my life
	13	I believe
Trista	14	An- you talking about in Pittsburgh
Sabrina	15	(That's)
	16	in Pittsburgh
Trista	17	Okay
Sabrina	18	I believe that
	19	I just believe it
	20	Only reason why I believe that is because of the job opportunities that here
	21	that is here for African Americans
	22	It's really not
Trista	23	Okay
Sabrina	24	You know
	25	And once I get my Accounting degree
	26	I wanna
	27	use it to the fullest
	28	and use it to
	29	and and I know what I should *get* paid
	30	and I wanna go
	31	where I'ma *get* paid

When Trista broaches the topic of remaining in Pittsburgh, Sabrina does not hesitate to answer that she does not plan on staying in the area. In fact, she barely waits for the interviewer to finish her question before providing a direct 'No', which she repeats (line 5) when Trista asks a follow-up question to clarify. In line 10, Sabrina begins to explain why she feels so strongly about leaving Pittsburgh. Sabrina is working towards her Bachelor's degree in Accounting. As she says in lines 26-32, Sabrina senses that Pittsburgh will not compensate her for her work fairly once she earns that degree, whereas in other cities she imagines that she would be more likely to be paid the salary she deserves. In short, Sabrina feels that Pittsburgh has limited opportunities for African Americans, precisely the same sentiment that Lisa expresses in Excerpt 3 above.

The negative orientation to Pittsburgh goes beyond there simply being a lack of opportunity for African Americans in the city. There is a deeper problem that many African Americans express in talking about Pittsburgh and the people who live there: the city is perceived as a very racist place. For some African Americans in the city, this is the reason for wanting to leave, as Lisa alludes to in her interview. For others, particularly older speakers like Marsha and Albert, there is no desire to leave, despite the racist undercurrents running through the city. Sheila, who elsewhere in her interview (Excerpt 2, above) reports that she wants to leave the city, below makes the explicit statement that Pittsburgh "is a racist town."

Excerpt 5. Sheila on Pittsburgh

Sheila	1	It's always been a racist town
	2	as far as *I* know
	3	um
	4	u-
	5	you know when I was younger
	6	I never
	7	paid attention to it I guess
Trista	8	Okay
Sheila	9	Never had a need to pay attention to it
Trista	10	um-hum
Sheila	11	But as I grew older and began to go into the workforce
	12	I found out
	13	[like]
Trista	14	[You] start to see that it is
Sheila	15	You all suck
	16	<*laughs*>
	17	You know
	18	you all are all racist and
	19	I wish I could do something to all of y'all and not go to jail
Trista	20	um-hum
Sheila	21	I probably would
Trista	22	um-hum
Sheila	23	But

24 It's a
25 It's a racist town

Sheila does not elaborate on what she means in lines 19 and 21, but presumably she is referring to unfair practices that she has been witness to or victim of—racial profiling, job discrimination, and other things of that nature. Other speakers give specific examples of such discriminatory treatment, such as being followed by police, or being called *nigger*. In interviews, Pittsburgh is sometimes referred to as "the new South" or "up South". These comments draw a parallel between Pittsburgh and the region of the U.S. that conjure ideas of racism for many people in the country (see for example Preston, 1997; Preston and Niedzielski, 2003). Such comments on Pittsburgh are not restricted to the African American community in the area. Among some circles of Whites in the city (in my experience, often including people who have moved to Pittsburgh from elsewhere), Pittsburgh is sometimes jokingly referred to as "Pennsyltucky". The blending of the state names 'Pennsylvania' and 'Kentucky' similarly invokes the connotations of racism that mention of the South has. The term "Pennsyltucky" additionally aligns the Pittsburgh region with Appalachia, with similar meanings embedded in the reference.[24]

The lack of local orientation to Pittsburgh within the African American community is rather striking, and contrasts with a more general positive orientation on the part of

[24] This term may also be used to refer to rural areas surrounding the city of Philadelphia, or the area of Pennsylvania that lies between Pittsburgh and Philadelphia. When I have heard the word used in Pittsburgh, however, it has been used to refer to the Pittsburgh area specifically, and not these other regions.

many White native Pittsburghers.[25] The strong indexical links that Pittsburghese has to place make the lack of positive local identity an important piece of the explanation for the absence of the feature in Pittsburgh AAE. Since African Americans in the region tend to dissociate from localness, it is reasonable to assume that such speakers avoid the feature that so represents the local dialect. However, there is one additional factor to be taken into consideration. Beyond the negative associations that place holds for African Americans in Pittsburgh, monophthongal /aw/ is very much seen as part of the linguistic character of Whites in the city. I illustrate this social meaning of monophthongal /aw/ in the following section.

6.5.3 "That's a White thing"

As I have discussed above, the fact that monophthongal /aw/ is a salient feature of Pittsburgh speech is not a sufficient explanation as to why African Americans in the city do not exhibit this feature in their own speech. More important than salience alone is the social identity that this salience is attached to—the White Pittsburgher. When talking with African Americans about the Pittsburghese, the dialect is very often identified with White residents of the city. Given that representations and discussions of monophthongal /aw/ are so frequently circulated in Pittsburgh in connection to local speech, it is not surprising that African Americans also mention this feature when discussing the local dialect. What is

[25] It should be noted that there is a strong positive orientation towards the professional football team, the Steelers, among many of the speakers interviewed here. Cheering for the local football team may be an expression of local identity for some people, but in the face of the deep negative feelings within the community, I would not count it as such for the African Americans interviewed here.

different in these discussions of course, is that the use of this feature is explicitly identified with White speech in the city. Excerpts 6 and 7 below are good illustrations of this explicit connection between monophthongal /aw/ and Pittsburgh speech. Andrea, a 56-year-old woman, overtly aligns monophthongal pronunciations of /aw/ with White, and not African American speech.

Excerpt 6. Andrea on Pittsburghese

Andrea	1	I-I have never heard
	2	<*to her husband*>
	3	you and I were talking about that this morning
	4	I've never heard a Black person refer to their mother as [mʌm]
	5	um
	6	or they're going downtown <*monophthongal pronunciation*>
	7	or <*laughing*>
	8	or Southside <*monophthongal pronunciation of /aw/ and /ai/*>

Also making an explicit link between race and the local pronunciation of /aw/, Albert, an 81-year-old man, responds to my question about his awareness and knowledge of Pittsburghese, which he makes clear is "a White thing" (lines 3 and 5).

