Phonetic variation in Washington DC: Race, neighborhood, and gender

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This dissertation examines how African American and European American speakers in Washington, DC are participating in widespread sound changes in North American English, approaching from both variationist and discourse-analytic perspectives. The study investigates the linguistic and social factors conditioning the realization of two phonetic variables: the fronting of high and mid back vowels (/u/ and /o/ fronting) and the merger/distinction of low back vowels (/a/-/ɔ/, or cot-caught). A sociophonetic analysis of these variables shows that DC is participating in the ‘mainstream’ U.S. change, in which high and mid back vowels are being fronted, and low back vowels are becoming less distinct. In DC, speaker race is one of the strongest predictors, with European American speakers exhibiting higher degrees of both fronting and merger. This does not mean, however, that DC African American speakers do not take part in the phenomena; a robust age effect among African American speakers suggests that African American speakers not only exhibit evidence of participation in these sound changes, but are moving towards higher degrees of fronting and merger in apparent time.

One factor that affects the speech of African Americans in DC is speaker’s neighborhood background, in which African American speakers from the Southeast (SE) neighborhoods exhibit different vocalic characteristics from those who are from elsewhere in the city (non-SE). Specifically, SE speakers do not participate in the mainstream back vowel trend of fronting and merger. There is also evidence that
suggests further differences even among SE speakers, depending on speaker sex. The uniqueness of SE speakers in their back vowel patterns inevitably raises the following questions: What social factors characterize the SE section of the city, which may provide insights into the speech of SE residents? Is there a difference regarding lifestyles, values, or expectations between SE women and SE men, which may be associated with the different vowel patterns observed between them?

These questions are addressed from a discourse analytic perspective, particularly focusing on the discourse of six speakers who are closely connected to SE neighborhoods, either as native residents or otherwise. Drawing on Positioning Theory (Davies and Harré 1990), I attend to how these six speakers position themselves and others in discussing some of the neighborhood issues, such as SE’s bad reputation and SE’s street-oriented culture. In particular, I illustrate the polarized positions between SE and non-SE speakers in their assessment of SE’s reputation, and also between SE women and SE men highlighted in their discussions of the neighborhood’s street culture. I demonstrate different types of positioning the speakers are engaged in, and how such positioning informs us of their differing values, and their identities. In doing so, this dissertation provides insights into the marginalization of SE, in which SE residents are both physically and socially isolated from the rest of the city, which accounts for their non-participation in the mainstream back vowel changes. The dissertation also provides discourse-based evidence of different values held by SE women and SE men; unlike SE women who tend to align with the mainstream values and disalign with the street culture, SE men exhibit ambivalent positions towards the mainstream values and also towards the street culture.

This dissertation contributes to an understanding of DC’s vowel characteristics, and furthers the discussion of in-group variation among African Americans by
illuminating the varied linguistic and social practices of African American residents of Washington, DC.

INDEX WORDS: back vowel fronting, low back merger, Washington DC, sociolinguistics, sociophonetics, discourse analysis, positioning
DEDICATION

To my family
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Chapter 1

Introduction

1.1 Overview

This dissertation investigates language variation and its social meanings in the city of Washington, District of Columbia. The main objectives of the study are 1) to investigate the phonetic variation of back vowels in Washington, DC, focusing on frontness of the high and mid back vowels /u/ and /o/ and positions of the low back vowels /ɑ/ and /ɔ/, 2) to identify patterns emerging from different groups of speakers depending on their race and sex, 3) to examine the direction or the status of change informed by speaker age as an indicator of apparent time change, 4) to delve into in-group variation among African Americans in DC by factoring in sex as well as speaker neighborhood, and lastly 5) to explore the discourses of marginalization circulated among local African Americans. By probing these goals, the study firstly contributes to a better understanding of the phonetic characteristics of Washington, DC, for both European American and African American speakers, in comparison to the dialects of other regions in North America. The study also furthers the discussion of heterogeneity in African American English, specifically illuminating the varied linguistic and social practices of African American residents of Washington, DC. Finally, the study demonstrates the value of combining quantitative and qualitative approaches to the study of linguistic variation, as it allows us to identify locally salient social issues and ideologies as well as different speaker positions towards them, thereby affording
a fuller understanding of the community as a whole and also the individual speakers within it.

1.2 Washington DC

1.2.1 Situating DC in a Dialect Geographic Context

Washington, DC, (henceforth, DC) is a city that is grouped under the Mid-Atlantic region, and is the center of Washington Metropolitan Statistical Area (MSA), which encompasses all of the District, parts of Maryland and Virginia, and the easternmost county of West Virginia. The Washington MSA is the seventh-largest metropolitan area in the country, with approximately 6 million residents as of 2014 according to the U.S. Census Bureau. The DC area is often synonymously referred to as the DMV, short for DC, Maryland, and Virginia, and is colloquially defined as the area that is surrounded by, or adjacent to Interstate 495, or the ‘Capital Beltway’.

DC is an interesting site in which to study language from a dialectological point of view, due to its liminal location between the South and the North. The question of whether DC is part of the South or the North often yields a variety of answers from the DC residents. Some say DC is more southern, while others say DC is northern; there are some who specifically identify DC as neither the North nor the South, but ‘in the middle’, and some give even further specification in which DC is in the middle, Maryland is in the North, and Virginia is in the South. Indeed, according to the National Railroad Passenger Corporation, or Amtrak, DC is the southernmost point of the Northeast corridor, but is the northernmost point of the Southeast corridor (or Southeast High Speed Rail Corridor), which provides a bit of extralinguistic ‘proof’ of DC's ambivalent location. The contested categorization of DC in terms of its geographic and linguistic location is addressed in detail by Nylund
(2013), who discusses metalinguistic commentary in relation to the construction of regional identity, and regional dialect perceptions, of DC residents.

1.2.2 Looking Inside the City

The District, with an estimated population of 658,893 in 2014, is the 22nd most populated city in the states\(^1\). The population in the city exceeds one million during the daytime, due to a large number of commuters from the suburbs of Maryland and Virginia\(^2\). The city is divided into four quadrants: Northwest (NW), Northeast (NE), Southeast (SE), and Southwest (SW) (Figure 1.1\(^3\)), and into eight council wards (Figure 1.2\(^4\)).

\begin{figure}[h]
\centering
\includegraphics[width=0.4\textwidth]{figures/DCCoreDCquat.png}
\caption{DC’s four quadrants.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.4\textwidth]{figures/ward.png}
\caption{DC’s eight wards.}
\end{figure}

\textsuperscript{1}http://quickfacts.census.gov/qfd/states/11000.html (Retrieved on 10-25-2015)
\textsuperscript{2}http://proximityone.com/city_daytime_population09.htm (Retrieved on 10-25-2015)
\textsuperscript{3}source:http://en.wikipedia.org/wiki/File:DC_satellite_image.jpg
\textsuperscript{4}source:http://www.neighborhoodinfodc.org/wards/wards.html
The majority races of Washington DC are African American, constituting 49.5 percent of the total population, and European American, which comprises 43.4 percent as of 2013. Roughly two thirds of the city’s population was black around 1970, but for the last 45 years, the number of African Americans has gradually declined as many have moved to the adjacent suburbs. As a result of gentrification which started in the mid 90s, DC has experienced a drastic demographic change; between 2000 and 2010, the white\(^5\) population increased by 31.4 percent whereas the black population dropped by 11.5 percent\(^6\). Furthermore, the city is highly segregated. For instance, the population of ward 3 is almost 80 percent white and only 5 percent black as of 2010. On the opposite side of the city where ward 7 and 8 are located, it is almost exclusively black; as of 2010, ward 7 has a 95 percent black population and a 1.5 percent white population, and similarly ward 8 is 94 percent black and 3.2 percent white\(^7\). This racial split runs along west-east lines, with the east side of the city and its neighboring areas in Prince George’s County in Maryland being primarily occupied by African Americans.

The city’s residential divide is closely related to a number of other social aspects such as income, education, and crime. According to 2014 Census, DC residents have the highest personal income per capita in the country by far ($45,877)\(^8\), but the percent of individuals below the poverty level is 17.7, the tenth-highest of all the

\(^5\)Throughout my dissertation, ‘African American’ and ‘black’ are used interchangeably, and so are ‘European American’ and ‘white’. It should be noted, however, that this equivalence is often problematized due to the different sociohistorical and ideological implications. See Blake (2014) for fuller discussion on the labels.


\(^7\)www.neighborhoodinfodc.org (Retrieved on 10-18-2012)

\(^8\)http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_1YR_DP03&prodType=table (Retrieved on 03-24-2016)
states\textsuperscript{9}, with a large portion of ward 7 and 8 exhibiting higher levels of poverty. Crime in DC is also reported to be concentrated in the areas associated with poverty. A policy study by Cahill and Roman (2010) reports that more than a quarter of all the crimes in the District take place in only five percent of city blocks, and that those blocks are clustered largely in the center and the east of the city.

The socioeconomic spectrum of the African American community in DC has widened since the advent of gentrification. Manning (1998) notes, in his sociological investigation of post-industrial metropolises, that one of the contemporary patterns is socioeconomic inequality within ethnic minority groups, and DC is no exception. The divide between middle-class African Americans and lower-class African Americans in the city is becoming increasingly pronounced; while middle- and upper-middle class African Americans are moving to the suburbs as well as to the gentrified sections of the city, the un-gentrified (or yet-to-be gentrified) sections of the city (e.g. a large portion of Southeast) are occupied mostly by lower-class African Americans, creating two very different groups of African Americans coexisting in the city (see, for example, Grieser 2015).

One way to capture the broad socioeconomic spectrum among African Americans and the concomitant in-group variability observed in their patterns of language use is to factor the neighborhood into the discussion; a neighborhood is an indicator of its members’ socioeconomic status and background, which may help unravel a layer of variation that is not explained by macro social categories such as race, sex, or age. To this end, my project particularly pays attention to the speech of African Americans, not only with regards to age and sex, but also referring to their neighborhood as a proxy for their socioeconomic status. Specifically, I categorize African Americans

\textsuperscript{9}http://www.census.gov/quickfacts/chart/IPE120214/11,01,04 (Retrieved on 03-24-2016)
into two neighborhood groups – those from the Southeast section of the city (SE speakers) and those from the rest of the city (non-SE speakers). This distinction is based on the racial and socioeconomic landscape of DC as outlined above, in which one particular quadrant, SE, is predominately occupied by African Americans and is the most isolated from the other parts of the city.

The marginalized status of the SE section of the city is indicated by a number of demographic indices, all of which point to the fact that the residents of SE are more affected by poverty, crime, violence, lack of education, and unemployment, than the residents of DC elsewhere. For example, SE has the highest unemployment rate in DC; as of January 2015, the unemployment rate in ward 7 is 13.3%, and the rate in ward 8 is 16.5%, which is much higher than the District average rate of 7.7%\(^\text{10}\). This disparity between SE and the rest of the city is exacerbated by the unwillingness of commercial vendors to open their establishments in SE, which results in even more limited access for SE residents to various social resources and opportunities\(^\text{11}\). Even more layers of marginalization are found when looking inside the SE community, with SE women and SE men being further marginalized for different reasons; many SE women are vulnerable to hardships due to their entrance into single-motherhood at a relatively young age, which often requires them to take full responsibilities for the circumstance (i.e., raising children and financially supporting them) while depriving them of opportunities (e.g. going to college), and many SE men are stereotyped and stigmatized by the negative reputation of SE, the details of which (e.g. crime, violence, unemployment, etc.) are often associated with men. The prevalence of single-motherhood and teen pregnancy, for instance, is supported by the consistently high number


of teen births in wards 7 and 8, compared to the rest of the city in which the number of teen births has been sharply decreasing over the last two decades\textsuperscript{12}.

Further, the SE section of the city is marginalized not only in terms of social resources (both commercial and noncommercial) and accompanying opportunities for upward mobility; it is further marginalized on an ideological level by the widespread discourse, in which SE is reported to be the place to avoid (see Chapter 5). SE residents, in other words, face two layers of marginalization; they are often excluded from the rest of the city in terms of resources, and at the same time, they experience their own neighborhoods being shunned by other people who are not in the SE community.

1.2.3 THE SOCIOLINGUISTICS OF DC

It is probably not far-fetched to say that most current vowel variation studies in North America are in one way or another indebted to the Atlas of North American English (ANAE), the comprehensive work by Labov, Ash, and Boberg (2006). As with many studies in recent years, my project is taking the ANAE as a starting point, in the hope of filling in some gaps by building my project upon it. There are four aspects of the ANAE that can be complemented by further research: a) some of the regions defined in the Atlas are based on data that was collected in the early 90s, allowing subsequent researchers to conduct real-time comparison, b) the number of speakers in the Atlas representing each region is not large, c) areas that lie between major geographic regions, such as DC, are underrepresented (see, for example, Ash 2003), and d) it does not include African American speakers\textsuperscript{13}. This is well justified.

\textsuperscript{12}https://www.washingtonpost.com/local/teen-pregnancies-stay-stubbornly-high-in-poor-dc-wards-low-expectations-are-cited/2014/01/29/0e65b1a4-8927-11e3-a5bd-844629433ba3_story.html (retrieved on 2015-09-27)

\textsuperscript{13}Though there are 44 interviews with African American speakers, the reported patterns in the Atlas do not reflect these speakers.
by the authors of the ANAE, who stipulate that their mission is to produce a large-scale atlas of phonological patterns, emphasizing that their goal is not to initiate ‘a sociolinguistic investigation’ (Labov et al 2006:297) bound in a particular region, which would require an in-depth look at the speech community, taking into account speakers of various social backgrounds whose race, age, or socioeconomic status vary.

My project, however, is indeed a sociolinguistic investigation of the phonological patterns of DC residents, benefiting from a fairly large sample, which not only includes but also focuses on African American speakers in DC. My project examines the vocalic characteristics of 40 native Washingtonians (12 European Americans and 28 African Americans), focusing on the frontness of high and mid back vowel /u/ and /o/, and the merger of low back vowels /ɑ/ and /ɔ/ as linguistic variables under study. The social factors considered in investigating the variables are race, sex, age, and neighborhood. While back vowel fronting and low back merger are robustly studied in other regions, and are characterized as two of the most widespread sound changes in North America, no study has examined these variables in DC. Studying the frontness of high and mid back vowel and the merger of low back vowel not only contributes to our understanding of which dialect region DC falls under – the Mid-Atlantic, or the North, or the South, or neither – but also allows us to observe different back vowel patterns emerging from different groups of DC speakers, thereby expanding the discussion of the social meanings of the variables under study.

As mentioned above, DC’s geographic location is inconclusively assigned to either the North or the South, or neither. The dialectal affiliation of DC is reported to be inconclusive as well; the ANAE categorizes DC as one of the ‘transitional cities’ that are marginal to the South (2006:141), with no particular vowel system that distinguishes DC from (or ties DC with) others. Even though the District is often grouped as a part of the Mid-Atlantic region in geographic terms, it is not
so linguistically; for instance, the ANAE indicates that the city does not partake in the split /æ/ system – in which the production of /æ/ is, in simple terms, split into a tense variant (when the following environment is front nasal /n/ or /m/, or voiceless fricative such as /f/ or /s/) and a lax variant (elsewhere) – which is one of the main phonological characteristics defining the Mid-Atlantic. The Mid-Atlantic dialect region as defined by the ANAE includes Philadelphia, Reading, Wilmington, and extends South to Baltimore, but does not include Washington DC. Being left out of the Mid-Atlantic region, DC is yet marginal to the South. For example, the ANAE reports that /ay/-monophthongization, one of the defining features of the South, is present in Richmond, Virginia, but not in DC (Labov, et al. 2006: 129). The distance between the two urban centers is only about 100 miles, taking only two driving hours, and yet the two belong to different dialectal areas. This again points to the fact that DC is neither the South nor the Mid-Atlantic and thus is considered to be transitional\textsuperscript{14}.

The study of African American English (AAE) in DC was pioneered by Ralph W. Fasold (1972), who conducted a study of the speech of working class African American residents. He confirms the findings of two earlier studies on Black English in other metropolitan areas, namely New York (Labov et al. 1968) and Detroit (Wolfram 1969). Some of the features documented are final devoicing of voiced consonants, final consonant cluster simplification, third-person singular ‘-s’ absence, past tense marker ‘-ed’ deletion, and habitual (distributive) ‘be’. Fasold’s study mainly focused on the morphosyntactic characteristics of AAE in DC and the syntactic and phonological motivation behind these characteristics, and as such, further phonolog-

\textsuperscript{14}Though DC is a transitional city, according to Labov, et al. 2006, it does belong to a larger, inclusive area called the Southeastern super-region, which groups the South, the Midland, and the Mid-Atlantic states into one region. The Southeastern super-region is defined by /o/ fronting and the low back distinction.
ical characteristics of AAE in DC including the vowel system and r-lessness remained to be investigated.

Nearly 40 years after Fasold’s foundational study of AAE in DC, these inquiries began to be revisited in 2006 and thereafter, as the Georgetown University linguistics department initiated the ‘Language and Communication in the Washington DC Metropolitan Area’ (LCDC) project. This project, founded by Deborah Schiffrin and Natalie Schilling, generated approximately 200 sociolinguistic interviews as of October 2015, and the interview corpus is growing each year. The aim of the project is to study how DC residents use language to showcase and shape their identities with regards to their neighborhoods, communities, and the wider city and suburban area. There are a number of studies so far conducted which draw their data from the LCDC interview corpus. In what follows, three studies that investigated vowel variation are reviewed.

*A real-time study of /ay/ monophthongization in Washington DC (Callier, Jamsu, and Lee. 2009)*

/ay/ monophthongization, as mentioned above, is not found among the speech of European Americans in DC. But how about for African Americans in DC? Callier, et al. set out to answer this question by investigating /ay/ monophthongization among African American speakers in DC, conducting a real and apparent time study using data from speakers of different generational groups from Fasold’s 1968 data set and from the LCDC data set from the early 21st century. While their study focuses on African American speakers, European American speakers are also included in the sample as a reference point.

Monophthongal /ay/ is a key defining feature of the U.S. Southern regional (white) dialect, but it also is a characteristic feature of African American Vernacular
English (AAVE) at the same time (Bailey et al. 1996; Bailey and Thomas 1998; Pederson et al. 1986-1992; Schilling-Estes 2000; Thomas 2001). The monophthongal realization of /ay/ has been found to be conditioned by following environment: in general, /ay/ monophthongization is favored before voiced codas (e.g. ‘prize’) position and in open syllables (e.g. ‘pry’); it can also occur before voiceless codas (e.g. ‘price’) but is less likely in this position. These conditioning effects are especially robust in African American English.

Upon examining the speaker sample from the LCDC corpus, Callier et al. find that African Americans in DC monophthongize /ay/ particularly when the following context is voiced or open. They also observe a gender pattern, in which extreme glide shortening in non-pre-voiceless environments (PRIZE and PRY) is limited to African American men, with African American women displaying similar degree of retaining the glide as the white speakers. They further identify a real-time change among African Americans in DC by comparing seven African American teenagers from 1968 to 1969 with seven African Americans ranging from 29 to 55 years of age whose interviews were collected from 2006 to 2008, in which the monophthongization rate between women and men drastically shifted in the last 40 years. Specifically, African American women 40 years ago used to monophthongize /ay/ in the PRIZE and PRY contexts more than men, but they do so significantly less now. The case is the opposite for African American men, as they now monophthongize slightly more than they used to 40 years ago.
Real-time data and communal change in Washington, DC, African American Vernacular English (Schilling and Jamsu 2010)

The maintenance of features associated with AAVE by African American men is further supported by Schilling and Jamsu (2010), who compare three different data sets in their examination of /ay/ monophthongization and r-lessness: two data sets from one age cohort (born in the mid 1950s) that were collected in different time periods – one in 1968 (Fasold 1972) as they were teens, and the other in the late 2000s as middle aged speakers (from LCDC corpus) – and one data set collected in 2003 (Froyum Roise 2004) consisting of current teen males who were born approximately around mid-1990s. The result shows that DC teen males out-monophthongize the middle-aged speakers from LCDC data, as well as the teens from Fasold data (Figure 1.3).

Figure 1.3: Percent /ay/ monophthongization across corpus and environment (from Schilling and Jamsu 2010).

Based on their findings, they demonstrate that the slight increase in /ay/ monophthongization among African American speakers in DC is a communal change
rather than age-grading, and suggest that the maintenance of a relatively high level of /ay/ monophthongization over time points to the stability of AAVE in DC.

Quantifying and interpreting the PIN-PEN merger in Washington DC (Podesva 2011)

The mid front vowels /ɪ/ and /ɛ/, in the pre-nasal context, are merged in some varieties of English, namely, Southern American English and AAVE. The merger (commonly known as the PIN-PEN merger) has been extensively documented in many studies conducted in the South, (e.g. Brown’s 1991 study in Tennessee, and Baranowski’s 2008 study of Charleston, South Carolina), and also in studies of AAVE (Bailey and Thomas 1998, Rickford 1999, Thomas 2007). Podesva’s study investigates the merger in Washington DC, drawing from 32 sociolinguistic interviews with European American and African American speakers from the LCDC corpus. To calculate the degree of merger, Podesva used two measures: the Pillai score, which indicates the degree of overlap between the two vowel classes per speaker, and the Euclidean distance between PIN and PEN, the acoustic distance between the two vowel classes calculated from vowel height and frontness. The study shows that black speakers exhibit significantly higher rates of merger than white speakers. However, when examining the F1 dimension (which indicates degree of vowel height) in particular, the data suggests that the merger is losing ground as reflected by younger African American speakers, and further analysis shows that this weakening of merger is mainly attributed to African American female speakers.

The findings of the three studies reviewed above point to the maintenance of features frequently associated with African American Vernacular English (AAVE) more by African American men than by African American women, as well as more
use of these features by younger speakers than older speakers. My dissertation continues this inquiry of in-group variation among African American speakers in DC, paying attention to speaker sex, age, and neighborhood background (SE vs. non-SE) as factors associated with the structure of their back vowels, namely, /u/ and /o/ fronting and /a/ and /o/ merger. Particularly, the neighborhood factor in examining the speech of African Americans in DC can illuminate in-group patterns correlating with socioeconomic status. In discussing issues for consideration in the sociolinguistic study of DC, Walt Wolfram (1984:22) also suggests a pattern of in-group variation among African Americans based on neighborhood, noting that middle-class African Americans who reside mostly in the upper Northwest exhibit more Northern features in their speech, while working-class African Americans in the Southeast and Northeast quadrants are more Southern in their speech. The importance of neighborhood in urban sociolinguistic studies has been acknowledged and discussed by many researchers (e.g. Dodsworth 2013; Labov 2001; Modan 2007), who indicated that one’s neighborhood can be a reliable indicator of socioeconomic status.

1.3 Combining Variationist and Discourse Analytic Approaches

This dissertation is a quantitative sociolinguistic and sociophonetic investigation critically accompanied by discourse analysis with an ultimate goal of better understanding the language and social life of DC residents. The investigation of phonetic variation is conducted quantitatively, by measuring different realizations of a variable (e.g. frontness of /u/) among a number of speakers, and by examining correlations between a variant (e.g. fronted /u/) and factors that are both internal (linguistic) and external (social). Findings of the variation study point to such correlations between particular variants and social factors (e.g. the degree of /u/ fronting is predicted by speaker race),
and also to specific details of the correlations (e.g. European American speakers have more fronted /u/ than African American speakers). Often, interpreting the quantitative findings of a variation study becomes challenging when the observed patterns do not show neat correlations with macro-level social categories such as region, race, sex, or age, or when the observed patterns are unexpected. Furthermore, even when the correlations seem straightforward and/or expected, it is difficult to persuasively explain why a certain group of speakers exhibits some patterns but not others, and it is also difficult to fully understand what social dynamics are reflected by the speech patterns. The goal of bringing discourse analytic approach into variation studies is to help address these difficulties.

Before moving onto the discussion of combining variationist and discourse analytic approaches more in detail, I will first discuss how I operationalize the term discourse, and which framework of discourse analysis I adopt in my dissertation. For the purpose of my study, I define the term ‘discourse’ as a linguistic construct that is twofold: one, the content of talk, which necessarily encompasses a variety of ‘social practices and ideological assumptions’ (Schiffrin, Tannen, Hamilton, 2001:1), and two, the way the content of talk is constructed. As such, the discourse analysis undertaken in the current study focuses on local social issues that are saliently recognized and brought up by speakers during the interviews, and also on how different groups of speakers construct such issues differently as evidenced in their use of language. The dissertation specifically adopts the framework of positioning theory put forth by Davies and Harré (1990) as an approach to the discourse (see Nielsen 2012, who also draw on Positioning Theory in his investigation of stylistic variation in African American English). Detailed discussion of positioning theory and its utilization in conducting discourse analysis are presented in Chapter 5.
There are different ways in which the investigation of discourse can be incorporated into variation studies. Firstly, variable discourse features can be examined from the variationist perspective. Example discourse features that have been examined from the variationist perspective include the quotative ‘be like’ (e.g. Buchstaller and D’Arcy 2009; Tagliamonte and Hudson 1999), discourse markers (e.g. Escalera 2009), and set marking tags or general extenders such as ‘stuff like that’ (e.g. Cheshire 2007; Dines 1980; Erman 2001; Overstreet 1999). The patterns of these discourse forms with regards to social correlates are reported to be systematic, thereby demonstrating that one of the core principles in the field of sociolinguistics, i.e. orderly heterogeneity, is at play on the level of discourse as well. While such studies on discourse variation involve linguistic elements that are identified as discoursal, their analyses are often carried from the perspective of variationist sociolinguistics, in which the quantitative patterning of variants and their linguistic and social conditioning factors are examined. In this sense, the methodology of discourse variation studies might be less likely to involve in-depth examinations of texts and contexts that conventionally fall under the scope of discourse analysis.

More conventional types of discourse analysis that can be incorporated into variation studies involve examining the discourse context in which variation is embedded. One such realm of variation studies is the investigation of (intra-speaker) stylistic variation. Different views in terms of understanding the factors that affect stylistic variation are exhaustively reviewed by Schilling (2013b). One view is Labov’s (1972) Attention to Speech model, which holds that style may vary depending on the degree of attention speakers pay to speech itself as they converse, with more attention being held to correlate with increased formality/standardness and less attention to correlate with increased casualness/nonstandardness. Labov’s views have been borne out in a number of studies, including his own early investigations.
of the Lower East Side of New York City (1966) and his long-running investigations of language variation and change in Philadelphia (e.g. Labov 2001). Another view of stylistic variation regards style as a variable way of speaking depending on who is being spoken to, as proposed by Bell (1984) in his Audience Design model. Using his own studies of New Zealand radio announcers, as well as evidence from other studies such as Coupland (1984) and Trudgill (1981), in which the speech of a travel agency assistant and Trudgill himself as an interviewer, respectively, systematically shifts depending on the addressee (clients of different social classes calling to the travel agency in case of Coupland’s study, and study informants in case of Trudgill’s study), Bell (1984) demonstrates that Speech Accommodation Theory (Giles 1973) can be extended to apply to the fine-grained patterning of specific sociolinguistic variables, and that people indeed show different usage levels for such variables when conversing with different people and different types of audiences. Finally, a more recent view of stylistic variation, termed as the Speaker Design approach (see Schilling 2013b), maintains that style is the manifestation of speaker agency, in which speakers utilize various linguistic features as resources for accomplishing interactional goals, as well as for constructing identities. Per the Speaker Design model, different ways of speaking are brought about by agentively assembling language forms (on all levels of language from phonetic to morphosyntactic to lexical and more), each of which may be associated with specific social meaning(s). The Speaker Design model is thus not limited to stylistic variation, but rather applies to variation studies in general, in which identifying the social meaning(s) of variables is an indispensable part of the sociolinguistic inquiry.

While investigations of stylistic variation necessarily rely on the discourse context in which variation is embedded, at greater or lesser levels of detail, not many (inter-speaker) variation studies are conducted along with discourse analysis.
However, considering the content of talk in understanding variation has been done from early on, though the fact that discourse is being considered was not explicitly acknowledged as part of the approach to the study of language variation. The utilization of discourse, specifically the content of talk, in interpreting quantitative findings regarding phonetic variation can be traced back to Labov’s (1963) foundational work on Martha’s Vineyard, in which he identifies the meaning of the /ɑɪ/ and /ɑʊ/ diphthongs with centralized nuclei (realized as something like [ɑi] and [ɑʊ]) as the ‘positive orientation towards Martha’s Vineyard’. This interpretation is firstly suggested by the correlations between centralized /ɑɪ/ and /ɑʊ/ and macro social categories, including geographic background of the speakers (i.e. up-island vs. down-island), age, and occupation, and is eventually made solid and persuasive when the interview discourse supports such interpretation. Some other important arguments made in Labov’s Martha’s Vineyard study are mainly based on what the speakers said during the interviews and on ethnographic observations. For example, Labov (1971:31) identifies a case of hyperdialectism (in Trudgill’s terms, 1986:66), observed in one particular (male) islander with the highest degree of centralization, based crucially on what the speaker’s mother said about him: ‘[He] didn’t always speak that way... it’s only since he came back from college. I guess he wanted to be more like the men on the docks’, Labov 1971:31). Labov’s argument for the speaker’s hyperdialectism cannot be made from the fact alone that he is one of the most centralized speakers; the speaker’s hyperdialectism is only observed, or more precisely, deduced, when we have two comparison points – one, the speaker’s current level of centralization, and two, his lower degree of centralization at some point in the past. The former is revealed through phonetic analysis, and the latter through referring to the discourse. As such, examining discourse critically informs variationists in interpreting
quantitative results, although not many variation studies explicitly note from the outset that examining discourse is part of analytic methodology.

This dissertation makes explicit the discourse analytic approach as a critical element in investigating and understanding phonetic variation. Examining discourse not only allows us to learn more in detail about the issues and values that are important in the local community, but also informs us of similarities and differences among speakers of different groups in assessing such issues and values. These insights obtained by conducting discourse analysis in turn strengthens our understanding of the speech patterns found in quantitative analysis, by allowing us to situate the speech patterns in a locally pertinent context. Furthermore, as the present study will reveal, inter-group differences in the variable patterning of language may hold not only at the phonetic level but also in terms of discourse patterns as well, for example in the variable evaluation of certain community issues, as revealed in speakers’ contrasting positions, viewed from the lens of positioning theory (Harré and van Langenhove 1999).

1.4 Outline of Chapters

In this chapter, the city under investigation, Washington DC, has been briefly introduced in terms of its geographic positioning (including in terms of dialect geography), population, racial and socioeconomic makeup, and prior sociolinguistic studies. I identified the current project as a sociolinguistic study employing both quantitative and qualitative approaches. Chapter 2 provides an overview of the data and research methods, including the speaker sample for the study, linguistic variables, and the background and description of the fieldwork. Chapter 3 and Chapter 4 present and discuss the findings on high and mid back vowel fronting and on low back vowel
merger, respectively. Chapter 5 utilizes Positioning Theory (Davies and Harré 1990; Harré and Van Langenhove 1999) as an approach to speaker identity particularly relating to neighborhood, in an attempt to help explain within-group variation among African American speakers. Chapter 6 concludes the dissertation, which summarizes the study, discusses contributions and limitations, and suggests future directions.
In this chapter, I present the process of data collection, the background and description of the fieldwork, speakers for the study, and finally the linguistic variables for sociophonetic analyses.

2.1 The Language and Communication in the Washington DC Metropolitan Area (LCDC) Project

This study draws its data for the vowel analysis as well as discourse analysis from sociolinguistic interviews. These interviews were conducted in connection with an ongoing sociolinguistic project, Language and Communication in the Washington DC Metropolitan Area (LCDC), launched in 2006 by Deborah Schiffrin and Natalie Schilling of the Georgetown University Linguistics Department. The LCDC project aims to study how speakers in the DC area use language to display and shape their identities in their neighborhoods, communities, and the city and surrounding suburban areas. The LCDC corpus includes approximately 200 sociolinguistic interviews as of October 2015, and the corpus is expanding each year as additional interviews are conducted by Georgetown students as a part of their sociolinguistic fieldwork experience, as well as by interested faculty and other researchers. The interviews are conducted with residents of DC and the surrounding suburbs, and the types of interviewees range from DC natives who were born and raised in DC and are currently living there, to those who only recently moved into the area. The corpus is
composed of speakers from different racial, cultural, educational, and occupational backgrounds. Data from the corpus is available to approved researchers, affording them a good amount of data for investigating a variety of research questions which contribute to the overall goals of the project.

This dissertation uses data from 40 speakers collected in 38 interviews drawn from the LCDC corpus. 11 speakers were interviewed by myself. Out of 40 speakers, 12 are European American, and 28 are African American. All speakers are native to DC. Out of 28 African American speakers, 14 are from the Southeast quadrant of the city, and the other 14 are from the non-Southeast part of the city. In the next section, I elaborate on my contribution to the LCDC corpus by describing the motivation for and stories behind my fieldwork, and by presenting the process of speaker recruitment. I conducted my fieldwork in Southeast, involving participant observation as well as sociolinguistic interviews. Below, I start by discussing some of the initial observations I made in terms of the speech of DC residents, which led me to the fieldwork sites in the Southeast section of the city.

2.2 Fieldwork in Southeast, DC

2.2.1 Pre-fieldwork

Previous studies that examined data from the LCDC corpus suggest that the speech of DC-area residents exhibits a race pattern, with African Americans and European Americans displaying a number of different phonological characteristics; for example, PIN and PEN are more merged among African Americans than European Americans (Podesva 2011), /l/-vocalization and the alveolar realization of -ing (i.e. -in) are more frequently observed among African Americans (particularly men) than among European Americans (Nylund 2013), and falsetto voice quality is significantly
more common among African Americans (particularly women) than among European Americans (Podesva and Lee 2010). For the studies mentioned above, however, the sample of DC residents obtained from the LCDC corpus was exclusive of the Southeast (SE) section of the city, a quadrant of the city that is much less accessible compared to other three quadrants (For more detail on SE, DC, refer to 1.2.2 and Chapter 5.) Up until 2010, there was no interview in the LCDC corpus of a speaker who was born and raised and still living in a SE neighborhood, and for this reason, the speech of African Americans in DC represented by the LCDC corpus was reflective only of African Americans in other parts of the city and surrounding suburbs, such as Northeast, Northwest, and Montgomery County in Maryland⁴⁵.

In the fall of 2010, I interviewed a 21-year-old African American woman, whom I call Terra⁶. Terra is the first LCDC speaker who is from SE. She spends the majority of her time in SE neighborhoods, except for a couple of times a month when she travels by Metro (the DC-area subway) to Pentagon City Mall located in the nearby suburb of Arlington, Virginia. At the time of the interview, I was living in Pentagon City, and my apartment was right next to the mall. I met Terra inside the mall, and asked if she would like to participate in an interview. To my appreciation, she happily agreed. Interviewing Terra was turning point in my PhD years, through which I learned about Anacostia and other SE neighborhoods in general for the first time. I was both astounded by the stories she told, and intrigued by her vocalic characteristics that were different from those of other African American women of her age in the LCDC corpus. My fieldwork of SE residents unofficially began with this interview with Terra.

⁴⁵There are, to my knowledge, no speakers from the Southwest section of the city in the LCDC corpus to date. This is largely due to the fact that Southwest is less residential; out of five neighborhoods in Southwest, only one, namely, Southwest waterfront, is primarily a residential neighborhood, with the other four neighborhoods mainly utilized by the Federal government and the military.

⁶All names appearing in this dissertation are pseudonyms.
2.2.2 Terra’s Stories and her POOL Vowel

Terra is a true SE native; she was born and raised and is still residing in the Anacostia neighborhood in SE. The only time she ever left Anacostia (or the greater DC metropolitan area) was when she visited New York for a day as a teenager. Even though she is a DC native, as entailed in her being a SE native, her everyday travels do not involve many places other than the neighborhoods in SE. This is exemplified by one of her comments during the interview, in which she says that she has never been to the National Cherry Blossom Festival – a large-scale annual spring celebration held in downtown DC – even though she lives a short metro-ride away. At the time of her interview, Terra was attending evening classes in order to obtain her high school diploma.