Excerpt 7. Albert on 'Pittsburghese'

Maeve:	1	Have you ever heard of something called Pittsburghese?
Albert:	2	(1.38)
	3	White
	4	(1.5)
	5	That's a White thing
Maeve:	6	What is it? Do you know what-
Albert:	7	Yeah of course
	8	They have
	9	(2.24)

10 uh idioms like yunz[26]
11 which means you all
12 see
13 (1.62)
14 Now when I was a boy
15 you know this
16 the Hill District was predominantly White
17 I told you that
18 So you heard yunz
19 (1.25)
20 yeah instead of you all
21 but
22 (1.70)
23 downtown <*noticeably weakened glide*>
24 you know
25 I heard that
26 But we in the in in the
27 among us there was a slang
[…]

Maeve: 28 Have you ever heard of yinzer?

Albert: 29 I told you yeah
30 We didn't hear that much
31 After after after the uh
32 Whiteys left the Hill
33 you didn't hear that stuff no more here

Maeve: 34 Do you hear it anytime now?

Albert: 35 Where?
36 Not in my neighbor-
37 I live on the Northside in Northview Heights
38 We got the same thing
39 A Black enclave
40 Ain't no
41 <*laughs*>

Maeve: 42 No yinz up there

Albert: 43 No
44 No White boys come through except the mailman

[26] This is the older pronunciation of what today is more commonly pronounced [jɪnz].

Without much hesitation, Albert is able to list features of 'Pittsburghese'; those that he mentions are the most frequently represented and the most commonly mentioned in discussions about local speech—*yinz* (line 10) and /aw/ monophthongization (line 23). Albert's comment that the Hill District was predominantly White when he was a child (lines 14-16) is the reason he provides for why he knows about these features, connecting items associated with 'Pittsburghese' to the earlier racial composition of the Hill District with 'so' (line 18). He contrasts these features of 'Pittsburghese' with the way African Americans talked (lines 26-27)—the 'slang' that was 'among us'. His use of 'us' in line 27 serves to solidify the distinction between White and African American speech, and support the assertion that the only reason he knows about 'Pittsburghese' and these features associated with it is due to the presence of Whites in the Hill District at an earlier time.

Although, as Albert says, the Hill District no longer has the diversity of ethnic groups that it once did, and so Pittsburghese may not be heard anymore in the neighborhood, African Americans who live there may still certainly hear such features of local speech elsewhere. In the following excerpt, Maurice, a 14-year-old high school student, responds to my question about whether he thinks African Americans and Whites talk differently in Pittsburgh. In his answer, he describes how some White people talk in the city, using a monophthongal pronunciation of /aw/ to illustrate his point.

Excerpt 8. Maurice on White Pittsburgh speech

Maurice:	1	You ever hear the word
	2	[sɪɾɑːn]
	3	like from Italians?
Maeve:	4	No
	5	what does it mean?

Maurice:	6	Like they're saying
	7	sit down
	8	But they say it like [sɪɾɑːn]
Maeve:	9	<*laughs*>
Maurice:	10	I-so I
	11	a lot of the te-
	12	You'll hear it from a lot of the teachers'll
	13	like [sɪɾɑːn]
	14	I laugh when they say that too
Maeve:	15	<*laughs*>
	16	And they're Italian?
Maurice:	17	They're either Italian or they're brunettes

My initial response (lines 4-5) to Maurice's statement was one of some confusion—partly because Maurice had referred to his utterance as a 'word' and I was therefore expecting a single lexical item and could not interpret what he said as such, but primarily because of Maurice's assertion that the 'word' was something he heard from Italians. Once I realized that Maurice was referring to monophthongal /aw/, and characterizing some of his White teachers as speaking that way, I attempted to discover why Maurice believed that this pronunciation of 'sit down' was typical of Italians (line 16). While his response (line 17) is not entirely clear, it seems that Maurice is associating monophthongal /aw/ with some groups of White speakers, though he is unsure how to classify them.[27] Indeed, this is insightful on his part, since not all White Pittsburghers exhibit monophthongal /aw/—it varies with respect to gender and social class and possibly age as well (Johnstone, Bhasin and Wittkofski, 2002; Kiesling and Wisnosky, 2003). Whatever Maurice means precisely by 'Italians' and 'brunettes' in this excerpt, it is clear that what he does *not* mean is African

[27] I suspect that by 'brunettes' Maurice means 'White women', or is referring to a certain type of White woman, perhaps of Eastern European descent. I have asked several people, both African American and White, from Pittsburgh and from elsewhere, who concur that while it is impossible to know exactly what Maurice is referring to, 'White women' is likely.

Americans. In other words, Maurice is clearly identifying this particular pronunciation of /aw/ with certain groups of White speakers. The connection that Maurice draws between /aw/-monophthongization and White speakers is undeniable—for Maurice, monophthongal /aw/ is part of what characterizes the difference between White and African American speech in Pittsburgh. In illustrating how Whites and African Americans in the city talk differently, this is the feature that Maurice highlights in his performance of (some of) his White teachers.

6.5.4 Social Differentiation

The theme that has run through the discussion of the absence of monophthongal /aw/ in African American speech in Pittsburgh is that the variable serves as a site on which social differentiation takes place. African Americans in Pittsburgh attach specific social meanings to the monophthongal pronunciation of /aw/, and dissociate themselves from what that way of speaking represents. Social differentiation has been an important part of work on language and identity, as early as Labov's (1963) pioneering work on Martha's Vineyard. LePage and Tabouret-Keller (1985) include social differentiation as an important part of their acts of identity framework—not only can speakers use linguistic resources to identify or align themselves with a particular group, but language use can also have the function of marking a distinction between a speaker and some group which they wish to be dissociated from.

John Ogbu (e.g. 1994, 2003) has written extensively on the resistance of African Americans to White mainstream cultural norms and practices, with language figuring prominently in the construction of an *oppositional identity*. Ogbu makes the important distinction between involuntary and immigrant minority groups in the United States, who are distinguished in part by the way in which they arrived in the country. Groups who were enslaved (African Americans) or colonized (Native Americans, Mexicans in the Southwest) are considered involuntary minorities, while those groups who migrated to the country of their own free will (Asians, Europeans) are immigrant minorities. Belonging to one of these two groups has profound effects on numerous aspects of the group's culture, including rate of assimilation, educational success and linguistic behavior. A major consequence of status as an involuntary minority is an oppositional identity that has formed with respect to the dominant culture (Fordham and Ogbu, 1986). Practices that are associated with White culture are avoided by African Americans, because opposition is an important part of the construction of an ethnic identity separate from Whites. Ogbu applied this argument to the persistent achievement gap between involuntary and immigrant minorities. For Ogbu, oppositional identity is a primary reason for low levels of educational success among African Americans and other involuntary minority groups. Succeeding in school is equated with "acting White", because it requires conforming to dominant cultural values and mainstream behavior.

Although Ogbu's research focused on education and African American students' performance within the school system, the concept of oppositional identity can be generalized to other areas as well, including, of course, linguistic practice. In fact, Ogbu (1999) discusses the resistance to 'standard' language among African American students as

part of an oppositional identity. "[D]ialect differences," Ogbu writes, "serve as boundary-maintenance mechanisms…Accommodating White-American ways of talking seems to threaten their sense of dialect identity" (Ogbu, 1999, p. 155).

Along the lines of demarcating ethnolinguistic boundaries, Wolfram and Thomas (2002) have argued that the absence of salient regional features in African American speech can be explained by Ogbu's notion of African American oppositional identity. Wolfram and Thomas discuss the speech patterns of African Americans in Hyde County, North Carolina, sampling speakers born as early as the 1890s to as late as the 1990s. The region is characterized by the stereotypical pronunciation of /ai/ as [ɔj], with a somewhat backed and raised nucleus (sometimes rounded), resulting in pronunciations ranging from [ɑe] to [ɐe] to [ɑ^e] (Wolfram and Thomas, 2002, p. 98). Residents of the area are well aware of the "hoi toide" speech that outsiders also notice. The authors show that the speech of older African Americans on the island is so similar to the speech patterns of Whites in the same area that it is difficult for listeners to correctly identify their ethnicity. Younger speakers in the area have moved away from this pronunciation, however, and towards a more supraregional variety of AAE. Wolfram and Thomas suggest that such moves by African Americans, particularly those in rural settings, indicates allegiance to an identity based primarily on ethnicity, rather than regionality.

We might think about the social differentiating function that monophthongal /aw/ serves in Pittsburgh in terms of Gerard van Herk's (2008) discussion of language change and linguistic differentiation based on in-migration of African Americans to cities in the North. Focusing on the Northern Cities Chain Shift, van Herk argues that this massive

change in the vowel system coincides with a dramatic demographic change—the Great Migration, during which massive numbers of African Americans moved from the South to Northern cities. It is precisely in those cities that witnessed the most dramatic increases in the African American population (Detroit, Cleveland, Chicago) where we see the beginnings of the Northern Cities Shift at the same time. This "linguistic White flight", claims van Herk, served as a tool in the indexing of Whiteness, constructed in the absence of Blackness (Smitherman, 1977), and coincides as well with the residential movement that is more commonly associated with the term 'White flight'. In building his case that the vowel shift and the large influx of African Americans to these cities are closely linked, van Herk (p. 159) writes, "The Great Migration was America's largest demographic shift. The NCS is probably its largest sound change. Beyond correlation, they are tied together by race, America's major determinant of identity in public discourse. The surprise would be if a huge racial change in America *didn't* trigger an identity-defining linguistic change." The idea of linguistic White flight is compelling not only because it helps to explain the beginnings of a major vowel rotation simultaneously in several geographic reasons, but it also might help to explain why African Americans are often found to participate only marginally in this shift, if at all (Gordon, 2000; Jones, 2003; Labov, 2001b).

Pittsburgh is not a participant in the Northern Cities Shift, whether for social or linguistic reasons.[28] But van Herk's conflict model nevertheless has significance for city's linguistic profile, and the influx of African Americans most likely did "trigger an identity-

[28] As van Herk notes, it may be the case that Pittsburgh is not a participant in the Northern Cities Chain Shift because the linguistic conditions necessary for the shift to take place were not there. It also may be the case that the social conditions in Pittsburgh were different enough from other Northern cities to have not facilitated the same vowel shift occurring there.

defining linguistic change" in Pittsburgh, just like it seems to have in the Great Lakes regions. Table 6.4 below, from van Herk (2008, p. 158) shows the speed with which growth in the African American population of 8 Northern cities, including Pittsburgh, took place. van Herk calculates this score by multiplying the rate of change in African American population over a period of time by the percentage of African Americans in the population at the end of that time period.

Table 6.4 Size x speed of African American population growth

		1910-40	*1940-60*	*1910-60*
Northern Cities Shift Participant Cities	**Detroit**	57.55	48.69	345.98
	Cleveland	37.42	33.51	175.14
	Chicago	27.02	38.94	145.31
	St. Louis	27.76	61.27	127.63
	Buffalo	16.03	19.76	126.72
	New York	106.55	34.61	233.60
Non-Participant Cities	**Cincinnati**	20.24	19.74	38.69
	Pittsburgh	12.11	10.64	20.21
	Erie	1.88	9.73	22.89

With the exception of New York City, the figures in this table illustrate the strong correlation between a large "Blackening metric" score and participation in the Northern Cities Chain Shift. The fact that New York City is a glaring exception to this trend is not overlooked by van Herk, who suggests that the presence of other linguistic features in the city served the same purpose, allowing Whites to sufficiently distinguish themselves from newly arrived African Americans. The same facts are observable in Pittsburgh, despite the fact that the growth in African American population from 1910-1960 was much less than it was in Detroit and elsewhere. As discussed in Chapter 2, the African American population

grew substantially from 1880 to 1930, increasing almost 10 times in this 50-year period. This meant that there was a relatively large African American population already in place in Pittsburgh (due in large part to the city's industries) before the Great Migration took place. And, most intriguing, it is precisely around the turn of the 20th century that monophthongal /aw/ appears in White speech in the Pittsburgh region. Figure 6.16 below, from Johnstone et al. (2002, p. 156) portrays the sudden appearance of this feature in the city.