During the interview with Terra, she provided a number of neighborhood-related stories. There were two aspects that stood out most to me, as I was introduced to her stories for the first time: one, the unusualness of the events as heard from my standpoint, such as murder; and two, her relatively nonchalant manner in telling the stories of murder. I later realized that this perceived nonchalance is due to the different orientation towards Terra’s stories between Terra and myself; that is, the events presented in her stories are evaluated with different foci by me and Terra. For example, in listening to the story of her close friend being murdered, the most salient element of the story as evaluated by me is the event itself, i.e., that a murder happened to her friend. However, for Terra, the event itself is backgrounded in telling the story. In other words, the prevalence of crime and violence in SE neighborhoods is only backgrounded, and issues of crime and violence are not as salient (as evidenced, for example, in Terra’s comment during the interview that ‘it’s like somebody passed [died] every year in that neighborhood’). In fact, a story about people being killed
or imprisoned is somewhat normalized for Terra, so that such a story alone is less
tellable. What is tellable for Terra, instead, includes specific thoughts or lessons she
draws from each violent incident. Some of her evaluative comments made during her
interview are: ‘no one to trust’, ‘only the innocent ones getting hurt’, ‘you’re not
even safe in your own home’, ‘you can’t fight fate’. These evaluations reveal Terra’s
experience, values, lessons learned, and perspectives that are shaped over the years
by virtue of being a SE native.

Her uniqueness as a speaker was not only glimpsed through her stories, but
also through her vocalic characteristics. This is particularly well illustrated by her
production of the POOL vowel, /u/ tokens followed by lateral (e.g. pool, fool, school,
etc.). My preliminary study on back vowels in DC at the time of her interview had
shown a number of linguistic and social constraints on /u/ fronting, with the strongest
linguistic constraint on /u/ fronting being the disfavoring effect of a following lateral.
This was the case for all speakers I had examined, regardless of race, sex, or age.
Terra’s POOL, however, is fronted, as revealed in both auditory and acoustic mea-
sures.

I was deeply intrigued by Terra’s stories and her POOL vowel, particularly
compared to the other African Americans in the city. To learn more about the SE
neighborhoods, and also to see if my initial observations regarding a possible corre-
lation between fronted POOL and SE speakers was borne out, I embarked upon my
fieldwork in Southeast.

2.2.3 Sites of the Fieldwork

One of the most challenging aspects in learning about the SE section of the city was
the matter of approaching, or injecting myself into the neighborhoods. In the fall
of 2011, I was introduced to a museum located in the Anacostia neighborhood by
Anna Marie Trester, then head of the Master of Arts in Language and Communication program in the Georgetown Linguistics Department. Trester advised me to pay a visit to this museum to see if it would be a viable starting point for fieldwork in SE. Per her advice, I began visiting the museum regularly. The museum stands on a beautiful hill in the heart of Ward 8, and it holds various exhibitions and community events that are nicely organized and maintained. The official name of the museum is the Smithsonian Anacostia Community Museum, one of the nineteen Smithsonian museums and galleries. It is the only Smithsonian institution that is located in the SE part of DC, and the only Smithsonian branch that focuses on a particular neighborhood community. On September 15, 1967, the Smithsonian Institution established the Anacostia Museum, first featuring objects from other Smithsonian museums, but the focus of the exhibitions soon shifted into African American history and culture. As avowedly a community museum, it is mainly neighborhood-oriented, striving to engage and inspire the residents in Ward 7 and 8. They often hold exhibitions of artwork by local artists from the neighborhood, as well as educational and informational exhibitions focusing on the history of the Anacostia community, and the African American community more broadly. The exhibitions, however, seem slightly overshadowed by a large number of events and programs organized by and held at the museum as community outreach efforts. These include arts and crafts workshop, information sessions regarding financial basics, and educational programs tailored to a variety of age groups from children to teens and to adults, among many others.

From the fall of 2011 to the fall of 2012, my presence in the museum (or in the neighborhood) was barely recognized by the residents of Anacostia, since I was involved in the museum only as a monthly (sometimes bi-weekly) visitor. My visits to the SE neighborhoods were limited to the museum, and the only people whom I had a chance to talk to at length were either security guards or other visitors. I entered the
neighborhood either by bus or by metro, and my travels always had a fixed destination, i.e. the museum. As an Asian, I was an apparent minority race in Anacostia; on the metro from downtown DC (I often traveled from L’Enfant Plaza near the Capital) to Anacostia, most of the riders whose destination was either Anacostia or farther east to Prince George’s County were African American, and on the W2 bus from Anacostia metro station to the museum and vice versa, all the riders were African American. The Anacostia neighborhood, along with most of the other SE neighborhoods, is often thought to be a place that requires caution when visiting, due to the high rate of crime; in 2012, the Metro Transit Police Department released a security report in which the Anacostia metro station was ranked at the top for the highest number of crimes out of all metro stations in the DC area\textsuperscript{17}. For one of my visits at the museum, I was escorted out by museum security to the bus stop in front of the museum, who reported that there had been a number of incidents of robbery at the bus stop, and that they were taking extra measures to ensure safety of the visitors who traveled by bus. Due to the difficulty of approaching SE speakers both in the museum (there were not a lot of visitors in general) and also out in the streets, I had to find another way to enter the community.

When approaching a community that is unfamiliar to the researcher, the ‘friend of a friend’ method (Milroy 1987) proves to be effective. Bearing this method in mind, I attempted to make initial contacts with a couple of community members, who potentially could serve as a ‘friend’ assuming the role as a liaison between the community and the researcher (myself), from which I could ideally do ‘snowball sampling’ (Milroy and Gordon 2003). I decided to enter the community by engaging myself with volunteer work at education-related centers. This allowed me to introduce myself to the

community relatively easily, potentially reducing the chance of community members feeling uncomfortable or invasive about my entrance. It should be noted, however, that entering a community through such official channels is not always advised. Based on the concern that community leaders (e.g. teachers, pastor, etc.) are not really representative of the majority of people in the community, some suggest fieldworkers should enter a community from the bottom up. While this is a valid concern, I still chose to enter the community through official channels for two reasons. For one, even though institutions such as a museum or a school are indeed official organizations, the purpose of such institutions by nature is to engage community members, and there was a good chance that I could meet a wide range of people, including ones who are not involved with the institutions per se. In addition, the neighborhoods I was trying to enter are quite dangerous, as addressed above, so meeting people and expanding my contacts at/through community centers rather than on the streets seemed to be a safer option.

On January 2013, I made an initial contact with one museum staff member, Leona, inquiring about volunteer opportunities related to one of the educational programs run by the museum. Leona was the program coordinator for the after-school Museum Academy Program at the time, in which the museum partners with local schools to provide educational resources for young children from age seven to eleven. She expressed interest in collaborating with me for a six-month literacy class at a local elementary school (which I will call Talbert Elementary), and eventually became my ‘friend’ who helped me access community members. From March 2013 to August 2013, I was visiting Talbert Elementary as well as the museum once a week to lead one-hour reading and writing sessions with the children attending the school. This allowed me to build my network in a SE neighborhood, and to eventually access many potential study participants such as teachers, parents, and school staff members. During this
period, 10 speakers who are related to the SE neighborhoods - either as a SE native or otherwise - were recruited through the two main fieldwork sites, i.e. Anacostia Community Museum and Talbert Elementary. It was also on these sites that I gained ethnographic insights into the lives of the SE residents.

2.2.4 Participant Observation as a Volunteer in the Community

There was one lingering concern I had upon starting the volunteer work: would my Korean racial and cultural background somehow act as a barrier to getting to know the people as they are in their everyday lives? Would they behave and speak differently with me than they would with other members of the community, or with a non-African American, or with a non-European American? Speech Accommodation Theory (Giles 1973; Coupland 1984; Giles and Coupland and Coupland 1991) and the Audience Design model for stylistic variation (Bell 1984) suggest that they would.

The effect of the interviewer’s race on sociolinguistic fieldwork has been noted by many researchers. Rickford and McNair-Knox (1994), for instance, investigate how African American speakers’ use of AAVE is influenced by the race of the interviewer. Comparing an interview with an African American teenage girl conducted by an African American fieldworker with another interview with the same girl, conducted by a white fieldworker, they find that the interviewer’s race plays a critical role in the interviewee’s use of AAVE features. In general, the African American teenage girl in the study used more AAVE features with the African American interviewer than with the white interviewer. Cukor-Avila and Bailey (2001), on the other hand, present quite different findings. In their study, the race of the interviewer appears to have no effect on the use of AAVE features. They speculate that other factors, such as the familiarity with the interviewee, or interviewer’s fieldwork experience, might reduce the effects of interviewer race.
Both Rickford and McNair-Knox (1994) and Cukor-Avila and Bailey (2001) compared the effect white interviewers have with the effect black interviewers have in interviewing black speakers. The question generated from this comparison is whether or not black interviewees use more AAVE features with black interviewers than with white interviewers. To my knowledge, no study has looked at the effect of interviewers of other races (e.g. Asian) on interviewing African American speakers, or European American speakers for that matter. What sort of effect my racial background may have in interviewing African American speakers and their use of AAVE is yet to be known, and it is a question this dissertation cannot adequately answer with the current scope of the study. However, there does not seem to be sufficient reason to withdraw myself a priori from the fieldwork altogether, impeded by the unverified possibility of eliciting less authentic, or less natural speech from the speakers due to my racial background. Furthermore, Cukor-Avila and Bailey (2001:268) particularly emphasize the critical impact individual interviewers have on the sociolinguistic data, suggesting that ‘race is one of a constellation of factors that can have a significant effect on results’. Rickford and McNair-Knox acknowledge this as well, noting that familiarity, age, and presence of a second interviewee may all come into play in shaping the interviewee’s speech patterns. Further points are made by Schilling (2013a), in which she notes that many other factors in terms of the fieldworker including sex, native vs. non-native language competence, etc. can matter in obtaining data. While it could well be the case that my identity – an Asian female graduate student whose English is a second language – works against me in gaining trust from the community members and potential participants, having a different background can sometimes be helpful in approaching to the community members (Schilling 2013a). As mentioned, I am of Korean descent, born and raised in one of the southern cities of South Korea. I moved to the U.S. in the summer of 2009 to start my PhD program at Georgetown.
I have always assumed the role of a learner in much of my fieldwork – especially in the early years of my PhD, though I still consider myself as a learner – since I was less familiar with the issues regarding the black-white divide in the U.S. If we hold that the ideal attitude for any sociolinguistic fieldworker is that of a learner, my non-member status that shows itself due to my appearance and/or my language could naturally present me as someone who is unfamiliar with the area and is in need of the help from the community members.

My presence as a student, a researcher, and a volunteer interested in learning about the SE community indeed worked in my favor. Most of the time, study participants excitedly assumed the role of expert on the SE community, eager to tell me the stories of Southeast, and of DC in general. While I was an apparent outsider, as most innocently recognized by the children in the beginning of my volunteer work, who greeted me with numerous questions about my racial background, I was quickly accepted as one of the teachers both by the children and also by the teachers at Talbert Elementary. Over time, teachers (and teaching assistants, other volunteers, as well as school staff) and I developed a sense of community stemming from our shared values regarding education. Once they accepted me as a part of the community, they did not shy away from lending their perspectives on various issues in the neighborhood and in the city such as education, employment, and gentrification. Albeit speculative, it seemed that my racial background was in fact quite conducive to the elicitation of racial ideologies; because they were talking to an Asian, a minority race that is rarely juxtaposed with African Americans. In speaking of various social issues in DC such as gentrification, they seemed more comfortable talking about ‘white people’ than they might have been with a white interviewer, affording me a unique opportunity to observe the less-filtered discourse of race provided by African American speakers.
An example illustrating such candid discussions of race is presented in excerpt 2.1\textsuperscript{18}, extracted from the interview with Lucy and Oliver, a 36-year-old Northwest native African American female and a 31-year-old Northeast native African American male, respectively, who talk about different ethnic groups in DC, and the recent changes in population:

---

**Excerpt 2.1. Lucy and Oliver’s discussion of recent demographic change in DC**

1) Lucy: um but growing up in Northwest, I feel like there were always
2) you know there was always a lot of
3) black people- well you know what, I’mma say this, one thing I always say um
4) me and my friends always talk about how...
5) there all different types of African Americans but there are generally
6) only one type of um Caucasian which was affluent
7) you never really saw any, you know, [poor white people
8) Oliver: .........................................................[poor
9) Lucy: and if you did, you know the joke was (hhhhhh)
10) the joke was, where do they come from (hhhhhh) like, like, how-
11) Oliver: or where do they live=
12) Lucy: ..............................................=where do, you know, where do you live
13) you know and like where did you come from
14) you know because there was only one type of, you know
15) Caucasian which was affluent, umm and then you know
16) the Latino community was almost, it was, neck to neck with, you know
17) African Americans
18) and like I guess um the Asian communities, and the African- community
19) I guess maybe I’m just now s- noticing as an adult there
20) those communities are growing in DC, they were always in Virginia
21) in the outskirts um
22) but as far as DC, definitely African Americans, Latinos, and whites
23) like that was, the make up of DC so um... but as far as how is it changing...
24) way more white [people (hhhhhh)
25) Oliver: ..............................................[way more, way more, way more white (people)

Lucy and Oliver’s comment on the rarity of ‘poor white people’ (lines 7 - 13), or on ‘way more white people’ in the city now compared to a couple of decades ago

\textsuperscript{18}Transcription conventions used in excerpts are provided in the Appendix A.
(lines 24 - 25), both of which are followed by laughter, is the type of comment that is more likely to be made without the presence of a white person. This suggests an advantageous place a minority interviewer – particularly one who is not implicated in the black-white divide – might have in interviewing speakers of the majority races, in which the interviewees may talk about race and related issues without having to employ any politeness strategies (Brown and Levinson 1987).

2.2.5 Interviews

As part of my fieldwork, I conducted sociolinguistic interviews once my presence was introduced and recognized by the community members. Sociolinguistic interviews in the traditional Labovian sense (Labov 1972) are designed to elicit large amount of natural speech from interviewees. Often, the questions comprising a sociolinguistic interview are quite different from the typical questions of more typical sort of ‘interviews’ (e.g. interview between a reporter and an informant, interview between a job candidate and an employer, etc.), the latter of which are inherently formal in the sense that both parties (i.e. the interviewer and the interviewee) are unfamiliar with each other and engage in talk with a clear agenda in mind. Granted, the participants in a sociolinguistic interview are often unfamiliar with one another as well. However, the interview is designed so that its questions serve only as a rough guide, and interviewees are encouraged to direct the conversation toward topics of their own interest. Sample questions in a sociolinguistic interviews include ‘what games did you play growing up?’, ‘what do you think of your neighborhood?’, ‘have you ever had a near-death experience?’, etc., all of which are devised to minimize the interviewer control (and hence formality) that typifies the usual interview setting, with a goal of engaging the interviewees in naturalistic conversational discourse. For the purpose of my study, the template for the sociolinguistic interview was designed with the goal of eliciting
neighborhood-related talk. However, the template was mere for guidance, and it did not dictate the flow of the interview. Most of the time, the floor was granted to the interviewee, and I minimally spoke. While I was not talking much, I was very much engaged in the interaction, providing sufficient nonverbal feedback and thus signaling my fullest attention.

All interviews, except for the interview with Terra, were conducted during the period of my volunteer work between March 2013 and August 2013. During this period, a total of 10 speakers who are involved either in the museum or the school or both were interviewed. The eleventh African American interviewee whom I interviewed is Terra, my first contact with the SE community. Three speakers (Leona, Kiesha, and Grey) were interviewed at the museum, and seven speakers (Lucy, Oliver, Jami, Jackie, Susanne, Justin, Chess) at the school. Out of these 10 speakers, seven are from SE, and three are from elsewhere in the city (see Table 2.1). The three African American speakers who are not from SE are Lucy, Oliver, and Leona. While these three speakers are not native to SE (thereby grouped as non-SE speakers), they are closely involved in the SE community, as all of them commute to SE every workday, and Oliver now lives in SE. The exhaustive information on all 40 speakers for my dissertation is provided in the following section.

I strived to engage each interviewee for at least an hour of speaking, in order to obtain an adequate amount of language sample for quantitative analysis, as well as to obtain a full range of information about the topics I intended to cover. Most questions asked in the interview were open-ended, designed to elicit as many extended stretches of talks, including narratives, as possible. I also included a set of questions regarding the Anacostia Community Museum and the Museum Academy Program in order to understand what the SE residents think about the museum, and also to gain feedback on the Museum Academy Program, which I later shared with Leona, the
program coordinator. Towards the end of the interview, if time permitted, I asked the
interviewees to read the word pairs designed to elicit words containing back vowels. A
sample interview tailored to my study, modified from the generic LCDC protocol, is
presented in the Appendix B. With the exception of Leona, the other nine interviews
were recorded with a Tascam DR-40 digital audio recorder with an Audio Technica
Lavalier Mic (AT 831b). The recording was saved in WAV format (16-bit), with a
sampling rate of 44.1 kHz.

2.3 Selecting the Speakers

My dissertation analyzes 40 speakers who are DC natives. The scope of who counts
as a ‘DC native’ is delimited by two criteria: 1) whether or not the speaker was born
and raised in the DC area, or moved to DC in early childhood (age two or less) and 2)
whether or not the speaker is currently living in the DC area. The ‘DC area’ includes
the District proper, as well as immediately adjacent neighborhoods in Virginia (e.g.
Arlington County) and in Maryland (e.g. Montgomery County or Prince George’s
County). Most of the speakers selected in the study are from DC proper, but some of
them are either from, or currently residing (or both) outside of the District, but still
within the Capital Beltway range. As noted in 1.2.1, the Capital Beltway surrounds
DC, passing through Prince George’s County and Montgomery County in Maryland,
and Fairfax County and the City of Alexandria in Virginia. While the Capital Beltway
does not define the DC area, the speakers included in the current study who are all
grouped as ‘DC native’ are from, and living within, the range of Capital Beltway.
In addition, none of the speakers in my sample had lived elsewhere for significant
periods of time. Restricting the sample to DC natives significantly narrows down the
data pool from the LCDC corpus – more than half of the interviews in the corpus
are with speakers who are not from DC, which reflects the transient nature of the city. An additional factor that significantly affected the speaker selection process was recording quality. Since many of the interviews in the LCDC corpus were collected in connection with an introductory class in Sociolinguistic Field Methods, some are not of optimal audio quality. Only those of high enough quality for accurate and reliable acoustic analysis were selected.

As mentioned, the speaker sample includes 12 European Americans (6 females and 6 males) and 28 African Americans (16 females and 12 males; 14 from SE; 14 from outside SE), the two races that make up the majority of city’s population. Speaker age ranges from 18 to 85. All 40 speakers are examined in the investigation of the variable patterning of the back vowels (Chapters 3 and 4), and a subset of African American speakers is included in exploring the discourse about the SE section of the city (Chapter 5). For the discourse study, six African American speakers – three from SE and three from non-SE – are analyzed. The six speakers are among the 11 African American speakers whom I interviewed, and all six speakers are closely related to the SE community, regardless of their SE vs. non-SE status. In what follows, details on all 40 speakers are provided.

2.4 Speakers for the Study

24 speakers – 12 European American and 12 African American – are drawn from the LCDC corpus data collected from 2007 to 2010, and an additional 16 African American speakers interviewed in 2013 are also included. There are a total of 28 African American speakers in the sample, balanced for sex (16 women and 12 men). African American speakers are further grouped into SE and non-SE – 14 SE and 14 non-SE. Those who were born and raised and lived the majority of their lives in the
SE section of the city, particularly the area known as the ‘east of the river’, or Wards 7 and 8, are qualified as SE speakers. Those who were born, raised, and lived the majority of their lives in other parts of the DC area (e.g. Northwest DC, Northeast DC, suburbs in Maryland) are categorized as non-SE speakers. The speakers for the study are presented in Table 2.1 below. Along with the pseudonyms for the speakers, race (European American (EA) vs. African American (AA)), sex (male (m) or female (f)), age, and whether or not the speaker is from SE (SE vs. non-SE) are also provided. The time of the interview in month and year, and also the interviewer for each speaker are indicated. As shown in Table 2.1, out of the 14 SE speakers, six were interviewed by Jessica Grieser (2015), who also embarked upon her fieldwork in SE neighborhoods in 2013. The exact ages of Amy, Chris, Gus, and Vee (who are marked by asterisks) were not obtained, so their ages were entered as the midpoint of their respective estimated age range. The age ranges were estimated by the interviewer.
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<th>SE vs non-SE</th>
<th>Interview month-year</th>
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2.5 Linguistic Variables for Sociophonetic Analysis

The variables analyzed in this dissertation are the fronting of the high and mid back vowels and the merger of the low back vowels. Both phenomena have been widely investigated by many researchers across North American regions. Originally noted as a salient feature of Southern U.S. English, the fronting of the high back vowel /u/ is reported to have spread vigorously across the country, particularly in the West, Midwest, and the South. Fronting of the mid back vowel /o/ is argued to occur in tandem with /u/ fronting, though the support for the pairing is not conclusive. /o/ fronting is reported to be prevalent throughout the Midland, the South, and the Mid-Atlantic states (Labov, Ash, and Boberg 2006). The distribution of /u/ and /o/ fronting in North America as illustrated in Labov, Ash, and Boberg (2006) is presented below. Figure 2.1 illustrates the fronting of /u/ with coronal onset (as in TOO), and Figure 2.2 illustrates the fronting of /u/ with non-coronal onset (as in BOOT). Figure 2.3 shows the fronting of /o/, with both coronal and non-coronal onsets.
Figure 2.1: Fronting of /u/ after coronals. Blue circles indicate areas that show non-fronting, and red and purple circles indicate areas that show fronting. (From the Atlas of North American English, Map 12.1, Labov, Ash, and Boberg 2006).
Figure 2.2: Fronting of /u/ after non-coronals. Blue circles indicate areas that show non-fronting, yellow circles indicate intermediate fronting, and orange circles indicate fronting. (From the Atlas of North American English, Map 12.2, Labov, Ash, and Boberg 2006).

Figure 2.1 shows that /u/ with preceding coronals is fronted almost everywhere across North America. In comparison, the fronting of /u/ with preceding non-coronals is not as widespread as the fronting of /u/ with preceding coronals (Figure 2.2). In both Figure 2.1 and Figure 2.2, DC is shown to front /u/. However, this finding by Labov, Ash, and Boberg (2006) only reflects the fronting status of white speakers in DC in the early to mid 1990s. This dissertation investigates the current stage of /u/ fronting in DC, for both white and black speakers.
Figure 2.3: Fronting of /o/. Blue circles indicate areas that show non-fronting, and red circles indicate fronting. (From the Atlas of North American English, Map 12.3, Labov, Ash, and Boberg 2006).

Figure 2.3 shows that /o/ fronting in North America is less widespread than /u/ fronting, with the South exhibiting more /o/ fronting than elsewhere. /o/ fronting extends to the Mid-Atlantic region, and the map indicates that DC is fronting /o/.

Along with high and mid back vowel fronting, the merger of the low back vowels /a/ and /ɔ/, also known as the cot-caught merger, is another widespread phenomenon in North America. Previous studies show that the merger is either completed or in progress throughout the continent, except for three U.S. regions which are resistant to the merger: the Inland North, the Mid-Atlantic States, and the South (Labov, Ash,
The fronting of /u/ and /o/ and the /a/-/o/ merger are the main features constituting the ‘third dialect’ of English (the other two major dialects being the North and the South; Labov 1991), which is additionally characterized by the raising of /æ/ before nasals. Compared to the dialects characterized by the Northern Cities Shift and the Southern Shift, the third dialect does not involve a wholesale rotation
of the entire vowel system, and it covers the largest portion of North America. In characterizing the third dialect, Labov (1991) speculates that it is relatively stable, albeit acknowledging the great variability within the dialect. If the features I intend to study, namely, high and mid back vowel fronting and low back merger are indeed continent-wide phenomena (with /o/ fronting being a bit more limited), what will the presence or absence of these features in the DC area have to tell us about regional, ethnic, and other social affiliations; in other words, why should these features be the focus of the quantitative portion of my study? The answer is threefold: one, given that /o/ fronting and /u/ fronting after non-coronals are found more in the South than the North, and also that low back merger is resisted in the mid-Atlantic and South, figuring out the state of these two phenomena in DC could help situate DC as North, South, mid-Atlantic, or neither; and two, as with much other previous work, my study can provide evidence of variability within the third dialect, or even complicate the existence of the third dialect; and three, I hope to examine the status of fronting and merger not only among European American speakers, but also African American speakers, whose English is categorized outside of the three dialects of English.

The current state of fronting and merger in Washington DC is yet to be known, and my dissertation aims to begin to fill this gap. This study sets out to investigate the back vowel patterns in DC compared to other U.S. regions, and how the race factor surfaces in back vowel patterning. Other parameters such as linguistic constraints and the social factors of age, sex, and neighborhood background are also of critical consideration in this study.
Chapter 3

HIGH AND MID BACK VOWEL FRONTING

3.1 Introduction

The Atlas of North American English (Labov, Ash, Boberg 2006) notes that DC is fronting both /u/ and /o/ (refer to Figure 2.1, Figure 2.2, and Figure 2.3) among white speakers who were recruited in the early to mid 1990s. In this chapter, the current status of /u/ and /o/ fronting in DC is presented, with regards to phonological environment, race, sex, age, and neighborhood. While the fronting of /u/ and /o/ has been examined in many North American regions, and established as one of the major sound changes affecting the continent, no study has systematically explored /u/ and /o/ fronting in DC. Furthermore, the degree of fronting, for both /u/ and /o/, still exhibits regional as well as racial variation, with a lesser degree of fronting in the North, and lesser degree of fronting among black speakers than white speakers. As such, DC is an interesting area to study fronting both regionally and racially; DC’s location is not only marginal to the Mid-Atlantic region but also to the South, and DC is not only white (the demographic that has been rapidly increasing) but also black (the demographic that has been decreasing in recent years, but still comprising the majority of city’s population).

The chapter opens with a review of previous literature on /u/ and /o/ fronting. The chapter then introduces the method used for measuring the frontness of vowels, followed by results reported. The result section is largely divided into two parts; firstly,
the findings on /u/ and /o/ fronting from all 40 speakers are reported, and secondly, the findings on African American speakers only (28 speakers) are reported. For the second part of the result, neighborhood is additionally considered as a factor within the African American group, half of which is from SE (14 SE speakers) and the other half is from non-SE (14 non-SE speakers). The chapter concludes with discussion of the findings in relation to the social factors examined.

3.1.1 /u/ and /o/ Fronting in North America

High and mid back vowel fronting is one of the major sound changes observed in North America. This refers to the fronting of /u/ and /o/ respectively, where the nuclei articulation of /u/ and /o/ has moved further to the front of the oral cavity. The high back tense /u/ has quite a long history of fronting in a number of English-speaking regions. Within North America, /u/ fronting is a salient feature of Southern English. The Southern Vowel Shift, which is reported to cover mostly rural areas in the South (Wolfram and Schilling 2015), is characterized by the tense-lax switch of the front vowels and by the fronting of the back vowels /u/, /u/, and /o/ (Feagin 1986, 2003; Labov 1991, 1994; Thomas 1989, 2001). However, the fronting of /u/ is not confined to the South, but has reached almost everywhere across North America. Evidence of /u/ fronting has been noted in the Midwest (Ash 1996; Durian et al. 2010; Jacewicz et al. 2011), the West (Eckert 2011; Hagiwara 1997; Hall-Lew 2009; Luthin 1987; Podesva et al. 2015; Ward 2003), and even in the North, including in Canada (Labov et al. 2006; Boberg 2011), with a few exceptions in parts of the Northeast (Eastern New England), the North Central dialect area, and the Inland North (Clopper et al. 2005; Labov et al. 2006; Jacewicz et al. 2011).

The fronting of /o/, the mid back tense vowel, often co-occurs with /u/ fronting, though the pairing of /o/ fronting with the allegedly precedent /u/ fronting
has been refuted in some northern English dialects (e.g. Watt 2000; Watt and Tillotson 2001). The ANAE reports its vigorous spread throughout the Midland, the South, and the Mid-Atlantic states (Labov et al. 2006: 158), but /o/ fronting is not as stable or as widespread as /u/ fronting. For example, both Ash (1996) and Jacewicz et al. (2011) report the non-fronting of /o/ in Wisconsin, and Labov et al. (2006) observe the non-fronting of /o/ in the North in general. Labov et al. (2006) shows quite a clear North and South boundary for /o/ fronting, with all of the North including the Inland North, Montana, and western Canada exhibiting only a minimal degree of fronting. Furthermore, even though /o/ fronting has been reported in some parts of the West (Hagiwara 1997; Hall-Lew 2005; Luthin 1987; Ward 2003), the overall picture of the West (Labov et al. 2006:158) suggests that the fronting of /o/ is scattered and the degree of occurrence is widely varied. In areas where fronting is more advanced, such as the South or Mid-Atlantic states, /o/ fronting is often conditioned by age or social class, indicating some level of instability of this phenomenon. For example, Thomas (1989) observes that /o/ fronting is only exhibited by younger European American speakers in Wilmington, NC, indicating that it is a change still in progress, at least at the time of his study. Similarly, Fridland (2000) reports that /o/ fronting in Memphis, TN is most vigorous among the youngest group, again indicative of incipient change. This age effect is also observed by Baranowski (2008) in his study of back vowels in Charleston, SC. Again, he shows that /o/ fronting is a change in progress using apparent time evidence; in addition, he finds that speakers of higher social class are leading the change. In California, where /u/ and /o/ fronting are most prevalent among white speakers (Eckert 2011), speaker age has also been reported to be relevant phenomena, again suggesting an incoming change. Hall-Lew (2009), for example, shows that age is the strongest predictor for /o/ fronting in San Francisco. Similarly, Kennedy and Grama (2012) find that the nucleus of /o/ is more advanced than that
of /a/ on the F2 plane (i.e. is more fronted) among young adult speakers in California. The fronting of /o/ is also reported among younger speakers of Canadian English (see, for example, Boberg 2011), which is generally characterized by a backer /o/. In examining /o/ fronting in Columbus, OH, Durian et al. (2010) find that the speakers with the most fronted /o/ tokens are younger women. In sum, these findings so far seem to suggest that while /o/ fronting is not as advanced or completed as /u/ fronting, it is indeed advancing with younger speakers leading the change.

3.1.2 Back Vowel Fronting in Different Phonetic Environments

The fronting of /u/ that is sweeping through the North American continent mostly involves /u/ tokens after coronal consonants such as /t, s, d, z, S, n, l/. The effect of preceding coronal (alveolar and post-alveolar) consonants on back vowel fronting is well documented both diachronically and synchronically. For instance, Flemming (2003) extensively analyzes the interactions between preceding coronals and vowel backness, pointing out their mutual influence in articulation, and Kataoka (2010) suggests that the fronting of back vowels after coronals is a universal phonetic phenomenon, as it is observed in many unrelated languages. In addition, a number of acoustic phonetic studies attest to the effect of preceding coronal consonants on the increase in F2, i.e. fronting (e.g. Harrington et al. 2008; Ohala 1981; Oehman 1966).

A substantial F2 increase for /u/ tokens in syllables with coronal onsets is also documented in the ANAE (Map 12.1), in nearly all regions of North America except Eastern New England, the North Central region (including Minnesota and Wisconsin), and parts of Chicago. When looking at the fronting of /u/ after non-coronal consonants such as /k, b, m/, the picture is somewhat different. Firstly, for regions exhibiting fronting, the degree of fronting is noticeably weakened (F2 behind
the center line, proposed to be 1550Hz\textsuperscript{19}, with the exception of the South. Secondly, almost the entire Northern region of the U.S., from the Northeast to Northwest, as well as a couple of cities in the West, exhibit no fronting of /u/ followed by non-coronal onsets, with the F2 value less than 1200 Hz (ANAE, Map 12.2). Thirdly, Labov et al. (2006) point out that /u/ fronting after non-coronal consonants is less stable than /u/ fronting after coronals, and that the patterns of /u/ fronting after non-coronals are not conclusive enough to suggest any regional generalizations. Similarly, Hall-Lew (2011) finds that /u/ with coronal onsets is fronted without any social correlates affecting the fronting, whereas /u/ fronting with non-coronal onsets is significantly correlated with age, with younger speakers favoring fronting, indicating change still in progress.

The influence of preceding coronals is not markedly present in the case of /o/ fronting. One phonetic influence on /o/ fronting is following nasal: it has been reported that /o/ fronting is hindered by nasal codas (Luthin 1987; Watt and Tillotson 2001; Ward 2003).

The key onset that strongly favors /u/ fronting is coronal; conversely, the key coda that strongly inhibits fronting is the lateral /l/. Fronting is inhibited when followed by /l/, not only for /u/ but also /o/. The articulatory effect of /l/ on hindering back vowel fronting is observed in a number of studies. For example, Proctor (2009) conducts a gestural analysis and demonstrates the mutual effect of the back vowel and the lateral on retracting the dorsum. The backing effect of following /l/ is observed also in the case of the mid front vowel /ɛ/ (Eckert 2000; Gordon 2001), pointing to the general coarticulatory effects of the following lateral.

\textsuperscript{19}This value is the center line in the normalized system employed in ANAE (Labov et al. 2006).
Syllable structure, along with the following segment, can affect the trajectory of the vowels. For example, Labov (1994) makes a distinction between open and closed syllables when examining /u/ and /o/, as they tend to have a stronger presence of an offglide in open syllables than in closed syllables. This distinction turns out to play a role in accentuating the Southern vs. Non-Southern contrast regarding the pattern of /u/ fronting, where Southern speakers maintain fronted /u/ even in open syllables as opposed to the Non-Southern speakers, whose /u/ is more diphthongal in the same syllable structure (Koops 2010).

Even though phonetic environments strongly affect back vowel fronting, the effects are not universal in U.S. dialects. For instance, the disfavoring effect of following /l/ on back vowel fronting is absent in many Southern dialects, where back vowels are fronted regardless of following /l/ (Fridland and Bartlett 2006, Fridland 2012). As Labov (2006:512) points out, there are plenty of cases in which the effect of following /l/ does not apply, and therefore the effect is not universal but ‘language and dialect-specific’. Similarly, though a feature is taxonomically the same (e.g. /u/ fronting), the detailed phonetic information might not be homogeneous from one region to another, from one generation to another generation. For example, Koops (2010) investigates different types of /u/ fronting among white Houstonians in phonetic terms. Upon dividing the most Southern speakers and the least Southern speakers based on their participation in the Southern Shift, he observes that the Non-Southern group’s /u/ fronting involves a diphthongal /u/ in which the F2 trajectory from the nucleus to the glide displays a falling (i.e. backing) contour, whereas /u/ fronting in the Southern group is realized monophthongally with the F2 value staying more or less the same throughout the production of /u/. Building on Koops (2010), Hinrichs, Bohmann, and Gorman (2013) find that European American females in Cen-
tural Texas are favoring the mainstream /u/ fronting with its diphthongal trajectory, evidenced by both real-time and apparent-time data.

These examples point to the value of paying attention to detailed phonetic information, which can inform us of patterns which might otherwise go unnoticed or neglected, including the correlation of subtle patterns of linguistic variation with various social factors.

3.1.3 /u/ and /o/ Fronting and Ethnicity

Though back vowel fronting is generally regarded as characteristic of the speech of white speakers in many North American regions, the ethnic boundary in terms of fronting has been reported to be weakened, albeit not entirely disappeared. For example, Fought (1999) reports the presence of /u/ fronting among Chicano English speakers in Los Angeles. In examining the fronting of African American speakers in Detroit, Anderson and Milroy (1999) observe that the speakers in their study front /u/, but not /o/. Hall-Lew (2009) notes that Asian Americans in San Francisco are actively participating not only in /u/ fronting but also in /o/ fronting, particularly leading /o/ fronting in progress in apparent time in the local community.