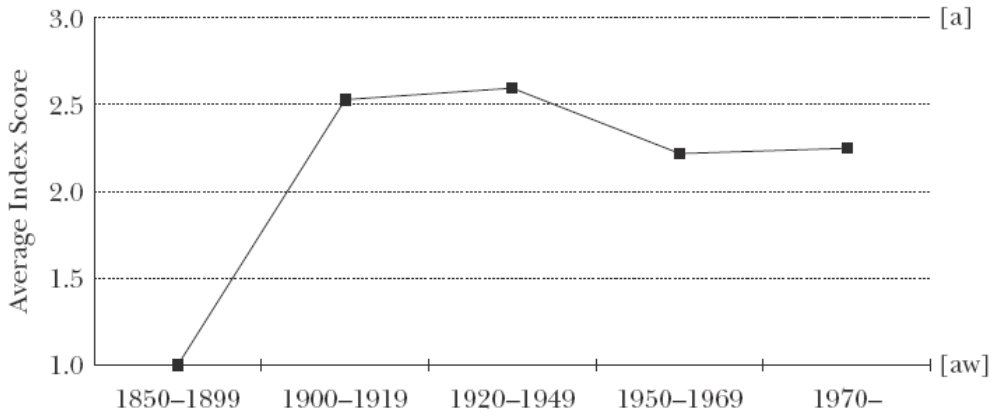


Figure 6.16 Monophthongal /aw/ among working-class men in Pittsburgh

Figure 6.16 above indicates that monophthongal /aw/ is first heard by White Pittsburghers born after 1900—there is no indication that this feature was present before that time. This is confirmed by records of *The Linguistic Atlas of the Middle and Atlantic States* (McDavid, 1982-86), in which detailed phonetic transcriptions of words containing /aw/ show no signs that glide-deletion had yet set in. The index score in the figure above, given on the vertical axis, indicates the amount of monophthongization within each generation (shown on the horizontal axis). An index score of 1 indicates that the diphthongal

pronunciation of /aw/, in other words [aw] is found 100% of the time; an increased index score signifies that the monophthongal pronunciation, [ɑ:], is more frequent. This snapshot of Pittsburgh's social and linguistic history falls fully in line with van Herk's model of linguistic White flight. As African Americans moved in large numbers to the city, it was suddenly important for White residents there to distinguish themselves from the incoming "Black phonology." An important point to add is that at this time, Pittsburgh was host to many other immigrants as well. Figure 6.17 below shows the total foreign-born population figures for 1850-1930 (based on Carter et al., 2006). The effect that the mix of so many groups coming into contact within a short period of time is not altogether clear, but it seems reasonable to speculate that such large-scale population changes may trigger effects in the linguistic system as well, possibly with the intention of distancing, as van Herk (2008) proposes. The linguistic changes that we see in Pittsburgh, New York, in Buffalo, and Detroit, is not really altogether surprising given the importance of race in the construction of identity in the United States—as van Herk (2008) points out, it would be more surprising if some major linguistic change was absent in the midst of such social change. The fact that African Americans in the Northern Cities or Pittsburgh or elsewhere did not follow these changes in White local speech patterns is also (at least partially) explained by the centrality of race in the construction of identity and in language ideologies in the United States (Lesley Milroy, 2000, 2001).

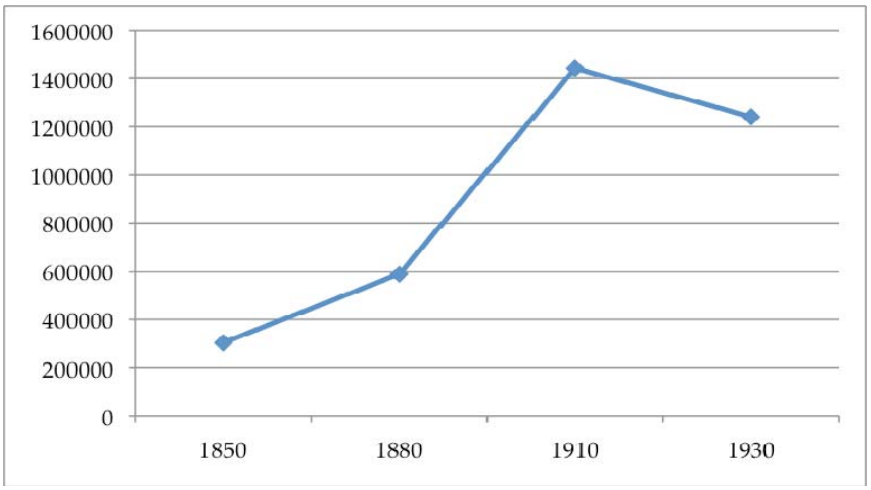


Figure 6.17 Foreign-born population in Pittsburgh, 1850-1930

The thread that ties together the works discussed in this section is the need for social differentiation that is felt in each community, though it may be manifested in distinct ways. For example, the situation that Wolfram and Thomas (2002) present shows African Americans in Hyde County gradually orienting towards a non-local ethnic identity, which required a distancing from local White norms. Although the speech of African Americans at one time displayed linguistic behavior very similar to that of Whites in the same region, over time, the groups became increasingly distinct in some areas, because African Americans altered their linguistic behavior so as to dissociate themselves from Whites. In other cases, for example, van Herk's discussion of the Northern Cities Chain Shift, it is Whites who alter their linguistic behavior, so as to display difference between themselves and African Americans, who were moving into these regions in great numbers. I have pointed out that it appears that the situation in Pittsburgh is in some ways similar to the Northern Cities—once there is a spike in the African American population in Pittsburgh, monophthongization of /aw/ begins to appear in White speech in Western Pennsylvania;

once the Great Migration was underway, the beginnings of the Northern Cities Shift surfaced in Detroit, Chicago, and elsewhere. Whereas in Hyde County and other areas in which African Americans have moved away from salient local pronunciations over time, in the Northern Cities and in Pittsburgh, it is White speakers that have made efforts to distinguish their speech patterns from African Americans. African Americans in these areas simply have not followed; thus, in the Northern Cities there is an overwhelming trend for African Americans not to take part in this vowel shift (see Gordon, 2000; Labov, 2001b), and in Pittsburgh, four generations of African Americans lack the monophthongal pronunciation of /aw/ that is characteristic of White speech in the city. Even though the occurrence of monophthongal /aw/ in Pittsburgh may be more readily attributable to the linguistic behavior of Whites rather than African Americans, the latter group has maintained this ethnolinguistic boundary, and it has become central to the image of Pittsburghese as a White local dialect, and so conjures images of the White Pittsburgher, often seen as racist and oppressive.