Studies that examine both African American and European American speakers in the same region often show differing vowel patterns between the two groups. Even in the areas where back vowel fronting is most advanced, African American speakers are reported to exhibit limited evidence of fronting of both /u/ and /o/ compared to European American speakers (e.g. Baranowski 2013; Fridland 2000; Thomas 1989, 2001). There are studies that report fronting among African American speakers – for instance, Durian et al. (2010) find that /u/ fronting in Columbus, OH is present for both races, with older African American speakers fronting the least – but even in cases where fronting is observed among African American speakers, the degree of fronting
is usually more advanced for European American speakers in the area (Fridland 2003, Fridland and Bartlett 2006, Thomas 2007).

Some studies consider allophonic divisions of /u/ and /o/, the fronting of which is affected by phonetic context. These studies report that effects of preceding environment on /u/ fronting (i.e. coronal onsets promoting fronting and non-coronal onsets either less promoting or inhibiting fronting) are stronger for African American speakers than for European American speakers. For instance, Baranowski (2013) shows that African American speakers in Charleston, SC front /u/ after coronal onsets while their /u/ after non-coronal onsets remains far back. Similar observation has been made by Fridland and Bartlett (2006) in Memphis, TN, in which African American speakers rarely front /u/ after labials. The current study takes into account the effects of both ethnicity and phonetic environment on back vowel fronting, by examining fronting in African American and European American residents of Washington, DC, and grouping tokens of /u/ and /o/ by surrounding phonetic environments.

3.2 Analysis

Vowels of 40 speakers were extracted from the interviews. Extracted vowels include tokens of /u/ and /o/ in different environments, as well as three additional vowel classes, namely, /a/, /i/, /ɔ/. In particular, /a/ and /i/ are included as anchor vowels, which allows us to see the frontness of back vowels within the full context of the vowel space. Throughout the chapter and onwards, each vowel class will be referred interchangeably using both the IPA (International Phonetic Alphabet) symbols and Wells’ (1982) notation of vowel class, the latter of which names each vowel class after a representative word (e.g. FLEECE for /i/). While Wells’ notations of /u/ and /o/ are GOOSE and GOAT, respectively, I further specified GOOSE (i.e. TOO, BOOT,
and POOL) as well as GOAT (i.e. TOE, BOAT, POLE) vowel class. The purpose of this specification is to reflect phonological environments which could condition the degree of fronting. (see below for more detail).

A total number of 3,285 tokens, with the average of 82 tokens per speaker, were coded and analyzed. Taking into account the effect of preceding and following environment on back vowel fronting, /u/ tokens were further categorized into the three allophonic divisions of TOO, BOOT, and POOL. TOO includes /u/ tokens with preceding coronals such as alveolar (e.g. two) or post-alveolar (e.g. shoe). TOO class includes both open (e.g. shoe) and checked (e.g. shoot) vowels. /u/ tokens with coronal + glide onsets (e.g. dew, tune) are excluded\(^{20}\). BOOT encompasses /u/ tokens with preceding non-coronals including labial (or labiodental) (e.g. boot, move, food), velar (e.g. coop), glottal (e.g. who). As with TOO, BOOT class includes both open and checked vowels. Finally, POOL includes /u/ tokens with following lateral (e.g. cool). These divisions were also applied to /o/ tokens: TOE, BOAT, and POLE. For POOL and POLE tokens, those with coronal onsets (e.g. tool, told, sold) were excluded. Along with the high and mid back vowel, high front vowels (FLEECE) and low back vowels (LOT and THOUGHT/CLOTH) were also measured, with FLEECE and LOT as reference points in particular. A table with the number of tokens for each vowel class is presented below (Table 3.1).

\(^{20}\)While most speakers in the sample do not retain the glide, some speakers do exhibit higher F2 in these words. Being mindful of it, /u/ tokens with coronal + glide onsets are excluded.
Again, the data consist of 12 interviews with European Americans native to the DC area (six females and six males) and 28 with African Americans native to the DC area (16 females and 12 males). Out of the 28 African American speakers, 14 were born and raised in Southeast DC and categorized as ‘SE’ speakers; the other 14 are from elsewhere in the city, labeled as ‘non-SE’ speakers. The interviews were transcribed using Transcriber or ELAN\(^\text{21}\), both of which are free computer programs available online for transcribing speech and aligning the transcript with the audio signal. The transcribed interviews were then segmented into phonemes, and this was done in two ways. For 24 interviews, the segmentation was manually conducted: first, words containing relevant vowel tokens were annotated (i.e. segmented from the sentence and labeled) on one tier of the TextGrid (an element of Praat that enables annotation) using Praat (Boersma and Weenink 2014), a speech analysis and synthesis program, and then each vowel was annotated on another tier using Wells’ (1982) notation of vowel class. For the remainder of the 16 interviews, phonemes were automatically

\(^{21}\)Interviews conducted post 2012 were transcribed using ELAN
segmented using Forced Aligner\(^2\) (Rosenfelder et al. 2011), which also generated a TextGrid for each interview.

Once vowels were segmented from the speech signal, they were measured acoustically by extracting first, second, and third formant measurements at the midpoint of the vowel\(^3\), where the influence from the preceding and the following environment is minimal. The first two peaks in the acoustic signal correspond to vowel height and frontness, and as such, they can be used to assess the quality of particular tokens and word classes. For eight speakers, the trajectories of F1, F2, and F3 for the entire length of all tokens of /u/ and /o/ were also extracted, in order to examine possible patterns of fronting contour. Formant extraction was automatically conducted by a Praat script. The script was run on each vowel token, which was manually identified, and the extracted formant values were also manually double-checked. Only clearly stressed vowels were included: when the vowel was uttered with secondary stress, it was made sure that the vowel was produced without any impression of reduction. Tokens with unclear formants due to overlapping speech, or background noise were excluded, as were tokens uttered with non-modal phonation such as whispery or breathy voice. Since preceding rhotics and glides, as well as following rhotics, critically affect the trajectory of F1 and F2, vowels with these phonetic contexts were excluded. Only up to five tokens per lexical item were used. All lexical items from which /u/ and /o/ tokens were extracted are provided in the Appendix C. Along

\(^2\)Forced Aligner is a part of Forced Alignment and Vowel Extraction, or FAVE, program, in which the program automatically segments words and phonemes from the two pieces of an input file, namely, a sound file and the corresponding transcription. The output is produced as a Praat TextGrid file.

\(^3\)While /u/ and /o/ are most often realized as phonetic diphthongs in American English, the midpoint measurement can still capture the variation, as will be shown in the Results section. The midpoint measurement was chosen based on the observation that fronted tokens of /u/ and /o/ have higher F2 in the midpoint as well in general.
with the formant values, preceding and following phonetic environments as well as duration of the vowel were coded for each token.

In order to adjust for the differences of the sizes of the vocal tract among the speakers, thereby making it possible to directly compare the degree of fronting as indicated in their formant values, F1 and F2 values of the tokens were normalized using the Bark Difference Metric method (Syrdal and Gopal 1986), which is a vowel-intrinsic method of normalization. Bark Difference Metric method is used as opposed to vowel-extrinsic normalization methods (e.g. Watt and Fabricius 2002), since vowel-extrinsic processes are influenced by back vowel fronting. Thomas (2011:168) additionally notes that the Watt and Fabricius method in particular is further sensitive to the overall vowel space shape by speakers with a low, front /æ/. One caveat of Bark Difference Metric method is that the normalization is heavily dependent on F3, and so the normalization of rhotacized vowels (the F3 value of which is markedly lowered) cannot be accurately achieved. Furthermore, F3 values are sometimes not obtained reliably due to non-modal phonation. This study, however, does not examine rhotacized vowels. In addition, I manually checked for the accuracy of F3 values for each token, making sure that the data does not include misread F3. Bark-transformed formant values (which are called Z values) are also more aligned with an auditory scale rather than acoustic scale, reflecting how vowels are perceived.

The degree of fronting was measured by Z3-Z2, which is the Bark-transformed F3 and F2 difference. A higher degree of fronting is indicated by a smaller difference between Z3 and Z2, i.e., lower Z3-Z2 value. While the information regarding the front-back dimension is gained from Z3-Z2, the height dimension is obtained from Z3-Z1, with larger Z3-Z1 value indicating higher degrees of raising. Statistical analyses were conducted using the statistical software program JMP (ver. 11.0). A series of linear regressions with mixed effects (for multivariate analysis on continuous depen-
dent variables) was run with Z3-Z2, the measurement for the degree of fronting, as a dependent variable. Regression models are appropriate for use in variationist sociolinguistic inquiries, since they calculate the effect of each individual factor – both linguistic and social – while taking into account all other factors included in the model. The current study includes race, sex, age, neighborhood, phonetic environment, and duration of the vowel, as factors that are predicted to affect the degree of fronting. These are entered as fixed effects that are held constant across individuals, and across different words from which vowels are extracted. Individual speaker and word are entered as random effects, in order to deal with the variation between the specific words or individual speakers in my sample, which can warp the estimation of the fixed effects. As such, this study implements a mixed effects model that bases the predictions both on fixed effects and random effects.

Though the results on Z3-Z2 (the fronting measurement that is equivalent to F2) will be mainly discussed in what follows, Z3-Z1 was also checked for possible patterns of back vowel variation on the height dimension. The first set of regressions was run only with linguistic factors in order to determine the strongest linguistic factors. The significant linguistic factors, once identified, were then included in the later models with the social factors. The first set of regressions was run with a number of linguistic factors, including not only the duration of the vowel and phonetic environment (e.g. TOO vs. BOOT vs. POOL), but also voicing of the following sound and whether the vowel is open or checked. Since POOL and POLE classes are always checked and the following sound is always voiced, POOL and POLE classes were separately tested only for the effect of duration. Also, since the voicing of the following sound is only relevant for checked vowels, two parallel sets of regressions were run; one with checked vowels only, and the other with open vowels only. For checked vowels, effects of duration, environment, and voicing of the following sound were tested. For
open vowels, effects of duration and environment were tested. In all regressions with linguistic factors, word was entered as a random effect, and interactions among the linguistic factors were also considered.

Upon determining relevant linguistic factors, that is, the ones with the strongest effects (see 3.3.1), the next set of regressions was run with both linguistic and social factors entered in the model. Social factors include race, sex, and age. When examining only the African American speakers (28 total), neighborhood (whether or not the speaker is from SE) is included as an additional factor. Age was considered as a continuous variable. For all regressions, word and speaker were entered as random effects, and interactions among the phonetic environment, race, sex, and age were considered. The results are reported in the following section. Only the significant social factors will be discussed. While it turns out to significantly predict fronting in a number of models (with vowels with shorter duration being more fronted), duration is treated as a nuisance variable\textsuperscript{24} to control for its effect and will not be discussed further.

3.3 Results

Below in Figure 3.1, the vowel plot of the mean formant values that are Bark-transformed for all 40 speakers\textsuperscript{25} is presented. Normalizing vowels and generating the plots were both performed by the Sociolinguistic Archive and Analysis Project (SLAAP) norm suite, an online interactive web site providing various tools for phonetic analysis, maintained by North Carolina State University. The plot further justifies the allophonic distinction among /u/ and /o/ tokens made in the study. It

\textsuperscript{24}A nuisance variable is an extraneous variable that affects the dependent variable, but not of interest.

\textsuperscript{25}For POOL tokens, only 39 speakers were included, since there is one speaker with no POOL tokens in her interview.
illustrates that, for all speakers in the sample, pre-lateral /u/ (POOL) as well as pre-lateral /o/ (POLE) remain back, while both /u/ and /o/ tokens with coronal onsets (TOO and TOE) are the most fronted variants. Though the distance between TOE and BOAT seems insignificant when compared to that between TOO and BOOT, /u/ and /o/ tokens with non-coronal onset (BOOT and BOAT) exhibit a lesser degree of fronting overall.

Figure 3.1: Mean vowel plot for all speakers. Bark-transformed formant values, SD=1.
3.3.1 Linguistic Factors in /u/ and /o/ Fronting

Effects of duration and environment were first tested for all tokens of /u/ (Table 3.2) and /o/ (Table 3.3)\(^{26}\). For both /u/ and /o/, the phonetic environment and duration are strong predictors of fronting. Vowels with preceding coronals (TOO and TOE) are the most fronted, and those with the following lateral (POOL and POLE) are the least fronted (Figure 3.2 and 3.3). As mentioned, vowels with shorter duration are more fronted due to the centralization that comes with reduction. The degree of fronting is indicated on the y-axis in Figure 3.2 and Figure 3.3, with the Least Square Means\(^{27}\) of Z3-Z2 values for each environment. Again, the lower the Z3-Z2 value is, the more fronted it is.

| Table 3.2 Parameter Estimates for Z3-Z2 of /u/: duration and environment |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Term            | Estimate        | Std Error       | DDFen           | t Ratio         | Prob>|t|          |
| Intercept       | 4.555439        | 0.174628        | 103.6           | 26.09           | <.0001***      |
| environment[TOO]| -1.519856       | 0.167008        | 47.98           | -9.10           | <.0001***      |
| duration        | 0.0036217       | 0.000674        | 810.9           | 5.37            | <.0001***      |
| environment[TOO] *(duration-154.256) | 0.0011183 | 0.00089 | 810.1 | 1.26 | 0.2094 |
| environment[BOOT] | -0.013476      | 0.176698        | 42.78           | -0.08           | 0.9396         |
| environment[BOOT] *(duration-154.256) | 5.0837e-5 | 0.000954 | 809.5 | 0.05 | 0.9575 |

\(^{26}\) In the Tables to follow, parameter estimates, standard error (Std Error), degree of freedom in the denominator (DFDen), t-ratio, and Prob>|t| are indicated in each column. Parameter estimates in regression analysis are equivalent to Coefficients. The parameter estimate of one factor represents the change in the dependent variable for one unit of change in that factor, while holding other independent variables in the model constant. Standard error measures the precision of the parameter estimate. The more precise the estimate, the smaller the standard error. Degrees of freedom are ‘the number of values in a distribution that are free to vary for any particular statistic’ (Healey 1990:214). The t-ratio is calculated by dividing the coefficient with the standard error, the calculation of which is used to test the null hypotheses. Finally, Prob>|t| is equivalent to the P-value. Smaller P-values indicate that the null hypotheses are less likely.

\(^{27}\) LS means, a short for Least Square means, refer to means estimated from linear regression models.
Table 3.3 Parameter Estimates for Z3-Z2 of /o/: duration and environment

| Term                                    | Estimate   | Std Error  | DFDen | t Ratio | Prob>|t| |
|-----------------------------------------|------------|------------|-------|---------|------|
| Intercept                               | 5.3224501  | 0.134541   | 413.7 | 39.56   | <.0001*** |
| environment[TOE]                        | -0.82692   | 0.10924    | 104.1 | -7.57   | <.0001*** |
| duration                                | 0.0039736  | 0.000748   | 1057  | 5.31    | <.0001*** |
| environment[BOAT]                       | -0.214507  | 0.107709   | 103.3 | -1.99   | 0.0491*   |
| environment[TOE]*(duration-137.623)    | 0.0011026  | 0.00096    | 1058  | 1.15    | 0.2509    |
| environment[BOAT]*(duration-137.623)   | -8.746e-5  | 0.001062   | 1032  | -0.08   | 0.9343    |

Figure 3.2: /u/ fronting in different phonetic environments.

Figure 3.3: /o/ fronting in different phonetic environments.

Shorter duration predicts higher degrees of fronting for POOL (p=0.0290) and POLE (p=0.0321) classes as well, when they were considered separately from /u/ and /o/ tokens in other environments. For open /u/ and /o/ vowels, duration is again a predictor in fronting, whereas environment is not (Table 3.4 and 3.5).

Table 3.4 Parameter Estimates for Z3-Z2 of /u/ (open vowels only): duration and environment

| Term                                    | Estimate   | Std Error  | DFDen | t Ratio | Prob>|t| |
|-----------------------------------------|------------|------------|-------|---------|------|
| Intercept                               | 4.2120127  | 0.421643   | 4.083 | 9.99    | 0.0005 |
| duration                                | 0.0033627  | 0.001318   | 224.7 | 2.55    | 0.0114* |
| environment[TOO]                        | -1.010704  | 0.380181   | 2.373 | -2.66   | 0.0980* |
| environment[TOO]*(duration-160.42)     | 0.0011398  | 0.001318   | 224.7 | 0.87    | 0.3880  |
Table 3.5 Parameter Estimates for Z3-Z2 of /o/ (open vowels only): duration and environment

| Term                                | Estimate | Std Error | DFDen | t Ratio | Prob>|t| |
|-------------------------------------|----------|-----------|-------|---------|------|
| Intercept                           | 4.3045767| 0.230337  | 164.6 | 18.69   | <.0001|
| duration                            | 0.003848 | 0.001627  | 271.9 | 2.37    | 0.0187*|
| environment[TOE]*(duration-160.246) | 0.0013887| 0.001626  | 271.9 | 0.85    | 0.3940|
| environment[TOE]                     | 0.0615991| 0.072475  | 3.623 | 0.85    | 0.4479|

For checked /u/ exclusive of POOL, environment is the only significant linguistic predictor of fronting, with duration and voicing of the following sound not being correlated with fronting (Table 3.6). For checked /o/ exclusive of POLE, both environment and duration significantly predict fronting, while the voicing of the following sound does not (Table 3.7).

Table 3.6 Parameter Estimates for Z3-Z2 of /u/ (without POOL, checked vowels only): duration, environment, voicing of the following sound

| Term                                | Estimate | Std Error | DFDen | t Ratio | Prob>|t| |
|-------------------------------------|----------|-----------|-------|---------|------|
| Intercept                           | 3.5348018| 0.414148  | 216.8 | 8.54    | <.0001|
| environment[TOO]                    | -0.669683| 0.198241  | 108.8 | -3.38   | 0.0010**|
| duration                            | 0.0057112| 0.003368  | 221.8 | 1.70    | 0.0913|
| environment[TOO]*following_voicing[voiced]*(duration-137.648)| -0.003218| 0.003368  | 221.8 | -0.96   | 0.3404|
| environment[TOO]*(duration-137.648)| 0.0025598| 0.003368  | 221.8 | 0.76    | 0.4480|
| following_voicing[voiced]*(duration-137.648)| -0.002099| 0.003368  | 221.8 | -0.62   | 0.5338|
| environment[TOO]*following_voicing[voiced] | 0.0692461| 0.198241  | 108.8 | 0.35    | 0.7275|
| following_voicing[voiced]           | 0.0310546| 0.198241  | 108.8 | 0.16    | 0.8758|

Table 3.7 Parameter Estimates for Z3-Z2 of /o/ (without POLE, checked vowels only): duration, environment, voicing of the following sound

| Term                                | Estimate | Std Error | DFDen | t Ratio | Prob>|t| |
|-------------------------------------|----------|-----------|-------|---------|------|
| Intercept                           | 4.8273902| 0.198755  | 417.6 | 24.29   | <.0001|
| environment[TOE]                    | -0.302109| 0.095603  | 104.7 | -3.03   | 0.0030**|
| duration                            | 0.0039707| 0.001509  | 578   | 2.63    | 0.0087**|
| following_voicing[voiced]           | 0.0520602| 0.095603  | 127.3 | 0.54    | 0.5870|
| following_voicing[voiced]*(duration-121.239)| 0.0007452| 0.001509  | 578   | 0.49    | 0.6242|
| environment[TOE]*following_voicing[voiced] | 0.0416342| 0.095329  | 131.2 | 0.44    | 0.6630|
| environment[TOE]*(duration-121.239) | 0.0003776| 0.001509  | 578   | 0.25    | 0.8026|
| environment[TOE]*following_voicing[voiced]*(duration-121.239) | -0.000279| 0.001509  | 578   | -0.18   | 0.8546|
As environment and duration are significant factors in predicting the fronting of /u/ and /o/, they will be included in the regressions with social factors included.

### 3.3.2 Social Factors in /u/ Fronting

A number of significant effects are found in predicting /u/ and /o/ fronting, but among those, the interaction of race*environment most robustly predicts fronting for both /u/ and /o/. The effect summaries on Z3-Z2 of /u/ (Figure 3.4) and on Z3-Z2 of /o/ (Figure 3.5) illustrate the robustness of the effect of race*environment, closely followed by the effect of environment.

<table>
<thead>
<tr>
<th>Source</th>
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<th>PValue</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>environment</td>
<td>15.251</td>
<td>0.00000</td>
</tr>
<tr>
<td>race</td>
<td>4.001</td>
<td>0.00010</td>
</tr>
<tr>
<td>race<em>age</em>environment</td>
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<td>0.00051</td>
</tr>
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<td>duration</td>
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</tr>
<tr>
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<td>0.02002</td>
</tr>
<tr>
<td>sex<em>age</em>environment</td>
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<td>0.02514</td>
</tr>
<tr>
<td>race*age</td>
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</tr>
<tr>
<td>age*environment</td>
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<td>sex</td>
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<tr>
<td>race<em>sex</em>environment</td>
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<td>0.41438</td>
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<tr>
<td>age</td>
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</tr>
<tr>
<td>sex*age</td>
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<td>race*age</td>
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<td>race*sex</td>
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</table>

Figure 3.4: Effect Summary on Z3-Z2 of /u/.
Table 3.8 presents the linear regression results on /u/ fronting. All but two significant predictors involve environment, suggesting that the patterns arise differently for each allophonic variant of /u/. Random effects (i.e. word and speaker) are not shown in the table below.

Figure 3.5: Effect Summary on Z3-Z2 of /o/.

<table>
<thead>
<tr>
<th>Source</th>
<th>LogWorth</th>
<th>PValue</th>
</tr>
</thead>
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<td>environment</td>
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<td>0.00000</td>
</tr>
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<td>duration</td>
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<td>0.00007</td>
</tr>
<tr>
<td>race<em>sex</em>environment</td>
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<td>0.00007</td>
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<td>race</td>
<td>3.195</td>
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</tr>
<tr>
<td>sex*environment</td>
<td>2.173</td>
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</tr>
<tr>
<td>age*environment</td>
<td>1.995</td>
<td>0.01012</td>
</tr>
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<td>0.01992</td>
</tr>
<tr>
<td>race*age</td>
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<td>0.02739</td>
</tr>
<tr>
<td>race<em>sex</em>age</td>
<td>0.851</td>
<td>0.14104</td>
</tr>
<tr>
<td>sex</td>
<td>0.700</td>
<td>0.19946</td>
</tr>
<tr>
<td>race<em>age</em>environment</td>
<td>0.397</td>
<td>0.40052</td>
</tr>
<tr>
<td>age</td>
<td>0.159</td>
<td>0.69277</td>
</tr>
<tr>
<td>race*sex</td>
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<tr>
<td>sex*age</td>
<td>0.086</td>
<td>0.82129</td>
</tr>
</tbody>
</table>
Table 3.8 Parameter Estimates for Z3-Z2 of /u/

| Term                                           | Estimate  | Std Error | DFDen | t Ratio | Prob>|t| |
|------------------------------------------------|-----------|-----------|-------|---------|-----|
| Intercept                                      | 4.4001998 | 0.451129  | 35.87 | 9.75    | <.0001 |
| race[AA]*environment[BOOT]                     | 0.5395621 | 0.057171  | 763.3 | 9.44    | <.0001*** |
| environment[TOO]                               | -1.594128 | 0.107725  | 38.66 | -14.80  | <.0001*** |
| race[AA]                                       | 0.6609085 | 0.148834  | 32.07 | 4.44    | <.0001*** |
| race[AA]*(age-47.2754)*environment[TOO]       | 0.0141709 | 0.003622  | 754.7 | 3.91    | <.0001*** |
| race[AA]*environment[TOO]                      | 0.186279  | 0.059219  | 746.2 | 3.15    | 0.0017** |
| duration                                       | 0.0014468 | 0.000499  | 780.6 | 2.90    | 0.0038** |
| race[AA]*sex[f]*(age-47.2754)*environment[TOO]| -0.010167 | 0.00363   | 758.6 | -2.80   | 0.0052** |
| sex[f]*(age-47.2754)*environment[TOO]         | -0.009343 | 0.003615  | 753.1 | -2.58   | 0.0099** |
| sex[f]*environment[TOO]                        | 0.1462199 | 0.058262  | 763.2 | 2.51    | 0.0123* |
| race[AA]*sex[f]*(age-47.2754)                  | -0.015881 | 0.000904  | 32.17 | -1.76   | 0.0873 |
| (age-47.2754)*environment[BOOT]                | 0.0047998 | 0.003557  | 749.3 | 1.35    | 0.1776 |
| race[AA]*(age-47.2754)*environment[BOOT]      | -0.004644 | 0.003525  | 746.3 | -1.32   | 0.1881 |
| race[AA]*sex[f]*environment[BOOT]              | -0.063947 | 0.056131  | 752.4 | -1.14   | 0.2550 |
| race[AA]*sex[f]*(age-47.2754)*environment[BOOT]| 0.0034827| 0.003523  | 745.8 | 1.10    | 0.2708 |
| sex[f]                                         | -0.166402 | 0.148603  | 31.87 | -1.12   | 0.2712 |
| race[AA]*sex[f]*environment[TOO]               | 0.0591087 | 0.057729  | 765.9 | 1.02    | 0.3062 |
| (age-47.2754)*environment[TOO]                 | 0.0033994 | 0.003657  | 760.6 | 0.93    | 0.3529 |
| environment[BOOT]                              | -0.105408 | 0.11343   | 33.78 | -0.93   | 0.3593 |
| age                                            | 0.006838  | 0.00901   | 32.26 | 0.76    | 0.4534 |
| sex[f]*(age-47.2754)                           | -0.066155 | 0.0099    | 32.13 | -0.68   | 0.4990 |
| sex[f]*environment[BOOT]                       | 0.0355758 | 0.05609   | 748   | 0.63    | 0.5261 |
| race[AA]*(age-47.2754)                         | 0.0022317 | 0.009902  | 32.14 | 0.25    | 0.8058 |
| race[AA]*sex[f]                                | -0.020017 | 0.148542  | 31.83 | -0.13   | 0.8937 |
| sex[f]*(age-47.2754)*environment[BOOT]         | 0.0003316 | 0.003527  | 743.2 | 0.09    | 0.9251 |

The three strongest predictors are the interaction effect of race*environment, environment, and race. The overall degree of /u/ fronting, regardless of the environment (for the effect of environment, see Figure 3.2), is higher among European American speakers. In particular, the results show that there is a robust interaction effect of race*environment: TOO fronting is participated in by both European American speakers and African American speakers, with European American speakers fronting TOO significantly more than African American speakers. BOOT fronting is only observed among European American speakers, with African American speakers’ BOOT remaining back along with POOL. In other words, environmental effects on /u/ fronting emerge differently between African Americans and European Americans. The race pattern is clearly illustrated when looking at where TOO and BOOT are located on the Z3-Z2 dimension in relation to FLEECE and POOL (Figure 3.6).
Figure 3.6: Z3-Z2 of FLEECE, POOL, TOO, and BOOT. African American speakers (AA) and European American speakers (EA). Standard deviation=1, Median=3.179. Lower Z3-Z2 values indicate higher degrees of fronting.

As shown in Figure 3.6, European Americans’ TOO is closer to FLEECE than to POOL, indicating a high degree of fronting. It should be noted, however, that even though African American speakers show a lower degree of fronting compared to European American speakers, this does not necessarily mean that they are not participating in TOO fronting; African American speakers’ TOO nears the center line defined by the median Z3-Z2. The value of Z3-Z2 median is 3.179, calculated from Z3-Z2 values of FLEECE, TOO, BOOT, and POOL tokens for all speakers.
The race pattern is even more robust for BOOT fronting. While some level of overlap is observed for TOO fronting between European Americans and African Americans, this is not the case for BOOT fronting. For European American speakers, BOOT is not as fronted as TOO, but it is much more advanced than POOL. However, African American speakers’ BOOT is largely overlapping with their POOL, indicating that their BOOT is configured in the back of the mouth.

Another strong effect in the model is the three-way interactions of race * age * environment, in which speaker age is correlated with TOO fronting among African American speakers, and with BOOT fronting among European American speakers. As Figure 3.7 illustrates, TOO fronting seems to be in progress among African American speakers (p=0.0047), and BOOT fronting is in progress in apparent time among European American speakers (p=0.0158). Each dot in 3.7 indicates a vowel token, and the line of fit with confidence interval\textsuperscript{28} for each group (e.g. TOO for AA speakers) is also indicated. The lower Z3-Z2 value is (on the y-axis), the more fronted /u/ is.

\textsuperscript{28}A confidence interval shows a range of likely values that fall between an upper and lower end of probability distribution.
Figure 3.7: Age pattern of BOOT and TOO fronting. African American (AA) and European American (EA) speakers.

The robust change towards TOO fronting in apparent time for African American speakers is mainly attributed to African American men (p<.0001), who are leading this change in the African American community. Surprisingly, African American men not only lead TOO fronting, but BOOT fronting as well; while BOOT is rarely fronted for African American speakers, there is evidence of frontward movement of BOOT, led by young African American men (p=0.0003). The emergence of BOOT fronting is not joined by African American women, whose BOOT is in fact moving backward (p=0.0014). The sex pattern within the African American group
is reflected in the four-way interaction effects of race*sex*age*environment (p=0.02).

In Figure 3.8, a plot that presents the four-way interactions is generated.

---

Figure 3.8: BOOT and TOO fronting by age, race, and sex.

As Figure 3.8 illustrates, African American men and African American women show opposite age patterns for both TOO and BOOT, with the men exhibiting fronting. That men are leading the change is significant for a couple of reasons; firstly, one would expect that African American women in DC are more likely to participate
in the mainstream change, which has been shown in other studies (e.g. Callier et al. 2009; Podesva 2011), and secondly, it challenges the idea that women lead in language change, one of the major generalizations in the field (e.g. Labov 1990). The four-way interaction effects also show that European American women are leading BOOT fronting ($p=0.0397$) and that European American men are retracting TOO ($p=0.0042$).

Other significant, but less robust predictors include the interaction effect of sex*environment, in which female speakers have more fronted POOL than male speakers, and also the three-way interactions of sex*age*environment, in which /u/ fronting, both for TOO ($p<.0001$) and BOOT ($p=0.0003$), is led by male speakers, who reflect the ongoing change in DC.

3.3.3 SOCIAL FACTORS IN /o/ FRONTING

As with /u/ fronting, environment strongly predicts the fronting of /o/ (see Figure 3.3), with TOE and BOAT fronting in varying degrees (with TOE more fronted than BOAT) and POLE remaining back. However, compared to the difference between TOO and BOOT, in which TOO is significantly more fronted than BOOT, the difference between TOE and BOAT is not as significant. Upon establishing that TOE and BOAT are not significantly different in an initial regression, TOE and BOAT categories are collapsed into TOE+BOAT in the following regression. The linear regression results for /o/ fronting are presented in Table 3.9.
Table 3.9 Parameter Estimates for Z3-Z2 of /o/

| Term | Estimate | Std Error | DFDen | t Ratio | Prob>|t| |
|------|----------|-----------|-------|---------|------|
| Intercept | 6.0033981 | 0.439763 | 38.15 | 13.65 | <.0001 |
| race[AA]*environment[TOE+BOAT] | 0.489378 | 0.041664 | 1007 | 11.75 | <.0001*** |
| environment[TOE+BOAT] | -0.932882 | 0.079976 | 142 | -11.66 | <.0001*** |
| sex[f]*(age-47.8724)*environment[TOE+BOAT] | -0.012327 | 0.002719 | 979.5 | -4.53 | <.0001*** |
| duration | 0.002021 | 0.000521 | 1028 | 3.88 | 0.0001** |
| race[AA]*sex[f]*environment[TOE+BOAT] | -0.1552 | 0.040361 | 978 | -3.85 | 0.0001** |
| race[AA]*sex[f]*(age-47.8724)*environment[TOE+BOAT] | 0.0076199 | 0.002701 | 976.7 | 2.82 | 0.0049*** |
| sex[f]*environment[TOE+BOAT] | 0.1121287 | 0.040529 | 981.5 | 2.77 | 0.0058** |
| race[AA] | 0.3810517 | 0.145276 | 33.67 | 2.62 | 0.0130* |
| race[AA]*(age-47.8724) | 0.0181515 | 0.008794 | 34.36 | 2.06 | 0.0466* |
| (age-47.8724)*environment[TOE+BOAT] | 0.0052576 | 0.002673 | 965.2 | 1.97 | 0.0495* |
| race[AA]*sex[f]*(age-47.8724) | -0.014871 | 0.008798 | 34.42 | -1.69 | 0.1000 |
| sex[f] | -0.229835 | 0.144748 | 33.19 | -1.59 | 0.1218 |
| race[AA]*(age-47.8724)*environment[TOE+BOAT] | 0.0024052 | 0.002683 | 969.8 | 0.90 | 0.3702 |
| age | -0.004888 | 0.00879 | 34.31 | -0.56 | 0.5818 |
| sex[f]*(age-47.8724) | 0.0015316 | 0.008808 | 34.57 | 0.17 | 0.8630 |
| race[AA]*sex[f] | 0.0052816 | 0.14471 | 33.16 | 0.04 | 0.9711 |

Race is a significant factor in /o/ fronting as well. European American speakers exhibit higher degrees of /o/ fronting for all tokens as indicated by the race factor alone (p=0.0130). The race pattern is much more robust when environment is factored in, as the interaction effect of race*environment indicates (p<.0001). Figure 3.9 illustrates the degree of TOE+BOAT fronting in relation to LOT and POLE. It shows that TOE+BOAT is far more advanced than the center line (defined as the median Z3-Z2 for all tokens of TOE, BOAT, LOT, and POLE) for European American speakers, largely overlapping with LOT. In comparison, TOE+BOAT by African American speakers is overlapping more with POLE, while their TOE+BOAT is behind the center line, indicating smaller degrees of fronting, if at all.
Figure 3.9: Z3-Z2 of LOT, POLE, TOE+BOAT. African American speakers (AA) and European American speakers (EA). Standard deviation=1, Median=5.0195.

The interaction effects of race*sex*environment (p=0.0001) show that /o/ fronting is realized differently for men and women, and that this sex pattern is observed from both race groups; African American women have more fronted /o/, for both TOE+BOAT and POLE, than African American men, and European American women front POLE more than European American men (Figure 3.10). Overall, female speakers of both race groups have higher degrees of fronting for both POLE and TOE+BOAT than male speakers (sex*environment effect with p=0.0058). Figure 3.10 illustrates different Z3-Z2 of TOE+BOAT and POLE, by race and sex, in box plots. Each horizontal line in a box plot, from bottom to top, indicates minimal
values, first quartile, median, third quartile, and maximum value, visualizing the distribution of Z3-Z2 of /o/ in different environments for different speaker groups.

Figure 3.10: Z3-Z2 of /o/ in different environments by race and sex.

Though female speakers exhibit higher degrees of TOE+BOAT fronting than male speakers (particularly for African Americans), the age pattern is observed only among male speakers. The interactions of sex*age*environment robustly predict higher degrees of TOE+BOAT fronting among male speakers, with younger men leading the change (p<.0001). This pattern is mainly ascribed to African American
men, whose TOE+BOAT is fronting in apparent time ($p<.0001$). In Figure 3.11, the four-way interactions of race*sex*age*environment are illustrated.

The four-way interactions of race*sex*age*environment suggest other effects as well, albeit less robust. These include POLE fronting in progress among African American men, POLE backing in progress among European American men, and
TOE+BOAT backing in progress among European American women. Other predictors include the interaction effect of race*age, in which fronting is in progress among African American speakers, and the interactions of age*environment, in which TOE+BOAT fronting is a change in progress in apparent time in DC.

3.3.4 Z3-Z2 Trajectory of /u/ and /o/ Fronting

In order to address the possibility of variation in terms of the phonetic details of fronting, particularly the trajectory of Z3-Z2 (with Z3-Z2 indicating the frontness), a subset of speakers was further analyzed. This analysis is in reference to previous studies which show that /u/ fronting can be realized either diphthongally, with the second formant traveling downwards (i.e. backing) as it moves from the nucleus to off-glide, or monophthongally, with second formant staying steady throughout (e.g. Hinrichs, Bohmann, and Gorman 2013; Koops 2010). Diphthongal /u/ fronting is argued to be one of the phonetic characteristics of fronting in U.S. dialects in general, whereas the monophthongal fronted /u/ is characteristic of /u/ fronting in the rural South.

The subsample includes eight speakers – four African Americans and four European Americans, with two males and two females in each race group. Since young speakers more actively participate in fronting, the eight speakers are extracted from the younger half, ranging from 20 to 41 years of age. Bark-transformed formant values of 216 tokens of /u/ and /o/ that are not followed by lateral (i.e. TOO, BOOT, TOE, BOAT) were measured at two points: one at 20 percent into the vowel and another at 80 percent into it. The degree of diphthongization was calculated by generating the difference between Z3-Z2 at 20% and Z3-Z2 at 80%. A linear regression was conducted with Z3-Z2 difference as a dependent variable, and with race, sex, environment (e.g.
TOO vs BOOT, TOE vs BOAT), duration, and checked or open status as independent variables.

The strongest predictor for the trajectory of /u/ is the checked or open status of the vowel, in which open vowels are more likely to be diphthongized. Duration is a significant factor for /u/. An additional factor in the trajectory of /u/ is the phonetic environment, with TOO more likely to be diphthongal than BOOT. Table 3.10 presents the results.

<table>
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<tr>
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<th>DF</th>
<th>Sum of Squares</th>
<th>F Ratio</th>
<th>Prob &gt;F</th>
</tr>
</thead>
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<td>0.7756</td>
</tr>
</tbody>
</table>

The results for /o/ show that duration and the checked or open status are meaningfully correlated with the trajectory of /o/, in which vowels with longer duration, as well as vowels that are open, are more diphthongal. Table 3.11 summarizes the results.

<table>
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<tr>
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<th>F Ratio</th>
<th>Prob &gt;F</th>
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<td>1</td>
<td>0.0456595</td>
<td>0.1014</td>
<td>0.7508</td>
</tr>
</tbody>
</table>
Social factors (i.e. race and sex) are not correlated with the Z3-Z2 trajectories of /u/ and /o/, and the formant contours of /u/ and /o/ for all eight speakers are quite alike regardless of speaker race or sex. Below, formant contours for Carla (European American, female, 37 years old), Lucy (African American, female, 36 years old), Mick (European American, male, 23 years old), and Oliver (African American, male, 31 years old) are presented. Figure 3.12 and 3.13 show the contours of the four speakers as they utter the word ‘do’ (in the case of Mick, ‘two’), and ‘so’, respectively. The contours below indicate that the second formant generally moves downwards as it transitions from the nucleus to off-glide for all of them.
Figure 3.12: Formant trajectories of ‘do’ and ‘two’.
While the downward movement of the second formant is generally observed from the subsample above, regardless of race, it seems that the African American speakers (Lucy and Oliver) show a more linear trajectory than the European American speakers (Carla and Mick), who show a more steeper slope. As such, additional work on the
dynamic properties of the back vowel trajectories may capture what the current findings missed.

### 3.3.5 Height Dimension of /u/ and /o/

In examining potential movements of /u/ and /o/ in the height dimension, additional regressions were run with Z3-Z1 as a dependent variable, and with linguistic factors (duration and environment) and social factors (race, sex, age) as independent variables. Interactions among environment, race, sex, and age were considered. Speaker and word were entered as random effects. Table 3.12 summarizes the results for Z3-Z1 of /u/. The lower the Z3-Z1 value is, the lower the height is.

| Term                                                                 | Estimate | Std Error | DFDen | t Ratio | Prob>|t| |
|----------------------------------------------------------------------|----------|-----------|-------|---------|------|
| Intercept                                                             | 10.285427| 0.332479  | 34.61 | 30.94   | <.0001|
| environment[TOO]                                                     | 0.2194768| 0.053965  | 25.68 | 4.07    | 0.0004**|
| sex[I]*[(age-47.2754)*environment[BOOT]]                           | -0.00816 | 0.002445  | 759.2 | -3.34   | 0.0009**|
| sex[I]*environment[TOO]                                             | 0.1293732| 0.039832  | 756.5 | 3.25    | 0.0013**|
| race[AA]                                                             | 0.3244506| 0.11104   | 32.46 | 2.92    | 0.0063**|
| race[AA]*sex[I]*(age-47.2754)*environment[BOOT]                    | 0.0066046| 0.002439  | 760.3 | -2.08   | 0.0379*|
| race[AA]*environment[TOO]                                           | -0.081246| 0.040113  | 733.6 | -2.03   | 0.0432*|
| race[AA]*sex[I]*(age-47.2754)                                       | -0.011885| 0.006721  | 32.64 | -1.77   | 0.0864 |
| sex[I]                                                               | 0.1946291| 0.110919  | 32.32 | 1.75    | 0.0888 |
| (age-47.2754)*environment[TOO]                                      | 0.004037 | 0.002515  | 761.8 | 1.60    | 0.1089 |
| sex[I]*(age-47.2754)                                                | 0.0099036| 0.00672   | 32.62 | 1.47    | 0.1502 |
| race[AA]*sex[I]*environment[TOO]                                    | -0.054204| 0.03953   | 764.7 | -1.37   | 0.1707 |
| environment[BOOT]                                                   | 0.0748215| 0.055041  | 21.14 | 1.36    | 0.1884 |
| race[AA]*sex[I]                                                     | -0.148249| 0.11097   | 32.31 | -1.34   | 0.1906 |
| race[AA]*(age-47.2754)*environment[TOO]                             | 0.0031338| 0.002502  | 763.2 | 1.25    | 0.2102 |
| sex[I]*environment[BOOT]                                            | 0.0380869| 0.038833  | 761.4 | 0.98    | 0.3270 |
| race[AA]*(age-47.2754)                                              | 0.006319 | 0.00672   | 32.62 | 0.94    | 0.3540 |
| race[AA]*environment[BOOT]                                          | -0.034758| 0.039172  | 754.1 | -0.89   | 0.3752 |
| sex[I]*(age-47.2754)*environment[TOO]                               | -0.00214 | 0.0025    | 759.5 | -0.86   | 0.3923 |
| (age-47.2754)*environment[BOOT]                                     | -0.001674| 0.002456  | 761.8 | -0.68   | 0.4959 |
| race[AA]*sex[I]*environment[BOOT]                                   | -0.021093| 0.038754  | 761.9 | -0.54   | 0.5864 |
| age                                                                  | -0.001541| 0.006724  | 32.68 | -0.23   | 0.8202 |
| race[AA]*sex[I]*(age-47.2754)*environment[TOO]                     | 0.0005464| 0.002503  | 763.5 | 0.22    | 0.8272 |
| duration                                                             | -2.774e-5| 0.00034   | 720   | -0.08   | 0.9350 |

The results show that POOL has the lowest Z3-Z1 value (i.e. is the lowest on the height dimension) compared to TOO and BOOT, although the Z3-Z1 differences
among POOL, TOO, and BOOT stand out much less that the Z3-Z2 (i.e. indicator for frontness) differences among them. There is a race pattern in which African American speakers exhibit higher /u/ than European American speakers, with African American speakers’ POOL particularly higher than European American speakers’ POOL. This either indicates a) that African American speakers’ POOL tokens are raised, or b) that European American speakers’ POOL tokens are lowered, thereby merging with POLE or PULL tokens. The latter is more likely the case, as Bowie’s (2000) study on POOL-PULL-POLE merger in Maryland shows.

The interaction effects of sex*environment reveal that the difference in height for each allophonic variant of /u/ is much more pronounced for female speakers than for male speakers; compared to male speakers, female speakers have higher TOO and BOOT, resulting in a larger Z3-Z1 range for /u/.

Table 3.13 presents the results for Z3-Z1 of /o/. The regression was run with same factors entered in the model for Z3-Z1 of /u/.

Table 3.13 Parameter Estimates for Z3-Z1 of /o/

| Term                                           | Estimate | Std Error  | DFDen | t Ratio | Prob>|t| |
|------------------------------------------------|----------|------------|-------|---------|-----|
| Intercept                                      | 9.5690175| 0.362951   | 38.56 | 26.36   | <.0001 |
| race[AA]*environment[TOE+BOAT]                | 0.1173761| 0.034118   | 1013  | 3.44    | 0.0006** |
| environment[TOE+BOAT]                         | -0.194015| 0.061919   | 132.2 | -3.13   | 0.0021** |
| sex[f]*(age-47.8724)*environment[TOE+BOAT]    | -0.006739| 0.02231    | 987.6 | -3.02   | 0.0026** |
| race[AA]*sex[f]*(age-47.8724)*environment[TOE+BOAT] | 0.0064231| 0.02217    | 984.7 | 2.90    | 0.0038** |
| sex[f]*environment[TOE+BOAT]                  | 0.0743191| 0.033252   | 988.5 | 2.24    | 0.0256* |
| race[AA]*(age-47.8724)*environment[TOE+BOAT] | 0.0044905| 0.02202    | 976.9 | 2.04    | 0.0417* |
| (age-47.8724)*environment[TOE+BOAT]           | 0.0036028| 0.02195    | 971.9 | 1.64    | 0.1010 |
| race[AA]                                       | 0.1917522| 0.120154   | 34.33 | 1.60    | 0.1197 |
| race[AA]*sex[f]*(age-47.8724)                 | -0.010516| 0.007277   | 35.11 | -1.44   | 0.1573 |
| sex[f]*(age-47.8724)                          | 0.0095496| 0.007285   | 35.25 | 1.31    | 0.1984 |
| race[AA]*(age-47.8724)                        | 0.0074336| 0.007275   | 35.06 | 1.02    | 0.3138 |
| race[AA]*sex[f]                               | -0.120961| 0.119716   | 33.84 | -1.01   | 0.3205 |
| sex[f]                                         | 0.1117496| 0.119746   | 33.87 | 0.93    | 0.3573 |
| age                                            | -0.004699| 0.007272   | 35.01 | -0.65   | 0.5224 |
| duration                                       | 0.0002199| 0.000426   | 1029  | 0.52    | 0.6056 |
| race[AA]*sex[f]*environment[TOE+BOAT]          | 0.0001207| 0.033121   | 984.8 | 0.00    | 0.9971 |

For /o/, POLE has higher Z3-Z1 value than TOE+BOAT. The height dimension of /o/ can be understood in relation to the front-back dimension of /o/. When /o/ is
fronting, the frontward movement is joined by downward diagonal movement. As a result, TOE+BOAT, which is more fronted than POLE, is concomitantly lower than POLE. In this sense, saying /o/ is lower is analogous to saying it is more fronted. Since TOE+BOAT is more fronted among European American speakers (e.g. Figure 3.9), the race*environment interaction effects surface for Z3-Z1 as well, in which TOE+BOAT is lower for European American speakers. The interaction effects of sex*age*environment indicate that POLE raising is in progress among male speakers, and the four-way interactions of sex*age*race*environment show that this pattern is particularly due to European American men. The four-way interactions also suggest that TOE+BOAT is lowering in apparent time among African American speakers, the pattern of which is particularly robust among African American men. This is in line with the fronting pattern, in which African American men’s TOE+BOAT is fronting in apparent time. On the other hand, TOE+BOAT is raising in apparent time among European American speakers, with the men in particular (p<0.0001). This finding further strengthens the possibility of /o/ backing among European American speakers in DC.

To summarize, back vowel fronting in DC exhibits various degrees of race patterns. For /u/, European American speakers show significantly higher degrees of fronting than African American speakers, for both TOO and BOOT. Though to a lesser degree compared to European American speakers, /u/ tokens with coronal onsets (TOO) are fronted among African American speakers, with evidence of change in progress in apparent time. Interestingly, it is young men that are leading the change among African Americans. The race pattern is more pronounced for /u/ tokens with non-coronal onsets (BOOT), in which European Americans exhibit much more fronted BOOT than African Americans whose BOOT remain back with /u/ tokens with following lateral (POOL). BOOT fronting is in progress among European American
speakers only, though, surprisingly again, there is evidence of incipient BOOT fronting among young African American men. Race is the strongest predictor also for /o/ fronting. TOE+BOAT is more fronted for European American speakers, although African American speakers are fronting TOE+BOAT in apparent time.

In the following section, a subset of African American speakers is examined alone. With European American speakers’ fronting pattern as a reference point, it seems to be the case that back vowel fronting among African American speakers either lags somewhat behind, or does not occur. There might be a sex pattern among African American speakers that is different from the sex patterns among European American speakers. Furthermore, considering that the SE section of the city is densely populated by African Americans, with a large percentage of whom falling into low income groups, one may expect to find intra-group patterns among African Americans depending on their neighborhoods, namely, between those from SE and those from elsewhere in the city. By examining African American speakers in more depth, potential intra-group patterns may be revealed.

3.3.6 /u/ and /o/ Fronting by African American Speakers in DC

The same statistical procedures were applied to African American speakers alone in examining their fronting patterns of /u/ and /o/: regressions were separately run for Z3-Z2 of /u/ and for Z3-Z2 of /o/, with environment, duration, sex, age, and neighborhood as independent variables. Interactions among environment, sex, age, and neighborhood (SE vs. non-SE) were considered, and speaker and word were entered as random effects. As with the earlier section, duration shows significant effect on fronting, but it will not be further discussed. Only the significant findings in terms of social factors are presented.
The two strongest predictors of fronting among African American speakers alone are the phonetic environment and its interaction with neighborhood. The effect of environment shows that fronting is most advanced for TOO and the least advanced for POOL. The degree of BOOT fronting is minimal among African American speakers, and this is in line with the findings presented in 3.3.2, from which we learn that African American speakers in DC do not front BOOT (refer to Figure 3.6, for illustration). Figure 3.14 shows African American speakers’ /u/ fronting in different environments. The results on /u/ fronting by African American speakers are presented in Table 3.14.

![Figure 3.14: /u/ fronting in different environments (AA speakers).](image-url)
Table 3.14 Parameter Estimates for Z3-Z2 of /u/ (AA speakers)

| Term                                      | Estimate | Std Error | DFDen | t Ratio | Prob>|t| |
|--------------------------------------------|----------|-----------|-------|---------|-----|
| Intercept                                  | 4.9876038| 0.694258  | 22.96 | 7.18    | <.0001 |
| environment[TOO]                           | -1.363913| 0.1215    | 29.36 | -11.23  | <.0001*** |
| neighborhood[notSE]*environment[TOO]       | -0.398729| 0.081571  | 493.3 | -4.89   | <.0001*** |
| environment[BOOT]                          | 0.4647418| 0.127335  | 27.56 | 3.63    | 0.0012** |
| sex[f]*(age-48.2603)*environment[TOO]     | -0.014628| 0.005304  | 492   | -2.76   | 0.0006** |
| duration                                   | 0.0001236| 0.000568  | 488.5 | 2.21    | 0.0279*  |
| (age-48.2603)*neighborhood[notSE]*environment[BOOT] | 0.0120932| 0.005816  | 469.6 | 2.08    | 0.0381*  |
| sex[f]*(age-48.2603)                       | -0.019755| 0.012832  | 415.9 | -1.54   | 0.1376  |
| sex[f]*environment[TOO]                    | 0.1104198| 0.081679  | 491.5 | 1.35    | 0.1770  |
| sex[f]*(age-48.2603)*environment[BOOT]    | 0.0073278| 0.005811  | 470.9 | 1.26    | 0.2079  |
| sex[f]*environment[BOOT]                  | -0.083522| 0.085184  | 478.7 | -0.98   | 0.3273  |
| sex[f]*neighborhood[notSE]*environment[BOOT] | -0.083053| 0.086057  | 487.6 | -0.97   | 0.3350  |
| sex[f]*neighborhood[notSE]*environment[TOO] | 0.0746451| 0.081628  | 492.3 | 0.91    | 0.3609  |
| (age-48.2603)*neighborhood[notSE]*environment[TOO] | 0.0048017| 0.005308  | 491.2 | 0.90    | 0.3661  |
| (age-48.2603)*environment[BOOT]           | -0.085319| 0.005911  | 486.3 | -0.90   | 0.3686  |
| age                                       | 0.0111795| 0.012846  | 21.67 | 0.87    | 0.3937  |
| sex[f]                                    | -0.164838| 0.202775  | 20.94 | -0.81   | 0.4254  |
| sex[f]*(age-48.2603)*neighborhood[notSE]*environment[BOOT] | -0.004645| 0.005879  | 482.1 | -0.79   | 0.4299  |
| sex[f]*neighborhood[notSE]                | 0.0807794| 0.209333  | 20.99 | 0.40    | 0.6946  |
| sex[f]*(age-48.2603)*neighborhood[notSE]  | 0.0046935| 0.012837  | 21.62 | 0.37    | 0.7182  |
| (age-48.2603)*neighborhood[notSE]         | 0.0039402| 0.01284  | 21.64 | 0.31    | 0.7619  |
| sex[f]*(age-48.2603)*environment[BOOT]    | -0.001354| 0.005299  | 491.1 | -0.26   | 0.7985  |
| neighborhood[notSE]                        | 0.0298521| 0.203176  | 21.1  | 0.15    | 0.8846  |

The interaction effects of sex*age*environment corroborate the finding presented earlier with both African American and European American speakers included, in which African American men show the most robust evidence of /u/ fronting in progress, even exhibiting the evidence of incipient BOOT fronting. Essentially the same result is found with African American speakers alone included in the model; both TOO (p<.0001) and BOOT (p=0.0003) are fronting among men, whereas BOOT is backing among African American women (p=0.0014).

The interactions of sex*age in TOO fronting, which show that younger African American male speakers exhibit higher degrees of fronting than older male speakers, is exemplified by the different degrees of TOO fronting by Cassius (Figure 3.16), a 29-year-old speaker from the Northeast part of the city, and Edgar, a 73-year-old speaker living in a suburb in Maryland located directly off the city’s northeast edge (Figure 3.15). As the figures below illustrate, Cassius’s TOO is highly fronted to
almost the same degree as the European American speakers in the sample, much closer to FLEECE than either POOL or BOOT. However, Edgar’s TOO remains back, quite clustered with BOOT and POOL tokens.

Figure 3.15: Vowel plot of Edgar. 73-year-old African American male, from MD.
Neighborhood emerges as a significant factor that predicts different degrees of /u/ fronting, interacting with the phonetic environment of /u/ and also with age. The interaction of neighborhood*environment, for instance, robustly predicts higher degrees of TOO fronting among non-SE speakers and higher degrees of POOL fronting among SE speakers (Figure 3.17).

Figure 3.16: Vowel plot of Cassius. 29-year-old African American male, from NE.
It is worth noting that SE speakers’ POOL is much more fronted than non-SE speakers’ POOL, to the extent that it is in fact slightly more advanced than their BOOT. Compare, for example, the vowel plot of Carrie (Figure 3.18), a 30-year-old African American female from Northeast, DC, with that of Jami, a 42-year-old African American female from SE (Figure 3.19).
Figure 3.18: Vowel plot of Carrie. 30-year-old African American female, from NE.
Interestingly, Jami’s POOL is more fronted than her production of BOOT. Overall, the following lateral does not hold /u/ back for SE speakers nearly as much as it does for other speakers, with a number of SE speakers having their BOOT tokens even farther back than their POOL tokens (namely, Terra, Amy, Grey, Jackie, Justin, Jami). Carrie’s POOL, on the other hand, stays far back, keeping a considerate
amount of distance from her BOOT. Similarly, Jami’s POLE is more fronted than Carrie’s POLE, with all the allophonic variants of /o/ clustered together in the back. Carrie’s POLE, on the contrary, is separated from both TOE and BOAT, with the following lateral pulling back the articulation of /o/.

POOL fronting, the fronting of /u/ before lateral which is known to prohibit back vowel fronting, is one of the features that characterize many Southern varieties of English (e.g. Fridland and Bartlett 2006, Fridland 2012). However, this does not necessarily indicate that SE speakers exhibit features of Southern English; this is evidenced by their non-fronting of BOOT, as well as their lesser fronting TOO, both of which, in the South, are produced as fronted variants. In this sense, POOL fronting observed among SE speakers should, at this point, rather be understood as one of the phonetic features that differentiate SE speech from the speech of African Americans from elsewhere in DC.

Another interesting neighborhood pattern emerges from the three-way interactions of age*neighborhood*environment. As shown above, the overall fronting pattern observed in the African American community in DC includes TOO fronting in progress, as well as BOOT fronting in progress among African American men. However, the three-way interactions of age*neighborhood*environment suggest that the aforementioned TOO fronting (and BOOT fronting) is exhibited only by a subset of African American speakers in DC, namely, those who are not from SE. That TOO fronting in apparent time is only partaken in by non-SE speakers is well illustrated when comparing TOO by Cassius, age 29, (refer to Figure 3.16 above) with TOO by Chris, a 35-year-old SE speaker, presented in Figure 3.20.
Figure 3.20: Vowel plot of Chris. 35-year-old African American male, from SE.

TOO by Chris, while fronted more than POOL or BOOT, is not as advanced as TOO by Cassius. With LOT as a reference point, the Z3-Z2 value of TOO is close to that of LOT for Chris, whereas the Z3-Z2 of TOO is farther front than that of LOT for Cassius. The box plot that illustrates the different degrees of TOO fronting between Cassius and Chris is presented in Figure 3.21.
Figure 3.21: Z3-Z2 of TOO: Cassius vs. Chris. Cassius, age 29, from NE. Chris, age 35, from SE.

Such neighborhood patterns, exemplified by Cassius and Chris, emerge from the overall African American community in DC. Figure 3.22 shows below that non-SE speakers are participating in the fronting of TOO and BOOT in apparent time, whereas SE speakers are either not participating (in case of TOO) or even backing (in case of BOOT).
Figure 3.22: Z3-Z2 of BOOT and TOO by age and neighborhood (AA speakers).

As shown in Figure 3.22, TOO fronting is in progress only among African Americans who are non-SE speakers \( (p=0.0109) \), with SE speakers exhibiting no evidence of TOO fronting in apparent time. For BOOT, it is not only that fronting is in progress only among non-SE speakers \( (p=0.0014) \), but more interestingly that SE speakers exhibit robust pattern of BOOT backing in progress \( (p<0.0001) \), which reflects the reverse of the community-wide change in DC.

The results for /o/ fronting by African American speakers are presented in Table 3.15. The phonetic environment is the strongest predictor of /o/ fronting. While the difference between TOE and BOAT was not as prominent when all 40 speakers were examined, it seems more pronounced when examining African American speakers
alone (Figure 3.23). Therefore, TOE and BOAT are separately treated in this section without collapsing them.

![Figure 3.23: /o/ in different environments (AA speakers).]
### Table 3.15 Parameter Estimates for Z3-Z2 of /o/ (AA speakers)

| Term | Estimate  | Std Error | DFDen | t Ratio | Prob>|t| |
|------|-----------|-----------|-------|--------|-------|
| Intercept | 4.7902411 | 0.604334  | 20.81 | 7.93   | <.0001 |
| environment[TOE] | -0.67056  | 0.081608  | 98.06 | -8.22  | <.0001*** |
| duration | 0.0024199 | 0.000551  | 674.1 | 4.37   | <.0001*** |
| (age-48.8571)*environment[BOAT] | 0.0129259 | 0.003624  | 674.1 | 3.57   | 0.0004*** |
| neighborhood[notSE]*environment[TOE] | -0.167282 | 0.054971  | 670.9 | -3.04  | 0.0024** |
| sex[f]*(age-48.8571)*neighborhood[notSE]*environment[BOAT] | 0.0092614 | 0.003575  | 666.4 | 2.59   | 0.0098** |
| age | 0.0240036 | 0.011243  | 20.03 | 2.13   | 0.0453* |
| (age-48.8571)*neighborhood[notSE]*environment[BOAT] | 0.0064262 | 0.003554  | 658.7 | 1.81   | 0.0710 |
| neighborhood[notSE] | 0.2970076 | 0.177932  | 19.95 | 1.67   | 0.1107 |
| environment[BOAT] | 0.1105666 | 0.080392  | 105   | 1.38   | 0.1720 |
| sex[f]*neighborhood[notSE]*environment[BOAT] | -0.06976  | 0.054907  | 670.8 | -1.27  | 0.2043 |
| sex[f]*(age-48.8571)*neighborhood[notSE]*environment[TOE] | -0.004487 | 0.003599  | 662.7 | -1.25  | 0.2129 |
| sex[f]*(age-48.8571) | -0.013432 | 0.0011243 | 20.06 | -1.19  | 0.2463 |
| sex[f] | -0.188936 | 0.177825  | 19.9  | -1.06  | 0.3007 |
| sex[f]*(age-48.8571)*environment[TOE] | -0.00353  | 0.003634  | 668.2 | -0.97  | 0.3316 |
| (age-48.8571)*environment[TOE] | -0.003437 | 0.003618  | 670.1 | -0.95  | 0.3425 |
| sex[f]*environment[TOE] | -0.047571 | 0.054544  | 663.5 | -0.87  | 0.3834 |
| sex[f]*(age-48.8571)*environment[BOAT] | -0.00291  | 0.003614  | 672.8 | -0.81  | 0.4211 |
| sex[f]*(age-48.8571)*neighborhood[notSE] | 0.0063715 | 0.011238  | 20    | 0.57   | 0.5771 |
| neighborhood[notSE]*environment[TOE] | 0.001956  | 0.003639  | 660.1 | -0.54  | 0.5869 |
| neighborhood[notSE]*environment[BOAT] | 0.0260283 | 0.055183  | 673.5 | 0.47   | 0.6373 |
| (age-48.8571)*neighborhood[notSE] | 0.0051378 | 0.011236  | 19.98 | 0.46   | 0.6524 |
| sex[f]*neighborhood[notSE] | 0.0578457 | 0.177706  | 19.89 | 0.33   | 0.7483 |
| sex[f]*environment[BOAT] | 0.0143676 | 0.054936  | 669.6 | 0.26   | 0.7938 |
| sex[f]*neighborhood[notSE]*environment[TOE] | -0.007601 | 0.054753  | 669.3 | -0.14  | 0.8896 |

Age effects indicate that /o/ fronting is in progress among African American speakers, the finding reported in section 3.3.3. The interaction effects of age*environment show that both TOE and BOAT are fronting, with BOAT (p<0.0001) more robustly fronting than TOE (p=0.0341) in apparent time.

Neighborhood is a significant factor in /o/ fronting as well. The interactions of neighborhood*environment show that SE speakers’ /o/ is more fronted in all phonetic environments – not only for POLE, but also for TOE and BOAT (Figure 3.24). This finding, when juxtaposed with the findings regarding /u/ fronting, shows that SE speakers front back vowels with the following lateral, i.e. POOL and POLE, an environment which does not articulatorily favor fronting. Non-SE speakers in the study, both African American and European American, do not exhibit POOL or POLE fronting. In addition, African American speakers from SE display higher degrees of TOE and BOAT fronting than African American speakers from elsewhere in DC.
That SE speakers have more advanced TOE and BOAT than non-SE speakers has important theoretical implications pertinent to the mechanism of back vowel fronting. While SE speakers’ TOE and BOAT are more fronted than that of non-SE speakers, their TOO and BOOT are less fronted than non-SE speakers, and they do not participate in TOO and BOOT fronting, a change in progress in DC as established from the findings presented above (refer to Figure 3.17 and 3.22). The presence of /o/ fronting with an absence of /u/ fronting, the fronting patterns observed among SE speakers, runs counter to findings from previous studies in which /o/ fronting is often paired up with /u/ fronting, and is argued to follow /u/ fronting. The fronting situation in SE is rather unique on two levels; one, there is no evidence of /u/ fronting, but /o/ is fronting in apparent time, and two, POOL and POLE – /u/ and /o/ in an environment that phonologically inhibits fronting – are fronted.

![Figure 3.24: /o/ fronting by AA speakers: environment and neighborhoods.](image)

Another social correlate that characterizes SE is the sex pattern emerging only among SE speakers; the four-way interactions of sex*age*environment*neighborhood
suggest that /o/ fronting is in progress for most African American speakers regardless of neighborhood, with the exception of SE women. Specifically, there is a robust fronting of BOAT in apparent time for all African American speakers (p<0.0001) but SE women, TOE fronting is in progress among non-SE men (p<0.0001) as well as among SE men (p=0.0019), and POLE fronting is in progress among non-SE men (p=0.0383). The non-participation in /o/ fronting among SE women appears clear, and their non-participation even surfaces as /o/ backing in case of TOE (p=0.0154). Figure 3.25 illustrates the four-way interactions, in which SE women are patterning differently from other African American groups in DC.

Figure 3.25: Z3-Z2 of /o/ by AA speakers: sex, age, neighborhood.
This uniqueness of SE women, in which they are either not participating in /o/ fronting or even retracting /o/ preceded by coronal onsets, is also reflected in the case of BOOT fronting. As reported above, there is evidence of incipient BOOT fronting among African American men, but BOOT is backing among African American women. This pattern of BOOT backing is mainly attributed to SE women. When comparing non-SE African American women and SE African American women for the degrees of BOOT fronting in a separate regression (Z3-Z2 of BOOT as dependent variable, and age, neighborhood, duration, and the checked or open status as independent variables), the interaction of age*neighborhood strongly predicts the patterns of BOOT fronting for the two groups, in which BOOT is retracting only among SE women (p<0.0001). Figure 3.26 illustrates the differing patterns of BOOT fronting among African American women, with SE women robustly backing BOOT in apparent time.
In this sense, SE women are not only differentiated from European American speakers in DC (who are fronting /u/ and /o/ with the exception of back vowels followed by lateral), but also from other subgroups of African Americans in DC including those from non-SE neighborhoods as well as the men from SE neighborhoods. Such back vowel patterns observed among SE women particularly urge us to further investigate the social life of women in the SE section of the city, which might lend insights into such differing patterns (see Chapter 5).

In sum, in-group variations among African American speakers in DC are observed, with significant neighborhood patterns as well as sex patterns. The findings suggest that the speech of SE residents is different from that of non-SE resi-
dents, demonstrating the heterogeneous nature of African American speech in DC and elsewhere in general. These findings include the fronted POOL and POLE by SE speakers, and the apparent time fronting of TOO and BOOT only among non-SE speakers. Results for /o/ fronting further indicate that /o/ fronting is participated in by all African American speakers except for SE women, who not only opt out of /o/ fronting but exhibit evidence of /o/ backing (for TOE).

3.4 Discussion

The study shows that back vowel fronting in DC exhibits various patterns. Overall, both /u/ and /o/ are fronting in DC. For both /u/ and /o/, European American speakers show significantly higher degrees of fronting than African American speakers. This finding is similar to those of many previous studies of U.S. communities that also observed speakers of different races participating in back vowel fronting, with the degree of fronting being reported as more advanced for European American speakers (e.g. Baranowski 2013; Fridland 2000, 2003; Thomas 1989, 2001, 2007).

A closer look at /u/ fronting with regards to phonetic environment further supports the ongoing fronting of /u/ in DC, with European American speakers leading the change and African American speakers following. For European American speakers, the fronting that is articulatorily favored by the preceding environment (i.e. TOO fronting) seems to have reached near completion, while BOOT fronting, the fronting of /u/ in the phonetically neutral environment, is in progress. The same change is observed among African American speakers, though they are at an earlier stage of this change; for African American speakers, TOO fronting is in progress while BOOT fronting is observed minimally.
The picture for /o/ fronting seems to be a bit more complicated than that for /u/ fronting. While European American speakers exhibit higher degrees of /o/ fronting than African American speakers, the age pattern surfaces only among African American speakers, whose /o/ fronting is in progress. To complicate matters further, there is evidence of backward movement of /o/ among European American speakers, with men backing POLE and women backing TOE+BOAT in apparent time. It is perhaps premature at this point to conclude that /o/ fronting is reversing among European American speakers, given that the sample size is smaller for European American speakers. Future work on /o/ fronting with a larger sample is called for in order to further the discussion.

A particularly interesting finding involves sex patterns in DC’s back vowel fronting, in which men are leading the change. Though it is more common in sociolinguistic studies that women lead changes, this is not always the case, as the findings from this study suggest. For example, Trudgill (1972) observed men leading changes in Norwich. Similarly, Labov (1984) reports that the backing and raising of /at/ before voiceless consonants was a male-led change in Philadelphia. In studying Cajun English, Dubois and Horvath (1999) also found that only young men are participating in the revitalization of Cajun English variants that had receded in previous generations, with young women and middle generations alike maintaining non-Cajun variants. A pattern of male-led change is also observed in the patterning of back vowel fronting in DC, with men more actively involved in the change. For /u/, it is male speakers that are leading the fronting of TOO as well as BOOT. This is especially attributable to African American men; their TOO is actively fronting in apparent time, and they are initiating BOOT fronting within the African American group. A male-led change is found in /o/ fronting as well. Though female speakers exhibit higher degrees of TOE+BOAT fronting than male speakers, only the male speakers
are fronting TOE+BOAT in apparent time. Similarly to /u/, this is mainly attributed to African American men. This finding can be contrasted with Durian et al. (2010), who find that BOAT fronting in Columbus, OH, is most advanced among younger women of both races.

It is unexpected that African American women in DC diverge from the local white norm with respect to /u/ and /o/ fronting. After all, they do show decreasing participation in the PIN-PEN merger, while the merger is still going strong among African American men in DC (Podesva 2011), and their degree of /ay/ monophthongization has decreased over time, unlike African American men in DC, whose /ay/ has become even more monophthongal (Callier et al. 2009). Both the non-merger of PIN-PEN and the non-monophthongization of /ay/ are the local white norm, towards which African American women seem to move. However, that African American women in DC do not lead /u/ and /o/ fronting requires an alternative explanation. That is, /u/ and /o/ fronting is clearly the local white norm in DC, as indicated by the robust race pattern in which European American speakers show higher degrees of fronting, and yet African American women appear less involved in this change than African American men.

Understanding the features in regards to ties with African American English, rather than ties with the local white norm, may provide an alternative explanation. Both the PIN-PEN merger and /ay/ monophthongization are features of the Southern English, but they are also associated with African American English (AAE). It may be the case that African American women in DC tend to move away from AAE, while African American men in DC maintain the features frequently associated with AAE. If we hold that one of the motivations behind African American women’s speech patterns in DC is to depart from AAE, then the lesser degree of participation in /u/ and /o/ fronting among African American women in DC can be explained.
PIN-PEN merger and /ay/ monophthongization are features of AAE which African American women in DC are moving away from (thereby resulting in the un-merging of PIN-PEN in progress as well as in the lesser degree of /ay/ monophthongization), the conservative productions of /u/ and /o/ in the back of the mouth are not widely or overtly associated with AAE. In other words, African American women in DC may retain the backed variants /u/ and /o/, since these variants are not characteristic of AAE (not overtly yet). In sum, back vowel fronting patterns by African American women in DC suggest that their speech is not only distinguished from the local white speech (as evidenced by their non-fronting of /u/ and /o/), but also from African American men (who are exhibiting fronting in progress).

Along with the finding in which men are leading the change, DC’s back vowel fronting also exhibits interesting neighborhood patterns, as well as sex patterns, within the African American community. Below, a summary of /u/ and /o/ fronting for different speaker groups is presented (3.16).

<table>
<thead>
<tr>
<th>/u/</th>
<th>/o/</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOO</td>
<td>TOE</td>
</tr>
<tr>
<td>near-completion</td>
<td>more fronted</td>
</tr>
<tr>
<td>actively ongoing</td>
<td>ongoing</td>
</tr>
<tr>
<td>not fronted</td>
<td>not fronted</td>
</tr>
<tr>
<td>not fronted</td>
<td>fronted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>white</th>
<th>black</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-SE men</td>
<td>SE women</td>
</tr>
<tr>
<td>not fronted</td>
<td>not fronted</td>
</tr>
<tr>
<td>not fronted</td>
<td>not fronted</td>
</tr>
<tr>
<td>not fronted</td>
<td>fronted</td>
</tr>
<tr>
<td>not fronted</td>
<td>ongoing</td>
</tr>
</tbody>
</table>

From the patterns of /u/, we see that white speakers and non-SE black speakers are moving towards fronting together, with white speakers ahead in this change. There is a clear SE vs. non-SE divide within African American speakers; SE speakers of both sexes do not exhibit any evidence of /u/ fronting that is phonetically expected (i.e.
TOO and BOOT fronting), while they front /u/ in a phonetically less expected environment (i.e. POOL). The fronting patterns of /u/ among SE speakers, then, deviate from the local norm followed by both European Americans and African Americans. The meaning of /u/ fronting, in turn, can be associated with the mainstream (white) local norm. This interpretation of /u/ fronting is also suggested by Baranowski (2013), in which he finds that African Americans in Charleston, SC, do not participate in back vowel fronting. He argues that back vowel fronting in Charleston is evaluated as characteristic of the speech of European Americans of highest socioeconomic status, suggesting that this association between back vowel fronting and white speakers can explain the non-fronting among African American speakers.