I wish to discuss one final excerpt, provided below, which consolidates the discussion on the orientation of Pittsburgh African Americans towards local speech and local speakers. The excerpt focuses on the word *yinzer*, which is a person who is seen as portraying a strong local, working-class identity, in large part through their avid use of local speech patterns (see Johnstone, Andrus and Danielson, 2006). The 'Yappin Yinzer' website (Colloquial Enterprises, 2007), subtitled 'Pittsburghers with Personality', features two plush dolls available for purchase. The dolls are dressed in black and gold, which are the colors of all three professional local sports teams, the Steelers (football), the Pirates (baseball) and the Penguins (hockey). The names of these 'Yappin Yinzers' do the work of

local indexicality as well—'Nebby Debbie' and 'Chipped Ham Sam', both of whom are White. More than their dress and names, the dolls both produce "hilarious Pittsburgh sayings" when they are pressed. Not surprisingly, monophthongal /aw/ features prominently in these characterizations of local speech, in phrases like "Quit jaggin' around" and "Yinz can't go out, yinz are grounded". These portrayals of Pittsburghers as consistently monophthongizing /aw/, and as White, serve to further solidify the associations between local speech and White Pittsburghers. In the excerpt below, Brenda links the word *yinzer* with the kind of White local speaker who contributes to the feeling that Pittsburgh is a racist place, bringing together both of the social meanings that Pittsburghese (and monophthongal /aw/ as emblematic of the register) is saturated with for local African Americans.

Excerpt 9. Brenda on *yinzers*

Maeve	1	Have you ever heard of a yinzer?
Brenda	2	Um-hum
Maeve	3	What's a yinzer?
Brenda	4	<*inhales*>
	5	Like a racist White Pittsburgher
Maeve	6	Okay
Brenda	7	That's what I
	8	you know
Maeve	9	That's what you think of?
Brenda	10	Yeah
	11	a- i- i-
	12	ill informed kind of um
	13	not very sophisticated in their analysis of stuff and
	14	more White than
	15	other folks
Maeve	16	Okay
	17	So there aren't
	18	You wouldn't consider any African Americans yinzers
Brenda	19	Ah not

	20	Yeah if you say yinzers that's not who comes to
	21	to my mind
Maeve	22	Okay
Brenda	23	S- I remember people talking about when Mike Tomlin?[29]
Maeve	24	Um-hum
Brenda	25	Came to town?
	26	and <*vocal noise*>
	27	there's like a ESPN show
	28	or something like that
	29	and they were talking about that
	30	and they were saying
	31	you know people were calling the (radio station)
	32	with these kinda semi-racist comments
	33	or overtly racist comments and
	34	the the DJ was basically saying
	35	'Well those are just a bunch of yinzers'
	36	And I remember thinking
	37	'Yeah that's yeah'

For Brenda, a person who is a *yinzer* is not only a person who uses local speech. Instead, someone who makes heavy use of local features—someone who may make deliberate effort to sound local—but is a person who embodies the oppression that African Americans are subjected to in the region. Brenda has been the direct target of racism that many of the African Americans in Pittsburgh speak about. She mentions elsewhere in her interview, for example, that Pittsburgh is the only place she has ever lived where she has been called a 'nigger'. The fact that this single local word invokes the idea of a 'racist White Pittsburgher'

[29] Mike Tomlin, who is African American, is the head coach of the Pittsburgh Steelers, the city's professional football team. When Tomlin was hired, there was a great deal of public discourse on the selection, with speculation (or more accurately, accusation) that he was hired only because he is African American. Part of the argument was that Dan Rooney, the owner of the Steelers, had been chair of a committee that passed "The Rooney Rule", which required that NFL teams interview at least one minority when searching for a head coach position. And so, it was sometimes said, Tomlin would have not gotten a chance had it not been for "The Rooney Rule" (see e.g. Garber, 2007)

for Brenda fully illuminates what social meanings Pittsburghese invokes for the African American community in Pittsburgh.

To reiterate an important point, the features that have come to stand for Pittsburghese as a whole are those that are most frequently used to represent it—monophthongal /aw/ and *yinz* (and *yinzer* along with it). Thus, the social meanings that are associated with one are also, it appears, associated with the others, what Kiesling (2004) calls an *indexical web*. I have not meant to conflate Pittsburghese, monophthongal /aw/ and *yinz/yinzer*, but in some ways it is appropriate to do so, as each of them strongly indexes localness, and local Whiteness for African Americans. Furthermore, as I have stated above, it is critical that these features are the ones that are emblematic of Pittsburghese for African Americans, because it is these features that African Americans do not use. Other features associated with Pittsburghese (which appear on t-shirts, for example, or in discussions of local speech by Whites) are not viewed as such by local African Americans, because they appear in AAE in the region. Included in this list are lexical items such as *nebby*, which means 'nosey', as well as phonological features such as the laxing of /i/ before /l/ and the monophthongization of /ai/ before liquids. These phonological features also appear in African American speech in other regions (Labov, Ash and Boberg, 2006; Thomas, 2007), but recall that monophthongal /aw/ does as well (Thomas, 2001, 2003, 2007). What is important, then, is not necessarily the distribution of a feature in African American speech supraregionally, but the specific social meanings that it carries on a local level. What I have shown here is that the meanings of monophthongal /aw/ (and of *yinz/yinzer* and of Pittsburghese) are so inextricably linked to the social

identity of the White Pittsburgher and what that represents, that generations of African Americans avoid this feature of local speech, even while making use of others.

6.6 SUMMARY

The quantitative analysis above has shown that African Americans in Pittsburgh do not exhibit monophthongal /aw/, the glide deletion that has been identified as characteristic of the Pittsburgh region. I showed that across four generations of African Americans in Pittsburgh, monophthongal /aw/ is not exhibited; however, there is variation in the length of the glide, with some speakers showing glide weakening. The social and linguistic factors that were shown to affect the Euclidean distance of /aw/ in this data set did not have so strong an effect that these productions would be heard as the stereotypical *monophthongal* pronunciation in Pittsburgh. This finding underscores the importance of Thomas' (2002) argument that acoustic analyses are needed for the study of some linguistic processes, such as glide-weakening or deletion. However, what is socially salient in Pittsburgh is absence of this glide, not reduction in the glide's length. The analysis has also shown, on the other hand, that when the vowel is followed by a liquid segment, i.e., either an /r/ or an /l/, the glide is much more likely to be deleted.

In discussing the absence of this local feature in African American speech (setting aside for the time being the monophthongization of the vowel before liquids), I argued that the salience of the feature and its connections to Whiteness and to localness link it to a

social identity that African American Pittsburghers do not claim. I showed that the perception of Pittsburgh as a racist city contributes strongly to the lack of local orientation that is generally found in the African American community in Pittsburgh. Because monophthongal /aw/ is so representative (or believed to be representative) of local speech, and localness is equated with oppression, monophthongal /aw/ is not a desirable resource for African Americans in the city. It is believed that White Pittsburghers say things like *dahntahn* ([dɑːn tɑːn])—this combination of race and localness that imbues monophthongal /aw/ marks this variable as one to be avoided in African American speech in the region. Thus, it is not altogether surprising that throughout the generations, monophthongal realizations of /aw/ do not surface in AAE in Pittsburgh.