The fact that non-SE black speakers and white speakers pattern alike, while SE black speakers deviate from DC’s norm, is also observed from the patterns of /o/ fronting, particularly from the fronting of POLE. That is, both the white speakers and non-SE black speakers do not exhibit any fronting of POLE, whereas SE black speakers do. What is particularly interesting, and also more complicated to provide an explanation for, is the fronting patterns of TOE and BOAT. It seems that all DC speakers are engaged in varying degrees of TOE and BOAT fronting, except for female SE black speakers. This finding raises a number of challenges as to the interpretation of /o/ fronting, eventually prompting us to tackle the question, what does it mean to front /o/ in DC?

Let us consider a couple of possible interpretations for /o/ fronting (specifically TOE and BOAT fronting), based on the findings presented above. Firstly, the meaning of /o/ fronting may be associated with the local mainstream (white) speech, given that white speakers have more fronted /o/ than black speakers, and also that non-SE black speakers are participating in /o/ fronting. These two groups are also the same groups that participate in /u/ fronting, as opposed to SE speakers who do not
exhibit any evidence of /u/ fronting. This interpretation, however, does not hold for two reasons; one, there is evidence of /o/ backing among white speakers in DC, and two, SE men – who are not participating in the local mainstream /u/ fronting – are fronting /o/.

Secondly, then, the meaning of /o/ fronting may be associated with black speakers, given that non-SE black speakers of both sexes as well as SE black men are participating in /o/ fronting. However, this interpretation does not hold either, because the degree of /o/ fronting is still higher among white speakers than among black speakers. Specifically, the degree of /o/ fronting among white speakers is higher than that of both the non-SE black speakers and SE black speakers.

Within the African American group, SE black speakers have higher degrees of /o/ fronting than non-SE black speakers. This finding that /o/ fronting is more advanced for SE black speakers than for non-SE black speakers suggests another possible interpretation for /o/ fronting: the meaning of /o/ fronting may be associated with SE, or some relevant extension of what the SE neighborhood implicates. If we posit that the meaning of /o/ fronting is associated with ‘SE-ness’, or ‘local blackness’ more broadly, it might explain the participation in /o/ fronting not only by SE men, but also by non-SE black speakers.

Now the remaining question is, why do SE women not participate in /o/ fronting? If we posit that the meaning of /o/ fronting is ‘SE-ness’, then one would expect SE women to participate in /o/ fronting. What aspects of ‘SE-ness’ are less aligned with SE women? Also, what would this ‘SE-ness’, or the ‘local blackness’ mean? And how exactly are SE men and SE women different in understanding the ‘SE-ness’ or the ‘local blackness’? These questions are addressed in detail in Chapter 5, in which the social implications of ‘SE-ness’ and the different positions towards
them between SE and non-SE speakers, and also between SE men and SE women are discussed from a discourse analytic perspective.

While a number of possible meanings for /u/ and /o/ fronting can be, and should be, suggested, we should keep in mind that the meanings of /u/ fronting as well as /o/ fronting are ultimately indeterminate, and by no means fixed constructs. As Schilling-Estes (2004) shows, the meaning(s) of a variant can be different even within the speech of one person. As such, we need to know much more about /o/ fronting than we do now in order to further the discussion. We need to revisit, for example, the observation made in this study with regards to white speakers’ backing of /o/. Are the white speakers in DC really backing /o/? If future studies could verify this preliminary observation, then it would corroborate the idea that /o/ fronting in DC is indeed not associated with ‘white’, but maybe that it is becoming more associated with ‘black’. It is also the case that /o/ fronting is one feature that is stereotypical of Maryland speech (p.c. Schilling, March 2016). Perhaps DC speakers – DC blacks in particular – are moving towards a more fronted /o/ because DC neighbors Maryland. Another potential dialectal influence may be from the South: DC not only neighbors Maryland, but Virginia as well, and most of Virginia including the city of Richmond (the capital of Virginia) exhibit high degrees of /o/ fronting. It is also possible that DC speakers are fronting /o/ due to its proximity to the South. That DC is in between the two regions which exhibit high degrees of /o/ fronting is illustrated in Figure 3.27 below, the map of /o/ fronting in North America provided by the ANAE.
Figure 3.27: Fronting of /o/ around DC. Blue circles indicate areas that show non-fronting, and red circles indicate high degrees of fronting. DC is indicated with an orange circle (moderate fronting of /o/). (From the Atlas of North American English, Map 12.3, Labov, Ash, Boberg 2006).

Future studies on /o/ fronting in DC and in the neighboring regions would tell us more about the dialectal identification of DC, and also about potentially different regional (dialectal) identification among different races in DC (i.e. DC whites backing /o/ while DC blacks fronting /o/). Additional questions to pursue in future studies include whether or not there are phonetic differences between the /o/ fronting of white speakers and the /o/ fronting of black speakers, and also between non-SE black
speakers and SE black speakers. Identifying the phonetic details of /o/ fronting for different groups of speakers would also shed light on the meaning(s) of /o/ fronting.

3.5 Conclusion

The study contributes to our understanding of back vowel fronting by closely examining the speech of DC residents, whose back vowels are fronting as a community. The study supports previous findings in which fronting is more advanced among European American speakers. While fronting by African American speakers is not as advanced as for European American speakers, the study shows that fronting is in progress among African American speakers, particularly led by African American men. The study also provides preliminary evidence of /o/ backing among European American speakers, whose /u/ is fronting in apparent time. A reverse pattern of fronting is observed among African American speakers from SE, whose /u/ is not fronting but /o/ is. These findings challenge the assumption often made about /o/ fronting – that it is a parallel process of /u/ fronting. A future study that includes more European American speakers in the sample will verify this finding more conclusively. The study also provides evidence of in-group variation among African American speakers in DC, with various sex patterns as well as neighborhood patterns. By so doing, the study adds to recent observations pointing to the regional variation of African American English (Yaeger-Dror and Thomas 2010), further suggesting that the heterogeneity of African American English is found even in the same regional community.
Chapter 4

Low Back Vowel Merger

4.1 Introduction

In this chapter, the status of the /ə/ - /ɔ/ merger in DC is presented, examining the social factors including race, sex, age, and neighborhood. While low back merger has been abundantly examined in different regions, being established as one of the major sound changes in North America along with the high and mid back vowel fronting, merger in DC is yet to be reported. Given that DC is in between the Mid-Atlantic region and the South – two dialectal areas where the low back vowels are produced distinctly – we may expect that DC is not partaking in low back merger. Indeed, the Atlas of North American English (Labov, Ash, Boberg 2006) reports DC as one of the non-merged areas (see Figure 2.4 in Chapter 2), based on a small number of white speakers in DC recruited in the early to mid 1990s. However, it is also reasonable to expect the opposite, considering the transient nature of DC with a large influx of people from many different parts of the U.S. This chapter sets out to answer the question of whether or not DC is participating in low back merger. The chapter starts by reviewing previous literature on low back merger, followed by introducing data and methods for analysis. The first part of the result section focuses on the overall direction of merger for all 40 speakers, regardless of race. The second part of the result reports the findings of merger among African American speakers only (28 speakers). The chapter closes with a discussion and summary of findings.
4.1.1 /a/ - /ɔ/ Merger in North America

The merger of /a/ (LOT lexical class) and /ɔ/ (THOUGHT/CLOTH lexical class), also called the *cot-caught* merger, is one of the most widespread sound changes in North America, along with the high and mid back vowel fronting examined in the previous chapter. It is reported to encompass almost half of North America, including the western United States, and all of Canada (Labov et al. 2006; Labov 2010), and there is ample evidence of the ongoing expansion of the merger across the country with varying degrees of completion. For instance, both Hall-Lew (2009) and D’Onofrio et al. (to appear) observe that the low back merger is moving towards completion in San Francisco, with younger speakers exhibiting a more advanced degree of merger; on the other side of the U.S., Doernberger and Cerny (2008) find that the low back vowels are fully merged in Miami, both in perception and production, with no age effect. In many areas where the merger is highly advanced, the sound that represents both vowel classes can be characterized as ‘lower mid back rounded’, with /a/ sometimes rounded (and raised) both conditionally (e.g. before nasals) and unconditionally, and /ɔ/ lowered and less rounded (Labov 2010:162).

The Atlas of North American English (henceforth ANAE, Labov et al. 2006) shows that the merger is either completed or in progress throughout the continent, except for three regions which are resistant to the merger: the Inland North, the Mid-Atlantic States, and the South (refer to 2.4 in Chapter 2). Even though these three regions have the non-merger in common, the reasons for the resistance to the merger differ from one another. First, areas within the Inland North, including the major cities of Detroit, Chicago, Cleveland, Buffalo, Rochester, and Syracuse, are participating in the Northern Cities Shift. One of the defining features of the Northern Changes.

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29 Labov (2010) states that the low back merger is the result of the movement of both phonemes, pointing out that /ɔ/ is not the only sound that relocates its position.
Cities Shift is the fronting of /æ/ toward the low front position originally occupied by /æ/. This causes well-known misunderstandings between a speaker from a Northern city and a listener from elsewhere, whose /æ/ and /ɔ/ are phonemically indistinct. For example, the speaker may say a word like ‘block’, but it is heard as ‘black’. In the Northern Cities Shift, the caught class is lowered and unrounded, eventually taking up the position of cot. The lowering of /ɔ/ is not unique to the Northern Cities Shift, since the low back merger around the continent is largely attributed to this downward movement of /ɔ/. However, the fronting of /ɑ/ is distinctive to this chain shift. Taken together, the fronting and the lowering of /ɑ/ and /ɔ/, respectively, result in the non-merger. Secondly, the Mid-Atlantic region displays a salient raising of /ɔ/ to the upper mid position, while /ɑ/ remains in the low back position, thereby resulting in the non-merger. Cities including Philadelphia, Reading, Wilmington, Baltimore, and New York City are grouped as Mid-Atlantic, according to ANAE (Labov et al. 2006:124). The Mid-Atlantic dialectal region is defined by the non-merger of low back vowels, but also by the split /æ/ system, in which the production of /æ/ is split into tense realizations (when the following environment is front nasal /n/ or /m/, or voiceless fricative such as /f/ or /s/) and lax realizations (elsewhere). The map of the Mid-Atlantic region is presented below in Figure 4.1. Crucially, DC is depicted as lying just outside the boundary area for this region.
Thirdly, the distinction between /æ/ and /ɔ/ is sustained in the South, not by the different production of the nuclei of /æ/ and /ɔ/, but by the back upglide of /ɔ/. That is, the nuclei of caught and cot may be the same, but caught is diphthongized, with the glide moving to a higher position, realized as [əʊ] or [ɔʊ] (Labov 2010).

The phenomenon of low back merger, however, seems vigorous enough to expand even into the aforementioned merger-resistant areas, thereby following Herzog’s Principle (Herzog 1965; Labov 1994) – that ‘phonological mergers tend
to expand at the expense of distinctions’ (Labov 1994:313). Especially in the last couple of decades, evidence of merger has been frequently and almost ubiquitously documented in regions that were thought to be merger-resistant. In the South, Feagin (1993) observes a drastic increase of merger among upper class speakers in Alabama, which is also characterized by an /ɔ/ production with a weakened glide. Fridland (2000) also notes that the low back vowels are in a state of near-merger in Memphis, with /ɔ/ moving downwards to /ɑ/. The same mechanism of merger is found in urban areas of Oklahoma and Texas as well (Tillery, Bailey, and Wikle 2004).30

Low back merger is also reported in the North. In his study of Western New England, Boberg (2001) observes a case of merger in western Massachusetts and southwestern Vermont. Specifically, he notes that the low back distinction is decreasing, albeit present, in western Massachusetts, instantiated by the lowering of /ɔ/, while the other phonological features characteristic of the North are retained (i.e. raised /æ/ and fronted /ɑ/). He finds that the merger is in a state of near-completion in southwestern Vermont, where the merged sound is in low central position. Recent study by Dinkin (2011) in upstate New York presents further evidence of merger in the North, even in the regions where the Northern Cities Shift is quite firmly in place. He suggests that the merger in areas of upstate New York is in its embryonic stage, with the distance between low back vowels being on the decrease. Surprisingly, he finds evidence of /ɔ/ backing in apparent time, which reverses one of the key elements of the Northern Cities Shift.

In addition, regions such as the Midland where the incipience of the merger (in which /ɑ/ and /ɔ/ are becoming ‘close’ rather than ‘different’) was observed in the 90s (Labov et al. 2006:59) seem to exhibit continuing progression of the merger as

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30 This mechanism of merger, however, is not applied to some other regions. For example, D’Onofrio et al. (to appear) show that LOT and THOUGHT in San Francisco are merging, while raising.

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well. Kentucky is one such region\(^{31}\) (Irons 2007), as is Missouri (Majors 2005; Gordon 2006).

Some studies suggest that the low back merger is an urban phenomenon (e.g. Fridland and Bartlett 2007; Fridland 2012; Thomas 1997), while others provide counterevidence. For example, Irons (2007) examines the merger in nonurban Kentucky, showing that the low back merger is taking place by glide loss (as in Feagin’s studies of Alabama), and that this change is led by younger speakers. Additional counterevidence is provided by Majors (2005), who reports a weaker or minimal degree of merger in the St. Louis metropolitan area in Missouri, in which the influence of the Northern Cities Shift is present.

While low back merger has been examined in many areas of North America, DC is one of the regions that has yet to be documented, with the exception of its brief appearance in the ANAE. Along with the Mid-Atlantic States, in which the low back vowels are produced and perceived distinctly, DC is reported to exhibit no evidence of merger (Labov et al. 2006: 61). Due to geographic proximity, DC is often grouped into the Mid-Atlantic States, even though this geographic affiliation is not exactly in accordance with DC’s dialectal placement: the ANAE identifies DC as a ‘transitional’ city (Labov et al. 2006: 141), with no distinguishing sound system that differentiates DC from (or ties DC with) other areas. In addition, whereas non-merger was reported for DC in the ANAE, this may well have changed since the publication of the atlas, considering DC’s transitional nature: One may expect that DC is now participating in the low back merger, given the large number of transplants residing in the city (see, for example, Dodsworth and Kohn 2012, who discuss the effect of influx of white collar workers on the speech of Raleigh, NC). Furthermore, the number of DC speakers on

\(^{31}\)Irons (2007) identifies Kentucky as one of the transitional zones between the Midland and the South.
which the ANAE bases its report is very small (four European Americans), and this sample does not include African American speakers, who comprise the majority of the population in the city. By examining both European American and African American speakers, the current study aims to a) document the recent status of merger in the DC area, b) to investigate possible variation across races, and finally, c) to delve into in-group variation among African American speakers in DC.

4.1.2 /ɑː/ - /aː/ Merger and Ethnicity

The low back merger that is sweeping through the country is a ‘mainstream’ sound change, often involving white speakers. A majority of the previous work indeed points to either an absence of the merger, or a lower degree of merger among black speakers. For example, Terrell (1976) observes that younger black speakers (children and teenagers) in Southern California do not exhibit any sign of merger. Similarly, Thomas (1989) reports that in Columbus, Ohio, African American speakers merge less, and at a slower rate, than European American speakers. In investigating the merger in Texas, Bernstein (1993) shows that the merger is least progressed among black speakers, compared to other groups including Hispanic and white speakers. Similar findings are reported in Memphis, Tennessee by Fridland (2004), and in West Virginia by Hazen (2005), and in many other areas (Labov et al. 2006; Thomas 2001). There are studies, on the other hand, which report participation in low back merger by black speakers. For instance, Eberhardt (2008) observes that black speakers in Pittsburgh are merging the low back vowels, suggesting that this is attributed to increased contact between African Americans and European Americans during the latter half of the 20th century. Additionally, in Charleston, South Carolina, Baranowski (2013) shows that black speakers participate in the merger along with white speakers in the area.
Considering that DC’s population is composed largely of African Americans and European Americans, we might expect to see a race pattern in the merger. Additionally, African American speakers’ neighborhood background might be a possible conditioning factor on in-group patterns among African Americans, as suggested by findings in the previous chapter, in which certain vowels, for example, /u/ and /o/ backing in the POOL and POLE words classes, behave differently only among SE speakers. Taking the neighborhood factor into account is an attempt to better understand the African American community in DC, including its internal heterogeneity.

4.2 METHODS

The vowels for the study are drawn from the same 40 speakers as in the previous chapter, with 12 European American and 28 African American. Vowels were measured acoustically at the midpoint in order to minimize the influence of the surrounding environment. The first three formants were extracted, with the extraction automatically performed by a Praat (Boersma and Weenink 2015) script. The script was run on each vowel token, which was manually identified, and the extracted formant values were also manually double-checked. Only the clearly stressed vowels were included, and tokens with unclear formants due to non-modal phonation, overlapping speech, or background noise were excluded. Only up to five tokens per lexical item were used. In order to account for the physiological differences among speakers, F1 and F2 values of the tokens were normalized using the Bark Difference Metric method (Syrdal and Gopal 1986), yielding Z3-Z1 value (equivalent to F1, indicating the vowel height dimension) and Z3-Z2 value (equivalent to F2, indicating the front-back dimension). Bark-transformed formant values are more reflective of the auditory scale rather
than acoustic scale, which in turn approximates how vowels are heard (Syrdal and Gopal 1986). All formant values reported in this chapter are Bark-transformed.

The analysis of merger is based on a total of 545 tokens of /a/ and 432 tokens of /o/. All lexical items from which the low back vowels were extracted are presented in Appendix C. Following Hay et al. (2006) and Hall-Lew (2009, 2010), and being informed by Nycz and Hall-Lew (2014), the merger is measured by calculating the Pillai score for each speaker; the score is generated by taking Z3-Z1 and Z3-Z2 values and the following environments of all /a/ and /o/ tokens produced by each speaker. The Pillai score ranges from 0 to 1, with 0 indicating the state of a complete merger between the two vowel classes and 1 indicating that the two vowels are distinct with no overlap. In other words, the speaker with the lowest Pillai score is the one who merges the most, and the speaker with the highest Pillai score merges the least. The Pillai scores for each speaker in the current study are presented in Table 4.1.
Table 4.1 The speakers and their Pillai scores. AA: African American, EA: European American

| 1  | aislin  | f  | EA | 18 | notSE | 0.3943   |
| 2  | alice   | f  | EA | 55 | notSE | 0.8942   |
| 3  | carla    | f  | EA | 37 | notSE | 0.25693  |
| 4  | curtis   | m  | EA | 59 | notSE | 0.78765  |
| 5  | fred     | m  | EA | 41 | notSE | 0.14338  |
| 6  | greg     | m  | EA | 37 | notSE | 0.59146  |
| 7  | joan     | f  | EA | 56 | notSE | 0.30349  |
| 8  | mark     | m  | EA | 54 | notSE | 0.25396  |
| 9  | mick     | m  | EA | 23 | notSE | 0.31515  |
| 10 | naomi    | f  | EA | 20 | notSE | 0.66438  |
| 11 | turing   | f  | EA | 65 | notSE | 0.37293  |
| 12 | walter   | m  | EA | 65 | notSE | 0.59577  |
| 13 | carrie   | f  | AA | 30 | notSE | 0.36204  |
| 14 | cassius  | m  | AA | 29 | notSE | 0.81628  |
| 15 | edgar    | m  | AA | 73 | notSE | 0.73194  |
| 16 | fahad    | m  | AA | 59 | notSE | 0.75185  |
| 17 | jimmy    | m  | AA | 23 | notSE | 0.04529  |
| 18 | karl     | m  | AA | 49 | notSE | 0.69409  |
| 19 | leona    | f  | AA | 56 | notSE | 0.42495  |
| 20 | lucy     | f  | AA | 36 | notSE | 0.68345  |
| 21 | mona     | f  | AA | 40 | notSE | 0.80476  |
| 22 | oliver   | m  | AA | 31 | notSE | 0.69566  |
| 23 | olivia   | f  | AA | 75 | notSE | 0.93611  |
| 24 | phil     | m  | AA | 33 | notSE | 0.0592   |
| 25 | regina   | f  | AA | 54 | notSE | 0.67905  |
| 26 | zara     | f  | AA | 21 | notSE | 0.42651  |
| 27 | amy      | f  | AA | 85 | SE    | 0.89649  |
| 28 | chess    | m  | AA | 58 | SE    | 0.87834  |
| 29 | chris    | m  | AA | 35 | SE    | 0.72816  |
| 30 | delores  | f  | AA | 65 | SE    | 0.81269  |
| 31 | grey     | m  | AA | 50 | SE    | 0.60233  |
| 32 | gus      | m  | AA | 75 | SE    | 0.87187  |
| 33 | jackie   | f  | AA | 53 | SE    | 0.64699  |
| 34 | jami     | f  | AA | 42 | SE    | 0.74036  |
| 35 | justin   | m  | AA | 61 | SE    | 0.83221  |
| 36 | kiesha   | f  | AA | 43 | SE    | 0.71925  |
| 37 | rose     | f  | AA | 76 | SE    | 0.64941  |
| 38 | susanne  | f  | AA | 52 | SE    | 0.95122  |
| 39 | terra    | f  | AA | 21 | SE    | 0.72133  |
| 40 | vee      | f  | AA | 65 | SE    | 0.96162  |
Statistical analyses were conducted using the statistical software package JMP (ver. 11.0). A series of linear regressions was performed with the Pillai score as the dependent variable, and age, sex, race, and neighborhood (whether or not the speaker is from SE) entered as independent variables. Interactions among the main factors were also considered.

4.3 Results

4.3.1 /ɒ/ - /ə/ Merger in Washington DC: A Change in Progress

The analysis including all 40 speakers points to three factors affecting the low back merger: race, age, and neighborhood. Speaker sex is not correlated to the degrees of merger in all regressions. The vowels are more merged among European American speakers than among African American speakers (p=0.0135), whose mean Pillai scores are 0.44 and 0.67 respectively. A significant correlation is found between the degree of merger and speaker age (p=0.0243), which indicates that the low back merger is a change in progress in DC, with younger speakers exhibiting higher degrees of merger (Figure 4.2). There is no interaction effect of age and race. The results are summarized in Table 4.2.

| Term                        | Estimate  | Std Error | t Ratio | Prob>|t| |
|-----------------------------|-----------|-----------|---------|-----|
| Intercept                   | 0.3086337 | 0.112338  | 2.75    | 0.0098 |
| race[AA]                    | 0.1006739 | 0.038501  | 2.61    | 0.0135* |
| age                         | 0.0054449 | 0.002303  | 2.36    | 0.0243* |
| sex[f]*(age-47.975)         | -0.003001 | 0.002303  | -1.30   | 0.2019 |
| race[AA] *(age-47.975)      | 0.001905  | 0.002303  | 0.83    | 0.4143 |
| sex[f]                      | 0.0195079 | 0.038501  | 0.51    | 0.6159 |
| sex[f]*race[AA] *(age-47.975)| 0.0007577 | 0.002303  | 0.33    | 0.7443 |
| sex[f]*race[AA]             | 0.0089896 | 0.038501  | 0.23    | 0.8169 |
In Figure 4.2, each circle represents the Pillai score for each speaker. The Pillai score is graphed on the y-axis, with values closer to 0 indicating higher degrees of merger. On the x-axis, speaker age is indicated. As shown, the Pillai scores are decreasing (i.e. the degree of merger is increasing) for younger speakers, suggesting that low back vowels are merging in apparent time in DC.

Figure 4.2 also shows that most African American speakers (represented with blue circles) have relatively higher Pillai scores, indicating higher degrees of low back distinction. It is worth noting, however, that the two most merged speakers in the
sample are both African American men, namely Jimmy (age 23, from NE) and Phil (age 33, from NW), who are identified as the speaker group (i.e. African American men) that is often associated with the highest degrees of ‘non-mainstream’ speech. More discussion will follow regarding Jimmy and Phil in the following sections.

The most merged European American speaker is Fred, a 41-year-old pilot from Northwest, DC. His Pillai score is 0.143, indicating a highly advanced degree of merger relative to other speakers in the sample. However, because it is not the case that a particular Pillai score invariably points to a certain degree of merger, a question follows as to how the low back vowels are distributed and configured for a speaker whose Pillai is 0.14. That is, to what extent do /ɑ/ and /ɔ/ overlap for Fred? In other words, how much merged are the low back vowels if the Pillai score is 0.14? In order to address this question, Fred’s low back vowels are plotted\(^{32}\) (Figure 4.3) and compared with the plot of Alice (Figure 4.4), a 55-year-old from Northwest, DC, who has the highest Pillai score out of all European American speakers.

\(^{32}\)Again, normalizing vowels and generating the plots was performed by SLAAP norm suite.
Figure 4.3: LOT and THOUGHT by Fred. European American, age 41, from NW.
Figure 4.4: LOT and THOUGHT by Alice. European American, age 55, from NW.

It seems from Figure 4.3 that Fred’s LOT and THOUGHT are substantially overlapping, with THOUGHT distributed more widely, and more raised. The mechanism of merger indicated by Fred’s LOT and THOUGHT seems to be merger-by-transfer (Trudgill and Foxcroft 1978), in that words in the THOUGHT class are variably
produced with LOT vowels. In any case, it is quite uncontested to state that his /α/ and /ɔ/ are merging, and the amount of overlap illustrated in his plot provides some sense of what the Pillai score of 0.143 mean in terms of the degree of merger. Fred’s low back vowels are clearly merged much more than Alice’s (Figure 4.4), whose Pillai is 0.894. Alice’s LOT and THOUGHT are barely overlapping, with only one THOUGHT token located within the LOT range.

Figure 4.2 also shows that the age pattern is robustly observed. As will be shown in a later regression run only with African American speakers, this pattern is largely attributable to African American speakers. The absence of an age effect among European American speakers can be due to a number of possible reasons, including the wide Pillai score range exhibited by each age group. Furthermore, there are only 12 European American speakers in the sample, with a relatively small amount of speakers representing each age group; three younger speakers ranging from 18 to 23 years of age, three adult speakers from 37 to 41, and six older speakers from 54 to 65.

Even though the statistical analysis suggests that age is not correlated with merger for European American speakers, examining individual vowel plots sheds insight into the possible age pattern, which may become substantiated upon recruiting more speakers. For example, /α/ and /ɔ/ are closer to each other for the European American speakers in the middle age group, namely, Carla (37 years old), Fred (41 years old), and Greg (41 years old), than for the older speakers who are in their 50s and 60s. While all three speakers in the European American middle age group show a substantial level of merger, indicated by either the partial overlap of the two vowels, or the proximity of them, only two of the six European American older speakers show convergence or near-convergence of /α/ and /ɔ/; the remaining four older European

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**33** In this case, words under the THOUGHT class are transferred gradually from the THOUGHT class to the LOT class (Labov 1994). However, the distribution of individual words should be examined to verify this.
American speakers produce /a/ and /ɔ/ distinctly. Figure 4.5 shows the distribution of /a/ and /ɔ/ for Carla and Alice – 37 years old and 55 years old respectively – in which Carla’s /a/ and /ɔ/ are much closer together than Alice’s. Similar patterns are observed for Fred (41 years old) and Curtis (59 years old), in which /a/ and /ɔ/ are farther apart for Curtis but partially overlapping for Fred (Figure 4.6).

![Individual vowel formant values](image)

Figure 4.5: LOT and THOUGHT of Carla and Alice. Carla, a 37-year-old EA (blue), and Alice, a 55-year-old EA (red). Standard deviation=1.0.
The three white speakers in the middle age group, namely, Carla, Fred, and Greg, also contribute to the race pattern in which white speakers exhibit higher degrees of merger than black speakers. Compare, for instance, Greg (37 years old) with Oliver (a 31-years-old African American male) in Figure 4.7, in which Greg’s vowels are closer together than Oliver’s vowels.
In sum, the European American speakers in their 30s and 40s, the middle age group in this study, show smaller degrees of low back distinction when compared to the older speakers in their 50s and 60s, or to the black speakers of similar age. Hence, there is some evidence for an age effect, and change in progress in apparent time, for
the white speakers in this study as well as the African American speakers, despite the lack of a statistically significant age effect for the European American speakers.

Merger is observed for the younger European American speakers, who are in their late teens and 20s, with the exception of Naomi. There are three speakers in the younger European American age group, namely, Mick, Naomi, and Aislin. Aislin and Mick, who are 18 and 23 years old respectively, exhibit a substantial degree of merger in which /a/ and /ɔ/ are largely overlapping. On the other hand, Naomi, who is 20 years old, produces /a/ and /ɔ/ distinctly. Naomi’s Pillai score (0.66) is the third highest among white speakers. The different distributions of /a/ and /ɔ/ by Aislin, Naomi, and Mick are illustrated in Figure 4.8.
Figure 4.8: Mean values of LOT and THOUGHT by Aislin, Mick, and Naomi. Aislin (EA, age 18, red circle), Mick (EA, age 23, blue square), and Naomi (EA, age 20, purple triangle).

It may be best to reserve speculations regarding the status of merger by these younger speakers at this point. Any, if at all, potential patterns that are generalizable will surface only when more speakers are included in the study.
4.3.2 /a/ - /ɔ/ Merger Among African American Speakers in Washington DC

The race pattern in which African American speakers merge less (or do not merge) is largely attributed to the African American speakers from SE. This is demonstrated by examining all the speakers excluding those from SE (i.e. including 12 white speakers and 14 black speakers from elsewhere in the city), without considering race as a factor. Indeed, when the neighborhood factor is considered regardless of race, it is highly significant in predicting the merger (p<.0010). Figure 4.9 shows that the SE speakers are clustered around the higher Pillai score range, indicating their non-merged state, compared to other speaker groups.

Figure 4.9: Pillai score by neighborhood and race (AA: African American, EA: European American).
As Figure 4.9 illustrates, there is in-group variation among DC African American by neighborhood: while all SE speakers produce the low back vowels distinctly, some non-SE African American speakers show highly advanced degrees of merger.

To verify variation by neighborhood among black speakers, another series of regressions was run with only the black speakers in the sample included. Again, the Pillai score was entered as a dependent variable, and age and neighborhood were entered as independent variables. Interaction between independent variables was also considered. Sex was not included in the model, as it is not correlated with the Pillai score, and thus, it is not a predicting factor for the degree of merger. The results are summarized in Table 4.3.

| Term                              | Estimate  | Std Error | t Ratio | Prob>|t| |
|-----------------------------------|-----------|-----------|---------|------|
| Intercept                         | 0.4258324 | 0.111204  | 3.83    | 0.0008|
| age                               | 0.005548  | 0.002103  | 2.64    | 0.0144*|
| neighborhood[non-SE]              | -0.069728 | 0.037627  | -1.85   | 0.0762|
| (age-49.6071)*neighborhood[non-SE]| 0.0029593 | 0.002103  | 1.41    | 0.1723|

As illustrated in Table 4.3, age is a significant predictor among African American speakers alone as well, indicating merger in progress among African American speakers. Neighborhood is a trending factor, albeit lacking robustness in the model. Figure 4.10 presents the Pillai scores by African American speakers.
Figure 4.10: Pillai scores by age and neighborhood (AA speakers). With confidence of fit, Rsquare=0.30, p=0.0028.

Figure 4.10 shows that most SE speakers are placed above the line of fit, and the lowest Pillai score found in SE is that of Grey, a 50-year-old SE native, whose Pillai is 0.602. While he is the most ‘merged’, or more accurately speaking, the least distinct speaker out of all SE speakers, his low back vowels are still produced as largely distinct, with no percept of low back merger. Figure 4.11 presents a plot of Grey, in which his LOT and THOUGHT are overlapping minimally.
Figure 4.11: LOT and THOUGHT by Grey. African American, age 50, from SE.

The difference in the degrees of merger between SE speakers and non-SE speakers is minimal among older speakers, and maximal among younger speakers. This is illustrated below in a plot (Figure 4.12) with separate regression lines fit for SE and non-SE speakers. Older African American speakers do not merge almost invariably whether they are from the SE neighborhoods or from elsewhere in the city,
whereas varying degrees of merger are observed among younger African American speakers, with non-SE merging more than SE. If we suppose that non-merger is the norm that has long been established by African American speakers in DC, it seems to be the case that younger African American speakers, especially those that are not from SE neighborhoods, are deviating from the African American norm, by heading towards merger.

![Figure 4.12: Regression plot by age and neighborhood (AA speakers).](image)

The non-SE speakers who exhibit some degree of merger are Zara, Carrie, Jimmy and Phil, who are in their 20s and 30s. As mentioned, Jimmy and Phil are the
two most merged speakers in the entire sample; both Jimmy (Figure 4.13) and Phil (Figure 4.14), a 23-year-old student from Northeast and a 33-year-old architect from Northwest respectively, have LOT and THOUGHT almost completely merged, with their normalized THOUGHT substantially lower than the SE speakers’ normalized THOUGHT. Merger by Zara and Carrie, a 21-year-old student from Northwest and a 30-year-old sound technician from Northeast respectively, is not as advanced as Jimmy and Phil, but some level of overlap is observed with LOT and THOUGHT in close proximity. Plots of Zara and Carrie are presented in Figures 4.15 and 4.16.
Figure 4.13: LOT and THOUGHT by Jimmy. Non-SE AA male, age 23.
Figure 4.14: LOT and THOUGHT by Phil. Non-SE AA male, age 33.
Figure 4.15: LOT and THOUGHT by Zara. Non-SE AA female, age 21.
To summarize the results so far reported, the findings suggest that low back merger is progressing in DC, with European American speakers exhibiting higher degrees of merger than African American speakers. The robust age pattern is mainly attributed to African American speakers who are non-SE; there is evidence that younger non-SE African Americans are merging more than older non-SE African Americans.
Americans, and sometimes even more than the most merged European American speakers in the sample.

4.4 Discussion

The findings suggest that the low back merger is not yet completed in DC, though low back vowels are losing distinction in apparent time, as indicated by the age effect. Age has a strong effect among African American speakers alone, but not among European American speakers alone. While the age effect is observed only among African American speakers, the overall degree of merger is still higher among European American speakers. This study supports many previous findings in which African Americans exhibit smaller degrees of low back merger than European Americans of the same region (e.g. Bernstein 1993; Fridland 2004; Hazen 2005; Labov et al. 2006; Terrell 1976; Thomas 1989, 1993, 2001, 2007).

The age effect among African American speakers in DC particularly echoes recent findings in Pittsburgh (Eberhardt 2008) and in Charleston (Baranowski 2013); Eberhardt (2008) finds that African American speakers in Pittsburgh merge /a/ and /ɒ/, suggesting that this may be due to increased contact between African Americans and European Americans in the mid-1900s, and Baranowski (2013) shows that African American speakers in Charleston participate in the merger along with European American speakers, with both groups exhibiting evidence of merger in apparent time. In discussing African Americans’ participation in the low back merger, many researchers suggest that the merger is a sound change that goes rather unnoticed, that it is below the level of speakers’ awareness (Baranowski 2013; Eberhardt 2008; Gordon 2006; Labov 1994). In particular, Baranowski (2013) contrasts the low back merger with back vowel fronting, in which the former is participated in by African Americans
in Charleston while the latter is not. He argues that back vowel fronting in Charleston
is socially evaluated as a change led by European Americans of highest socioeconomic
status, and so fronting would be a salient social act that indexes whiteness if adopted
by African Americans.

That merger happens without much social consciousness seems to be further
corroborated by the merger pattern in DC, in which African American speakers show
the movement towards the merger in apparent time. However, DC displays a pecu-
liarity in that this change is only participated in by a subset of African Americans
in the city, namely those who are not from SE neighborhoods. Low back vowels are
distinct for all SE speakers (who are exclusively African American) with no age effect,
but for non-SE African Americans, low back vowels are merged more among younger
speakers. Jimmy, Phil, Zara, and Carrie are younger African Americans who live in
either the Northwest or Northeast section of the city. Their neighborhood affiliation,
i.e., their non-SE speaker status, implies that they have everyday exposure to the
local white norm, since they live and work in close proximity to European Americans
in the city. The fact that their level of merger is comparable to that of the European
American speakers in this study may be evidence of certain DC African American
speakers’ convergence with the norms of local European American speakers, partially
those who are more exposed to those norms.

For both fronting and merger, group patterns hold at the individual level for
the most part. There are exceptions, however. For instance, non-SE speaker status
does not guarantee adoption of the merger; a closer look at Figure 4.10 reveals that
the age pattern indicating African American speakers’ merger in progress is largely
due to Jimmy, Phil, Zara, and Carrie, the four non-SE speakers whose Pillai scores
are well below the average, and that there is a big jump in Pillai from these four
speakers (the younger group ranging from 21 to 33 years of age) to the next four
speakers, in which the speaker age ranges from 29 to 40 (the middle group). In fact, the non-SE speakers in this next age group, namely, Cassius, Oliver, Lucy, and Mona, have higher Pillai scores than speakers in the older group. While this does not refute the age pattern (in fact, in communities undergoing generational change, we expect different usage levels of the variables undergoing change in individuals in different age groups), it does suggest potential variation even among non-SE African Americans who are more or less in the same age range.

This is exemplified by Phil and Oliver, both of whom are non-SE African American men in their early 30s. While they are categorized into the same group in terms of race, age, neighborhood, and education, their low back vowels are configured very differently from each other; Oliver’s LOT and THOUGHT are distinct and Phil’s LOT and THOUGHT are completely merged. Figure 4.17 illustrates the differing degrees of low back merger by Oliver and Phil.
That Oliver and Phil exhibit differing merger patterns raises the possibility of the influence of social factors other than macro social categories such as race, sex, age, neighborhood, or education. One such factor is speaker orientation to a particular community, which sometimes goes hand in hand with the network of people a speaker is engaged with. Recall, for example, that positive orientation towards Martha’s Vine-
yard is identified as a factor in Labov’s (1963) study on the centralized production of /ay/ and /aw/. It seems that, in case of Oliver and Phil, speaker orientation and engagement in terms of the African American community plays a role. Phil attended predominantly white schools in affluent neighborhoods in DC growing up, and married a European American. He is currently living in the Northeast section of the city, upon purchasing a house of his own. Phil’s network includes both European Americans and African Americans, which necessarily results in Phil’s contact with more than one variety of English. While Oliver’s networks do not exclusively involve African Americans, the majority of his acquaintances are African American. Furthermore, Oliver is the only speaker in the sample who moved to SE as an adult, as he started working in a SE neighborhood. Along with his positive orientation towards the neighborhood, which is indicated by his move to SE, his increased contact with SE residents naturally resulting from his own relocation to a SE neighborhood, together may have some level of influence on his speech. The case of Phil and Oliver, albeit speculative, points to the usefulness of referring to speaker’s network and contact in investigating sociolinguistic variation, particularly when the speaker’s speech patterns tell slightly different stories from what the overall findings suggest.

The findings in which SE men and SE women exhibit different patterns of /o/ fronting, but exhibit similar patterns of low back merger further suggest that low back merger is mostly below conscious awareness, whereas back vowel fronting is more salient, with the fronting of /o/ possibly associated with a type of local blackness that DC African Americans mostly embrace, except for SE women.

The younger non-SE African American speakers, despite the large range of variation they show, still show higher degrees of merger than their SE counterparts. As mentioned, the age effect that indicates merger in progress is only found among non-SE African Americans. Take Terra, for example, whose Pillai score is much higher
than that of Zara. Both Terra and Zara are 21 years old, but Terra is a SE native and Zara is not. The different vocalic characteristics between Terra and Zara are clearly pronounced, not only in terms of low back merger, but also in terms of back vowel fronting. For instance, the previous chapter shows that African American speakers from SE front high back vowel /u/ followed by lateral (e.g. pool, cool, school, etc.) significantly more than the African American speakers from elsewhere in DC, and this is the case for Terra and Zara as well. That is, Terra exhibits back vowel patterns that are characteristic of SE speakers in general, including fronted POOL and POLE, with POOL much more fronted than BOOT, whereas Zara’s back vowel patterns are more aligned with the white patterns of fronting in DC, with TOO most fronted and POOL remaining back. The local white norm for high back vowel fronting is that when followed by lateral, the fronting of /u/ is strongly inhibited. While the European American speakers and African American speakers living elsewhere in DC do not front /u/ when followed by lateral, African American speakers from SE neighborhoods do. The non-merger of /ʌ/ and /ɔ/ and fronting of pre-lateral /u/ together indicates that the speech of SE speakers is different from that of non-SE speakers, which in turn points to in-group variation among African American speakers in DC.

In the next chapter, I attempt to provide insight into the different back vowel patterns between SE African American speakers and non-SE African American speakers, in which non-SE African Americans are participating in the sound changes associated with the local white norm, whereas SE African Americans are not participating. In particular, the next chapter demonstrates that SE speakers and non-SE speakers exhibit different positions on certain neighborhood-related issues, and that such different positioning (Harré and van Langenhove 1999) emerges in parallel with their participation or non-participation in the vowel changes.
4.5 Conclusion

This chapter reports findings on low back merger in DC, one of the major sound changes in progress in the country. The study finds that despite the geographic proximity to the Mid-Atlantic states, in which the merger is either not observed or weak, DC is indeed participating in the merger, with European American speakers merging more than African American speakers. Also, the robust age effect indicates that merger is mainly led by younger speakers, and the younger cohort that leads the merger includes both European American and African American speakers in the city, with the age effect mostly being attributed to African American speakers. When taking the neighborhood background into account for the African American speakers, however, an in-group divide among African American speakers is observed. Specifically, African American speakers who partake in the merger are those who are from anywhere in the District but SE, with those from SE producing /a/ and /ɔ/ distinctly. The study further suggests that African American speakers’ (non-)participation in the merger might be explained not only in terms of neighborhood residence but also in terms of patterns of contact and speaker orientation, that is, how African American speakers orient themselves with regards to the African American community, and not unrelated to this, which race group a speaker mainly interacts with in everyday life.

While the term ‘merger’ is used in this dissertation, what was technically examined is the degree of ‘overlap’ between /a/ and /ɔ/, since minimal pair tasks were not conducted. Overlap in vowel space is suggestive of a merger, but it does not conclusively point to a merger; that a merger has taken place would only be verified if speakers produce and perceive minimal pairs with /a/ and /ɔ/ as ‘same’.

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There are a number of future directions and augmentations the study can benefit from. Firstly, the study may further solidify, or more conclusively report some of the findings by including more speakers. This is particularly the case for European American speakers; overall, their degree of merger is higher than that of African American speakers, but no age effect is observed among European American speakers. It may well be that there is a possible age pattern among European American speakers, which might be substantiated upon recruiting more speakers from various age groups. Secondly, examining the frontedness of LOT among African American speakers may reveal the details of merger. For instance, Thomas (2001a) shows that the F2 of LOT is far higher among African Americans in the South, suggesting that the fronted LOT is characteristic of African American English. Potentially, the low degree of low back merger may be associated with the frontedness of LOT among African American speakers, since open o is typically farther back in vowel space. Related to this, looking into the height dimension of THOUGHT might shed light on the interpretation of the merger as well, given that for many African American speakers, THOUGHT is significantly raised and sometimes rounded. For those African American speakers who exhibit some degree of merger, we can ask whether their LOT vowels are moving backward and raising towards THOUGHT, or whether THOUGHT vowels are being lowered and unrounded, or whether both are taking place. Attending to such phonetic details, albeit minute, may inform us of the direction of the merger, as well as the mechanism behind the merger.
Chapter 5

Constructing Identities Through Discourse: Positioning of SE and Non-SE African American Speakers with regards to Neighborhood Issues

5.1 Introduction

In this chapter, an attempt to better understand the findings reported in the previous two chapters is made. To do so, I switch focus and turn to the discourse of six African American speakers who are closely involved in the SE community. Three of them are native to SE – born and raised in, and still living in SE – and the other three are from elsewhere in the city but are working in a SE neighborhood. Drawing on Positioning Theory (Davies and Harré 1990; Harré and van Langenhove 1991, 1999), I attend to how these six speakers position themselves and others in discussing some of the salient neighborhood issues. Positioning theory is chosen as an analytical framework for the qualitative component of this dissertation, particularly because the analytical dimensions of positioning theory (e.g. self positioning vs. other positioning, deliberate positioning vs. forced positioning, etc.) allow us to systematically approach the discourse of different speaker groups, such as SE speakers and non-SE speakers, as well as SE women and SE men. Through detailed discourse analysis, I will provide discourse-based evidence of SE’s marginalization, which is reflected in the widely circulating discourse on SE’s reputation, and how polarized SE speakers and non-SE speakers are in assessing the reputation. I will also demonstrate how the
different positions taken up by SE women as opposed to SE men in regards to the street culture inform us of their different orientations towards mainstream values. The insights gained by investigating speakers’ positions and accompanying values ultimately provide an anthropological light in understanding why SE and non-SE speakers have different back vowel patterns (with SE speakers exhibiting less mainstream, or more marginalized patterns than non-SE speakers), and why SE women and SE men are moving in different directions in their back vowel production (with SE women not participating in /o/ fronting, a community-wide change in progress among all African American speakers). I will particularly emphasize the uniquely different positions SE women and SE men are put into, who are both marginalized by non-SE speakers of both races, but construct their positions very differently in response to the marginalization. I will close the chapter by reflecting the different positions – and consequentially constructed identities – upon the findings reported in the previous chapters, suggesting that the oppositional positions between SE and non-SE, and also between SE women and SE men, are parallel to their back vowel patterns. I will further suggest that the mainstream back vowel patterns (i.e. fronting and merger) reflect and reify mainstream norms and values, which are variably evaluated and weighted by different groups of speakers.

5.2 Analytical Framework: Positioning Theory

Positioning Theory (Davies and Harré 1990; Harré and van Langenhove 1991, 1999), firmly grounded in social constructionism, is an analytical framework that allows us to capture the ways people locate themselves and others onto a map of social realities – such as values, expectations, moral orders, and so forth – whether such realities are locally or globally bound. Though originally introduced within the field of psychology,
positioning theory has expanded its application in a number of other fields of studies, and been applied to the analysis of a range of types of social situations, most notably, in political relations (Harré 2000; Moghaddam and Harré 2010; Slocum-Bradley 2008, among others). Analyses performed under the framework of positioning theory are necessarily discourse-based, given that positions are understood and analyzed as social constructs mainly established through language in use; the idea of positioning was developed upon conversational interactions, in which conversation participants use ‘storylines’ to showcase their thoughts and opinions in reference to each other. While its application has moved beyond conversational interactions between individuals into intergroup relations (Tan and Moghaddam 1999) and discursive positions of large-scale entities such as nation-states or international organizations (Moghaddam and Kavulich 2008), the discourse analytic nature of positioning theory has remained intact. It is this focus on the language in use, and the discourses that emerge and are shaped in ongoing language use, that makes positioning theory an apt analytic framework for the current project.

Positioning theory is conceptualized with three ‘mutually determining’ (Harré and van Langenhove 1999:17) elements, each of which plays a key role in bringing about a particular set of positions. The three elements are a) a storyline, b) the social force of the speech, and c) a position. Below, each element is introduced and discussed. The order in which each element is discussed below is arbitrary, and it does not indicate sequentiality, causality, or level of importance. As will be noted, the three elements together comprise a ‘triad’, in which the elements are mutually and simultaneously constructed.

Storylines are rather loosely defined by positioning theorists, perhaps purposefully so, so that a broad range of discourse can be encompassed and examined under the positioning framework. Indeed, Moghaddam, et al. (2008) identify storylines as
a ‘loose cluster of narrative conventions according to which a social episode unfolds and positions arise’ (2008: 293-294), explicitly noting the breadth of the definition. Narrative conventions, as understood in positioning theory, seem to be analogous to ‘plots’ in Propp’s (1968) term. For example, van Langenhove and Harré provide examples of what qualifies as a storyline such as the following; “hero undertakes quest”, “hero is tricked by villain”, “hero receives magic help”, “hero triumphs” (1999:134). These situations the ‘hero’ may encounter are, according to Propp (1968), different plot types, which can be encapsulated in short phrases as such (i.e. ‘hero triumphs’). Each plot type contains a series of prototypical events and a number of prototypical characters (e.g. protagonists, antagonists, etc.), which then provide a speaker with resources necessary in assigning parts, roles, and positions both to the ‘characters in the episodes described’, and also ‘to themselves and to others’ (Davis and Harré 1999:38). For some, the scope of what can be considered storylines is delimited even more broadly. For example, in studying the discourse of technology assessment, van Langenhove and Bertolink (1999:122) define storylines as ‘conversations between actors who are in one way or another involved’ in a certain technology assessment process. A storyline, according to this definition, is equivalent to a theme or a topic of discussion.

The second element to consider is the social force of the speech. Originally put forth as ‘act-action’ by Harré and van Langenhove (1999:16), this second element refers to an act that is achieved either through speech (speech act) or otherwise (e.g. gesture). The social force of the speech, or speech act, can also be understood as ‘illocutionary force’ (Austin 1962), or the pragmatic effect of an utterance, such as promise, request, advice, and so forth. Harré and van Langenhove note, however, that the effect of an utterance is not always recognized or determinate at any given moment. Acknowledging this, they identify positioning as a process of making ‘a
person’s actions intelligible and relatively determinate as social acts’ (1999:17). What makes a person’s actions more or less concrete is the ‘discursive construction of personal stories’ (1999:16), i.e. storylines. For example, if John says to Mary (who just failed to pass the bar exam), ‘I had a friend who didn’t pass the bar, but he tried again and he eventually passed’, this storyline achieves the speech act of comforting and/or encouraging.

The final element is a position. In simple and broad terms, positions may be understood as roles, such as mother, daughter, wife, student, teacher, et cetera. Given that positions are much more fluid than roles, however, they may be identified on a more micro level. For example, positions may shift between a ‘good teacher’ and ‘bad teacher’, and there may be even more detailed positions than good and bad X, such as ‘a teacher that is better for younger students than older students’, or ‘a teacher that was once bad but not anymore’. As storylines unfold, positions are negotiated, modified, challenged, and solidified, and such positions assigned to all parties involved – speakers/writers present at the spoken/written conversation, as well as characters in the storyline – influence how a person’s actions are interpreted as meaningful social acts.

As alluded in the introduction to each element above, the three elements are identified and established based on one another and are therefore characterized as comprising a ‘mutually determining triad’. Figure 5.1 (see below) illustrates the positioning triad as schematized by Harré and van Langenhove (1999).
Storylines contain plots or themes, and accompanying values and moral orders. These are resources employed by speakers to make their acts intelligible, and simultaneously construct a position. The position so constructed by a speaker mutually influences what social acts the speaker can achieve. The type of position constructed and the type of social acts achieved both affect how the storyline is shaped as the interaction unfolds. The three elements – storyline, social force of the speech, and position – are dependent upon each other and so therefore stand in a triad.

Harré and van Langenhove (1999) introduce different modes of positioning that are proven to be useful in achieving a fuller understanding of a particular position one may take. Different modes of positioning are proposed based on a number of analytical parameters with binary notions, such as a) first and second order positioning, b) moral and personal positioning, c) self and other positioning, and d) tacit and intentional positioning. These distinctions are made purely on analytical grounds; the different modes of positioning are not exclusive of one another, and two different modes of positioning are often at play at the same time. For example, most of the
time, self positioning occurs along with simultaneous other positioning; self (or other) positioning may be established on moral grounds (i.e. moral positioning), or on personal grounds (i.e. personal positioning); moral (or personal) positioning might be established in a tacit way (i.e. tacit positioning), or in an intentional way (i.e. intentional positioning). In other words, when someone takes a particular position, it is often the case that the position is multi-dimensional, as a result of different types of positioning simultaneously established on top of one another. Below, different types of positioning are elaborated.

First and second order positioning can be understood in their literal sense, i.e., whoever speaks first brings about the first order positioning. In other words, whenever a person initiates talk with someone about someone/something (e.g. ‘do your homework’), a first order positioning occurs. Sometimes, a first order positioning is not followed by second order positioning. This is particularly the case if the person listening does not raise a question in response to the utterance made by the person speaking (e.g. the person who said ‘do your homework’ is a parent and the person spoken to is a child). However, a second order positioning occurs when a subsequent utterance compromises, modifies, or negotiates the position established via the previous utterance (e.g. if the people involved in the conversation are siblings, then one may question the position established by the other by saying something like ‘Why are you telling me? You’re not my mom!’). First and second order positioning, particularly focusing on the effect of the speech, could also be understood as performative and accountive positioning, respectively. First order positioning is often performative (or ‘deliberate’, if the positioning is intentional. See below for more detail on intentional positioning,) in the sense that the speech performs a social act (e.g. command, claim, etc.). Second order positioning, when it occurs, is often accountive (or ‘forced’, if the positioning is intentional), because the speech involves a discussion of the pre-
vious speech, or ‘talk about talk’, as Harré and van Langenhove notes it (1999:21). Secondly, moral and personal positioning refer to the extent of positioning that is expected and explained by the interlocutors’ roles. Moral positioning occurs when a person speaks as an institution, or as a representative of the institution (e.g. a newscaster reading news stories), whereas personal positioning takes place when a person steps out of what is expected by the institution (e.g. a newscaster commenting on a news story that was just read, from a more personal perspective). Thirdly, self and other positioning refers to the positioning of self and others, which always occur in tandem. Whenever a person positions her/himself, s/he simultaneously positions the other, and vice versa. ‘The other’ could be interlocutors, or those who are mentioned but not present during the interaction. Lastly, tacit and intentional positioning is the distinction highlighting the dynamic nature of positioning process, in which positions are constantly negotiated and reestablished. When a position is being negotiated, it is always intentional. When a new position is introduced (i.e. first order positioning), it is usually tacit. Tacit positioning, according to Harré and van Langenhove (1999:22), occurs subconsciously or unintentionally, with the exception of ‘lying or teasing’.

Within the dimension of intentional positioning, there are four types, particularly in reference to the self and other dimension and also to the performative and accountive dimension. Types of intentional position (see Table 5.1) are presented, as introduced in Harré and van Langenhove (1999:24).

| Table 5.1 Types of intentional positioning (adapted from Harré and van Langenhove 1999) |
|---------------------------------|---------------------------------|
| Performative                   | Accountive                     |
| Self                            | forced self positioning        |
| deliberate self positioning     | forced other positioning       |
| Other                           | deliberate other positioning   |

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Deliberate self positioning takes place whenever a person is involved in any act of unsolicited identity construction, by virtue of offering opinions or stories that convey certain characteristics of that person. Forced self positioning also involves identity construction, but unlike deliberate self positioning, it is solicited; a person is already put in some position by others, to which s/he now positions her/himself. Other positioning, whether deliberate or forced, can occur with or without the presence of the other at the moment of interaction. Examples of deliberate other positioning provided by Harré and van Langenhove include gossiping (if the person being positioned is absent) and moral reproach (if the person being positioned is present). An example of forced other positioning, also illustrated by Harré and van Langenhove, is found in criminal courts, in which many different parties (e.g. defendant, lawyer, witness, etc.) are positioned – that is, forced by legal institutions and practices – to position the defendant.

The analytical facets of positioning theory summarized so far can be usefully utilized in answering essential questions raised from the findings of phonetic variation reported in the previous chapters. Main questions include: a) why do SE speakers have different back vowel patterns from non-SE speakers? b) Why do SE women pattern differently from SE men? Positioning theory is a particularly beneficial tool to help explain the different back vowel patterns among the speakers examined in this study, given that positions are, as explained above, inherently relational. Occupying position X (versus position Y) presupposes the existence of position Y. In some cases, positions may be bipolar: happy vs. unhappy, knowing vs. not knowing, etc. In other cases, positions are less, if at all, oppositional, but still relational: approving vs. neutral, teachers vs. parents, doctors vs. nurses, etc. The back vowel patterns found in the current project are also relational; SE vs. non-SE, SE women vs. SE men. It is in fact unlikely for a variation study not to report relational patterns, since the macro social
categories conventionally explaining the findings of variationist investigations, such as sex, age, race, or socioeconomic status, are ultimately parameters with contrasting, though not entirely binary, positions; men vs. women, young vs. old, white vs. black, poor vs. rich, and so forth.

While such macro social positions certainly explain language variation to some extent, they are limited in providing further insights. We know, for example, that the back vowels of SE black speakers are produced differently from those of non-SE black speakers. However, we do not know the exact social meanings behind the different productions, if there are such meanings. Are the different productions indexical of SE blacks’ and non-SE blacks’ positioning against one other? If so, on what issues? If they are not directly positioned against each other, is there a mediating entity (e.g. government) in relation to which each speaker group positions differently? What are the relevant ideologies that might affect different positionings between SE blacks and non-SE blacks? These questions cannot be adequately answered if we are to associate a variant only with macro categories. Positioning theory is avowedly claimed to be the ‘study of meanings’ (Harré et al. 2009:7); by utilizing positioning theory, we can approach these questions in a systematic way, which in turn can shed light on further meanings associated with being a SE speaker, a non-SE speaker, a SE woman, or a SE man – in other words, how these various (intersecting) groups construct their identities, and how their identities are shaped via language variation.

In this chapter, I examine how SE and non-SE speakers construct their positions in regards to two themes, or two storylines. Examining the themes commented on by all six speakers allows us to clearly compare different social forces or effects of the speech created by different speakers, and thereby constructed positions. The two themes to be analyzed are a) the notorious reputation SE holds, and b) the street-oriented culture among some SE men. The analysis particularly draws on the
four types of intentional positioning (i.e. deliberate self positioning, forced self positioning, deliberate other positioning, forced other positioning), although other modes of positioning are often taken into account.

5.3 Data

5.3.1 The Six Speakers

The analysis in this chapter is based on the interview discourse of six speakers. A table summarizing the demographics of the six speakers is provided below.

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Sex</th>
<th>Age</th>
<th>SE vs. Non-SE</th>
<th>Occupation</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>grey</td>
<td>m</td>
<td>50</td>
<td>SE</td>
<td>IT technician</td>
<td>college</td>
</tr>
<tr>
<td>jackie</td>
<td>f</td>
<td>53</td>
<td>SE</td>
<td>administrator</td>
<td>unknown</td>
</tr>
<tr>
<td>kiesha</td>
<td>f</td>
<td>43</td>
<td>SE</td>
<td>administrator</td>
<td>college</td>
</tr>
<tr>
<td>leona</td>
<td>f</td>
<td>56</td>
<td>non-SE</td>
<td>education coordinator</td>
<td>college</td>
</tr>
<tr>
<td>lucy</td>
<td>f</td>
<td>36</td>
<td>non-SE</td>
<td>teacher</td>
<td>college</td>
</tr>
<tr>
<td>oliver</td>
<td>m</td>
<td>31</td>
<td>non-SE</td>
<td>teacher</td>
<td>college</td>
</tr>
</tbody>
</table>

All six speakers were involved with an elementary school in a SE neighborhood (which I will call Talbert Elementary) and/or the Anacostia Community Museum, both of which were my main fieldwork sites for observation as well as for speaker recruitment (refer to Chapter 2 for more detail on the fieldwork). All six speakers were interviewed by me, and only were Lucy and Oliver interviewed together with the other four interviewed individually. Lucy and Oliver are working at Talbert Elementary as teachers, and they maintain a collegial relationship with each other as colleagues. Leona knows Lucy and Oliver, but only as acquaintances. The other speakers do not know each other. The six speakers are associated with Talbert Elementary via
a number of different routes; some are working or volunteering at the school (e.g. teachers, administrators), and some are parents. Grey and Kiesha, for example, each have a child that attends to the school. Jackie is a school administrator, working in the Registrar’s Office. Lucy and Oliver are contract teachers for the after-school program funded and supported by the Anacostia Community Museum. Leona is the main coordinator for this program. While she is a museum employee, she was closely working with Talbert Elementary, since the museum was partnering with Talbert Elementary during the time of my fieldwork. While all six speakers are closely related to the SE community, three are SE native and the other three are not. As indicated in Table 5.2, the non-SE speakers are Lucy, Oliver, and Leona.

As can be presumed from the excerpts below, these six speakers are fairly outspoken about neighborhood issues compared to other interviewees who are also SE-related. This is the rationale behind the speaker selection, or more precisely, the excerpt selection. In what follows, more details regarding the selection of excerpts, as well as the interview context in which the selected excerpts are situated, are provided.

5.3.2 The Selection of Excerpts

During my fieldwork in a SE neighborhood, I identified three themes that were frequently brought up and/or commented on not only by all SE-related speakers, but also by members of the community at large. The three themes are: a) bad reputation of SE, b) street-oriented culture among some men, and c) single-motherhood and teen pregnancy. These themes not only stand out in the interviews with all SE-related speakers, but also were saliently visible to me as I was involved in the community as a participant observer.

Discussions on these themes were guided and elicited, in the sense that the speakers commented on these issues as a part of providing answers to my interview
questions. However, the scope of my questions that prompted the discussions is wide, and less than specific; I did not ask questions about SE’s reputation or the street culture. The nature of my questions is exemplified as something akin to the following: ‘Has the neighborhood changed a lot over the years?’, or ‘Are there more boys than girls in the school system in this area?’ In other words, comments provided by the speakers are within the realm of the broad topic area initiated and fixed by myself (i.e. neighborhood, education), but themes such as neighborhood reputation or the prevailing street culture emerge without my elicitation. The exception is in regards to the theme of single-motherhood and teen pregnancy; there are instances in which I explicitly ask them about the large number of single mothers in the neighborhood. For this reason, the theme of single motherhood (and teen pregnancy, which was also frequently commented on) was not included in the analysis. The guiding questions for the interview are presented in the interview template (see Appendix B).

There are a total of ten excerpts that are analyzed below. Four of them are about the notorious reputation SE holds, and six are related to the street-oriented culture prevalent in SE. In discussing either the reputation or the street culture, the speakers are actively engaged in positioning with regards to different groups of people in and out of SE, and also to the characters in their storylines. Employing Harré and van Langenhove (1999)’s taxonomy of intentional positioning, I will firstly identify the type of intentional positioning taking place in each excerpt. I will then demonstrate the contrasting positions emerging from the selected themes, between SE speakers and non-SE speakers, and also between SE women and SE men.

As mentioned, many studies utilize positioning theory beyond interactional settings involving the speaker(s) and the audience, and so does my study. The interactional setting in this study is specified as an interview setting, and as an interviewer, I assume the role of the audience. However, in discussing neighborhood issues, my
position in relation to the speakers does not evolve beyond that of a passive audience, largely due to a) my presence as an outsider who is not rightfully endorsed to discuss such issues (as someone who is not only unfamiliar with the neighborhood, but also farther away, as an Asian, from the racial and socioeconomic dichotomy of white vs. black, or rich vs. poor) and also to b) the fact that I purposefully minimize the amount of talking on my end in order to give the floor to the speaker and get the most amount of speech per interview. The positions which prominently stand out in the discussion of neighborhood issues – and also the positions that are more pertinent to the current project – are that of SE and non-SE, and that of SE women and SE men. Importantly, these positions are products of ‘narrative positioning’ (Bamberg 1997), in which non-participants are positioned by speakers as the characters in storylines (who are absent in the interaction, hence the term ‘non-participant’). For example, a non-SE speaker may form a position against SE – SE speakers, SE residents, or SE neighborhoods more generally – through positioning a certain group of people appearing in a story. For each excerpt, I will firstly identify who (or what) is being positioned before moving onto the analysis of the specifics. Each line in the excerpts represents an ‘intonational phrase’, following Chafe’s (1994) definition of intonation unit. Intonational phrases are identified by their falling intonation contours signaling utterance completion, usually followed by a short pause.

5.4 Opposite Positions Towards SE’s Reputation: SE Speakers and Non-SE Speakers

In this section, four excerpts are closely examined in discussing the positions SE speakers and non-SE speakers construct towards SE’s notorious reputation. Such a reputation is reportedly attributed to a number of social indices that together point
to the marginalized state of the SE section of the city, mostly including crime, drugs, poverty, and lower education and employment rate. The notoriety of SE is a topic that is frequently brought up by all SE-related speakers I recruited during my fieldwork, whether implicitly or explicitly. Implicit mentions of SE’s bad reputation often include discussions of the aforementioned social issues in characterizing SE. For example, Leona (a non-SE women in her 50s working in SE) talks about how food trucks are scarce in SE, noting that the neighborhood does not attract the food truck companies. (During her interview, Leona says: ‘I’ve been hearing some wonderful things about those trucks, they have some good food out there you know. So I’ve been planning to check them out but they just don’t come down to this area, this part of the city, they don’t come down. Because some of these, some of these companies are afraid to come in Southeast’). The selected excerpts to be introduced and analyzed in this section include explicit comments on SE’s bad reputation.

While the explicit comments on SE’s reputation arise from various contexts for different speakers, all those comments include variations of either or both of the two phrases: ‘don’t go to Southeast’, and ‘it’s the bad part of the city’. These two phrases are causally related, with the latter being the reason for saying the former, and consequently, one phrase pragmatically implies the other. In most cases, these phrases are uttered via a reported speech, or in Tannen’s (1989) term, constructed dialogue. That is, the speakers say ‘people say that SE is bad’, which is very different from saying ‘SE is bad’. That the comments are made using constructed dialogue is quite natural given the very definition of reputation – an opinion or belief about someone or something that is widely circulated and frequently reported.

The first excerpt is extracted from the interview with Lucy and Oliver, who are non-SE speakers. Again, they were interviewed together, and the interview was conducted at Talbert Elementary. My question that eventually led them to the dis-
cussion of SE’s reputation was ‘what kinds of jobs do men and women have in the area?’ Upon the question, Lucy and Oliver started co-constructing a list of typical jobs for men and women in SE neighborhoods (e.g. construction for men; security or grocery store clerks for women). In the middle of listing, Oliver sought clarification whether I was asking about jobs specifically in SE or DC generally. I clarified that I was asking about jobs in DC generally. Upon this prompt, Lucy, a DC native who is from an affluent part of the city (Northwest), reminisces how she saw African Americans of all classes from rich to poor as she was growing up in Northwest. She then adds a disclaimer saying that it was only the case in either Northwest or Northeast part of DC, and that SE ‘always felt like over there’. At this point, Lucy and Oliver explicitly bring up the notorious reputation of SE. Excerpt 5.1 opens with Lucy’s and Oliver’s remarks on their past non-involvement with SE. Oliver now lives in a SE neighborhood, whereas Lucy is still residing in Northwest (more detail on the speakers is provided in Chapter 2).
Excerpt 5.1. “I didn’t even come to Southeast growing up” by Lucy and Oliver

1) Oliver: I didn’t even come to Southeast=
2) Lucy: ...................................................=me-
3) Oliver: growing up=
4) Lucy: ..................=me neither yeah=
5) Oliver: ...............................................=me neither yeah
6) before I moved over here
7) it was, I mean I didn’t have any business over here.
8) Lucy: mhm
9) Oliver: it was, you know, we kinda stuck in our communities, our neighborhoods
10) but you know
11) you always heard ‘dang, Southeast bad’
12) ‘Southeast is...’ (hhhhh)
13) Lucy yeah.. with even in the African American community=
14) Oliver: =‘Don’t go to Southeast’ (hhhhh)
15) Lucy: (unintelligible) That was the worst part of DC, everything-
16) Int: Even in the community?
17) Oliver: mhm mhm
18) Lucy: Yeah, yeah.
19) Everything that was DC
20) like why DC was the murder capital in all of the-
21) the negativity was coming from Southeast.
22) That’s what was told to us.
23) That’s the little that we experienced, that’s what we saw.
24) Even family members who lived over there were having a hard way to go
25) because Southeast was so rough, and notoriously rough.
26) Like even outside of you know DC, the DMV34, you know
27) in other states people knew (unintelligible)
28) Oliver: Southeast (hhhhh)
29) Lucy: Southeast DC is not the place to go=
30) Oliver: =Our neighborhood, what, a lot of our kids live in,
31) Lucy: Yeah
32) Oliver: Barry Farm=.......................is notorious=
33) Lucy: ......................=Barry Farm’s ........................=notorious.
34) Oliver: I mean the people that’s not even from DC
35) “Oh I know about Barry Farms”=
36) Lucy: =Right, right
37) Oliver: or you know...
38) So and it’s, that’s just one of (hhhhh)
39) many neighborhoods on this side.

34DC, Maryland, Virginia
While there are many angles to look at in this excerpt in terms of positioning, I will focus on the positions of 1) the two speakers, Lucy and Oliver, and 2) the reputation itself, or the people who have participated in building and circulating the reputation. It is quite safe to assume that Lucy and Oliver occupy the same position, since they are co-constructing the same voice throughout the excerpt. Their unified voice is evidenced by repetition, in which they repeat what the other said (lines 1-5, 32-33), and by the use of ‘mhm’ (line 8), ‘yeah’ (line 13, 31), or ‘right’ (line 36) in response to the other’s remark, which may function as markers of agreement as well as backchannels or markers of active listenership (Schiffrin 1987), and also by the joint completion of the same thought (lines 27-28).

Excerpt 5.1 can be divided into three parts; from line 1 to 9, from line 10 to 22, and from line 23 to 39. The first part (lines 1-9) is where Lucy and Oliver are talking about their past non-involvement with SE neighborhoods. The distance they experienced between their own neighborhoods (in Northwest and Northeast) and SE is accentuated by the use of ‘even’ (‘I didn’t even come to SE growing up’), solidifying their past non-involvement with SE. In the second part (lines 10-22), Lucy and Oliver introduce SE’s long-held reputation, contextualized as an account of why they ‘didn’t even come to SE’. Oliver introduces the reputation as constructed dialogue (lines 11, 12, and 14), and Lucy introduces it by elaborating on ‘what was told to’ them (line 22). The introduction of SE’s reputation is prefaced by ‘you know’ (line 10), which is indicative of Oliver’s assumption that SE’s reputation is shared knowledge between him and me, which in turn alludes to the fact that SE’s reputation is a widely circulated one.

The reputation introduced in the second part is now being positioned by Lucy and Oliver in the third part (lines 23-39). The type of positioning is identified as deliberate self positioning, in which Lucy and Oliver provide their ‘point of view’
with regards to SE’s reputation, a defining characteristic of deliberate self positioning as put forth by Harré and van Langenhove (1999:24). Their point of view towards the reputation is that of an affirmation or endorsement. In line 23, Lucy confirms the reputation by switching herself from someone who heard the reputation (‘that’s what was told to us’, line 22) to someone who witnessed the situations contributing to the reputation (‘that’s what we saw, line 23). In lines 24 and 25, Lucy reifies the reputation not only by providing her personal anecdote (‘even family members who lived over there were having a hard way to go’), but also by upgrading the degree of ‘roughness’ with the use of added modifier ‘notoriously’ (‘because Southeast was so rough, and notoriously rough’). SE’s bad reputation is even more strengthened in the following lines, in which the reputation is presented as something that continues to this day, as evidenced by the use of present tense (‘Southeast DC is not the place to go’ in line 29, ‘Barry Farms is notorious’, lines 32-33). That Lucy and Oliver align with the proposition of the reputation, by extension, means that they align with the people who side with this reputation.