What is needed as a next step in this area of research is a study of Pittsburghers' (White and African American) perceptions of glide variation in /aw/. There are several areas of interest here. One question to be addressed is whether the glide must be sufficiently weakened for the realization of /aw/ to be identified as monophthongal—in other words, is there a threshold of glide-weakening that has to be passed in order for /aw/ to be heard as monophthongal? Related to this question is what linguistic factors may contribute to perceptions of /aw/. For example, we might expect duration to play a role in the perception of /aw/ as monophthongal or not. As Labov and Baranowski (2006) have already determined, duration is involved in the phonological system in Pittsburgh, preventing a merger between monophthongal /aw/ and /ʌ/, which may be lowering towards [ɑ] as part of the Pittsburgh Chain Shift (see also Labov, Ash and Boberg, 2006). Additionally, perception work in this area should include ethnic identification, along the

lines of work done by Thomas and Reaser (2004), Purnell, Isardi and Baugh (1999), and Graff, Labov and Harris (1986). The results above also showed that /aw/ when it occurs before /r/ or /l/ is subject to variable monophthongization in African American speech in Pittsburgh. How the pre-liquid/non pre-liquid difference interacts with perceptions of /aw/ will also be interesting to consider, and may help explain why /awr/ and /awl/ are sociolinguistic variables in Pittsburgh AAE but /aw/ is not. Finally, as I have discussed above and others have pointed out elsewhere (e.g. Johnstone, Bhasin and Wittkofski, 2002), monophthongal /aw/ is almost categorically represented in the word *downtown* (spelled almost invariably as 'dahntahn'). We might therefore expect there to be a lexical effect on perceptions of the vowel—listeners may be more likely to 'hear' /aw/ as a monophthong if it appears in *downtown* than if it appears in another lexical item. Testing all of these possible effects and interactions, and drawing on a listener pool that includes both African American and White Pittsburghers, will help to make further gains in understanding the social meanings of this local phonological variable.

There remains the issue of whether monophthongal /aw/ is receding in the White community in Pittsburgh. As I discussed above, there is some evidence that this stereotypical dialect feature is disappearing from the region (Kiesling and Wisnosky, 2003), but additional research is needed to confirm that this is the case. Because monophthongal /aw/ has become a stereotype in the region (Johnstone, Andrus and Danielson, 2006), we may even expect that it will eventually be lost, as linguistic stereotypes often disappear from local dialects (Labov, 1972b). Even if future work shows that monophthongal /aw/ is being lost in Pittsburgh, the idea of the feature as representative of local speech may remain for years to come. As such, the feature may still be used to index localness, though it may

be restricted to performances or caricatures of local speech and written representations. Wells (1982, pp. 332-333) discusses representations of a dialect far outliving actual use of the features themselves.[30] Wells points to Charles Dickens' inclusion of the interchange between [v] and [w] in his portrayals of Cockney English, despite the fact that this feature had long fallen out of use. The associations of monophthongal /aw/ with localness and Whiteness may indeed take much more time to fade away than the feature itself. As a result, the feature remains a central piece of local ideology about ways of speaking, and will undoubtedly remain important component in the construction of ethnic identity by African Americans in the region.

[30] Thanks to Gerard van Herk for reminding me of this example from Wells' *Accents of English*.

7.0 CONCLUSIONS

The recent interest in vowel systems of African American speakers in regions throughout the United States has resulted in a new understanding about the variety, which was previously masked by the ideal of AAE as supraregionally uniform and homogenous (Wolfram, 2007). This dissertation set out to describe the variety of English spoken by African Americans in Pittsburgh, Pennsylvania, adding to this line of research aimed at uncovering how AAE may differ from one region to the next in North America. I examined two variables found in local speech in Pittsburgh within an African American community in the city: the low-back merger and the monophthongization of /aw/. These two variables were chosen in part because they contrast with one another with respect to their levels of salience, and their inclusion in local metapragmatic discourse in Pittsburgh. The low-back merger does is not the subject of metalinguistic talk in the city, nor does it appear in representations of the local dialect, nor generally does it feature in performances of local speech. In contrast, monophthongal /aw/ is a stereotype in Pittsburgh, and is called upon to represent the local dialect in a number of different ways, most notably on t-shirts, mugs, and other souvenirs, and in performances or caricatures of local speakers.

In parallel to the social levels of awareness with respect to these two local linguistic features, African Americans exhibit contrasting linguistic behavior. In Chapter 5, I showed

that the low-back merger appears to have taken full hold in the community. These results were based on auditory analysis of a word list containing two pairs: *cot/caught* and *pond/pawned* along with an acoustic analysis of the low-back vowels produced spontaneously during the course of sociolinguistic interviews. In explaining this merger in the African American community, I traced the sociohistorical context of the African American community in Pittsburgh, showing that early in the 20th century, the amount of contact between the ethnic groups may have facilitated the spread of this merger from White to African American speech in the city. This process was likely further enhanced simply by the linguistic properties of mergers, which tend to spread. In Chapter 6, I analyzed the diphthong /aw/ to determine whether African Americans in Pittsburgh participate in the glide-deletion of the vowel that is often associated with Pittsburgh speech. In an acoustic analysis of tokens of /aw/ taken from the conversational portions of interviews, I showed that while there is a great deal of variation in the length of /aw/-gliding, African Americans do not exhibit monophthongization of the vowel. I argued that the reason for the absence of this feature has not only to do with its salience in the city, but also with its close associations to Whiteness and local identity. In particular, the dialect 'Pittsburghese', which is so commonly represented with the item *dahntahn*, referring to the local monophthongal pronunciation of /aw/, has been enregistered as a White way of speaking for African Americans in the city. The one exception to this is /aw/ when it is followed by a liquid. In these environments, monophthongal pronunciations often surface, as I showed with an auditory analysis of tokens in the interview and word lists.