The positioning of Lucy and Oliver is performative (i.e. deliberate positioning), since they proactively choose to position SE and its reputation, and they are not from SE. In contrast, SE speakers arguably are initially positioned by the reputation of SE (since place of origin is often seen as an inseparable piece of speaker identity), and so their positioning in discussing SE’s reputation is likely to be accountive in nature (which would result in forced positioning). This is indeed the case for Jackie (Excerpt 5.2), Kiesha (Excerpt 5.3), and Grey (Excerpt 5.4), all of whom are engaging in forced self positioning. Below, I delve into the positions of these three SE speakers, as they provide their opinions on the bad reputation of their own neighborhood. As will be shown, all three speakers bring up SE’s reputation as a part of answering one particular question I cast: ‘Has the neighborhood/city changed a lot recently’? Even
though Jackie, Kiesha, and Grey did not know each other, nor were they interviewed together, the theme of SE’s reputation emerged unanimously upon this question.

Excerpt 5.2 opens with my question regarding the recent changes in the city. In providing her answer, Jackie talks about the gentrifying trend specifically in the SE neighborhoods. She characterizes the trend as a lot of new developments being established in the neighborhoods, which she positively evaluates. Jackie’s mention of SE’s bad reputation is situated in this evaluation of recent changes. Excerpt 5.2 is presented below.

---

Excerpt 5.2. “But it’s building up” by Jackie

1) Int: What are some recent changes in the DC area?
2) Jackie: The recent changes in DC...
3) You have homeland security over here now
4) um straight up Martin Luther King
5) you have... the command center
6) that was never over here
7) um what else is going on...
8) I’m surprised they moved property control down here where..
9) Curtis Brothers used to be in..
10) I’m really surprised at that
11) because that was where was Curtis Brothers when I was a little girl
12) then it became property control
13) so they’re really trying to build up
14) Southeast, you know everybody looks at Southeast as..
15) you know
16) “you don’t wanna go over there”
17) but it’s building up
18) everybody’s trying to get in over here now.
19) I love it.
20) I really love it.
In lines 14 through 16, Jackie acknowledges (‘everybody looks at Southeast as...’) and introduces the reputation (‘you don’t wanna go over there’). The ‘author’ (Goffman 1981) of this phrase ‘you don’t wanna go over there’ initially positions Jackie – a person who has been living ‘over there’ her entire life – as someone who lives in a less-than-desirable place. Now Jackie is put in a position, by this phrase or by the author of this phrase, to which she needs to respond (i.e. forced self positioning). SE’s bad reputation is refuted by Jackie on the grounds that the neighborhoods are now building up (lines 17-18).

The same type of positioning is observed from Kiesha in Excerpt 5.3 (see below), which exhibits a strong resemblance to Excerpt 5.2 in terms of the organization of the talk; in commenting on the recent neighborhood changes, Kiesha notes how the neighborhoods are experiencing gentrification, which she positively evaluates, and introduces SE’s bad reputation in order to refute it.

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35 ‘Here’ indicates the SE section of the city in Jackie’s interview, reflecting the location where the interview was conducted, i.e. a SE neighborhood.
36 This refers to Martin Luther King, Jr. Avenue, a major street in SE.
37 This refers to the Department of Housing and Community Development, a District agency providing housing assistance as well as information on rent control.
38 This refers to Curtis Brothers furniture store.
Has the, in your opinion, has the city changed much?
Kiesha: Oh dramatically.
for the better um
especially over in Ward Eight\textsuperscript{39} I’m seeing..
some dramatic improvements
like what they’re doing over at Saint Elizabeths\textsuperscript{40}
that they broke ground uh
couple weeks ago and they sta-
you’re gonna build um some shops and um
um they’ll think they’re gonna have a Coast Guard um
building over there on Saint Elizabeths’ grounds
and so of course that’s gonna open up a lot of jobs um
I’m- I just see the improvements of it- of them cleaning up this area
because you know Ward Eight
Southeast period has always been known for
“oh you don’t wanna go to ward- go to Southeast”
“that’s the bad part of the city.”
that is been known for that, especially Ward Eight
that you know the crime... and everything but
you don’t hear about that now in Ward Eight
now you hear about that in P- Prince George’s County\textsuperscript{41}
um so it’s it- it has changed dramatically for the better
and now that they b- um
finishing up that Homeland Security right down two ninety five\textsuperscript{42}
I’m like ‘wow’
and they bringing the- trolley cars
just, I just see..
the- it’s changing a whole lot so
for the better and I love it so

From line 14 to 19, Kiesha brings SE’s reputation into her discussion of recent neighborhood changes, even identifying one of the reasons behind the reputation (‘the crime

\textsuperscript{39}This refers to Ward 8, one of eight wards in the District. Ward 7 and 8 comprise most of SE.
\textsuperscript{40}This refers to Saint Elizabeths Hospital.
\textsuperscript{41}Prince George’s County is a county in Maryland, bordering SE.
\textsuperscript{42}This refers to Interstate 295, also known as Anacostia Freeway.
and everything’, line 19). Just like in Jackie’s comment, Kiesha fights off the bad reputation of SE, firstly by denying it (‘but you don’t hear about that now in ward eight’, line 20), and secondly by directing our attention to a different neighborhood, which is allegedly gaining a bad reputation in replacement of SE’s bad reputation (‘now you hear about that in Prince George’s County’, line 21). Kiesha’s second order positioning in response to the first order positioning entailed within the phrases that represent the bad reputation of SE (‘you don’t wanna to go to Southeast, that’s the bad part of the city’, lines 16-17) is the same as Jackie’s positioning, in that she is initially put in a position by the quoted proposition which she directly opposes, and also in that she re-establishes her position as someone who lives in a place that has changed ‘dramatically for the better’ (lines 2-3) (i.e. forced self positioning). That Jackie and Kiesha provide counter positioning in response to the initial position imposed by the reputation (or those who circulate the reputation) is clearly illustrated in their closing remarks, in which both of them express their positive evaluation of their neighborhood by saying ‘I love it’, emphatically refuting the proposition of the reputation ‘you don’t wanna go to Southeast’.

The last excerpt on SE’s reputation is extracted from the interview with Grey, a SE native male in his early 50s. As with Jackie and Kiesha, Grey is also involved in forced self positioning in response to the reputation, but unlike Jackie and Kiesha, he explicitly brings to the surface the people who are contributing to the reputation, and position those people as well (i.e. forced other positioning). Excerpt 5.4 is presented below.
Excerpt 5.4. “Not as bad” by Grey

1) Int: so you, you have witnessed a lot of change around the city, around the neighborhood?
2) Grey: yeah eh, well yeah especially, just,
3) well as far as the.. development, yeah
4) it’s a lot of development
5) but as far as the culture uh..
6) the mentality probably still around the same
7) the culture is probably still the same
8) but the development and uh.. yea..
9) structure of the area probably has changed more than anything
10) but other than that?
11) and you know the core most of the people are still (unintelligible)
12) not as bad as you know people would assume it is
13) you know people that’s on the outside looking in
14) you know, it’s not as bad as they think than it is
15) Int: so you meet a lot of people somewhere- like outside of Southeast saying, you know, people, talking about Southeast in a bad way...
16) Grey: mhm it i- i- I mean uh my child’s a (unintelligible)
17) well one of my child’s mother
18) when I met her
19) she had never..
20) a lot of people.. w- w- won’t cross the bridge
21) she had never came to Southeast in her life and she lived in Northwest
22) I had know a lot of people that would- would not
23) come across the bridge to Southeast just because of.. the stereotype
24) and what they heard about it well they have a... mmm... you know...
25) reservation about coming, about what they heard
26) uh- opposed to seeing it the first hand
27) you know because the tales are kind of you know graphic and kind of
28) you know
29) more good stories
30) I mean more bad stories are get told than good stories so
31) is more appealing for them to hear the negatives
32) so they’ll run with the negative opposed to the.. good times
33) cause the most of the good times are shared within the communities so
34) the only people that witness this is people that’s in the community
35) the people that’s outside, you know they never.. right.
36) all they hear is the bad stuff on TV and..
37) you know what somebody else says so you know
38) it’s so- it’s- it’s- it’s like I said, it’s- it- it hasn’t been that bad for me
39) and I lived in Southeast majority of all my life
SE’s bad reputation is acknowledged and countered by Grey, but the way it is acknowledged and countered is different from that of Jackie or of Kiesha. Whereas Jackie and Kiesha introduce the reputation via the use of constructed dialogue (e.g. ‘you don’t wanna go to SE’), Grey comments on the reputation in a less obvious way by embedding it under his negating the alleged badness of SE; ‘(SE is) not as bad (as the reputation says)’. This phrase recurs frequently throughout the excerpt, namely, in lines 12, 14, and 38.

The ground on which SE’s bad reputation is refuted by Grey is distinguished from that of Jackie and Kiesha as well. Recall that both Jackie and Kiesha refute the bad reputation of SE, pointing to the recent changes in SE neighborhoods due to gentrification. It is less that they argue against the bad reputation held by the SE section of the city in the past, but more that they demand such a reputation be re-evaluated since SE is now becoming a better place. However, for Grey, whether or not SE is now being gentrified is irrelevant in refuting the bad reputation that has long been held. This is demonstrated by a number of occurrences of his remark ‘not as bad’; he problematizes the disparity between ‘what people would assume’ about SE (line 12) and what it actually has been for him growing up in SE. In redeeming SE’s reputation that has been unjustified, Grey emphasizes his insider position, or his status as a SE native (‘I lived in Southeast majority of all my life’, line 39), claiming authority to tell the real story about SE.\(^{43}\)

Along with his effort to authenticate himself as an insider, whose position is now against the reputation or those who contribute to the bad reputation of SE, he simultaneously turns the criticism towards the reputation, or more specifically, the people who contribute to the bad reputation without ‘seeing it the first hand’ (line \(^{43}\)Note that Jackie and Kiesha also grew up in SE, and have been living in SE all their lives.)
This forced other positioning is indicated by a number of referring terms for the reputation-circulating-outsiders, including ‘they’ (lines 14, 24, 25, 32, 35, 36), and ‘the people that’s outside’ (lines 13, 35). Grey aligns against the outsiders who wouldn’t even ‘cross the bridge’ (lines 20, 23) to SE based on ‘what they heard’ from TV (line 36), accusing them of being ‘never right’ about SE (line 35).

As shown above, the positions speakers take towards SE’s bad reputation are constructed differently depending on the speaker’s neighborhood affiliation. Lucy and Oliver, who are non-SE speakers, are involved in deliberate self positioning in evaluating the reputation, with an effect of strengthening and propagating the reputation further, while simultaneously constructing their position as non-SE. On the other hand, Jackie, Kiesha, and Grey, who are SE speakers, are involved in forced self positioning in responding to the position initially established by the reputation, with an effect of weakening and negating the reputation, while simultaneously constructing their position as SE. In some cases, as demonstrated in Grey’s example, SE speakers’ forced self positioning is concurrently accompanied by forced other positioning, which highlights the oppositional positions between SE and non-SE speakers.

5.5 Opposite Positions Towards SE’s Street-Oriented Culture: SE Women and SE Men

5.5.1 Tacit Positioning of Non-SE Speakers

The bad reputation of SE is largely related to the street-oriented culture shared and sustained by some SE residents, predominantly among men. The aforementioned elements that together build the discourse of SE’s notoriety, namely, crime, drugs, lower education, and higher unemployment rate, are all indubitably connected to the street culture, since these social issues are in essence manifestations of the particular
type of street-orientedness that characterizes SE DC, and indeed other lower-income predominantly African American neighborhoods in large urban U.S. cities. The street-orientation is a non-negligible aspect of SE, which is witnessed and experienced on multiple levels of life among SE-related speakers. The salience of the street culture in SE is attested by the fact that all SE-related speakers I recruited comment on this culture.

The street culture is most often characterized by parallel non-participation in education, which can lead to unemployment, which in turn is often related to criminal activity as a means of earning money (see Labov 2008). When speakers talk about street-oriented culture in SE, there is a group of people that are targeted in their discourse, namely, those who are street-oriented. The street-oriented people are mainly described as men, though not exclusively so. As mentioned in Chapter 2, the interviewees and people I encountered during my fieldwork are not street-oriented; they are involved with some form of mainstream institutions such as school or work, and they prioritize education as a gateway to upward mobility. They frequently see the street as the polar opposite of school, noting the importance of keeping children and young people in the school system as a way of keeping them away from the street.

In the excerpts presented below, the speakers are commenting on the street-oriented culture in SE. This theme, or storyline of ‘street-oriented culture’ necessarily includes characters that are street-oriented, who are mostly men. In this section, we will pay particular attention to how the speakers position their storyline characters, i.e., the street-oriented men, and also, how they position themselves with regards to the street oriented men.

In telling of the street-orientedness and the street-oriented men, speakers frequently speculate on the motivation behind such a culture – that some young men are more attracted to the glamorous aspects of the street that may lead to ‘success’ than
to the more conventional and conservative routes (e.g. going to school). The value of
the street is noted by Leona, a non-SE speaker, in which she speculates that ‘going to
college’ is stigmatized among some young men. Prior to Excerpt 5.5, I asked Leona
‘what type of jobs do men and women have in the DC area’? She started by saying
that a lot of African American men are still struggling in the job market whereas
African American women usually do better than men, with women having ‘great
jobs’ and going ‘further in the school system’. Then she speculates on the challenge
she faces as an advocate for education, the difficulty in engaging the boys and young
men in the neighborhoods with opportunities for education, and why that is the case.
Excerpt 5.5 opens with this speculation.

Excerpt 5.5. “Stigma in their hood” by Leona

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<tbody>
<tr>
<td>1)</td>
<td>Leona: I mean it’s like keeping, keeping them engaged throughout the school</td>
</tr>
<tr>
<td>2)</td>
<td>so they can continue their education</td>
</tr>
<tr>
<td>3)</td>
<td>now I’m still trying to figure out why are-</td>
</tr>
<tr>
<td>4)</td>
<td>they’re not going when there’s so many opportunities for them to go.</td>
</tr>
<tr>
<td>5)</td>
<td>you know it could be a lot of different things</td>
</tr>
<tr>
<td>6)</td>
<td>it could be may- maybe the stigma within their eh oh their hood</td>
</tr>
<tr>
<td>7)</td>
<td>‘well what you going to college for man you could hang out with me’ sort of thing you know</td>
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</tbody>
</table>

In line 7, Leona introduces a constructed dialogue voicing some neighborhood boys
who are street-oriented. If we hold that such dialogues actually take place in the
‘hood’ (line 6) as Leona reports it, it is significant in understanding the street culture
for two reasons: one, it illustrates the in-group value of ‘hanging out with’ peers even
if it has to be on the street, and two, it points to the in-group devaluing of education,
which is the polar opposite of the mainstream value on education.
The type of positioning clearly identified in Excerpt 5.5 is self and other positioning, with Leona positioning herself as an education advocate who strives to ‘keep the boys engaged throughout the school’ (line 1) while positioning the boys as a group that is difficult to engage due to the stigma of mainstream education within the group. This positioning of self and other is done in a tacit, rather than intentional, manner. That is, Leona is not performatively (or deliberately) positioning the boys as street-oriented, or herself as non-street-oriented, since the social force of the speech (or the effect created by the speech) is her reporting and discussing the challenge itself, rather than evaluating either the boys or herself in a certain way.

Tacit positioning is also found in Excerpt 5.6, in which Oliver compares the different expectations for boys and girls in the neighborhood. Prior to excerpt 5.6, I cast a question in terms of the likelihood of continuing education for boys and girls in the area. Oliver said that it is usually women who are more educated than men in the SE neighborhoods, and proceeds to provide his account of why this may be the case in excerpt 5.6. As with Leona, Oliver also brings up the aspiration for the street among boys.

| Excerpt 5.6. “Guys are drawn into the street” by Oliver |
|---|---|
| 1) Oliver: I think a lot of the times |
| 2) the guys are drawn into the street |
| 3) the neighborhood aspect |
| 4) more than the women are |
| 5) so the guys are, where a woman might.. aspire or |
| 6) young girl might aspire to one day go to college- |
| 7) not all, but a lot of the gentlemen maybe aspire to be the next (unintelligible) |
| 8) or the next big time, you know, street DC |
| 9) just street king |
| 10) um not all situations but a lot of situations uh I would say... |
| 11) the expectations on uh girls is to continue education |
| 12) whereas all the men the boys is to not go to jail or not be locked up |
The same group of men that was introduced and positioned by Leona appears in Oliver’s comments – namely, the boys who are ‘drawn into the street’ (line 2). In illustrating the prevalence of street-oriented culture among boys, Oliver draws a comparison between the boys and the girls, and positions them as opposite, commenting that girls are more likely to pursue education.

The type of positioning taking place in Excerpt 5.6, as well as in Excerpt 5.5, can be understood as twofold; one, self and other positioning, and two, tacit positioning. Oliver is constructing the position of the street-oriented men tacitly, in the sense that the storyline here adopts the form of a report (i.e. a matter-of-fact description of the state of affairs) and the positioning of the street-oriented men are embedded in the report. This report-like aspect is found not only in the comparison he makes between boys and girls, but also in his effort to minimize the possibility of making inaccurate generalization (‘not all situations’, lines 7 and 10). The position of Oliver himself and that of the street-oriented men are clearly different, given that Oliver is a teacher whose everyday mission is to help the struggling boys to stay away from the street. However, as his report-like tone insinuates, his position with regards to the street-oriented men, or the street-oriented culture more broadly, appears less obvious, other than the fact that he is distinguishing himself from the street-oriented men (i.e. self vs. other positioning). It seems that the evaluative element is absent in Oliver’s discussion of the street-oriented men. This absence of evaluation may be attributable to a number of factors, but one likely possibility is his status as a non-SE speaker, who grew up in a less marginalized neighborhood in which the aspiration to the street is not the norm. Because Oliver is essentially an outsider, he is perhaps less ratified to extend his opinions about the inside businesses.
5.5.2 Deliberate Positioning of SE Speakers

The hypothesis that the insider-outsider status influences the evaluation of the street-oriented men becomes strengthened when examining the comments provided by Jackie, Kiesha, and Grey, who are all native to SE (who grew up in SE, and have been living in SE all their lives).

In talking about the street culture, both Jackie (Excerpt 5.7) and Kiesha (Excerpt 5.8) target a specific group of people representing street-orientedness, the unemployed. The unemployed (and often crime-involved) people are characterized as being out in the streets all day, and Jackie and Kiesha are engaged in deliberate other positioning vis-à-vis these people. Jackie’s discussion on the issue of unemployment is prompted by my question ‘do you think you see more women working than men working?’, to which she cynically answers ‘I hope to see it’. For Jackie, the unemployed are not specifically characterized as men, but rather, as young parents of the children who attend Talbert Elementary, whom Jackie sees everyday. Jackie’s positioning of these young parents is found in Excerpt 5.7 below.
Excerpt 5.7. “That corner not gonna bring you anything” by Jackie

1) Int: Do you see- do you think you see more women working than men working?
2) Jackie: I hope to see it.
3) Really both.
4) It’s time for... us being African- African Americans...
5) And tha- that avenue, that corner not gonna bring you anything.
6) Get a trade.
7) Go take a trade up.
8) So you can get a job.
9) Because, don’t let history repeat itself.
10) Your children are getting older so don’t have your children doing...
11) what you’ve done
12) you want your kids to better themselves so they see...
13) you know mommym not trying to work, daddy not trying to work
14) so I’ma stay in that- that circle with them
15) And- and not to be hard... but I feel like this
16) I have to get up everyday and go to work so you should have to get up everyday and go to work
17) and not depend on the government to take care of you
18) I could see it for the elderly
19) the elderly, elderly.
20) That has pi- put in their time you know they work.
21) They’ve done all they could do.
22) I could see them getting support from the government.
23) But when you young
24) you in your twenties
25) and you don’t wanna work?
26) Something’s wrong with you.
27) Something is really wrong.
28) And- and I just don’t mean to be hard or anything but
29) something is really wrong so...
30) Int: What do you think the reasons are?
31) Jackie: I really don’t know.
32) You know when I was coming up, this used to be a um...
33) heavy drug area, that avenue, so...
34) when you in that mode and you just wanna...
35) sit there and get easy money...
36) you not gonna make it out here.
37) Cause it’s either gonna be death or the penitentiary.
38) It’s not worth it.
39) Get a job.
40) Do something to better yourself.
41) Int: (3 sec pause) So it’s upsetting you to see..
42) young people [not working
43) Jackie: ..................]Yes.
44) You just wanna stand on avenue
45) for what?
In answering my question in line 1, Jackie launches her extended turn, in which she draws a detailed picture of the young parents not seeking employment and ‘just wanting to stand on avenue’ (line 44). The social force of Jackie’s speech here is criticizing, or reproaching the non-working young parents, who are simultaneously positioned as ‘wrong’ (lines 26, 27, 29). Such positioning is illustrated by a) Jackie’s use of imperative (lines 6, 7, 9, 39, 40), in which she directs the young parents to take an alternative action that is ‘right’ (e.g. ‘get a job’, ‘do something to better yourself’), and also b) by Jackie’s highlighting the wrong of young parents not working and getting government assistance by means of juxtaposing them with the ‘elderly’ (lines 18-19) who ‘put in their time’ (line 20) – that is, who worked hard all their lives and so now deserve to not have to work.

In addition to positioning the young parents as wrong, Jackie is also accentuating the contrast between their position and her position, in a performative manner (i.e. deliberate other/self positioning). The deliberate other/self positioning is most clearly achieved and demonstrated by the use of ‘you’ in referring to the young parents who would rather not work. Starting from line 5, Jackie refers to the young parents as ‘you’ throughout the excerpt, performatively establishing the audience as the young parents who were not present during the interview. She is deliberately positioning the young parents as a group of people that are street-oriented (‘standing on avenue’, lines 5, 44), that are not trying to work (‘mommy not trying to work, daddy not trying to work’, lines 13), that are involved in criminal activities leading to a bad ending (lines 34-37). In positioning the young parents as street-oriented, Jackie explicitly draws a comparison between them and herself in line 16 (‘I have to get up everyday and go to work so you should have to get up everyday and go to work’), thereby positioning herself as ‘not street-oriented’.
A similar positioning is observed in Kiesha’s excerpt (Excerpt 5.8), in which the same group of people (i.e. the unemployed) appears in her storyline. Unlike Jackie, who does not attribute the issue of unemployment solely to men, Kiesha specifically points out that there are more men in the circle of non-working people. Excerpt 5.8 is presented below.

Excerpt 5.8. “Who’s hanging in the park at seven thirty in the morning?” by Kiesha

1) Int: Do you think women work more than men?=
2) Kiesha: ......................................................................=Yes I do.
3) More so that there are more men in this area that don’t work.
4) And I see that coming up um Malcolm X Street.
5) And they have a little park area.
6) And I can go, we can go up there right now.
7) And what is it, after, going on one o’clock
8) and you should be coming back from lunch.
9) But they not coming back from lunch.
10) They been out there since early this morning
11) when I leave out to go to work.
12) And I leave out to go to work around seven thirty.
13) Who’s hanging in the park, at seven thirty in the morn- on a weekday?
14) You don’t even do it on weekends, unless you get playing with your kid
15) bo- basically you d- you not working.
16) And then when I leave, coming home, when I come home
17) and I gotta come right back up the hill
18) and I look over at the park, five thirty
19) you still sitting there.
20) So you been sitting there
21) then you gonna be sitting there even after I get home
22) and get into bed, and over and over again.
23) So unfortunately
24) women definitely are working more than men in this area.

The social force of Kiesha’s speech is the same as that of Jackie’s, that is, criticizing and reproaching the non-working people. Kiesha’s criticism towards the non-working people is achieved by bringing to the front their semi-permanent presence in the ‘park’ (lines 5, 13, 18) including odd hours, and also by casting a rhetorical question
(‘who’s hanging in the part at seven thirty in the morning?’, line 13), highlighting the deviation of their daily routines from the mainstream norm. As with Jackie, Kiesha also performatively and deliberately position the non-working men as street-oriented, and simultaneously positioning herself as the opposite of them, and also as someone who has a right to reproach the street-oriented men. This is indicated by her use of pronouns. In the beginning, Kiesha refers to the non-working men as ‘they’ (e.g., ‘they been out there since early this morning’, line 10). ‘They’ are then judged based on the norms, which are constructed through the use of generic ‘you’ as in lines 8 and 14 (‘you should be coming back from lunch’, ‘you don’t even do it on weekends’). As someone who is following the norms, leaving at seven thirty to go to work (line 12) and coming home around five thirty (lines 16-18), Kiesha constructs her position that is granted the right to reproach. From line 15, her use of ‘you’ is switched (from generic ‘you’) to refer to the non-working men hanging in the park all day. It is also from line 15 that Kiesha accomplishes the speech act of reproach.

The final two excerpts to be introduced are drawn from Grey’s interview. In excerpt 5.9, Grey is commenting on the low rate of advancement to college, low rate of employment, and less likelihood of being an involved father in SE neighborhoods. The message he conveys in this excerpt, by talking about the large number of men that are street-oriented, is that he is not street-oriented, that he is an ‘anomaly’. See Excerpt 5.9 below.
Excerpt 5.9. “I was an anomaly when I was coming up” by Grey

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<table>
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<tbody>
<tr>
<td>1) Int:</td>
<td>What types of jobs do women and men have?</td>
</tr>
<tr>
<td>2) Grey:</td>
<td>In this area?</td>
</tr>
<tr>
<td>3)</td>
<td>It would.. um... it would more or less..</td>
</tr>
<tr>
<td>4)</td>
<td>I’d go fifty-fifty likes most have skilled trades maybe</td>
</tr>
<tr>
<td>5)</td>
<td>no I wouldn’t go fifty-fifty</td>
</tr>
<tr>
<td>6)</td>
<td>yeah I have to go like seventy-five twenty-five at the people that</td>
</tr>
<tr>
<td>7)</td>
<td>have skill trades being twenty-five, and unskilled trade being seventy-five</td>
</tr>
<tr>
<td>8)</td>
<td>because uh...</td>
</tr>
<tr>
<td>9)</td>
<td>most of the people that live around here</td>
</tr>
<tr>
<td>10)</td>
<td>they didn’t go to college or</td>
</tr>
<tr>
<td>11)</td>
<td>didn’t go to... secondary school</td>
</tr>
<tr>
<td>12)</td>
<td>high school, if that- if they made it through high school it was enough</td>
</tr>
<tr>
<td>13)</td>
<td>or was it GED stuff like that</td>
</tr>
<tr>
<td>14)</td>
<td>so most people didn’t go</td>
</tr>
<tr>
<td>15)</td>
<td>I mean, I met a lot of people that went to college but</td>
</tr>
<tr>
<td>16)</td>
<td>overwhelming majority of us didn’t go to college</td>
</tr>
<tr>
<td>17)</td>
<td>I went to college</td>
</tr>
<tr>
<td>18)</td>
<td>uh... you know my sister, my brother, you know we went to college but</td>
</tr>
<tr>
<td>19)</td>
<td>the overwhelming majority didn’t so...</td>
</tr>
<tr>
<td>20)</td>
<td>(ellipsis – talking about being an involved father)</td>
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<tr>
<td>21)</td>
<td>I was like a anomaly when I was coming up</td>
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<tr>
<td>22)</td>
<td>so it’ll probably be, ninety percent of men wasn’t taking care.</td>
</tr>
<tr>
<td>23)</td>
<td>I was one of the ten percent but</td>
</tr>
<tr>
<td>24)</td>
<td>now it’s more like a...</td>
</tr>
<tr>
<td>25)</td>
<td>it- it got better maybe..</td>
</tr>
<tr>
<td>26)</td>
<td>about thirty or forty percent of men now are</td>
</tr>
<tr>
<td>27)</td>
<td>taking more of an interest in there</td>
</tr>
<tr>
<td>28)</td>
<td>So it- I mean, you gotta crawl ’fore you walk</td>
</tr>
<tr>
<td>29)</td>
<td>so at least I can still</td>
</tr>
<tr>
<td>30)</td>
<td>you know they it's it’s getting better than it- what it was when I was a kid.</td>
</tr>
<tr>
<td>31)</td>
<td>And like I say all my sons that have kids</td>
</tr>
<tr>
<td>32)</td>
<td>I see them being an intricate part in their kids life so</td>
</tr>
<tr>
<td>33)</td>
<td>they uh- they have never been locked up</td>
</tr>
<tr>
<td>34)</td>
<td>they have never... uh... been in- in too much trouble</td>
</tr>
<tr>
<td>35)</td>
<td>they have jobs</td>
</tr>
<tr>
<td>36)</td>
<td>they productive citizens so</td>
</tr>
<tr>
<td>37)</td>
<td>that’s all I can, that’s all I can ask for.</td>
</tr>
<tr>
<td>38)</td>
<td>They are- they’re not drug addicts</td>
</tr>
<tr>
<td>39)</td>
<td>they’re not thieves and killers so that’s all I can ask for.</td>
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From line 3 to 29, Grey is reporting that the ‘overwhelming majority’ of people in the neighborhood didn’t go to college, nor did they take care of their kids, and that he was ‘like an anomaly’ (line 20) because he ‘went to college’ (line 17) and he was also ‘one of the ten percent’ (line 22) of men who took care of their children. He is therefore involved in deliberate self and other positioning, constructing his position as ‘educated’ and ‘involved in parenting’, and simultaneously constructing the position of the majority of men in the neighborhood as ‘less-educated’, and ‘less-involved’.

From line 30 to 38, Grey proudly talks about his sons; who are all involved fathers (line 31), who never went to jail (line 32), who have jobs (line 34), who are not criminals (lines 37-38), saying that ‘that’s all I can ask for’ (lines 36, 38). That Grey is proud of his sons for being ‘productive citizens’ (line 35) points to the fact that he is positioning his sons as ‘good’, and that he is positioning the non-productive citizens as ‘bad’. Here, then, Grey deliberately positions the street-oriented men not only as bad but also as the other (i.e. deliberate other positioning).

While the negative evaluation of the street culture still carries through, Grey is now positioning himself as street-oriented in the following excerpt. This is in stark contrast with his deliberate self positioning observed in Excerpt 5.9, in which Grey positions himself as the opposite of the street-oriented men. Prior to excerpt 5.10, I had asked him who is more likely to stay in the city between women and men. In excerpt 5.10, Grey is commenting on the different attitudes towards the ‘hood’ between women and men.
Here, Grey explicitly identifies himself as ‘street-oriented’ (line 13), which is a clear case of deliberate self positioning. The aspects of the street culture that were once judged as ‘bad’ become desirable enough that Grey is now positioning himself as one of the street-oriented men.

The reasons why he identifies himself with the street may be multifold. One possible explanation is the in-group value of the street, including toughness, resistance to the hegemonic culture, being carefree, to speculate a few, which may be desirable characteristics to construct a conventional masculinity. It can also be explained in terms of the marginalization of black men in SE neighborhoods. We can recall from Excerpt 5.9, for example, that Grey does not value the aspects of the street and related hardships; however, he is still a part of the gender-racial group that is marginalized and heavily stereotyped (i.e. black men) due to the association between the street and
the men. He recognizes himself as a part of this marginalized group from the vantage point of the mainstream society, which he avowedly acknowledges as indicated by his use of ‘us’ or ‘we’ in saying ‘the overwhelming majority of us didn’t go to college’ (line 16, Excerpt 5.9), or ‘especially guys like us, we street oriented, so it’s nothing to us to go into bad neighborhoods and absorb their culture’ (lines 13-14, Excerpt 5.10). His alignment with the street, to whatever degree it may be, might be a manifestation of his protest against a) stereotypes about African American men, and b) those who marginalize African American men (and more broadly, African Americans of both gender in SE), and ultimately, c) the mainstream values held by those who marginalize SE and the hegemonic power that dictates the mainstream values. In other words, Grey identifies with the street culture both because it can carry positive connotations (e.g. toughness, masculinity, etc.) and also because it may show resistance to being marginalized by the mainstream culture.

In sum, how speakers position the street-oriented culture and the people within that culture surfaces differently not only for non-SE speakers and SE speakers, but also for SE women and SE men. In positioning the unemployed, crime-involved, street-oriented group, the non-SE speakers are involved in a tacit self/other positioning, commenting on the theme in a report-like manner. Thus, the speech act achieved by non-SE speakers is not readily recognized (e.g. compared to the easily recognized speech act achieved by Jackie, which is a reproach), since they do not position the street-oriented group based on the continuum of ‘right’ or ‘wrong’. On the other hand, the SE speakers position the street-oriented group deliberately, with an intention of aligning either with or against the group. The street-oriented group is evaluated negatively by SE women who are strongly positioning themselves against the group, while SE men – namely, Grey – sometimes position themselves as part of the street-oriented group. The fact that the street culture is much less valued among women
is particularly noted by Grey, who comments that women usually are trying to ‘get away from the hood as much as possible’ (lines 11, 19, Excerpt 5.10).

It should be noted that while I conveniently refer to ‘SE men’ in this chapter, the analysis is based on one SE man, Grey. Therefore, the characteristics of ‘SE men’ discussed so far must not be over-interpreted, and cannot be generalized. Still, the detailed analysis of individuals is a necessary step that can help us get at the contextualized meanings of linguistic variants. It is certainly not the case that Grey represents all SE men, but his patterns of positioning are undoubtedly intriguing, and as such, further study of other individuals is warranted.

5.6 CONNECTING THE BACK VOWEL PATTERNS WITH SPEAKERS’ POSITIONING

The previous chapters demonstrate that the back vowel patterns in DC correlated with a number of social factors, and that race is one of the key factors that correlate with the variation. Race is the strongest predictor in back vowel fronting, as well as in low back merger. Both fronting and merger are more advanced among European American speakers than African American speakers, but this does not mean that African American speakers do not take part in the phenomena; the robust age effect among African American speakers suggests that African American speakers not only exhibit evidence of participation in these sound changes, but are also moving towards higher degrees of fronting and merger in apparent time.

One aspect that characterizes the speech of African Americans in DC is speaker’s neighborhood background, in which African American speakers from SE neighborhoods exhibit different vocalic characteristics from those that are from elsewhere in the city. The differences notably stand out both in fronting and in merger. The general patterns of /u/ fronting in DC involve the following: /u/ with coronal
onsets (TOO) is fronted the most for all speakers, /u/ with non-coronal onsets (BOOT) is fronted in varying degrees mainly among European American speakers, and /u/ with the lateral coda (POOL) is least, if at all, fronted for all speakers. These specifics of /u/ fronting are observed among European Americans and non-SE African Americans, thereby establishing the status of /u/ fronting as the local norm in DC. In particular, the non-SE African Americans are actively participating in back vowel fronting as evidenced by the apparent time change, in which they are robustly fronting TOO and, to a lesser degree, BOOT as well.

Back vowel fronting by SE African Americans, however, does not involve the aforementioned patterns found among other speakers in DC. Specifically, TOO is less fronted, if at all, among SE African Americans than among non-SE African Americans, and SE speakers do not exhibit any evidence of TOO fronting in apparent time compared to non-SE speakers who are fronting TOO vigorously. The frontedness of BOOT is more or less the same for both SE speakers and non-SE speakers (which is far less fronted than European Americans’ BOOT), but factoring age into BOOT fronting unravels opposite directions of apparent time change between SE speakers and non-SE speakers; while BOOT is fronting among non-SE speakers, it is backing among SE speakers (refer to Figure 3.22). Furthermore, SE speakers exhibit POOL and POLE vowels that are far more fronted than non-SE speakers’ POOL and POLE, which is phonetically unexpected.

Neighborhood surfaces as a trending factor in the low back merger as well. While merger is in progress in DC, with a significant age effect among non-SE African Americans, SE speakers of all age groups produce the low back vowels largely distinctly.

Overall, the back vowel patterns of non-SE speakers are either in line with, or heading towards the back vowel patterns of European American speakers, whereas the
back vowel patterns of SE speakers are distinguished from those of European American speakers. Positing that the speech pattern of European Americans comprises the local mainstream norm, we can say that non-SE African American speakers are participating in the local mainstream norm, while SE African American speakers are not. That non-SE speakers are aligning with the local mainstream speech norms is corroborated in parallel by their positioning towards SE’s bad reputation, in which they are not only participating in the mainstream discourse of SE’s bad reputation, but also furthering it. On the other hand, SE speakers are refuting the bad reputation laid on them (i.e. forced self positioning), thereby rejecting the mainstream discourse.