There are several areas that I will address in future work, in continuing to analyze the vowel systems of African Americans in Pittsburgh, some of which I have mentioned

previously. One is the extent to which African Americans in the region participate in the back-vowel fronting that is sweeping across vast areas of the United States, including Western Pennsylvania. The vowel plots of the individual speakers in Chapter 4 suggested that there is fronting of /o/ but not of /u/; however, these vowels need to be analyzed across many more speakers before any statements are made about their status in Pittsburgh AAE. Another area is the glide-weakening of /ai/, which is a feature commonly associated with supraregional African American speech, and which seems to be present in Pittsburgh as well. A fuller analysis of /ai/, along with the social meanings that it carries for local African Americans is a further area to pursue. For example, is monophthongal /ai/ a resource that Pittsburgh African Americans draw on in the construction of ethnic identity? Are younger speakers monophthongizing to the same extent as older speakers? These are some questions to be addressed in such work. Similar questions can be raised about the r-fullness of Pittsburgh African Americans. In this data, African American speakers are overwhelmingly r-full; however, older speakers show variable r-lessness, and for younger speakers, absence of r appears to function as a stylistic resource. Questions about what social meaning it carries, when it is employed and for what purpose, and how rates of r-lessness in Pittsburgh compare to rates of its absence in AAE in other regions, will all be of interest in future work. Finally, as I discussed at some length in Chapter 6, there is a great deal of potential research to be done in the area of perception with respect to the vowel /aw/. How realization of the vowel affects ethnic identification is one area I will focus on, and also whether the perception of /aw/ is monophthongal is influenced by duration and lexical effects, as well as other linguistic factors. As Erik Thomas (2002) has pointed out,

researchers have focused much more on production rather than perception, though the latter is certainly is a fertile area for sociolinguistic study.

Just as researchers have found in other regions, Pittsburgh African Americans appear to select (not necessarily consciously) certain features of the linguistic systems in their local communities, but resist the adoption of other features. At the same time, there are traces of a supraregional AAE system, although it is becoming apparent that there is not an overarching cross-regional system that can define AAE in non-contiguous geographic areas. As Becker and Coggshall (forthcoming, p. 17) rightly put it, these findings are "neither surprising nor particularly telling." But the hope of finding uniform convergence or divergence in any one area, let alone African American English on a national scale, is in some ways analogous to the myths that sociolinguists once adhered to in the presentation of African American English as a homogenous variety. Sociolinguists are now coming to the realization that this thinking about African Americans has been quite reductive. The field has for too long condoned—and participated in—the 'othering' of African Americans, classifying language patterns of the group solely on the basis of race while ignoring regional variation (on which White patterns of speech are defined).

Region by region, as we continue to uncover the complexities of AAE, which cannot be enveloped within a supraregional description, we are simultaneously revealing that the identities of African Americans are equally as complex—another conclusion that should be unsurprising. We should therefore abandon the search for the 'answer' to the trajectory of African American English, resist trying to answer questions about convergence or divergence, and rather focus on describing what mixture of features different ethnic groups make use of, as speakers select from a host of variables that they have access to. A

sustained focus on the intersection of local and ethnic identities will continue to unveil intriguing findings throughout the country, but it is only with attention paid to these nuanced patterns for African Americans, Whites, and other ethnic groups alike that we will move towards a further understanding of the complexities of speaking and being as they relate to regional dialectology.

APPENDIX A

A.1 PARTICIPANTS

Name	Year of Birth	Sex	Social Class	Occupation	Education	Notes	Interviewer[31]
Albert T.	1926	M	Working	bookie (retired)	high school		ME
Marilyn E.	1929	F	Working	retail (retired)	high school	mother of Keith E., cousin of Barbara E., Sabrina E., and Gerald E.	TP
Booker J.	1933	M	Lower Middle	unknown	PhD	cousin of Victor J.	TP
Esther N.	1935	F	Working	day care worker	GED		TP
Victor J.	1936	M	Working	machine grinder (retired)	high school	cousin of Booker J.	TP
Rodney O.	1940	M	Lower Middle	adult training program	some college	husband of Andrea O.	TP
Marsha Z.	1942	F	Lower Middle	social services program supervisor	MA	mother of Sheila Z., grandmother of Daryl Z.	TP
Evelyn D.	1944	F	Working	administrative assistant	high school		TP
Jocelyn F.	1944	F	Working	occasional	high	aunt of	ME

[31] ME = Maeve Eberhardt, White woman from Philadelphia, PA; TP = Trista Pennington, African American woman from Cleveland, OH

				food vendor; husband was a mechanic	school	Maureen F.	
Gladys I.	1946	F	Upper Middle	vice provost	PhD		TP
Maureen F.	1947	F	Working	airline worker (retired)	high school	niece of Jackie T.	ME
Andrea O.	1949	F	Lower Middle	assistant program director	some college	wife of Rodney O.	TP
Barbara E.	1951	F	Working	business manager	some college	mother of Sabrina E., cousin of Gerald E.	TP
Calvin R.	1959	M	Working	security guard	high school		ME
Dennis S.	1960	F	Lower Middle	community organizer	college		TP
Tammy C.	1960	M	Lower Middle	technology coordinator	college		TP
Don U.	1962	M	Working	office worker	high school	cousin of Barbara E., Sabrina E., Keith E. and Marilyn E.	TP
Gerald E.	1962	F	Lower Middle	administrative assistant	some trade school		TP
Lisa M.	1963	F	Working	waitress, library activities	some college		ME
Yvette W.	1964	F	Working	social services program	high school; trade school	daughter of Marsha Z., mother of Daryl Z.	TP
Sheila Z.	1967	M	Working	electrician	high school	son of Marilyn E., cousin of Barbara E., Sabrina E. and Gerald E.	TP
Keith E.	1968	F	Lower Middle	teacher	PhD		ME
Brenda A.	1970	M	Lower Middle	student, teaching	MA		ME

Rob Q.	1971	M	Lower Middle	assistant program coordinator at community center	college		TP
Sabrina E.	1974	F	Working	business manager	some college	daughter of Barbara E., cousin of Gerald E.	TP
Tanesha G.	1978	F	Working	food service	high school		ME
Antoine K.	1982	M	Working	library clerk	high school		ME
Janice L.	1984	F	Working	student; office worker	some college		TP
Daryl Z.	1986	M	Working	maintenance	some college	son of Sheila Z., grandson of Marsha Z.	TP
Alyse V.	1987	F	Working	student (father is a welder)	in college		ME
Daneen Y.	1989	F	Lower	library page (mother unemployed)	high school		ME
Nadine B.	1990	F	Lower	library page (aunt unemployed)	in high school		ME
Terrance H.	1992	M	Lower	student (mother is a waitress, father is a truck driver)	in high school		TP
Maurice P.	1993	M	Lower Middle	student (father is a paramedic)	in high school		ME