Another important finding from the previous chapters is the in-group variation among SE speakers, depending on speaker sex. Specifically, findings regarding /o/ fronting include a stark contrast between SE men and SE women, who are exhibiting polarized movements in fronting TOE and BOAT; overall, SE men are fronting TOE and BOAT, a change that is also found among non-SE African Americans, whereas SE women are not joining this change, even showing a significant backward movement of TOE. Examining SE speakers’ positioning with respect to the street culture lends some insights into the potential reasons behind the differing patterns of /o/ between SE women and SE men. As illustrated above, the street culture is partially approved and endorsed by some SE men (see Excerpt 5.9 and 5.10) whereas it is altogether criticized by SE women (see Excerpt 5.7 and 5.8). This is particularly indicative of different values held by women and men in SE neighborhoods. Take Grey, for example, who talks about Barry Farm – an area in SE that is ‘notorious’ (see Excerpt 5.1) for poverty and crime – in a non-negative way elsewhere in his interview:
Excerpt 5.11. Grey’s positive evaluation on Barry Farm

1) Grey: I still go to my same neighborhood and hangout.
2) I go down Barry Farm and look at the Summer League games almost every other day.
3) I still play in the Summer Leagues.

On the other hand, Barry Farm (or what Barry Farm represents) is viewed negatively by Jackie and Kiesha, who eagerly await the day Barry Farm is no longer around:

Excerpt 5.12. Kiesha’s negative evaluation on Barry Farm

1) Kiesha: I’m looking for the day when they tear down Barry Farm.
2) I don’t know when it’s coming
3) I don’t know why they still holding onto that one
4) but with that Homeland Security right next door and them Trolley cars
5) I don’t see Barry Farm standing much longer.

Excerpt 5.13. Jackie’s negative evaluation on Barry Farm

1) Jackie: (in talking about gentrification and redevelopment at Barry Farm, which she welcomes)
   because I look at what’s at Barry Farms
2) how, if I’m not mistaken, I think it belongs to Andrews\textsuperscript{44}.
3) If I’m understanding- getting ready to take that back over so...
4) that’s cool because so much goes on
5) I mean you know things go on all over but, it’s too much that goes on over there (Barry Farm)...
   (ellipsis)
6) if it’s gonna better Anacostia, and build Anacostia
7) I have no... no... regrets with that (redeveloping Barry Farm)
8) cause so much has happened up there.

\textsuperscript{44}This refers to Andrews Air force Base

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The possibility of a gender opposition in SE neighborhoods is also insinuated by Kiesha and another SE man named Chess (age 58), each of whom accuses the other gender for different, but not unrelated reasons:

<table>
<thead>
<tr>
<th>Excerpt 5.14. Kiesha’s outlook on women and men in the neighborhood</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Kiesha: They (the men) are gonna be forced to leave</td>
</tr>
<tr>
<td>2) because the other folks are not gonna allow you hanging on the corner</td>
</tr>
<tr>
<td>3) so they gonna be forced to leave.</td>
</tr>
<tr>
<td>4) The women, they’re gonna stay</td>
</tr>
<tr>
<td>5) because they want better, they wanna see better, they want better for their children</td>
</tr>
<tr>
<td>6) when it comes to the men that aren’t doing anything</td>
</tr>
<tr>
<td>7) they’re gonna be forced to leave, not gonna be- they’re gonna have a, they’re not gonna have a choice but to leave.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Excerpt 5.15. Chess’s opinion on some women who get paid more than men</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Chess: In my humble opinion</td>
</tr>
<tr>
<td>2) there’s uh, putting uh women in re- uh leadership</td>
</tr>
<tr>
<td>3) that that breaks up the family uh, uh setting uh you know uh,</td>
</tr>
<tr>
<td>4) and a man making less than a woman in certain situations uh,</td>
</tr>
<tr>
<td>5) you know it messes with his ego or whatever and you know</td>
</tr>
<tr>
<td>6) and that’s why it’s a lot of hostility or stuff like that going on</td>
</tr>
<tr>
<td>7) or a lot of situations where a woman might say ‘I don’t need you, I can do for myself’ and this and that</td>
</tr>
<tr>
<td>8) and a man be like, you know, what can he say or what can he do.</td>
</tr>
</tbody>
</table>

In Excerpt 5.14, Kiesha talks about the impending changes in SE neighborhoods as a result of gentrification, and predicts that ‘men that aren’t doing anything’ but ‘hanging on the corner’ will end up leaving the neighborhood. She also characterizes women as a group that ‘wants better’, as opposed to men who, by implication, either do not ‘want better’ or care to a lesser degree. Meanwhile, in Excerpt 5.15, Chess talks about the traditional gender role, which entails men working and/or earning
more than women, and the negative impact on families when the traditional gender role is reversed. He attributes ‘a lot of hostility’ to such reversed gender role, in which women would refuse the help of the men. What is problematized by Chess is not necessarily women who are working or earning more, and certainly not women as a group, but the reverse of the traditional gender role illustrated by some women who say ‘I don’t need you’.

The lives of women and men in SE neighborhoods glimpsed through the interviews have very different imagery, and this difference is magnified in their talk about neighborhood issues such as SE’s reputation and the street-oriented culture. Recall the forced self positioning by SE speakers in talking about the reputation; while both women and men problematize the reputation, the specific aspects of the problematization differ for each. Women (i.e. Jackie and Kiesha in Excerpt 5.2 and 5.3) refute the reputation by suggesting that the neighborhood is now getting better, and that the reputation be re-assessed, whereas men (i.e. Grey in Excerpt 5.4) do so by questioning the validity of the reputation to begin with. This indicates that women acknowledge the bad reputation as valid, perhaps thinking that the neighborhood has been truly bad, whereas men do not think that the neighborhood is ‘that bad’, according to Grey. Similarly, in talking about the street culture, which epitomizes the badness of SE, women are highly critical of that culture, explicitly urging the street-oriented group to get out of it. However, SE men still sometimes explicitly identify themselves as ‘street-oriented’ even though their social indices such as education and employment status suggest otherwise (e.g. Grey went to college and has a job). Given the associations between women and their emphasis on mainstream values such as work, education, and parenting, and also the fact that the majority of single parents in SE neighborhoods are working mothers, we can speculate that women are likely to strongly disapprove of the street culture, particularly the street-oriented men. This
disapproval, accompanied by criticism and frustration, likely influences and reflects
the different speech patterns between SE women and SE men, particularly providing
impetus for SE women to distinguish themselves from SE men.

SE women’s motivation to distinguish themselves from SE men is perhaps
reflected on their non-participation in /o/ fronting. In Chapter 3, I suggested ‘SE-
ness’ or the ‘local blackness’ as one possible meaning of /o/ fronting in DC, based
on the finding in which /o/ fronting is more advanced for SE black speakers than
for non-SE black speakers. If we posit that the meaning of /o/ fronting is associated
with the ‘SE-ness’, or certain connotations attached to SE, then we would expect
SE women to also participate in /o/ fronting. However, SE women not only opt out
of /o/ fronting, but exhibit a backing movement of /o/ (TOE vowels in particular).
The fact that SE women are not at all participating in /o/ fronting, then, suggests
that the proposed meaning of /o/ fronting (i.e. ‘SE-ness’, or ‘local blackness’) has
some element within it, which SE women might not wish to be associated with, such
as the street-oriented culture. In parallel with sex patterns of /o/ fronting among
SE speakers, in which SE men are fronting /o/ and SE women are not, SE men
and SE women exhibit opposing positions in terms of evaluating the street-oriented
culture. That is, SE men sometimes position themselves in alignment with it, thereby
constructing their identity as ‘street-oriented’, whereas SE women position themselves
against it, thereby constructing their identity as ‘not street-oriented’.

The question remains; why is the fronting pattern of /o/, TOE and BOAT
to be precise, the only variable that shows a gender pattern among SE speakers? If
SE women are indeed trying to differentiate themselves from SE men, why not do so
across the board? While SE women and SE men may stand in opposition regarding
the aforementioned issues, they still have more in common in terms of their back
vowel production; for example, their TOO is not fronted (vs. non-SE speakers who
are fronting TOO), their POOL and POLE are fronted (vs. non-SE speakers whose POOL and POLE are not fronted), and their low back merger patterns alike (i.e. not merging). /o/ fronting in positions that are not followed by lateral (i.e. TOE and BOAT) is the only variable in which SE women and SE men exhibit the opposite patterns, with SE women deviating from the communal pattern of fronting; the fronting of /o/ is in progress for non-SE African American speakers as well as for SE men, while SE women are not participating in this fronting movement of /o/ (other than for POLE, as noted above), even exhibiting evidence of TOE backing. One speculation may be drawn based upon SE women’s self positioning towards mainstream values; it may be the case that SE women consider /o/ fronting as characteristic of local black speech, and therefore, less ‘standard’, thereby opting out of /o/ fronting, as a form of hypercorrection. This, however, prompts another question. SE women exhibit fronted POOL and POLE, i.e., the back vowel fronting in pre-lateral contexts, which is characteristic of Southern English, and therefore less ‘mainstream’.

A number of other questions follow, each of which needs verification in order to proceed with the interpretation. First of all, are SE women aware of their own production of /o/; or of SE men’s production of /o/? In other words, is the /o/ fronting which is taking place among SE men as well as among African Americans in general noticed by SE women, and if so, at what level of consciousness? For example, in Labov’s (1972) classic terminology, is fronted /o/ a marker (i.e. a linguistic variable that shows social and stylistic stratification and therefore a degree of social awareness, even though it may not be overtly commented upon) or a stereotype (i.e. a linguistic variable that is overtly commented upon)? And if either, what are the social meanings associated with /o/ fronting among African Americans? Thirdly, is the /o/ fronting by SE men phonetically the same as the /o/ fronting by non-SE speakers? Also more generally, is the /o/ fronting by African American speakers phonetically the same as
the /o/ fronting by European American speakers? Finally, is /o/ fronting in DC the same as /o/ fronting in Maryland? Is it the same as in the South? These inquiries warrant the needs for future studies.

5.7 Conclusion

In this chapter, I analyzed different positions of three SE and three non-SE speakers as they emerge in the midst of talking about neighborhood issues, namely, SE’s bad reputation and the street-oriented culture. Utilizing Harré and van Langenhove’s positioning theory (1999), I demonstrated different types of positioning the speakers are engaged in, and how such positioning informs us of their positions in relation to each other, their differing values, and their identities. I also showed that the factors predicting the back vowel patterns, i.e. neighborhood affiliation (SE vs. non-SE) and gender in neighborhood (SE women vs. SE men), are paralleled in their discourse as well. In particular, I illustrated different positions between SE and non-SE speakers in their discussion on SE’s reputation, and also between SE women and SE men in their discussion on the neighborhood’s street culture. This chapter also provides insights into the marginalization of the SE section of the city, in which the SE residents face a number of hardships including unemployment, crime, single parenting, and poverty. While both SE women and SE men are equally marginalized within the city, their response to the marginalization varies. Unlike SE women who tend to align with the mainstream values and disalign with the street culture, SE men exhibit ambivalent positions towards the mainstream values and also towards the street culture.
Chapter 6

Conclusion

6.1 Brief Review

In this dissertation, a sociolinguistic investigation of race, neighborhood, gender, and marginalization in Washington, DC, has been undertaken by approaching the language of DC residents from both variationist and discourse analytic perspectives. The speech of 40 native Washingtonians – 12 European Americans and 28 African Americans – was examined utilizing methods of acoustic phonetics, focusing on their production of the back vowels. Drawing on recordings of sociolinguistic interviews, I analyzed two phenomena affecting the back vowels; the fronting of high and mid back vowels (/u/ and /o/), and the merger of low back vowels (/a/ and /o/). The results not only illuminate the direction of change, in which DC is moving towards higher degrees of fronting and merger as a community, thereby joining mainstream trends for back vowels in the North America, but also show a prominent race pattern, with European Americans leading the change and African Americans following. Upon further investigating the in-group variation among African Americans, however, I found that this mainstream change is not participated in by African Americans from a particular quadrant of the city, namely, Southeast (SE), who exhibit a number of unique vocalic characteristics that are not observed among African American speakers from the rest of the city (non-SE). In order to better understand the uniqueness of SE
speakers, and also the social meanings of the variables, I undertook a discourse analysis drawing on Positioning Theory (Harré and van Langenhove 1999), focusing on the interview discourse of six African American speakers who are closely involved with the SE community. I illustrated different positions between SE and non-SE speakers in their discussions of SE’s bad reputation, and also between SE women and SE men in their discussion of the neighborhood’s street culture. By so doing, I demonstrated that such differing patterns of positioning are in parallel with the differing back vowel patterns between SE and non-SE speakers, and also between SE women and SE men.

6.2 Summary of Chapters

Chapter 1 introduced the goals of the dissertation, and provided the background of the city of Washington, District of Columbia. The geographic location of DC as both South and North (and neither), and its dialectal liminality between the North, South, and mid-Atlantic, is briefly reviewed as one of the motivations for the study, suggesting that examining the phonetic characteristics of English in DC can shed light on this discussion. The geopolitical landscape inside DC is also introduced, in which the city is divided into four quadrants and eight wards, with the west side of the city largely occupied by European American speakers and the east side of the city by African American speakers. This chapter reviews previous studies that examined the vocalic characteristics of DC, all of which point to a race pattern as well as a sex pattern among African American speakers. The nature of the study as both quantitative and qualitative is identified and elaborated. The chapter foregrounds the critical role of discourse analysis in understanding patterns and meanings of language variation beyond the scope of macro social categories.
Chapter 2 described the data selection process as well as the fieldwork process. Speakers for the study and the linguistic variables for sociophonetic analyses were also presented. My initial interest in the Southeast (SE) neighborhoods is introduced in relation to my interview with Terra, the first SE speaker to be interviewed, who thereupon motivated me to embark on my fieldwork. The lack of SE speakers in the LCDC corpus indirectly indicates the inaccessibility (or lower accessibility) of the SE section of the city, and the challenge I indeed encountered in approaching the neighborhoods in the beginning year of my fieldwork is described. I described the volunteer work I engaged in at Talbert Elementary, a neighborhood school, as part of the educational outreach led by the Anacostia Community Museum. I discussed my presence in the community not only as a volunteer but also as an Asian, and the potential advantage of my racial background in eliciting the discourse of racial dichotomy composed of African Americans and white Americans.

Chapter 3 examined the high and mid back vowel fronting in DC, reporting a number of patterns predicted both by linguistic and social constraints. The strongest linguistic predictor is the environment, with preceding coronal (TOO and TOE) facilitating fronting, following lateral (POOL and POLE) disfavoring fronting, and preceding non-coronal (BOOT and BOAT) being the most neutral. The study shows that fronting is more advanced among European American speakers, with African Americans following, mainly propelled by younger African American men. This is the case for both /u/ and /o/. Specifically, TOO fronting is participated in by both European American speakers and African American speakers, with European Americans fronting TOO significantly more than African Americans, and BOOT fronting is only observed among European Americans, with African Americans’ BOOT remaining back along with POOL. However, TOO fronting in progress is observed among African Americans led by men, who also exhibit evidence of frontward movement of BOOT.
The emergence of BOOT fronting is not joined by African American women, whose BOOT is in fact moving backward, thereby challenging one major generalization in the field, in which women lead in language change (e.g. Labov 1990). Race is a significant factor in /o/ fronting as well, with European Americans exhibiting higher degrees of fronting. Overall, female speakers of both race groups have higher degrees of /o/ fronting for both POLE and TOE+BOAT than male speakers, but it is the male speakers who exhibit the fronting trend in apparent time, particularly African American men. Looking at African American speakers only, interesting neighborhood patterns arise, in which SE speakers are differentiated from non-SE speakers as evidenced by SE speakers’ a) non-fronting of TOO, b) backing of BOOT, c) higher degrees of TOE and BOAT fronting and d) fronting of POOL and POLE. Further, a sex pattern is observed within the SE group, with only the SE men fronting /o/ in apparent time. The non-participation of /o/ fronting among SE women is robustly demonstrated, and their non-participation even surfaces as /o/ backing in case of TOE.

Chapter 4 investigates the low back merger in DC, finding that despite the geographic proximity to the Mid-Atlantic States in which the merger is either not observed or weak, DC is indeed participating in the merger. A race pattern is observed, with European American speakers merging more than African American speakers. Also, the robust age effect is found in which merger is mainly led by younger speakers, and the younger cohort that leads the merger includes both European American and African American speakers in the city. It is African American speakers that mainly contribute to the overall age effect. Specifically, African American speakers who partake in the merger are those who are non-SE, with those from SE producing /a/ and /ɔ/ distinctly. The study further suggests that African American speakers’ (non-)participation in the merger might be explained in terms of the patterns of
contact; that is, who an African American speaker interacts with on an everyday basis, and not unrelated to this, who he/she orients him/herself with regards to the African American community, and by extension, to the European American community as well.

Chapter 5 explores the interview discourses of a subset of African American speakers in an attempt to better understand the quantitative findings pertinent to the SE neighborhoods. Drawing on Positioning Theory (Harré and van Langenhove 1999), I provided discourse-based evidence of SE’s marginalization which is reflected (and also in part sustained) in the widely circulating discourse on SE’s bad reputation, and how polarized SE speakers and non-SE speakers are in assessing the reputation. I also demonstrated how the different positions taken up by SE women as opposed to SE men in regards to the street culture inform us of their different orientations towards mainstream values. The insights gained by investigating speakers’ positions and accompanying values augment our understanding of their back vowel patterns; why SE and non-SE speakers have different back vowel patterns (with SE speakers exhibiting less mainstream, or more marginalized patterns than non-SE speakers), and why SE women and SE men are moving in different directions in their back vowel production (with SE women not participating in /o/ fronting, a city-wide change in progress among all other African American speakers).

Chapter 6 closes the dissertation by summarizing the findings and discussing the contributions and implications. Limitations of the study, and how such limitations could be overcome in future studies are addressed.
6.3 Contributions

This dissertation firstly contributes to a better understanding of the phonetic characteristics of English in DC and their social correlates, by documenting the state of high and mid back vowel fronting as well as low back merger. In doing so, the dissertation complements our knowledge of two major sound changes in North America – fronting and merger – by allowing DC to be examined in comparison to other regions that have been already studied in terms of back vowels as well as those that await examination.

The dissertation also furthers the discussion of heterogeneity in African American English (AAE), specifically illuminating the linguistic and social practices of African American residents of DC. The in-group variation among African American speakers examined in the study is constrained by age, sex, neighborhood, and sometimes their interactions. A particularly interesting finding is the male-led change among African American speakers, whose /u/ and /o/ are fronting in apparent time whereas African American women either do not exhibit fronting or even display the reverse pattern of fronting (i.e. backing). Further theoretical implications may follow upon understanding African American women’s non-participation in back vowel fronting with regards to their orientation away from AAE; while there is evidence that African American women in DC are moving away from AAE, their non-participation of fronting suggests that they are not necessarily moving towards local white speech. It may be the case that African American women are diverging from AAE as an effort to conforming to the ‘standard’ variety, not to (local) ‘white’ speech. That is, African American women might dissociate themselves from a language variety that is often associated with negative connotations such as lack of education, lower socioeconomic status, etc., but at the same time, they may not wish to join the stereotypically
white speech pattern. Whether /u/ and /o/ fronting is indexical of ‘whiteness’ (see Bucholtz 2001; Fought 1999, for more discussion of whiteness), however, needs to be conclusively verified in order for us to continue this line of discussion. In the local context, for example, /u/ and /o/ fronting may be associated with Southerness and its connotations of non-standardness. In any case, African American women’s non-participation of fronting (compared to African American men’s participation) points to the potentially critical distinction between the notion of ‘converging to the local white norm’ and the notion of ‘moving away from AAE’. It seems that African American women in DC are somewhere in the middle – they are moving away from AAE, but they are not converging with the local white norm. Whether or not this is an indication of African American women’s effort to speak ‘correctly’ (i.e. speak standard English), to distance themselves from some local African American but not all, or (most likely) a combination of factors remains to be addressed. If, indeed, they are striving to conform to the standard English variety – whatever it may be – further questions arise; what speech characteristics are perceived as ‘standard’ to them? What are perceived as ‘AAE’, or ‘white’? These inquiries could be pursued as future directions of this project.

Some noticeable findings in this dissertation include the neighborhood patterns of /u/ and /o/ fronting among African American speakers, in which SE speakers do not front /u/, but front /o/. This supports the counterargument on the pairing of /u/ fronting and /o/ fronting, providing evidence that /o/ fronting may not be a parallel change that invariably follows /u/ fronting. Another SE-specific pattern is the fronting of POOL and POLE, the /u/ and /o/ fronting in an environment that phonologically inhibits fronting. Given that POOL and POLE fronting are typically thought to be characteristic of Southern English, it may well be the case that SE speakers are exhibiting Southern features. However, the fact that SE speakers do not
front TOO and BOOT problematizes that interpretation, as TOO and BOOT fronting are features of Southern English. We may assume that SE speakers, per Wolfram’s (1984) speculation, indeed exhibit more Southern characteristics, but their speech is, at best, selectively Southern. At this point, a more conservative interpretation seems fitting – that SE blacks are differentiated from whites as well as non-SE blacks in DC.

Finally, this dissertation demonstrates the value and usefulness of examining discourse not only in understanding the quantitative findings but also in achieving a holistic understanding of both the community as a whole and also the individual speakers within it. By showing that how speakers structure their positions can be closely tied to their speech patterns, the study addresses the complementary relation of the variationist approach and discourse analytic approaches.

6.4 LIMITATIONS AND FUTURE DIRECTIONS

This dissertation is by no means without limitations and flaws, and there is room to further strengthen the project. First of all, the study can further solidify, or conclusively report some of the findings by including more speakers. This is particularly the case for European American speakers. There are a couple of interesting findings observed among European Americans, which are worth examining with more speakers in the sample. For example, the interaction effects of age and sex indicate that BOOT fronting is led by European American women while TOO is retracting among European American men. While /o/ is generally more fronted among European American speakers than among African American speakers, the age and sex interactions suggest that TOE+BOAT is backing in apparent time among European American women and POLE is backing among European American men. The reverse movement of fronting, that is, retracting or backing of /u/ or /o/, may be an unusual but intriguing find, but
it was not discussed in detail given the small number of European American speakers representing each age group. A larger speaker sample for European Americans could also benefit future inquiries regarding the low back merger. While European Americans exhibit higher degrees of merger compared to African Americans, there is no age effect observed among European American speakers. It may well be that there is a possible age pattern among European American speakers, which might be substantiated upon recruiting more speakers from various age groups. I plan to include more European American speakers in addressing these questions in the near future.

While this dissertation reports a number of significant patterns on back vowel fronting, some of them are less robust than others, and therefore should be read with caution. This is particularly the case for four-way interactions, in which the size of data may not be sufficient enough to substantiate the patterns (e.g. the number of POOL tokens among younger African American women from Southeast, age ranging from 21-43, is 12).

Also in terms of merger, the study could benefit from examining the frontedness of LOT among African American speakers, which may reveal the details of merger. There is evidence of LOT fronting among African Americans (Thomas 2007), suggesting that the fronted LOT is characteristic of African American English. It is likely that the degrees of low back merger are associated with the frontedness of LOT among African American speakers. Related to this, examining the height dimension of THOUGHT could also illuminate the interpretation of the merger, considering that for many African American speakers, THOUGHT is significantly raised and sometimes rounded. The study could also attend to phonetic details of merger, which may reveal potentially different phonological characteristics of merger, different directions of the merger, and finally, different mechanisms behind the merger (e.g. merger by
transfer; merger by approximation; merger by expansion) between European Americans and African Americans.

The study could further pursue the question of social meanings of low back merger and back vowel fronting in DC, and related to this, the potentially different salience of these two phenomena. For example, what does it mean that SE women and SE men differ in the patterns of /o/ fronting, but not in the patterns of low back merger? What does it mean to front /o/ in DC for European American speakers and for African American speakers, and how can we assess it? Also, given the nearness of the South, does back vowel fronting (both /u/ and /o/ fronting) ‘mean’ South, ‘mainstream’, or something else? How, and at what level of awareness, is low back merger (or low back distinction) perceived by DC speakers? How can we test it? Attending to stylistic variation in /u/ and /o/ fronting and also in low back merger might help answer these questions.

The dissertation touched upon the trajectory of /u/ and /o/ fronting, but more attention could be paid to this matter. Only a subset of speakers (eight speakers) were included in preliminarily examining the trajectory of /u/ and /o/. Further, in performing the regression analysis in order to find out which factors are most influential in the trajectory of /u/ and /o/, interactions among the factors are not considered. This is due to the fact that only a small subset was examined, and it would not yield statistically robust results. It is possible, however, that the interaction of social factors such as sex, race, or age and linguistic factors such as duration, environment, or checked or open status of vowel, may unravel interesting trajectory patterns. In addition, examining the phonetic detail of fronting may reveal new patterns, or even modify the current findings. For example, is the sex pattern of BOAT fronting among SE speakers due to the nucleus or the shape of the trajectory? In other words, it is possible that the sex pattern may not at all be exhibited when treating the shape of
the trajectory as the variable instead of the nucleus (or to be precise, the midpoint of the vowel).

In investigating back vowel fronting, the dissertation mainly referred to the front-back dimension, indicated by the value of Z3-Z2. However, I briefly reported the patterning of back vowels in the height dimension as well, in which I find a race pattern with African American speakers exhibiting higher /u/ – particularly POOL – than European American speakers. This either indicates a) that African American speakers’ POOL tokens are raised, or b) that European American speakers’ POOL tokens are lowered, thereby merging with POLE or PULL tokens. A future study that includes PULL tokens would allow us to answer this question.

The state of high and mid back vowel fronting as well as the low back merger could be revisited in the future, given that there are a number of age patterns found in this study that are indicative of change in progress. In particular, the disparity between the findings reflective of the static degrees of fronting with age not factored in (for example, /u/ and /o/ are more fronted among European American speakers than African American speakers, and /o/ is more fronted among African American women than African American men) and the findings reflective of the ongoing change indicated by age effect (e.g. African American men are fronting /o/ vigorously while African American women are either not fronting or backing some allophonic variants of /o/) calls for our continued attention on fronting phenomena in DC.

Analyzing the discourse of SE-related speakers lend an eye to understanding the marginalized state of the SE neighborhoods and their speakers. While the dissertation discusses characteristics of different speaker groups in SE (i.e. SE men and SE women), the analysis is based on the discourse of a small number of speakers. This is particularly the case for ‘SE men’, the analysis of which is based on one person, Grey. As such, we must be cautious in understanding the language and the lives of
SE men, keeping in mind that the characteristics of SE men discussed here may not be found among some other types of SE men. It should also be noted, in addition, that the sites of my fieldwork – educationally oriented venues – necessarily delimit the scope of potential speakers that could be recruited in the SE neighborhoods. All the speakers I recruited through my fieldwork sites are less, if at all, involved with the street culture, one of the key elements frequently brought up in depicting SE. Even though the SE residents who are out in the streets are most frequently featured in the stories of SE, their speech characteristics and their side of the stories are yet to be known, awaiting to be discovered.
# Appendix A

## Transcription Conventions

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Abrupt truncation of voice</td>
</tr>
<tr>
<td>=</td>
<td>The second speaker latching onto the first speaker’s talk without any pause between them</td>
</tr>
<tr>
<td>[</td>
<td>Overlapping speech</td>
</tr>
<tr>
<td>hhhhh</td>
<td>Laugh</td>
</tr>
<tr>
<td>( )</td>
<td>(comments)</td>
</tr>
<tr>
<td>...</td>
<td>Pause longer than one second but shorter than three seconds</td>
</tr>
</tbody>
</table>
Appendix B

Interview Template

1. Demographic information

(a) What is your name?
(b) What year were you born?
(c) Where were you born?
(d) In which part of the city did you grow up?
(e) In which part of the city do you live / work?
(f) Where are your parents from?

2. School

(a) Did you go to school in the neighborhood?
(b) Did you enjoy your school years?
(c) What was your favorite, and/or least favorite subject?
(d) What is the most memorable incident from your school years?
(e) Who was your favorite, and/or least favorite teacher?
(f) What do you think about Talbert Elementary School’s Turnaround Arts Initiative?

3. Work
(a) Are you working now?
   i. What do you do?
   ii. What’s good/bad about the job?

(b) What was the first job you had?
   i. How long did you do that work?
   ii. Did you like it?

(c) Does anyone else work in your family?
   i. What do they do?

4. About DC neighborhoods

(a) Do you like the city? Why or why not?

(b) Has the city changed much? If so, in what ways?

(c) What do you think about city’s ethnic makeup?
   i. Do you think DC is predominantly black?
   ii. Do you think the city is residentially segregated?
   iii. Other than white residents and black residents, what other races do you see around here?

(d) What are some recent changes in the DC area?
   i. Do you welcome the change? Why or why not?

(e) What do you think about the ongoing gentrification?

(f) What was the craziest thing you saw/heard/experienced that happened in the neighborhood or in the city?

(g) Who are some of your neighbors?
(h) If you were the mayor of the city, what would you like to do?

5. Gender in the African American community

(a) Growing up, what were the popular hair/fashion styles among girls and boys?

(b) In the area, what types of jobs do women and men usually have?

(c) Who is more likely to continue education (e.g. college), men or women?
   i. If men, why do you think so? If women, why do you think so?

(d) Who is more likely to stay in (or leave) the neighborhood, men or women? Why do you think so?

(e) What kinds of activities do men/women do in the neighborhood?

(f) In the neighborhood, what are some popular hangout spots for men and for women, or for both?

(g) What are some common interests among men and women recently?

6. Hobbies and foods

(a) What do you like to do when you are free?

(b) What is your favorite movie and/or TV shows?

(c) What is your favorite food?

(d) What are some of your favorite sports?

7. Anacostia Community Museum

(a) When and how did you first hear about the museum?

(b) When was the first time you visited the museum?
(c) Do you notice/feel the museum does a lot with the community?

(d) What do you like the most about the museum (e.g. the building, the location, exhibitions, education programs, etc.)

(e) What do you think about the Museum Academy Program?

(f) What kind of changes do you think the Museum Academy Program has made?

(g) Is there anything you would like to see the museum (and/or the Museum Academy Program) do?

8. Metalinguistic commentaries

(a) What do you think about how DC people talk?

(b) Are there any DC specific words or slangs you know?

(c) Do you think there are differences between DC vs. VA. vs. MD in the DC area?

(d) What do you think about African American English?

(e) What do you think about ‘standard’ English?

(f) In your opinion, do you have an accent?

(g) Do you think you talk differently in different situations?

(h) Do you think you talked differently during this interview?
Appendix C

Word List

BOAT
go, takoma, homes, folk, most, coast, both, post, remote, boat, spoke, going, hope, home, trombone, mostly, focusing, ownership, ago, supposed, moment, opponent, hopefully, code, open, motive, folks, unspoken, townhome, own, over, component, opened, photograph, opposed, homeland, almost, coat, goes, owners, scope, motorcycle, poking, coke, bone, automotive, hose, smoking, smoke, only, oh, supposedly, mode, homebody, phone, homeless, hotel, okay, opening, ocean, oppose, postal, emotion, expose, homework, disposal, focus, coworkers, exposed, owned, microscope, negotiation, motivated, exposure, overly, moan, kosher, posen’s, coach, mexico, gogos, gogo, cohens, focused, coca, coca-cola, smoked, hoping, exposure

BOOT
booed, moving, who, moved, foods, move, movies, spoons, movie, coo’d, boot, hoop, movement, removal, boom, boo, who’s, booth, mood, whose, moose, smooth, booming, moon, hooper, goose, scooby, tofu, whoever, poop, poops, boohooed, cooed, boots

FLEECE
dc, seated, teams, see, knee, keep, people, eat, team, least, meet, teachers, each, needs, sneak, seemed, beat, beaver, teaches, cheek, these, keys, beach, mean, keeping,
need, seen, fifteen, be, d, leave, feature, theme, teenage, peace, east, seat, needy, nineteenth, heat, id, speed, feedback, bleeds, leads, unique, teenager, pheonix, p, glebe, speech, seedy, lee, cheap, beats, eating, being, c, southeast, even, meaning, underneath, teacher, needed, key, repeat, teaching, feed, beans, v, northeast, believes, cleaner, he, seed, speakers, easter, neat, speak, she, piece, believe, received, needles, feet, me, heap, seeing, negro, seems, meeting, seeked, bc, teach, dealing, eighty, leaving, bees, fee, bleed, either, speaking, sixteen, neither, beef, league, heating, athlete, cheese, fleet, easy, knees, jeans, babies, leader, employee, cia, beating, relief, geez, beefing

LOT
poverty, shops, hospital, not, lot, bomb, shopping, nothing, bob’s, stocked, hopscotch, knocked, pocketbook, got, foggy, foxhall, adopted, stop, stopped, bottom, snotty, odd, remodeled, block, condo, popping, pops, pop, shot, everybody, soccer, job, father, stock, knock, holler, knotty, cot, spots, doctor, o’clock, anacostia, periodically, topography, economic, commonly, socioeconomic, contact, shoppers, popular, spot, government, occupied, mom, predominantly, top, shop, anybody, other, bother, locks, scotland, potbelly, hotdogs, closet, nobody, box, complex, condos, possibly, clock, pockets, cockpit, concerts, responsive, hop, mob, modern, lock, blocks, common, contracts, population, stops, possible, bothering, knox, complexes, chopped, anacostia’s, everybody’s, god, moderate, mother, chicago, hock, accomplishment, mommy, sot, tot, body, tomboy, copy, gotten, positive, howard, object, ipod, shocking, monuments, cop, lots, mosque, gotta, bodies, intoxicated, pocket, politics, hot, knocks, knocking, cops, competition, constantly, college, compensated, contractors, poverty, socks, congress, photography, oddly, pot, novels, accomplice, adopt, mcdonalds, democracy, apoca-
lypse, shock, concepts, deposit, conflicts, congregation, mock, comments, opportunities, lobby’s, congressmen, plot, constant

POLE
old, cold, whole, oldest, hold, bolling, hole, holes, older, pole, coal, wholistic, soul, gold’s, folded, marigolds, holding, cole, portfolio, goal, nicole, households, bowls, fold, napoleon, household, golden

POOL
school, schools, preschool, cool, pool, fool, schooling, pools, cooler, coolidge

THOUGHT
drawn, along, long, walk, walking, thought, lawn, longer, law, water, dogs, talking, august, saw, bought, brought, daughter, dog, doggy, walks, abroad, broad, underdog, talk, sidewalk, walked, stalk, hawk, hauler, dawn, naughty, caught, taught, autographed, in-laws, hotdogs, granddaughters, awful, talked, thoughtful, thoughts, laws, off, caucasian, awed, caucasians, belongs, sought, claus, aunts, granddaughter, daughters, drawl, lost, broader, broaden, belong, haunted, author, talks, talkers, broadcast, drawing, laundry, awkward, lofts, awe, walkway, draw, fought, broadway, pawned, longest

TOE
so, no, close, those, local, noticed, donated, know, social, knows, known, associate, don’t, flintstones, tiptoe, tow, low, notice, totally, slower, lower, toe, chose, stones, snow, shows, washingtonians, total, closer, load, showed, tote, stove, snows, closed,
nose, logan, choked, stoney’s, nope, sodas, token, stone, go, show, nosy, closely, closing, smithsonian, loans, minnesota, tottem, slowly, diploma, nobody, slogan, domes, soap, nosiest, though, toast, note, notes, growth, tone, slow, noticing, goes, location, also, tofu, alone, closest, october, snowed, washingtonian, clothes, lotion, sofas, snowing, potomac, doses

TOO
to, two, too, stupid, lucy, blue, attitude, dude, zoom, afternoon, cartoons, do, into, super, douche, snooty, choose, duke, blew, suitland, institution, avenue, luther, lose, soon, shoe, introduced, losing, sued, revenue, assume, shootings, shoes, eludes, elude, stupidest, institute, attitudes, opportunity, duties, shooting, included, tattoos, tutors, pursues, assuming, chooses, tubes, saloon, clueless, duty, dukes, duplex, produce, tutored, tutoring, absolutely, susan, studio, twos, shoot, soup, dudes, zoo
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