APPENDIX B

B.1 MEANS AND P-VALUES FOR OPEN/PRE-OBSTRUENT ENVIRONMENT

		F1	F2	Duration
Albert T.	/ɑ/ mean	813.34	1342.78	.1708
	/ɔ/ mean	789.27	1259.98	.1602
	p-value	*.085*	*.574*	*.828*
Marilyn E.	/ɑ/ mean	868.94	1210.56	.1586
	/ɔ/ mean	843.00	1161.93	.1785
	p-value	*.194*	*.783*	*.484*
Booker J.	/ɑ/ mean	840.49	1295.67	.2205
	/ɔ/ mean	822.98	1259.09	.2059
	p-value	*.925*	*.743*	*.759*
Esther N.	/ɑ/ mean	822.39	1285.21	.2031
	/ɔ/ mean	811.56	1286.68	.2088
	p-value	*.907*	*.976*	*.956*
Victor J.	/ɑ/ mean	777.40	1356.13	.1570
	/ɔ/ mean	741.55	1311.01	.1663
	p-value	*.251*	*.951*	*.175*
Rodney O.	/ɑ/ mean	741.71	1367.75	.1377
	/ɔ/ mean	748.01	1313.07	.1327
	p-value	*.304*	*.753*	*.820*
Marsha Z.	/ɑ/ mean	788.19	1316.07	.1615
	/ɔ/ mean	771.05	1335.32	.2014
	p-value	*.138*	*.269*	*.226*
Jackie F.	/ɑ/ mean	853.39	1354.14	.1327
	/ɔ/ mean	846.20	1393.83	.1572
	p-value	*.406*	*.314*	*.277*

Evelyn D.	/ɑ/ mean	844.19	1360.75	.1682
	/ɔ/ mean	803.15	1318.35	.1650
	p-value	*.568*	*.445*	*.088*
Maureen F.	/ɑ/ mean	779.36	1360.90	.1453
	/ɔ/ mean	760.62	1331.21	.1322
	p-value	*.917*	*.844*	*.931*
Gladys I.	/ɑ/ mean	842.88	1336.41	.1786
	/ɔ/ mean	801.26	1174.05	.1832
	p-value	*.677*	*.262*	*.498*
Andrea O.	/ɑ/ mean	843.54	1206.11	.201
	/ɔ/ mean	823.73	1234.54	.171
	p-value	*.742*	*.225*	*.957*
Barbara E.	/ɑ/ mean	804.56	1236.85	.1665
	/ɔ/ mean	808.39	1257.95	.1547
	p-value	*.801*	*.919*	*.947*
Gerald E.	/ɑ/ mean	788.42	1258.09	.1502
	/ɔ/ mean	763.90	1287.14	.1521
	p-value	*.234*	*.211*	*.376*
Calvin R.	/ɑ/ mean	756.49	1410.48	.1558
	/ɔ/ mean	774.37	1366.19	.1425
	p-value	*.539*	*.765*	*.278*
Dennis S.	/ɑ/ mean	808.36	1389.63	.1935
	/ɔ/ mean	801.37	1386.47	.2007
	p-value	*.474*	*.366*	*.086*
Don U.	/ɑ/ mean	823.03	1262.46	.1963
	/ɔ/ mean	792.09	1273.55	.1649
	p-value	*.443*	*.199*	*.667*
Tammy C.	/ɑ/ mean	814.57	1264.83	.2141
	/ɔ/ mean	806.72	1263.48	.1942
	p-value	*.302*	*.856*	*.776*
Yvette W.	/ɑ/ mean	782.08	1197.61	.1904
	/ɔ/ mean	775.12	1216.78	.1489
	p-value	*.948*	*.450*	*.939*
Lisa M.	/ɑ/ mean	793.30	1139.03	.1825
	/ɔ/ mean	808.41	1106.07	.1611
	p-value	*.477*	*.255*	*.371*

Sheila Z.	/ɑ/ mean	804.98	1296.61	.1315
	/ɔ/ mean	833.30	1302.15	.1697
	p-value	*.152*	*.826*	*.029*
Brenda A.	/ɑ/ mean	860.54	1352.96	.1758
	/ɔ/ mean	821.57	1316.11	.1586
	p-value	*.301*	*.772*	*.145*
Keith E.	/ɑ/ mean	745.01	1295.32	.1715
	/ɔ/ mean	768.84	1278.66	.1534
	p-value	*.733*	*.248*	*.644*
Rob Q.	/ɑ/ mean	815.48	1303.35	.1677
	/ɔ/ mean	865.26	1366.85	.1613
	p-value	*.138*	*.778*	*.513*
Sabrina E.	/ɑ/ mean	811.12	1298.37	.1443
	/ɔ/ mean	811.61	1273.87	.1314
	p-value	*.075*	*.916*	*.315*
Tanesha G.	/ɑ/ mean	877.26	1320.80	.1850
	/ɔ/ mean	852.71	1319.78	.1669
	p-value	*.537*	*.554*	*.200*
Antoine K.	/ɑ/ mean	775.15	1372.10	.1451
	/ɔ/ mean	792.39	1423.66	.1412
	p-value	*.016*	*.730*	*.758*
Janice L.	/ɑ/ mean	867.78	1414.32	.2007
	/ɔ/ mean	862.48	1390.57	.1480
	p-value	*.706*	*.577*	*.111*
Daryl Z.	/ɑ/ mean	815.61	1424.52	.1418
	/ɔ/ mean	805.24	1420.25	.1381
	p-value	*.747*	*.512*	*.768*
Alyse V.	/ɑ/ mean	866.34	1414.57	.1505
	/ɔ/ mean	845.65	1396.39	.1053
	p-value	*.435*	*.799*	*.457*
Nadine B.	/ɑ/ mean	830.94	1450.18	.1791
	/ɔ/ mean	829.21	1498.33	.1322
	p-value	*.952*	*.351*	*.428*
Daneen Y.	/ɑ/ mean	876.14	1380.50	.1746
	/ɔ/ mean	889.04	1446.13	.1398
	p-value	*.265*	*.256*	*.768*

Terrance H.	/ɑ/ mean	728.07	1307.93	.1671
	/ɔ/ mean	748.91	1300.97	.1425
	p-value	*.489*	*.618*	*.548*
Maurice P.	/ɑ/ mean	824.59	1273.88	.1749
	/ɔ/ mean	810.08	1230.28	.1838
	p-value	*.568*	*.204*	*.344*

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